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FROM THE EDITOR

What Makes Rural EMS in the US a Health Equity Concern?

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Emergency medical services (EMS) play critical roles in responding as soon as possible to health care needs of individuals across the United States, particularly in areas where access to a broad spectrum of critical health services is limited.[1] In many rural regions of the United States, EMS is often the first and most immediate point of contact for patients with urgent health needs, as it encompasses a network of transporters, first responders, emergency medical technicians, paramedics, and medical directors. However, despite their essential functions, rural EMS systems face challenges to an extent that health equity in many rural communities is severely compromised.

Geographic isolation is one of the barriers affecting rural EMS. Many rural communities are situated far from major hospitals or specialized medical services, which complicates the delivery of timely emergency care and can lead to poorer health outcomes for these patients.[1,2] This isolation is compounded by technological and infrastructure limitations that hinder the effectiveness and efficiency of emergency responses.[1] In particular, rural areas frequently grapple with inadequate or outdated medical equipment, limited access to advanced communication technologies, and insufficient infrastructure to support comprehensive emergency care.[1]

Additionally, rural EMS programs often operate on restricted budgets that are inadequate to cover the full range of operational needs.[1] This financial strain limits their ability to invest in essential resources, maintain updated equipment, and support ongoing training for personnel. Consequently, many rural EMS programs rely heavily on volunteers, who, while dedicated, are not always equipped to respond to a sufficiently full range of complex, emergent needs of patients.[3,4] On the other hand, low call volume in some rural areas can mean that professional EMS responders do not field sufficient numbers of cases to maintain their readiness to practice the full range of skills they developed during training.[3,4] In both cases, EMS staffing problems can compromise quality of care and negatively influence patient outcomes.

While technological advancements such as air transport and telehealth offer some solutions to the challenges posed by geographic remoteness or low population density, they are, in many cases, not substitutes for ground transport and hands-on care of sufficient quality to meet many patients' urgent needs. Air transport, although beneficial for rapid patient transfers, is costly and not always available. Telehealth can facilitate

consultation and follow-up but cannot replace the immediate, hands-on responses required during emergencies.

This issue of the *AMA Journal of Ethics* explores the multifaceted nature of rural EMS and its implications for health equity. Contributors address clinical, legal, and policy questions that are often overlooked in discussions of bioethics and health equity. Key topics include infrastructural and financial limitations on health service delivery, care quality, ethical implications of overreliance on volunteers, and policy reforms needed to enhance the sustainability and effectiveness of rural emergency services.

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