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The University Hospital
901 Twenty-third Street, N.W.

July 3, 1978

Mr. Gerald Surett
Project Director, Emergency
Medical Services
State of New Jersey
129 E. Hanover Street
Trenton, New Jersey 08608

Dear Mr. Surett:

I would like to take this opportunity to express my appreciation for the hospitality extended to me by you and your staff during my site visit on May 22nd and 23rd. I had the opportunity to have in-depth discussions with Mr. William J. Harris, Director of the Office of Emergency Medical Services (EMS) for the State, as well as members of your staff. It was indeed fortunate that I was able to attend the EMS Clinical Care Symposium held on May 23rd at the Center for Health Affairs. This afforded me the opportunity to derive an overview of EMS activities, both from a staff and a provider perspective.

Enclosed you will find my evaluation, and I hope that it is useful in your efforts to upgrade the level of emergency medical services for the State of New Jersey. Please feel free to contact me if you have any further questions, or need clarification of the evaluation.

Sincerely,

Sol Edelstein, M.D.
Director, Division of
Emergency Medicine

SE/jmp

Enclosure

Overview

I had the opportunity to hold lengthy discussions with the following persons: Mr. Gerald J. Surett, Project Director; Mr. William J. Harris, Director of the Office of EMS; Ms. Katherine Jefferson, RN - Clinical Coordinator; Mr. Dennis McDonough, Regional Coordinator; Ms. Joyce Manzone, Regional Coordinator; Mr. R. Miller, MICU Coordinator, and Mr. R. Hockemeier, Communications Coordinator. I also had the opportunity to meet with, on an individual basis, Dr. William Minogue, Medical Director; Mr. William Dwyer, Special EMS Consultant; and Dr. Rudolph Schaewble, Chairman of the State EMS Advisory Committee. I met with the following non-physician providers: the President and Vice President of the First Aid Council, the coordinators of each of the five HSA regions and several random emergency room nurses from central New Jersey. These discussions along with data and written material available, allowed me to derive an adequate overview of the current activities of EMS throughout the state.

The grantee is the Office of Emergency Medical Services (O.EMS) of the State of New Jersey. The state has been divided up into five EMS regions which are identical to the regional HSA designations. Regions 1, 2, and 3 constitute the very densely populated and urbanized area of the state which adjoins the metropolitan New York City area. These three regions are currently receiving 1202 funds. Regions 4 and 5 are located in the central and southern sectors of New Jersey and have a much more rural character with some urbanized pockets in the region. Parts of these regions adjoin the metropolitan Philadelphia area. Regions 4 and 5 have been receiving 1203 -1 grant funds during fiscal 1978.

The Director of the State O.EMS is William J. Harris. Mr. Gerald Surett, who is Project Director for federal EMS activities is housed in the Office of EMS and reports to Mr. Harris. It appears that there are two distinct staffs,

the permanent staff of the EMS and the small project staff which is funded under federal EMS dollars. Mr. Harris attempted to reassure me that these two staffs functioned as a single unit. However, this view was not universally held. The project staff is preceived by numerous providers, particularly volunteer ambulances providers, to be distinct from the staff of the O.EMS.

It was clear that the state legislature has made a minimum commitment to the fiscal integrity of EMS, and has relied on federal dollars to improve the nature of these services within the state. This is reflected in the fact that the project staff are not considered to be permanent staff and there could be a reduction in force if federal dollars were to cease.

There is a state EMS advisory committee which is composed of providers and consumers which has the function to advise and consult to the O.EMS. Dr. Rudolph Schaewble has been a tireless leader in efforts to improve statewide EMS and is currently serving as EMS Advisory Committee Chairman.

Medical direction for this project is provided by Dr. William F. Minogue, who is a Clinical Cardiologist and Medical Director of a large teaching hospital in northern New Jersey. Dr. Minogue has been able to marshall numerous professional, especially specialty physicians, in the various categories mentioned by federal EMS regulations. Although Dr. Minogue has been a consultant to this project for a short period of time, he has had a tremendous influence in upgrading and bringing solid medical advice to its activities.

Special Considerations

Numerous providers and staff indicated that the State of New Jersey is "the state of home rule". The implication of this statement is that local government control and local unit control of various aspects of emergency medical services, including ambulance provision, training, and physician activity is considered to be very important. Thus, when one begins to talk

about state-wide or federal standards, a negative reaction often occurs, due to the fear that local control will be compromised amongst providers. One cannot justly evaluate the New Jersey project without taking this factor into consideration. However, the need to adhere to such standards and guidelines cannot be obviated.

