Buyer's Guide to

Emergency Medical Service in Vermont:

A Guide for Municipal Officials

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EMS Buyer's Guide
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Introduction

The focus of this Guide is two-fold. First, it provides an overview of the key components of the pre-hospital Emergency Medical Service (EMS) System in the context of Vermont law and rules. Through a discussion of the terms and the components of the system, it provides a picture of EMS. The second part of this guide considers options available to organize and deliver EMS to a population. It looks at the current models available to deliver EMS, and discusses some additional related services that might be included in an EMS package.

The delivery of emergency medical services in Vermont through EMS organizations, using trained personnel and licensed vehicles is relatively new component of the health delivery system, compared to hospitals, physician practices, and nursing homes. Less than forty years ago, such care was provided in a disorganized and unregulated manner. Consider this report from Montpelier. Until 1968, the Barber & Lanier Funeral Home provided ambulance service. The current owner, Jim Johnston, recalls using a long Cadillac with fins on the back for transporting the deceased as well as the sick and injured. "We had a removable red flashing light we'd put on top, and plastic panels that said "Ambulance" that we'd put in the windows." If the person at the funeral home needed help loading a patient, they would stop enroute at a gas station to grab another man to help lift the stretcher.

We have obviously come a long way since then. Today, every ambulance service in the State is licensed by the Department of Health. In addition, all personnel providing emergency medical services are trained and certified. Instead of simply putting a patient in the back of a hearse and driving to the nearest hospital, today's emergency medical services personnel are able to provide treatment at the scene that can save a patient's life, or mitigate the long-term effects of an illness or injury.

The purpose of this Guide is to assist communities in Vermont with their efforts to continue to improve EMS delivery in the State. As you read this publication, you may find it helpful to refer to the Definition of Terms contained in the Vermont Emergency Medical Services Rules located at http://healthvermont.gov/hc/ems/ems_rules.aspx. Questions regarding any aspect of EMS should be directed to the EMS Division at the VT Department of Health, telephone: 800-244-0911.

Part I

1. Vermont EMS Law

Three Vermont laws govern the provision of emergency medical services in the state. Title 24: *Municipal and County Government*, Chapter 71: *Emergency Medical Services* outlines the basic structure of EMS in Vermont. It authorizes the State Board of Health, within the Department of Health, to establish EMS Districts, and details the organization, membership, roles, and functions of the District's Board of Directors. The law also defines the specific powers of the State Board of Health regarding EMS, including the licensure of all emergency vehicles and certification of EMS personnel. A copy of this Title can be found at http://www.leg.state.vt.us/statutes/fullchapter.cfm?Title=24&Chapter=071.

