

An Assessment of Maine Emergency Medical Services System

Report and Recommendations on Maine EMS
with a focus on regional programs and services

Submitted to the Maine Board of Emergency Medical Services

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EXECUTIVE SUMMARY

Let us begin with the end of the story- the Maine EMS System is not broken! Maine EMS is a high functioning, but complex EMS system that is taking a critical look at itself and its infrastructure. The assessment team noted that the system seems to be functioning well in most situations. However, we were concerned that in some instances this “smooth functioning” is based on many years of carefully honed personal relationships and practice patterns that may be at variance from the way the system is defined in writing. While working well now, this may not work as well as the system and/or the “players” change. The Team has made several recommendations to commit relationships to writing or to codify them in administrative rule. In other instances, the team has recommended re-defining procedures or relationships. Sometimes, a fresh look from uninvolved persons may be helpful in critically evaluating one’s system.

Despite the challenges of distance, terrain and declining funding, Maine EMS has consistently offered excellent services to patients in need. Whether the well-respected pre-hospital data collection system or the adoption of the statewide trauma system plan, Maine has continued to progress and to persevere. The assessment team was impressed with the level of sophistication and dedication shown by the State EMS office staff, the Regional EMS Councils and the many EMS providers, medical directors, hospital personnel and others. As we met with EMS system participants throughout Maine, we consistently saw enthusiasm and commitment. Whether taking time away from their families to become better educated, responding to requests for emergency assistance or participating in Quality Improvement processes, these folks, volunteer and paid, are there reliable and serving as the backbone of Maine EMS.

The Regional EMS Councils are long-standing components of the Maine EMS system, but their viability has necessitated a certain amount of entrepreneurship; their growth has been inconsistent across the state. The functions of the Regional Councils are evolving, somewhat inconsistently, as is their relationship with Maine EMS. The increased emphasis of EMS systems to focus on time-sensitive conditions presents tremendous opportunities to revisit the role of the Regional Council in shepherding Maine EMS system improvements. While the team evaluated several different models for the future of the Regional Councils, we recommend a hybrid systems model that describes a role for both the State and the Region and describes a symbiotic relationship between them.

The Team realizes that all recommendations may not be acceptable to the Maine EMS system, but we do hope they are thought-provoking and stimulate thoughtful discussion and candid dialogue in an open atmosphere. Many of the recommendations of this report can be deliberated during the development of a State EMS Plan. This will present an ideal opportunity to further delineate the role, responsibilities and inter-relationships of various EMS system components.

Several of the recommendations will challenge the status quo and suggest different functions for system participants. We hope these can be deliberated openly and fully within the context of the State EMS Plan which should serve as the blueprint for guiding EMS systems change in Maine.

INTRODUCTION

Background

Regionalization of emergency medical services has a long, rich history in Maine - beginning with the Federal Title 12 Department of Health Education and Welfare grant funds in 1970 and 1980 and continuing with the Maine EMS Act of 1982. The EMS Regions and the Maine EMS Office (MEMS) have been long-standing, complementary components of the Maine Emergency Medical Services System.

The EMS regional structure and MEMS have operated symbiotically to facilitate the development and operation of the Maine statewide EMS system. Regional councils have enabled local stakeholders to identify and act on priorities for system development in close alignment with the Maine EMS System statewide initiatives. Priorities such as medical direction and quality improvement seemed particularly well suited to state-regional collaboration.

Over the years, the evolving complexity of EMS associated with a concomitant decrease in funding for programs has posed a special challenge for the Maine EMS system, and more especially the EMS regions. The regions have adapted in different ways - modifying the nature and purpose of the regional councils, the services they deliver and their relationships with MEMS. Some of these adaptations have been successful and others less so. As the Maine EMS system continues to evolve, it is appropriate to evaluate the role of the regions and to explore their special relationship with MEMS.

MEMS contracted with Association and Society Management International (ASMI) to use a group of seasoned, nationally prominent State EMS Directors to review the Maine EMS System and its regional programs and services and to make recommendations for improvement. ASMI selected the following Team¹: Robert Bass, MD, retired State EMS Director from Maryland, Drew Dawson, retired Director for the National Highway Traffic Safety Administration (NHTSA) Office of EMS and retired Montana EMS Director, and Dan Manz, EMT, retired Director of Vermont Office of EMS and current director of Essex (VT) Rescue. Clay Odell, RN, Paramedic, former New Hampshire EMS Bureau Chief and current director of Upper Valley (VT) Ambulance served as support staff.

The Ask

The Team² was asked by MEMS to address these issues about regions and regional councils:

¹ Throughout the document, "Team" will refer to this group of individuals.

- **Advantages and disadvantages of independent regional councils versus a Maine EMS (MEMS) field office delivery of services or other model.**
- **Review of general consistencies in regional EMS council delivery of programs, performance/program standards, designation and funding**
- **Review of the relationship between MEMS and regional EMS councils**
- **Review of the relationship between regional EMS councils and the EMS agencies they serve**

And, the Team was instructed to develop recommendations, with respect to regions and regional councils, concerning:

- **Economies of scale that may be realized in a more centralized environment**
- **The role and responsibilities of a regional council or MEMS field office system**

The Assessment and Recommendation Process

The Team reviewed the pertinent Maine statutes and administrative rules, regional by-laws, and articles of incorporations of the regions that shared them, the minutes of regional meetings, the regional reports to the state and the regional financial reports. The Team listened to public testimony in three locations - Portland, Bangor and Augusta - from September 27-29, 2016. Following individual meetings with EMS leaders, an open public hearing was held in each city with over 60 stakeholders attending. The Team solicited input regarding the current regional system, adequacy of educational programs delivered in the region, quality assurance and medical direction, communications and funding. The Team reviewed the results of the *Maine EMS Council Regional Survey 2016* (Survey) that was sent to over 6,000 EMS stakeholders and was coordinated through ASMI in 2016. The Survey generated 835 responses with over 200 respondents providing additional comments; the results are available through MEMS.

Subsequently, the Team met by conference call to write the report. The Team attempted to address the specific questions as precisely as possible and to formulate the requested recommendations. However, a statewide EMS system is a complex arrangement involving many persons and professions, multiple sources of funding, numerous institutions, complex statutory and regulatory authorities and a myriad of interpersonal issues. There are many interdependencies among all system components. The Team felt it would be valuable to the Maine Board of Emergency Medical Services to present a more in-depth, systems-oriented analysis and recommendations. We trust this additional analysis will be useful to the Maine Board of EMS in continuing to improve EMS delivery throughout the state.

ASSESSING THE LANDSCAPE

EMS – a system in evolution

The initial impetus for a state and regional approach to EMS system development came with the Federal EMS Systems Act of 1973 in which the role of states and regions in system development was well delineated. This act resulted in the establishment of EMS regions across the nation. However, by 1980 the DHEW funding for EMS system development was terminated. While state EMS offices could compete for Preventive Health and Health System Block Grant funding, eventually fewer Federal dollars were available to State and regional programs. Just as the regions and states were faced with the need to support the development of increasingly complex systems of care, the resources to accommodate the changes decreased.

Despite these challenges, over the ensuing three and a half decades, the evolution of EMS systems has continued, in many cases facilitated by continued effective EMS regional and state partnerships. As the care provided by EMS has become more sophisticated, there has been an increasing need to integrate EMS with other health care systems. As a mobile health care delivery system, EMS is a fertile ground for continued innovation, especially given the opportunities created by recent health care reform efforts. To be innovative in the evolving health care delivery systems, there will need to be new models and opportunities for funding as well as regulatory reforms to accommodate necessary changes. EMS Regional Councils will need to continue to play a role in facilitating such innovation and integrating EMS with other systems of care. Additionally, it is recognized that regionalization of services helps to provide prompt and effective evidence-based care to patients with time-sensitive conditions (e.g. STEMI, stroke, trauma, cardiac arrest) that can result in improved patient outcomes. Regionalization of services is a key to coordinating and improving the care of patients with time-sensitive conditions. Re-alignment of state EMS regions and their functional responsibilities to coincide with the continued evolution of regional systems of trauma and specialty care can greatly enhance the EMS system's integration and response to these conditions.