The commitment to EMS by either the executive or the legislative branch of government in New Jersey has been minimal. The project staff often must consider the posture of legislature which is acutely sensitive to the desires of constituents who have a strong "home rule perspective". This, added to the tenuous nature of the project staff, creates a difficult working environment at best.

The State of New Jersey adjoins two of the largest metropolitan areas in the United States. This will provide particular problems in the area of communication because of the potential for these large metropolitan areas to completely dominate communication activities in the adjoining New Jersey areas.

Components

In the following section, I have listed each of the 15 components mandated by the federal EMS Systems Act of 1973 which are to be addressed during the grantee's funded year. In each component I have stated what the current status of activity is and subsequently have made specific recommendations for improvement.

A. Manpower

1. Current Status

a. The State of New Jersey relies primarily on volunteer manpower for the vast majority of personnel who provide pre-hospital services. The volunteer ambulance personnel are organized into an effective political and trade organization known as

The First Aid Council. Due to the reliance on volunteers for most of the ambulance coverage in the state, there are times when an ambulance service is unable to mobilize two emergency medical technicians (EMT's). Efforts at remedying this situation have been directed to organizing jump teams such that one EMT leaves for the scene while a second EMT will go to get the ambulance vehicle and meet the first EMT at the scene.

b. There are nine pilot paramedic programs throughout the state. Numerous paramedics have been trained. However, in some communities there is considerable friction with the paramedics and the volunteer EMT services. There have been instances where the paramedics and EMT's accused each other of inappropriately taking patients from the scene.

c. There are sufficient numbers of emergency department nurses and physicians throughout the state. There probably are some deficiencies in the very rural areas. Proximity of Philadelphia and New York metropolitan areas allow for easy access to full range of specialty and subspecialty physicians when such are not available in a particular area of the state.

d. No physician indicated that emergency medicine was his area of specialty practice by a recent survey.

2. Recommendations

a. There should be emphasis on making sure that first responders and public safety personnel are trained at least to cover crash injury management level. The reliance on volunteer EMT ambulance service require that such personnel be instructed to render first aid at the scene.

b. There should be considerable emphasis placed on developing as many trained EMT's throughout the state as possible. Recognizing that many of these EMT's are not full-time personnel, and may only be able to contribute one or two nights a week/month to provision of pre-hospital care services.

c. The paramedic training course should be enlarged so that more paramedics can be trained. Serious consideration should be given to providing limited training to volunteers so that they could deliver a defined, but a narrower range of advanced life support measure, when appropriate. Attempts at implementing paramedical courses which are constricted to 80 to 100 hours or consist of a limited number of modules of the current 15 module national paramedic curriculum. This might allow for a larger number of advanced EMT's to be trained and allow for greater participation by volunteer paramedics.

d. The competitive aspect of EMS which is occurring between EMT's and paramedics should be discouraged. These groups must realize that they are a part of a team which includes less well trained personnel as well as very sophisticated specialty physicians. The idea of paramedic EMT's racing to a scene to treat a patient is not consistent with a sound EMS system.

e. The project should encourage those activities which tend to identify the practice of emergency medicine as a distinct entity from the usual disciplines of medicine. This augments the identification of seven emergent disease catagories that were federally defined under the EMS Systems Act of 1973. This heightened awareness for professionals might accrue benefits in the areas of recruitment or residency development.

B. Training

1. Current Status

a. The training picture is somewhat confused. The State O.EMS offers a national 81 hour Department of Transportation (DOT) curriculum for EMT training and certification. However, this training is rivaled by another course known as the "5-point course". This "5-point course" supposedly covers the majority of material that is covered in the standard 81 hour EMT course and has been accepted by O.EMS for certification. An effort is being made to encourage the use of the standard 81 hour DOT course throughout the state as the single curriculum that will be taught and used.

b. A single paramedics course was developed under the aegis of the New Jersey School of Medicine and Dentistry. This course is used for paramedics in the nine demonstration projects. The didactic session is conducted primarily by two people who are essentially employed by the school. This evaluator was unable to acertain if there were recertification or continuing education courses either for the EMT's or EMT-P's.

c. There is currently a program for continuing education of nurses in the area of emergency nursing. This program is carried out with section 789 funds, also under the aegis of the New Jersey School of Medicine and Dentistry. There appeared to be little coordination between the EMS project and the educational project.

d. There were no recognizable efforts to provide better emergency education opportunities for physicians.

