STATE OF ALASKA

A REASSESSMENT
OF
EMERGENCY MEDICAL SERVICES

May 13-15, 2014

National Highway Traffic Safety Administration
Technical Assistance Team

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BACKGROUND

Injury is the leading cause of death for persons in the age group one through 44 as well as the most common cause of hospitalizations for persons under the age of 40. The financial costs of injuries are staggering: injuries cost billions of dollars in health care and social support resources. In 1995, for example, the lifetime costs of all injuries were estimated at $260 billion annually. These estimates do not include the emotional burden resulting from the loss of a child or loved one, or the toll of severe disability on the injured person and his or her family. Each year over 33,000 people lose their lives on our nation's roads, and approximately 70 percent of those fatalities occur on rural highways. The National Highway Traffic Safety Administration (NHTSA) is charged with reducing death and injury on the nation's highways. NHTSA has determined it can best use its limited EMS resources if its efforts are focused on assisting States with the development of integrated emergency medical services (EMS) programs which include comprehensive systems of trauma care.

To accomplish this goal, in 1988 NHTSA developed a Technical Assistance Team (TAT) approach which permitted states to utilize highway safety funds to support the technical evaluation of existing and proposed emergency medical services programs. Following the implementation of the Assessment Program, NHTSA developed a Reassessment Program to assist those states in measuring their progress since the original assessment. The Program remains a tool for states to use in evaluating their statewide EMS programs. The Reassessment Program follows the same logistical process, and now uses the same ten component areas plus the area of preparedness with updated standards. The standards now reflect current EMS philosophy and allow for the evolution into a comprehensive and integrated health management system, with regional accountable systems of care, as identified in the 2006 IOM Report on the Future of Emergency Care. NHTSA serves as a facilitator by assembling a team of technical experts who demonstrate expertise in emergency medical services development and implementation. These experts demonstrate leadership and expertise through involvement in national organizations committed to the improvement of emergency medical services throughout the country. Selection of the Technical Assistance Team is also based on experience in special areas identified by the requesting state. Examples of specialized expertise include experience in the development of legislative proposals, data gathering systems, and trauma systems. Experience in similar geographic and demographic situations, such as rural areas, coupled with knowledge in providing emergency medical services in urban populations is essential.

The Alaska Department of Health and Social Services, Emergency Medical Services Unit requested the assistance of NHTSA. NHTSA agreed to utilize its technical assistance program to provide a technical reassessment of the Alaska Statewide EMS program. NHTSA developed a format whereby the EMS staff coordinated comprehensive briefings on the EMS system.

The TAT assembled in Anchorage, Alaska on May 13-15, 2014. For the first day and a half, over 20 presenters from the State of Alaska, provided in-depth briefings on EMS and trauma care, and reviewed the progress since the 1999 Reassessment. Topics for review and discussion included the following:

General Emergency Medical Services Overview of System Components

- Regulation and Policy
- Resource Management
- Human Resources and Education
- Transportation
- Facilities
- Communications
- Trauma Systems
- Public Information and Education
- Medical Direction
- Evaluation
- Preparedness

The forum of presentation and discussion allowed the TAT the opportunity to ask questions regarding the status of the EMS system, clarify any issues identified in the briefing materials provided earlier, measure progress, identify barriers to change, and develop a clear understanding of how emergency medical services function throughout Alaska. The team spent considerable time with each presenter so they could review the status for each topic.

Following the briefings by presenters from the EMS Unit, public and private sector providers, and members of the medical community, the TAT sequestered to evaluate the current EMS system as presented and to develop a set of recommendations for system improvements. When reviewing this report, please note the TAT focused on major areas for system improvement.

The statements made in this report are based on the input received. Pre-established standards and the combined experience of the team members were applied to the information gathered. All team members agree with the recommendations as presented.

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Special recognition and thanks go to Mark J. Miller, Emergency Medical Services Unit Manager and his staff for organizing a comprehensive view of Alaska EMS. The TAT would like to thank all of the presenters for being candid and open regarding the status of EMS in Alaska. Each presenter was responsive to the questions posed by the TAT which aided the reviewers in their evaluation. Many of these individuals traveled considerable distance to participate.

Also, the Technical Assistance Team would like to thank Dr. Ken Zafren, State Medical Director; Dr. Patricia Clancy, Regional Medical Director; and Aggie Lie Jack, EMS Program Manager, for guiding our tour of the Maniilaq and Noorvik Health Centers in the Northwest Arctic Borough.

INTRODUCTION

The vision of Alaska brings to mind images of vast frontier areas that remain largely undeveloped. You see glaciers and icebergs along expansive coastal waterways. There are open plains that extend as far as the eye can see unencumbered by any human development. Wildlife in abundance roam freely. Expansive mountains rise to snow covered peaks. The places where people inhabit this land are small by comparison to the total undeveloped land area. Communities are often widely dispersed and not connected by land-based roads. The climate can be harsh and unforgiving.

This setting that is Alaska challenges the design of an EMS system. EMS systems value early activation of the system, rapid response, highly technical on scene care, rapid transport to a facility with capabilities matched to the patient's need. It is simply reality that how EMS responds in Alaska is not what is done in many other states.

Alaska's EMS patients cannot afford for the system to be anything less than well organized, well resourced, carefully coordinated and operated under a model of continuous quality improvement. The people who are Alaska's EMS providers have given their hearts and souls to make their system work in an incredibly difficult environment. These great folks deserve the opportunity to be supported by a system that gives them a clear structure, excellent education and the tools to help their neighbors.

Beyond the goal of saving lives, Alaska is a place in our nation that values saving its native culture. As this team had the opportunity to learn a bit about the life of Alaskan natives, it became apparent that many of the EMS system's adaptations and approaches are founded on the wisdom of Elders and unique knowledge built on centuries of rich traditions. Our team members were humbled to have the opportunity to travel to Kotzebue and Noorvik where we met Aggie Jack who is emblematic of how Alaska EMS blends tradition with modern high-tech medicine. She shared with us a statement of Inupiat values. It reads:

With Guidance and Support From Elders

We Must Teach Children
Inupiat Values

Knowledge of Language
Sharing
Respect for Others
Cooperation
Respect for Elders
Love for Children
Hard Work
Knowledge of Family Tree
Avoidance of Conflict
Respect for Nature
Spirituality
Humor
Family Roles
Hunter Success
Domestic Skills
Humility
Responsibility to Tribe

These words represent tenets that those in the Alaska EMS system would be wise to keep in mind as you strive to bring the best possible care to every citizen and visitor of this beautiful and amazing state.

