

Rural Volunteer EMS: Reports from the Field

Final Report No. 99

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EXECUTIVE SUMMARY

Prehospital emergency care services (EMS) are an essential component of a comprehensive health care system. Rural residents and those traveling through rural areas rely on EMS for treatment and transport in the event of an injury or other health emergency. In many areas where the number of emergency calls is too small to support a full-time paid EMS service, volunteers are the mainstay of prehospital emergency care.

Reports that rural volunteer EMS is threatened appear frequently in local newspapers and online news sources. Surveys have also documented the difficulties in maintaining viable rural EMS. This report explores the current state of rural EMS by interviewing 49 local directors from all-volunteer rural services in 23 states. Respondent agencies were considered to be rural if they were located in a nonmetropolitan county or within a metropolitan county in an area with a Rural Urban Commuting Area (RUCA) code of four or higher.* A semi-structured interview format encouraged respondents to speculate on the future viability of their local service, describe the challenges they face and what they need to ensure continuance. The descriptions presented represent the perceptions of those interviewed, but are also likely to resonate with other rural EMS administrators.

RESULTS

The following characteristics describe the 49 participating local rural EMS agencies:

- Most (63%) are Basic Life Support (BLS) services and the majority (78%) transport patients.
 - Two-thirds have EMT-Intermediates or EMT-Paramedics on their volunteer rolls.
 - On average, there are 17 volunteers on the rolls of each agency; 11 take calls on a regular basis.
 - EMS-only agencies are more common than fire department-based agencies (59% vs. 41%).
 - Median call volume is 163 calls per year, slightly less than one call every other day.
- Agencies with the lowest demand (the lowest 25%) average 38 calls per year.

Recruitment and Retention: Most (69%) have problems recruiting and/or retaining volunteers. EMS-only services are more likely to have problems than fire-based ones (72% vs. 65%) and half reported that their problems remain the same or are getting worse. Only 14% reported that their problems are getting better. For some, recruitment is more of a problem than retention. For many, the challenge is a small population base, few employment options requiring that residents work out-of-town, and competing time demands for families. They reported a few successful strategies to recruit volunteers that include using personal connections, restructuring the organization, and improving access to training. Other suggestions they thought might improve recruitment and retention included pay and benefits such as the Length of Service Awards Program (LOSAP), paying EMTs to cover certain shifts, and employer incentives to support employee volunteers.

*Rurality in the original national study (from which this survey sample was drawn) was defined based on ZIP code using the Office of Management and Budget (OMB) definition of urban and rural and included three levels: metropolitan, micropolitan and non core-based statistical areas (non-CBSA). RUCA codes were added to the survey data to allow for a more detailed and comprehensive definition of rural for the current study.

Paying Volunteers: Half of the interviewees pay their volunteers in some way, for example, by the run or standby pay. Among those that do not pay volunteers, one-third are considering or have considered paying and two-thirds are not. Some have considered but rejected paying, primarily because their volunteers do not want to be paid, but also because they do not have the funds. Other services are actively seeking ways to pay volunteers to be on standby or for daytime coverage.

Sources of Funding: Most rural agencies (83%) rely on multiple sources of ongoing financial support. Almost three-quarters are supported by local/county funds and most hold fundraising events. More than half of rural agencies have received one-time state, local or grant funds. Among those with a single source of support, half are supported by fundraising and donations alone and the others receive only tax dollars or only billing revenue. Most who reported a change in revenue noted that donations were down or that tax support was up.

Billing for EMS Services: Billing for services is the norm rather than the exception for rural services. Two-thirds of them bill insurance, patients, or hospitals, but variations in billing practice exist such as special consideration for community residents or not pursuing collection of unpaid balances. Few services bill hospitals. The majority of those that do not bill have considered but rejected billing for reasons that include the potential hassle, pushback from EMTs and/or county officials, and concern that billing might discourage citizens from calling for assistance. Only a few that do not bill are actively exploring the possibility of adding this revenue stream.

