**Rural Emergency Response - the Safety and Health Safety Net**

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If I cry out, will someone come to help? This question is being asked with increasing frequency throughout rural America. The availability of emergency services to mitigate a crisis has become a universal expectation of residents across the Nation - both urban and rural (Illinois Department of Public Health [IDPH], 2000). To a large degree, the identity of a community and its residents revolves around the services it makes available to them. Emergency service availability has a direct impact on the quality of life of a community. Rural firefighters, rescue personnel, police, emergency medical personnel, hospital staffs and auxiliary organizations - mostly volunteers - exist to support and nurture those in need (Casey and Leger, 2000).

Rural residents assume emergency services will be available if requested. Evidence from both anecdotal and structured sources suggests this assumption is on an increasingly shaky foundation. From across the Nation reports are being received of difficulties in recruiting and retaining personnel and finding adequate financial resources to meet demands and public expectations (IDPH, 2000; University of North Dakota [UND], 1995). In a 1999 survey of its membership the National Institute for Farm Safety, Inc. (NIFS - the only national, professional organization solely devoted to issues involving agricultural safety and health) found their members ranked "emergency response for farm injuries" 5th on a list of 24 priorities needing research attention (following tractor and machinery injuries, education and training, roadway transportation of farm equipment, and understanding farmers' views and social aspects) (NIFS, 1999).

Unfortunately, the 1989 landmark document, Agriculture at Risk: A Report to the Nation fails to address the issue of emergency response and its importance to the well being of rural residents (National Coalition for Agricultural Safety and Health [NCASH], 1989). This paper will attempt to address some of the issues and concerns surrounding this area with major emphasis being placed on emergency medical service availability to rural areas.

**Background Demographics and Related Data**

Following are a number of observations having implications for emergency service availability to rural residents (Gibbons and Olson, 1994; National Safety Council [NSC] 2000; UND, July, 2000):

-- Rural areas which comprise 4/5ths of America's land area contain only 1/5th of the country's population
-- 29 states have at least 1/3rd of their population classified as rural.
-- 18% of rural residents are over 65; 15% urban over 65.
-- 1/4th of the rural residents are at 200% or less of the federal poverty guidelines.

-- A greater percentage of rural elderly live in poverty (21%) than urban (12%).
-- When workers of all ages are included, agriculture has the highest accidental work death rate of any major occupational group.
-- 60% of all motor vehicle deaths occur in rural areas.
-- 38% of all machinery related deaths occur on a farm.
-- 10% of rural employees (as opposed to owner operators or family members) are engaged in the two most hazardous occupations in the U.S. - farming and underground mining (Illinois Rural Health Association [IRHA], 1995).
-- Rural elders are more often disabled and diagnosed with more severe occupationally related illnesses than those found among urban residents.
-- Rural residents are more likely to be self-employed and without comprehensive health care coverage.
-- Nationally 25% of the self-employed are found to be uninsured, compared to 15% of all wage earners.
-- Considering the total rural population, about 16% are uninsured and 30-50% are underinsured.
-- 40% of the rural population (22 million Americans) live in a medically underserved area.
-- While 1 in 5 Americans live in rural areas, only about 1 in 10 physicians practice there.
-- 243 counties in the United States do not have a physician.
-- Only 10% of medical specialists practice in rural areas.

Obviously, rural America is filled with people abnormally vulnerable to emergencies and emergency medical services needs. At the same time it possesses characteristics that make providing these services abnormally difficult.

**The Evolution of the American EMS System**

A chronology of significant events in EMS history might appear as follows (NHTSA, 1996):

1797 --- Napoleon's chief physician implements a pre-hospital system designed to triage and transport the injured from the field to aid stations
1860's --- Civilian Ambulance services began in Cincinnati and New York City
1915 --- First known air medical transport occurs during the retreat of the Serbian army from Albania
1920's --- First volunteer rescue squads organize in Roanoke, Virginia, and along the New Jersey coast
1958 --- Dr. Peter Safar demonstrates the efficacy of mouth-to-mouth ventilation
1960 --- Cardiopulmonary resuscitation (CPR) is shown to be efficacious
1966 --- The National Academy of Sciences, National Research Council publishes Accidental Death and Disability: The Neglected Disease of Modern Society
1966 --- Highway Safety Act of 1966 establishes the Emergency Medical Services Program in the Department of Transportation
1972 --- Department of Health, Education, and Welfare allocates 16 million dollars to EMS demonstration programs in five states
1973 --- The Robert Wood Johnson Foundation appropriates 15 million dollars to fund 44 EMS projects in 32 states and Puerto Rico