A. REGULATION AND POLICY

Standard

Each State should embody comprehensive enabling legislation, regulations, and operational policies and procedures to provide an effective statewide system of emergency medical and trauma care and should:

- Establish the EMS program and designate a lead agency;
- Outline the lead agency's basic responsibilities and authorities including licensure and certification including the designation of emergency medical services regions;
- Require comprehensive EMS system planning;
- Establish a sustainable source of funding for the EMS and trauma system;
- Require prehospital data collection which is compatible with local, state and national efforts such as the National EMS Information System (NEMSIS) and evaluation;
- Provide authority to establish minimum standards related to system elements such as personnel, services, specialty care facilities and regional systems and identify penalties for noncompliance;
- Provide for an injury/trauma prevention and public education program;
- Integrate the special needs of children and other special populations throughout the EMS system; and
- Integrate pediatric EMS needs into state statutes, rules and regulations.

All of these components, which are discussed in different sections of this guideline, are critical to the effectiveness of legislation, regulations or policies/procedures which are the legal foundation for a statewide EMS system.

Status

The Alaska Department of Health and Social Services (the Department), Emergency Programs Section (the Section), EMS Unit (the Unit) is the lead agency for development of the State's EMS system along with the state trauma program and the emergency preparedness program. In addition to seven authorized state positions, the Section contracts with an emergency physician who serves as the State EMS Medical Director. The historical role of the Unit as the leader in regulating and developing the EMS

system appears well understood and respected by most system stakeholders.

Internally, the relationships between the Unit with the Trauma Services Program (TSP) and Health Emergency Response Operations (HERO) are not substantive. The Unit is based in Juneau while other programs in the Section are based in Anchorage. It is easy to envision how this physical separation makes the management and coordination of these closely related programs a challenge. Turnover within the Unit and reorganization within the Department has also had a negative effect on the ability of the Unit to fulfill its leadership role for the Alaska EMS System. Impressively, the major system stakeholders remain committed to a collaborative approach and achieving consensus about policy, regulation, funding and other foundational elements of the EMS system.

The Unit has a Governor-appointed Alaska Council on Emergency Medical Services (ACEMS) that functions in an advisory capacity for policy and program direction. The Unit also relates to a series of regional councils and sub-regional groups for program development and implementation functions. During the past several years, the regions have assumed some of the roles in guiding EMS system development while the Unit underwent multiple leadership transitions and other changes. The Unit provides regional funding through annual contracts, but there has been some decline in the level of funding available for regional support. It was pointed out that the 2014 budget includes a 20% incremental increase in regional support that should continue forward.

The Alaska State Medical Board has the responsibility for licensing Paramedics while the Unit handles certification of all other levels of EMTs and other regulatory functions in the EMS system. This split in the state oversight of EMS personnel represents an inconsistency in the State's protection of the public served by EMS.

Alaska has made little if any progress on updating its EMS statutes, regulations and plans since the 1999 EMS Reassessment. The regulations were updated in 2002. Later efforts to update the regulations fell by the wayside after being derailed by procedural missteps during the implementation process. This has resulted in frustration on the part of system stakeholders who invested significant energy in working to develop planned changes. Efforts are now underway to do a modest update of the regulations as a way of addressing non-controversial changes and learning the regulation implementation process. An EMS Goals document that served as the state EMS plan has not been updated in many years and is no longer an effective tool in guiding system development priorities. The lack of progress in these important areas has strained relationships and is testing the good will of important system constituents.

In 2014, Alaska has arrived at a point where its statutes, regulations and plans are out of date and out of step with national guidelines that are building increased unity among EMS systems elsewhere in the nation. Alaska's EMS system is missing opportunities to grow and evolve in ways that will better serve the crucial needs of its vulnerable emergency medical patients. The lack of clarity and ability to enforce reasonable regulations sets up an attitude of indifference. The goal should be doing things in ways

that have been deliberately considered and determined to be best for the public. A failure to make progress in this essential element will continue to impede all other efforts to improve the system, potentially leading to less than optimal care or less than standardized care of vulnerable EMS patients.

Recommendations

- **The Section should perform a comprehensive update of the EMS statutes, regulations and plans with particular attention to use of the current national guidelines and integration with TSP and HERO. Consider the needs of pediatric patients and special needs populations during this process.**

- The Alaska Legislature should provide statutory protection from discovery for quality improvement activities relating to EMS and trauma care.

- The Section should establish regulatory authority over all provider personnel, agency types and vehicles used to deliver EMS in Alaska.

- The Alaska Legislature should transfer the licensing of paramedics from the State Medical Board to the Department of Health and Social Services.

- The Department should take steps to consolidate all programs in the Section to one common geographic location.

- **The Department should review the structure of the ACEMS and initiate the statutory changes needed to assure that it accurately reflects the constituents of the EMS system today and that the ACEMS members represent the kinds of groups and interests that can be influential in moving the EMS system forward.**

B. RESOURCE MANAGEMENT

Standard

Each State EMS lead agency should identify, categorize, and coordinate resources necessary for establishment and operation of regionalized, accountable EMS and trauma systems. The lead agency should:

- Maintain a coordinated response to day-to-day emergencies as well as mass casualty incidents or disasters and ensure that resources are used appropriately throughout the State;
- Have policies and regulations in place to assure equal access to basic emergency care for all victims of medical or traumatic emergencies;
- Provide adequate triage, including trauma field triage, and transport of all patients by appropriately certified personnel (at a minimum, trained to the emergency medical technician [EMT] level) in properly licensed, equipped, and maintained ambulances;
- Provide transport to a facility that is appropriately equipped, staffed and ready to administer to the needs of the patient including specialty care hospitals (section 4: Transportation);
- Appoint an advisory council, including pediatric EMS representation, to provide broad-based input and guidance to the state EMS system and to provide a forum for cooperative action and for assuring maximum use of resources; and
- Coordinate with State Highway Safety Agency and other state Agencies in the development of the Strategic Highway Safety Plan to ensure that EMS system information is used to evaluate highway safety problems and to improve post-crash care and survivability.

Status

The lead regulatory agency for the Emergency Medical Services system in the state of Alaska is the Department where the Unit is organized within the Section. The Unit is led by the Unit Manager who reports to the Section Chief. Two other programs, HERO and the TSP make up the balance of the Section. The HERO and TSP are housed in Anchorage with the Section Chief while the EMS Unit is housed in the State capital, Juneau. Although this administrative structure is sound in terms of placing the agencies responsible for Alaska's emergency health care response system together, the geographic separation of the Unit from HERO and the TSP limits many of the benefits of the organizational structure. The geographic separation of the Section's programs

between Juneau and Anchorage presents logistical barriers that are not conducive to maintaining strong relationships between these three critically important programs that support Alaska's health care system.

The Unit is staffed by seven full time personnel, including the Manager. At the present time, two of these authorized positions are vacant and are actively being recruited. As a result of several staff changes over the past few years, the Unit staff is all relatively new to their roles. The energy to bring fresh perspectives to state level EMS policy development is strong at the present time. However, it is unclear that there is sufficient staff to accomplish the regulatory and programmatic responsibilities of the Section.