Interfacility and Nonemergency Transports: Among the 40 services with transport capability, 20% provide interfacility transport and average eight transports per month. Slightly more transporting services (28%) provide nonemergency transport, mainly taking patients to a nursing home, to a rehabilitation center, or to their home. Transport of an inpatient for short-term care at another facility, e.g., for dialysis or a diagnostic test, is provided by only five of the surveyed agencies.

Relationships with Other EMS Providers: Virtually all respondents reported that they have Mutual Aid Agreements with other services and many noted that these agreements work well. Some also reported good working relationships with agencies to provide ALS intercept when needed and transport services for those rural volunteer services that do not transport.

Predicting the Future: Respondents were asked to rate the likelihood that they will be able to operate as they currently do over the next five years. More than two-thirds were optimistic about their viability and 20% rated their chances at 5 (on a 10 point scale), indicating that they thought it could go either way. Four service directors were pessimistic. Services that are stable did not differ from those that are threatened on characteristics such as organization, billing, or payment of volunteers. Problems recruiting volunteers was the most striking difference with many more respondents in the threatened group reporting that these problems are getting worse.

EMS agencies that are stable and for which the future looks good reported that they have both an adequate number of volunteers and good community support for funding. For EMS agencies that are challenged to maintain viability, recruiting volunteers was the most frequently reported

challenge. Decreasing financial support was mentioned but was not reported as a barrier by directors in most of these threatened services.

DISCUSSION

Many rural volunteer EMS directors are optimistic about their ability to maintain their service in the future, but 20% are uncertain and 8% are frankly pessimistic. Ability to recruit volunteers appears to be the main limiting factor. The potential loss of 8% of volunteer EMS services across the country would present a significant challenge to providing essential emergency care services and underlines the need for solutions to address this potential loss.

Factors that help ensure provision of EMS include financial support. The creativity needed to maintain funding is illustrated by the multiple sources reported by most agencies but some directors reported threats to their funding. While most did not report that finances were a struggle, some noted that they did not know where the money would come from if they took on the additional cost of paying volunteers.

Billing clients and/or insurance for EMS care is a potential source of revenue for paying EMTs. However, most respondent agencies already bill, and for most that do not, adding this revenue stream would not be feasible (they are nontransporting) or would not be accepted by the volunteer community. Several directors in agencies that do bill reported that they regularly review and adjust their rates in keeping with neighboring agencies and insurance allowable charges, indicating that these agencies may already be obtaining the optimal benefit from billing for services.

All of the EMS agencies in this study are staffed by volunteers, but half of the agencies already pay these volunteers in some way. Given the low call volume for many services, the cost to provide limited call-based payment for volunteers is significantly less than the cost of maintaining a full-time paid staff. A compromise solution being implemented in some areas is to hire full-time staff for time periods that are difficult to cover with volunteers. Such a hybrid system may be difficult to implement in areas where community members have volunteered for many years and may object to a system that pays some EMTs full-time and others only when working or not at all. However, in areas where the population base is both decreasing and aging, the community activism that sustains volunteer services may not be enough to keep these services viable no matter how dedicated the citizens who run the organization and who respond to emergencies at any hour.

Sustainability of rural volunteer EMS is inextricably tied to the local community and community characteristics that hinder essential volunteer services often cannot be addressed by the EMS agency alone. Community economics determine if community members can work locally or if they must travel out-of-town to work, limiting their availability for EMS calls. Despite challenges, many rural volunteer EMS agencies are stable and regularly obtain the human and financial capital they need to provide EMS care. The need for prehospital care in small communities continues to be recognized and met by local residents and local officials who have stepped up with considerable creativity when market-based solutions were not available. In a significant number of areas, however, the ability of community volunteers to provide EMS is

being stretched to the breaking point and requires new creativity. Consolidation of local services to benefit recruiting and to increase run volume and revenue must be considered. Although rural volunteer EMS grew locally from local need, the need to work together with other EMS agencies or other health care providers in systems of care is inevitable and offers options to maintain these important services.