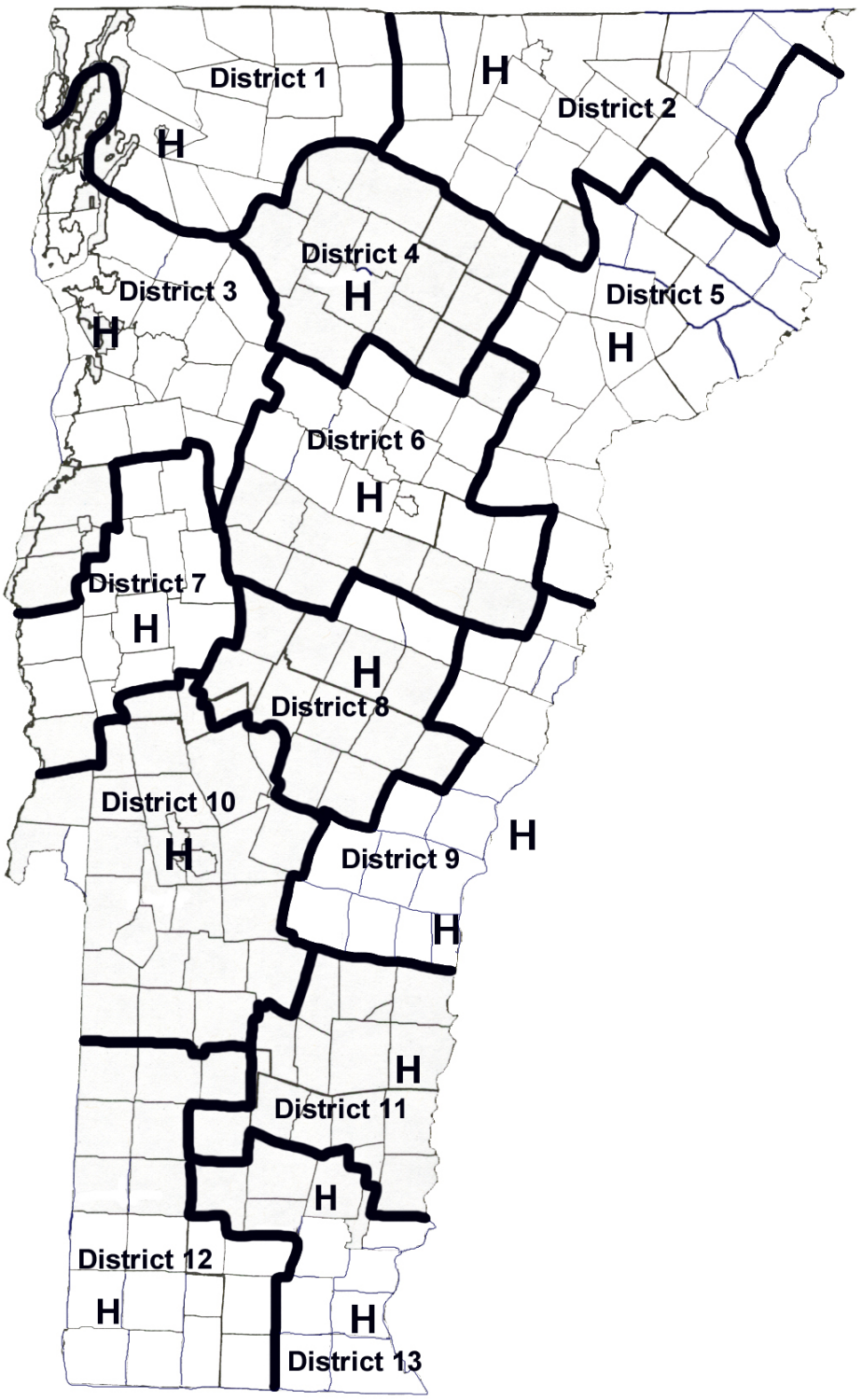
The role of the Department of Health in EMS is defined in Title 18: *Health,* Chapter 17: *Emergency Medical Services.* This law authorizes the creation of an Emergency Medical Services Division, and details the responsibilities of this Division. A copy of this can be found at http://www.leg.state.vt.us/statutes/sections.cfm?Title=18&Chapter=017.

Finally, since 1993 Vermont has been developing a statewide 9-1-1 system to received emergency calls and dispatch the appropriate emergency services. By law, each municipality must designate a fire, police, and ambulance service to respond to calls from its geographic area. Under the State Enhanced 9-1-1 laws, each participating municipality must appoint an "Enhanced 9-1-1 Coordinator" to be a liaison for municipal addressing system issues. Further information regarding enhanced 911 is available at: http://www.state.vt.us/e911/index.html.

In addition to these statutes, the Department of Health has established Emergency Medical Services Rules in Part IX, Chapter 1, of its consolidated rules. These rules provide details on the licensure of Ambulance and First Responder Services, as well as the requirements for EMS personnel. Again, these Rules are located at http://healthvermont.gov/hc/ems/ems_rules.aspx.

2. Vermont EMS Districts

There are thirteen EMS Districts in Vermont with service areas that are roughly contiguous to the service areas of hospitals, and follow political jurisdictions in the State. A map of these Districts is located on the following page. These Districts are authorized by Title 24 of Vermont Statutes, and are sub-units of state government. The District Board of Directors has substantial authority over the provision of pre-hospital emergency services in its area. It reviews and approves all personnel certifications and vehicle licenses applications in its area. In addition, the Board is required to work with municipalities to insure that an appropriate level of service is available in every community. Another key role of the District Board is the identification of training needs for EMS providers, and coordination of this training at the District level. Finally, the Board monitors the performance of emergency service providers in its area on an ongoing basic.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Through the District Board of Directors, emergency providers in each District meet regularly with the Medical Director of the District to review issues of mutual interest, and discuss medical protocols. In this way, the Board and Medical Director can assess the quality of EMS personnel during the intervals between licensure. The meetings of the District Board of Directors are open to the public.

