West Virginia Emergency Medical Services

5 and 10 Year Strategic Plan

Developed for the West Virginia Legislature
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CONTENTS

INTRODUCTION

Emergency Medical Services, often referred to as EMS, is a dynamic system that provides emergency care from the moment the service is activated until the patient(s) arrive at the appropriate destination for continued care. Most think of EMS as a "ride to the hospital" but EMS is truly so much more.

EMS systems are comprised of different entities, each of which plays a vital role in the success of the entire system. EMS requires coordination of multiple components including public and private agencies, hospitals, communication networks, teaching institutions, trained personnel and the general public. EMS in the state receives oversight from West Virginia's Department of Health & Human Resources (DHHR).

In 1975, DHHR was mandated by the State of West Virginia to develop an Office of Emergency Medical Services (OEMS). The main goal of this office is to oversee the entirety of the emergency care system in the state. West Virginia Code section 64CSR48 is the overreaching legislation that details minimum requirements for EMS services to achieve licensure and operate. It is the role of OEMS to enforce legislative rule developed under code. The office completes these tasks with the help of several committees and workgroups, each specifically created to offer advice and guidance. The Office of EMS plays a crucial role in the stability, success and growth of EMS in West Virginia.

Today, EMS in West Virginia serves all 55 counties, from urban city run public agencies, to rural volunteer fire departments. The state is further divided into 10 EMS regions. According to the National EMS Assessment, completed by the National Association of State EMS Officials (NASEMSO), West Virginia has 269 licensed agencies, with approximately 523 licensed EMS vehicles/rotor-wing assets. At the time data was submitted to NASEMSO, West Virginia had 6,119 EMS professionals working across the state. *(National EMS Assessment, 2020)* These professionals range from basic life support providers to critical care transport providers; up to and including critical care nurses, which makes the state unique as many states do not recognize nurses as EMS providers.

The creation of this brief strategic plan is an effort to redirect the progression of emergency medical services in West Virginia, providing legislators a reasonable and accomplishable plan to advance EMS practice.

SHORT TERM PLANS (5 YEARS)

STRUCTURE OF THE OFFICE OF EMS

The Office of EMS is comprised by five divisions; Administrative, Education/Certification/Testing, Inspections/Licensing/Investigations, Medical Direction, and Trauma/Designation/Categorization. Each of these divisions is led by a Director or Manager as well as several supporting team members with more specific job descriptions to assist in efforts.

Presently OEMS has a considerable number of position vacancies that have gone unfilled for a substantial amount of time. In order to move forward and create this strategic plan to be implemented, it is critical that the DHHR works to fill the leadership and staff positions within the office.

Administrative Division
Director, Office of EMS – Vacant

Education, Certification, and Testing Division
Division Program Manager – Vacant
Certification Coordinator – Vacant
Certification Assistant – Vacant
Examination Coordinator – Vacant

Inspections, Licensing, and Investigations Division
Office Assistant – Vacant

Medical Direction Division – *This division is fully staffed at present.*

Trauma, Designation, and Categorization Division

Data Manager Trauma Registrar – Vacant

Once all vacant job postings are filled, the OEMS will be able to function as originally intended. The addition of several other job positions could be evaluated upon the hiring of a Director and any unforeseen restructuring that he/she would move to implement.

The addition of someone who specializes in grant writing could be beneficial to the OEMS administrative staff. This person could be utilized by all branches of the office to help find and obtain federal and foundation-based funding to assist the state in remaining progressive within the EMS industry.

EMERGENCY MEDICAL SERVICES ADVISORY COUNCIL

EMSAC, or Emergency Medical Services Advisory Council, is a legislative body created by WV government whose fundamental purpose is to provide guidance to the Office of Emergency Medical Services as well as the Commissioner involving all aspects of EMS. EMSAC embraces all aspects of the EMS system to include Medical Command, Air Medical, WVOEMS, Educational Institutes, etc. EMSAC is tasked by the legislature to meet specific goals annually and report back to the legislative body each session. EMSAC is also the first line committee to review EMS policies, protocols, operational guidelines, and changes to legislative rule. Current members of EMSAC are appointed to their positions by the Governor and must be approved by the Senate. Guidance from this committee also includes making recommendations, providing any assistance and maintaining EMS standards across the state. EMSAC is comprised of several different sub-committees, all in which take on responsibilities for improving EMS within our state. In the coming years, EMSAC's main focus will be on strengthening and enhancing EMS education across the state. Focusing on EMS education will help WV expand the knowledge of pre-hospital providers for the benefit of all WV residents.

