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REPORT TO THE CONGRESS

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Progress, But Problems In Developing Emergency Medical Services Systems

Health Services Administration
Department of Health, Education, and Welfare

Development of regional emergency medical services systems on a self-sustaining basis depends on the willingness of local government and local providers, such as hospitals, to accept the regional system concept.

So far, regional systems have not been able to gain the control and coordination necessary to achieve economic, effective, and efficient emergency medical services delivery called for by the Emergency Medical Services Systems Act of 1973.

Improvements have been made in the delivery of emergency medical services as a result of system developments encouraged and financed by the act. However, the regional concept is being compromised by virtue of the independence and differing priorities of local governments and providers.

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COMPTROLLER GENERAL OF THE UNITED STATES
WASHINGTON, D.C. 20548

B-164031(5)

To the President of the Senate and the
Speaker of the House of Representatives

We have reviewed the emergency medical services systems program and found that, although progress is being made in the development of regional systems, the continued viability of such systems is not assured when Federal funding terminates. Because our recommendation to the Congress concerns legislation currently being considered to revise and extend the Emergency Medical Services Systems Act of 1973, we are issuing the report now without comments from the Department of Health, Education, and Welfare.

We made our review pursuant to the Budget and Accounting Act, 1921 (31 U.S.C. 53), and the Accounting and Auditing Act of 1950 (31 U.S.C. 67).

We are sending copies of this report to the Director, Office of Management and Budget, and to the Secretary of Health, Education, and Welfare.

Comptroller General
of the United States

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Contents

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ABBREVIATIONS

EMS emergency medical services

GAO General Accounting Office

HEW Department of Health, Education, and Welfare

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COMPTROLLER GENERAL'S REPORT TO THE CONGRESS

PROGRESS, BUT PROBLEMS IN DEVELOPING EMERGENCY MEDICAL SERVICES SYSTEMS

Health Services Administration
Department of Health, Education, and Welfare

D I G E S T

Development of emergency medical services on a regional basis in the United States has been slow, but improvements in emergency medical services have been made. Regional systems that are self-sustaining and also retain area-wide control of the resources and facilities of emergency medical services have not been achieved.

THE PROGRESS

With Federal funding, communities throughout the Nation have obtained better equipped ambulances, improved communications capabilities, and up-to-date equipment for hospital emergency departments and other treatment centers. These have helped the diagnosis and treatment of emergency patients, and more people have been trained to provide emergency medical services.

In addition, local governments and communities have become more aware of the need for better emergency medical services and of their responsibility to provide such services. This increased awareness of the need for, and the improved capability to provide, emergency services probably has caused some decreases in mortality and disability due to traumatic injury or illness. (See p. 4.)

THE PROBLEMS

Despite these forward steps, the development of emergency medical systems with strong central management--one system for several counties, for example--has been spotty. Regional management organizations receiving grants are having difficulty finding permanent financing for the administrative and operating costs

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of the services borne at the start with Federal grant funds. Also, they have little control over the financial support made available for these services by local governments and other providers, such as hospitals. Consequently, when Federal funding stops, continuation of regional systems providing services will not be assured in the amounts planned or established with Federal support. (See p. 5.)

In addition, regional management organizations have not been able to obtain commitments from local governments and local providers to the regional system concept. (See pp. 9 and 10.) They are having problems meeting requirements of the Emergency Medical Services Systems Act of 1973 as to the following components:

--communications (see pp. 10 and 11),

--transportation (see p. 11),

--facilities (see pp. 11 and 12),

--patient transfer and access to care (see pp. 12 to 14), and

--standard recordkeeping and system evaluation (see p. 14).

NEED FOR IMPROVED HEW PROGRAM MANAGEMENT

Some aspects of the Department of Health, Education, and Welfare's administration of the program have also adversely affected emergency medical services systems development. GAO noted that HEW could

--improve guidelines for evaluating grantee progress and assessing readiness to proceed with system development,

--increase monitoring and technical assistance efforts with grant funds, and

--coordinate better with other Federal agencies whose programs relate to emergency medical services. (See ch. 3.)

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PROPOSED LEGISLATION AND RECOMMENDATIONS

On January 23, 1976, the Senate Subcommittee on Health, Committee on Labor and Public Welfare, held a hearing on three bills--2548, 2673, and 2011--to revise and extend the act. Representatives from GAO and HEW as well as grantees and experts provided testimony. On May 14 the Committee reported on Senate bill 2548, as amended during Committee consideration, and recommended passage. Principal provisions of the bill relating to the matters GAO found are discussed in the report. (See p. 22.)

If the Congress extends the Emergency Medical Services Systems Act, GAO recommends that the Congress include the provisions of Senate bill 2548, or the equivalent.

Meanwhile the Secretary, HEW, should require the Administrator, Health Services Administration, to

--issue more specific guidance to the regional offices regarding local government and local provider commitment to the regional emergency medical services system;

--place greater emphasis on monitoring of and technical assistance provided to grantees by the central and regional offices;

--guide Federal regional personnel, grantees, and potential grantees in coordinating Federal programs at the regional level; and

--emphasize national coordination of Federal programs related to emergency medical services through the Interagency Committee on Emergency Medical Services.

Because GAO's recommendation to the Congress concerns legislation currently being considered to revise and extend the Emergency Medical Services Systems Act of 1973,

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GAO is issuing the report now without comments from the Department of Health, Education, and Welfare.

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CHAPTER 1

INTRODUCTION

For the past 10 years inability to respond immediately and effectively to an emergency medical crisis has been recognized as a major deficiency of the health care system in many communities. The National Academy of Sciences-National Research Council published a report in 1966 which noted various deficiencies in emergency care, such as misguided attempts at first aid, absence of physicians at the scene of emergencies, unsuitable ambulances, and lack of voice communication facilities. Noted also were lack of adequately trained emergency medical personnel, adequate local government support of emergency medical services, and information on the effects of deficiencies.

