



250 Mt. Lebanon Blvd.
Suite 209
Pittsburgh, PA 15234

1/9/12

Dear Andy,

We would like to thank you for the hospitality shown to us during our stay in Wyoming. It was a very enjoyable time and we are impressed with the resources and dedicated personnel you have. As a result of the needs analysis performed, the committee would like to share with you the following determinations and recommendations that were compiled from the interactions we had. We determined that the best way to present the findings would be through a SWOT (Strengths, Weaknesses, Opportunities and Threats) Analysis format.

Strengths:

- Passionate core group of instructor coordinators with years of experience.
 - Those instructors present were a remarkable group of educators whose passion and dedication towards EMS education was very evident. Their years of experience and willingness to move forward with change are great assets to the EMS community and patients they ultimately affect.
- New Director
 - The new director, who has a strong clinical and military background, brings new ideas, enthusiasm and energy to the table. While change is often difficult and an outsider's perspective can be met with resistance, this was not the case. Those present were open to new ideas, which the director presented with sensitivity to those present and an obvious effort to meet the needs particular to Wyoming.
- New trauma coordinator
 - The new trauma coordinator admittedly has little experience with EMS, however was open to discussion and intently listened to the conversations at hand. She presented creative ideas, and appears to have the ability to develop the position to become a strong resource within the department. Her knowledge of the in-hospital setting and her role as the hospital and EMS liaison will be invaluable as the department continues to build a solid infrastructure to support the changes that are needed.
- Years of experience department staff
 - The present positions are staffed by experienced and talented individuals who have years of experience within the State of Wyoming EMS system from both a regulatory and programmatic perspective. Their expertise will assist with the movement of change as they are familiar with the idiosyncrasies particular to Wyoming and frontier medicine.

- Data specialist position
 - The state office has a full time data specialist position in place. This role should be able to assist with programming, data entry, and learning management system implementation.
- Paramedic programs that are CoAEMSP accredited
 - Presently there are two paramedic programs functioning in the state, which are both CoAEMSP accredited. While not all levels of EMS education need to be accredited, the accreditation standards present a solid basis that could be used as a foundation for the educational process within the state. Outcome measures and competency based education are evident in the paramedic curriculum. The examples presented from the programs are an excellent resource as all levels of EMS education move to competency/standard based education.
- EMS curricula development
 - The office has curricula guidelines, and work has already begun to develop the new template for the EMT class sequencing. This work should continue with minor changes to sequencing and the inclusion of competency measures. Much of the course development can serve as a base curriculum as the Education Standards are adopted.
- Willingness to make changes for patient care
 - Everyone present demonstrated a willingness to move forward with change as it relates to EMS education and thus the effect on patient care.
- Bringing outside resources to make recommendations
 - Bringing in an outside resource such as NAEMSE to evaluate the system provided an opportunity for review and recommendations from an objective, unbiased perspective.
- Ability to be open and synergize within the group process
 - The group present demonstrated the ability to come together in order to produce an educational model that would not be obtainable independently. Although difficult at times to move away from personal perspectives and historic practices, the group did see the bigger picture to be gained and began having meaningful dialog that will effect and result in productive change.
- Small programs that are housed within the communities
 - The ability to address the EMS educational needs by going out into the communities is a very important and valuable community commodity. Without this process, many areas would be underserved and wanting for EMS care and education.

Weaknesses

- New Director who is acclimating to EMS culture in Wyoming
 - While the director has a vast EMS background and experience, becoming acclimated to a new state and its inherent idiosyncrasies can delay decision making and movement forward in planning that is a good fit for the state.
- New trauma coordinator role
 - The trauma coordinator position is new and there is no clear relationship between this role and EMS. However the EMS Division would gain significantly from the input provided by the trauma coordinator.
- Years of experience department staff
 - The years of experience that the present staff members have while as asset, can also be a weakness in that there can be resistance to change