3. Medical Direction

All of the First Responder and Ambulance Services licensed within a District receive Medical Direction from an Emergency Department physician at hospital within their District. The one exception to this is District 9 where patient care and medical direction comes from Dartmouth Hitchcock Medical Center. A list of EMS Districts is available at http://healthvermont.gov/hc/ems/district_contact.aspx. A map of the Districts is included on the next page.

A physician from the District serves as the Medical Adviser of the District. Physicians in each hospital Emergency Department also provides medical direction and oversight to Ambulance and First Responder services operating in the EMS District surrounding the hospital. The authority of EMTs to provide care and transport flows from the licenses of these physicians. Detailed EMS protocols have been established for a wide range of emergent medical conditions. These protocols direct those services that an Emergency Medical Technician (EMT) may, and should, provide a patient at the scene, depending on the certification level of the EMT.

4. EMS Organizations

There are two basic types of emergency medical services licensed in the State – a First Responder Service, and an Ambulance Service. Several different types of organizational models are used for operating these Services. There are no state rules dictating the operating organization's form, or a particular history that dictates how a service is operated. Nor is there one model that appears to be the "best" solution for all areas of the State. What follows is a discussion of some of the key features of three broad types of organizations that operate ambulance services.

1. Thirty-one of the State's Ambulance Services are operated under government auspices. Twelve of these services are under the control of the local fire department, and may share personnel and garage space with the fire company. The remaining nineteen services are municipal services operating as a separate municipal department. These services are generally staffed with one or more paid full-time EMTs, although they may also use per diem and volunteer EMTs to cover their shifts. These services receive the bulk of their operating funds directly from their municipalities as a part of the municipal budget.

2. Fifty of Vermont's Services are operated by not-for-profit organizations, free of direct municipal control. The nature of these services varies greatly; range from small services with few runs each year, and all-volunteer staffing, to large services where the entire EMT workforce is paid. Revenue from these services generally comes from several sources including insurance and patient billings and town subsidies.

3. Seven of Vermont's Services are operated by for-profit companies. These services generally have larger volumes although they support themselves in a manner quite similar to the non-profit organizations. However, as for-profit companies there is a single or a limited number of owners who profit from the successful operation of an ambulance service. Vermont also licenses one Ambulance Service operated by IBM, and an Air Ambulance Service based at Dartmouth Hitchcock Medical Center in Lebanon, NH.

4. All of the ninety First Responder Services in Vermont are either operated under the auspices of a municipality or a not-for-profit entity. Since there is currently no provision for insurance reimbursement for their services, First Responder Services have no way of operating on a for-profit basis, and, by definition, rely on municipal support to cover their costs.

5. Personnel

All individuals providing emergency medical services must meet three basic criteria. First, they must be Certified by the Department of Health as an Emergency Medical provider. Second, they must be providing the services on behalf of a licensed First Responder or Ambulance Service. Finally, they must be providing the services under appropriate Medical Direction.

There are four levels of certification for Emergency Medical Services personnel staffing both First Responder and Ambulance Services:

1. Emergency Care Attendant - ECA
2. Emergency Medical Technician – Basic – EMT-B
3. Advanced EMT – Intermediate – EMT-1
4. Advanced EMT – Paramedic – EMT-P

Each level of certification allows an EMT to perform an array of treatment and life-saving procedures, subject to following the treatment protocols established by the Department or the District Medical Director. The level of certification is determined by training, experience, and the successful completion of a national certification exam.

6. First Responder Service

A First Responder Service provides emergency medical treatment at the scene of an illness or injury but does not provide any transport services. A First Responder Service is often used to provide quick response in situations where an Ambulance Service is likely to take some time to respond. In urban areas, police or fire personnel may be trained as First Responders so that they are able to provide initial medical care on the scene. In rural areas, it is also used to supplement Ambulance Services that must cover large geographic areas. Finally, First Responder Services are used in situations where special technical training may be necessary in addition to EMT skills. Most ski areas in Vermont have onsite First Responder Services, and Wilderness and Mountain Rescue units might be the First Responders at an accident scene, providing both

medical treatment and special rescue services to the patient, bringing the patient to a location where an air or ground Ambulance Service can transport the patient to a health care facility.