Grim statistics still indicate the need for improved emergency medical services. Estimates of the number of lives which could be saved each year exceed 100,000. Heart attack, the leading cause of death in the United States, accounts for over 700,000 deaths annually. About one-half of these victims die before reaching a hospital. The American Heart Association estimates that 15 to 20 percent of the prehospital coronary deaths could be prevented with improved prehospital emergency medical services. Accidental injury, which is the leading cause of death among persons of ages 1 to 38, accounts for over 100,000 deaths annually. An estimated 15 to 20 percent of these victims could be saved with improved services.

In addition to saving lives, improved services could substantially reduce the occurrence and severity of disability.

FEDERAL ROLE BEFORE 1973

Before 1966 Federal involvement with emergency medical services was limited to development of general health resources and services. No specific programs to develop emergency medical services existed. In September 1966, the Congress enacted the Highway Safety Act of 1966 (23 U.S.C. 401). As part of an overall highway safety program, this act specifically addressed the need to improve emergency medical services related to highway accidents.

Between 1966 and 1973 the Department of Transportation provided over $48 million for the emergency medical services part of the National Highway Traffic Safety Program. In addition, 10 other Federal programs, primarily within

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the Department of Health, Education, and Welfare (HEW), provided over $73 million for identifiable emergency medical service activities. Other Federal programs also provided funds which benefited these services, but the extent of the benefit has not been identified. No agency was designated program coordination responsibility, thus the Federal program expenditures for the services remained uncoordinated.

EMERGENCY MEDICAL SERVICES SYSTEMS ACT OF 1973

In November 1973 the Congress acted to further improve emergency medical services by adding the Emergency Medical Services (EMS) Systems Act of 1973 (42 U.S.C. 300d) to the Public Health Service Act. The EMS Systems Act promotes development of comprehensive regional EMS systems and authorizes HEW to make grants for that purpose. The act provides also that all Federal EMS-related programs are to be coordinated through the Interagency Committee on Emergency Medical Services.

Under the act, comprehensive regional systems are to have adequate medical staff, emergency facilities, transportation equipment, and other resources to provide needed emergency care to all persons in the system's service area. The system, which may serve several counties, is to be administered by a single public or nonprofit private entity. Requests for emergency care are to be handled by a central communications system that links all of the system's resources.

To receive grants under the act, regional systems must meet certain requirements regarding 15 mandatory system elements, including staffing, training, communications, transportation, access to care, and recordkeeping. The act authorizes a maximum of one grant to each eligible entity for system planning and two grants for system establishment. Grants are authorized also for system expansion. HEW allows up to two such grants for each eligible entity.

The Health Services Administration of HEW administers the three major act sections, which provide "seed" money for planning, establishing, or expanding the systems. During fiscal years 1974 and 1975, over 200 grants, totaling about $50 million, were awarded under these sections. The Health Resources Administration administers two additional sections, which provided a total of about $15 million during 1974 and 1975 for research and training. For fiscal year 1976, a total of about $34 million was appropriated for the EMS program.

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Funding authorized by the act ends with fiscal year 1976. Legislation to extend the act and its funding is being considered; some of the information contained in this report has been presented to the Congress through Senate hearings on the extension legislation.

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CHAPTER 2

PROGRESS AND PROBLEMS OF REGIONAL EMS SYSTEMS DEVELOPMENT

The Emergency Medical Services Systems Act has stimulated interest and brought improvement in the delivery of emergency medical care. However, progress in developing regional systems, as called for by the act and the implementing HEW guidelines, has been slow. Attempts to develop regional systems have resulted in improved delivery of emergency medical services; however, regional systems have not achieved the self-sustaining capability or the control over regional EMS resources envisioned by the act. Consequently, some improvements planned may not be achieved and some improvements achieved may be lost when Federal funding stops.

PROGRESS

With Federal aid, numerous communities throughout the Nation have upgraded their EMS resources. Better equipped ambulances have been purchased, communications capabilities have been improved, hospital emergency departments and other treatment centers have obtained equipment to better diagnose and treat emergency patients, and more people have been better trained to provide emergency medical services.

The provision of EMS has become more widely accepted as a public service, similar to fire and police services. Some local governments have enacted tax ordinances to support prehospital and inhospital EMS. In addition, some local governments have established EMS councils or coordinator positions to guide local system development.

Although progress has been slow, local governments and providers are becoming more receptive to a systematic and coordinated approach to EMS delivery. As one physician stated, Federal moneys have been an incentive for the various local governments and providers to work together for patients' interests.

PROBLEMS

Although Federal funding has improved EMS, progress toward developing regional systems has been slow. Grantees have been unable to organize permanent management entities controlling EMS resources and operations, which the act recognizes as essential to successful system development.

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The concept of using Federal funds as seed money to encourage the development of regional systems necessitates the cooperation and commitment of local governments and providers to insure successful system development and ongoing system operation. However, local governments and providers have been reluctant to commit their financial support and their control of EMS resources to a regional management organization. Therefore, most grantee management organizations have had to assume a coordination, advisory, and grants management role rather than the strong central management and operational role envisioned by the act and program guidelines.

Lack of regional control over system financing

Grantees are having difficulty identifying firm sources of permanent financing for costs initially borne by Federal grant funds. In addition, they have little control over the level of EMS financial support provided by local governments and providers. Consequently, when Federal funding stops, continuation of regional systems providing EMS at the level planned or established with Federal support will not be assured.

Matching funds do not indicate local support

The non-Federal funds used by most EMS grant applicants as the required local share of project costs have not been evidence of firm local commitment for the regional system. The resources financed with local funds cited as matching grant funds are not usually controlled by the EMS system grantee.