The Alaskan EMS system has enjoyed a very strong regional framework since the 1970's with seven (7) EMS regions that function as critical components of the statewide system of care. This regional structure is clearly the basis of the many successes that Alaskans have enjoyed in the delivery of care across one of the most geographically diverse states in the country. The regions are structured as 501-C-3 non-profit corporations that are funded by the Section through contractual arrangements. The regions also conduct a variety of enterprise endeavors that support the development and provision of EMS services from the Arctic Circle to the southeastern peninsula of the state. Each of the regions is governed by a board of directors appointed from a variety of local organizations that represent the interests of emergency health care in each region. Each region is staffed by an Executive Director, Medical Director and other staff members who do the day-to-day work of supporting EMS agencies in their areas of responsibility. This network provides technical assistance, education, injury prevention, funding and other policy level support to EMS, search and rescue, clinic and hospital resources on a daily basis.

The Alaska Council on EMS (ACEMS) is established in statute with the purpose of advising the Commissioner of the Department and the Governor regarding the planning and implementation of a statewide EMS system. ACEMS provides recommendations related to all aspects of EMS, including distribution of funding, and policy development to the Commissioner as well as expert input on EMS systems to the Unit staff. The Council consists of 11 members appointed by the Governor and meets on a regular basis. The work of this group continues to be extremely important to the development and implementation of EMS policies, rules and regulations.

Funding for the oversight of Alaska's EMS system comes from general funds allocated annually by the Legislature and approved by the Governor. Funding is identified for operation of the Unit, the regions and the Code Blue program. Code Blue funding is specifically directed to the purchase of high cost, high value equipment and education to support local EMS systems. The Code Blue program was established 14 years ago and was used to leverage other grant funds thereby increasing resources to better equip and train the state's EMS providers. In 2014, the general fund contribution to Code Blue was increased to $500,000. However, much of the outside grant funding has decreased and the overall level of Code Blue funding has decreased. Grant award

decisions for the Code Blue program are made by the seven regional councils who work directly with the legislature each year to secure the funds. In FY 2015, the Department will make adjustments in their accounting system that will place these funds within the Section's budget.

The Code Blue program has been successful in providing limited funding to replace aging vehicles and equipment and support education on a prioritized basis for remote EMS agencies. However, the support available is woefully inadequate to support the long-term stability of the many remote EMS systems and agencies that serve the geographic majority of the state. Continued reliance on annual general fund allocations fails to ensure long-term stability for future system needs and expansion as well as limiting planning opportunities. The Code Blue program is the ideal vehicle from which to develop a dedicated grant funding system of sufficient substance to truly support the continued provision of care and transportation in a reliable and effective manner across Alaska.

Over the past decade, the Unit, ACEMS and the EMS regions have been the cornerstones of EMS in Alaska. During a time of uncertain state leadership, providing quality education, improved data collection and state funding to support the remote areas of the state have remained regional priorities. However, there continues to be significant opportunity for improvement in terms of organizational stability, strategic planning and trusting relationships between EMS system leaders.

Recommendations

The Legislature should:

- **Work with providers, stakeholders and the public to identify a dedicated funding source that is sufficient to meet EMS system needs.**

The Department should:

- **Create an internal organizational environment that improves the effectiveness and integration of the three programs within the Section. This should begin with the physical relocation of the EMS Unit to Anchorage.**

- Ensure that HERO, the TSP and the Unit develop a cohesive and synchronous working pattern that enhances and supports the capability of the Section to carry out all of its responsibilities as required by regulation and statute.

- Review the makeup/membership of ACEMS, the trauma advisory committee and other advisory committees related to the EMS, preparedness and the trauma system to ensure that membership/representation appropriately represents the Alaska emergency response system including pediatric and special needs populations.

The Section should:

- Fill all existing vacancies within the section and evaluate the need for additional personnel to meet all regulatory and program responsibilities.

- **Develop an integrated statewide strategic plan that addresses EMS, trauma and health preparedness.**

The Unit Should:

- Coordinate with State Highway Safety Agency and other state Agencies in the development of the Strategic Highway Safety Plan to ensure that EMS system information is used to evaluate highway safety problems and to improve post-crash care and survivability.

C. HUMAN RESOURCES AND EDUCATION

Standard

Each State should ensure that its EMS system has essential trained and certified/licensed persons to perform required tasks. These personnel include: first responders (e.g., police and fire), prehospital providers (e.g., emergency medical technicians and paramedics), communications specialists, physicians, nurses, hospital administrators, and planners. Each State should provide a comprehensive statewide plan for assuring a stable EMS workforce including consistent EMS training and recruitment/retention programs with effective local and regional support. The State agency should:

- Ensure sufficient availability of adequately trained and appropriately licensed EMS personnel to support the EMS system configuration;
- Assure an ongoing state EMS personnel needs assessment that identifies areas of personnel shortage, tracks statewide trends in personnel utilization and which establishes, in coordination with local agencies, a recruiting and retention plan/program;
- Establish EMT as the state minimum level of licensure for all transporting EMS personnel;
- Routinely monitor training programs to ensure uniformity, quality control and medical direction;
- Use standardized education standards throughout the State that are consistent with the National EMS Education Standards;
- Ensure availability of continuing education programs, including requirements for pediatric emergency education;
- Require instructors to meet State requirements;
- Assure statutory authority, rules and regulations to support a system of EMS personnel licensure that meets or exceeds the national EMS Scope of Practice Model, new National EMS Education Standards, as they are available, and other aspects of the EMS Education Agenda for the Future; and
- Monitor and ensure the health and safety of all EMS personnel.

Status

EMS education at all levels is managed by the regions and delivered through a cadre of 165 certified instructors. In addition, there are three academic based EMS programs that offer Paramedic courses that are accredited by the Commission for Accreditation of Allied Healthcare Education Programs. The system of education is reportedly working satisfactorily to meet the needs of new and existing providers. Challenges in meeting the EMS educational needs of persons in remote areas where only one or two people require a course has proven to be an ongoing challenge.

The EMS Unit describes the EMS workforce as currently including 2,122 EMT1s, 582 EMT2s, 778 EMT3s, 381 MICPs, 165 Instructors, 65 Medical Directors and over 800 ETTs. There was insufficient trend data about how this workforce may be evolving over time although the Unit is beginning to use the Aurora information system for this purpose. There was a wide perception among presenters that volunteerism is declining and maintaining a sufficient workforce has become a significant challenge facing the Alaska EMS system.

