

## Rural-Urban Differences in Characteristics of Local EMS Agencies

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### BACKGROUND

This Findings Brief describes the general characteristics of local rural EMS agencies and important ways that they differ from the characteristics of agencies located in urban areas. The data are from a national survey of 1,425 local EMS directors that was conducted in 2006-07.

### KEY FINDINGS

- Rural EMS agencies typically serve a smaller population than urban agencies, but the land area they cover is substantially larger.
- More than 88% of all EMS organizations are not-for-profit and rural and urban agencies are equally likely to be not-for-profit.
- Rural EMS agencies are more likely to be freestanding or affiliated with a hospital while those in urban areas tend to be affiliated with other public services such as the fire or police department.
- While over 95% of all EMS agencies provide 911 emergency response, it is more common for rural EMS agencies to provide both non-emergency transport and interfacility transfer services compared to urban agencies.
- The types of vehicles used differs between rural and urban EMS agencies. Most EMS agencies surveyed have ambulances, but urban providers are more likely to use quick response vehicles, which are common among fire department-based EMS organizations.
- Directors of rural EMS agencies were less likely to report that their agency is fully staffed.
- Rural EMS agencies are significantly more likely to be staffed entirely by volunteers who are not paid on a regular basis. Among volunteer agencies, those located in rural areas are more likely to sometimes pay volunteer emergency medical technicians (EMTs) and paramedics, often by a flat rate or an hourly rate when on a run.
- More than three-quarters of all EMS agencies, regardless of location, have paramedics or intermediate-level EMTs. However, rural EMS agencies are more likely to use only basic-level EMTs.

*More detailed study results can be found in the final report "Issues in Staffing Emergency Medical Services: A National Survey of Local Rural and Urban EMS Directors" located at [http://www.shepscenter.unc.edu/research\\_programs/rural\\_program/](http://www.shepscenter.unc.edu/research_programs/rural_program/).*

**TABLE 1. CHARACTERISTICS OF LOCAL EMS AGENCIES**

	<b>Rural % N = 741</b>	<b>Urban % N = 684</b>	<b>p Value</b>
<b>Median square miles covered</b>	150	47	
<b>Median number of people served</b>	4,992	15,500	
<b>Affiliation (%)</b>			
Freestanding	49.8	34.5	<.0001
Part of fire department	38.0	55.9	
Part of hospital	10.0	4.6	
Part of police department, public safety or other	2.2	5.0	
<b>Services Provided (%)</b>			
911 emergency response	96.1	94.8	.2564
Non-emergency transport	53.9	36.7	<.0001
Interfacility transfer	46.3	25.6	<.0001
First responder and nontransporting	13.5	14.6	.5482
<b>Vehicles used (%)</b>			
Ambulance	89.2	81.5	<.0001
Quick Response Vehicle	21.6	33.1	<.0001
Helicopter	4.5	6.8	.0583
Fixed-wing aircraft	1.1	0.9	.7050
Off road/all terrain vehicle	12.2	9.4	.0959
Boat	9.2	11.5	.1574
Other	11.1	19.9	<.0001
<b>Payment of staff (%)</b>			
All staff are volunteers	48.6	30.0	<.0001
All staff are paid regular salary or regular hourly wage	25.3	37.0	
Both volunteer and paid staff	26.1	33.0	
<b>Certification of staff (%)</b>			
Have only basic-level staff	21.5	15.1	.0029
Have paramedics or intermediate-level staff	78.6	84.9	
<b>Currently fully staffed</b>	43.5	50.2	.0125

**METHODS**

A stratified random sample of local community-based EMS agency directors, identified from the National Association of State EMS Officials' list of licensed EMS agencies, was surveyed by mail. Ineligible agencies include those based at airports or manufacturing plants, those associated with entertainment venues, e.g., racetracks, those that were part of military installations, and others not considered to be community-based services. Eligible EMS agencies were classified as metropolitan (urban) or nonmetropolitan (rural) based on the county of their mailing address. The sample was stratified on metropolitan status; 1,250 agencies were chosen from metropolitan counties and 1,250 from nonmetropolitan. Surveys were completed by 57.2% (n=1,425) of those sampled with a higher response rate from those in nonmetropolitan areas (59.5%, n=741) compared to metropolitan areas (54.9%, n=684). Surveys were received from EMS directors in 47 states.