UPDATE LEGISLATIVE RULE

State code section 64CRS48 has been updated thirteen times since its development in 1974. Once the OEMS has been restructured and staffed, a detailed review of code and legislative rule would be beneficial to the dynamic nature of EMS in the state. Going forward, scheduled, periodic reviews would be conducted by the Emergency Medical Services Advisory Council (EMSAC) in an effort to keep the Rule current and relevant.

CREATE & MAINTAIN A PRIMARY SOURCE OF EMS INFORMATION & COMMUNICATION

The OEMS currently maintains a website, as does EMSAC. These websites are separately managed and updated, leading to the potential for conflicting information and uncertainty on where one should go to access specific information. The legislature should push for the creation of one, all-inclusive, professionally developed and maintained website which contains pertinent, up to date information regarding all aspects of EMS in WV. This site would include, but not be limited to:

- Continuum Access
- Legislative Rule
- Protocols, Scope of Practices, Guidelines, Equipment Lists
- Current/Historic WVOEMS Memorandums, Policies and Alerts
- Dashboard of All EMS Activity in the State
- Data Management
- EMS Events Calendar
- Employment Opportunities

In more detail, it is proposed that the web site have the following components:

Legislative Rule

Current Legislative Rule governing EMS operation and practice.

Protocols, Scope of Practices, Guidelines, Equipment Lists

Current protocols and scopes of practice for all recognized care levels across the state should be posted and easily accessible for use by anyone with a need for the information. But beyond the current protocols, there are proposed protocol changes, those in a 30-day comment period, past protocols that could be important to

reference for legal reasons, etc. All versions should be made accessible. It would be critical to assure that all published documents, current and archived, have dates and include clear titles and dates so as to not confuse past documents with present.

WVOEMS Memorandums, Policies and Alerts

As with current standing protocols, it is just as important for up-to-date memorandums, policies and alerts be accessible. These documents would be classified as current or archived. It would be important to include past documents for review, but not to be confused with current documents.

EMS Dashboard

Creation of an all-inclusive, EMS database could help agencies better understand what is occurring in EMS across the state. This data should be HIPPA compliant but provide agencies as well as providers information they would be able to utilize for their own justified reasons. This data could include but is not limited to; EMS Agencies, EMS vehicles, EMS personnel, and number of submitted patient care records. For example, a medical command communicator wants to know if a specific agency can perform advanced techniques in the field as part of a pilot program through WVOEMS; they would be able to access this information by searching the website for the agency and view a dated and clearly outlined policy/procedure.

EMS Events Calendar

An all-inclusive calendar of events would allow for providers across the state to view educational opportunities available to them. Whether it be a conference, state committee meetings open to the public, or recertification classes open to the public, interested parties could access and utilize the calendar for their specific needs.

Employment Opportunities

A single source location to consolidate available EMS positions across West Virginia.

EMS RECERTIFICATION

The OEMS should transition EMS recertification to a two-year cycle under guidelines established by the National Registry of Emergency Medical Technicians (NREMT). In turn, this would eliminate the four-year West Virginia term and move to replace that certification with the currently acknowledged NREMT two-year national certification. All recertification for all provider levels would follow the NREMT process and template. The well-established State Education Tracking System criteria would remain a West Virginia credentialing element under the NREMT recertification process. After this transition, WVOEMS would maintain the authority to audit WV personnel completing the NREMT process. Initial certifications would also be completed following the NREMT guidelines when applicable.

LONG TERM PLANS (10 YEARS)

ACADEMIC INSTITUTIONS & RECRUITMENT

Recruitment for new EMS providers should be targeted more towards making education appealing to an interested student, more than just reaching a targeted audience. Programs and courses advertise course names, locations, and costs but it leaves numerous questions unanswered. Anecdotally, most EMS students are far from the "traditional" student; they have families, work, and numerous other obligations that do not allow education to be their only focus. Their education requires flexibility around their personal lives, not to make personal lives flexible around education. If a great product is created, there is no need for advertisement. Programs need to truly know who their students are and their interests. This could include creating surveys to the targeted audiences and trying to analyze what the students want and create a "product" that meets their needs. This process is more marketing than it is advertising. Programs should perform annual QA/QI processes to ensure they are meeting the needs of the ever-evolving EMS students.

EMS Educational Retention

In terms of student retention, accrediting bodies are strict on educational institutions. With that said, paramedic accrediting bodies do not count a student as "vested" until each has completed 25% of the educational program. Accrediting bodies know that students' intentions do not always equally reflect expectations and the largest attrition for courses occur at the beginning of coursework. It is at this point when students' plans are not coming to fruition due to program expectations and requirements. Programs should perform required orientation

processes which can encompass materials at the discretion of the educational program but must also be structured to ensure students clearly understand the program's expectations and requirements. This would create a means of academic momentum for the student. This process will prevent students from becoming quickly overwhelmed at the beginning of a program and remove students who may quickly drop from the program, potentially taking the seats of other students.

