**PREPARDNESS AND EDUCATION COMMITTEE**

**Title**: **Best practice for transition from technical certificate paramedic provider into a practitioner with formalized education and professional license to practice.**

**A. EXECUTIVE SUMMARY**

*A revision of the 2016 advisory on licensure and “EMS Education Agenda of the Future”, to align and deliver successful outcomes as stated in the established vision “EMS Agenda of the Future 2050”*

Paramedicine represents the highest level of out of hospital medicine practice by non-physicians. However, Emergency Medical Services (EMS) remain highly fragmented and largely separated from the overall health care system.

The debate regarding whether to mandate associate’s degrees for entry at the paramedic level has been for years. There are very strong opinions on both sides of this debate. This concept is no longer theoretical. States have begun requiring associate’s degrees for licensure for paramedics. Kansas and Oregon are the first and there are others contemplating implementation due to the recognition of minimal upfront investment by prospective paramedic students of core degree requirements (typically 6-8 classes). A national, best practice strategy must be developed to guide States that are interested in adopting these requirements.

In order for paramedics to make a transition from a para-profession to a degreed practitioner, the value proposition and return on investment for such a transition must be defined for all stakeholders involved (patients, providers, employers, educators and payers). While evidence suggests that degreed employees offer many benefits to their profession, there must be evidence-based additional value created with the added provider burden, educational expense and increased employee wage expenses so that appropriate value-based arguments to the payers of these expenses can be established. This value should be demonstrable in nature so that a measurable return on investment can be calculated and proven that encourages an individual, employer and subsequently other payers to pay for this additional value. It is naïve to believe that employees and employers will bear the burdens of education alone without some form of additional return for this investment. The same must be said to those that ultimately pay for this value through insurance reimbursements, margin degradation or other revenue sources.

If degrees provide additional measurable value that someone is willing to pay for, then a strong argument can be made to rapidly move forward with this endeavor. If demonstrable evidence of value is weak or superficial in nature, the tougher the argument for mandating such devices for our profession and the stronger the opposition to such requirements.

It is clear that an evidence-based value proposition and its return on investment for degrees for paramedics does not yet currently exist in the United States, therefore an iterative approach should be considered where, until such time that strong evidence for a return on investment for degrees can be substantiated, both para-professional and professional pathways will need to co-exist, giving individuals and agencies various options based on their individual and/or local value propositions. Once degrees promote additional skills, expanded scopes of practice and additional knowledge that enhances the lives of our patients and/or our providers, in addition to also improving operating margins of the employer and/or upstream payers for these services, then value is created that will pay for the additional expense degreed labor generates and degrees for all makes economic sense.

We must develop a national strategy to transition from emergency medical services (EMS) training and certification to the practice of paramedicine and a formalized higher education degree pathway for professional practice and licensing of paramedic practitioners. Degree requirement provide a more rounded knowledge base for our highly skilled workforce. Subject areas add value to initial paramedic certification such as: introductions to EMS finance, research, quality assurance/quality improvement and public health as well as in depth courses in resiliency/stress reduction would significantly enhance this knowledge base.

This advisory for a strategic plan to formalize the educational process does not preclude the importance or opportunity for basic life support (BLS) providers of EMS, e.g., emergency medical technicians (EMTs) and emergency medical responders (EMRs) to achieve that level of certification through independent courses.

**B. RECOMMENDED ACTIONS/STRATEGIES:**

**National EMS Advisory Council**

**Recommendation 1:**

The National Emergency Medical Services Advisory Council (NEMSAC) should create a white paper on best practice for states and organizations wanting to transition to degreed paramedic certification and/or licensure. That paper would be a road map to assist both the individual student and the organization in the area of funding education that includes; associates, baccalaureate, and master’s degrees. Prospective areas should include scholarships, financial aid, tuition reimbursement, and loan forgiveness programs as well as profession recognition by agencies responsible for funding and reimbursement.

**National Highway Traffic Safety Administration**

**Recommendation 1:**

The U.S. Department of Transportation and the National Highway Traffic Safety Administration (NHTSA) should develop and disseminate a survey to determine and gather real time data from the paramedic community and its consumers to ascertain perceived value of a paramedic profession with degreed practitioners.