- Challenges of a Frontier EMS system
 - Rural and Frontier medicine is an emergency response system that provides basic and advanced levels of care, and serves as a community resource “for prevention, evaluation, care, triage, referral, and advice” (2004, p. 4). Generally, the EMS responders are both volunteer and career whose level is determined by the community’s needs. The challenges of the educational programs for these EMS providers goes beyond the typical classroom issues such as accommodating for long travel times, and the need for classes to be held around work and home life.
- High attrition in course enrollment
 - The committee members noted a high attrition rate in the EMT classes, especially in the more rural or frontier areas. This is very concerning as the numbers of practicing responders may become insufficient to meet the needs of the patient population in the future. Ways to increase training programs and successful completion of programs needs to be explored and implemented.
- Small programs that are housed within the communities
 - The small programs that are held in the community strap the resources from an instructor and state office perspective. State office personnel report long travel times. In some cases the travel could be as long as 7 hours to reach a class that is being held. The long travel times, oversight for a class of 3 students, and absence from the state office are examples of resource utilization without substantial gain in emergency service personnel.
- Relying solely on the traditional of classroom lecture for the teaching delivery
 - The instructors reported that they rely heavily on a traditional model of direct teaching through the use of power point and lecture in the classroom. The move to standard based education encourages more student-centered teaching methods which incorporates active learning techniques and moves away from direct lecture.
 - Additionally relying on a typical classroom teaching model does not allow for innovation with technology such as teleconferencing.
- Dependence on textbooks for curriculum and test banks
 - While textbooks are providing resources for instructors, the quality and depth of content coverage varies with each textbook and author. It is difficult to find one textbook that presents all the information needed in a manner that reaches all students and has instructor resources that are of high quality.
 - Generally speaking, not all test banks have been validated. As instruction moves to competency based education rather than strictly hour based, valid and reliable testing resources are becoming a vital component to the educational process.
 - Instructors need more information on test validity, reliability and item analysis.
- Lack of definitive Scope of Practice for all levels
 - The levels of practitioners vary in Wyoming. While the title designation may be the same, different regions and medical direction allow for differing levels of care that can be delivered from one region to another. This has led to a lack of definitive and consistent scope of practice at all levels.
- Diverse population of EMS volunteer personnel
 - The diverse population of the Wyoming communities, from frontier, rural and city, presents a challenge to educational programs. The challenges are just as varied such as meeting the students learning styles, scheduling and evaluation structure.

- Lack of sufficient information for the implementation of the National EMS Education Standards
 - State office personnel and EMS instructors present voiced concerns regarding a lack of clarity regarding the implementation of the Education Standards. This lack of clarity has caused a disparity among courses and instructors as to approaches and changes in programs.
- Lack of state wide committees to support the EMS Education process
 - According to existing structure in place at this time, there is a lack of a solid infrastructure that would assist with implementation of changes necessary for the implementation of the standards. With the changes in the state office and the diverse demographics of Wyoming, state wide committee structure is lacking.
- Lack of validated of certification exams at the state level
 - The state exam used for certification has not been validated
- Lack of validated testing processes within the programs
 - Program instructors rely heavily on publisher’s test banks which lack reliability and validity measures.
- Lack of a summative exam for coordinators
 - Presently, programs do not have a final summative exam. The State OEMS exam is used for this final summative exam as well as the state certification exam.
- Insufficient experience in within the process of teaching and testing for competency
 - The process of changing teaching according to an hour based curriculum towards a competency based teaching and learning system is a new format that will require professional development or in-service education for instructors.
- Reliance on solely on hours for hour based instruction and curriculum design
 - At this time instructors rely on an hour-based instructional design approach in meeting the content demands. Transitioning to competency based education model will require instructors to change their models of teaching and testing.
- Lack of coordinated state wide curriculum, state wide or regional protocols or formalized Scopes of Practice
 - Due to Wyoming geographic’s, and the lack of unified infrastructure, the state of Wyoming, while following the National Standard Curriculum for EMS education, has a huge disparity from region to region in curricula, protocols and Scope of Practice, especially at the EMT-Intermediate level.

Opportunities:

- Offering higher level instructor training i.e. NAEMSE Instructor 1 and 2 courses and/or similar instructor professional development opportunities
 - Offering formalized educator training will provide an opportunity for instructor – teaching development.
- Educational committee taking an active role in formalizing mission and vision for the future
 - The instructor coordinators present exhibited enthusiasm and desire to move forward with this committee immediately. Discussion began regarding scope and mission of this committee and its possible effects on state education structure and quality.

- Active involvement of new Trauma Coordinator
 - Although new to the position, the trauma coordinator was willing to become involved in the education process. This position is a crucial link between the prehospital and out of hospital settings and care providers. Establishing specific guiding principles regarding the position will strengthen the education infrastructure, thus allowing for coordination of EMS education activities to address trauma issues in different geographic of Wyoming.
- Ability of Wyoming to make an impact and become an educational model for Frontier medicine on the national level
 - Wyoming has the potential to become a leading state in regards to frontier medicine at the national level. Developing a solid educational infrastructure will provide definition and organization to the educational process as all states move towards implementation of the education standards.
- Ability of EMS educators to utilize best practices in EMS education to effect positive Learner outcomes
 - As the instructors in the state come together and begin communicating and sharing ideas and information, this will allow for best practices to be identified and set as standards for educational practice.

