

Massachusetts Department of Public Health
Bureau of Health Care Safety & Quality
Office of Emergency Medical Services

Strategic Planning Task Force

Report, February 2012

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OFFICE OF EMERGENCY MEDICAL SERVICES (OEMS)**

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I. EXECUTIVE SUMMARY

The Office of Emergency Medical Services (OEMS) Strategic Planning Task Force was established in September 2011 to advise the Director of the Bureau of Health Care Safety & Quality on strategic directions for the Bureau in its operation of OEMS. The Task Force was asked to:

- Review and assess the Bureau's previous conduct of post-incident investigation and remediation in recent cases of fraudulent recertification committed by emergency medical technicians in the Commonwealth; and
- Evaluate field practices (including communication systems), workforce development needs (including training, quality improvement, and medical direction) as well as OEMS priorities and organizational structure relative to changing fiscal circumstances and evolving best practices in the field nationally.

This report constitutes interim findings and is being issued prior to completion of the Task Force's charge due to the time-sensitivity of its recommendations, and because of the need for certain operational and research activities to be undertaken before the Task Force can conclude its work later this calendar year.

The **recommendations** of the Task Force include the following:

- 1. The Task Force determined that the Bureau conducted a thorough investigation of all cases of fraudulent certification activities and has proceeded with appropriate sanctions. The Task Force recommends no additional action.**
 - These cases are representative of a number of quality control and quality improvement challenges as well as OEMS organizational concerns that the Task Force addressed in its deliberations and are reflected throughout the following recommendations.
 - Members of the Task Force applauded the Bureau for commissioning an external body to examine the circumstances surrounding the aforementioned fraudulent activities.
- 2. As a requisite component of bi-annual recertification, all Emergency Medical Technicians in the Commonwealth should swear in writing to a code of ethics based upon the National EMS Code of Ethics, to be adopted by the Emergency Medical Care Advisory Board (EMCAB) Executive Committee no later than December 2012. Moreover, ethics training should be a required component of EMT education.**
- 3. The Bureau should contract with the National Registry for Emergency Medical Technicians (National Registry) for all new EMT certifications no later than July, 2013 to support the standardization of required competencies and to assure workforce mobility and inter-state reciprocity. The transition should be consistent with national best practices and must be structured to permit existing EMTs to recertify in Massachusetts with or without joining the Registry but should require consistent and identical re-certification training requirements.** (see Recommendation 4)

- The planned transition and the accompanying national accreditation requirements for Massachusetts paramedic training institutions require immediate collaborative planning between OEMS and the training institutions.
 - OEMS must undertake a communication effort for all existing EMTs and those who enter training over the course of the next calendar year to ensure that the workforce is fully informed of the upcoming changes.
 - The Task Force carefully considered financial models in which OEMS would bear the burden of the modest additional costs of shifting to the National Registry for all new EMTs after July 1, 2013. The shift to use of the National Registry will allow the Bureau to re-allocate resources to critical quality improvement, service planning, and coordination functions that were the focus of much of the Task Force deliberations and are currently under-resourced. Therefore, the Task Force concluded that the modest additional cost should be borne by the workforce to maximize benefit for the EMS system.
- 4. The Bureau should also:**
- **a) Encourage current NREMT providers to join the national registry by participating in NR Cognitive and Psychomotor examination process.**
 - **b) Encourage providers who formerly held a National Registry certification to rejoin for a nominal fee**
 - **c) Provide an alternate re-licensure pathway for those providers unable to obtain NR certification. This alternate pathway is to use NR to track, monitor and report all re-rectification requirements to OEMS for all Massachusetts EMT's (Single administrative body tracks all EMT's)**
- 5. Quality improvement strategies should be developed that link training, continuing education, skills retention programs and medical direction in a manner that allows rapid-cycle feedback and intervention following specific critical medical incidents. Trends in local, regional, and statewide operational and clinical treatment patterns should be identified and linked to improvement interventions. Practice-based data from the Massachusetts Ambulance Trip Record Information System (MATRIS), the Erwin Hirsch Trauma Registry, and hospital outcomes databases will facilitate system-wide pattern recognition and improvement activities, further facilitating protocol changes and diffusion of emerging best practices across the Commonwealth.**
- 6. OEMS should address inefficiencies and confusion regarding quality control and quality improvement responsibilities and reporting structure in the practice of Medical Direction in emergency medical services throughout the state through the following efforts:**
- develop and mandate standardized job descriptions, role clarification, and reporting guidelines for all service, affiliate hospital, regional and OEMS medical directors;
 - streamline reporting structures of the subcommittees of the Emergency Medical Care Advisory Board;

- develop quality improvement requirements for BLS services under the leadership of the State Medical Director;
- conduct an in-depth review of changing national practices and opportunities for further alignment of medical direction with service zone planning and changing hospital and other relevant health care service delivery relationships, to be completed no later than October 2012.