BACKGROUND

Prehospital emergency care services (EMS) are an essential component of a comprehensive health care system. Rural residents and those traveling through rural areas may be far from a hospital and must rely on the emergency medical service system for treatment and transport in the event of an injury or other health emergency.

In many rural areas, the number of these emergency events may be small. In some cases the number is too small to justify and support a full-time paid emergency medical care service. For this reason, emergency services manned by volunteers have been the mainstay of prehospital emergency care in rural areas for decades.

Reports that rural volunteer EMS is threatened appear frequently in local newspapers and online news sources.¹⁻² Systematic local and national surveys have also documented the difficulties in maintaining viable EMS in rural areas.³⁻⁵ Rural respondents to a survey of North Dakota EMS personnel were more likely than their urban counterparts to report that recruiting EMS providers was a serious problem in their area (70% vs. 39%).³ In Minnesota, 75% of rural services reported that they needed to add staff, and rural services were more likely than urban ones to report difficulty in covering all their shifts (67% vs. 38%).⁴

A national survey of local EMS directors in rural and urban areas confirmed that rural agencies were more likely to be staffed by volunteers only (49% for rural vs. 30% for urban).⁵ Rural directors were also more likely to report always having a problem recruiting and retaining EMTs and paramedics. Lack of time available for community members to volunteer was the barrier to recruitment most frequently reported by rural directors (60%) and, similarly, time or scheduling conflicts was the most common barrier to retention (66%). Other recruitment barriers more common in rural areas included the length (44%), location (32%) and cost (25%) of training programs for EMTs. Maintaining certification through continuing education was also a barrier to retention. Rural directors were more likely than urban ones to cite being a volunteer system and not being able to pay (23% vs. 13%) as a barrier to recruitment.

This project sought to explore the current state of EMS in rural areas by interviewing rural EMS directors about their challenges. Given the concerns raised by anecdotal reports of service closure and documented challenges to rural EMS, we sought to obtain the perspective of the local director in a semi-structured interview format that encouraged respondents to speculate on the future viability of their local service, the challenges they face, and what they need to ensure continuance.

METHODS

A sample of 200 local EMS directors was randomly selected from respondents to the national study conducted previously by the authors. To be eligible for the interview study, respondent agencies had to be located in a nonmetropolitan county or within a metropolitan county in an area with a Rural Urban Commuting Area (RUCA) code of four or higher.* In addition, they had to have identified themselves as an all-volunteer service in the previous study.

A semi-structured interview form was developed for the study. In it, respondents were asked to describe their service and the volunteers that staff it. Their ability to recruit and retain EMTs was queried as well as compensation for volunteers, including compensation being considered. Sources of revenue for maintaining the local service, which might be used to compensate volunteer staff, were assessed including information regarding billing for services. Finally, local directors were asked to speculate about whether their service could continue to operate as it currently does over the next five years.

This interview survey contained both closed and open-ended questions. The purpose of the study was to explore the challenges to continued service identified by local rural volunteer EMS agencies. Because of the relatively small number of respondents and the open-ended structure of many questions, results were tallied but not tested for statistical significance. Data presented provide a snapshot of rural volunteer EMS and the descriptions represent the perceptions of those interviewed. They are, however, likely to resonate with other rural EMS administrators.

Agency directors were contacted by letter to introduce the study and later by telephone, if possible, to set up an interview if the director did not initiate contact him or herself upon receipt of the letter. Directors who agreed to participate were sent the interview questions in advance and given the opportunity to review and correct the completed interview. The study was reviewed and approved by the University's Institutional Review Board.