Maine EMS – the changing dynamics

With the decrease in state funding for EMS in Maine over the years, the Regional Councils have been especially challenged. Efforts of the Regional Councils to adapt to this reduced funding have resulted in significant variability in how they are configured and in the nature, quantity and quality of the services they provide. Regions that were once considered sources of innovation and an integral link with MEMS are now increasingly focused on the need to generate revenue while their primary focus appears increasingly drawn away from system development and systems of care. The dynamics are changing.

In addition to the general decline in state funding for the regions, the team heard other funding concerns. While the scope of work and the funding (~\$50,000/per, plus a portion of licensing fees) between the state and the Regional Councils are clearly defined and identical for each region, the Team consistently heard that the contract rarely guides the actual activities of the regional councils. The state funding is the same for each identified region and does not consider population, number of calls, or other available resources. State funding constitutes a varying portion of the region's income; there is frequently a disconnect between the services they perform and the state's mandated contractual activities.

As the state funding decreased, several regions began looking for economies of scale by combining the services of several regions thus allowing for a greater degree of specialization and presumably an enhanced level of customer service. Since 2011, Atlantic Partners EMS (APEMS) has assumed responsibility for providing regional services in the following regions:

- Kennebec Valley EMS
- Northeast EMS
- Mid-Coast EMS
- Southern Maine EMS

Some of the logistical and regulatory issues created by the growth of APEMS will be discussed in greater detail in the next section. The Team did hear a variety of viewpoints regarding APEMS – that they have become an EMS conglomerate that has infiltrated key Maine Board of EMS and state EMS committee appointments, and has undue influence on the State of Maine EMS. Others, however, were impressed with APEMS' ability to achieve economies of scale and to offer specialized services not available from the generalists in the single region system. They were routinely complimentary of the services provided by APEMS including their ability to provide needed assistance quickly.

Whether positive or negative, the reduced funding to the Regional Councils and the consolidation of regional management services has changed the dynamics of Maine EMS, increased the confusion about the role of the EMS region and necessitated a fresh look at the Maine EMS system.

REGIONAL PROGRAMS AND SERVICES

Review of general consistencies in regional EMS council delivery of programs, performance/program standards, designation and funding

Designation

The Regional EMS Council (Regional Council) designation procedure is key to the consistency of the Regional Council delivery of services and programs. Since their inception, the Regional Councils have been 501 (c) (3) corporations. The Maine EMS Act of 1982 (Title 32 Section 84.1(D) requires the Maine Board of EMS to define the composition of regional councils, the process through which they are recognized and by which they report their activities. The statute (Title 32 Section 84.1(C)) also states that the Maine Board of EMS *may* contract with the Regional Councils.

During the testimony and in meeting minutes, the Team heard and saw references to the term *Regional Advisory Councils* (RACs) in the APEMS' geographic area. Since a RAC seemed to be used interchangeably with the term *Regional Council* the Team sought clarity in the statute and administrative rules. Maine Administrative Rules state:

Only one Regional Council shall be recognized in any region. Any organization proposing to serve, as a Regional Council must state this intention in writing delivered to Maine EMS no later than 120 days before the start of the fiscal year in which the contract is to be written. The Maine Board of EMS will select the organization which best demonstrates an ability to carry out those functions specified in the service contract for the upcoming fiscal year. The Maine Board of EMS will then negotiate a price for carrying out the service contract with the organization selected to be the Regional Council. The Maine Board of EMS may elect to enter into a 2 year contract consistent with the biennial budget process.

The implications of this rule are potentially far-reaching and consequential:

- The official *Regional Council* is the entity within the region that receives the contract for services from the state each year. The *Regional Council* can change each year. Although historically the entities have been one and the same, this may not be equivalent to the long-standing governance structures (501 (c) (3) corporations) in the six EMS regions.
- Nominations for the Maine Board of EMS are consequently determined by the organizations that win the regional service contracts each year, not necessarily by the long-established 501(c) (3) regional EMS councils.
- APEMS successfully competed for the contract for 4 regions and is, therefore, the official *Regional Council* for each of those regions. (There is only one council

per region).

- APEMS might then be considered as one of three Regional Councils for purposes of Maine Board of EMS membership. In practice, APEMS recruits and nominates persons from the “RACs” for Maine Board of EMS membership, but this may not meet the technical requirements of the rule since the members are not coming from the *Regional Council*. At the worst, it is problematic. At the best, this is very confusing and may require further legal review.

The Team believes that active permanent *Regional Councils*, serving as the governance for a 501 (c) (3) corporation in each designated region would be more conducive to the long-term planning and to the overall effectiveness of regionalized systems of patient care, but that each region could be well-served by a management entity (*Regional Services Contractor*) with whom they would contract to provide services. Or, *Regional Councils* could jointly secure the services of a *Regional Services Contractor* but they should not lose their identity as a region and as a *Regional Council*. Conversely, the *Regional Services Contractor* should not become the *Regional Council*. While this was likely the original system design, it appears likely that through various administrative adjustments over the years, the rules evolved into their current form where the *Regional Services Contractor* and the *Regional Council* are synonymous.

RECOMMENDATION # 1: Regional Terminology Should be Clarified

The Maine Board of EMS should modify Chapter 15 of the Bureau of Emergency Medical Services Rules to distinguish among: (a) the “Region” – as the geographic configuration, (b) the “Regional Council” as the permanent governance structure for a Region the composition of which should be described in some detail to ensure statewide consistency and comprehensive involvement of the stakeholders, and (c) the “Regional Services Contractor” as that entity which may provide services on behalf of the “Regional Council.” [Additional recommendations about the Regional Council activities that are suggested to be included in the rules are found in subsequent recommendations.]

Performance and program standards

There is a uniform contract for services and funding between MEMS and the Regional Councils. However, from the testimony presented and from a review of the regional meeting minutes, it appears that the regions are not sufficiently resourced to complete their state-contracted responsibilities. The team heard that some of the state mandated activities and reporting are sacrificed in favor of activities deemed necessary to maintain the financial viability of their region. State funding frequently constitutes a small portion of the Region’s income and there are frequent inconsistencies between the services they perform and the state’s

mandated contractual activities. The Regions' reports to the state are submitted in a template format that limits their usefulness in identifying and tracking this issue.

Regions are important just because the nature of the regions are so different. Challenges of the regions are very different. "There are two Maines". Portland site visit

At the Portland meeting, it was suggested there could be far greater coordination and consistency between the region and the State if the Maine Board of EMS would adopt goals each year and incorporate these into the regional contract. The Maine Board of EMS is mandated by statute (MRS, Title 32, Chapter 2-B, §84 (2)) to adopt goals.

Throughout the Team's interviews and the review materials, the absence of a Maine EMS plan was notable. Many of this report's recommendations can be addressed in a State EMS plan. As important as the plan itself is the opportunity for stakeholders and system participants to participate in the planning process.

RECOMMENDATION # 2: Adoption of State EMS Plan and Goals

The Maine Board of Emergency Medical Services should, pursuant to Maine Emergency Medical Services Act and with involvement of the regions and all other EMS stakeholders including the public, establish measurable goals for the Maine EMS system through the development of a comprehensive State EMS Plan.

Delivery of Programs

Although there is a uniform contract with the regions, the delivery of services by the regions is not consistent, nor uniform. As mentioned previously, it is difficult to assess if the requirements in the regional contracts are being fulfilled uniformly across the regions due to limitations of the report template.

I feel the regional structure has seen its day – but the state needs to work with technical specialists who could go out into the various regions and address the needs. Bangor site visit

The Team believes the designation of a Regional Council should be dependent upon complying with a clear set of responsibilities that are delineated by administrative rule. These responsibilities should de-emphasize the role of the Regional Council in initial (licensing) education and re-focus primarily on the regionalized delivery of patient care including medical direction and the provision of continuing education

focused on quality improvement and services as outlined in the following recommendation:

RECOMMENDATION # 3: Specify mandatory regional council activities.

The focus of Regional Council activities should be clearly delineated by rule (not just for service contracts) and should emphasize regional system development. Examples of Regional Council activities might include, but not be limited to: development of systems of care including inter-facility transport, technical assistance to services for protocol implementation, medical direction, quality improvement, coordination with MEMS, linkages of continuing education to quality improvement in coordination with the regional medical director, promoting innovation in EMS, and other activities as identified as goals each year in the State EMS Plan.