The review and clarification of medical direction functions is deeply tied to successfully addressing the quality improvement process and outcome concerns.

7. The Bureau should initiate a thorough review of Central Medical Emergency Direction (CMED) capacity, cost, practices, utilization, and potential optimization. This shall be done in the context of developments in regional health care and emergency preparedness communication capabilities with regard improving resource allocation and the currently disparate funding sources.

- Given the urgency to resolve access, resource, standardization, and other critical concerns in this arena through legislative means, the Bureau should seek to have this review completed no later than October 2012. Significant legislative support exists for resolving this challenge, including potential financial support for such a study.

8. Implementation of the OEMS Task Force's recommendations may significantly change the resource demands of the Bureau and its personnel. As a result, OEMS will have – and must undertake – the opportunity to re-align priority functions to better focus on quality improvement strategies. The Task Force believes that such a review and re-alignment must be accompanied by the re-assessment and re-structuring of existing personnel functions and required competencies as well as re-allocation of financial resources. The Task Force anticipates assessing these capacities when it re-convenes in September 2012.

The Task Force has welcomed the transparent engagement that the Bureau and OEMS has offered. The Task Force recognizes that recommended National Registry transition, medical direction, and quality improvement process development, and CMED analytic work, along with the ongoing e-licensing transition at OEMS, will command considerable Bureau leadership and personnel resources over the course of the next six months and is therefore suspending its activities until September 2012 when it will reconvene to assess the outcomes of the works-in-progress.

II. BACKGROUND

The Office of Emergency Services (OEMS) has had a 38 year history of building and organizing a statewide system of emergency medical services through the training, licensing and certification of qualified workers, the accreditation of training institutions, the inspection of ambulance services, and the assurance of risk reduction and quality improvement through critical incident reviews, medical direction and protocol development, and continuing education. The authority and responsibilities of the Office were greatly expanded through “EMS 2000,” state legislation that codified some of the existing functions and created new obligations, including the development and management of five Regional Councils, the establishment of a trauma registry, the collection of a minimum data set regarding ambulance services (Massachusetts Ambulance Trip Record Information System - MATRIS), and the establishment and oversight of service zone planning and quality improvement processes.

These increased roles and functions of OEMS subsequently evolved in a period of both expanding emergency service utilization and related workforce demands on the one hand, and flat and functionally reduced funding on the other. The aftermath of 9/11 and subsequent developments in emergency preparedness, regional public health strategies, and state and national health care reform have shifted the environments within which emergency medical services delivery, communication, payment, and quality assurance responsibilities are taking place. Concomitantly, national EMS strategies began to move toward standardization of training and certification, enhancing quality of clinical care and facilitating reciprocity for workers across state lines.

The Bureau of Health Care Safety & Quality oversees the Office of Emergency Medical Services within the Massachusetts Department of Public Health (MDPH). Transition in Bureau leadership occurred in April 2011 when Dr. Madeleine Biondolillo joined MDPH. Among her first duties was to provide oversight to an ongoing OEMS investigation into and management of fraudulent EMT certification practices that occurred across several sites (including in New Hampshire) and required Department and program-level remediation efforts. Given the unusual nature of the fraudulent activities, Dr. Biondolillo sought internal and external review of the Bureau’s investigation and interventions and determined that the availability of expert consultation would benefit a broader review of OEMS functions. The OEMS Strategic Planning Task Force was formed in September after Dr. Peter Moyer, former Medical Director of Boston EMS, agreed to join Dr. Biondolillo in leading this process.

The first charge to the Task Force was to:

- Review certification-incident investigation and remediation;
- Review current OEMS processes, programs and resources in light of emerging best practices, opportunities for aligning with statewide & regional public health & emergency preparedness, and the potential impact of health care reform-related structural, financing and other changes; and
- Provide recommendations for the future.

