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A REPORT TO

THE COMMITTEE ON APPROPRIATIONS

U.S. HOUSE OF REPRESENTATIVES

on

EMERGENCY MEDICAL SERVICES SYSTEMS

in the

UNITED STATES

Surveys and Investigations Staff

February 1978

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February 13, 1978

MEMORANDUM FOR THE CHAIRMAN

RE: A Study of the Emergency Medical Services Systems in the United States

By directive dated July 11, 1977, the Committee requested that a study be made of the emergency medical services systems and programs of the Department of Transportation and the Department of Health, Education and Welfare.

The investigation has been completed and the results are included in this report.

Respectfully submitted,

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SUMMARY AND RECOMMENDATIONS

A. Summary

The Investigative Staff has reviewed the Emergency Medical Services (EMS) Systems programs of both the Department of Health, Education, and Welfare (HEW) and the Department of Transportation (DOT) and evaluated the relationship of these agencies with respect to EMS systems development in the United States. The EMS program was also reviewed at the State level, particularly with regard to the roles of the State EMS coordinator and the Governor's Representative.

The investment by HEW and DOT in the Federal program to develop 300 EMS regions in the United States by 1985 could exceed $800 million. HEW's emergency medical services system development program has received nationwide support from State, local, and private organizations. It has resulted in improved emergency medical care in many sections of the country. Despite these successes, there are problems with the EMS systems development as there is a need for improved control over and evaluation of this program by HEW, and better coordination and cooperation at both the Federal and State levels.

The Division of Emergency Medical Services (DEMS), within the Health Services Administration (HSA), was created to administer the EMS systems development program of HEW.

1. Long-Range Plans Call for Full Development of the 300 EMS Regional Systems at a Total HEW Grant Cost of $475 Million

As envisioned by DEMS officials, the program for full development of the 300 EMS regional systems (HEW grant cost of about $475 million) will require another 3-year extension of the EMS Systems Act with Section 1203 and 1204 funding provided through FY 1985. To date the HEW EMS systems program has not been evaluated and the Investigative Staff believes that there are questions which need to be studied before the program is extended. Some areas which require study include:

-- The nationwide effect on systems development that an anticipated reduction in DOT Section 402 funding will have.

-- Whether EMS regional systems capable of providing advanced life support can be developed wall-to-wall throughout the United States. Evidence indicates that many regions will be unable to develop or support such a system.

-- Whether the EMS systems which have already received the maximum 5 years of HEW systems grants will continue to operate as systems. If the regions reviewed by the Investigative Staff are typical, many will not.

2. Administrative Problems Impair Effectiveness of HEW's EMS Program

DEMS administers the EMS systems development program of HEW.

a. Inadequate Guidance Provided for Systems Development

HEW lacks a formal structured system (current written procedures and instructions, manuals, etc.) for providing program guidelines to States, regions, and local bodies. In the absence of a formal HEW system, the development of an EMS systems program has, to a large extent relied on the Director of DEMS to personally provide information on program direction at all levels. Typically, because of noted internal shortcomings and limited staffing, planning is on a short-term ad hoc basis (less than 6 months), not in writing, and usually not coordinated with the central office staff and HEW regional personnel. The Director of DEMS is also called on to provide technical assistance, conduct national symposia, regional workshops, and travel extensively to personally provide information on EMS priorities and program changes.

State EMS officials do not always have ready access to the Director of DEMS. Much of the program information is received thirdhand via the grapevine--by word of mouth from other participants in the programs. Complaints were made that the HEW regional offices were often not aware of program changes made by the Director of DEMS, and so the regional offices were unable to provide proper and timely guidance to program participants. In particular, the officials criticized HEW's failure to publish revised regulations and guidelines reflecting the changes made by amendments to the EMS Systems Act in 1976.

As a result of these deficiencies, there has been a fragmented, uncoordinated departmental approach to implementing a viable, standardized EMS program. A further fallout of the department's informal approach to the program has been the creation of dissatisfaction and confusion among the program participants at the operational levels.

b. DEMS Central Office Was Not Provided Sufficient Staffing to Properly Administer the EMS Program

If the EMS grant program is to continue beyond FY 1979, there is a need for a permanent and adequately staffed

DEMS central office. Although DEMS was delegated responsibility for administering the EMS program for HEW, no permanent positions have been budgeted for this purpose. Since FY 1975, requests for permanent staffing and additional personnel have been rejected by either the Secretary of HEW or OMB. Legislative changes in 1976 provided additional administrative central office responsibilities with no increase in personnel. This shortage of personnel has impaired the management of the EMS program. As previously mentioned, the Director of DEMS traveled a total of 106 days during FY 1977 providing onsite technical assistance. His extended absence from the central office, together with the personnel shortage, added to the backlog of unfinished business. Thus, the central office was operating shorthanded with an increased workload, and mounting unfinished administrative responsibilities. The following areas suffered from lack of attention:

-- Reports required by Congress were not prepared, or were submitted late.