The ability to reach local volunteer EMS agencies by phone presented a major challenge to the completion of this study. The telephone number for local EMS agencies is sometimes the home number of the local director and is not always updated when the director changes. Frequently, the number listed was a phone that was regularly unattended and used only for outgoing calls. Of the 200 agencies that were contacted by letter, only three appeared to be closed (mail was returned or other indication of closure). Project staff could not reach a person by phone at 89 services and voicemail messages were left at many numbers. Contact was made with personnel at 109 services, although occasionally the person reached was a volunteer who may or may not have relayed the message to the director. Forty-nine (49) interviews were conducted representing 24.5% of the entire sample and 55% of services where personal contact was made. The difficulty in scheduling interviews is further illustrated by the fact that ten interviews were scheduled but never completed despite numerous attempts to reschedule. Only three directors who were reached in person refused to participate.

*Rurality in the original national study was defined based on ZIP code using the Office of Management and Budget (OMB) definition of urban and rural and included three levels: metropolitan, micropolitan and non core-based statistical areas (non-CBSA). RUCA codes were added to the survey data to allow for a more detailed and comprehensive definition of rural for the current study.

RESULTS

Rural Volunteer EMS – Services and Staff

Local EMS Directors or their designees at 49 rural volunteer agencies participated in the study. All US Census regions and seven of nine US Census divisions were represented; only East South Central and West South Central were not included. Agencies were located in 23 states. The following characteristics describe the 49 participating local rural agencies:

- Most (63%) are Basic Life Support (BLS) services.
- In addition to 9-1-1 response, the majority (78%) transport patients.
- Two-thirds have EMT-Intermediates or EMT-Paramedics on their volunteer rolls.
- On average, 17 volunteer EMTs or paramedics are on the rolls of each agency, but an average of 11 volunteers (64%) take calls on a regular basis.
- EMS-only agencies are more common than agencies affiliated with fire departments (59% vs. 41%).
- The median annual call volume is 163 calls, slightly less than one every other day.* Agencies with the lowest demand (the lowest 25%) have an average of 38 calls per year.

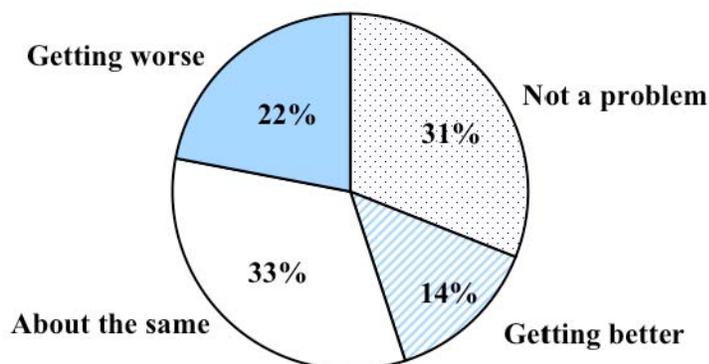
Recruitment & Retention of EMTs

Rural EMS directors in the previously cited national study were more likely than their urban counterparts to report having difficulty recruiting and/or retaining EMTs.⁵ Respondents in this study were asked not only if they had challenges recruiting and retaining staff but also if their personnel challenges were changing over time (Figure 1).

- More than two-thirds (69%) reported that they have a problem recruiting and/or retaining volunteers. EMS-only services are somewhat more likely to have recruitment and retention problems than are fire-based services (72% vs. 65%).
- More than half (55%) of all respondents reported that recruitment and retention problems are the same or are getting worse (Figure 1). Only 14% reported that they have problems but the problems are getting better.

*Annual call volume was reported by 69% of respondents.

Figure 1: Status of EMT recruitment and retention problems in rural volunteer EMS agencies



In open-ended questions, respondents elaborated about their recruitment and retention problems:

- For some services, recruitment is more of a problem than retention. Once members sign up, they are loyal.
- The rural population base is small. There are few employers in many areas and many people work out-of-town, making it impossible for them to volunteer during the day.
- It is difficult to provide weekend coverage. There are too many competing demands for volunteers with families.
- Some services maintain a steady volunteer base, but others are always in flux.
- There were few examples of successful strategies to recruit volunteers but those mentioned included:
 - The director knows everyone in town and uses his/her connections to recruit.
 - Restructuring of their organization brought “new thinking” and got the attention of the community.
 - Access to training is easier, e.g., more on-site and/or web-based training.