Review of the relationship between regional EMS councils and the EMS agencies they serve

Many of the agencies attending the public hearings reported positive relations with the Regional Councils, although this was somewhat variable from region-to-region. The public hearing attendees may have been more interested and motivated thus skewing the “picture” of customer satisfaction.

Questions 9, 27 and 7 of the survey can be used to provide a “surrogate” measure for the relationships between the EMS councils and their EMS agencies. There are several limitations in this approach.

- Not all responders will reflect the opinions of the leaders of their EMS agencies
- Many of the responders may not have regular contact with a Regional Council and therefore would not be expected to know
- There were many “don’t know” responses

Despite the limitations, the respondents don’t appear overly “enthusiastic” about the performance of their Regional Councils, but neither were they very dissatisfied. There were disparities noted among regions.

WHAT ABOUT THE SURVEY?
(Question 9)

Statewide, just 35% of the respondents indicated their regional council’s effectiveness was either good or excellent. There was regional variation.

(Question 27)

On a question assessing customer satisfaction with the Regional Council performance on a variety of tasks, no task received a statewide rating (weighted average) of greater than 2 on a scale of 1 to 5 with 5 indicating the greatest satisfaction.

(Question 7)

Statewide, about 46% of the respondents rated the Regional Council’s performance in helping to meet the requirements of the EMS Act of 1982 as either good or excellent.

Review of the relationship between MEMS and regional EMS councils

There is an “Operations Team” composed of regional staff and Maine EMS staff who meet to discuss programs and challenges and to coordinate activities toward common goals. From individual reports to the assessment Team, this approach worked well historically, but has not been as effective more recently.

The contract between the Regional Councils and the State is intended to facilitate a consistent state-wide approach. However, the contracts (both funding and scope of services) are identical for each region. The templated reports from the regional councils to the state are “pro-forma” and do not encourage any meaningful dialogue or coordination.

The Team heard from one regional coordinator that the adoption of the mandated state goals by the Maine Board of EMS would provide the yearly target and greatly facilitate coordination between MEMS and the Regional Councils. [See Recommendation # 2]

Because of the small amount of state funding allocated to each region, the Regional Councils look to other sources for their funding and are not obligated to stay “in-line” with state goals for most of their program activities. As the regional management structures have consolidated and grown, so has their influence. Understandably, this sometimes results potential role confusion between MEMS and the management contractor.

The Team believes that the EMS system in Maine would benefit from an improved, more clearly defined and collaborative relationship between MEMS and the Regional Councils.

SYSTEM STRUCTURE

Advantages and disadvantages of independent Regional Councils versus a Maine EMS (MEMS) field office delivery of services or another model.

During the Team’s visit to Maine, we clearly heard support for the concept of a regionalized approach to EMS systems development and the delivery of services to local EMS services and providers. On the other hand, there was a wide disparity in opinions as to whether the EMS system in Maine would do better with continuing the tradition of independent regional councils or transitioning to a more centralized approach to the delivery of these regional services by MEMS.

WHAT ABOUT THE SURVEY?

(Question 18)

Statewide, 36% of respondents indicated the regions would work more effectively if they were staffed by State employees and 11% if they were staffed by independent contractors to Maine EMS. However, 45% didn’t feel they had sufficient information.

Since the 1970's, Maine has utilized Regional Councils under contract with the State to guide systems development and provide regional support services. Over the years this approach has enabled a more individualized approach to systems development across the state and a forum for local EMS services and hospitals to coordinate and improve the patient care they jointly provide. Certainly, this approach has contributed to the successful evolution of EMS services in Maine, which has benefited many patients.

On the other hand, the Team heard many express opinions that the regions themselves have outlived their usefulness, are no longer needed, impede system development and that MEMS employees should, instead, provide these services. Some felt that Regional Council services have not kept pace with modern EMS system development and that the regions should promote innovation in service delivery consistent with the functions ascribed to regions in the *Rural and Frontier Agenda for the Future*. We also heard that the Regional Councils have not focused sufficiently on developing systems of care for time critical conditions and have not sufficiently addressed growing concerns regarding inter-facility transfers.

The good ideas and innovation used to come out of the region. The regions have lost the incentive to innovate. We should look at the Rural and Frontier Agenda for the Future for ideas of what the regions should be doing.
Augusta site visit

The Team heard from many who would like to see MEMS employees in the field more frequently to support local services and providers. The MEMS staff were generally regarded highly at each of the public hearings. Many believe that the ability to interact directly with MEMS staff speeds communication, enhances the accuracy and consistency of information, and ensures that MEMS are more fully engaged in State and local activities.

At first the Team was intrigued by the arguments in favor of a more centralized approach. However, as this option was discussed, concerns were raised including the loss of facilitated regional forums for local services and hospitals to coordinate and improve care, the impact on the ability to tailor

and customize how local services and providers are supported in different areas of the state with vastly different organizational configurations and geographic challenges, and the fiscal limitations of being able to support sufficient MEMS staff to maintain an adequate presence in all parts of the state.

After considerable deliberation, the Team concluded that the Maine EMS System would benefit from adopting a hybrid model that would have characteristics and benefits of both the regional and centralized options previously discussed. We believe that when complemented by a well-crafted State EMS Plan, it would be the best way to improve the consistency and effectiveness of regional programs, leverage limited State resources, and address many of the concerns that the Team heard during our interviews and public meetings.

We further believe that when properly managed, the resources of the regional EMS system combined with the system-building strengths of MEMS are the ingredients for a wonderful synergy and the successful continued maturation of the Maine EMS system.

Development of a Hybrid State-Regional Model

The Team's recommendations are intended to better align MEMS activities and the Regional Council's activities. In this model, existing MEMS personnel would be assigned responsibility for Regional Councils including maintaining regular communications with them, overseeing their contracts, assisting with the development of their contract work plan and ensuring a collegial working relationship focused on achieving the goals to be delineated by the Maine Board of EMS at the beginning of each year.

MEMS personnel would perform their traditional functions such as ambulance inspections, complaint investigation, and system development while also overseeing the MEMS regional operations and ensuring coordination between state and regional work plans.

This approach would involve MEMS adjusting in how it is staffed and how State employees are deployed in support of regional activities. Some of the changes involve modifications of job duties for existing employees. Over the longer term, additional personnel will be needed for MEMS. The work sites of the MEMS regional support personnel should eventually be moved from the central office to the field.

Under the proposed model, the regions would gradually shift their attention from providing existing services (Recommendation #8), to enhancing support of local EMS services and providers, developing and improving systems of care, addressing inter-facility transport issues, and implementing the goals in the Maine Board of EMS Plan.

The contract between the State and the Region, now a uniform boiler-plate for every region, should contain performance standards for compliance with Statewide EMS goals and should also provide for region-specific activities determined by the Regional Council, providing they are not inconsistent with the State EMS goals.

RECOMMENDATION #4: Two existing MEMS staff support EMS regional councils and programs.

MEMS should assign two of its existing MEMS staff positions (1 year) the responsibility for supporting EMS regional councils and programs. Within 4 years, MEMS should expand the regional support to a total of three positions and locate these staff near the regions.

Geographic configuration of regions

The existing six (6) regions have been established for many years – each with a Regional Council and a 501 (c) (3) corporation although four regions now have a single regional contract entity – APEMS. Under existing EMS rules, APEMS appears to be a Regional Council.

During the public and private meetings, there was not a consistent viewpoint regarding the number or the configuration of the regions. Some participants felt there were too many regions for the size of Maine and that this was not a financially sustainable model. However, others pointed out these smaller regions allowed more intimate and valuable contact between the local EMS agencies and the regional staff and expressed concern

“Regional system is a good thing for Maine due to different needs of different geographic regions.” Augusta site visit

about one regional services contractor, APEMS, serving so many regions. Many were concerned with the lack of “clinical logic” with the existing regions and recommended the reconfiguration of

regions to more closely parallel patient flow patterns for time-sensitive conditions such as trauma, STEMI, and stroke. This, they pointed out, would allow better alignment with the resources of Trauma and Specialty Centers and Resource Hospitals.

The State survey (Question 18) indicated providers were generally satisfied with the number of regions, thought the regions should be based on geography, land area and population, but that the distribution of EMS agencies and providers is also important in regional configuration.