2. Recommendations

   a. This project should continue the efforts toward the adoption of the 81 hour DOT program has the only acceptable program. Currently communications between the leadership of the First Aid Council, which does endorse the "5-point course" and the O.EMS have not been the best. The project staff under Mr. Surett's direction has developed better liasions with the leadership of the First Aid Council and thus a dialogue has been developed. It is encumbent now on the project staff to encourage the standarization of the EMT training program.

   b. As previously mentioned, O.EMS and the project should encourage the development of limited advanced life support training programs where the only feasible personnel to staff such programs would be volunteers. This is a recognition of the fact that the standard 480 hour course (DOT) may be too lengthy for a volunteer to contribute his time. However, it is quite feasible to offer either limited module teaching or limited course hours and provide a limited scope of advanced life support services. O.EMS should consider looking at other such programs throughout the nation and determine whether they are feasible in the State of New Jersey.

   c. O.EMS and project staff should develop some guidelines and parameters for the recertification of both EMT and paramedics. In concert with this, continuing education programs should also be developed.

   d. O.EMS and the project staff should attempt to develop a stronger relationship with those persons charged with the

administering 789 grant funds for the improvement and development of emergency nursing. Ms. Catherine Jefferson indicated that she is making in-roads in that area. She needs the full support of O.EMS and even the support of the federal project officer to continue these activities.

e. The project should take steps to see that continuing education for both physicians and nurses in the area of emergency care is strengthened. Such educational courses should include not only classical clinical disciplines but topics such that function of emergency care systems, activities of paramedics and a special emphasis should be made in the areas of the federally defined emergent disease catagories. Many of these activities could be developed along with the on-going activities of the clinical task force.

C. Communications

1. Current Status

a. Access into the EMS System is provided by the 911 in some areas while other continue to utilize a seven digit centralized dispatcher number.

b. State-wide communications are VHF ambulance to hospital basic life support (without telementry) system.

c. There are several demonstration paramedic projects which do have UHF systems with telementry capability however; the extent of these systems is extremely limited.

d. At the time of this evaluation, there had been no acceptance by federal project officers of the state wide communications plan. The proximity of nothern New Jersey to the metropolitan

New York City area and the proximity of the central New Jersey area to metropolitan Philadelphia dictates the need for interstate, inter-regional planning in the area of communications. Without such planning, the systems of the large metropolitan areas have the potential of completely disrupting communication systems throughout the State of New Jersey.

2. Recommendations

   a. O.EMS should encourage the development of a 911 in all communities such that it could be used on a state-wide basis. O.EMS might consider developing strategies in which communities could combine receiving and dispatch facilities so that they are intergrated on community, county basis.

   b. There must be development of a communication plan that will meet the needs of an advanced life support system which includes the transmission of telemetry information. A inter-regional meeting should be convened which includes the New Jersey EMS staff (particularly Mr. Surett and Mr. Harris), the Region II project officer Mr. Carlos Santiago, the Philadelphia EMS staff, The Region III project officer Mr. Louis Donofrio and personnel from the central EMS Office in the communications division. A similar meeting should be held with the EMS staff of New Jersey and the EMS of New York City with Mr. Santiago and members of central EMS communications. Meetings should be held until an acceptable plan for interregional communications can be worked out. The development of a state-wide communication plan should be considered a high priority of the project at the present time. Without a viable plan, the EMS system cannot become a reality.

c. Related to the Communications plan is the need to plan for those institutions which will act as medical command centers (those hospitals which will give advise and guidance to EMT's and paramedics). These decisions should make as the communications plan is being worked out.

d. Since the probability for interregional transfer into and out of the metropolitan regions is significantly high, such a plan should delineate the responsibilities of EMT's paramedics, the medical command stations, state-wide authorities.

D. Transportation

1. Current Status

a. Vehicles and necessary equipment are provided for by different sources depending on the management and location of the transportation service.

b. There are not state laws which require ambulance to meet specific standards.

c. Volunteer ambulance companies often have very limited resources and cannot purchase vehicles which even approach national DOT (KKK) standards. In one instance, an ambulance company was utilizing a standard sedan automobile as a transport vehicle.

d. There was little knowledge on part of the O.EMS or project staff about the availability of either air/sea transport vehicles. Nobody seem to be aware of personnel operating such medical evacuation vehicles have been trained in the delivery of pre-hospital care.

e. The availability of air/sea medical evacuation vehicles is

important in New Jersey for the following reasons. During the summer months, the population throughout the state, and particularly at the Atlantic shoreline, increases by several hundred thousand. Often these shoreline areas are difficult to get to because of narrow roads, bridges, and considerable traffic congestion. The development of the Atlantic City as a major gambling resort area may increase highway traffic throughout the state as well as increasing the population of Atlantic City itself which is somewhat inaccessible by automobile at times.