OEMS CORE INDICATORS

When the Task Force convened in October 2011, OEMS reported a total of 25,045 emergency medical technicians (EMTs) licensed in the state, 4,589 of whom were paramedics. Each year there are approximately 3,000 individuals completing initial certification and 9,000 being re-certified. Annually, 321 ambulance services with over 1700 ambulances report over 1.5 million trip runs. OEMS had a FY2012 budget of \$2.34M and anticipated collecting approximately \$2.3M in fees from ambulance inspections, training institution accreditation, and EMT licensing and certification processes. Fifty-two percent of the budget supports 16 personnel with 1/3 of staffing funds focused on ambulance regulation; 27% on training efforts which are largely dedicated to managing the accreditation of 56 training institutions and 12,000 EMT initial and re-certification processes each year; 17% on compliance and enforcement; and 10% on clinical protocol

EMS Regional Councils, a primary mechanism for supporting local emergency medical service communication, coordination, and quality assurance, constitute the bulk of the rest of the non-personnel OEMS budget, representing 40% or \$932K for FY2012.

As a core component of assessment of OEMS organizational function, the Task Force assessed whether the aforementioned distribution of personnel resources was optimal, especially given the limited funding available to the OEMS in the current fiscal climate. At the time of the Task Force's inception, the Bureau had recently re-structured the Regional Council contracts to increase their focus on quality assurance in training and continuing education.

Since September, the Task Force has met six times, and Bureau staff have engaged in inter-meeting site visits, document review, and key informant interviews. The Task Force members have repeatedly indicated appreciation of the OEMS efforts under fiscal and other duress and identified many important accomplishments in place or underway, including the very important and difficult undertaking of *E-Licensing*. Given the Task Force's charge, this document focuses on challenges and opportunities for improvement that the members Task Force believe can only be undertaken because of the underlying history of OEMS' commitment to program development and service quality.

This document constitutes an interim report, released to facilitate time-sensitive training, certification, and licensing changes, as well as the initiation of medical direction, CMED and quality improvement research to inform the ongoing deliberations of the Task Force when it re-convenes in Fall 2012.

III. INCIDENT REVIEW

In late 2010 and early 2011 a series of incidents regarding actual and potential fraud associated with EMT continuing education and certification were reported to OEMS. Over 200 hours of on-site interviews and record reviews formed the basis of the OEMS assessment of the reported incidents. At the conclusion of these reviews, OEMS determined that more than 200 EMTs across two sites had participated in fraudulently asserting their completion of required continuing education units. OEMS responded with the sanctions they had at their disposal, including suspensions of trainees, trainers, and supervisors, as well as revocation of accreditation for an instructor and one training site. Additional sanctions are still in due process. Further sanctions were levied through the New Hampshire Office of Emergency Medical Services. All implicated EMTs were required to re-take the relevant refresher courses as well as a specially designed ethics course. Public and private ambulance sites undertook measures above and beyond those ascribed by OEMS, with many individuals ultimately losing their employment.

The Task Force discussed the incident review processes and outcomes at length. They affirmed the efforts the Bureau had undertaken, with particular attention to the importance of the ethics training that should now be a part of all education requirements for all EMTs. The Task Force also reviewed the resources available to OEMS for incident and complaint review and investigation, and subsequently recommended that more resources be made available to this function as an important part of quality improvement cycles. Additionally, they recommended that strategies for further prioritizing incidents that are reviewed by OEMS personnel be put in place.

The Task Force also noted that, while certainly not an excuse for fraudulent behavior, the OEMS continuing education requirements were somewhat rigid, over-lapped with re-certification requirements, and often provoked complaints from EMTs, ambulance services, and trainers regarding excessive time commitments and material that was unrelated to important quality improvement efforts. This assessment of continuing education and quality improvement concerns became the platform for much of the rest of the Task Force's deliberations pertaining to EMS training. Through this assessment, the Task Force determined that:

- 1. The Task Force determined that the Bureau conducted a thorough investigation of all cases of fraudulent certification activities and has proceeded with appropriate sanctions. The Task Force recommends no additional action.**
- 2. As a requisite component of bi-annual recertification, all Emergency Medical Technicians in the Commonwealth should swear in writing to a code of ethics based upon the National EMS Code of Ethics, to be adopted by the Emergency Medical Care Advisory Board (EMCAB) Executive Committee no later than December 2012. Moreover, ethics training should be a required component of EMT education.**