The Team values the importance of tradition and the potential positive significance of forward momentum in EMS systems and recommends a gradual transition from the existing six (6) regions to three (3) regions that are centered around the state’s tertiary care facilities. This regional designation should be a very deliberate part of Maine EMS planning and should broadly include EMS stakeholders. The Maine Board of EMS may wish to consider establishing sub-regions to enable better delivery of services near providers in rural areas.

RECOMMENDATION #5: Geographic designation of EMS Regions

The State Maine Board of EMS should begin planning for transition from the six (6) current regions to three (3) regions (with consideration for sub-regions) centered around the state’s tertiary care facilities

State Infrastructure

The Maine Revised Statutes in Title 32 Chapter 2-B: *Maine Emergency Medical Services Act of 1982* provides the legal structure for the regulation and development of Maine’s EMS system. The statute establishes the Maine Board of EMS which includes representation that is both geographic (by region) and representative of categories of

stakeholders in the EMS system. MEMS is structured administratively under the Department of Public Safety but answers programmatically to the Maine Board of EMS. This structure is one that has worked successfully in other states. It has the advantages of allocating significant authority to involved stakeholders in providing direction of Maine's EMS system. MEMS, the Director and staff, manage the daily affairs of the statewide system including the regulation of personnel, agencies, vehicles, education, etc. and coordinating a system that includes regional councils, physician medical direction, and quality improvement.

As identified in Recommendation #2, the state should develop and adopt a State EMS Plan in concert with the multiple stakeholders. The opportunity for stakeholders to be involved with systems planning is critical to its success. During the public meetings, not everyone saw the issues the same way, but everyone was willing to listen and to help identify paths forward.

Potential for conflicts of interest

During each public meeting and many individual meetings, the involvement of APEMS on the Maine Board of EMS was mentioned. It is unavoidable that four of the six regional council representatives to the Maine Board of EMS now come from APEMS-managed regions. And, some of the categorical members on the Maine Board of EMS also have strong APEMS affiliations.

With key Maine Board of EMS members wearing multiple hats, the potential for real or perceived conflict of interest is very significant. The goal is to assure that everyone's involvements and affiliations are known and stated in advance with established mechanisms to avoid the perception (or reality) that decisions are made with less than objective motivation.

RECOMMENDATION #6: Maine Board of EMS should adopt conflict of interest procedures

The Maine Board of EMS should adopt stringent procedures regarding conflict of interest and the perception of conflict of interest of its Maine Board of EMS members.

Approval of continuing education – efficiency through centralization

Continuing education requirements are established by the Maine Board of EMS in the EMS Rules. Currently, an approval form is submitted to either the MEMS office or to an established training center prior to the conduct of a class. Any approved training center can authorize continuing education anywhere in the state. The State regional contracts require the regional offices to approve Continuing Education requests. MEMS does not have any formal relationships with the Commission on Accreditation for Pre-Hospital

Continuing Education (CAPCE), but MEMS does automatically approve any classes that CAPCE recognizes.

Electronic simplification of the CE approval process at MEMS, having approved CE sites so individual course approval is not required and improved collaboration with CAPCE could simplify the CE approval process.

RECOMMENDATION #7: Centralize Continuing Education Approval

MEMS should centralize the continuing education approval and tracking system via electronic methods at the state office, using national CE accreditation approval organizations when appropriate and using CE sites approved by MEMS.

Let educators manage the delivery of Initial (Licensing) EMS education

The Team learned that initial (licensing) EMS education is variable. There were options expressed about access, cost, availability and quality.

Initial (licensing) EMS education at EMR, EMT, AEMT and Paramedic levels is offered today by approved training centers, including several community colleges. A couple of features were apparent about initial (licensing) EMS education:

- o It is sometimes a financial revenue source for the entity providing it...frequently the regional council which is also a training center
- o In some locations, there is competition over its delivery that results in inefficiencies

Nationally, there are efforts to increase the affiliation of EMS education programs with educational institutions while maintaining the oversight and regulatory functions with the State EMS Agency. Although much of the Basic Life Support education in Maine is currently provided by Regional Councils and that education provides a revenue stream to the council, the Team recommends that, gradually, the licensing education at all levels be transitioned to the Maine Community College System. The Team also recommends the Regional Councils enhance their continuing education opportunities—particularly that linked to quality improvement initiatives including the proper management and regional care of time sensitive clinical conditions.

Maine has a good network of Community Colleges that offer education statewide from seven colleges and multiple campuses. The Community Colleges support the offering of accredited education in many disciplines. Depending on the nature of the program, the Team learned that Community Colleges can offer programs at satellite locations apart from their immediate regional campus location.

The mission of the Maine Community College System is to provide associate degree, diploma, and certificate programs directed at the educational, occupational and technical needs of the State's citizens and the workforce needs of the State's employers. The primary goals of the System are to create an educated, skilled and adaptable labor force which is responsive to the changing needs of the economy of the State and to promote local, regional and statewide economic development. The fit of initial EMS education within that mission seems natural. Placing initial (licensing) EMS course offerings in this setting will enable education to be delivered by educators. It should also serve to standardize and coordinate policies for course delivery and provide a common framework for coordination with the State EMS Maine Board of EMS.

RECOMMENDATION #8: MEMS begin discussions with Maine Community College System

MEMS should begin discussions with the Maine Community College System to assume responsibility for the conduct of initial EMS education at all levels. Subsequently, the Maine Board of EMS should delegate the responsibility for the conduct of initial EMS education to the Maine Community College System and should remove primary EMS education from "Training Centers" guidelines.

MEDICAL DIRECTION

There are many positive trends occurring in medical direction of the Maine EMS system. It was apparent in our interviews and public forums that there has been much improvement overall in medical direction since the EMSSTAR 2004 Assessment of the Maine EMS System, but more especially in the past 5 years. There is more engagement of physicians with local EMS services and the availability of physicians with EMS provider experience and/or who are boarded in EMS has been increasing and many these physicians have expressed interest in even greater involvement.

"We've come a long way. Local access is phenomenal compared to where we were. Many docs now were EMT's and paramedics, which is a good thing. Compared to a figurehead – they're ahead of the game." Portland site visit

There is strong EMS physician leadership in place at the state and regional levels. The Medical Direction and Practice Board (MDPB) was viewed throughout the assessment as a good forum for the orderly development of the evidence-based statewide protocols. The recently published *Maine EMS Medical Director Guidebook* appears to be a helpful tool - especially for new medical directors.

There are many opportunities for continued improvement that were identified in our review and they will be summarized with recommendations in the following topic areas.

Regional Medical Direction

While the Team heard that overall medical direction has improved, we also learned that many providers still have very little or no contact with their medical director. In the 2016 Regional Survey, over half of respondents rated regional medical direction as fair, poor, or “have not used.” There was significantly less agency and provider involvement with regional medical direction in Kennebec Valley and Southern Maine than in other regions. The ratings of satisfaction with regional medical direction varied between regions, which was reflected in the interviews and the public forums as well.

There appear to be many factors that account for these ratings and the lack of use of regional medical direction including:

- The limited amount of compensated time that regional medical directors have for EMS activities especially in regions with higher numbers of services and providers
- An increase in the utilization of service level medical directors
- Geographic challenges in the larger and more rural regions

Regional medical directors serve in a capacity that integrates medical direction at the state, regional, and local levels. Their contributions to Maine EMS at all levels is significant, but more especially working with the state medical director to develop protocols, coordinate medical QI activities, and support local medical direction and QI. In that respect, it would be logical for the state to compensate them for their professional time in recognition of their considerable contributions to the state EMS mission.

RECOMMENDATION #9: State-employed/contracted regional medical directors

There should be a state employed (contract or employee) regional medical director for each region who is selected by the region and approved by the State EMS Medical Director, and who works closely with Maine EMS, the Regional Council, local EMS services, and hospitals.

EMS physician workforce

Experienced EMS physicians the Team heard from, who increasingly are boarded in EMS, perceive a lack of opportunity to pursue careers in EMS in Maine. There are several reasons for this perception, but the greatest issue expressed relates to the lack of funding or other compensation to enable sufficient dedicated time for EMS medical direction. Additional issues the Team heard about included concerns about insurance coverage for potential medical and administrative liability and the need for greater statutory liability protection for EMS medical directors that is currently limited to the supervision of persons who are receiving EMS training.