The act requires that, as evidence of local support for the system, applicants for establishment or expansion grants provide from 25 to 75 percent of the project costs, depending on the year of the grant, the phase of operation, and the financial need of the applicant. These matching funds must be non-Federal contributions of either (1) cash, including contributions to the grantee from a third party or (2) in-kind contributions, representing the value of noncash contributions, provided by the grant applicant or third parties. In-kind contributions may be depreciation and use charges for real property and nonexpendable personal property and the value of goods and services directly benefiting and specifically identifiable to the grant-supported activity. Grant applicants are not required to have been involved in acquiring equipment or providing services to cite these as in-kind matching contributions.

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Grant applications show that most matching funds are in-kind contributions, such as the salary and depreciation expenses of operating an ambulance service. Most grantees can readily cite sufficient in-kind contributions to meet matching requirements. When grantees have met matching requirements through a cash match, the funds have been primarily used for hardware purchases, such as ambulances or communications equipment, which will be used by EMS providers. Regardless of whether the matching local support is in-kind contributions or cash, citation of that support does not mean the grantee will have control over the resources.

As an illustration, one State grantee easily met the matching requirement. It showed over $2 million of in-kind contributions by citing various local hospital and ambulance services available throughout the State. Estimated annual costs of such services shown in the grant application far exceeded $2 million. Annual salary costs for emergency medical technicians alone were estimated to be at least $25 million.

The grant application also provided $150,000 in cash matching funds, citing private foundation grant funds previously awarded to a health care provider in the State. The State obtained the provider's permission to include these funds as match for the Federal grant. The foundation grant was for EMS development in a three-county area.

At the time of application, therefore, the grantee provided abundant non-Federal matching contributions to EMS activities. These activities, however, were already under the control of various independent providers and merely citing their existence was not evidence of local support for the regional EMS system.

Lack of permanent financial support for the designated system management organizations

None of the projects reviewed had obtained firm commitments for assuming all grant-funded administrative costs of the designated regional management organizations. Without continued funding, these organizations will cease to exist when EMS grant funding ends, and the potential cost and service benefits to be gained from regional systems will be lost.

The management organizations for the 10 establishment or expansion grantees reviewed are within (1) existing State or local government administrative units, (2) public entities representing regional consortiums such as councils of governments, or (3) private nonprofit corporations. For seven grantees, Federal funds finance almost all of the administrative costs of the management organizations. The other

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three projects receive more State or local government or private funds, but some of their administrative costs also are financed with Federal funds. Sources for replacement of these funds must be obtained by all of the grantees if the management organizations are to continue to function at the same level after Federal grant eligibility ends.

Although 8 of 10 management organizations reviewed are within State or local government units or groups, they do not have direct taxing authority or other means to generate revenue. Rather, they will depend on periodic appropriation support by the government units for their continued financing when Federal funding ends. Likewise, the other two projects, managed by private nonprofit corporations, have no independent source of revenue but will be dependent on financial support from local governments.

Several EMS project management officials expressed optimism that the system management organizations would receive State or local government administrative cost support when Federal funding ends. However, some officials indicated that the level of such support might be less than that received under the Federal grant. None of the projects reviewed had any firm commitment of support.

One eight-county region was funded by HEW as a demonstration project before the EMS Systems Act and at the time of our review was receiving its second and final year of expansion grant funds. Prior to the HEW grants, each county had voluntary committees for EMS activities, but the grantee had reported that these committees were ineffective. Therefore, one primary goal of the regional management organization during the final grant year was to upgrade each committee's capability to assume greater system management responsibility if it became necessary to reduce or disband the regional management organization at the end of the Federal grant. There is no assurance that these committees will be able to continue a regionally oriented system.

Another project, which was also in its final year of grant eligibility, was planning to request an extension of the grant period to give the management organization more time to solicit State appropriation support.

A third project reviewed was receiving second year system establishment grant funds. Management responsibility for the project was being shifted to a private nonprofit corporation comprised of government officials from counties in the region. The shift was being made to generate local support for the regional system and to insure its continued operation after the Federal grant support ends. However, at

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the time of our fieldwork, only about half of the counties in the region had agreed to join the corporation, and ongoing funding for the total system was not assured.

Lack of financing for resource development and operation

EMS grant funds are being used for resource development, such as capital equipment acquisition and manpower training, and for limited support of regional system operating costs, such as the annual leasing costs of regional communications lines. Because grant assistance is of limited duration, provision for replacing resources developed with grant funds and for assuming recurring operating costs borne with grant funds must be made if the system is to continue to function at the level planned or established. Also, grant funds are not supporting most system operating costs; therefore, meeting planned system development objectives that require operating cost increases depends on the ability and willingness of system participants to absorb the higher operating costs.

Firm commitments to financially support the system as planned or established are not being obtained. Without such commitments, all objectives may not be achieved, and some improvements achieved with grant assistance could be lost when Federal support ends.

Some of the establishment or expansion grantees we reviewed nad local support for selected segments of their systems; however, none of the grantees had obtained firm commitments from local governments and providers to support all improvements made or planned.

At one of the projects visited, implementing an advanced life-support 1/ system was the highest priority objective for the project period. The grantee planned to train 12 advanced life-support teams and to purchase and equip 12 intensive care ambulances. Local governments and health care providers were to assume the operating costs. The most populated city in the

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1/Advanced life-support services, as defined in EMS program guidelines, are advanced care services which may be planned for areawide EMS systems. They include sophisticated transportation vehicles with full equipment and telemetry, staffed by advanced emergency medical technicians (paramedics) providing onsite, prehospital, and interhospital mobile intensive care and specialized physician and nursing staffs operating critical care units and emergency departments. The regions must fully implement the 15 mandatory system components.

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EMS region was to be the first to implement the advanced life-support system; however, while we were reviewing the project, a city referendum for providing operational cost support for the system was defeated.