2. Recommendations

   a. The O.EMS and the project staff should work with the First Aid Council to agree on a minimal set of standards for the various types of transport vehicles. These include routine transport vehicles, emergency conveyance vehicles, and mobile intensive care units. These standards should be promogated into law.

   b. The O.EMS and projects staff should continue to identify funds and resources which would allow financially distressed communities to purchase or operate existing vehicles to acceptable standards.

   c. The O.EMS should work with the state police, military groups, and other providers to develop a plan of reliable or emergency air/see transport of trained EMT's as part of the service.

E. <u>Facility/Critical Care Units/Transfer Agreement</u>

1. Current Status

   a. At the time of this evaluation, catagorization, identification

of specialty facilities and creation of transfer protocols and agreements had not been completed.

b. Clinical task force have been developed during the year with the mission of developing acceptable criteria for catagorization, special referral centers and appropriate transfer mechanisms. The task forces are composed of clinical specialists from throughout the state and thus have considerable professional creditability. Dr. Minogue and Ms. Jefferson have spent an enormous amount of time and effort in developing and working with these task forces.

c. It is apparent that the task forces have been the single most important development of the project. The work of the task forces will be the foundation on which the entire EMS System will be based.

d. There has been little coordination with the regional HSA's regarding the development of facilities in critical care unit standards. The regional HSA staffs felt that there was a much greater need for coordination amongst the two groups.

e. The adjoining metropolitan Philadelphia and New York City area is derived for specialty facilities and personnel which are not available within the state.

2. Recommendations

a. The O.EMS should continue to support the efforts of the project staff and the clinical task force as their highest priority.

b. The results of the clinical task forces should be disseminated in various continuing education forms for health providers.

c. A much closer working relationship between the project staff

and the HSA must be developed. The HSA's are required by public law 93-641 to "review facilities every five years". The work of the task forces may be critical in the HSA's ability to determine what facilities can deliver specific levels of care. The HSA's will be important and can assist in the implementation of the various criteria, standards, and transfer agreements at the clinical task forces finally derived. Obviously there is need for both of these organizations to work closer together.

F. Public Safety Agencies

1. Current Status

a. There is currently an attempt to train several of the state police officers in the area of crash injury management. The numbers of officers to be trained was not clear at the time of the evaluation.

b. The usual degree of interdependence of public safety agencies exist both paid and volunteer.

2. Recommendations

a. An intensive effort should be made to train as many of the public safety personnel to either the level of crash injury management or a full EMT. This activity should not be restricted to only the state police but should be encouraged for local law enforcement and fire department personnel. Due to the reliance on voluntary ambulance providers, public safety personnel will often be instrumental in assisting and implementing a first aid response. Thus, their training should not be considered a luxury but rather a necessity.

G. Consumer Participation

1. Current Status

a. The opportunity for consumer participation is provided for at two levels. There are consumer representatives on the state EMS Advisory Committee. Each of the regional HSA's has an EMS component in which consumers are represented.

2. Recommendations

a. No comment.

H. Accessibility to Care

1. Current Status

a. State regulations provide for the treatment of patients without regard to ability to pay.

2. Recommendations

a. No comment.

I. Standard Patient Record Keeping

1. Current Status

a. There was no standard record form used either on regional or state-wide basis.

b. There has not been agreement on which common data elements are necessary in feasible retrieval off a record form.

c. The leadership of the First Aid Council indicates a willingness to discuss the above matter with project staff.

d. There are standard record forms used in the nine demonstration paramedic projects. I was not made aware of the computer run sheets that had been derived from the standard forms.

2. Recommendations

a. Project staff should work closely with the First Aid Council

in developing either common data element or a standard ambulance record form. It must be recognized that ambulance personnel are the ones who will be filling out this form, and they must have significant and adequate input into its design. To design a form which would be cumbersome to fill out by ambulance personnel would be sheer folly.

b. If a standard form is developed then it should be able to meet the needs of both basic and advanced life support cases.

c. A methodology should be developed which would allow for adequate evaluation of the pre-hospital care system based on the data which is recorded and retrieved.