The 2004 EMSTAR assessment included a recommendation that the EMS Rules be amended to require that all EMS services be required to have an EMS medical director. While that rule change has not occurred, as previously noted, there has been a

“High value in service-based medical direction, particularly for feedback” – Portland site visit

significant increase in the number of service level medical directors, which has been viewed positively by local EMS services. The Team heard from the leaders of several smaller services that they had a need for more medical direction, but that they don't have enough access to a regional medical director and can't afford to hire a medical director of their own. Several services described approaches to address this issue including the use of shared resources and working with hospitals to obtain more dedicated physician time (see below).

Local medical directors are most appropriately compensated for their time through a contract with one or more services. Alternatively, local services might contract with the employer of their medical director to reimburse the employer for the dedicated time of a medical director, as well as liability coverage. While this may be a financial challenge, especially for smaller services in rural areas, in such circumstances, alternative methods of non-monetary compensation would go a long way towards enabling and encouraging EMS physicians to serve as a medical director.

“Our goal needs to be better-valued docs at local, regional and state level. Value is not necessarily equating to dollars but dollars aren't unimportant.” Augusta meeting.

“Though there are docs out there willing to serve as service medical directors, there should be compensation, but it might not need to be commensurate with a doctor's pay rate. Recognition of some kind goes a long way.” Augusta site visit

Quality

prehospital care has the potential to improve patient outcomes and reduce the

cost of care that hospitals provide to patients in the ED or who are admitted. This means that hospitals and hospital systems may be willing to support local EMS services in a variety of ways including directly providing or financially supporting the dedicated time of a medical director. This is another option for local EMS services to pursue when funding a medical director directly is not fiscally possible.

“Hospitals should be supportive of doctor's time to do EMS medical direction.” Augusta site visit

RECOMMENDATION #10: Require local service medical directors and their compensation

Continue efforts to implement the 2004 EMSTAR recommendation to require a medical director for every service and work with the local services to facilitate the recruitment and retention of service medical directors through appropriate financial compensation or through support from hospitals as well as innovative approaches such as the use of shared resources, non-financial remuneration and benefits, liability insurance coverage, and state statutory liability exemptions.

Roles and responsibilities

With the increasing utilization of local service medical direction, the respective roles, responsibilities and authority of state, regional, local service, and hospital EMS medical directors have become less clear. This lack of clarity is exacerbated by the fact that in Maine, the roles, responsibilities, as well as the authority, of a medical director are more significantly defined by individual contracts with a medical director rather than through state laws or rules.

As provided in Maine law and rules, medical directors are responsible for the “supervision” of both basic and advanced EMS personnel; however, the tools provided to accomplish this task are not well defined. There is concern that the lack of specificity and consistency of the roles, responsibilities and authority of medical directors at the various levels can lead to significant gaps in overall medical direction.

“A lot of providers don’t know who their medical director is, or there is a rubber-stamp medical director”. Bangor site visit

One of the tools for ensuring quality of care that appears to be especially missing is the role of the medical director in local medical credentialing. Typically, national organizations certify (i.e. the National Registry of Emergency Medical

Technicians), states license, and local services credential providers. This three-part time tested process is utilized for a variety of medical, nursing and allied health professionals who work in hospitals and other clinical settings. The recently published *Maine EMS Medical Director Guidebook* describes the role of physicians in “limiting the medical activities of patient care providers” for cause (page 25) and determining “which EMS providers will be permitted to deliver patient care” (page 34). However, the only reference that the Team could find to support these statements is in Chapter 15 of the Maine EMS rules which states that a regional medical director may impose conditions upon a licensee’s ability to practice in the region, but only with the consent of the licensee. Absent that consent, the regional medical director must defer to MEMS for any action to be taken. Additionally, while EMS medical directors are responsible for signing off on the competence of providers for national certification, the Team was told by a knowledgeable and authoritative source that in Maine, EMS medical directors do not have a direct role in medical credentialing. This appears to be a significant functional gap between the responsibility for supervising EMS providers and ensuring

the quality of care and the legally defined and functional role of an EMS medical director. A well-crafted local service medical credentialing process with the active engagement of the medical director should be considered as an important component of the overall licensing system in Maine and addressed in the EMS rules, including the role of the medical director in that process.

Consistent with the Recommendation # 13, regional medical directors should place a greater focus on the medical oversight of regionalized systems of care for patients with time critical conditions such as trauma, stroke, and STEMI. In particular, the regional medical director should be actively reviewing compliance with EMS destination protocols and quality of care across the continuum, including hospital performance and outcomes. To accomplish these tasks, it is essential the medical directors have access to prehospital and hospital data on patient care and outcomes.

The Team recommends that the roles, responsibilities, reporting relationships, and authority of EMS medical directors at all levels be clearly defined through state law and rules to ensure a more uniform, consistent and effective statewide approach to EMS medical direction. This process will create an opportunity to re-evaluate these issues at each level and ensure that medical directors have the requisite tools, are appropriately focused, and that gaps in overall medical direction are avoided.

A summary of the Team's recommendations related to roles, responsibilities and the authority of EMS medical directors in Maine is outlined below:

- State Medical Director
 - Appointed by the Maine Board of EMS
 - Lead EMS Medical Director for the State
 - Advises the Maine Board of EMS
 - Chairs the MDPB and QI Committee
 - Approves and supervises regional medical directors
- Regional Medical Director
 - Nominated by the region and approved by the State EMS Medical Director Maine Board of EMS
 - Responsible for monitoring the quality of care, including systems of care for patients with time critical conditions and inter-facility transports, and implementing state protocols within the region
 - Provides continuing education linked to ongoing, data-driven quality improvement at national, state, regional and local levels.
 - Approves and supervises local service medical directors and hospital EMS medical directors
 - Serves as a local service medical director when necessary
- Service Medical Director
 - Appointed by the service with the approval of the regional medical director

- Responsible for monitoring the quality of care delivered by the service and providers and implementing state protocols
- Plays an active leadership role in a service based medical credentialing process
- Provides continuing education linked to ongoing, data-driven quality improvement at national, state, regional and local levels.
- Hospital EMS Medical Director
 - Appointed by the hospital with the approval of the regional medical director
 - Responsible for credentialing on-line medical control providers and monitoring the quality of care
 - Works with regional and service medical directors to ensure the appropriate interface between EMS and the hospital and that there is a continuum of care that supports optimal patient outcomes
 - Actively involved with local and regional QI and promotes the exchange of data, including outcomes, between EMS and the hospital
 - Provides continuing education linked to ongoing, data-driven quality improvement at national, state, regional and local levels.

RECOMMENDATION #11: Clarify Medical Director roles, responsibilities & authorities

The roles, responsibilities, reporting relationships, and authority of EMS medical directors should be clearly defined through state rules to ensure a more uniform, consistent and effective statewide approach to EMS medical direction.

RECOMMENDATION #12: Link Regional Council CE training to QI

The continuing education training conducted under the auspices of the Regional Council should, via the Regional Medical Director, be linked to ongoing, data-driven quality improvement at national, state, regional and local levels.

RECOMMENDATION #13: Regional Medical Director duties

The regional medical director should continue to support the development and implementation of state protocols, and engage in the development of regional systems of emergency and inter-facility care, guide state-directed quality improvement at the regional level and serve as a local service medical director when necessary.

Inter-facility Transports

Recognizing that efforts are already underway in Maine to improve the medical oversight of inter-facility transports (IFT) as described in the recently published *Maine EMS Medical Director Guidebook*, the Team heard considerable concerns expressed regarding the need for the Maine EMS System to place a greater focus on inter-facility transports. It is felt that the issues of staffing, resources, appropriateness, utilization, quality of care, and medical oversight have not been adequately addressed despite the increasing use of IFT to transport patients with time critical conditions over longer distances. IFT should be addressed in the State EMS Plan as well as through protocols and rulemaking as appropriate.

A suitable forum for addressing these complex and multidisciplinary issues would be a committee established by the Maine Board of EMS, in coordination with the MDPB, with representatives from ground and air IFT services, tertiary care and local hospitals, and other stakeholders.

A concern related to the need for more active engagement of knowledgeable EMS physicians in the real-time decision making process related to the mode and staffing levels for IFTs. There were also concerns expressed regarding the need for the state and regions to monitor the IFT of patients, especially those with time critical conditions.

