

## 4 The Association of Emergency Medicine Residency Training In Medically Underserved Areas And Current Practice In Medically Underserved Areas

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**Background:** Recent publications are heralding concerns of oversupply and geographic maldistribution of the emergency medicine (EM) workforce. Patients in medically underserved areas (MUAs) are more likely to rely on care by emergency physicians (EPs). It remains unclear if establishing more residency programs in MUAs will increase the likelihood of EPs remaining locally to practice.

**Objectives:** We explored the relationship between residency location and ultimate practice location with regard to MUAs. We hypothesized that training in an MUA would increase the likelihood of currently practicing in an MUA.

**Methods:** We geocoded 2021 AMA Masterfile data using ArcGIS Pro, analyzed current EP practice location, and merged it with the ACGME roster of EM residency programs. Using spatial analysis tools, we mapped the intersection of practice location, residency, and U.S.-government-designated MUAs.

**Results:** Of 253 EM residency programs in existence at the time of the analysis, 44% (112/253) are located in MUAs. Of the 43% (25,672/59,588) of EPs who trained in MUAs, 30% (7828/25,672) currently practice in MUAs. Of the 57% (33,916/59,588) of EPs who did not train in MUAs, 22% (7530/33,916) currently practice in MUAs. Being trained in a program based in a MUA was associated with a slightly higher odds of future practice in an MUA (OR 1.52, 95% CI:1.46-1.58).

**Conclusions:** Training in an MUA was associated with higher likelihood of currently practicing in an MUA. Our data was limited to the residency program's main site and

current primary practice location and does not account for all locations that an individual EP has or currently practices so may underestimate true prevalence. This information may help to strategically locate EM residencies to address shortages.

## 5 An Examination of Trauma-Informed Medical Education in the Emergency Medicine Clerkship: Opportunities for Learner-Centered Curricular Development

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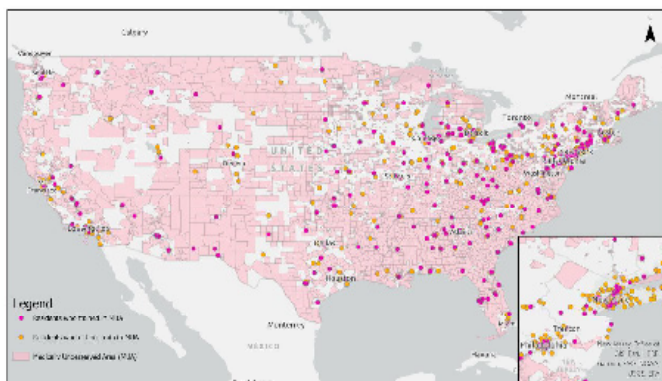
**Background:** During the Emergency Medicine (EM) clerkship, medical students are immersed in stressful or traumatic incidents with their patients and clinical teams. Trauma-informed medical education (TIME) applies trauma-informed care (TIC) principles to help students manage trauma.

**Learning Objective:** To collect, describe, and analyze medical students' EM clerkship experiences from the lens of TIME to guide curriculum development. We applied the critical incident technique (CIT) to 1) qualitatively capture students' critical incidents and 2) identify gaps in trauma-informed approaches to education.

**Methods:** We employed a constructivist grounded theory approach to explore experiences of medical students. We used the CIT to elicit narratives to better understand the six TIME components as they appear in the EM clerkship. In August 2022, twelve third-year medical students were interviewed and asked to describe a traumatic incident they observed/experienced and the impact the clerkship had on their ability to manage the situation. Using the framework method, transcripts were analyzed 1) inductively by making assertions about each clerkship incident's relevance to TIME and 2) deductively by categorizing elements into one of the six TIME principles.

**Results:** Consistent with current literature, the EM clerkship exposes students to trauma as they navigate learning and patient care. Preliminary analysis (Table 1) has revealed the need for debriefs that emphasize closure; correction of disparities between morally and academically acceptable actions; and educational structures that foster trust in students' skills.

**Conclusions:** Our early data supports TIME as a framework to guide trauma-informed and learner-centered educational programming. Despite a small sample size, preliminary data from medical student's clerkship experiences clarifies opportunities for curricular development in the EM clerkship that better support students working through trauma.



**Figure 1.** Geographic distribution of residency training by medically underserved area location.