Didactic Delivery

Didactics should be delivered in engaging and stimulating ways and incorporate multiple technologies. EMS practitioners are required to become comfortable with a variety of technologies and it is imperative that a student be instilled with a sense of digital/technological literacy. Technology could be used to meet the needs of the students by creating flexible delivery methods in a variety of alternative style classroom models such as hybrid or flipped classrooms.

Practicum Delivery

Educational programs should work with as many clinical sites as possible to ensure students have access to patients of various modalities and ensure the scope they practice as a student will reflect the scope they provide as an EMS clinician. Many times, students are only able to "observe" in clinical experiences rather than be "hands on." Programs should work with their clinical affiliates to orient them with the educational standards that students have met to ensure clinical partners of the abilities, capabilities, and proficiency of their respective students.

Continuity plans should be in place if events beyond the student's control prohibit them from achieving program competencies. Examples would be if students are unable to obtain required airway maintenance skills, the program can create methods of achieving this competency by creating an alternative option. In this scenario, EMS programs have partnered with respiratory care programs within their institution to have those subject matter experts provide alternative lab/clinical experience within the classroom setting.

Coordination with the State

OEMS and EMSAC should coordinate annual meetings with all educational institutions for their respective certification levels and each meeting should be for a single certification level. These meetings could provide great benefit to peers of each educational level, serve as instructor continuing education, and ensure that all programs are understanding of their expectations from state officials and vice versa. Meetings such as this ensure transparency amongst all bodies. Too often, there are assumptions or incorrect information being shared in such matters as accreditation, NREMT, etc.

OEMS should serve as an extension of educational institutions to assist them in their endeavors. Such working models could be developed from coordination with other states' Offices of EMS to explore their functions in assisting programs, especially as it related to paramedic education.

QUALITY ASSURANCE/IMPROVEMENT (QA/QI) SYSTEM

In January 2018 the National Association of EMS Physicians (NAEMSP) Board of Directors released a position report, Defining Quality in EMS. Within this statement, NAEMSP presented ten elements which play a role when defining quality in EMS. One element of quality, as defined in the position report reads, "Quality efforts in EMS require seamless, automatic, large-scale bidirectional information sharing of patient data and outcomes" *(Defining Quality in EMS*, 2018). They go on to explain how in order to achieve this, one must take into account provincial, state and national regulations as well as in partnership with local health entities.

Currently, the QA/QI system is initiated by the regional medical command centers with the support of the regional medical directors. The communicators and communication leaders have the ability to add QAs into the state system on every call that is documented. When a provider calls in with a patient report, the communicator takes the report then subsequently does several things based on the report received. A communicator may add a QA to a call for multiple reasons; a job well done, deviation from protocol or by request of the receiving emergency department. Once a QA is entered into the state system, the comment is sent to the agency's QA officer who then reviews the QA and provides written follow-up to the OEMS. From that point forward, it is the responsibility of the agency to address any issues. This is completed by the squad medical director and/or the regional medical director as required. Within the current structure, the QA process in the state does not allow for hospitals (without the help of the command centers) to provide QA and there is no way for the field providers to provide QA of the medical command physicians or the medical command facilities.

It should be a task of the regional medical directors, information services within DHHR, communication center leaders, hospital representatives and agency QA officers to develop a robust, bidirectional quality assurance

system that allows for traceable feedback and opportunities for improvement. The system developed would provide an outlet for appropriate loop closure for identified quality metrics.

DATA RESEARCH & DEVELOPMENT OF STATE-WIDE BEST PRACTICES

The state should facilitate the development of a complete, well lead and executed research department within the OEMS with the specific purpose to use data submitted from patient care records to develop best practices. This data would provide the basis for implementation and change in the state protocols and policies. This data would also help committees of OEMS identify trends and improve processes to better support the needs of the state's residents and visitors.

AVAILABILITY & ACCESS TO CARE

Due to the geographical layout of the state, EMS providers and agencies are presented with unique challenges. The response times for 911 calls can exceed urban EMS provider's imaginations. This also is cause for extended transport times to even rural access facilities, let alone specialty care centers. The population of the state has been deemed "older, sicker, heavier and poorer" than most, which also changes the dynamic of EMS in our area.

The state should engage consultants to assess the EMS needs of rural communities and develop strategies to improve service.