Maine has the benefit of access to several very capable air medical services (AMS) which have the capability to not only transport patients safely and effectively across long distances to definitive care, but to actually bring higher levels of care to the patient prior to transfer, particularly in rural or remote facilities with limited medical resources. The medical oversight of AMS should be an important consideration as the Maine EMS System addresses the broader issues of IFTs.

RECOMMENDATION #14: Establish an Inter-facility transport committee

The Maine EMS System should place a greater focus on inter-facility transports, including the role of air medical services. Staffing, resources, appropriateness, utilization, quality of care, and medical oversight of IFTs should be addressed through inclusion in the State EMS Plan, EMS protocols and state rulemaking as appropriate. The State Maine Board of EMS, in coordination with the Medical Direction and Practice Board, should establish an Inter-facility Transport Committee that includes representatives from air and ground ITF services, tertiary care and local hospitals, and other stakeholders to coordinate these efforts.

The Medical Direction and Practice Board (MDPB)

While there were many positive comments regarding the MDPB, several concerns were raised. The MDPB is currently an independent board that is not organizationally aligned with the Maine Board of EMS, which has overall responsibility for the Maine EMS system. Several commenters felt this organizational placement of the MDPB creates challenges with respect to integrating and coordinating the activities of the MDPB with the Maine Board of EMS as well as the overall EMS system. What appears to be missing is an administrative reporting connection to ensure accountability of the MDPB in fulfilling their clinical role. As an example, at one of the public meetings the Team heard the concern that there was no mechanism for ideas on new protocols to be considered by the MDPB beyond the willingness of individual regional medical directors to push the matter on behalf of their constituents. The solution, which is common in many other states is to position the MDPB administratively under the Maine Board of EMS. This adjustment of oversight would appear consistent with the existing role of the Maine Board of EMS. It would also answer the question, to whom does the MDPB report? A reporting structure of this type would enable the Maine Board of EMS to receive reports of MDPB activities on a periodic basis, assign the group to consider and report back on new protocol topics and monitor MDPB effectiveness on an ongoing basis.

There is a perception reflected in several forums that the MDPB should be more open and collaborative. It was suggested that the meetings should be made more accessible, such as using web teleconferencing and other technologies. The Team also heard that adding EMS providers to the MDPB would provide a valuable perspective from those who actually have to apply the protocols “on the street.” It was also suggested that an air medical and IFT medical director be added to the MDPB to broaden its perspective beyond field EMS.

The Team heard that patients with time critical conditions, such as trauma, stroke are frequently not being transported directly to the most appropriate specialty care facility and that there is significant regional variation in the approach taken to identifying those patients and the associated trauma and specialty care facilities. The MDPB should develop destination protocols for the transport of patients with time critical conditions directly to facilities that are formally designated at a state level. Correspondingly, the Maine Board of EMS and MDPB should develop rules for state designation of trauma and specialty centers. This process would integrate prehospital and hospital care and help to ensure the quality and coordination of care along the entire continuum.

I would love to have Paramedics on the [MDPB] Board – Augusta site visit

RECOMMENDATION #15: Organizational Placement of MDPB

The Maine Emergency Medical Services Act of 1982 should be amended to clarify the Medical Direction and Practice Board in relationship to the Maine Board of EMS.

RECOMMENDATION #16: Add providers to MDPB

The Maine Emergency Medical Services Act of 1982 should be amended to add one ALS provider, one BLS provider, one medical director of an inter-facility transport service, and one medical director of an air medical service to the Medical Direction and Practice Board.

RECOMMENDATION #17: Enhance collaboration of MDPB

The Medical Direction and Practice Board should strive to develop greater collaboration with the broader EMS community and improve access to their deliberations through the use of web teleconferencing and other technologies.

RECOMMENDATION#18: Develop rules for designation of facilities for time-sensitive conditions

The Maine Board of EMS and the Medical Direction and Practice Board should collaborate with other key stakeholders, such as the Trauma Advisory Committee, to incorporate into Rule the formal state designation of trauma and specialty centers, wherever possible utilizing published national standards and guidelines, as well as Maine specific requirements such as the requirement for submission of data on patient care and outcomes and participation in Maine EMS quality improvement activities.

QUALITY IMPROVEMENT

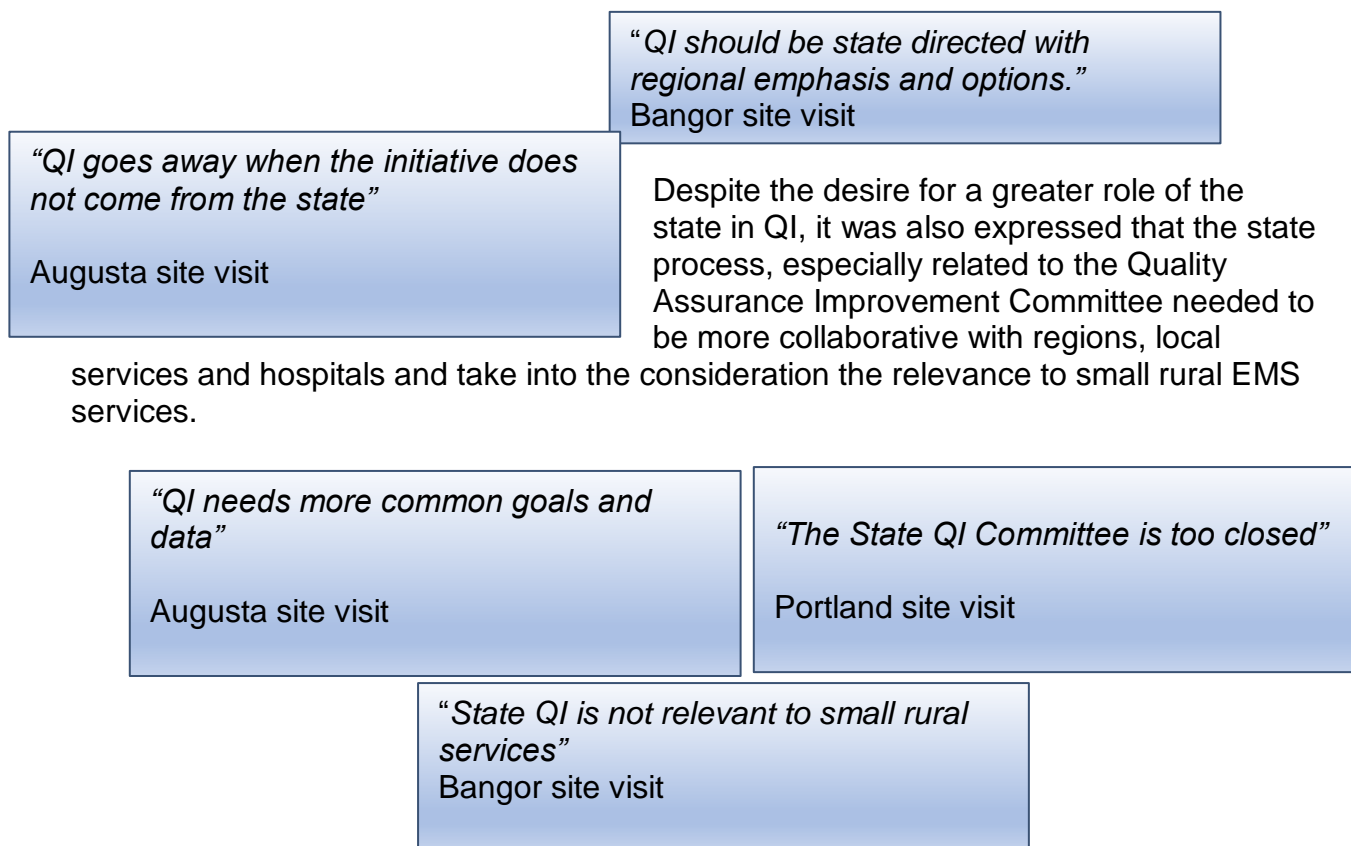
Quality improvement is an essential component of EMS systems and necessary to ensure optimal patient care and outcomes. Since the EMSTAR report in 2004, there have been numerous enhancements to QI activities in Maine including the implementation of the Maine EMS Run Report System (MEMSRRS) in 2006 and more recently, the creation in rules of the Maine EMS Quality Assurance and Improvement Committee (QAIC). These rules also provide for the approval of local and regional Maine EMS quality assurance committees and require EMS providers and services as well as EMS dispatchers and dispatch centers to participate in quality assurance activities. Several statewide QI studies have been conducted including the use of aspirin for chest pain in 2012 and cardiac arrest in 2013. The QAIC meets regularly and works with regions and local services to support their efforts and gathers and analyzes data for SEMSB approved quality improvement initiatives.