**Recommendation 2:**

The U.S. Department of Transportation and the National Highway Traffic Safety Administration (NHTSA) should convene an inclusive consortium (federal and non-federal) of: paramedics, public health, consumers, community health, mental health, rural, fire and volunteer-based EMS, EMS medical directors, EMS State Managers and Emergency Physicians and the Department of Education to establish the essential minimum national standards for associates, baccalaureate and post graduate paramedic degree programs. The consortium should identify a sustainable process for educational institutions and existing training programs to offer an associates or baccalaureate degree in paramedicine (BSP), continuing education and/or college credits that could be used to achieve the equivalent of these degrees for paramedicine practice by 2025. The consortium should also identify barriers to formalized degrees to enter paramedic practice and methods to overcome them as well as finding areas of consensus and building on them.

**Recommendation 3:**

By 2025, National Highway Traffic Safety Administration (NHTSA) should develop a model for the process to promote and educate on the value of academic degree attainment by paramedics that promotes the alignment of EMS in parallel with other healthcare professions. This model should include elements designed to overcome barriers including tuition reimbursement, loan forgiveness, career advancement, and retention in the field including rural and volunteer EMS.

**Other Department of Transportation**

National EMS Advisory Council recommendations for consideration by other administrations within the U.S. Department of Transportation, which shall be conveyed through NHTSA."

**Federal Interagency Committee on Emergency Medical Services**

National EMS Advisory Council recommendations for consideration by the Federal Interagency Committee on EMS, which shall be conveyed through NHTSA as the FICEMS Executive Secretariat.

C. **Scope and Definition**

Because EMS providers are educated and certified largely outside of the formal education industry, they are often not perceived as professional health care practitioners, have limited ability to influence the overall health care system and provide improved patient care, and their service provision is reimbursed at a lower rate through their employer.

Paramedic roles and scopes of practice are changing to meet the needs of population health around the world. The paramedic practitioner, now utilized in a number of countries, confirms the career pathway and position integration within health systems. Australia, New Zealand and the United Kingdom have moved toward mandatory higher education models with the three-year baccalaureate degrees required for entry to paramedicine practice. Canada is also moving toward a bachelor’s degree as a requirement of entry to practice.

If we are to maintain high standards in the U.S. paramedic profession and fill these expanding roles, we must establish a College of Paramedics. This would provide the same credentialing as other health care professions, such as the College of Nursing and College of Paramedics that other countries have already established.

There is considerable ‘resistance’ from both practitioner and EMS agencies to transition to a more formalized education system. The contributing factors include agency expense in attaining, and time to complete, degree-level qualifications. Strategies should be developed and implemented to overcome these issues of concern. College programs that alleviate the burden of cost and time in elevating to a degree program need to be developed and financial assistance established at a national level. Employer based tuition reimbursement programs and loan forgiveness programs similar to those available for nursing and physician health professions, should be developed and made available to paramedic programs. (see appendix A). One way to mitigate this challenge is to pick a “date certain” for new entrants with formal education into the profession, effectively “grand-parenting” all existing paramedics and allowing them to choose whether to advance their education or not.

It is essential that programs are developed by academic institutions that grant experiential learning credits for paramedics who have graduated from educational institutions and/or achieved EMT, AEMT or Paramedic certification. This process should include a method of grand-parenting existing practitioners. It could include retroactively awarding experiential credit for initial certification, as well as recognizing competency in paramedicine practice for those existing paramedics that choose to further their education or allowing them to use certification towards and associate degree

The States of Oregon and Kansas are existing examples of States that require an associate degree for the initial licensure for paramedic (Appendix B). They have exceptions for those working in paramedic prior to the rules change. They do not require degrees at the EMR or EMT level.

An example of a collaborative endeavor between an EMS agency and collegiate network

is Boston EMS and Bunker Hill Community College. They have a partnership in which the college recognizes paramedic state licensure and affords substantial academic credit towards an associate degree in paramedicine. Current Boston EMS EMT’s receive 7 credits and current Boston EMS Paramedics 46 credits Toward an associate degree in paramedic studies.

The EMS System has established its foundation as a network of public service practitioners since its modern-day inception in the 1960s and its formal placement under the umbrella of the National Highway Traffic Safety Administration (NHTSA) in 1970 (NHTSA, 2016). The recognized roles of EMS practitioners evolved through standardized training using nationally recognized standards from the U.S. Department of Transportation

(DOT) and recognition of competency through registration or certification from state agencies (DOT, 2016). These standards have included a method for maintaining continuous competency via continuing education.