Another project, which received HEW funds through an EMS demonstration contract awarded before the EMS Systems Act, used contract funds to subsidize the costs of emergency departments, ambulance services, regional telephone communications, and data collection and analysis. When the demonstration contract ended, the county governments appropriated enough funds to continue operating their respective emergency departments and ambulances at the contract level. EMS grant funds were needed, however, to continue the regional telephone communication and data collection and analysis components. At the time we completed our review, the local governments had made no commitments to fund these latter components, even though the project was in its final year of grant eligibility.

A third project was receiving Department of Transportation funds as well as EMS expansion grant funds. The project had also received HEW demonstration contract funds. Federal funds had been used to support selected system operating costs, including leased telephone lines, equipment maintenance, and local and regional EMS coordinator salaries. Funding under the EMS Systems Act was in its final phase and Transportation funding was scheduled to end in June 1977. During our review, project officials were disappointed because local governments and providers had not assumed, or agreed to assume, the federally funded system's operating costs.

Lack of regional control over system operation

Regional management organizations have little control over EMS in the region. This lack of control restricts the development of EMS systems as called for in the act.

Program guidelines recognize that to efficiently and effectively use resources to meet the needs of the region, systems must be integrated through an appropriate regional organization. The act and guidelines provide that this organization must have the authority to effectively administer the system. However, the provision of emergency medical services is generally a shared responsibility between local governments and private providers. Because of their responsibility for, and financial interest in, the provision of emergency medical services, local governments and providers are reluctant to relinquish management and operational control

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of their respective resources to the system's designated management organization. Therefore, most regional system management organizations assume a coordinating, advisory, and grants management role rather than the strong central management and operational role envisioned in the act and program guidelines. Because they lack the authority to control resources, the regional management organizations have been unable to develop most system components, called for in the act, or to assure that system resources will be deployed and used in the most efficient and effective manner. Problems similar to the following are being encountered.

Communications

The act provides for system personnel, facilities, and equipment to be joined by a central communications network. Program guidelines provide for the network to include a system command and control center which would establish communication channels and allocate the resources essential for effective and efficient management of each request for EMS. The guidelines further provide that the command and control center be the focal point for all system activity; that is, all requests for system response should be directed to the center, all system resource responses should be directed from the center, and all system liaison with other public safety and emergency response systems should be coordinated through the center.

Although some systems have or plan to establish the capability for central access and dispatch, officials at most projects reviewed said that local governments and providers insist on retaining operational control over their own resources. Therefore, system access, resource dispatch, and day-to-day management of resources in most systems remains with the local governments or individual providers. Without the control of resources possible through operation of the central access, dispatch, and command and control center, regional management organizations can only assume a coordinating role with respect to achieving the quickest system response times, reducing the costs of system operation, and integrating emergency medical response with other public safety agencies.

The only grantee whose system plan did provide for central allocation of EMS resources through the regional command and control center has encountered strong resistence to the plan by local governments and providers. Opposition to the plan surfaced even though the regional management organization was established by--and received pledges of financial support from--the local governments. One of the local governments which pledged financial support has withheld payment

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pending satisfactory resolution of the issue of central versus local control over resources.

Transportation

The EMS Systems Act calls for systems to have an adequate number of transportation vehicles that meet appropriate standards relating to design, performance, and equipment. The act also provides standards regarding the locations where vehicles are to be based in the region.

Local governments and providers have relinquished little authority to the regional management organizations for transportation resources. Consequently, except for vehicles purchased with grant funds, the regional management organizations have had little control over the number and location of vehicles.

At one project visited, the regional management organization had determined that, with proper placement, 69 ambulances could provide good emergency services to the region. There were 183 ambulances scattered throughout the region, but the management organization had no authority to relocate the ambulances or to reduce the number. Similarly, at other projects, additional ambulances were being purchased or planned for purchase without considering needs on a regional basis.

Facilities

The act provides for regional systems to include an adequate number of easily accessible emergency medical facilities which are categorized according to their patient treatment capabilities and which are collectively capable of providing services on a continuous, nonduplicative basis. Regional management organizations have made little progress toward meeting these goals because they lacked necessary authority, and the facilities have been reluctant to cooperate.

Emergency facility operations are financed and managed primarily by local governments or other public or private providers. Regional management organizations have no direct control over facility operations or authority to categorize them. In some regions, categorization is required by State law. Such categorization, however, has done little more than label existing capabilities; it has not eliminated unnecessary duplicate services. Officials at one project said categorizing caused some facilities to increase their services to qualify for higher classifications.

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Facilities have resisted categorization because they fear that publication of the capability of facilities might have a negative impact on the demand for care in some facilities. Officials at most projects have either experienced or anticipate strong resistance to limiting facility services.

Patient transfer and access to care

Program guidelines state that the transfer of patients from the emergency site to the emergency department, critical care unit, and followup care and rehabilitation centers is within the scope of a total EMS system. The EMS Systems Act provides that patient access to these facilities and services be based on medical need and accepted medical practice rather than on financial considerations. To insure orderly patient access to appropriate care, program guidelines provide for the development of preplanned care arrangements, including written agreements among providers.

Few regional management organizations have negotiated agreements for the orderly transfer of patients to appropriate facilities based on patients' medical needs and facilities' assigned treatment capabilities. The development of formal transfer agreements has been restricted because of the lack of assigned facility treatment capabilities and the lack of a mechanism for reimbursing system providers for patient care costs not otherwise recovered.

As previously stated, system management organizations have no means of generating their own revenues. They are, therefore, dependent on local governments or providers to accept financial responsibility for patient care costs not otherwise reimbursed. Some local governments financially support patient care costs through direct provider reimbursement or tax-supported treatment facilities. Except where special agreements exist, however, such financial support normally does not cover treatment provided at facilities outside the local jurisdiction. In some instances, local governments financially support only selected facilities within their jurisdiction.

Officials at most projects visited stated that the lack of formal system facility linkage agreements has not restricted patient access to initial emergency care because providers have a moral--and sometimes legal--obligation to provide such care. However, in the absence of assigned treatment capabilities for system facilities and formal system linkage agreements, there is no assurance that all patients are sent to the most appropriate facility. Further, since the obligation to treat patients regardless of their financial status does not extend to followup care and

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rehabilitation, agreements for the transfer of patients based on medical need are necessary to insure equal access to appropriate care and services.