Quality improvement was not a major topic the Team heard about during our interviews and public forums. There are opportunities for continued improvement that were discussed and identified in our review and they will be summarized with recommendations in the following topic areas.

Coordination of QA/QI Activities

There was a general sense that there was more support for QI activities with APEMS, but that QI at the regional level was historically difficult to do because of limited access to IT data and IT resources. These issues are further discussed below.

One theme that the Team heard in several forums was the perceived need for greater state leadership in QI efforts... especially the need for greater state, regional, local and hospital coordination and a statewide EMS QI plan to guide efforts.



RECOMMENDATION #19: Enhanced State coordination of QI activities

The state should take a greater role in leading and coordinating QI activities with the regions, local EMS services, and hospitals. In this effort, the state should be open to greater collaboration and should be mindful of the unique challenges of conducting QI studies in these environments, especially for small and rural EMS services.

Access to data and outcomes

It appears that despite the 2004 EMSTAR recommendation, linkages of prehospital care data with other sources of patient care data and outcomes remain limited, especially with respect to hospitals.

Can't get access to data or outcomes from hospitals especially needed for trauma, STEMI, and cardiac arrests". Portland site visit

Patient care and outcome data across the continuum of care are essential components of a comprehensive QI program and efforts should continue to link Maine Emergency Medical Services Run Reporting System (MEMSRRS) to relevant databases, especially for patients with time critical conditions such as trauma, STEMI, and stroke. This can be accomplished through linkages with patient registries, through health information exchanges, or more direct access with hospital databases. Rules developed related to the formal designation of trauma and specialty centers should include the requirement that these facilities submit or provide access to patient care data and outcomes as a condition of designation.

RECOMMENDATION #20: Linkage with outcomes for time-sensitive conditions

Patient care and outcome data across the continuum of care are essential components of a comprehensive QI program and efforts should continue to link Maine EMS Run Reporting System (MEMSRRS) to relevant databases, especially for patients with time critical conditions such as trauma, STEMI, and stroke.

Limited Information Technology (IT) resources

Another issue raised in multiple forums related to the lack of access to data and IT support at the state level, which is currently limited to one staff member with less than a full-time commitment to this purpose. ePCR systems and databases are challenging to utilize and maintain, even for people who have experience. For most EMS personnel, this lack of support poses a significant barrier to collecting data and conducting QI studies. For small services with limited resources, it is especially challenging.

MEMS currently has one person assigned as the Data and Preparedness Coordinator. Helping the entire Maine EMS system to utilize their data has exceed the capabilities of one FTE. MEMS should increase the availability of IT support personnel to meet the QI needs of the statewide system. Additionally, the Team heard that some hospitals are providing significant support for EMS QI activities and it is recommended that the Maine EMS system encourage and support such efforts.

RECOMMENDATION #21: Increase State IT Support to meet QI needs

Maine EMS should hire at least one additional state office employee to manage the growing demands on the emergency medical services data system.

Inter-facility and Air Medical Transports

As previously recommended in this section, there should be an increased focus on QI for inter-facility transports, especially for patient with time critical conditions. QI efforts should be enhanced at the state, regional and ITF service levels and air medical transports, both ITF and scene, should be included.

RECOMMENDATION #22: Increase focus on inter-facility transports for time-critical conditions

There should be an increased focus on inter-facility transports, especially for patient with time critical conditions. QI efforts should be enhanced at the state, regional and ITF service levels and air medical transports, both ITF and scene, should be included.

FUNDING

A state EMS system that ensures a clinically appropriate and effective response for its residents and visitors requires a substantial financial commitment. Unfortunately, as the overall funding for Maine EMS has been decreased so has the funding to the Regional Councils. The current financing of Maine EMS does not bode well for a sustainable, robust, wall-to-wall emergency medical services system. As the demands placed on MEMS increase, its available resources are decreasing.

The MEMS is supported through a patchwork of general funds, federal and state grants and fees from licensing and examinations. A substantial amount of this revenue is then passed along to entities outside the Maine EMS office including contracts for services with each of the six (6) Regional Councils. The Regional Councils are also financially supported through membership assessment and fees for education programs.

Financial support of local EMS agencies varies. Transporting agencies' operations are supported typically through billing for transport and local taxpayer support. Reimbursement levels from Medicare and Medicaid are not sufficient to cover the costs of providing the services. Individuals who are not insured and 9-1-1 calls that do not result in transport are further drains on the ability of ambulance services to support themselves through service charges. Non-transporting EMS agencies are funded through local taxes, charitable contributions, fundraising events, and through the gift of time by their volunteer providers.

MEMS funding may fluctuate based on reductions by the legislation, by the executive branch or by grant funding reductions.

Although the Team was impressed with the funding commitments from hospitals and ambulance services in supporting the delivery of regional services, they were concerned with the inconsistency of this funding throughout the state and with its long-term sustainability. The Team felt there should be a defined method of sustainable funding sufficient to support the implementation of the State EMS State Plan on an ongoing basis thus freeing EMS providers, administrators, and regional staff to manage the system rather than raise funds. During the interviews and hearings many individuals expressed concern about the long-term viability of the assessment system to support Regional Council operations. Some service leaders indicated they either do not currently pay the assessment or are planning on not paying the assessment in the future. Additionally, as the Maine Community College System assumes responsibility for licensing education, the loss of this source of revenue for the regions will need to be addressed through additional revenue sources such as QI driven CE and other means.

“The fundamental issue is funding, and the inequity of the current system needs to change. Two thirds of the population in the state lives in southern Maine and there are inequities in funding for those needs. We need a dedicated funding source for any significant change.”
Portland site visit.

The Maine EMS community needs to cultivate a stable, sustainable source of funding. Examples of long-term sustainable funding include dedicated special revenue sources used by other states such as license plate fees or assessments on moving traffic violations, or other revenue sources that are unique to Maine. The Team suggests that Maine EMS refer to a report published by the National Association of State EMS Officials (NASEMSO) which contains information on innovative funding sources used in support of state and local EMS systems.

“We’re seeing a drastic downtick in paramedics. The services are passing them around based on pay and benefits. The barriers are the lack of programs...We pay like crap in EMS. People go on to nursing or to PA.”
Portland site visit

There will be additional costs associated with moving to the Hybrid State-Regional Model system including, eventually, additional staffing for MEMS. Initially, two existing positions can be assigned to take on the new roles. The new IT position will require additional funding. There may need to be some additional funding to the regional councils to support expanded

services in support of regionalization of care for time-sensitive conditions.

The Maine EMS Office should thoughtfully negotiate with the Maine Community College System for the transfer of EMS education with minimal costs to the local EMS system. These discussions should include the pertinent stakeholders at the state and local

levels. This is a “sea change” in operations for the EMS community that must be carefully planned and the cost implications thoroughly assessed.

Very importantly, the Maine EMS System needs to speak with a single collective voice, which would be very powerful in establishing a clear system vision with broad-spread public support and confidence. The establishment of a strong coalition of diverse EMS system interests, speaking with a unified voice, can be instrumental in successfully advocating for additional EMS system financing. The coalition should include, but not be limited to, prehospital EMS services, the hospital community, fire services, air medical services, and local governments. A sustainable coalition is at the heart of the system’s success. The coalition should consider cultivating a well-known, respected individual as a major champion of the effort.

RECOMMENDATION #23: Explore non-state sources of funding to support MEMS

The Maine Board of EMS should investigate other strategies/mechanisms to utilize non-state sources of funding to support the Maine EMS system such as increased Medicaid funding through ambulance revenue taxation which could be matched with Federal Medicaid funds thus returning additional funds to the EMS services, Federal grant programs, and other potential funding sources.

RECOMMENDATION #24: Develop a budget corresponding to the State EMS Plan.