-- A suitable data bank for purposes of making evaluations of EMS was never started.

-- Support of the Interagency Committee on Emergency Medical Services was inadequate.

-- The EMS program monitoring effort was limited primarily to review of written quarterly and annual reports.

-- The clearinghouse functions were reduced to an information response activity.

3. HEW Research Unresponsive to Needs of Developing Systems

The National Center for Health Service Research (NCHSR), Health Resources Administration (HRA), is responsible for developing and administering EMS research projects under Section 1205 of the EMS Systems Act of 1973.

a. Most EMS research projects awarded were long-term, multiyear studies, the results of which are not timely in meeting the current needs of the developing systems. Timeliness of information is critical because the capital investment for EMS systems development is being made now. NCHSR officials have exhibited the "purest" point of view and have not generally funded short-term projects addressing immediate high priority problems because technically they consider these projects to be analyses as opposed to research.

b. NCHSR has denied grant proposals because of design weaknesses without considering the merit of the research proposed

for study or the possibility of offering design assistance. As a result, proposals submitted by persons involved with EMS systems development are denied and grants are awarded to academically oriented medical centers, which write well-designed research proposals concerned with problems peripheral to those of the developing systems.

c. The Interagency Committee on EMS was not monitoring the Federal EMS research effort nor making suggestions to HEW concerning the type of EMS research that was needed.

4. HEW Training Programs Have Created Confusion

Within HEW, both DEMS and HRA conduct programs which provide funds for training emergency medical technicians (EMT's). These programs were not well coordinated and have created confusion and dissatisfaction at the State and local levels. State EMS officials criticized the HRA program for not complementing EMS systems development, for its lack of coordination with State EMS personnel, and for the manner in which the program was administered. The Investigative Staff believes that both DEMS and the State EMS coordinators should have more control over short-term EMT training programs.

5. DOT Reluctant to Accept HEW Leadership Role in EMS

DOT and HEW conduct EMS programs under separate laws, DOT under the Highway Safety Act of 1966, and HEW under the Emergency Medical Services Systems Act of 1973, as amended.

The DOT program emphasizes the prehospital functions of EMS, particularly as they relate to highway accident victims. The HEW program includes the prehospital EMS functions and focuses on the development of comprehensive regional systems capable of providing the wide range of emergency medical care. The two programs have overlapping features and there is a need for better coordination.

Since 1974, HEW and DOT have been trying to develop a Memorandum of Understanding clarifying their respective roles in EMS development. HEW, as the lead agency for EMS, wants DOT's programs to be coordinated with and approved by HEW. DOT is reluctant to relinquish the leadership role derived from its earlier association with emergency medical care, established in the late 1960's and early 1970's, and actively resents having to coordinate any of its programs with HEW. Constant bickering between the two agencies has had an adverse affect on the national EMS program.

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6. DOT Has Little Control Over State's Use of DOT Highway Safety Funds

The Highway Safety Act provided, under Section 402, Federal formula grants to help States develop and operate a highway safety program. DOT established 18 uniform highway safety standard programs around which State highway safety programs were to be developed. Standard 11, titled "Emergency Medical Services," outlines DOT requirements for a State EMS program.

The decision on how Section 402 funds should be allocated and spent within the 18 uniform standard program areas is left to the State. Neither the DOT central office nor DOT regional offices have much influence over the State's decision. For this reason, there is little if any coordination between HEW and DOT concerning Section 402 funding.

7. State EMS Officials Oppose the Proposed Deletion of EMS as a Required Part of the Highway Safety Program

In July 1977, the Secretary of Transportation issued a report to Congress entitled "An Evaluation of the Highway Safety Program." The report recommended that the present 18 uniform highway safety standard programs be replaced with a reduced number of uniform requirements. Standard 11, Emergency Medical Services, along with 11 other standards would no longer be a mandatory requirement of a State's highway safety program. State EMS officials were adamant in their opposition to this change. They believed, as did many DOT officials, that it would result in a significant decrease in Section 402 funds allocated for EMS. Section 402 funding for EMS in 1977 totaled approximately $17 million, as compared to HEW EMS systems grants which totaled about $33 million. Section 402 funding plays an important role in many State's EMS programs.

8. The Department of Labor (DOL) Failed to Coordinate its EMS Training Activities

DOL, at the time of this report, could provide only fragmented and inconclusive information concerning the extent of its support for EMS training. DOL support is provided primarily under the Comprehensive Employment and Training Act (CETA). Preliminary responses from only four regional offices showed that over $10 million was spent on this program during the period FY 1974 through FY 1977. The overall magnitude of this program appears substantial. Our review of one DOL program, the EMT apprenticeship program, disclosed that it had not been properly coordinated with other Federal and State EMS programs. The need for a DOL EMT apprenticeship program was questioned by State EMS officials who believed that it duplicated existing State and Federal programs. It is possible that other DOL training programs suffer from the same deficiencies.