The curricula for EMT and Paramedic education in Alaska are based on National Standard Curricula that are becoming increasingly outdated. The ACEMS has recommended moving to an educational delivery system that uses the National EMS Scope of Practice Model and the EMS Education Standards. It was reported that some educators have already started teaching programs in conjunction with these guidelines. Implementation of these national *guidelines* would serve the Alaska system well for several reasons. First, it would bring Alaska into alignment with the content and approach to EMS education being taken in most of the rest of the nation. This serves the clinical needs of patients and also allows for much greater latitude in the design and delivery of course curricula to meet the unique local needs of Alaskans. Incorporating the national guidelines into Alaska's EMS rules and statutes would also serve to update the language used in regulation to describe a candidate's education, testing and authorization to practice. For instance, courses become *education* rather than training. The demonstration of competency for entry into the profession is called *certification.* The authorization to practice issued by the State of Alaska is a *license.* Making these changes would substantially help to bring Alaska into alignment with the *EMS Education Agenda for the Future: A Systems Approach* and help to establish the recognition of EMS personnel as professionals with similar preparation to other allied health disciplines.

The ETT program is based on the National Standard First Responder curriculum and is widely taught throughout the more rural and remote communities. The personnel are "registered" but not certified using the same processes as the EMT levels. ETTs are sometimes the only provider a patient will encounter in the out of hospital setting or until being handed off to a specialty resource such as an air medical service. The EMTI level

has been established as the minimum required patient care provider for a certified ambulance service.

The testing of EMS personnel at the end of education courses and prior to beginning practice is currently done using a written examination developed by the Unit that is acknowledged to be partially compromised and of questionable validity. This represents a significant legal exposure to the State in using it as a basis for determining personnel competence and the ability to safely and effectively practice. The written exam answer sheets are scored and data entered using a bubble dot scan technology. Some steps have been taken to make the existing exam available in a computer based format which is intended to help with access to testing in remote areas. Psychomotor testing for the various certification levels, as well as the written exams, is overseen by a group of Certifying Officers (COs). The CO program is modeled closely on the National Registry of EMTs (NREMT) exam representative program. This exam oversight function has reportedly reduced perceptions of bias or other irregularities in both didactic and psychomotor testing.

There seemed to be reluctance on the part of some presenters to adopt use of national certification testing through the NREMT as one component in the authorization for EMS practice in Alaska. The State is reportedly moving to establish computer based test access in all high schools and prisons and other sites for the GED exam. This capability would make NREMT testing far more accessible throughout Alaska than it is now. Currently, Alaska tests personnel at all EMT levels every two years for continued authorization to practice. This approach is being considered for elimination for a few reasons. The observation was made that the burden of this ongoing testing may be a factor in personnel turnover. No presenter advanced the opinion that ongoing testing was important in assuring the continued competency of a person to practice. As a model, repeat testing on a periodic basis also is not done by the NREMT or other allied health professions.

The Unit approves both new and refresher courses. While Alaska statute specifically references the older National Standard Curricula, the Unit has found ways to approve courses offered using the new EMS Education Standards. This leads to an unfortunate reality that candidates learn one set of knowledge and skills but must be tested using an examination based on a different set of knowledge and skills.

The Department has committed to the use of the Moodle learning management system. At present the EMS applications of this tool for providing distance education have not been fully developed. This approach to delivery of CE and possibly some components of initial education hold the promise of pushing quality education far into the more remote communities and villages.

No concerns were voiced about the quality of EMS education being delivered although there are no established quality indicators or any formal program for monitoring course

delivery. The state does track the number of approved courses, pass rates, numbers of graduates and similar metrics.

Paramedics are currently licensed by the Alaska State Medical Board. It was reported that there is often a months to years long delay for applicants to obtain a State license. The delay apparently relates to the extensive crime background check and verification of education credentials. Other levels of EMTs are screened using an Alaska specific crime database.

A problem was identified with nursing supervision of EMTs and Paramedics during their skill development in clinical settings. It was difficult to tell if this represents a significant barrier to the education of these personnel or is simply an aberration of learning in a setting that is widely available elsewhere in the nation.

The Unit has the authority to certify emergency medical dispatchers although none are certified. Not all areas of the state are served by certified ambulances that respond based on a formal dispatch arrangement. In more remote areas, requests for EMS assistance may come via CB radio to the Community Health Aide (CHA/P) in a local clinic or similar less formal mechanisms.

Little information was presented about the educational opportunities for persons other than EMS personnel. A reference was made to an on-line medical director's course that apparently is not widely used. Several presenters mentioned the Community Health Aide Program (CHAP) which has successfully brought a unique Alaskan solution to the health care needs of most remote villages and difficult to access communities. Many of the CHAP personnel have completed ETT or EMT training and are often the primary EMS resource in their work settings. This is a great example of combining programs to establish a provider who is able to meet a wide array of primary care and emergency care needs.

Recommendations

The Unit should:

- Perform a needs assessment in conjunction with the EMS Regions to identify the numbers and levels of EMS personnel needed to operate the Alaska EMS system.
- Use the results of the needs assessment to monitor and report the status of the EMS workforce in the state on an annual basis.
- **Commit to using the National EMS Education Standards as the basis for EMS education at all levels in Alaska.**

    - **Once computer based testing has been established in Alaska's high schools and other sites, use NREMT testing as the verification of entry level competence for all EMS education levels.**
    - Authorize ETT practice using a process that is parallel to what is done for all of the EMT levels.
    - Require completion of a medical director's course as a prerequisite to serving as a medical director.
    - Establish a common criminal background check process for all levels of EMS personnel.
- The Unit and the Regions should identify strategies for recruitment and retention of EMS personnel. This process should include an examination of what can be done to reduce the barriers to continued EMS service. Follow through on eliminating the every two year testing requirement as an initial step.
- The Unit, the Regions and the certified instructors should collaborate to build quality educational products that can be delivered using Moodle. The initial focus should be on required continuing education.
- The Regions should establish a more formal and uniform mechanism to monitor the quality of EMS course delivery and instructor performance.
- The Unit and the Regions should consider a process for implementing EMD education leading to certification for dispatchers.

D. TRANSPORTATION

Standard

Each State should require safe, reliable EMS transportation. States should:

- Develop statewide EMS transportation plans, including the identification of specific EMS service areas and integration with regionalized, accountable systems of emergency care;
- Implement regulations that establish regionalized, accountable systems of emergency care and which provide for the systematic delivery of patients to the most appropriate specialty care facilities, including use of the most recent Trauma Field Triage Criteria of the American College of Surgeons/Committee on Trauma;
- Develop routine, standardized methods for inspection and licensing of all emergency medical transport services and vehicles, including assuring essential pediatric equipment and supplies;
- Establish a minimum number of personnel at the desired level of licensure on each response and delineate other system configuration requirements if appropriate;
- Assure coordination all emergency transports within the EMS system, including public, private, or specialty (air and ground) transport and including center(s) for regional or statewide EMS transportation coordination and medical direction if appropriate; and
- Develop regulations to ensure ambulance drivers are properly trained and licensed.

Status

Alaskans are to be commended for their resourcefulness, commitment to community and self-sufficiency. As previously mentioned, they face many challenges in development of an integrated emergency healthcare system due to the geography, extreme weather conditions, funding, and lack of transportation infrastructure (few roads).