Most First Responder Services do not own or operate their own dedicated vehicles, and the EMT serving as a First Responder uses his or her private vehicle, or a police or fire vehicle, to respond to the call. A First Responder Service may be licensed at the Basic, Intermediate, or Paramedic level depending on the qualifications of its staff. Its designation at one of these levels defines the level of treatment that may be provided by that organization. For example, if a Service is licensed at the Intermediate level, an individual EMT certified at the Paramedic level is still limited to the scope of practice of Service's license. As such, he would not be able to provide Paramedic level care at the scene. This restriction reflects the commitment of the Service to maintain the equipment and supplies necessary to provide the licensed level of care and the willingness of the supervising Medical Advisor to provide medical direction authorizing that care.

Since First Responder Services do not operate ambulances, EMS rules require that each Service have an Operational Letter of Agreement with an Ambulance Service. The agreement guarantees that an ambulance will meet the First Responder at the scene and assume responsibility for the care and transport of patients to a hospital.

7. Ambulance Service

EMTs must use an ambulance to transport a patient to a health care facility. As with First Responder Services, Ambulance Services are licensed on one of three levels: Basic, Intermediate, or Paramedic. This defines the level of treatment that may be provided by the ambulance crew at the scene, and during the run to the hospital. As with the First Responder Service, while an individual EMT may be certified at a higher level of care than the ambulance service, he or she is limited to the protocols and the level of care of the Ambulance Service's license.

When an ambulance is transporting a patient, at least two people authorized to provide emergency care must staff the ambulance. The driver must be at least 18 years of age. A person who is certified at an EMT – Basic level or above must attend the patient.

In contrast to the First Responder Service, an Ambulance Service operates one or more vehicles that are licensed by the Department of Health. A vehicle is licensed to a specific Service, and must meet a set of standards regarding its design and the equipment that it carries. Ambulances are used to provide on-scene emergency medical treatment in the event of illness or injury, and to subsequently transport patients to an appropriate medical facility. In addition, ambulances may also be used for the emergency transfer of patients between medical facilities, as well as for non-urgent transfers. A good portion of the ambulance work in Vermont is in the transfer of non-urgent patients between a nursing home and a health care facility. This work is usually done by the larger ambulance services that operate with paid staff. While the reimbursement for such transfers is good, volunteers are not generally willing to offer their time for non-emergent runs.

8. Facilities

It is highly desirable for an Ambulance Service to have a central office facility, and adequate and appropriate covered and heated space for its staff and ambulances. While this is not specifically required by Departmental rule, operation of ambulances without such a facility is very challenging in Vermont. In the winter, any supplies that might be affected by the cold must be removed from the vehicle between calls. In addition, the lack of heat in a vehicle is a frequent cause of patient complaints. Conversely, in summer, excess heat in an ambulance can cause patient discomfort, and degradation of medications, supplies and equipment. For a Service without a garage, the only practical solution is to leave the vehicle running between calls to either heat or cool it.

Generally speaking, the facilities for an Ambulance Service either are provided by a local municipality, or are privately owned or leased by the Service.

9. Types of Ambulance Runs

Ambulances provide several different types of runs:

a. An emergency run in response to a 9-1-1 call for a patient with an illness or injury. This includes runs in support of a First Responder call when the patient needs transport to the hospital.

b. A "Critical Care Transfer", usually from one hospital to another. In such runs, the patient is seriously ill, and the ambulance staff may be supplemented by physicians, nurses, or other needed medical personnel to insure the successful transfer of the patient.

c. Transport of a patient from home, or a nursing facility, to a medical care facility and return.

d. A Mutual Aid run to provide back-up support to a Service in adjacent areas.

10. Operating Costs for Ambulances and First Responder Services

While there are several ways of looking at the expenses of an Ambulance Service or First Responder service. The two most useful methods for a community to consider are:

a. Total Operating Expenses

b. Expense per ambulance run

a. Total Operating Expenses: Expenses for an Ambulance Service are straightforward, and the categories do not vary greatly from service-to-service. The major operating expense categories are:

a. Personnel

b. Fringe benefits

c. Vehicle operations

d. Equipment and supplies
e. Facilities
f. Staff training
g. Billing and collections
h. Insurances – Vehicle, health, workers compensation, facilities and equipment, and medical liability.
I. Overall administration of the service

In addition, an Ambulance Service may have substantial debt for the purchase of its vehicles and facilities. In that case, debt service would be added to this list.