9. Interagency Committee on Emergency Medical Services (IAC-EMS) Failed to Coordinate Federal EMS Programs

The IAC-EMS was established under Section 1209 of the EMS Systems Act. Its purpose is to coordinate and provide for communications and exchange of information among all Federal programs and activities relating to EMS. This Committee has not been effective in coordinating the Federal EMS program in a number of areas:

a. The IAC-EMS has not satisfied Congressional reporting requirements. These include an evaluation and report on adequacy, technical soundness, and redundancy of all Federal programs and activities relating to EMS; development of a comprehensive Federal EMS funding and resource-sharing plan; and a report describing the sources of Federal support available for the purchase of vehicles and communication support equipment.

b. State EMS coordinators criticized the IAC-EMS for not addressing or seeking answers to critical problems faced by EMS providers at the State level. The officials said there is a need for State representation on the IAC-EMS.

c. The IAC-EMS review of Federal EMS activities has, at best, been superficial. There is a reluctance on the part of Federal agencies to coordinate their EMS programs with the IAC-EMS. Agencies (especially DOT and HEW) jealously guard what they consider to be their own "turf."

d. The IAC-EMS has operated without adequate staffing and, therefore, meetings have not been properly planned and coordinated. Although required to meet four times a year, the IAC-EMS met only twice during CY 1977.

10. EMS is a State and Local Responsibility

The success of the Federal EMS program is dependent upon how well the programs are executed at the State and local levels. DOT and HEW programs were not always well managed or coordinated at this level and Federal program requirements were not always met.

a. Continuation of Regional EMS Systems is Dependent Upon State Support

Should Federal funding end, State support will be necessary to keep EMS systems intact. EMS regions are not political entities with direct taxing authority and must rely on the local governments participating in the system for financial and other support.

The degree of support that the EMS regions might receive is unknown. In view of the competing demands for limited tax dollars, it appears doubtful, however, that adequate financial help will be forthcoming in many areas. As a consequence, the future of many in-place EMS systems will be in jeopardy, unless the States decide to actively support the program.

b. State Health Department is the Lead Agency for EMS

Within the State health department, the State EMS coordinator is responsible for developing a statewide EMS program. The State EMS coordinator assesses EMS needs statewide; works extensively with regions developing EMS systems; and, in most States, determines how DOT funds made available for EMS by the Governor's Representative will be spent.

c. Governor's Representative Controls the Use of DOT Highway Safety Funds

The day-to-day operation of the highway safety program in each State is handled by a Governor's Representative. He determines how funds provided by DOT under Section 402 of the Highway Safety Act of 1966 will be spent. Standard 11, Emergency Medical Services is just one of 18 uniform highway safety standards competing for his attention.

d. Uncoordinated EMS Programs Exist in Some States

In 9 of the 28 States in which EMS programs were reviewed by the Investigative Staff, two separate EMS programs were run at the State level, both funded through Federal grant programs. In these States, the Governor's Representative does not rely on the State EMS coordinator's assessment of EMS needs but instead makes an independent evaluation. This allows local governments which do not wish to be part of the regional EMS system to circumvent State and HEW program requirements and still obtain Federal funding. In addition, the independent assessment of EMS needs is duplicative and creates confusion at the State level.

e. Requirement for State EMS Plans by DOT and HEW Cause Confusion

Both DOT and HEW require a State EMS plan. The DOT plan is primarily an inventory of prehospital resources. The HEW plan details the establishment, operation, and expansion of regional EMS systems. DOT and HEW officials have not enforced or clarified their requirements for a State EMS plan. Development of a State plan requires extensive coordination and a considerable resource commitment. For these reasons, most State plans were

either not completed or are outdated. Many States consider their current DEMS grant application to be the updated State EMS plan, satisfying both DOT and HEW requirements.

f. Complexity of HEW Systems Grants Limits Use in Some Regions--DOT Funding More Flexible

Rural and "have not" regions are at a distinct disadvantage when applying for funding under Sections 1202, 1203, and 1204 of the EMS Systems Act of 1973. These regions lack the necessary resources to develop an EMS grant application, and the hospitals, facilities, and medical personnel required for systems development. In addition, they lack a sufficient financial base to guarantee continuance of the program when Federal funding ends. As an alternative, DOT Section 402 funds have been used to purchase ambulances and EMS equipment in these regions. Section 402 funding requires only identification of the problem and the Governor's Representative's approval.

g. Standard Recordkeeping Requirements Not Supported by State and Local EMS Officials

DEMS grant guidelines required that EMS systems establish standardized medical recordkeeping systems which cover patient treatment from initial entry into the system through discharge. Standard recordkeeping is necessary to provide data for program evaluation and management purposes. However, there is considerable resistance at the local level to standardized recordkeeping. Hospital administrators are reluctant to handle the extra paperwork or to provide information because of patient confidentiality and the possiblity of malpractice suits. In addition, the costs of gathering and compiling information are considered prohibitively high by State and local officials. As a result, adequate data bases do not exist for evaluation purposes.