Only 2 of the 10 establishment or expansion grantees we reviewed had negotiated any formal patient transfer agreements. Officials at seven of the other eight projects said that the lack of a mechanism for reimbursing providers for costs not borne by patients or other existing third party payers has restricted, or possibly will restrict, their ability to negotiate such agreements. Officials at the two projects which have made some progress toward developing system linkage agreements said the issue of payment for care is a limiting factor in the negotiation and implementation of such agreements.

One of these projects has developed agreements with the participating counties for reimbursing the most comprehensive hospital in the system for indigent patients transferred there for care beyond the capability of local hospitals. Criteria defining indigent patients are not in the agreements. Project officials said this has caused problems in administering the agreements because the counties have standards for indigency which differ from those of the receiving hospital. They said in some instances counties have refused to pay transferred patients' bills.

The project's transfer agreements do not cover patient transfers to other system hospitals or to critical care treatment centers outside the system. Project officials said the counties probably would have declined to participate in the system if they had been requested to underwrite such care because they lacked the financial base to do so.

Officials at the other project, which had made some progress toward developing facility linkages, said that transfer criteria and agreements had been developed for some critical care categories within designated subregional planning areas. Negotiating agreements was simplified because the EMS region was composed of only two counties--one of which contained all necessary critical care facilities and all but one of the subregional planning areas. However, project officials said that financial considerations have arisen during negotiations and development of agreements has been slowed because even the best equipped county financially supports only one hospital for indigent patient care. Thus, patient transfer is not based solely on medical need--indigent patients are normally transferred to the county-supported hosptial for followup care.

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Officials at some of the projects reviewed said the ultimate solution to the problem of reimbursing providers for patient care costs not otherwise recovered, and thereby assuring all patients equal access to all levels of care, is either the establishment of State funds for indigent patient care or the enactment of national health insurance. Both of these proposed solutions are beyond the scope of the EMS program, and we have no basis for judging their potential.

Standard recordkeeping and system evaluation

Program guidelines require that regional systems provide for a standardized patient recordkeeping system which covers patient treatment from initial entry into the system through discharge. This information will be used in evaluating system performance.

Regional management organizations have not been able to fully implement standard recordkeeping systems. Consequently, patient outcome evaluation procedures which would permit measurement of system impact have not been established.

Because regional management organizations have little control over EMS resources, they are unable to require information from ambulance services, emergency departments, and hospitals. Some organizations, however, have been able to implement standard recordkeeping for ambulance services and emergency departments through agreements with providers receiving HEW-funded EMS equipment and through voluntary provider participation.

None of the projects visited have been able to implement standard recordkeeping systems for hospital treatment beyond the emergency department, and they have not gained access to hospital patient records as part of any routine data collection effort. Grantees told us that hospital administrators and doctors are very reluctant to release patient records because of patient confidentiality and because of fear of malpractice suits which might result from subsequent data evaluation.

Information gathered from ambulance service reports and emergency department records is being used primarily to evaluate response times and quality of initial care. Without recording patients' entire period of care, the effect of the EMS system cannot be fully measured. Some grantees believe that, aside from the access problem, EMS outcome evaluation may be impractical if not impossible because of (1) high cost, (2) lack of base data, and (3) many factors other than emergency services that can affect patient outcome.

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Possible Health Systems Agency impact

According to statements by management officials at two projects visited, the Health Systems Agencies that are being established in accordance with the National Health Planning and Resources Development Act of 1974 (P.L. 93-641) may have a favorable impact on EMS system management and operations. Anticipation of the influence of these agencies is affecting EMS system planning.

Along with health planning responsibilities, the agencies will have authority to approve applications for Federal health program funds to be used in their areas. In the opinion of one EMS project official, these agencies will be able to provide the leverage necessary to obtain local government participation in regional systems. Another project official suggested further that responsibility for system management might logically be assigned to the agencies. He said that in addition to providing leverage for local support, the agencies could also be a source of funding for the EMS management organizations.

At several of the projects we reviewed, where EMS project areas did not already coincide with the agencies' planning areas, project officials were considering changes to make the areas coincide.

We agree that the authority the agencies have under Public Law 93-641 may allow them to influence local government participation in specific health programs such as EMS. However, the law does not authorize the agencies to manage the operations of such programs.

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CHAPTER 3

OPPORTUNITIES FOR IMPROVING HEW PROGRAM MANAGEMENT

In addition to the problems discussed in chapter 2, emergency medical services systems development has been adversely affected by some aspects of HEW's administration of the program. The Health Services Administration could better administer the EMS system grant program by (1) improving guidelines for evaluating grantee progress and for assessing readiness to proceed with system development, (2) increasing grant monitoring and technical assistance efforts, and (3) improving coordination with other Federal agencies whose programs relate to EMS.

NEED FOR IMPROVED GUIDELINES FOR EVALUATING GRANTEE PROGRESS AND FOR ASSESSING READINESS TO PROCEED WITH SYSTEM DEVELOPMENT

Grantees have been allowed to begin EMS system establishment and expansion without having adequately planned for all aspects of regional system development. Consequently, system development has been delayed while grantees revised system plans during the establishment and expansion phases. More specific central office guidance to the HEW regional offices is needed with respect to (1) the responsibility and authority of the designated EMS regional management entities and (2) the assurances of commitment and financial support needed from local governments and providers for regional system development. Also, more emphasis should be placed on these factors during the grant review and award process.

Program guidelines allow applicants to receive establishment and expansion grants without receiving a planning grant. Applicants are required, however, to have a system plan that includes the following factors, which the guidelines indicate are paramount to successful EMS system development:

--An appropriate means of financial support for initial and continued system operations.

--An identified lead agency responsible for system operations.