Expenses for a First Responder Service are substantially less than an Ambulance Service since it does not usually maintain facilities, vehicles, or major equipment. In addition, unlike an Ambulance Service that must always have two personnel at the scene, a First Responder may respond alone to the scene.

In a business sense, most operating expenses are "fixed." Within a broad number of ambulance runs, the expenses of maintaining the Service are the same. Whether a service has one call or five calls in a day, the expenses will be about the same. The only "variable" costs are the actual costs of supplies used to treat patients, and gas for the trip. Of course, as the run volume increases a service may need to add more personnel and ambulances, but each incremental step moves the service to a next "plateau" of service capacity, and again the costs are fixed in that new plateau.

One of the difficulties in analyzing Ambulance Service expenses across organizations, however, is that each ambulance service is separately organized, and the expenses reported on their Statement of Income and Expense is likely to be unique. For example, many ambulance services in Vermont are staffed in whole, or in part, by volunteers. The work of these volunteers is not reported as an expense. In other instances, a municipal ambulance service might be staffed by paid EMTs who also are firefighters and support the fire service as well. In such instances, the area does have full time ambulance service coverage, but the expenses of that service will vary, depending on how the municipality chooses to allocate the ambulance service expenses.

b. Expenses per run. One common way of looking at ambulance service expenses is to divide the total expenses of the service by the total number of service runs. This is a good measure of the relative efficiency of a service. As the number of runs increases, the cost per run will go down because of the high proportion of fixed costs. However, because of the variability in assigning or calculating expenses of a service mentioned in "a." above, the expense per run is not particularly helpful in comparing efficiency between Services, without a careful analysis of their expense structures to insure an apples-to-apples comparison. However, an internal reporting of certain expenses by run, and an analysis of the changes in the costs over time, can be a valuable tool for both management and Board decisions.

11. Sources of Revenue
There are six main sources of revenue to support an ambulance service:

a. Reimbursement from billings
b. Community support
c. Grants
d. Donations
e. Special coverage assignments
f. Volunteer time

a. Reimbursement from Billings. Most commercial insurance plans, along with Medicare and Medicaid (third-party payers), will reimburse an Ambulance Service for the necessary transport of a patient from the event scene to a hospital, and from one hospital to another when medically necessary. The service is also reimbursed for runs between long-term treatment facilities and hospitals for medical treatment or diagnostic services, even when there is no "emergency." Individuals without any third party coverage are billed directly for the ambulance run based on a published fee schedule.

These third-party payments usually do not cover the full "cost" of an ambulance run. In addition, many the patients without third party coverage are unable to pay the full cost of the ambulance run. For these reasons, Services must rely on other sources of revenue to cover their expenses. As noted earlier, First Responder Services cannot bill for their services, and as such receive no reimbursement. These Services, therefore, rely totally on other sources of funds to support their efforts.

b. Community Support Ambulance Services in Vermont are not able to break-even financially based on run charges alone. The gap between revenue and expenses is made up, in large part, by support from the communities served by the Ambulance Service. There is no rule-of-thumb about the percentage of expenses that a community covers through its tax base. The amount will vary based on the Service's total activity, the expenses identified by the Service, and the level of ambulance service provided (EMT, Intermediate, or Paramedic). For government-based Services, the municipal budget is the most important source of revenue. While the Service is likely to receive income from other sources as well, this consistent support guarantees the Service will continue to function.

c. Grants A grant is usually given to a service to operate a specific program beyond the core Service mission of patient assistance and transportation. For example, several services in Vermont receive funds to provide child seat inspections and instructions for parents. Others have received funding to conduct safety assessments of elder's homes. Homeland Security at the state and federal level has provided grants for specific equipment and training. While the bulk of these grant funds go directly to cover project expenses, some amount is usually available to support the general management of the service. However, they do not cover any of the treatment or transport services of an organization, nor can they be relied on as a steady, long-term, source of support.

d. Donations A variety of fund-raising events are used to support general operations, or to purchase specific equipment for a Service. This approach is most often taken by Services that are heavily volunteer in nature.

e. Special Assignments Some Services supplement their income by covering special events such as sporting events, or other major gatherings. A good example of this was the Phish concert in Coventry in 2005. The promoters of the concert contracted for significant ambulance and EMT coverage of that event which lasted several days.

f. Volunteer Time While not strictly a source of "revenue", many ambulance services would not be able to meet their obligations without a significant number of volunteer hours being donated to the service. Because "personnel" is the largest single Service cost, volunteer labor is often considered the largest single subsidy a Service receives.