B. Recommendations

1. The Investigative Staff recommends that HEW be required to:

a. Develop an agencywide staffing plan for all EMS functions (central office and regional offices) and prepare justifications for the permanent personnel positions needed to ensure effective management, implementation, and evaluation of the EMS program in the United States.

b. Develop a formal structured system for providing program direction, technical assistance, and guidance to regional, State, and local EMS offices. The system should include provisions requiring the DEMS central office to provide, as necessary,

specific written guidance to HEW regional offices so that the regions can act uniformly and successfully monitor, manage, and provide guidance in the field.

c. Develop and issue revised EMS regulations, procedures, and program guidelines based on legislative changes of October 1976. State EMS coordinators and regional systems need this information (now past due) to adequately develop grant applications and administer their programs in accordance with the legislative changes.

d. Evaluate the impact that the continuation of DEMS grant support will have on EMS nationwide. HEW should determine whether the development of regional EMS systems consisting of the 15 required components is practical or possible in all regions; and, if so, can this be accomplished at the presently estimated cost of $475 million. In addition, HEW should determine whether EMS systems will continue to operate as systems when they are no longer Federally funded; and, if not, how effective were the Federal dollars spent on systems development. HEW should be required to submit a detailed plan with firm target dates indicating when and how it will make such evaluations.

e. Provide direction, adequate staffing, and support for the administration of the Interagency Committee on Emergency Medical Services (IAC-EMS), so that it can carry out its legislative responsibilities in coordinating EMS at the Federal level.

f. Assign sole responsibility to DEMS for support of emergency medical technician (EMT) training. This will centralize EMT training with the State EMS coordinators who are in the best position to assume this role because they are the most knowledgeable of their State's need for such training.

g. Reevaluate the HEW EMS research program to assure that it addresses and is responsive to problems faced in the development of regional EMS systems.

h. Reevaluate the extensive use by HEW of symposia and workshops to promote EMS systems development in view of the high cost associated with such activities (approximately $2.3 million in 1977).

2. The principal EMS providers, HEW and DOT, should increase their efforts at program coordination. Specifically they should be required to:

a. Jointly determine what constitutes a satisfactory State EMS plan and issue joint guidelines for developing the plan.

b. Emphasize to their respective regional offices and to State officials that the EMS program is a joint coordinated effort. DOT should also encourage Governor's Representatives to accept the State EMS coordinator's assessment of the State's EMS needs and priorities.

3. DOL should be required to improve the overall coordination of its EMS training programs with the IAC-EMS and State health departments.

4. All Federal agencies should formally be required to coordinate through the IAC-EMS before implementing new EMS activities.

5. The House Appropriations Committee may desire to reemphasize the importance of previously established reporting requirements and ask that both HEW and the IAC-EMS submit required reports in a timely manner.

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I. INTRODUCTION

A. Directive

By directive dated July 11, 1977, the Committee requested that a study be made of the Emergency Medical Services Systems and programs of the Department of Transportation (DOT) and the Department of Health, Education, and Welfare (HEW). The investigation was to include but not to be limited to the following areas:

-- The extent of DOT and HEW effectiveness in utilizing and coordinating the existing legislative authorities to develop emergency medical services (EMS) systems.

-- The relationship at the Federal level of DOT and HEW with regard to disaster coordination, communications, training and education, and procurement and placement of equipment such as ambulances.

-- The relationship at the State level of the principal departments responsible for managing EMS programs within the State.

-- The extent to which Federal agencies impose conflicting requirements on States, resulting in competing statewide EMS plans.

-- Evaluations made by Federal agencies with respect to the EMS programs, and how such data is being used in planning and implementation.

B. Scope of Inquiry

This report is based on information obtained by interview; attendance at workshops, review and analysis of budget justifications, Congressional hearings and reports, organizational charts and functional statements and studies, correspondence, reports, and other statistics concerning emergency medical services systems grants and staffing; and a review of applicable laws, regulations, guidelines, and instructions.

The Investigative Staff interviewed DOT and HEW central office officials responsible for EMS, and also representatives of the Department of Labor concerning their EMS training program. The planning and development of the regional EMS systems in the United States were discussed with appropriate representatives of DOT and HEW in six regional offices (Atlanta, Chicago, Kansas City, Philadelphia, San Francisco, and Seattle), and the DOT representative in Baltimore.