In the early days of EMS system development, there was funding to support the initial purchase of ambulances throughout the state of Alaska. However, funds drastically decreased and the ambulances began to deteriorate. Many remote areas of Alaska found conventional ambulances to be cumbersome and unable to maneuver within the

rugged terrain. In addition, maintenance of specialized ambulance systems is difficult and the only way to get these vehicles to many of the remote villages is on barges, when the ice finally breaks up.

In response to the cold weather and lack of funding, the communities developed resourceful and creative methods to transport patients. One method was to take a regular truck and bolt a modified box to the truck bed. These patient transport vehicles (PTV) are obviously less expensive than an ambulance, provide adequate protection for the patient from the bitter cold, and are easier to insure and maintain. Some of the vehicles can be modified with tires in the summer and tracks during the snowy months. The vehicles cost around $80,000 with tires and radios included, and can get around in the challenging terrain better than an ambulance. To augment ambulances and PTVs, the villagers and EMS agencies also utilize other creative modes of transportation such as sleds, snow machines, modified boats, and four wheelers.

The Unit appears to have sufficient authority to regulate ground ambulance services and certifies them into three categories:

Basic Life Support
BLS/advanced life support
ALS

Currently, there are 101 certified ambulance services in Alaska.

The Unit has also determined specific requirements for staffing and equipment of certified ambulances. However, they do not have the resources to ensure compliance of the regulations through regularly scheduled site inspections for over 350 vehicles located throughout the state. It should be mentioned that staff within the seven regions have provided some support for site inspections. However, monitoring and compliance is based on an “honor system” where ambulance services conduct a self-assessment every two years. In addition, the state certification process does not require a certified ground ambulance service to have emergency vehicle operations training for its drivers.

First responder services are not currently regulated by the state. The ACEMS and regions are working on requirements for first responder services but the standards are only in the developmental stages.

Because of the rugged terrain and lack of roads, the backbone of patient transports in remote and rural areas is predominantly fixed wing aircraft. The state provides some regulation for the air services and certifies them into three categories:

Medevac
Critical Care
Specialty Care

Currently, there are 17 certified air medical services and nine services with pending certification.

Again, equipment and training is standardized for these services, but an inspection process is not in place and the system relies on self-assessment.

Recommendations

The Unit should:

- **Establish a site visit process to provide technical assistance and assure agency and vehicle compliance with state regulations.**
- Assure pediatric equipment is included as “essential” equipment for all transport and non- transport services.
- Utilize data from the Aurora system and trauma registry, to determine if resources are being appropriately utilized and to assess appropriate patient destinations within regionalized systems of care.
- **Complete and formalize the efforts to develop first responder service requirements for certification with standardized equipment lists.**
- **Maintain a current inventory of all resources used for patient transport including the use of alternative modes of transportation such as PTVs and boats.**
- Update the required equipment list for certified ambulances to reflect current national guidelines.

- The Section should expand the scope of the Air Medical Coordination Group to assess any gaps in air medical transportation not only for disaster response but for routine patient transportation.

E. FACILITIES

Standard

It is imperative that the seriously injured (or ill) patient be delivered in a timely manner to the closest appropriate facility. Each State should ensure that:

- Both stabilization and definitive care needs of the patient are considered;
- There is a statewide and medically accountable regional system, including protocols and medical direction, for the transport of patients to state-designated specialty care centers;
- There is state designation of specialty medical facilities (e.g. trauma, burns, pediatric, cardiac) and that the designation is free of non-medical considerations and the designations of the facilities are clearly understood by medical direction and prehospital personnel;
- Hospital resource capabilities (facility designation), including ability to stabilize and manage pediatric emergencies, are known in advance, so that appropriate primary and secondary transport decisions can be made by the EMS providers and medical direction;
- Agreements are made between facilities to ensure that patients, including pediatric patients, receive treatment at the closest, most appropriate facility, including facilities in other states or counties;
- Hospital diversion policies are developed and utilized to match system resources with patient needs – standards are clearly identified for placing a facility on bypass or diverting an ambulance to appropriate facilities.

Status

There are 24 licensed acute care hospitals in Alaska, each with a physician staffed emergency department. Although the number of hospitals has not changed appreciably since the early 1990s, the capability has been upgraded with the designation of 12 level IV and one level II trauma center. There are presently no pediatric specialty hospitals, burn centers or stroke centers in Alaska. There are two hospitals in Anchorage, however, that perform percutaneous coronary interventions on an urgent basis and function as cardiac specialty care centers. Most of the Alaska hospitals serve remote regions of the State without other hospitals nearby. Only Anchorage, served by three large hospitals and an additional military hospital, has redundant resources in close proximity.

Clinics in Alaska are often the first facilities to receive and stabilize serious medical and

trauma patients. This is a model that works well in Alaska's rugged and remote frontier communities that would not work as well in other states.

Destination protocols have little applicability in Alaska as the only designated specialty care centers are the trauma centers. Nearly all of the trauma centers are situated in remote areas far from other hospitals. Protocols can, however, help guide the use of limited resources especially when expensive and potentially risky patient transports may be needed. Although a diversion protocol does exist in the local Anchorage area, testimony during the meeting described that significant distrust exists amongst the hospitals regarding this process.

To serve the large geographic regions far from the hospitals, community clinics help fill the void. Telemedicine links are available between many clinics and hospitals. Although there are no pediatric specialty care centers in Alaska, the pediatric intensivists present in Anchorage are an untapped resource to guide transfers and care of sick and injured children from all over the state.

Recommendations

The Section should:

- **Develop an interfacility transfer guideline for sick and injured adults and children to help assure that patient needs, mode of transport and hospital resources are well matched.**
- Encourage that the pediatric intensivists in Anchorage are leveraged to guide the triage and transfer of children.
- Use EMS data to increase transparency about hospital diversions in Anchorage.
- **Develop standards for the designation of specialty centers including stroke and STEMI and a framework for an all-inclusive system.**
- Ensure integration of hospital capability assessments by all emergency service programs to guide patient destination decisions for routine and disaster needs.

F. COMMUNICATIONS

Standard

An effective communications system is essential to EMS operations and provides the means by which emergency resources can be accessed, mobilized, managed, and coordinated. Each State should assure a comprehensive communication system to:

- Begin with the universal system access number 911;
- Strive for quick implementation of both wire line and wireless enhanced 911 services which make possible, among other features, the automatic identification of the caller's number and physical location;
- Strive to auto-populate prehospital patient care report (NEMSIS compliant) with all relevant times from the public safety answering point (PSAP);
- Provide for emergency medical dispatch training and certification for all 911 call takers and EMS dispatcher.
- Provide for priority medical dispatch;
- Provide for an interoperable system that enables communications from dispatch to ambulance, ambulance to ambulance, ambulance to hospital, hospital to hospital and ambulance to public safety communications.
- Provide for prioritized dispatch of EMS and other public safety resources.
- Ensure that the receiving facility is ready and able to accept the patient; and
- Provide for dispatcher training and certification standards.
- The statewide communications plan includes effective, reliable interoperable communications systems among EMS, 911, emergency management, public safety, public health and health care agencies.
- Each State should develop a statewide communications plan that defines State government roles in EMS system communications.