1973 --- The Emergency Medical Services Systems (EMSS) Act provides additional federal guidelines and funding for the development of regional EMS systems; the law establishes 15 components of EMS systems
1981 --- The Omnibus Budget Reconciliation Act consolidates EMS funding into state preventive health and health services block grants, and eliminates funding under the EMSS Act
1984 --- The EMS for Children program, under the Public Health Act, provides funds for enhancing the EMS system to better serve pediatric patients
1985 --- National Research Council publishes Injury in America: A Continuing Public Health Problem describing deficiencies in the progress of addressing the problem of accidental death and disability
1988 --- The National Highway Traffic Safety Administration initiates the Statewide EMS Technical Assessment program based on ten key components of EMS systems
1990 --- The Trauma Care Systems and Development Act encourages development of inclusive trauma systems and provides funding to states for trauma system planning, implementation, and evaluation
1993 --- The Institute of Medicine publishes Emergency Medical Services for Children which points out deficiencies in our health care system's ability to address the emergency medical needs of pediatric patients
1995 --- Congress does not re-authorize funding under the Trauma Care Systems and Development Act
1996 --- National Highway Traffic Safety Administration releases Emergency Medical Services Agenda for the Future document.

Prior to 1966, EMS did not really exist as a formal system in the United States. What did exist was a disorganized, fragmented system of service that was under-equipped and poorly staffed. At the rural level funeral homes often equipped their hearses with cots to serve as an emergency transport system. Usually the pre-hospital care providers had only rudimentary medical skills to offer the patient.

EMS as we know it today was born in 1966 as a result of several events. First, the publication, Accidental Death and Disability: The Neglected Disease of Modern Society by the National Academy of Sciences - National Research Council painted a rather poor picture of emergency care at that time in the U.S. The report made a series of recommendations to improve emergency care and is credited in part with developing the building blocks of our modern system (U.S. Department of Transportation [USDOT], 1995).

Close on the heels of the publication of Accidental Death and Disability were the passage of the Highway Safety Act of 1966 and the establishment of the Department of Transportation in the same year (Bever, 1996). As enacted, the Highway Safety Act required the Secretary of Transportation, through the Departments' EMS program, to develop certain programs to respond to the needs of highway injured patients. In reporting the Highway Safety Bill to the House of Representatives prior to enactment, the House Committee in Public Works stated, "When accidents occur, it is essential that every available resource be mobilized to save lives, lessen the severity of injuries, protect property and restore the movement of traffic. An essential part of the State safety program should be the development of emergency systems." (USDOT, 1995).

Most notable among the guidelines developed as a result of the Act was a series of training programs for those who provide care in ambulances; the emergency medical technician (EMT) from the EMT-Basic through paramedic levels. These programs are now used in all 50 states. These EMTs are the recognizable symbol of emergency medical services in the United States today.

Although there have been several other significant milestones in the history of EMS, such as the repeal of the Emergency Medical Services Systems Act of 1973, and The Trauma Care Systems Planning and Development Act of 1990, the EMS program as established in DOT/NHTSA has endured. This EMS program, as defined in the EMS Highway Safety Program Guideline, is the only direct statutory delegation of responsibility for EMS to the Governors of each state (USDOT, 1995).

The NHTSA not only provides leadership to the EMS community, but also to other federal agencies involved in EMS. Through advisement NHTSA has assisted the U.S. Department of Health & Human Services in the development of EMS initiatives that have a narrow focus such as the development of the trauma system component of EMS and improving rural health care.