Additionally, the Investigative Staff attended EMS workshops at Chicago and Phoenix, and the EMS training workshop at Kansas City. Interviewed at these workshops were State EMS coordinators and EMS regional administrators, and representatives of medical associations and foundations. State EMS coordinators were also interviewed at Montgomery, Alabama; Sacramento, California; Atlanta, Georgia; Tallahassee, Florida; Baltimore, Maryland; Portland, Oregon; and Olympia, Washington. Administrators of regional EMS systems were interviewed at San Jose, California; Jacksonville, Florida; and Washington, D.C.

II. BACKGROUND

A. Overview

Emergency medical services, neglected for many years, seem to be catching on in the United States. In 1966, the National Academy of Science-National Research Council published a report 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. The report noted there was a lack of adequately trained emergency medical personnel, adequate local government support of emergency medical services, and information on the effects of deficiencies. This document reflected professional concern for the lack of a comprehensive approach to treating the accident victim and called for many of the components that now exist in the Emergency Medical Services Act of 1973.

The number of preventable deaths and disabilities identified as resulting from inadequate or antiquated medical emergency care are grim evidence of the compelling urgency for action to deal with this problem. The need for improved emergency medical services was supported at the time of the passage of the act by statistics, summarized as follows:

-- Estimates are that 15 to 20 percent of the deaths due to traumatic injury could be saved each year by improved emergency medical services. This would result in 60,000 lives saved, based on estimates of the National Academy of Sciences. Accidental injury is the leading cause of death among all persons aged 1 to 38 and is the fourth highest cause of all deaths in the United States. In 1972, traumatic injury resulted in 117,000 deaths and 11.5 million cases of disabling injury.

-- Heart attacks claim twice as many victims as the next nearest killer, cancer. In 1972, over 675,000 deaths were due to ischemic heart disease and myocardial insufficiencies. About one-half the heart attack deaths occurred within 2 hours of the attack and before the patient arrived at the hospital. The American Heart Association estimated that between 15 and 20 percent of prehospital coronary deaths could have been prevented if proper care were administered at the scene en route to an appropriate medical facility.

-- According to the National Center for Health Statistics, there were approximately 68,000 deaths involving newly born infants in 1971. Many of these deaths could have been prevented with an appropriate interhospital referral system to identify the newly born infant with a threatened chance of survival and to transport the infant to intensive care facilities.

-- Poisonings occur 5 million times annually (90 percent are children) and 50,000 die.

-- Burns injure 2 million each year; 70,000 require hospitalization and 10,000 die.

Until recently, the nation's hospitals, medical personnel, and public safety services had not been organized in ways to provide effective emergency medical services. Realization of this fact led the National Academy of Sciences to appoint a study panel which in 1972 published a report on the roles and resources of Federal agencies in support of comprehensive EMS. This report stated:

> "Accidental injury and acute illness generate a staggering demand on ambulances and rescue services, allied health personnel, physicians, and hospitals for the delivery of emergency medical services * * * (such) service is one of the weakest links in the delivery of health care in the nation. Thousands of lives are lost through lack of systematic application of established principles of emergency care."

In the 5 years since publication of the Academy report urging a coordinated national effort, major changes have taken place. Now in many communities, systems are being put in place to coordinate an entire region's approach to EMS. During these 5 years, EMS has been transformed from an idea with limited, erratic, and uncoordinated support to a major national initiative with more than 100 EMS regions functioning and a goal of 300 regions operating by 1985. Further, improved service in emergency medical care will result in additional savings of lives, and could substantially reduce the occurrence and severity of disability.

B. Federal Legislation

1. Department of Transportation

The Highway Safety Act of 1966 (PL 89-564) was enacted on September 9, 1966 and was the first real Federal initiative addressing the nationwide inadequacy of emergency medical care. The act called for a coordinated national highway safety program and provided financial assistance to the States to accelerate highway safety. Funds are made available to the States under the matching grant provisions of Section 402 of the act and are administered by the Governor, through his representative for highway safety. There is no direct Federal funding for political subdivisions. Project application by a political subdivision must be made to the State for inclusion in the State annual work program.

The Highway Safety Act of 1966, as amended, required that States have a highway safety program developed in accordance with uniform standards promulgated by the Secretary of Transportation. The 18 uniform highway safety standard programs including Standard 11 captioned "Emergency Medical Services" were created by joint efforts between the States and DOT. The purpose of Standard 11 is to improve life-saving capability of emergency medical services through personnel training, proper equipment, communications, operational coordination, and comprehensive planning at both the State and local levels. Standard 11 was intended to establish procedures and criteria for upgrading prehospital emergency medical care.