IV. ADOPTION OF THE NATIONAL REGISTRY FOR EMERGENCY MEDICAL TECHNICIANS

Early in the Task Force's deliberations it engaged the issue of whether the state should become a part of the National Registry for Emergency Medical Technicians - the national certification system used by 45 other states. The NREMT is closely aligned with the National Highway Traffic Safety Administration's efforts to standardize competencies across the national EMS workforce. The organization has decades of experience in certifying EMS providers, and is the only centralized EMS certification entity in the United States. The NREMT holds accreditation from the National Commission for Certifying Agencies (NCCA), the accreditation arm of the National Organization for Competency Assurance (NOCA). The standards set by the NREMT have been reviewed and approved by the NCCA.

The issue of movement to a National Registry certification system emerged for several reasons:

- First and most important was the belief that moving to nationally standardized competency requirements would provide a good baseline for the overall quality improvement focus that the Task Force felt needed to be the leading edge of future endeavors.
- Second, shifting to the Registry would provide important workforce development opportunities because of the reciprocity it would assure workers, especially important in a state with so many bordering jurisdictions. At this point, only nine percent of Massachusetts' EMT-Basics and 24% of paramedics hold National Registry credentials.
- Third, the Task Force concomitantly saw extensive OEMS resources committed to supporting a burdensome system that is also unable to produce critical workforce related information needed for strategic planning. While the development of an *E-Licensing* platform will address some of the personnel resource and data issues, the functionality of the Registry and its reduced requirements from OEMS will even more greatly expand personnel and analytic capacity.
- Fourth, a cascade of inter-related issues will be triggered within the next 12 months. After January 1, 2013, all newly trained paramedics seeking entrance into the National Registry must complete their education at an institution accredited by Committee on Accreditation of Educational Programs for Emergency Services Professions (COAEMSP) starting in 2013; if Massachusetts does not move to National Registry participation before then, newly trained Massachusetts paramedics who had not studied at the appropriately accredited institutions would lack the ability to register (no such requirement exists as of now for EMT-Basics). All paramedics certified and in practice prior to January 1, 2013 will retain the ability to enter the National Registry through currently existing pathways.

- Finally, the Task Force recognized that as one of only five states in the country yet to join the Registry, the time had come for Massachusetts to move forward to meet the nationally accepted certification standard.¹

Core to its consideration of adopting the Registry was the Task Force's concern about identifying an effective strategy for retaining existing EMTs who may not want to bear the additional expense of obtaining Registry certification. The Task Force's unanimous recommendation was that the transition to the Registry should not preclude the ability of currently certified individuals to continue to work even if they did not join the Registry. EMTs that choose to not enter the Registry would not have reciprocity. The state would have to maintain a secondary certification process but the expectation of the Task Force is that the secondary process may be supported by the Registry's platform and that through market changes and general workforce attrition it was unlikely to be a significant burden or be required for an extensive period of time.

Finally, the Task Force expressed concern about the likely impact of the Registry transition on three financial arenas:

- the cost to individual EMTs;
- the cost to the training institutions that must acquire COAEMSP accreditation; and
- the potential impact on revenue for an already resource-constrained OEMS.

After closely examining each of these areas, the Task Force concluded that the **actual cost borne by EMTs would only minimally change**, that teaching institutions would bear increased costs but that these had been long-anticipated, and that OEMS would face only a minimal financial threat from workforce contraction, to be buffered by continued receipt of revenue from ongoing state licensing of EMTs.

Given these findings, the recommendations of the Task Force are as follows:

3. The Bureau should contract with the National Registry for Emergency Medical Technicians (National Registry) for all new EMT certifications no later than July, 2013 to support the standardization of required competencies and to assure workforce mobility and inter-state reciprocity. The transition should be consistent with national best practices and must be structured to permit existing EMTs to recertify in Massachusetts with or without joining the Registry but should require consistent and identical re-certification training requirements. (see Recommendation 4)

- The planned transition and the accompanying national accreditation requirements for Massachusetts paramedic training institutions require immediate collaborative planning between OEMS and the training institutions.

¹ Massachusetts had been engaged with the National Registry over 20 years ago and withdrew for a range of reasons, including the difficulties faced in incorporating state-based protocols and training priorities into the continuing education and certification process of the Registry. Numerous changes have occurred in the Registry over time and now there is ample opportunity to address state-specific analytic and information interests through this mechanism.