FINANCIAL SUSTAINABILITY

As compared to readiness cost and operational expense, reimbursement levels for EMS services rendered are very low. This poses a challenge for some agencies as they are unable to sustain necessary operations on the reimbursement that is available. This has led to some agencies ceasing operations, creating area of the state which lack prompt and adequate EMS coverage. Improvement in reimbursement from governmental payors can impact the viability of EMS.

RETENTION SURVEY

In an article published by Journal of Emergency Medical Services, outlining the ongoing struggles of recruitment and retention in EMS all over the country, it was concluded that there were two workplace factors that could potentially improve retention: increasing career and promotional opportunities and an increased pay rate (Robbins, 2020). This article also recommended the implementation of several organizational strategies that could positively impact retention (Robbins, 2020).

- Increased attention to employee health and safety
- Allow for career growth and development.
- An encouraged life/work balance
- Employee involvement in operations

Due to the nuances that come with the fundamental and geographic differences of each agency it would be difficult to encourage the implementation of the same incentives across the state. Simultaneously, the state could create and publicize a survey to help identify specific strategies that could be shared with EMS leaders across West Virginia. This would help guide organizational decisions. The leaders of the individual agencies would make organizational decisions based on their business models, but the state could provide resources necessary to accomplish these goals.

This survey would be created by the members of EMSAC and sent to all EMS providers. To obtain maximum involvement, it would be recommended that EMSAC educate the agencies via the quarterly meetings, as well as informing EMS education personnel of the dates the survey would be live so they could encourage participation within their agency. The survey would need to be available for an extended amount of time to encourage maximum participation.

Once the survey window closed, the results of the survey would be reviewed by EMSAC and compiled into a presentation. It would be important that results be made available to all the EMS leaders, as well as to the providers who participated. Agencies across the state should have within their organization internal statistics regarding their company's employee turnover. With the results of the survey available, OEMS and EMSAC could

encourage EMS leaders across the state to implement changes within their organizations in hopes of improving retention. If an agency chose to make a change based on survey findings, it would be encouraged that the agency document the intricacies of the changes that were made as well as produce qualitative and quantitative data to either support or negate the efforts. Over the course of a year, while data was being collected, report outs could be made quarterly at EMSAC meetings.

EMS PROVIDER CAREER PATHWAYS

In 2018, the National EMS Management Association, the International Association of Flight and Critical Care Paramedics and the National Association of EMS Educators released a position paper in support of slowly transitioning paramedics to a degreed profession (Svancarek & Wright, 2020). As previously mentioned, one of the main ways to retain an EMS professional is through career growth and development. As it stands, West Virginia's Community & Technical College System offer paramedic programs where students are able to choose whether they would like to pursue a certificate or an Associate Degree in Applied Science. If students opt to choose the associate degree, that requires an additional 15 hours of college classes in core curriculum. Though these additional hours of curriculum would prove extremely beneficial to the student whilst taking the paramedic courses, they also impose a financial burden as well as an additional time frame for completion. The additional time and money have proven to be a significant hurdle in recruiting applicants to pursue the degree over the certification. The position paper goes on to recommend higher levels of EMS providers, such as community paramedics, flight paramedics and critical care paramedics transition from a certification to a bachelor's degree.

For the purposes of an obtainable goal, the state of West Virginia should explore the option of mandating that the accredited community colleges only offer the associates degree as an option for incoming students. To accomplish this, the Department of Education member serving on EMSAC could work with each college over the course of 2 years to collect data, identify hurdles and project solutions to make this transition.

Support for a transition would require significant buy in from state agencies as paramedics being hired with associate degrees over certifications would be more apt to accept and keep a position if their compensation package reflected their higher level of education. Another obstacle is that surrounding states still acknowledge paramedics with a certification, as an associate degree is not a national mandate. This could potentially defer interested applicants to pursue EMS education in border states.

IMPROVEMENT TO EMS RETIREMENT SYSTEM

In 2008, WV legislators created a state funded division of the retirement system that offers specific, enhanced retirement and benefit structures that help those in EMS. This division is a segment of the state's Uniform Service Plan. This EMS specific plan allows for a 20-year vested and 50 year of age retirement option. This is an effort to acknowledge the intricacies of the EMS system and how it physically affects providers during a career. In reality, it is difficult to be 62 years of age and still working in the EMS field. In order for an agency to qualify for this retirement plan, they are asked a series of preliminary questions, such as private or public agency, for profit or not-for-profit and a funding breakdown. Most often agencies do not qualify based on the initial criteria many are not funded by public monies. The qualifications set by statute are strict allowing the plan to remain compliant with IRS requirements.

Legislators should partner with EMSAC to develop a model to allow for a more inclusive EMS retirement system. Doing so would expand the retirement opportunity to additional EMS clinicians and improve the attractiveness of EMS jobs in West Virginia.

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