Application evaluation guidelines require consideration of these factors in the grant award process but are not specific as to the extent of EMS provider commitment and financial support that must be demonstrated before approving establishment and expansion grants. Similarly, guidelines are not

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specific as to the authority and responsibility the lead agency should have to assure successful system development.

Grants awarded in HEW regions show the effect of the lack of definitive central office guidelines and the lack of emphasis placed on the lead agency role and local government commitment and financial support. Most grantee applications deal primarily with the technical aspects of system development and operation. They do not (1) adequately assess the local political feasibility or limitations of regional EMS system development, (2) contain firm commitments of local resources to the regional system, and (3) identify an acceptable management structure to oversee development and operation of the regional system.

One grantee, indicating that an abundance of medical resources existed in the project area, received establishment grant funds without first receiving planning funds. The grantee's application contained assurances of local political support for and financial commitment to the project. However, the grantee obtained these assurances based on his verbal explanations of the project's purpose and scope. Upon review of the system plan described in the grant application, one key county within the region withdrew its project support because it objected to the loss of resource control that would result. The grantee has incurred significant implementation delays while attempting to modify the regional system plan to satisfy this county and other system participants.

One State received a system planning grant but, in the resulting plan, did not adequately plan for regional EMS system management. The State used the plan to support an application for funds to establish EMS systems in two regions of the State. HEW redirected the State to establish EMS management structures in all regions of the State and awarded an establishment grant at an amount lower than initially requested. Because emphasis was not given to the establishment of lead agencies during the planning process, the first year of establishment grant funds is being used primarily to plan for these agencies. Each region will thus be entitled to only 1 year of grant funds for actual system establishment.

NEED FOR INCREASED GRANT MONITORING AND TECHNICAL ASSISTANCE

Grantee chances for successful system development could be enhanced by increased HEW grant monitoring and technical assistance.

HEW regional personnel responsible for administering the EMS program told us they do not have sufficient staff and

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travel funds to effectively monitor and provide technical assistance to grantees. Officials at some projects said that HEW assistance has been inadequate because the regional staff has not made enough visits to project sites or because the staff could not provide the technical assistance required.

There is no clear evidence of what grantee problems would have been avoided, overcome, or reduced if HEW had used more travel funds and greater numbers of more qualified staff in monitoring and assisting the grantees. Particularly, there is no clear evidence of the extent to which such increased efforts would have affected such basic problems as inability or unwillingness of local government entities to increase funding of emergency health care or to relinquish their degree of influence or control over the use of health care resources. There is clear evidence, however, that HEW regional offices have had seriously limited resources with which to monitor the evolvement of such problems or to help the grantees solve them.

Program guidelines place primary responsiblity for grant monitoring and technical assistance on the HEW regional offices. A total of 25 personnel are assigned to the EMS program in the 10 HEW regional offices. Regional office EMS staffs vary from two to three personnel, usually including one clerical staff member. Personnel not assigned to EMS may also provide limited support.

During fiscal years 1974 and 1975, the regional staffs reviewed about 350 grant applications from which over 200 grants totaling about $50 million were awarded.

The regional staffs said they monitor grantees and provide assistance to applicants and grantees through site visits, telephone contacts, correspondence, occasional applicant or grantee visits to the regional office, and quarterly reports from grantees. The regional staffs said most contacts are by telephone, and that few site visits have been made to applicants and grantees because of limited manpower and travel funds.

The EMS travel authorization for one region, which has only one professional EMS program official, was only $600 for the 6-month period January through June 1975. Another region, which has three EMS program officials, had less than a $1,000 travel authorization for the same period. It was at this time that applications were received, processed, and approved for fiscal year 1975 grants. Several regional officials said that site visits are essential to successful monitoring and assistance. They commented that site visits:

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--help them to know the grantee's staff and the geography and setting of the project, which helps when they are reviewing continuing applications;

--are essential for determining exactly what the grantee is accomplishing; and

--are essential to help applicants develop quality project proposals and quality EMS systems.

While we could not identify specific grantee problems that would have been overcome or eliminated by additional assistance and monitoring, we do believe that chances for successful system development could be improved with increased monitoring and assistance. Further, we believe that increased monitoring and assistance would enable HEW regional staffs to make better informed grant award decisions.

NEED FOR IMPROVED COORDINATION AMONG FEDERAL AGENCIES

Over 30 Federal programs, ranging from Department of Agriculture loans for rural health facilities to National Institutes of Health research on heart disease, could relate to one or more aspects of EMS sytem development. Coordination among the agencies administering these programs is limited; therefore, applicants for EMS system development assistance may receive less than the full range of Federal assistance available, and system development may be impeded.

The EMS Systems Act provides for HEW to promote coordination of system development efforts with Federal funds. It provides for HEW to establish an Interagency Committee on Emergency Medical Services which is to be responsible for promoting the exchange of information necessary to maintain a coordinated and effective development program. The act further provides for HEW to consider the funding available to applicants from other Federal programs when making grants under the act.

The Committee was slow to begin operations and, as of January 1976, had issued no coordination guidance or direction to Federal regional offices, grantees, or prospective grantees. Although the act was passed in November 1973, the Committee did not meet until December 1974 and did not form working groups until March 1975.

According to some of the members, the Committee had increased the dialogue among the representatives of the Federal agencies that are involved in EMS. Also, the Committee had directed HEW to develop a listing of Federal funding

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sources, which includes the amount of program funds available, the goals and objectives of the programs, and the titles of agency officials to contact for further information. When completed, this listing is to be disseminated to Federal regional offices, EMS grantees, and potential grantees. It should improve local and regional awareness of Federal programs related to EMS.

In some HEW regions, Federal coordination among the major agencies involved in EMS, primarily HEW and Transportation, has been good. In other regions and for other Federal programs, coordination has been inadequate or even nonexistent. HEW regional officials said they have received no guidelines for interagency EMS coordination. The success of coordination efforts, therefore, depends on the knowledge and initiative of regional Federal personnel and EMS grantees.

