

Responding to the Educational Needs of Our Emergency Medical Services Responders

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Almost 30 years ago, community colleges across North Carolina began providing instruction to members of fledgling emergency medical service (EMS) agencies—known then as “rescue squads.” The role that North Carolina community colleges currently play in educating future emergency medical technicians is a direct result of the federal 1973 EMS Systems Act.

Presently, 58 North Carolina community colleges serve several roles in the delivery of medical education to current and future EMS personnel. In 2005-2006 there were 32 777 individuals enrolled in one or more EMS courses at North Carolina community colleges. In addition to preparing students with no prior medical background to become EMS personnel, community colleges provide credentialed EMS personnel with ongoing continuing education. Because community colleges throughout the state are readily accessible to the majority of North Carolina’s EMS and firefighting personnel, these institutions provide much of the education necessary for these first responding professionals to remain proficient and knowledgeable of medical developments. This accessibility also serves the public well by making first aid, CPR, and safety and prevention instruction readily available at a reasonable cost. By consolidating state and county resources, community colleges also can provide access to EMS educational equipment that is beyond the budgetary reach of many smaller EMS agencies or systems. Paramedics must have access to intraosseous drills, 12-lead electrocardiogram (EKG) monitors, simulation manikins, ventilators, continual positive airway pressure devices, and other expensive equipment to become proficient. North Carolina community colleges are uniquely poised to provide access to these and other necessary pieces of equipment.

Our state’s community colleges also are playing a role in

meeting the medical care needs of our communities across the state. With the ranks of senior citizens swelling with the influx of the baby boomers, the demand for health care workers in all fields, especially EMS, will increase for the foreseeable future. This presents several challenges to our state’s community colleges that must be solved. Our colleges must be able to locate qualified and knowledgeable EMS faculty. This is difficult to do when community college faculty salaries are often lower than those found at EMS agencies, which are already shorthanded and forced to compete with colleges for the limited number of

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experienced EMS professionals. Also, colleges must attract more students into their EMS and health care programs. This is challenging because average starting EMS salaries in the state are low. Last, but certainly not least, community colleges must be better funded. Too many colleges are forced to squeeze by with outdated equipment, facilities in need of major repair, and inadequate staffing. Funding is a critical issue to meeting these challenges.

Emergency medical service education underwent a significant change in 2004 when modifications to the North Carolina Administrative Code were enacted. Section 10A-NCAC-13P allowed community colleges and other educational institutions

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that were providing EMS education to assume more control of their programs. These approved institutions were charged with serving as the gatekeepers for those choosing to enter the EMS workforce.

Additional changes lie ahead for education in EMS, especially in the community college setting. The National Highway Transportation Safety Administration's *EMS Education Agenda for the Future: A Systems Approach* details 5 major national education system components to be developed and implemented in the not-too-distant future: core content, scope of practice, education standards, program accreditation, and certification. While physicians will govern core content and regulatory bodies govern scope of practice, North Carolina community college EMS faculty members will have input into developing and updating education standards and community colleges will apply for EMS program accreditation.

Community colleges will also play a part in shifting EMS workforce demographics to become more representative of the communities the EMS agencies and the colleges serve. Community colleges must work to target underrepresented populations in EMS—African American, Hispanic, female—and assist their members to enter and succeed in the completion of EMS programs.

Our community colleges must look to partnering with other agencies to develop new programs and new venues for increasing the health care workforce. Those community colleges offering 2-year Associate in Applied Science EMS degree programs will need to partner with 4-year colleges and universities to offer seamless bridging to health care-related bachelor of science degree programs in EMS, nursing, premedicine, and other health care fields. Within their own programs, community colleges will need to develop bridging programs for health care workers to move from one discipline to another: registered nurse to EMT, paramedic to respiratory therapist, and so forth.

As EMS evolves and the paramedic scope of practice increases

in complexity, access to EMS associate degree programs will become a necessity for potential students so that they can master the patient care procedures to be added. Currently in North Carolina, paramedics may perform intraosseous infusions, read and interpret 12- and 18-lead EKGs, perform needle cricothyrotomies, intubate (oral and nasal intubation), perform rapid sequence induction, and perform needle thoracotomies. Five to 10 years from now, especially as community needs for health care workers drive paramedics from the ambulance into the public health arena, the number and complexity of allowed procedures will likely grow.

One challenge currently being addressed by our community colleges is the increasing need for distance education offerings. Even though EMS has a strong hands-on component, much of the cognitive and affective instruction could be conducted through various nontraditional methods including Internet web-based instruction. Several community colleges in the state have developed “hybrid” courses in which the students meet in a traditional lab setting for skill instruction and evaluation while they attend the didactic portion of the course online. For courses without a psychomotor component, some colleges are offering them entirely online.

North Carolina community colleges are also adapting to meet the scheduling needs of the medical community. They are designing and providing programs with flexible scheduling to accommodate those students with rotating shift work schedules—“flip-flop” scheduling—allowing students to attend classes on changing days of the week. Several colleges are developing or offering specialized academies to EMS agencies so that newly hired personnel with limited EMS education can rapidly be taught and immediately begin to contribute to the workforce. Our North Carolina community colleges play an important part in the maintenance and growth of our state's EMS workforce and look to provide even greater contributions in the coming years. **NCMJ**