Although the focus of NHTSA's program is on highway crash patients, they recognize the program benefits all patients requiring immediate medical attention. The NHTSA states, "…If the traffic safety program of the Federal Government gives rise…to a concerted national effort to provide acceptable levels of emergency medical services, benefits will accrue all around." (USDOT, 1995).

The NHTSA serves its Federal role through the coordination of all resources and activities relative to statewide EMS system development contained in the State's Statewide Comprehensive EMS Plan. Through the use of a multi-disciplinary team, they evaluate the state's EMS system and provide leadership and guidance at the state level.

In 1996, a national consensus document, EMS Agenda for the Future, was released with the support of the NHTSA of the U.S. Department of Transportation, the U.S. Department of Health and Human Services' Health Resources and Services Administration, the National Association of EMS Physicians and the National Association of State EMS Directors (NHTSA, 1996). This document currently reflects their vision of the future of EMS in the United States from a top-down viewpoint. The NHTSA vision addresses the following 14 areas of EMS challenges: Integration of Health Services, EMS Research, Legislation and Regulation, System Finance, Human Resources, Medical Direction, Education Systems, Public Education, Prevention, Public Access, Communication Systems, Clinical Care, Information Systems, and Program Evaluation. However, this "Agenda" does not specifically address the unique problems involved with providing EMS services to rural areas.

**Challenges to Rural EMS**

Because the average U.S. resident requires ambulance service at least twice in his or her lifetime, well-organized emergency medical services are essential components of medical care. Delays in

receiving emergency care in sparsely populated areas put many rural Americans at greater risk of permanent injury or death than those who reside in urban areas. Therefore, the development of effective EMS systems is crucial to the health care of rural Americans (U.S. Congress: Office of Technology Assessment [OTA], 1989).

Emergency medical services include the personnel, vehicles, equipment, and facilities used to deliver medical care to those with an unpredicted immediate need outside a hospital and continued care once in an emergency facility (Gibbons and Olson, 1994). Organized at the state or regional level to meet the needs of a particular geographic area, EMS systems provide immediate medical assistance at the scene and while in transit. In addition, these systems provide rapid transportation to a medical facility via ground and air transport. EMS systems also have a coordinated, tiered level of hospital care designed to triage seriously injured or ill patients quickly to specialized facilities, while less severely injured or ill patients receive care at less specialized facilities (U.S. Congress: OTA, 1989).

Emerging evidence indicates that rural emergency medical services (EMS) are at a crossroads (Gibbons and Olson, 1994; NHTSA, 1996). On one hand the glowing "Vision" of the EMS future is offered by the NHTSA as follows:

Emergency medical services (EMS) of the future will be community-based health management that is fully integrated with the overall health care system. It will have the ability to identify and modify illness and injury risks, provide acute illness and injury care and follow-up, and contribute to treatment of chronic conditions and community health monitoring. This new entity will be developed from the redistribution of existing health care resources and will be integrated with other health care providers and public health and public safety agencies. It will improve community health and result in more appropriate use of acute health care resources. EMS will remain the public's emergency medical safety net (NHTSA, 1966).

On the other hand, a growing crisis is being acknowledged in the ability to provide services at the local level (Gibbons and Olson, 1994; IDPH, 2000; UND, March, 2000; UND, June, 2000).

A unique challenge of providing effective EMS in rural areas is the logistics involved and the inevitable time loss in response and transport. The criticality of reduced time is noted by Steinman, "In Vietnam, fewer men died of their battlefield wounds than in any previous war because of Dustoff helicopters. The percentage who died of their wounds declined from 29.3% in World War II to 26.3% in the Korean War to 19% in Vietnam." (Brower, 2000). Dockery points out the average response time from injury to arrival of assistance for transport during much of the Vietnam War was 8-10 minutes (Dockery, 2000). Following a review of literature conducted with members of the Tulane University School of Medicine, Chapleau concluded the biggest single determiner of successful patient outcome was the amount of time lost between injury onset and delivery to the operating room (Chapleau, 2000). Therefore, it logically follows an EMS presence at the local level is essential to reduce delay in providing intervention and transport services thereby improving chances of survival for those experiencing medical emergencies.
In most rural areas, EMS has not attained the same level of advancement as it has in urban areas. In a 1990 study on rural EMS, the Office of Rural Health Policy cited four reasons to explain the less advanced care found in rural EMS:

1. Sparse populations covering large geographic areas make the cost of providing emergency care more expensive.
2. State and local governments in rural areas have a lower capacity to fund programs through taxes.
3. Failing rural economies often have difficulty maintaining the public service and responding to change.
4. Rural communities do not have the volume and profit potential to operate private sector EMS services when the public support system is absent (Office of Rural Health Policy [ORHP], 1990).

