Rural Emergency Medical Service (EMS) Infrastructure: A Method for Measuring the Availability of EMS Resources

Background
Prehospital care has become an important element in the spectrum of health services. Approaches for comparing the availability of Emergency Medical Service (EMS) across communities are a first step in developing policies that ensure equitable access for rural and frontier communities.

Expected Annual Emergency Miles Per Ambulance: One Possible EMS Measure
Expected Annual Emergency Miles per Ambulance (EXAMB) is one way of comparing availability of EMS across counties. The ambulance is used as the core unit because of its importance for safe transport and the initiation of medical services. Expected annual emergency miles per ambulance can be calculated taking into consideration the number of ambulances and the total land area of a county, adjusted for county health and demographic characteristics. Potential application of the EXAMB measure was explored using information from five states [Mississippi, Oregon, South Carolina, Washington, and Wyoming].

Findings
- In Mississippi, South Carolina and Washington, EXAMB values were higher in more rural places, as measured by Rural – Urban continuum code or by population density.
- In Mississippi, South Carolina and Wyoming, EXAMB values were higher in whole-county health professional shortage areas.
- In all states, the EXAMB was positively related to the proportion of the county population in poverty.

Details are available in the full report, Investigating Rural Emergency Medical Service (EMS) Infrastructure: A Developmental Methodology for Measuring the Availability of EMS Resources. This report is available from the South Carolina Rural Health Research Center.