By contrast, First Responder Services have few sources of revenue. Since they cannot bill for their services, no third-party payments are received. These Services survive largely through the support of government entities, and the hours donated by volunteers.

12. Other EMS Activities

Ambulance and First Responder Services are a key component of the EMS System. While their focus is largely on response, treatment, and transport, some Services have broadened their work to include other activities. Some of these activities have included checking the fit and security of child car seats, surveying homes for hazards that could produce accidents or illness, providing specific health science education in the schools, and providing broad public education on accident prevention. These programs are generally support by grant funds, and are often difficult to sustain without that outside support.

However, an even broader range of roles for Services could be found if funding sources were to make them a priority. These roles include:

a. Injury prevention programs
b. CPR and first aid training for the community
c. Disaster preparedness work
d. Industrial health

13. Types of Data Available

A proposed new Ambulance Service must make an application for licensure with the Department of Health. The state licensure application contains basic information on the Ambulance Service including its ownership, staffing, equipment, and personnel. In addition, every year each licensed Ambulance and First Responder service must submit an application for license renewal. Finally, every Ambulance Service vehicle is inspected and licensed by the State every two years. Between biannual licenses, services must update their data particularly as equipment and

personnel change. Information on licensed ambulance and first responder services can be found on the EMS website at http://healthvermont.gov/hc/ems/ems_index.aspx.

It should be noted that information in the licensure and re-licensure applications is self-reported. While Health Department EMS Division staff review the applications for completeness, they do no conduct an independent audit of the data provided by the Services. In addition, no quality or operational data is available to compare the performance of Services in Vermont. These matters are generally addressed between the Service, the Medical Director, and the local municipalities where it operates.

While the EMS Division establishes rules and regulations about the licensure of personnel and vehicles, the Division does not try to set minimum standards for EMS services necessary to cover a population or a service area. This is beyond the scope of their authority under state law, and is worked out in discussions between the EMS District Board, the local government, and the Service.

The "Health Resource Allocation Plan for the State of Vermont," issued by the Vermont Department of Banking, Insurance, Securities, and Health Care Administration in August, 2005, does address emergency medical services. The Plan lumps together both pre-hospital and hospital-based emergency care in its discussion of the need to improve the data available in this area. It specifically notes the need to "Standardize and implement data collection for all emergency service providers," and the Vermont Department of Health's EMS Division is considering ways to address this recommendation of the Plan. However, no comparative data is available at this time.

14. Current Pressures on the EMS System in Vermont

Multiple pressures push on the EMS System in Vermont, presenting challenges to EMS Services and the communities that rely on them. Perhaps most challenging is the need to recruit and retain qualified personnel, particularly if these individuals are volunteers. Virtually every Service that uses volunteers indicates that recruitment and retention of volunteers is getting harder. A number of factors are contributing to the shortage of volunteers. First, as the pace of life quickens, individuals are less inclined to give up free time for EMT training and coverage obligations. Second, volunteers are finding that their employers are reluctant to allow the EMT to be away from work for long periods without prior notice. Finally, as more Services move to a service of paid staff, volunteers are reluctant to provide the same level of coverage free of charge.

Another major problem facing the EMS System is the large number of services that provide relatively few runs during the year. About one-third of the State's eighty-nine Ambulance Services perform less that 300 runs a year. This situation results in several problems. First, the efficiency of the service is very low, and the accompanying costs per run are likely to be higher. Second, the ability of the Service's personnel to remain medically competent through experience is seriously challenged. While training can compensate for some of this shortfall, there is no substitute for the experience an EMT gets from regularly practicing EMT skills on patients. Finally, a low number of runs results in lower reimbursement, making it difficult for the service to maintain its equipment and afford the training necessary for its crews.

For all Services, another challenge is keeping up with new technologies and emerging threats. The recent focus on Bioterrorism, and the preparations needed to deal with pandemic flu have forced Services to provide additional training, and purchase new types of equipment and supplies. Coupled with this is uncertainty about just what actions a Service should initiate. A prime example of this is the need for Services to have Personal Protection Equipment available for their staffs. Some authorities suggest that each EMT should have several thousand dollars of PPE to protect himself, the patient, the ambulance, and the hospital from contamination. However, Services are reluctant to purchase such equipment, knowing that a commonly agreed upon recommendation is still not available from State or Federal authorities.