One is left to ponder how these observations are to be reconciled with the NHTSA "Agenda" Vision stated earlier in this paper.

When reviewing the literature, this author was struck by the consistency of EMS problem identification found among various studies. Following are some examples:

The Illinois Rural Health Association has, at its annual meetings, invited conference attendees to participate in round-table discussions concerning rural health issues. Consistently at the top of every list has been EMS. Issues cited included difficulty in obtaining basic and continuing training, the costs associated with training, recruiting and retaining qualified volunteers and problems with service area coverage…(IRHA, 1995).

In 1996, the UND Center for Rural Health conducted a survey of EMS personnel attending a state EMS conference…Results indicated respondents felt the most pressing problems…were retention of personnel (61% of respondents), recruitment of new personnel (58%), getting time off from one's non-EMS job (26%), lack of community acknowledgment/recognition (24%), and inadequate medical direction (15%) (UND, March, 2000).

Much of the nation's EMS is provided by volunteers with diverse occupational backgrounds. They serve more than 25% of the population. The economic value of their contribution is immeasurable. However, for many possible reasons, the number of EMS volunteer organizations is decreasing…Perennial EMS personnel related issues include the difficulties of recruitment and retention. Occupational risks, often limited mobility (e.g., credential reciprocity), sub-optimal recognition, and inadequate compensation contribute to these problems. Both volunteer and career (i.e., paid personnel) systems are affected. EMS personnel experience stressors and risks that are unique to other health care workers, and, no doubt, to other public safety workers…(NHTSA, 1996).

An opinion survey of State EMS Directors was conducted in early 2000. The survey offered the Directors a list of 22 items to choose from in ranking the top five priorities needed to ensure the adequate provision of rural EMS…whether one looks at priority ranking or total responses, it is clear that recruitment/retention of EMS personnel, appropriate medical oversight, and financing are perceived as, by far, the most significant issues facing rural EMS delivery systems. Skill retention, continuing education and compensation are of next-most concern, and these can all be tied to the larger financing issue…(NASEMSD, 2000).
In response to State of Illinois Senate Resolution 146, a committee was formed to …identify all

ambulance providers, including public, private, and volunteer organizations, located in rural areas by their service regions and review and analyze the impact of funding, training, regulations, and licensing on the access and availability of emergency medical services in rural areas and…to present the General Assembly and the Governor…a report with recommendations for legislative and administrative action that will improve the access and availability of emergency medical services for rural citizens of Illinois…Committee members identified many issues and concerns that they felt were adversely impacting emergency services in rural Illinois…discussion resulted in a natural separation of issues into six topical categories:

1) recruitment/training and retention of EMS personnel,
2) community and provider education,
3) new service delivery models,
4) funding issues,
5) data needs and
6) best practices.

Primary issues of concern within each category were listed. Additional findings were…precise, statewide data was not available but anecdotal and historical information indicate that rural emergency medical services are predominantly provided by volunteers…The report also reports the number of individuals currently licensed by county of residence. No statewide information is available to determine how many are actively volunteering their services, or are employed, nor where…Of those residing in a rural county, 51% of the total are basic level (EMT-B), 23.8% are basic level with defibrillation capabilities (EMT-B/D), 13% are intermediate level (EMT-I) and paramedics (EMT-P) account for 12.1% of the total personnel in rural counties. Eight-two percent of the 102 Illinois counties are classified as "rural," however, only 45% of the state's Emergency Service Transport Providers (ambulance services) are located there. One rural Illinois county has no locally managed emergency medical services transport provider, 30 rural counties (35.7%) have one county-wide provider, 36 rural counties (42.9%) have two providers. This report contains 45 recommendations for future actions to address the identified issues of concern (IDPH, 2000).