Status

As in most states, Alaska addressed the FCC mandate which dictates that “all public safety and business land mobile radio systems operating in the 150-512 MHz radio bands must cease operating using 25 kHz efficiency technology and begin using at least 12.5 kHz efficiency technology.” In addition to the enforcement of the narrowband

mandate, the FCC intends to enforce compliance with the new licensing requirement by issuing fines and pursuing legal consequences.

The Alaska Land Mobile Radio system (ALMR) was developed to comply with the FCC requirement under the Homeland Security Grant to develop and adopt statewide communications interoperability plans. The system provides state, local and federal communications capabilities to first responders and public safety. It is not a statewide system but covers most of the roadways. Local EMS agencies expressed concerns with the ALMR system. The concerns included the possibility of future charges for use of the system and incomplete coverage.

The Technical Assistance Team (TAT) heard from regional representatives that there was a state communications plan developed years ago. The plan provided a foundation for further development of communications systems within each region. The state Enterprise Technology Services is responsible for planning and development of the statewide interoperability plan. Currently, the HERO program manager provides representation for the Unit on the state interoperability committee.

The EMS communications system has additional areas for development which include consistent cell phone coverage and access to 911 or E911 on a statewide basis. It was reported that only 70 percent of the population of the state have access to 911 or E911. Because of the geography, the state communications system may always have coverage challenges.

In contrast to the challenges, there have been major accomplishments in the development of redundant communications systems through the public health emergency preparedness and hospital preparedness program grants. The state created four communications trailers that have the capabilities to provide dispatch service, ALMR, citizen band radio, hand held radios, HAM radios, satellite phones and other interoperability capabilities. These trailers are strategically located throughout the state and provide redundant communications capabilities in the event of a disaster.

In addition to the challenges related to the hardware for the state communications system, there are also challenges related to the use of the system pertaining to emergency medical dispatch (EMD). The regulations that currently exist for EMD personnel and dispatch centers appear to be loosely monitored and enforced. In addition, there is no evidence of medical oversight for EMD personnel or medical dispatch systems. There are some trained emergency medical dispatchers in the more urban settings of Alaska, but the state does not regulate and is not providing training or certification for the EMD level of care.

Recommendations

- **The Legislature should provide funding to address gaps in the emergency health care communications system and support further development and integration of the ALMR system.**

- The Section should create a communications committee to identify emergency health care communications issues, prioritize needs, and address gaps.

The Unit should:

- Require EMD training and certification for personnel taking medical calls from the public and dispatching ambulances.

- Utilize the Preparedness communications assessment to update the state EMS communications plan.

G. PUBLIC INFORMATION AND EDUCATION

Standard

Public awareness and education about the EMS system are essential to a high quality system. Each State should implement a public information and education (PI&E) plan to address:

- The components and capabilities of an EMS system;
- The public's role in the system;
- The public's ability to access the system;
- What to do in an emergency (e.g., bystander care training);
- Education on prevention issues (e.g., alcohol or other drugs, occupant protection, speeding, motorcycle and bicycle safety);
- The EMS providers' role in injury prevention and control; and
- The need for dedicated staff and resources for PI&E.

Status

The Alaska EMS and trauma system appear to be very engaged and dedicated to addressing the public health issue of injury as well as other medical emergencies. There were numerous examples of programs and efforts cited:

- Citizen CPR training, where each 8th grader learns CPR and is issued a mini Annie and must train five additional people in CPR;
- *Kids Don't Float* program that provides life jackets for children at water access sites;
- Assessing gun safety precautions within homes and making locked cabinets available for gun storage;
- Providing locked medicine cabinets to adults in order to reduce access to prescription medications by children (suicide and overdose prevention);
- Providing Personal Floatation Devices (PFD) to whaling crews (drowning prevention);
- Creating a store where teenage boys in particular can purchase PFD (both pants and jackets); and
- Providing fall prevention for the elderly.

It was reported that the Unit and EMS agencies have access to epidemiological resources to assist in data analysis for targeting injury prevention efforts and to determine the effectiveness of the programs. Additional injury prevention efforts are provided by the designated trauma centers and through the robust EMS for Children program.

Public information activities are abundant as well. Annually, the EMS agencies conduct an "EMS Day" at the Legislature and provide blood pressure checks while taking the opportunity to educate elected officials about the EMS system. Some EMS agencies/regions are using social media (Twitter, Facebook) to inform the public about the EMS system and how to access it. The Unit maintains a newsletter and has listed many website resources on its web page.

Recommendations

The Section should:

- Along with EMS and trauma stakeholders, continue to support and build upon the illness and injury prevention efforts currently in place.

- Compile a list of injury prevention programs from EMS agencies and hospitals and maintain the list as a resource on the Unit web page.

- **Utilize the data from Aurora and the ATR, to publish fact sheets that educate the public and policy makers about the major causes of illness and injury in Alaska.**

H. MEDICAL DIRECTION

Standard

Physician involvement in all aspects of the patient care system is critical for effective EMS operations. EMS is a medical care system in which physicians oversee non-physician providers who manage patient care outside the traditional confines of the office or hospital. States should require physicians to be involved in all aspects of the patient care system, including:

- A state EMS Medical Director who is involved with statewide EMS planning, overseeing the development and modification of prehospital treatment protocols, statewide EMS quality improvement programs, scope of practice and medical aspects of EMS provider licensing/disciplinary actions;
- Online and off-line medical direction for the provision of all emergency care including pediatric medical direction, when needed and the authority to prevent and EMS provider from functioning based on patient care considerations; and
- Audit and evaluation of patient care as it relates to patient outcome, appropriateness of training programs and quality improvement.

Status

Alaska has a statewide EMS medical director that by regulation is responsible for the development, implementation, and evaluation of standards and guidelines for the provision of medical direction within the state's EMS system. The medical director also has responsibilities designated within his contract to provide consultative and advisory services for trauma and preparedness, though these hours have been cut. The formal structure of how trauma and preparedness receive appropriate medical input is not clear.

Each of the seven EMS regions has a medical director. The role and responsibility of these regional medical directors is not outlined in regulation and their level of involvement varies. The State Medical Director meets annually with the regional medical directors to discuss clinical topics and issues of concern. There is not, however, a formal relationship between the state medical director and the regional medical directors.

EMTs above the EMTI level require a physician sponsor who is responsible for the continuing education plan and recertification of the provider. Certified EMS agencies also require a medical director who is responsible for protocol approval, delineation of

procedures performed, chart review, and destination criteria for specific categories of patients.