- OEMS must undertake a communication effort for all existing EMTs and paramedics and those who enter training over the course of the next year to assure that the workforce is fully informed of the upcoming changes.
- The Task Force carefully considered financial models in which OEMS would bear the burden of the modest additional costs of shifting to the National Registry for all new EMTs after July 1, 2013. The shift to use of the National Registry will allow the Bureau to re-allocate resources to critical quality improvement, service planning, and coordination functions that were the focus of much of the Task Force deliberations and are currently under-resourced. Therefore, the Task Force concluded that the modest additional cost should be borne by the workforce to maximize benefit for the EMS system

4. The Bureau should also:

- **Encourage current NREMT providers to join the national registry by participating in NR Cognitive and Psychomotor examination process.**
- **Encourage providers who formerly held a National Registry certification to rejoin for a nominal fee**
- **Provide an alternate re-licensure pathway for those providers unable to obtain NR certification. This alternate pathway is to use NR to track, monitor and report all re-rectification requirements to OEMS for all Massachusetts EMT's (Single administrative body tracks all EMT's)**

V. QUALITY IMPROVEMENT

From its inception, the first priority of the Task Force was system-wide quality assurance and quality improvement. The Task Force recognized the many ongoing efforts in this area that are undertaken by ambulance services, medical directors at every level, training institutions, Regional Councils, and OEMS itself, inclusive of the Emergency Medical Care Advisory Board (EMCAB) and its subcommittees. The Task Force saw quality improvement as critical to patient safety and as necessary in a changing payment environment that was increasingly going to structure payments in line with outcomes. *In respect to both of these objectives, the Task Force believed that quality improvement strategies would be critical to reinforcing in EMTs and paramedics their understanding of their roles as clinicians.*

The Task Force analysis of quality related issues went well beyond the continuing education incident review. Task Force members conducted a high level assessment of overall incidents and complaints received by OEMS, had extensive conversations about their own experiences in the field, and reviewed the protocol and curriculum development and dissemination efforts undertaken by EMCAB as well as training institutions. The Task Force also reviewed the National EMS Scope of Practice Model that reflects quality improvement developments in other allied health professions and is focused on **patient safety as the product of the appropriate intersection and feedback loops between workforce recruitment, training, certification, supervision and oversight and delivery system regulation, management and outcomes.**

Among the priority concerns of the Task Force were:

- Continuing education needs to be outcome-focused and rooted in functionally-based assessments of the knowledge and skills required by EMTs & paramedics to successfully carry out their roles.
- Quality improvement in the training and education processes starts with the qualification of instructors. Strategies for assessing and improving trainer quality need to include the role of on-site, unannounced course audits; clarifying the roles and obligations of employers, training institutions, and Regional Councils in assuring improved instruction and training outcomes; and determination of the potential contribution of instructor peer review and technical support.
- To the extent possible, training and continuing education opportunities need to be developed in a manner that maximizes ongoing education to support career ladders through strategic articulation agreements with academic settings. Diversification of remote and other instructional strategies was recommended as both an opportunity for more rapid dissemination of practice changes and as a response to the need for workers to have more flexibility in accessing and completing instructional requirements. **The Task Force carefully considered the constraints faced by many fire, volunteer, and other ambulance services with the financial and other challenges they face in compelling training participation.**

The Task Force recognized that the shift to National Registry participation, and the platform of standardized knowledge and skill training it will require, is a necessary basis from which to address the concerns they identified in the formal education arenas and that the diverse roles of other

entities in the quality improvement chain, from ambulance services through regional councils, be further defined. Therefore, the Task Force recommended that:

- 5. Quality improvement strategies should be developed that link training, continuing education, skills retention programs and medical direction in a manner that allows rapid-cycle feedback and intervention following specific critical medical incidents. Trends in local, regional, and statewide operational and clinical treatment patterns should be identified and linked to improvement interventions. Practice-based data from the Massachusetts Ambulance Trip Record Information System (MATRIS), the Erwin Hirsch Trauma Registry, and hospital outcomes databases will facilitate system-wide pattern recognition and improvement activities, further facilitating protocol changes and diffusion of emerging best practices across the Commonwealth.**