Despite some diversity in findings between the studies, one item stands out as a consistent finding - the recruitment and retention of EMS personnel is recognized to be the number 1 problem area in providing rural EMS. Obviously, without the health care provider there can be no rural EMS.

Emergency responders possess a set of personality traits significantly different from the personality profiles of average (non-emergency) people. Casey and Leger report findings of a two year study of paramedics, fire fighters, EMS personnel, and police officers done by Mitchell and Everly as follows:

In general, emergency service workers have the following personality traits:

a. They are action oriented
b. They like to be in control
c. They are risk takers

d. They tend to enjoy public attention
e. They are dedicated and loyal
f. They are less family oriented than the norm, and,
g. They have a strong desire to be needed and want to help others.

The hazards specific to rural areas, quality of life issues, and the pain of knowing the victim are all issues with which rural emergency workers deal. What binds them together is community spirit and pride. It lies deep within the hearts and minds of service providers, care givers, and the families who support them (Casey and Leger, 2000).

The foregoing assertions appear well supported by a North Dakota study. In their survey of 5870 EMS personnel in North Dakota the University of North Dakota School of Medicine and Health Sciences found:

> Some of the main reasons why local residents agree to participate in local EMS include the crucial medical need within the community and the town pride in their autonomy and independence…

EMS personnel were asked for the main reasons why they joined local EMS. The most significant factors were satisfaction in helping others (86.9%), community need (78.0%), interest in EMS (72.6%), interest in trauma care (59.9%), and challenge of providing EMS care (52.2%)…Among those who plan to stay in EMS for more than 5 years, the strongest forces for keeping them were satisfaction in helping others (87.6%), community need (80.8%), interest in EMS (73.4%), interest in trauma care (62.6%), and the challenge of EMS work (60.2%). These factors mirror those that prompted the individuals to join local EMS in the first place…(UND, March, 2000).

Problems of recruitment and retention appear similarly consistent to the findings of why people choose to participate in rural EMS. The North Dakota study continues:

Close to two-thirds (63.2%) of respondents said that recruiting individuals to EMS was a serious problem in their local area…When results were broken down by geographic location, it was not surprising to find that rural-based EMS personnel (69.7%) felt the problem was much worse than those in urban areas (39.1%). Respondents indicated that the most substantial barriers to recruitment were the time commitments (77.2%), training requirements (71.8%), lack of interest in EMS (40.4%), stress (38.7%), and inadequate pay (38.7%)…previous studies have indicated that obtaining time off from work is a problem for some EMS providers. It has been found to be a barrier to both recruitment and retention…of those that said EMS was not their primary occupation, 72.7% said that getting time off from their main job for EMS duties was at least somewhat of a problem. One-quarter (25.6%) indicated it was a serious problem…Respondents were asked for their opinion regarding the reasons why squad members have quit their EMS duties in the past 2-3 years. Their most common responses were time commitment (64.5%), training requirements (55.4%), personality conflicts with EMS personnel (30.5%), loss of interest (30.2%), and shortage of backup EMS personnel (29.3%)…Those who said they will leave EMS in less than 5 years were driven by the time commitment (47.0%), training requirements (43.5%), shortage of backup personnel (33.9%), inadequate compensation (22.6%),

and stress (21.5%) (UND, March, 2000).

An Illinois Study contains findings similar to those of North Dakota. Their Recruitment and Retention Problems Faced by Volunteer EMS Services section is broken down as follows:
Time demands:

-- Two income families working multiple jobs (financial obligations requires job change, overtime, etc.)
-- Inability to commit to training/continuing education and recertification demands (unable to meet CEU requirements)
-- Non-emergency, lengthy transport/patient contact time (example: long term care patient/clinic visit)
-- Additional demands - administrative duties (record keeping, scheduling)

Service related:

-- Broader range of services (new methods and patient care requirements; some do not want added responsibility)
-- Abuse of emergency services by public (use of ambulance for ride to hospital, non-emergency)
-- Internal problems (disagreements among members, age of EMS members may span 5 age groups)
-- Abuse by other public services (transport of mental patients, LTC patients for outpatient services, and hospital discharged patients: late night/after normal business hours)
-- Leadership problems (failure to manage change, lack of coordination
-- Friction/chronic problems between other health service personnel or agencies (lack of appreciation of acknowledgment of EMS by Allied Health Care providers; and/or lack of involvement in seeking solution to problems faced by local providers)

Social/Community Related:

-- Less emphasis on social aspects of volunteering (lack of incentives)
-- Less community pride/loss of community feeling (lack of appreciation/recognition)
-- Transience (EMT moves or seeks full-time employment with urban services)
-- "Me" generation (self-gratification/personal needs placed over service requirements)
-- Aging communities (greater number of older people, decline in population)
-- Poor economic growth (unable to support service) (IDPH, 2000).

Thus, based on the studies reviewed, it appears the problems of recruitment and retention of EMS personnel are all pervasive across rural America. Further, it appears the reasons why people volunteer for service and why they leave the service follow remarkably similar patterns. These similarities can be used as a basis for developing plans to address this important area of concern.

**Financial Problems of Rural EMS**

Based upon the studies reviewed financing seems relatively agreed upon to be the second most

important problem area facing a continuation of providing emergency services to rural areas. Casey and Leger write,

"When one deals with public funding sources, understanding the relationship between performance and reward is difficult…A budget has only so much money, and doing a good or bad job doesn't impact on who gets the dollars. Working with…administrators is complex political work. Often needs are misconstrued into power struggles and everyone suffers. High-cost equipment in rural communities frequently competes with other worthy services - streets, water, recreation, senior services - for a limited share of the budget allocation (Casey and Leger, 2000)."

In an editorial appearing in Firehouse magazine, Hal Bruno, noted ABC political analyst and long time volunteer firefighter, further addresses the issue of politics and funding:

Tension between the fire-rescue service and the private ambulance industry has escalated to a new level of anger and mistrust. It's part of a long-running, bitter battle over who is going to be the major provider of emergency medical care - municipal fire departments or private ambulance companies? The stakes are enormous, involving the future of this country's fire-rescue service and the pre-hospital emergency care field, which is a business worth an estimated $10 billion per year…The working relationship between fire departments and private ambulance operators varies greatly across the country. But this latest flap is another round in an on-going battle that will continue to heat up as more fire departments expand their emergency medical operations beyond the first - responder system. The private ambulance industry is determined to gain a bigger share of a growing market and, even if the anti-firefighter campaign doesn't materialize, there is an obvious warning to the fire-rescue service: if you're going to run ambulances, make sure you have the resources, training and staffing to do it right (Bruno, 1999).

Gibbons and Olson conducted a telephone survey of state EMS Directors during 1992-93. The issue of inadequate funding of rural EMS was prominent among their findings. They report:

Attitudes toward EMS financing proved to be consistent when the four primary questions are compared. Finance ranked second as a perceived problem, third as an area for response, first as an area that should be addressed in the future, and first as an area of responsibility…At the federal level, only six states identified specific rural EMS services…that the federal government should fund directly…Most states advocated for a grants approach…Overall, states perceive a legitimate federal-state EMS relationship occurring through a grants process. This was clearly more supported than direct federal funding of specific issues…In leadership and finances states appear to want an active relationship with the federal government wherein each party has an important role…The federal role is one of setting the broad parameters for EMS policy through goals and making funds available; the states' role is one of targeting federal and state resources towards more specific issues most important in their respective states. But in this desire for a partnership arrangement a certain wariness exists…

States do seek greater federal support but not at the expense of their autonomy in decision making. This concern was expressed numerous times. One survey respondent commented '…the feds can provide money, technical assistance, and professional help but let the states decide what

approach they will use.' Another respondent echoed this sentiment…'People in the local area know best what is needed to address their rural EMS problems.' What is needed is a balance: federal leadership and oversight, yet state and local autonomy in specific program development and implementation…(Gibbons and Olson, 1994).