The state established a scope of practice for each certification level but the agency medical director has the authority to expand this scope with EMS Unit approval. However, in an emergency, a physician can instruct an EMT to perform any procedure regardless of certification level.

The EMTI and ETT levels do not require medical direction. First responder agencies are unregulated. Testimony included concern that these agencies and ETT personnel are an integral part of the system but do not have the same level of oversight or liability protection as EMTs and Paramedics.

On-line medical direction is very difficult because of the limited communication infrastructure and vast geography of the state. This requires more dependence upon written standing orders to direct appropriate patient care. However, the quality of individual agency standing orders is diverse and non-standardized. There are model guidelines available from the Unit but these do not appear to be updated regularly.

The two hospitals in Anchorage that have PICU capability have offered to provide on-line medical control for pediatric patients across the state.

Agency medical directors are responsible for reviewing run reports of individual providers on a quarterly basis. These QA activities, however, are not protected from discovery. The charge to medical directors in regulation does not include agency or system performance improvement.

Recommendations

- The Legislature should ensure in statute the protection of quality assurance activities of EMS agencies and medical directors.
- **The Section should clearly define in regulation the roles, responsibility, and authority of the State EMS Medical Director and the Regional Medical Directors.**
- The Alaska Council on EMS (ACEMS) should establish a medical director subcommittee to include the State Medical Director, Regional Medical Directors and other agency medical director representatives.

The Unit should:

- **Require medical direction for all levels of certified providers, including EMD and ETT, to provide medical care.**
- **Publish updated evidence-guided best practice treatment guidelines and pursue their mandatory use.**
- Establish mandatory trauma triage and destination criteria for patients with time sensitive emergencies, including trauma, burns, STEMI and stroke.
- Require completion of a medical director's course as a prerequisite to serving as a medical director.

I. TRAUMA SYSTEMS

Standard

Each State should maintain a fully functional trauma system to provide a high quality, effective patient care system. States should implement legislation requiring the development of a trauma system, including:

- Trauma center designation, using American College of Surgeons Committee on Trauma guidelines as a minimum;
- Trauma field triage and transfer standards for trauma patients;
- Data collection and trauma registry definitions for quality assurance, using American College of Surgeons Committee on Trauma National Trauma Data Standards, as soon as practicable;
- Systems management and quality assurance; and
- Statewide Trauma System Plan, consistent with the Health Resources and Services Administration Model Trauma System Planning & Evaluation Document.

Status

Trauma remains a significant public health issue that taxes Alaska's EMS system. The extremes of Alaska including geography, vast distances, sparse population and climate challenge equally the care of individual patients and EMS system development. The process of getting the "right patient to the right place at the right time" may encounter obstacles completely beyond the control of adequate EMS personnel training and system development. These challenges contribute to Alaska having the highest rate of occupational fatalities in the United States and their rank of third in highest mortality due to injury.

In 2008, the state received a Trauma System Consultation by the American College of Surgeons. With the expertise of trauma services program staff and a group of committed trauma champions within the state, numerous recommendations made during the visit have been realized. Nearly all of the 24 acute care hospitals in the state have received trauma verification or consultation visits. There are now 13 designated trauma centers in the state including one level II trauma center and 12 level IV trauma centers. It is expected an additional hospital in Anchorage will join the existing centers as a level II center and three of the level IV centers will upgrade their capabilities to level III designation soon. With the inclusion of the closest regional resource level I trauma center, Harborview (Seattle, WA), 55 percent of Alaska's population are within 1 hour of a level I or II trauma center.

The Alaska Trauma Registry (ATR) data, which is required and being received from all 24 hospitals, is current and validated. The Section supports a fulltime trauma registrar and has recently transitioned to a web-based registry product. Efforts to link the ATR with the EMS database, Aurora, and the state Crash database are in the works and are expected soon as well. Although the registry data are collected, the process of using the data to guide improvements in patient care remains in its infancy.

Challenges with EMS and trauma system development remain. Some of the acute care hospitals have chosen not to participate as designated trauma centers in the state's inclusive trauma system. With the sparse population and great distances separating towns and villages within the state, this leaves segments of the population without committed trauma facilities or resources. Even within Anchorage, Alaska's most dense population center with three large hospitals, the accepted trauma dictum of bringing the severely injured patient to the closest appropriate facility is not being followed. These and other recommendations made during the Trauma System Consultation still remain unrealized.

Recommendations

The Section should:

- **Continue implementation of the recommendations made during the Trauma System Consultation visit to further develop the state trauma system.**
- **Customize trauma field triage guidelines for the Anchorage area to ensure transfer of seriously injured patients to the most appropriate facility.**
- Develop an initial set of system performance indicators to be used to guide improvements in the care of the injured in the state and standardize the process of how this information is shared with the EMS system stakeholders.

J. EVALUATION

Standard

Each State should implement a comprehensive evaluation program to assess effectively and to improve a statewide EMS system. State and local EMS system managers should:

- Evaluate the effectiveness of services provided to victims of medical or trauma-related emergencies;
- Define the impact of the system on patient care and identify opportunities for system improvement;
- Evaluate resource utilization, scope of service, patient outcome, and effectiveness of operational policies, procedures, and protocols;
- Evaluate the operation of regional, accountable emergency care systems including whether the right patients are taken to the right hospital;
- Evaluate the effectiveness of prehospital treatment protocols, destination protocols and 911 protocols including opportunities for improvement;
- Require EMS operating organizations to collect NEMSIS compliant data to evaluate emergency care in terms of the frequency, category, and severity of conditions treated and the appropriateness of care provided; Assure protection from discoverability of EMS and trauma peer review data;
- Ensure data-gathering mechanism and system policies that provides for the linkage of data from different data sources through the use of common data elements;
- Ensure compatibility and interoperability of data among local, State and national data efforts including the National EMS Information System and participation in the National EMS Database;
- Evaluate both process and impact measures of injury prevention, and public information and education programs; and
- Participate in the State Traffic Records Coordinating Committee (TRCC) – a policy-level group that oversees the State's traffic records system, to develop and update a Statewide Traffic Records System Strategic Plan that ensures coordination of efforts and sharing of data among various State safety data systems, including EMS and Trauma Registry data.

Status

The Unit has established the statewide ePCR program, Aurora, and roughly 66 percent of agencies are submitting data through this system. This data submission captures nearly 90 percent of all EMS transports in the state. Last year, the state submitted over 25,000 patient care reports to the National EMS Database and is preparing for the transition to NEMSIS 3.

The ATR has been in place for over two decades and collects trauma data from all 24 acute care hospitals. With support from Highway Safety 408/405 grant this data are being linked to the Alaska Crash database and are scheduled to be linked to Aurora in early 2015. Data from the ATR have been used to address and solve divert status issues as well as used by various organizations for injury prevention and education activities.

Currently, the Unit has reviewed Aurora data regarding response times for individual agencies, occurrence of bariatric patients, and transports by provider impressions. A formal process of evaluating the effectiveness of patient care and outcomes using this data has not yet been established.