Section 403 of the Highway Safety Act authorized the Secretary of Transportation to carry out safety research either independently or in cooperation with other departments or agencies. The Section 403 program includes research and development relating to communications, emergency medical care and transportation of the injured.

2. Department of Health, Education, and Welfare

In November 1973, the Congress acted to further improve emergency medical care by adding the Emergency Medical Services (EMS) Systems Act of 1973 (PL 93-154) to the Public Health Service Act. The act was intended to assist and encourage the development of comprehensive, regionalized emergency medical services systems throughout the country and thereby improve the quality of patient care and reduce morbidity and mortality. The act provides also that all Federal EMS-related programs are to be coordinated through the Interagency Committee on Emergency Medical Services (IAC-EMS).

EMS systems, developed under the act, are to have adequate personnel, facilities, and equipment for the effective and coordinated delivery of emergency health care services. These regional systems are to be administered by a public or nonprofit entity with the authority to provide effective administration of the system. HEW, working with the States, has now defined the boundaries of 300 contiguous regions which will eventually make up a national emergency medical service network. A major benefit of the regionalized approach as envisioned by Congress is that it provides rural communities with greater access to the medical centers and facilities of large cities.

To receive grants under the act, regional systems must provide care to all emergency patients within a region. Fifteen components, mandated by law, must be in place and working to qualify for grants as follows:

(1) Provisions of manpower,
(2) Training of personnel,
(3) Communications,
(4) Transportation,
(5) Facilities,
(6) Critical care units,
(7) Use of public safety agencies,
(8) Consumer participation,
(9) Accessibility to care,
(10) Transfer of patients,
(11) Standard medical recordkeeping,
(12) Consumer education,
(13) Review and evaluation,
(14) Disaster linkages, and
(15) Mutual aid agreements.

In conjunction with the EMS program, HEW is encouraging the design of clinical systems for the major categories of EMS care, which are trauma, burns, poisonings, spinal cord injury, high-risk infants, and certain behavioral problems.

The Emergency Medical Services Amendments of 1976 (PL 94-573) enacted October 21, 1976, revised and extended the provisions of Title XII of the Public Health Service Act. The amendments extended the use of the appropriations through FY 1979 for development of EMS systems, for research activities, and for training purposes. As amended, the act established a burn injury program for the treatment and rehabilitation of burn victims. It also substantially increased the responsibilities of HEW's administrative unit for EMS and those of the Interagency Committee for Emergency Medical Services.

III. FEDERAL AGENCIES SUPPORTING EMS DEVELOPMENT

In 1975, the Interagency Committee for Emergency Medical Services identified 64 Federal programs that provided some type of assistance for EMS development. Forty-two of these programs appeared to support the development of one or more components of an EMS system through grants, contracts, loans, or other forms of assistance. DOT and HEW were identified as major financial supporters of EMS.

The Investigative Staff is of the opinion that the EMS systems development has been adversely affected at the Federal level by the inability of DOT and HEW to coordinate their respective EMS programs. Likewise, HEW's delegation of management responsibilities for EMS systems development, research, and training within HEW to three separate internal organizations has had a detrimental affect on the administration of the EMS program. The roles of the principal Federal agencies are discussed below.

A. HEW Program Management

The Secretary of HEW administers the EMS systems program through the Office of the Assistant Secretary for Health, Public Health Services, the Health Services Administration (HSA) and the Health Resources Administration (HRA). The Division of Emergency Medical Services (DEMS) established within the Bureau of Medical Services, HSA, is responsible for administering HEW's EMS systems development program. The Health Resources Administration is responsible for implementation of the research and training programs.

1. Grants Management Procedures

The basic purpose of the EMS program is to provide assistance and initial development money for the establishment of regional EMS systems. The program is authorized through FY 1979 and provides a maximum of 5 years of grant support. The program is intended to develop regional systems capable of providing emergency medical care in any eventuality. The EMS program is viewed as a national health priority. It is designed to serve all of the population, not just the indigent, disadvantaged, or a specific segment of society.

The EMS program is the first regionalized medical care services program that considers the entire sequence of a major national health problem from the incident to and through definitive care and rehabilitiation. It is also a program that involves the widest spectrum of public, private, local, primary, and regional medical care providers and educators. The EMS grant program conducted by HEW is intended to act as a catalyst for bringing total Federal resources to bear on the problem of

emergency medical care. HEW grants provide only a fraction of the funds needed for EMS systems development. The program is intended to direct the implementation of a systematized approach.

A major impediment to systems development is the diversity of governmental units which must be involved. Without the encouragement provided by Federal technical assistance and funding, many communities would be unable to conduct joint discussions with surrounding communities, inventory their health resources, and develop a common program to provide emergency medical services on a regional basis.