Based on the State EMS Plan (see Recommendation #2), Maine EMS should develop an accompanying implementation budget clearly delineating the costs of accomplishing each Goal. This budget can serve as a blueprint for requesting funds through the executive budget as well as for advocates in seeking other sources of funding.

RECOMMENDATION #25: Improve state-wide advocacy in support of Emergency Medical Services

Maine EMS advocates should organize to speak with a single collective voice in support of improved emergency medical services in Maine.

CONCLUSION AND RECOMMENDATIONS

The following list of recommendations is provided as a convenient reference. However, the reader should read the entire report to understand the context and rationale for the recommendations:

RECOMMENDATION # 1: Regional Terminology Should be Clarified

The Maine Board of EMS should modify Chapter 15 of the Bureau of Emergency Medical Services Rules to distinguish among: (a) the “Region” – as the geographic configuration, (b) the “Regional Council” as the permanent governance structure for a Region the composition of which should be described in some detail to ensure statewide consistency and comprehensive involvement of the stakeholders, and (c) the “Regional Services Contractor” as that entity which may provide services on behalf of the “Regional Council.” [Additional recommendations about the Regional Council activities that are suggested to be included in the rules are found in subsequent recommendations.]

RECOMMENDATION # 2: Adoption of State EMS Plan and Goals

The Maine Board of Emergency Medical Services should, pursuant to Maine Emergency Medical Services Act and with involvement of the regions and all other EMS stakeholders including the public, establish measurable goals for the Maine EMS system through the development of a comprehensive State EMS Plan.

RECOMMENDATION # 3: Specify mandatory regional council activities.

The focus of Regional Council activities should be clearly delineated by rule (not just for service contracts) and should emphasize regional system development. Examples of Regional Council activities might include, but not be limited to: development of systems of care including inter-facility transport, technical assistance to services for protocol implementation, medical direction, quality improvement, coordination with MEMS, linkages of continuing education to quality improvement in coordination with the regional medical director, promoting innovation in EMS, and other activities as identified as goals each year in the State EMS Plan.

RECOMMENDATION #4: Two existing MEMS staff support EMS regional councils and programs.

MEMS should assign two of its existing MEMS staff positions (1 year) the responsibility for supporting EMS regional councils and programs. Within 4 years, MEMS should expand the regional support to a total of three positions and locate these staff near the regions.

RECOMMENDATION #5: Geographic designation of EMS Regions

The State Maine Board of EMS should begin planning for transition from the six (6) current regions to three (3) regions (with consideration for sub-regions) centered around the state's tertiary care facilities

RECOMMENDATION #6: Maine Board of EMS should adopt conflict of interest procedures

The Maine Board of EMS should adopt stringent procedures regarding conflict of interest and the perception of conflict of interest of its Maine Board of EMS members.

RECOMMENDATION #7: Centralize Continuing Education Approval

MEMS should centralize the continuing education approval and tracking system via electronic methods at the state office, using national CE accreditation approval organizations when appropriate and using CE sites approved by MEMS.

RECOMMENDATION #8: MEMS begin discussions with Maine Community College System

MEMS should begin discussions with the Maine Community College System to assume responsibility for the conduct of initial EMS education at all levels. Subsequently, the Maine Board of EMS should delegate the responsibility for the conduct of initial EMS education to the Maine Community College System and should remove primary EMS education from "Training Centers" guidelines.

RECOMMENDATION #9: State-employed/contracted regional medical directors

There should be a state employed (contract or employee) regional medical director for each region who is selected by the region and approved by the State EMS Medical Director, and who works closely with Maine EMS, the Regional Council, local EMS services, and hospitals.

RECOMMENDATION #10: Require local service medical directors and their compensation

Continue efforts to implement the 2004 EMSTAR recommendation to require a medical director for every service and work with the local services to facilitate the recruitment and retention of service medical directors through appropriate financial compensation or through support from hospitals as well as innovative approaches such as the use of shared resources, non-financial remuneration and benefits, liability insurance coverage, and state statutory liability exemptions.

RECOMMENDATION #11: Clarify Medical Director roles, responsibilities & authorities

The roles, responsibilities, reporting relationships, and authority of EMS medical directors should be clearly defined through state rules to ensure a more uniform, consistent and effective statewide approach to EMS medical direction.

RECOMMENDATION #12: Link Regional Council CE training to QI

The continuing education training conducted under the auspices of the Regional Council should, via the Regional Medical Director, be linked to ongoing, data-driven quality improvement at national, state, regional and local levels.

RECOMMENDATION #13: Regional Medical Director duties

The regional medical director should continue to support the development and implementation of state protocols, and engage in the development of regional systems of emergency and inter-facility care, guide state-directed quality improvement at the regional level and serve as a local service medical director when necessary.

RECOMMENDATION #14: Establish an Inter-facility transport committee

The Maine EMS System should place a greater focus on inter-facility transports, including the role of air medical services. Staffing, resources, appropriateness, utilization, quality of care, and medical oversight of IFTs should be addressed through inclusion in the State EMS Plan, EMS protocols and state rulemaking as appropriate. The State Maine Board of EMS, in coordination with the Medical Direction and Practice Board, should establish an Inter-facility Transport Committee that includes representatives from air and ground ITF services, tertiary care and local hospitals, and other stakeholders to coordinate these efforts.

RECOMMENDATION #15: Organizational Placement of MDPB

The Maine Emergency Medical Services Act of 1982 should be amended to clarify the Medical Direction and Practice Board in relationship to the Maine Board of EMS.

RECOMMENDATION #16: Add providers to MDPB

The Maine Emergency Medical Services Act of 1982 should be amended to add one ALS provider, one BLS provider, one medical director of an inter-facility transport service, and one medical director of an air medical service to the Medical Direction and Practice Board.

RECOMMENDATION #17: Enhance collaboration of MDPB

The Medical Direction and Practice Board should strive to develop greater collaboration with the broader EMS community and improve access to their deliberations through the use of web teleconferencing and other technologies.

RECOMMENDATION#18: Develop rules for designation of facilities for time-sensitive conditions

The Maine Board of EMS and the Medical Direction and Practice Board should collaborate with other key stakeholders, such as the Trauma Advisory Committee, to incorporate into Rule the formal state designation of trauma and specialty centers, wherever possible utilizing published national standards and guidelines, as well as Maine specific requirements such as the requirement for submission of data on patient care and outcomes and participation in Maine EMS quality improvement activities.

RECOMMENDATION #19: Enhanced State coordination of QI activities

The state should take a greater role in leading and coordinating QI activities with the regions, local EMS services, and hospitals. In this effort, the state should be open to greater collaboration and should be mindful of the unique challenges of conducting QI studies in these environments, especially for small and rural EMS services.

RECOMMENDATION #20: Linkage with outcomes for time-sensitive conditions

Patient care and outcome data across the continuum of care are essential components of a comprehensive QI program and efforts should continue to link Maine EMS Run Reporting System (MEMSRRS) to relevant databases, especially for patients with time critical conditions such as trauma, STEMI, and stroke.

RECOMMENDATION #21: Increase State IT Support to meet QI needs

Maine EMS should hire at least one additional state office employee to manage the growing demands on the emergency medical services data system.

RECOMMENDATION #22: Increase focus on inter-facility transports for time-critical conditions

There should be an increased focus on inter-facility transports, especially for patient with time critical conditions. QI efforts should be enhanced at the state, regional and ITF service levels and air medical transports, both ITF and scene, should be included.

RECOMMENDATION #23: Explore non-state sources of funding to support MEMS

The Maine Board of EMS should investigate other strategies/mechanisms to utilize non-state sources of funding to support the Maine EMS system such as increased Medicaid funding through ambulance revenue taxation which could be matched with Federal Medicaid funds thus returning additional funds to the EMS services, Federal grant programs, and other potential funding sources.

RECOMMENDATION #24: Develop a budget corresponding to the State EMS Plan.

Based on the State EMS Plan (see Recommendation #2), Maine EMS should develop an accompanying implementation budget clearly delineating the costs of accomplishing each Goal. This budget can serve as a blueprint for requesting funds through the executive budget as well as for advocates in seeking other sources of funding.

RECOMMENDATION #25: Improve state-wide advocacy in support of Emergency Medical Services

Maine EMS advocates should organize to speak with a single collective voice in support of improved emergency medical services in Maine.