



National Evaluation of Advanced EMT Certification Programs in the US

Christine B. Cooke, NREMT¹; Christopher B. Gage, MHS, NRP^{1,2}; Jonathan R. Powell, MPA, NRP^{1,2}; Jordan D. Kurth, PhD¹; Katelynn A. Kapalo, PhD¹; Travis P. Sharkey-Toppen, MD, PhD³; Michael G. Miller, EdD, RN, NRP⁴; Ashish R. Panchal, MD, PhD^{1,2,3}

¹National Registry of Emergency Medical Technicians, Columbus, Ohio; ²The Ohio State University College of Public Health, Columbus, Ohio; ³The Ohio State University Wexner Medical Center, Columbus, Ohio; ⁴Committee on Accreditation of Educational Programs for the Emergency Medical Services Profession, Rowlett, Texas.



Introduction

The 2019 National EMS Scope of Practice Model proposed a movement toward national EMS program accreditation at the advanced emergency medical technician (AEMT) level by 2025. However, little is known concerning the current number of AEMT programs, their exam success rates, and their association with accredited paramedic programs.

Objective

The objective of this study was to evaluate the status of the educational system for AEMT training programs, including program availability and national certification performance.

Methods

Study Design, Setting, & Population

We conducted a cross-sectional evaluation of all AEMT programs with graduates taking the National Registry Cognitive Examination from 2019-2021.

Measures

- First attempt exam pass rates for 2019-2021
- Cumulative third-attempt pass rate for 2019
- Candidates are allowed to take the exam 3 times within a 2-year time period to try to pass. After the 3rd time, they must take a refresher course.
- Number of AEMT programs verifying paramedic graduates

Analysis

Descriptive statistics were calculated for the total number of AEMT exams administered, the number of AEMT programs verifying candidates, and program first and cumulative third attempt pass rates (% , interquartile range).

Results

Table 1: From 2019-2021, total students who attempted the AEMT Certification examination and their associated first and cumulative third pass rates (median, IQR).

Year	Students Attempting AEMT Certification	First Pass Success	Cumulative Third Pass Success
2019	4,680	56% (44.4, 71.4)	
2020	5,279	56% (42.9, 69.8)	
2021	6,462	55% (40.0, 69.2)	74% (62.5, 87.5)

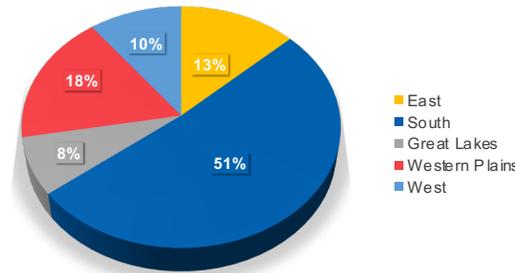


Figure 1. Distribution of AEMT Programs in each NASEMO Region.

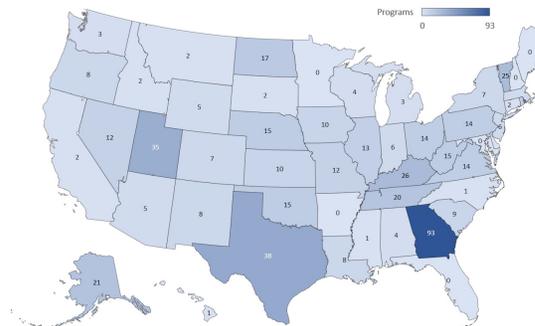


Figure 2. Heat map of the number of AEMT programs per state in 2021.

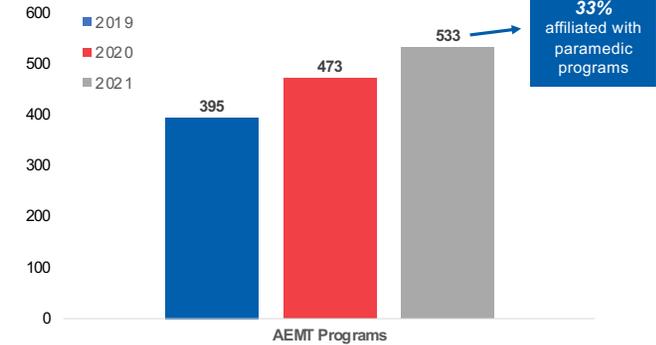


Table 2. Number of AEMT Programs in the US per year from 2019-2021. The total number of programs have consistently increased during the study period.

Limitations

This study only used candidates who attempted the National Registry Exam and not state-based AEMTs, and our population could be different from the overall national population.

This analysis only examined the first three attempts on the National Certification Exam and did not examine those who took a refresher course and had up to three additional attempts at National Certification.

Conclusion

The number of programs providing AEMT certification and candidates seeking AEMT certification increased from 2019-2021.

Only 33% of AEMT programs graduating students were affiliated with an accredited paramedic program and are, therefore, familiar with accreditation processes.

Future work will need to evaluate the possible educational and operational gaps for voluntary accreditation.