Seven years after the Gibbons-Olson study, the study subjects, the states' EMS Directors, decided to conduct another survey of themselves via their national organization, the National Association of State EMS Directors (NASEMSD). Again, their top two concerns were the same - recruitment/retention followed by financing. Their study allowed them to rank capital needs by category. In order, their ranking of needs was communications equipment, medical equipment, ambulances, buildings and other. NASEMSD elaborates on these rankings as follows:

> …Addressing only the highest-ranked capital needs for communication equipment would involve an enormous cost. Thirty-one of 41 respondents believed that communications systems were the most critical capital cost facing rural EMS. Many of the communications systems and equipment that were put in place in the mid to late 1970s with Federal grant funds are antiquated and no longer operational. Spare parts are no longer available, and many rural systems do not have the funds to replace their old systems and equipment. The cost of system design, radios, towers, pagers and all the other aspects of a modern communications system can range from hundreds of thousands to millions of dollars to fully fund. Some states estimated their need for communications equipment alone to be $15-40 million.
>
> Another expensive problem to address is the cost of replacing ambulances in rural EMS systems. In the mid to late 1970s the Federal government allowed the purchase of ambulances as part of the Governor's Highway Safety Program. Many ambulances were purchased with matching funds throughout the country during this period. With matching funds no longer available, many rural areas find it impossible to raise the capital to buy new ambulances. Some of the rural providers are using 1970-80 vintage ambulances, while others have replaced their ambulances with ambulances given to them by other providers. Many of the donated ambulances are already worn out by the time the rural provider receives them…

As a proponent of rural health issues, the Office of Rural Health Policy (ORHP) should take the lead by identifying sources of funding for grants that will address EMS issues facing rural communities. Simply buying equipment will not solve all of the problems - although it may provide a short term solution to some needs. In addition to addressing short-term needs, ORHP should strive to address problems facing rural EMS that cannot be solved by purchasing or construction - problems such as recruitment and retention of personnel, appropriate medical oversight, skill retention, initial training and quality improvement. ORHP could fund innovative projects to define the system needs of rural EMS and to develop bold new approaches to meet those needs. Without such initiatives, the ability to provide quality rural EMS will continue to erode to a point where public health will be impacted (NASEMSD, 2000).

**The Future of Rural EMS**

The NHTSA's EMS Agenda for the Future identifies 10 assumptions intended to describe the future environment for emergency medical services of all types. As summarized by the Illinois Department of Public Health study they are:

-- Emergency medical services represent the intersection of public safety, public health, and health care systems.
-- The public expects that emergency medical services will continue.
-- Emergency medical services will continue to exist in some form.
-- Emergency medical services will continue to be diverse at the local level.
-- As a component of health care systems, emergency medical systems will be influenced significantly by the continuing evolution of these systems.
-- There currently is a lack of information regarding emergency medical services systems and outcomes.
-- It will be necessary to continue to make some emergency medical services system-related decision on the basis of limited information.
-- The media will continue to influence the public's perception of emergency medical services
-- Federal funding/financial resources will be decreasing.
-- To make good decisions, public policy makers must be well informed about emergency medical services issues (IDPH, 2000).

Given these assumptions about the future and the foregoing data one is left with a host of questions to consider.

1. Can the current rural system of emergency response, particularly EMS, being largely made up of unpaid or minimally paid volunteers, be sustained into the future? What resources and assistance will it take to make it sustainable and who will provide them? Given the close socio-cultural relationship that exists between rural residents and their emergency service providers, how well will they accept any other system?
2. If the current system is not sustainable, what form will it's replacement take? If the move is away from a system of unpaid volunteers to a fee paid system of some type, how will the already financially disenfranchised rural residents be able to pay for it? What costs will it add in terms of dollars? How many lives will be lost as a result of longer response times? Who will provide leadership to it? Will they understand the uniqueness of the rural community, rural residents and their needs and expectations?

All persons concerned with the welfare of rural residents need to consider these questions and offer answers and solutions to them. We need to be assured that if a rural resident does cry out, someone will be going to help them quickly - now and into the future.

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