To gain professional recognition, equitable compensation, comparable knowledge levels, and meaningful contribution toward the formulation of national healthcare policies similar to that of other health professionals, paramedicine must establish formalized education and a career pathway.

Evidence shows that individuals with earned college degrees have a greater earning potential than those without (Psacharopoulos and Patrinos, 2004) and are likely to even improve labor market outcomes for workers without college degrees through a spillover effect (Winters, 2013). Higher education has also been shown to provide many incidental benefits, such as an improved overall quality of life and enhanced business outcomes (Winter, 2013; Doms et al., 2010).

Investigation into the differences of earning potential, performance, and career success between bachelor’s degree paramedics and non-degree paramedics has been exceptionally limited in the professional literature. This paucity of information may be due to the infancy of the profession of paramedicine as well as the limited number of bachelor’s degree-awarding programs in paramedicine in the United States (CAPEMS, 2015). Most commentaries in trade journals offer a brief discussion on the merits of earning a bachelor’s degree with little empirical data to support such claims (Polk and Langford, 1993). In order to gain insight into the benefits of a more formalized credentialing process for paramedics in the future and the benefits of a higher education, a survey of the literature on this topic for nursing was conducted as a surrogate, parallel profession.

As early as 1975, it was becoming more evident that students participating in nursing education would benefit from a baccalaureate degree in measures of attitude, personality, leadership, performance, and self-confidence (Stone and Green, 1975). “Both the National Advisory Council on Nurse Education and Practice and the American Organization of Nurse Executives encouraged baccalaureate education [for nurses] and suggested that nursing should strive for a workforce comprised of two-thirds baccalaureate prepared nurses by 2010.” (Altmann, 2011). A meta-analysis of studies investigating nurses seeking bachelor’s degrees revealed that the public expected nurses to have attained more education and that patient outcomes with bachelor degree-prepared nurses were improved (Altmann, 2011). Some evidence exists that degreed nurses improved the care patient’s received and their ultimate outcomes (Anbari & Vogelsmeier, 2018) (Aiken, et al., 2011) (Cho, Sloane, Kim, & al, 2015). As the paramedic profession seeks parity with the nursing profession, this parallel of expectation and performance becomes even more necessary.

The transition from EMS training for certification to formal paramedic education for licensure will likely be progressive and incremental across the nation. One model would suggest articulation agreements between community colleges and four-year colleges and universities. The committee on Accreditation of EMS Professions (CoAEMSP) already requires an academic affiliation for accreditation of paramedic training programs. In recent years, a similar approach was initiated to facilitate nursing programs to engender enhanced articulation for nurses earning an associate degree to progress toward a baccalaureate degree in New Mexico with notable results (Giddens et al., 2015)

As the profession of paramedicine continues to grow and evolve into specialty areas such as critical care practitioner and community paramedicine, there must be a more formalized transition from technician to health professional. For many, the distinction between a practicing professional and an industry technician is not the scope of practice insomuch as it is the depth and breadth of knowledge. Building an educational foundation with which the paramedic profession can grow from will help to establish legitimacy as well as parity with other health professions.

D. **Analysis**

Paramedics are capable learners, capable test-takers, and capable educators. The role that paramedics play in the overall healthcare of the citizenry is becoming increasingly realized and relevant. To achieve the same recognition as other healthcare professions, paramedic practitioners will benefit from associates to baccalaureate and graduate degrees in paramedicine as envisioned in the EMS Agenda for the Future 2050 and the U.S. Fire Administration (USFA, 2019). It is time to make that transition and allow paramedics to enjoy the benefit of a full voice at the healthcare table.

The national guidelines and policies that direct EMS goals and vision have long promoted a culture of growth and development. Central to attainment of those promotional objectives is a firm educational foundation. Whereas most health professions render credentials for practice following formalized education through institutions of higher education, EMS has traditionally recognized practitioners of the service through structured, discrete training. The training, while germane to the practice of prehospital care, rarely includes general education or foundational content of higher education. This deficit in education creates a notable differential between paramedicine and other health professions.