Threats:

- Moving away from local and small educational programs
 - While it is noted that providing community training is important, holding training for 2-3 students at a time becomes cost prohibited and is not the best use of instructor and state staff resources. There is the threat of an initial decrease in EMS provider numbers, however as technology becomes integrated into the educational model, the decrease will be minimized.
- Modifying the present EMS education philosophy to a standard based education model
 - Instructor coordinators noted that changing the culture of EMS education in the state may be difficult and met with resistance. As this is a reality, instructor attrition should be expected and planned for. However, realizing that those who remain and the new instructors who come on board will be able to assist with the forward momentum necessary to effect change.
- Possibility of losing number in EMS providers
 - There is the possibility that there will be a decrease in the number of trained EMS providers as change to the educational process occurs. Planning for this deficit should be a component of the strategic planning process.
- Change to the mindset of the educational process
 - As the implementation of the National Education Standards occurs, many instructors will decide that the change is not for them and attrition at the instructor level is a possibility. The state office will need to plan for a possible instructor shortage.
- Changes to roles and responsibilities of the office staff to fit their particular skill set
 - Any change to long standing roles, responsibilities and process are always met with apprehension and possibly resistance. It is vital for definitive planning and investigation to be done prior to the changes being implemented. Additionally, the reasons for the changes need to be clear and shown how they will benefit the educational process and patient care.

- Involvement with the Legislative process
 - The legislator is vital to state regulation and policies. The state office needs someone who is versed in this process and who can speak to the needs of EMS
- Rewrite of the current regulations to meet the changing EMS environment
 - It was identified that the current state regulation is in need of updating to meet the current demands of EMS and the educational process. This can be a long and arduous process but one that is vital to the infrastructure.
- Reevaluation of reciprocity of out of state EMS providers
 - It was identified that granting reciprocity to providers from out of state who hold EMS credentials has varied and sometimes negative ramifications as the competency of the provider cannot be guaranteed. Therefore a standardized and sustainable reciprocity process needs to be established that will assist the state office in evaluating the educational background and competency of the providers entering the state.

Recommendations:

- Reorganization of the OEMS office personnel responsibilities
 - Talented and tenured staff hold positions within the state office at this time. It is advisable to investigate their strengths and make adjustments to roles and responsibilities to best utilize their expertise.
- Revise and develop state regulation, rules, policies for the initial and recertification of credentialing of EMS instructors
 - It was noted by the state director that as personnel changes occurred; regulation, rules and other factors need to be updated in order to move forward in this process.
- Formulate a structure and process for authorizing EMS training centers
- Develop an educational infrastructure
 - EMS Educator committee
 - Medical Advisory Committee
 - State Education and Training Committee
 - State Education Advisory committee
- Develop an organized and consistent approach for the evaluation of EMS training program outcomes, e.g.:
 - Evaluation of state exam results
 - Utilization of graduate surveys
 - Utilization of employer surveys
- Implement a professional development series for EMS instructors
 - This should utilize national resources e.g. NAEMSE and NASEMSO as well as continuing education at a state level, utilizing state resources. This should be sustainable at a state level.
- Adopt a Learning Management System (i.e. Blackboard, Moodle) to track program outcomes and disseminate state exams.
 - Exam item analysis
 - Electronic grading system
- Become familiar with and utilize advanced technology such as telecommunications, and virtual classrooms in communities that are sparsely populated
 - The internet is now playing a more important role in schools and education. Through telecommunications, the typical classroom is no longer restricted to a local and accessible area, but open to include interaction among students, teachers, and experts,

separated by great distances. The learning experiences can be shared from many varied sources, such as

- Research databases and web sites
 - Chatting and videoconferencing
 - Electronic bulletin boards/conferences
- Develop EMS Provider training curriculum for all levels that is reviewed and revised annually and/or as needed to meet patient needs and data outcomes.
 - As the EMS instructor base is transitioned into using the new National EMS Education Standards, the development of EMS curricula will enhance continuity and provide a foundation for instruction at all levels.
 - Utilize community resources such as community colleges, libraries, schools that would provide local and accessible places for state wide testing
 - The local communities are rich with resources such as libraries and schools, community colleges that could be utilized for statewide testing. Buildings could be chosen that are central to geographic areas providing a central and easily accessible location.
 - Invite local hospitals and medical directors to become involved in the process of need evaluation and program development
 - Local hospitals and medical directors should be involved in the education process. These resources could be tapped from an advisory status and/or in the actual instruction. Involving them early in the process will encourage buy on and support for the entire system.
 - Develop an EMS Education strategic plan for the next 2 – 5 years.
 - The importance of strategic planning, especially from an educational perspective is important to assist with focus and goal setting. This will assist with defining an approach, delineating focused direction and allocation of resources.
 - Develop a validated exam at the state level for licensing and/or certification
 - Licensing and certification exams should be separate from training program final exams. The exams should be vetted through appropriate committees and meet standards for content and criterion related to validity and reliability.
 - EMS director should become involved at the national level within organizations such as NASEMSO and NAEMSE
 - Involvement at the national level will provide on-going resources that may assist the EMS Director in establishing state wide educational requirements and standards.

Sincerely,

Theresa R. DeVito, Ed.D, R.N., EMT-P., EMS -I
NAEMSE Implementation Team Chair