J. <u>Public Information and Education</u>

1. Current Status

a. The major thrust has been in the development of the cardiac defender program. A program which is designed to teach the lay public in CPR.

2. Recommendations

a. The project needs to direct more attention to making the public aware of the components and the need for a total EMS. This may include advertising campaigns regarding the effectiveness of a single emergency access number like 911. This is particularly important in the State of New Jersey where the legislative support for the project has not been fully developed as of yet.

K. <u>Independent Review and Evaluation</u>

1. Current Status

a. At the present time, there is no methodology for a specific

method of the evaluation for system elements.

b. Independent reviews being conducted by this evaluation.

2. Recommendations

a. An evaluation strategy must be developed which allows for appropriate activities at the level of EMS matures. Thus, the most crucial factor in this year would be deriving sufficient pre-hospital data. In subsequent years, issues such as patient tracking, emergency department data, etc. will be appropriate.

L. Disaster Linkage

1. Current Status

a. There are the usual source of disaster plans available which include the integration of police, fire, civil defense, etc.

2. Recommendations

a. The O.EMS should sponsor a regional EMS disaster exercise to see whether the system elements do function.

M. Mutual Aid Agreements

1. Current Status

a. The usual sorts of mutual aid agreements are made on an informal basis.

2. Recommendations

a. No comment.

N. Major Weaknesses

1. Current Status

a. The lack of commitment to the improvement of EMS are both the executive and legislative branch of state government continues to present a serious obstacle. This evaluator is quite concerned about the level of activity that will occur once

federal EMS dollars are expended. Further, a condition of all EMS grants is a demonstration by either state or local agencies that carry on activities after a grant has expired. The O.EMS and the project staff must attempt to get solid executive or legislative support for this project.

b. There is a perceived difference between the staff members of O.EMS and those of the project staff. It is apparent that O.EMS staff have the job security in permanent funded positions whereas project staff are limited by the extent of the project. This situation is not a healthy one and O.EMS should seek to make sure that project staff is secure in their place of employment.

c. There is a significant degree of mistrust between members of the O.EMS staff and the leadership First Aid Council. It is well recognized that the Council has tremendous political influence and it is indeed difficult to adopt either regulations or wrote legislations which the Council deems not in its best interest. Fortunately the project staff under the personal activities of Mr. Surett have developed a degree of communication with the Council. The project staff should continue to develop this relationship and hopefully bring O.EMS and the Council leadership closer together.

O. <u>Major Strengths</u>

1. Current Status

a. It is clear that a key strength of this project has been under the amount of position involvement. The work of such people as Dr. Schaewble, Dr. Dwyer and Dr. Minogue is indeed

impressive. Dr. Minogue, the Medical Director has shown a unique ability in the area of EMS. Particularly in getting specialty physicians to serve on the clinical task force. The strategy of developing clinical task force papérs in each of the federally defined emergent areas using these as a cornerstone of the EMS project, both now and in the future, demonstrates his key insight to the real "nitty gritty", providing better patient care through improved EMS. Dr. Minogue should be encouraged in his activity. His authority should be expanded so that he is dealing with all segements of the EMS community and not just the position components. The working relationship with Dr. Minogue and Mr. Surett seems to be excellent. Since Dr. Minogue is a private practitioner who is serving as a part-time medical director of this project, he should be given the freedom to present the case of EMS to the various members of the government. This includes people in the Department of Health, members of the executive branch of government, legislators and committees which may have significant impact in this area. It is important that such support be generated for the EMS project. Lack of it may endanger future grant requests.

b. The project staff has made strides toward the improvement of the system under some very difficult circumstances. The work of Mr. Surett, Dr. Minogue and Ms. Jefferson have been vital in this activity. These individuals need the continued encouragement and support of the O.EMS as well as the federal project officer.

c. The state-wide EMS Advisory Council is an excellent body which can assist in both the development and implementation of EMS goals. Dr. Schwaeble has demonstrated his desire and interest to guide this group towards this end.

2. Final Recommendation

   a. Federal project officer may consider developing a strategy in which all five regions of the state are in a single funding cycle. Since the grantee is the state O.EMS is both rational and feasible to fund this as a state-wide project. In view of the strong perponderence of local control, i.e., the First Aid Council sets up funding strategy may assist development of a solid state-wide approach to the development to EMS.