E. **Strategic Vision**

The Preparedness and Education Committee of the National EMS Advisory Council believes in the need to formalize paramedic education nationwide and to affirm this profession’s role within the overall healthcare system through a transition plan which includes apathway to associate’s degree as the entry level for paramedics into the profession, by year 2025. While we in the industry recognize paramedicine as a practice of medicine, that is not a universal perception among all other health professions, largely due to the lack of a strong post-secondary educational requisite and licensure. This integration and recognition can best be accomplished with a more formalized process of education for credentialing, rather than training for certification of competency.

This recommendation for a strategic plan to formalize the educational process does not preclude the importance or opportunity for basic life support providers of EMS (e.g., emergency medical technicians (EMTs) and emergency medical responders (EMRs) to achieve that level of certification through independent courses. This element of support for society should continue without impedance but should also facilitate the opportunity for the academic progression into the more formalized paramedicine education. This initiative is consistent with contemporary interpretations of professional growth and development of the paramedic profession of the future.

The Preparedness and Education Committee supports Agenda 2050’s vision that financial support for paramedic educational requirements should be developed, including programs such as loan payback for service in underserved areas.

F. **Strategic Goals:**

1. Milestones and measurements to know progress is being made on the vision and when is complete.
2. Continued Improvement, regular surveys to poll interest

**Reference Material:**

**A. Crosswalk with other standards documents or past recommendations**

* EMS Agenda for the Future 2050
* EMS Education Agenda for the Future: a Systems Approach
* National EMS Core Content
* National EMS Scope of Practice
* National EMS Education Standards
* Promoting Innovation in Emergency Medical Services

 **B. Sources/references related to the issue**

Sources relevant to the problem statement used to support the committee’s analysis of the issue or topic.  Adams, J., DeFleur, M.H., and Heald, G.R. (2007) The acceptability of credentials earned online for obtaining employment in the health care professions, *Communication Education,* 56:3, 292-307.  Altmann, T. K. (2011) Registered nurses returning to school for a bachelor’s degree in nursing: Issues emerging from a meta-analysis of the research, *Contemporary Nurse,* 39(2): 256-272.  Consortium of Academic Programs in EMS (CAPEMS), website of organization representing EMS education programs that award bachelor degrees, http://www.capems.org/get/ retrieved April 9, 2016.  Department of Transportation (DOT), National Highway Traffic Safety Administration, National EMS Standards for Paramedic (2009) National Emergency Medical Services Education Standards – Paramedic Instructional Guidelines – DOT HS 811 077 E, http://www.ems.gov/pdf/811077e.pdf, Retrieved April 14, 2016.  Doms, M., Lewis, E. Robb, A. (2010) Local labor force education, new business characteristics, and firm performance. *Journal of Urban Economics,* 67: 61-67.

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Shin, K., Jung, D.Y., Shin, S., and Kim, M.S. (2006) Critical thinking dispositions and skills of senior nursing students in associate, baccalaureate and RN-to-BSN programs. *Journal of Nursing Education,* 45:6, 233-237.

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Winters, J. V. (2013) Human capital externalities and employment differences across metropolitan areas of the USA. *Journal of Economic Geography,* 13: 799-822.

Boston EMS Articulation agreement with Bunker Hill Community College: (Current Boston EMS,

EMT’s get 7 credits and current Boston EMS Paramedics 46 credits. towards associates degree in paramedics’ studies

Cite: Kansas: Oregon EMS: www.oregonlegislature.gov/bills\_laws/ors/ors682.html (ORS 682)

https://secure.sos.stte.or.us/oard/displayDivisionRules.action?selectedDivision=1357

(OAR 333-285)

www.oregon.gov/oha/ph/providerpartnerresources/emstraumasystems/emstrainingcertification/Pages/index.aspx (Oregon Health Authority Website)

**Appendix A:**

**Loan Forgiveness Programs:**

* Paramedic Profession listed as an eligible profession under the Public Service Loan Forgiveness program.
* Paramedic Profession acknowledged by the Department of Education for both loan forgiveness and financial aid programs.
* Paramedic Profession recognized and eligible for all Health Care Professions Loan Forgiveness programs.
* Paramedic Profession recognized by HRSA for loan forgiveness programs for community health and the establishment of a Paramedic Corps Loan Repayment program, modeling other medical professions.

Paramedic Profession recognized as a profession eligible fo Employer Educator Assistance Programs (EAP).

Example of legislation pertaining to requirements for paramedic licensure from the State of Kansas.