The Task Force also spent considerable time assessing the current status and improvement needs of EMS medical directors from the ambulance services through the OEMS itself. The members considered the improvement and clarification of roles and responsibilities in this arena to be crucial to increasing the extent to which EMTs understood themselves in the chain of clinical responsibility. They also recognized that EMTs have been clamoring for increased access to physician feed-back. A number of exemplary relationships between affiliate hospitals and ambulance services in trip reviews and other continuing education opportunities were discussed. However, it was well recognized that there is considerable un-evenness in the nature of affiliate hospital medical direction across the states and that that has led to a lack of clarity regarding adverse event reporting, reviews and interventions as well as ongoing affirmative education and training. Task Force members discussed alternative strategies about how best to modify and improve medical direction in the state, especially in a time of significant hospital and reimbursement reorganization. The Task Force felt that immediate short term interventions needed to occur while OEMS, in consultation with Task Force members and others, reviewed emerging regional medical direction practices nationally. Therefore, the Task Force recommended that:

- 6. OEMS should address inefficiencies and confusion regarding quality control and quality improvement responsibilities and reporting structure in the practice of Medical Direction in emergency medical services throughout the state through the following efforts:**
 - develop and mandate standardized job descriptions, role clarification, and reporting guidelines for all service, affiliate hospital, regional and OEMS medical directors;
 - streamline reporting structures of the subcommittees of the Emergency Medical Care Advisory Board;
 - develop quality improvement requirements for BLS services under the leadership of the State Medical Director;
 - an in-depth review of changing national practices and opportunities for further alignment of medical direction with service zone planning and changing hospital and other relevant health care service delivery relationships, to be completed no later than October, 2012.

VI. CENTRAL MEDICAL EMERGENCY DIRECTION

The work of emergency medical technicians, paramedics, and other responders to medical emergencies sits at the nexus of health care, emergency response, public health, and public safety. This work is critical, often life and death, and is dependent on clear, accountable and effective communications from the time notification of a medical emergency to the handoff of a patient at an appropriate health care facility.

In Massachusetts, central medical emergency direction centers (CMEDs) have fulfilled this function for many years. **There are currently seven CMED centers in the state, each with its own standards of operation and each with a unique funding mechanism.** This diversity of fiscal and policy support is unsustainable in the context of changes in communication technology, health care reform, and the statewide economic climate. As the provision of public health and health care rapidly evolves, Massachusetts needs to adapt medical emergency direction to this evolution.

CMED centers provide for a dedicated linkage between an EMT treating a gravely ill or injured patient at a scene or during transport and a receiving emergency department, using the most appropriate communication pathway. During such interactions, the EMT may need additional medical instructions, or be required by existing statewide treatment protocols to obtain permission to provide life-saving medical interventions prior to arrival at the hospital. These communications also allow the receiving hospital to utilize their resources more efficiently while managing multiple patients.

The functions of CMEDs are critical to the stability of EMS medical communications statewide. EMS communication is vital in every-day ambulance transports, during disasters, and as an integral part of homeland security. Dependence on other means of communicating between ambulance providers and hospitals may result in the absence of viable communication channels when patient care outcome depends on communication between EMTs and emergency department physicians. CMED functions represent a broad indispensable safety network. Currently, there are seven (7) CMED centers; one in each of EMS Regions I, II, III, and IV; and three (3) in EMS Region V. CMED centers provide approximately 525,000 contacts per year at an estimated cost of over \$4,950,000 per year. Furthermore, CMEDs provide radio linkage between 316 licensed ambulance services and 76 acute care hospitals across the state.

CMEDs are operated by various entities, receive funding from various sources, and are governed only by their respective operating entities and, where applicable, by binding contractual agreements. There are no uniform operational standards across all CMEDs nor is there a uniform dedicated funding stream to operate and provide oversight over all CMEDs. As noted above, this diversity of standards and funding is not sustainable in the long term. The Task Force believes that CMED centers, funded through a steady resource stream dedicated to the operation, oversight, and enhancement of CMED centers, will have enhanced uniformity and accountability, which will better protect the public health.

Unifying the funding stream for CMED centers would require statutory change. Unifying oversight and standards would likely require both statutory and regulatory change. Should the General Court decide to fund CMEDs through dedicated revenue stream, a decision must be made about how to allocate the funds. There are two basic options.