The EMS for Children's Assessment of Medical Direction and Equipment was highly successful with an impressive 96 percent response rate. This information has been used to guide the EMSC program focus for provider education and system improvements.

Recommendations

- **The Legislature should ensure statutory protection from discovery for all QA functions performed by EMS agencies and medical directors.**

The Unit should:

- **Develop a comprehensive program evaluating the effectiveness of out-of-hospital care and patient outcome with particular focus on time sensitive emergencies including trauma, STEMI and stroke patients.**

- Pursue a mechanism to ensure all certified EMS agencies submit data through Aurora.

- Pursue a mechanism for data submission into Aurora from first responder agencies regarding patient care provided.

- Develop a mechanism to provide feedback to EMS agencies regarding performance and patient care outcomes.

- The Section should support ongoing partnership with the State Traffic Records Coordinating Committee.

K. PREPAREDNESS

Standard

EMS is a critical component in the systematic response to day-to-day emergencies as well as disasters. Building upon the day-to-day capabilities of the EMS system each State should ensure that EMS resources are effectively and appropriately dispatched and provide prehospital triage, treatment, transport, tracking of patients and documentation of care appropriate for the incident, while maintaining the capabilities of the EMS system for continued operations, including:

- Clearly defining the role of the State Office of EMS in preparedness planning and response including their relationship with the State's emergency management, public health and homeland security agencies;

- Establishing and exercising a means to allow EMS resources to be used across jurisdictions, both intrastate and interstate, using the Emergency Management Assistance Compact and the National Incident Management System;

- Identifying strategies to protect the EMS workforce and their families during a disaster;

- Written protocols, approved by medical control, for EMS assessment, triage, transport and tracking of patients during a disaster;

- A current statewide EMS pandemic influenza plan; and

- Clearly defining the role of emergency medical services in public health surveillance and response.

Status

Since 2001, preparedness has become a more significant component of EMS and trauma systems across the country. Alaska has fully committed to this effort through the creation of the HERO program within the Section. The HERO program is responsible for administering the Public Health Emergency Preparedness (PHEP) and Hospital Preparedness Program (HPP) grants for the state of Alaska. This has been a significant undertaking that has yielded an improved level of health preparedness across the state. Despite the struggles with funding levels and national competition for resources, the HERO program has enjoyed significant success in securing medical, communications and other assets as well as forging strong relationships with the many federal resources that exist in the state. These relationships have resulted in the development of preparedness training programs, personnel resources and more efficient response systems in many areas of the state.

These preparedness efforts have established a system of health care response capabilities that have proven their value through various real as well as simulated situations. The HERO program has provided health care response to floods and wildfires across Alaska on numerous occasions and most recently exercised its capability as a principle component of the “Alaska Shield” exercise which simulated a large scale earthquake similar to the one that actually occurred in 1964. The Department is identified as the ESF8 lead agency for all-hazard health and medical response in the state of Alaska and maintains a health operation center that can be activated to work in conjunction with the state emergency operations center as any situation might require.

Caches of pharmaceutical supplies, the Strategic National Stockpile (SNS) and the “Alaska Medical Station” represent the capabilities that have been established over the past decade. The Alaska Medical Station is a scalable 250 bed “low acuity” field hospital that supports the decompression of major medical facilities during a high casualty situation and provides the necessary “breathing room” that would be required when large numbers of casualties would be waiting to be transported to the contiguous U.S. Given the challenges faced in dealing with distance and geography over a land as expansive as Alaska, and the lack of road infrastructure to much of the landmass, unique solutions such as these are common throughout the state’s preparedness planning. Portable communications systems are available that have the capability to “patch” the varied radio communications frequencies together and provide a more stable communications platform during significant events.

A web-based medical resource platform is available statewide for monitoring bed availability, patient tracking, etc. This system is well used in the urban centers, although may not be as widely used in Alaska’s more remote communities, and serves as a foundational component of the disaster response capability. The state does use the “START” triage system for all providers and a current statewide EMS pandemic influenza plan exists.

Both the Unit and the TSP are generally included in planning activities and are part of the emergency response team but the integration of all three functions has not been fully realized.

Recommendations

The Section should:

- **Maximize the existing organizational structure by ensuring that HERO, TSP and EMS programs achieve full integration, share information regularly and work closely together to ensure a comprehensive response to day-to-day emergencies and major medical incidents across Alaska.**

- Share resource information across all Section programs to support preplanning needs for response and exercise purposes.

- Ensure that representatives of all stakeholders in the Alaska health care system are “at the table” for emergency response planning to support a comprehensive and inclusive response to disasters and major medical incidents.

The HERO program should:

- In cooperation with the Unit and the State EMS Medical Director, develop medical protocols and operational procedures that standardize medical operations during major medical incidents.

- Routinely engage in EMS and trauma system activities/planning at the state and EMS regional levels to ensure maximum integration of all emergency health care resources into disaster responses or exercises.

The Unit should:

- **Maintain a current inventory of patient transportation resources and certified/licensed personnel to ensure that it can provide accurate information during any event where additional patient care/transportation resources may be required for major incident response.**

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4th Medical Battalion, USMC, Chief of Professional Services, 2010-11
Philadelphia FBI SWAT Team, Medical Support 1998-2008
The Reading Hospital and Medical Center, Reading, PA, Trauma Program Director, 2005-08
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National Association of State EMS Officials (NASEMSO), President, 2010 – 2012.
Committee on the Accreditation of Education Programs for the EMS Professions (CoAEMSP) 2006-2010, Past Chairman
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State of New Mexico Emergency Medical Services Bureau, State EMS Training Coordinator/EMS Program Operations Manager
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1990- New Mexico Governor's Award
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  Committee Studying Use of Heimlich Maneuver on Near Drowning Victims, Member
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- Emergency Medical Services
- Impaired Driving Program
- Occupant Protection Program
- Motorcycle Safety Program
- Drivers Education
- Traffic Records
- Pedestrian Safety
- Standardized Field Sobriety Testing

Enforcing Underage Drinking Laws (EUDL), Program Review
- States of Nevada, Maine, and Oregon, 2011

Impaired Driving Advisory Update, 2010
Drivers Education Assessment Pilot Program

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Appointed to Governor's Council on Blood Services
State EMS Training Coordinators Council, previous member
Utah Emergency Managers Association, Member
Certified EMT-I, 1983.
ACS, State Trauma System Assessment, Team Member, States of Alaska, Minnesota, Colorado and Louisiana, Texas.
USDOT, NHTSA, EMS Reassessment Program, Technical Assistance Team, Member, States of Michigan, Oklahoma, Delaware, Missouri, Ohio, Wisconsin, Wyoming and Florida.
IOM Crisis Standards of Care Committee, Member
Planning Committee member for the IOM Rural EMS Workshop and Panel Discussion Chair.