The development of a regional EMS system may actually be impeded by Federal funding when an organization other than the EMS grantee receives Federal funds for EMS-related activities. In some States, for example, Transportation funds for EMS components flow directly to local communities without coordination with the existing regional EMS entity. EMS grantee representatives said that such funding practices by Federal agencies can undermine regionalization because the local communities become more independent of the regional entity. A county in one EMS region had used Federal funds to develop a system to provide what it considered to be the highest quality EMS in the region. The county refused to participate in the proposed regional sytem because county officials said the effectiveness of their system would be reduced by regional system participation.

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CHAPTER 4

CONCLUSIONS, COMMENTS ON PROPOSED LEGISLATIVE CHANGES, AND RECOMMENDATIONS

CONCLUSIONS

Development of regional emergency medical services systems is dependent on local government and provider willingness and ability to accept the regional system concept. In essence, this concept calls for the establishment of an organization to administer EMS resources of the region for the most effective, efficient, and coordinated delivery of EMS. Because local governments and providers have been reluctant to relinquish control of their resources to a regional management organization, progress has been slow and regional systems, as called for in the Emergency Medical Services Systems Act, have not been developed.

Improvements have been made in delivering EMS as a result of system development efforts encouraged and financed by the act. However, the regional concept is being compromised in recognition of the independence, limitations, and priorities of local governments and providers. Consequently, regional systems have not been able to gain the control and coordination necessary to achieve the economic, effective, and efficient EMS delivery envisioned by the act.

To achieve such results, local governments and providers must be convinced that the regional concept is essential for the best EMS delivery before they will relinquish authority and commit financial resources toward establishing and maintaining regional EMS systems.

HEW could assist grantees more in developing self-sufficient EMS systems by requiring them to obtain increasing local government and provider commitments as the system progresses through the developmental stages and before the inducement provided by the grants is lost. Increased monitoring and technical assistance would allow HEW to be better informed and in a better position to advise and assist all grantees to obtain these commitments. Also, improved coordination of Federal programs relating to EMS by HEW and through the Interagency Committee on Emergency Medical Services would (1) place HEW in a better position to advise grantees and applicants of other possible funding sources, which could complement their own limited developmental funds; (2) help assure that the total Federal expenditures for EMS promote the regional system concept without unnecessary duplication;

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and (3) ease the burden for grantees in obtaining and coordinating the use of Federal EMS funds.

COMMENTS ON PROPOSED LEGISLATIVE CHANGES

As stated in chapter 1, the Congress is considering legislation to extend the EMS Systems Act and provide additional funding for the EMS systems program. On January 23, 1976, the Senate Subcommittee on Health, Committee on Labor and Public Welfare, held a hearing on three Senate bills--2548, 2673, and 2011--to revise and extend the act. Representatives from GAO and HEW and selected EMS grantees and experts provided testimony. On May 14, 1976, the Committee reported on Senate bill 2548, as amended during Committee consideration, and recommended passage.

Principal provisions of the bill relating to matters discussed in this report would (1) require local commitment to regional system development, (2) reduce the scope of mandatory system components, (3) improve HEW program administration, and (4) improve coordination among Federal programs related to EMS. These and other provisions in the bill would strengthen the act to help insure that Federal resources are expended only for EMS projects which have strong chances for regional system development and continued operation.

Provisions requiring local commitment to regional system development

Senate bill 2548 would require firm local commitments to the regional system as a prerequisite for continuing Federal grant support. Such commitments would increase the chances for development and continued operation of regional EMS systems as required by the act. Provisions of the bill affecting matters discussed in this report are listed below.

--Grantees could receive a second planning grant prior to entering the expansion phase. This grant is for expansion planning, including the development of the required project commitment and support.

--Applicants for establishment and expansion grants must provide 25 percent of the first year and 50 percent of the second year matching funds in cash (except in cases of severe financial hardship). These funds must be made available to the regional entity responsible for administering the operation of the system for use in defraying operating costs or carrying out the program.

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--Applicants for second year establishment grants and first or second year expansion grants must submit evidence of firm commitments from the units of government involved to support and cooperate with the regional EMS system established with Federal assistance and submit a plan specifying how the system will meet each of the act's requirements at the end of Federal support.

--Applicants for second year establishment grants must submit local government pledges to maintain the system at the level achieved with Federal support for at least one year after the grant period.

--Applicants for first and second year expansion grants must submit resolutions or proclamations from local governments attesting to their endorsement and support of a specific forecast and detailed financial plan demonstrating the system's ability to carry out and maintain the level of expanded or improved activity to be achieved under such grants.

--Applicants for second year expansion grants must submit evidence of progress by local governmental units in providing the budgetary support necessary to carry out the detailed financial plan.

Provisions reducing the scope of mandatory system components

Senate bill 2548 would reduce the scope of 3 of the 15 mandatory EMS system components--patient transfer, recordkeeping, and independent evaluation. These changes would alleviate some problems in meeting component requirements which are beyond the control of the grantee. (See pp. 12 to 14.) However, patient transfer to critical care centers is an essential part of a regional EMS system. The new provision with regard to patient transfer should not the used to preclude the requirement for transfer agreements to critical care centers.

Provisions of this bill that would affect matters discussed in this report are listed below:

--Patient transfer to facilities offering followup care and rehabilitation must be assured only to the extent feasible.

--The patient recordkeeping system can be a coordinated system rather than a standardized one.

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--The requirement for independent review and evaluation of each system is deleted. Instead applicants must provide the capacity for review and evaluation of the services provided and submit all pertinent reviews, evaluations, and data to the Secretary of HEW.

Provisions improving HEW program administration

Senate bill 2548 would provide more funding for EMS program administration and more specific guidance for the EMS administrative unit in HEW. Along with the provisions specifying criteria for local commitment to the regional system, these should improve HEW's administration of the program. Descriptions of the provisions affecting matters discussed in this report are listed below.