DEMS is the lead agency of HEW for administration and systems development. In order for a grant application to be seriously considered by DEMS, it must address each of the 15 Congressionally mandated systems components. Even so, DEMS takes into account regional and sectional differences as well as rural, wilderness, and metropolitan considerations, and allows for some flexibility in the award of EMS system grants.

The DEMS program offers a series of grants to plan, establish, and improve regional emergency medical care systems. An EMS system is defined as an arrangement of personnel, facilities, and equipment for the effective and coordinated delivery of health care services in an appropriate geographical area under emergency conditions. The DEMS awards 1-year grants for feasibility studies and planning of an EMS system; 2-year grants for the establishment and initial operations of an emergency medical services system, providing for basic life support (BLS); and 2-year grants for projects to expand or improve the EMS system to the advanced life support (ALS) level. DEMS administers the grant program under three separate sections of the act as follows:

Section 1202--Feasibility studies and planning
Section 1203--Establishment and initial operations
Section 1204--Expansion and improvement

DEMS has defined Section 1203 in terms of basic life support (BLS) services and Section 1204 in terms of advanced life support (ALS) services. ALS is an advanced phase of emergency medical care and the logical outgrowth or progression of BLS. The essential aspects of basic life support and advanced life support are outlined as follows:

Basic life support services is the minimal acceptable level of care services available in an areawide EMS system. Services include universal access and central dispatch of approved national standard ambulances, with appropriate medical and communication equipment, operated by a complete complement of emergency medical technicians (EMT's); availability of a category II hospital facility staffed by physicians and nurses with emergency

medical knowledge and skills; and full areawide implementation of the 15 mandatory components.

Advanced life support is a more sophisticated progression of BLS in which extensively trained EMT-Paramedics provide both resuscitation and specific interventive measures. ALS includes transportation vehicles with full equipment and telemetry, staffed by advanced EMT-Paramedics providing onsite, prehospital, and interhospital mobile intensive care; specialized physicians and nursing staffs operating critical care units and emergency departments; and full regional implementation of the 15 mandatory components. The specific adaptation of ALS services will of necessity be different in varying geographic areas of the country.

The basic life support system is designed to impact primarily on urgent patients. For these patients, it can provide a full spectrum of immediate care. However, it will have minimal impact on the critical patient. On the other hand, the advanced life support system is designed to impact fully on all patients and especially the critical patient; i.e., trauma, burn, spinal cord injury, acute cardiac, high-risk infant, poisoning, and behavior problems. It is among these patients where the majority of lives can be saved, disability reduced or prevented, and period of convalescence decreased.

Important legislative changes affecting grant awards were made by Congress in the EMS Systems Act Amendments of 1976. Section 1202 was amended to provide authority to make a second grant to (a) study the feasibility of/or plan for expansions and improvement of an EMS system to provide for the use of ALS techniques, or (b) update a State's EMS plan to improve delivery of EMS in rural and medically underserved areas. Also under Sections 1202, 1203, and 1204, grant applicants are required to provide specific new assurances to receive grant funding. These include evidence of certain public, private, and volunteer organization participation and continuing financial support of the EMS system during and after Federal funding; and commitments from executive or legislative government bodies of political subdivisions located in the system's service areas who govern substantial portions of the population in the area.

From FY 1974 through FY 1977, 264 of the 300 State-designated EMS regional systems received grant assistance totaling $111 million under the EMS Systems Act. Detailed funding of the HEW EMS program is shown in the schedule on page 43 of this report. Under the long-range grant plan proposed by DEMS, Federal support for all 300 EMS regions would require about $475 million. DEMS plans to have all 300 regions completed and operational by 1985. At present, 12 systems have fully completed their eligibility and 150 systems are in some phase of operational development.

Once a nationwide network of 300 viable regional EMS systems has been established (by 1985), HEW officials claim there should be no further need for DEMS grant assistance. The DEMS role will gradually be phased down to one of providing technical assistance and coordination at the Federal level. Health systems agencies will be responsible for reviewing and integrating EMS systems into the total health care delivery system. It is anticipated that national health insurance and other third parties (insurers) will be in a position to reimburse operators for many emergency services, thereby covering a large portion of the operating costs during and following the Federal grant support. When Federal support ceases, the entire program is to be handled by local governments.

Program Successes

The Investigative Staff learned that Dr. David Boyd, Director, Division of Emergency Medical Services, has been credited by many for much of HEW's success in promoting regional EMS systems development throughout the United States. Some described Dr. Boyd as an EMS missionary who preached systems to anyone who would listen. The need for a strong EMS program is recognized nationally by many professional, political, and governmental institutions. The public has become increasingly aware of EMS through public education, local and national television, and other media.

HEW provides hard cash, leadership, and other assistance for communities to develop regional EMS systems. With Federal aid, numerous communities have upgraded their EMS resources, purchased better equipped ambulances, improved their communications networks, upgraded hospital emergency departments, and improved the quality of people providing emergency medical care.