Finally, reimbursement is always a challenge, not only for small services, but for the large ones as well. Further, while ambulance reimbursement is relatively fixed, the costs of many items purchased by the services are highly volatile. Recently, Services have experienced rapid increases in the cost of gas and oil, worker's compensation and liability insurance, and many drugs and other supplies. In addition, more Services are finding that as the supply of volunteers decreases they must employ EMTs to maintain their level of service.

Part II

1. Model Operating Structures

The three most common current organization structures for ambulance services in Vermont are:

* Government-based
* Independent not-for-profit
* Independent for-profit

While government-based operations generally do not have Boards of Directors setting policy for the Services, all of the independent ambulance services are incorporated, and do have an operating Board. Government-based operations generally fall under the control of a Board of Selectmen or a City Council. When the Service is Fire-based, a sub-unit of the Board or Council may be responsible for day-to-day operating policy.

Membership on a Service's governing body can vary greatly. Most Boards are small, consisting of individuals with an interest in EMS. As the size of the Service increases, additional members are often added who have particular skills or knowledge of use to the Service. Physicians, nurses, accountants and lawyers may join the Board as either voting or non-voting members.

At the individual community level, when considering Ambulance Services, the decision is usually whether to "make" its service, or "buy" it from an existing or new provider. This decision is usually on economic one, although there are cases where local politics or loyalty to a particular provider may enter into the decision as well. It is important, therefore, to understand all of the parameters at play in evaluating whether a community should operate its own service, or contract with another organization to provide the service.

The State Health Plan states, "The Vermont EMS system has historically placed a high value on the ability of communities to operate independent ambulance services that meet local preferences for cost, clinical capability, response times and other attributes within a statewide framework of minimum quality standards." This traditional approach is both a strength and a weakness for Vermont. While it insures that every community has at least minimal EMS available, it also focuses decision-making on the needs of an individual community rather than a broader region or County. As previously noted, the likelihood of efficiencies and quality increases in higher volume Services. Since no small town or city in Vermont outside of the Burlington area, has ambulance service demand above the 1,000 to 1,500 annual call level, a Service based on the needs of a single community is, by definition, inefficient. To address this problems, some areas of the State are now covered by Services covering multiple areas

Any community that is evaluating its Ambulance Service should be in touch with its EMS District Board early in the process. The Board can work with a community to define the level of service needed, and the best way to achieve it. The Board will know the current situation in neighboring communities, and may identify collaborative opportunities should the community wish to consider the option of contracting with a regional service. Another key source of

assistance is the Emergency Services Division of the Vermont Health Department. The Division understands of EMS at the District and State level, and can be invaluable to a community weighing its EMS options. The Division staff can be contacted at 800-224-0911.

In addition to its consideration of patient treatment and transportation roles, the communities should also consider what role its Service might play in the areas of public education and injury prevention. Only by challenging Services to expand their roles in the community, and providing financial support for that expansion, will the full potential of the EMS System be realized.

2. Contracting for EMS Coverage

Should a community decide to contract with an independent service for Ambulance or First Responder coverage, it should follow a deliberative process that includes:

a. Defining the needs of the community and the parameters of the services to be provided. This becomes a set of "deliverables" that the municipality will use in its assessment of bids. A public hearing on this issue might also be scheduled. It is critical that enough time is given to defining a community's needs before considering how those needs will be met.

b. Outline the selection process including the individuals who will be involved in making the decision, and the criteria that will be used to make the decision. A solid timetable for the process should also be set. The process must also spell out how the decision will be transmitted to the voters, and how the final decision on the service will be managed through the town meeting or ballot process.

c. Issuing a Request for Proposal. The Request should allow applicants sufficient time to prepare a complete response to the RFP, and may include a public meeting to review the proposal and answer questions of bidders.

d. Reviewing proposals against an objective set of criteria, and making a selection.

e. The Due Diligence has been accomplished prior to contracting with an organization, to insure that the Ambulance Service is financially sound, and has the expertise necessary to expand it services to additional areas. The municipality should also determine that the Service is in good standing with the EMS Division, and know whether any major legal or regulatory actions are pending against the Service.

f. Obtaining the approval of the voters.

g. Executing a final contract and beginning operations.