- *To allocate funds evenly across the five EMS regions* without regard to the size of the region or the ambulance call volume within the region.
- *To allocate funds in proportion to call volume.*

CURRENT CMED FUNDING BY REGION

Region	Operating Entity	Reported Funding Source
<i>Region I</i>	Private Entity	Ambulance services are charged a per patch fee which partially covers the operating expenses of the system
<i>Region II</i>	Central MA EMS Corporation (Region II EMS Council)	Ambulance services and hospitals are charged per patch annually which cover the operating costs of the system
<i>Region III</i>	Northeast EMS Inc. (Region III EMS Council) with an agreement with Lawrence General Hospital	The Council charges the hospitals within their Region for each Emergency Department visit, and a population based fee to each ambulance service that provides EMS services within the Region. These assessments are collected at a rate less than 100% and the collected fees partially cover the costs of operating the system.
<i>Region IV</i>	Metropolitan Boston EMS Council through a subcontract with Boston EMS.	Hospitals are charged annually a percentage of the Regional IV Council CMED budget based on the hospitals' percentage of total annual regional ED admissions.
<i>Region V</i>		
<i>Plymouth</i>	Plymouth County Sheriff's Office	Funding is based on per-patch fee to each of the 5 receiving hospitals.
<i>Barnstable</i>	Barnstable County Sheriff's Office	CMED operations are funded totally through the Sheriff Office's operational budget.
<i>Bristol</i>	Bristol County Sheriff's Office	Each EMS organization pays a flat fee for participation in CMED, and the 5 receiving hospitals pay a pro-rated share of a fixed amount annually. This formulation partially covers the operating costs of the system

The first method has the advantage of apparent equity; however, allocation in this manner would not reflect the true costs of service delivery in each region. The second method more closely aligns resources with level of effort, but potential economies of scale are not necessarily reflected in a strict, call volume calculation. A preferable approach may be to have a base funding level for each region with a supplement based on call volume. It may also be possible to reduce the number of CMED centers to less than one per EMS region. In any case, because the Commonwealth would be taking a fiscal burden currently on the regional level there would be a real gain in economic relief and capacity for each EMS region.

It is clear to the Task Force that the current funding and oversight mechanisms are not well adapted to current and expected needs and resources. Given the great variation in potential funding source (see following table), organizational structure of CMED oversight, and the many governmental agencies that may play a role in developing a unified CMED process, the Task Force recommends formal, directed study of the issues at hand.

7. The Bureau should initiate a thorough review of Central Medical Emergency Direction (CMED) capacity, cost, practices, utilization, and potential optimization. This shall be done in the context of developments in regional health care and emergency preparedness communication capabilities with regard improving resource allocation and the currently disparate funding sources.

- Given the urgency to resolve access, resource, standardization, and other critical concerns in this arena, the Bureau should seek to have this study completed no later than October 2012.

VII. OEMS RESOURCE REALLOCATION

The Task Force recognized that the diversity of the changes it was recommending would change resource needs in OEMS and require a reassessment of the appropriate allocation of future personnel and contracted resources. The Task Force also more than once expressed concern that even with this transition, the quality improvement strategies that need to be undertaken require increased resources for OEMS in the future. The Task Force postponed further consideration of potential new resources until OEMS could report back to them on what the impact of Registry transition and re- alignment of remaining capacity against Task Force recommendations would require. Therefore, the Task Force recommended:

- 8. Implementation of the OEMS Task Force's recommendations may significantly change the resource demands of the Bureau and its personnel. As a result, OEMS will have - and must undertake - the opportunity to re-align priority functions to better focus on quality improvement strategies. The Task Force believes that such a review and re-alignment must be accompanied by the re-assessment and re-structuring of existing personnel functions and required competencies as well as re-allocation of financial resources. The Task Force anticipates assessing these capacities when it re-convenes in September 2012.**

The Task Force wishes to acknowledge the collaboration of many staff from the Office of Emergency Medical Services and the Bureau of Health Care Safety and Quality in supporting the analyses and information contained in this report, especially Abdullah Rehayem, Director of OEMS & Dr. Jon Burstein, OEMS Medical Director. John Grieb, Deputy Director of the DPH Bureau of Emergency Preparedness attended on behalf of Mary Clark, Director of that Bureau, on several occasions.

The Task Force also appreciates the work of Iyah Romm and Jean McGuire in facilitating the strategic planning process and drafting this report

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