Directors with current personnel challenges also responded to a question asking what they thought would help with recruitment and retention and they reported the following:

- Better access to training and decreasing the time burden of training;
- Pay and benefits such as the Length of Service Awards Program (LOSAP) or paying to cover weekends;
- Incentives for employers to promote their allowing employees to answer calls during work hours;
- A change in population demographics and opportunity, e.g., a larger population base, decreased out-migration of young people, and increased employment opportunities; and
- Improving the visibility of the service in the community.

Some reported that they have tried everything and have not had success.

Paying Volunteers

Inability to pay staff was cited as a barrier to recruitment and retention in our national survey of local EMS directors, although it was among the barriers that were least frequently reported by rural respondents. In follow-up to the original survey, we confirmed if and how volunteers were paid. In addition, changes in the pay structure were queried.

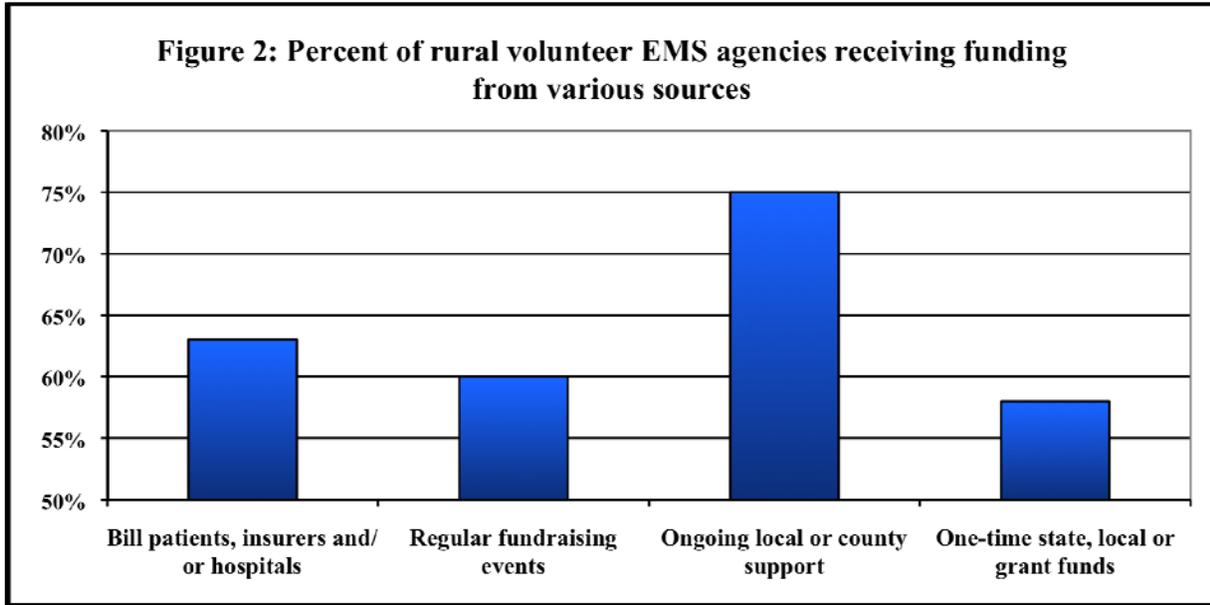
Half of the interviewees (n=24) were already paying their volunteers at the time of the original survey. More than half of them paid volunteers by the run. A few paid by the hour when EMTs were on a run and some included standby pay. Since then, one-third of these services have made changes in their volunteer compensation. Most of them added on-call pay or increased the rate of pay. Only one service of those that did not pay at the time of the original survey now pays its volunteers on a per call basis.

Among those 24 services that still do not pay, eight are considering or have considered paying and 16 are not. Those that have considered or are considering paying were almost evenly divided into two groups. Some services have considered but rejected paying volunteers, primarily because their volunteers do not want to be paid, but also because they do not have the funds. Other services are actively seeking ways to pay volunteers to be on standby or ways to pay for daytime coverage.