Behind this process, several hurdles present themselves. Foremost among these is a town's budget year, and the restriction which prohibits making budgetary commitments beyond one year. From the perspective of the Ambulance Service, this is a very risky situation. It is likely that a Service will be hiring additional staff to cover a new contract, and may well need to buy

new ambulances and other equipment necessary to meet its contractual obligation. It will also need to find a suitable facility to house its staff and vehicles. Yet because of the municipal budget restrictions, the Service cannot rely on having several years to recover the cost of these up-front investments since the town cannot commit beyond one year.

Another challenge is the timing of this entire process. Clearly, the bid and response process must be done in time for the Town Meeting. However, once selected, the Ambulance Service will likely need time to acquire staff, equipment and facilities to provide the contracted services. This means that the contracted service provider will probably not be able to deliver a full year of coverage in Year One of a contract. If the contract involves more than one municipality, the transition to a new organization needs to be managed with even greater care.

3. The Next Generation of Ambulance Services

As discussed earlier, EMS is a relatively young component of the health care system. This means that the System is still evolving, and that there are great opportunities for maturity of the System. Many studies of the EMS System have analyzed the limitations of the current approach to providing emergency care. These limitations were recently summarized in an Institute of Medicine report "Emergency Medical Services at the Crossroads." The report cites three broad areas of concern that need to be addressed:

1. The System suffers from sever fragmentation.
2. There is an absence of system-wide coordination.
3. There is a lack of accountability.

An analysis of the Vermont EMS System would come to the same conclusions. To optimize the efficiency, effectiveness, and quality of EMS in Vermont, a solution must be found that can concentrate on mitigating these three limitations.

Fortunately, Vermont has the core of a solution in the designation of it thirteen EMS Districts. Historically these Districts have not had the authority or responsibility to address the limitations of the EMS System. Their role has been to establish minimum medical control, insure that state licensure standards are met by personnel, and work with the communities as they select a Service to provide EMS. As EMS evolves as a component of the health care system, it may be time for the Districts to assume more responsibility.

Several organizational models might be used to address the issues of fragmentation, system-wide coordination, and accountability. These include:

1. Development of a region's pre-hospital care as a Department of the hospital providing medical control of the Region's EMS.

Under this structure, an array of service arrangements could be developed. For example, the hospital might own all pre-hospital emergency facilities and equipment, and employ the EMS providers in the region. In this model, the hospital board would provide a mechanism for public accountability. This would be accomplished through the various state oversight functions currently focusing on hospitals. In addition, through its medical direction, planning, and

management, the hospital would address issues of fragmentation and coordination at the regional level.

2. Develop a single regional non-profit organization to operate the EMS System.

To address issues of accountability, the board of this organization might include local government officials, and members of the public, in addition to EMS providers and medical facilities representatives. Such an organization might own all of the EMS facilities and equipment in a region, or contract for services from existing EMS organizations. The key here is that the organizations needs the authority and responsibility to manage the System of EMS care in the best interest of all citizens of the region.

3. Creation of a Public Authority to operate the region's EMS System.

This model offers several unique features. Its Board would be made up of appointed representatives from each village or town that elects to be a member of the Authority. This provides more direct public accountability. In addition, since the Authority would have some taxing authority, it would have a more direct method of judging the satisfaction of the public with the service. At the same time, its ability to tax would provide a tool to stabilize EMS in the region.

Each of these models holds the potential to manage the EMS System of a region in a way that optimizes service delivery. These organizations would be able to see the costs of the System on a District-wide basis, and make judgments about the efficient and effective deployment of equipment and personnel. To do this, they would naturally begin to collect performance, quality, operational, and cost data on a regional basis to evaluate the effectiveness of the System. Of course, centralized management control would also provide the organization with the ability to address issues of system-wide coordination. Finally, the organizations would be in a better position to meet the need for public accountability.

An additional benefit of this basic approach is that region-wide management of the System would be accountable for a larger population. As a rule, the larger the EMS organization, the more efficient it can become. This economy of scale can result in better response time, better-trained personnel, improved equipment, and refined medical direction. In addition, all of this can be delivered at a lower per-run cost. All of these factors increase the likelihood for significant improvement in the quality of EMS in a region.