--The EMS administrative unit shall be responsible for collecting, analyzing, cataloging, and disseminating all data useful in the development and operation of EMS systems, including data derived from reviews and evaluations of systems assisted under the EMS Systems Act.

--The administrative unit shall provide techncial assistance and monitoring for EMS system grantees.

--The unit shall publish suggested criteria for collecting necessary information from and for evaluation of planning, establishment, and expansion grant projects.

--The unit shall provide for periodic independent evaluation of the effectiveness and coordination of system development, research, and training programs under the EMS Systems Act.

--Not less than 7 percent of the funds appropriated each year for planning, establishment, and expansion grants shall be set aside for administration (including salaries of all unit personnel), data gathering and dissemination, technical assistance, monitoring, and independent evaluation and to provide support for the Interagency Committee on Emergency Medical Services. These funds are limited to a maximum of $3 million each year.

Provisions improving coordination among Federal programs related to EMS

Senate bill 2548 would make the responsibilities of the Committee more specific and, as shown above, would earmark

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funds for Committee operations. Coordination within HEW would be strengthened by requiring all HEW EMS-related research and training programs to be coordinated with the EMS administrative unit. In addition, grantees would be required to make maximum use of communication and transportation equipment provided by other Federal funding authorities.

Provisions affecting matters discussed in this report are listed below.

--Specific responsibilities of the Committee shall include:

1. Development and publication of:

   a. A coordinated, comprehensive Federal EMS funding and Federal resource-sharing plan designed to enhance the effectiveness of Federal EMS assistance programs and related activities, including communication and transportation systems of public safety agencies, and to promote the maximum feasible joint and coordinated Federal funding and operation of such programs and systems for integrated response capabilities to medical emergencies, including a report of any recommendations for legislation necessary to insure such response capabilities.

   b. A coordinated description of sources of Federal support for the purchase of vehicles and communications equipment as well as for training activities, to be disseminated to all participating and pertinent agencies' regional offices and fund recipients.

   c. Recommended uniform standards of quality and health and safety with respect to all EMS equipment and training.

2. A requirement that the Secretary of HEW and the Committee shall take all feasible steps, using all authorities available to the Secretary, to encourage States to reinforce the Committee's recommended quality and health and safety standards for EMS-related equipment and training.

--The administrative unit shall concur in the regulations, guidelines, funding priorities, application forms, grant awards, and contracts with respect to EMS research and training program under the act.

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--The administrative unit shall be consulted with respect to regulations, guidelines, and funding priorities for research and training related to EMS and carried out under any authorities of the Public Health Service Act.

--The EMS communications network shall make maximum use of communications equipment and systems established with assistance under the Highway Safety Act and title I of the Omnibus Crime Control and Safe Streets Act of 1968.

--The EMS transportation system should make maximum use of vehicles made available under the authorities of the Highway Safety Act.

RECOMMENDATION TO THE CONGRESS

We recommend that the Congress, in the extension legislation for the Emergency Medical Services Systems Act, include the provisions of Senate bill 2548, or the equivalent.

RECOMMENDATIONS TO THE SECRETARY, HEW

The Secretary, HEW, should require the Administrator, Health Services Administration, to (1) issue more specific guidance to the regional offices regarding local government and provider commitment to the regional EMS system, (2) place greater emphasis on monitoring of, and technical assistance provided to, grantees by the central and regional offices, (3) provide guidance to Federal regional personnel, grantees, and potential grantees for coordinating Federal programs at the regional level, and (4) place greater emphasis on national coordination of Federal EMS-related programs through the Interagency Committee on Emergency Medical Services.

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CHAPTER 5

SCOPE OF REVIEW

Our review was made at the Bureau of Medical Services, Health Services Administration in Hyattsville, Maryland; HEW regional offices in Atlanta, Georgia (region IV); Chicago, Illinois (region V); Dallas, Texas (region VI); Denver, Colorado (region VIII); and San Francisco, California (region IX); and at 12 EMS grantees in cities in Florida, Georgia, Illinois, Ohio, Texas, Montana, North Dakota, and California.

The 12 projects reviewed received about $11.1 million or 22 percent of the total emergency medical services grant funds for fiscal years 1974 and 1975. During these 2 years, the project areas received 5 planning grants, 11 establishment grants, and 9 expansion grants.

At the time of our fieldwork

--2 projects involved planning for EMS systems,

--5 projects were concerned with the establishment and operation of EMS systems, and

--5 projects involved the expansion of ongoing EMS systems.

Although they are in various stages of development, the projects selected for review included some of the most advanced projects in terms of EMS systems development. Several of the projects received Department of Transportation and other Federal funding for EMS, and three of the projects received funds specifically for EMS development under an HEW demonstration contract program established before passage of the Emergency Medical Services Systems Act.

We reviewed documents, reports, and files and interviewed project and agency officials. In addition, we interviewed each member of the Interagency Committee on Emergency Medical Services and several members of the academic community concerning EMS evaluation methods.

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PRINCIPAL OFFICIALS OF THE DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE RESPONSIBLE FOR ACTIVITIES DISCUSSED IN THIS REPORT

	Tenure of office	
	From	To
SECRETARY, HEW:		
David Mathews	Aug. 1975	Present
Caspar W. Weinberger	Feb. 1973	Aug. 1975
ASSISTANT SECRETARY FOR HEALTH:		
Theodore Cooper	May 1975	Present
Theodore Cooper (acting)	Feb. 1975	Apr. 1975
Charles C. Edwards	Mar. 1973	Jan. 1975
ADMINISTRATOR, HEALTH SERVICES ADMINISTRATION:		
Louis M. Hellman	Apr. 1976	Present
Robert Van Hoek (acting)	Feb. 1975	Apr. 1976
Harold O. Buzzell	July 1973	Jan. 1975

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