Services that reported never considering payment for volunteers cited various reasons. Some do not feel a need to pay because their system is working well. It was noted by respondents that EMS is a community service and volunteers do not serve for the money. Finally, it was reported that there would be no point in considering payment if there were no funds to support it.

Funding the Local Rural EMS Agency

Volunteer EMS services rely on various sources of funding to equip and run their service. Interviewees were asked if they received funds from billing for services, fundraisers and donations, county or city tax support, or from grants from foundations or governmental agencies (Figure 2). Respondents could report multiple sources of funding.



Most local services (83%) rely on multiple sources of ongoing financial support. Of those who reported a single source of support, half are supported by fundraising and donations alone and the others receive only tax dollars or only billing revenue.

Those who reported multiple income streams frequently seek funds from all possible sources. Two-thirds (65%) bill for their services and almost as many hold regular fundraising events. Almost three-quarters are supported by local or county funds. More than half of local rural EMS agencies have applied for and received one-time state, local or grant funds.

Respondents demonstrated great creativity when it came to seeking sources of funding. They hold fundraisers that not only raise the dollars they need but provide visibility in the community. They are aware of one-time grant programs and take advantage of these opportunities to purchase needed equipment, e.g., automated external defibrillators.

When asked about changes in their revenue sources in recent years, most of those who reported a change noted that donations are down and tax support is up.

Billing for EMS Services

Rural volunteer EMS services have had to be creative to maintain the funds they need to run their services. Most do not rely strictly on community support through fundraising and tax

support. Although the process can be complex, billing for services is the norm rather than the exception for these rural services. Thirty (30) respondents reported that their service bills insurance, patients, or hospitals. Most bill both insurance and clients, but variations in practice exist such as special consideration for community residents compared to transient users of their services or not pursuing collection of unpaid balances. Only three services reported that they bill the hospital. Most (n=18) contract with a company to do their billing; others do it themselves (n=10) or the county or hospital does it for them (n=2).

Thirteen services that do not bill reported on their consideration of the possibility of billing. The majority have considered billing but rejected it for various reasons including the potential hassle, push-back from EMTs and/or county officials who see EMS as community service that is already paid for by citizens through their taxes, and concern that billing might discourage citizens from calling for assistance. Only three of 18 services that reported that they do not bill are actively exploring the possibility of adding this revenue stream.

Interfacility and Nonemergency Transports

In addition to transporting from the scene of a 9-1-1 response call, rural volunteer EMS agencies also provide transport services for hospitalized patients and from the hospital when the patient is discharged. These transports were queried in the interview among the 40 services with transport capability using the following definitions.

Interfacility transports involve movement of a patient from one facility to another when care is being transferred to the second facility. These are often transports of critically ill patients who need a higher level of care. Twenty percent of the transporting EMS agencies in this study provide interfacility transport and average eight per month (range 1-24). Some directors noted that there is a paid service in the area that provides interfacility transport.

Nonemergency transport moves a patient to another location, sometimes during the course of care but more often, in the case of these respondents, when hospital care is complete. Slightly more transporting services (28%) provide nonemergency transports, mainly taking patients to a nursing home, to a rehabilitation center, or to their home. Transport of an inpatient for short-term care at another facility, e.g., for dialysis or a diagnostic test such as magnetic resonance imaging (MRI), is provided by fewer of the survey agencies. A recent rule change by the Centers for Medicare and Medicaid Services (CMS) includes payment for these transports in the DRG payment to the hospital and EMS agencies must now bill the hospital rather than Medicare to receive reimbursement. Only five agencies reported that they provide this type of nonemergency transport.

Relationships with Other EMS Providers

Respondents were asked if other agencies are filling unmet need in their community. Virtually all respondents reported that they have Mutual Aid Agreements with other services and many noted that these agreements work well. Some also reported good working relationships with agencies to provide ALS intercept when needed and transport services for those rural volunteer services that do not transport.

reported that their current workforce is loyal and responsive; others reported an infusion of new volunteers.

- For EMS agencies that are challenged to maintain viability over the next five years, recruiting volunteers is the most frequently reported challenge. Among the constraints reported by this group are the limited population base (retirees, few young people working in the community) and the need to pay for daytime coverage. Decreasing financial support was mentioned but was not reported as a barrier by directors in most of these threatened services.

DISCUSSION

On average, the local rural volunteer EMS agencies participating in this study were more likely to be stand-alone BLS agencies with a call volume of one call or less each day. Some have a paramedic on their volunteer rolls and two-thirds of their volunteer members take calls on a regular basis. In addition to providing 9-1-1 response, most of them have the capability to transport from the scene.

While many of those interviewed were optimistic about their ability to maintain their service in the future, 20% were uncertain and another 8% were frankly pessimistic. The ability to recruit volunteers appears to be the main limiting factor for those agencies that report that they are struggling. The potential loss of 8% of volunteer EMS services across the country would present a significant challenge to maintaining the continuum of essential emergency care services and also underlines the need for solutions to address this potential gap in prehospital emergency care.

Factors that support provision of EMS services and that can be addressed by rural communities include financial support for EMS. Directors interviewed for this study reported some threats to funding, and the creativity needed to maintain funding is illustrated by the multiple sources reported by most agencies. While most respondents did not report that finances were a struggle, it was mentioned that they did not know where the money would come from if they took on the additional cost of paying volunteers.

Billing clients and/or their insurance for EMS care is a potential source of revenue that could be used to pay EMTs. In this study, however, the majority of respondent agencies already bill for their services and for most of those that do not bill, adding this revenue stream would not be feasible (they are nontransporting) or would not be accepted by the volunteer community. When asked about changes in billing, more than one respondent reported that they regularly review and adjust their rates in keeping with neighboring agencies and insurance allowable charges, indicating that these agencies may already be obtaining the optimal benefit from billing for services.

All EMS agencies participating in this study are staffed by volunteers but half of the agencies already pay their volunteers. Volunteers are being paid when they answer a call and, in some cases, when they are on standby. Given the call volume for many services, the cost to provide this limited call-based payment to volunteers is significantly less than the cost of maintaining a full-time paid staff. A compromise solution being implemented in some areas is to hire full-time

staff for those time periods that are difficult to cover with volunteers, e.g., weekdays and/or weekends. Such a hybrid system may be difficult to implement in an area where community members have volunteered for many years and may object to a new system that pays some EMTs full-time and others only when working or not at all. EMS as community service is a strong motivator in many rural areas and has contributed to long-term stable EMS agencies that are not threatened. However, in areas where the population base is both decreasing and aging, the community activism that sustains volunteer services may not be enough to keep these emergency care services viable no matter how dedicated the citizens who run the organization and respond to emergencies at any hour.

SUMMARY

Sustainability of rural volunteer EMS is inextricably tied to the local community and community characteristics that enable essential volunteer services are often those that cannot be addressed by the EMS agency alone. Community economics determine if community members can work in their town or if they must travel for employment and limit their ability to volunteer. Despite challenges, many rural volunteer EMS agencies are stable and regularly obtain the human and financial capital they need to provide prehospital emergency care. Policies that support volunteer activity - tax incentives for employers or for volunteers, token compensation for volunteers, to name a few - keep these systems viable. Local rural volunteer EMS organizations and the communities that support them have demonstrated considerable creativity and commitment to maintain these essential services.

The need for prehospital care in small communities continues to be recognized and met by local residents and local officials who stepped up when market-based solutions were not available. In a significant number of areas, however, the ability of community volunteers to provide emergency services is being stretched to the breaking point and requires new creativity. Consolidation of local services to benefit recruiting and to increase run volume and revenue must be considered. Although rural volunteer EMS grew locally from local need, the need to work together with other EMS agencies or other health care providers in systems of care is inevitable and offers options to maintain these important services.

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