The provisions of EMS have become more widely accepted and services provided by EMS systems are considered by many to be as important as those services provided by the police and fire departments. More and more local and State governments have enacted taxes, and allocated funds to support EMS. Some, but not all, envision the day will come when EMS regions will no longer require any further Federal grant support to assist their programs.

2. Problems in Managing the EMS Grant Program

Although the DEMS grant program has improved EMS systems by providing funds for facilities, equipment, and training opportunities, progress has been slowed by administrative problems. This is especially true in the HEW regional offices where representatives stated they had difficulty in carrying out grants management because of inadequate program direction or guidance.

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The DEMS grant program is administered by the 10 HEW regional offices. Grant funds are allocated by the DEMS central office to the regions. The regional activities include:

-- Announcing the availability of funds under the EMS Systems Act and distribution of application kits to applicants.

-- Providing technical assistance to applicants, and assisting in preparation of the applications.

-- Performing initial review of applications to determine eligibility and compliance with the 15 required components.

-- Performing joint regional and central office reviews of applications recommended for funding.

-- Awarding grants to successful applicants.

Need for Issuance of Official EMS Program Regulations and Guidelines

HEW regional officials as well as State EMS coordinators interviewed were critical of DEMS failure to issue new program regulations and guidelines for implementing the legislative changes of October 1976. Despite the fact that draft instructions were issued and discussions conducted at the regional EMS workshops on grants management policies and procedures, many officials regarded the steps taken by DEMS as inadequate to properly carry out the program. The Investigative Staff was told by some State EMS coordinators that the verbal instructions issued at regional workshops were frequently changed by the time they returned home to prepare their grant applications.

One State EMS coordinator said that he received considerable information by the "grape vine" from other State officials who had been in contact with DEMS. He believed this practice of randomly furnishing selected officials with oral information resulted in delay and confusion and was basically because of HEW's inability to provide its HEW regional offices and EMS systems with adequate formal guidelines.

The following is an example of the difficulties caused by DEMS failure to issue appropriate regulations. The October 1976 legislative changes to the EMS Systems Act, allowed for Federal funding of a second year Section 1202 EMS planning grant. This grant would provide a year of funding and enable EMS systems, which had developed a basic life support capability (Section 1203), to develop a plan for an advanced life support system (Section 1204). The changes in the law were discussed during several of the national EMS meetings and subsequently several

States prepared Section 1202 second year planning grant applications. These applications were not funded because DEMS had not developed the required guidelines for second year Section 1202 grants. One EMS State coordinator estimated that a second year planning grant application takes approximately 120-man days to prepare.

As of January 1978, HEW had still not issued revised regulations encompassing the legislative changes made by Congress in 1976. A DEMS central office official informed the Investigative Staff that further delay on issuance of the final EMS regulations by HEW could have a critical effect on grant applications due for review at the HEW regional offices in April 1978. He stated that if HEW does not proceed in a timely fashion, it is entirely possible that DEMS will be faced with a situation wherein grant applications will be submitted using the old outdated regulations for the second straight year. As a result, applicants will probably encounter processing problems, delays, and confusion in receiving grant approvals.

Only Limited Monitoring and Technical Assistance Provided By the Regional Offices

The HEW regional offices are also responsible for monitoring grants and providing technical assistance to applicants and grantees in their regions. Regional office personnel assigned to EMS vary from two to three persons, and usually include one clerical staff member. HEW personnel not assigned to EMS may also provide limited support particularly during the grant review process. Because of the small staffs, the Investigative Staff found that very little monitoring or technical assistance is provided by field personnel. Most monitoring of grantees are made by telephone and few site visits have been made to applicants and grantees because of limited manpower and travel funds.

The Investigative Staff was told that during the early years of the grant program (1974-1975), a few EMS grantees were improperly funded under Section 1204 (expansion and improvement) funds. For example, the State of North Dakota was awarded a Section 1204 grant even though the EMS regions in that State were not ready for advanced life support development and instead should have applied and been funded under Sections 1202 or 1203 of the program. However, once a system has been funded under Section 1204, it cannot legally obtain prior section funding. As a result, the EMS regions in this State still need assistance to take full advantage of the EMS program. DEMS officials suggest that regardless of the mistakes made by HEW in the early days of the program, relief should be provided.

Most HEW regional personnel are generalists and are unable to provide technical assistance in specialized areas such as medical direction or critical care capabilities. Consequently,

technical assistance in these specialized areas has been the almost exclusive responsiblity of the Director of DEMS who travels extensively for this purpose. The regional workshops and national symposia sponsored by DEMS also provide some technical assistance to applicants and grantees.

To provide additional technical assistance, beginning in FY 1977, DEMS recruited and trained physician technical advisors known as "Super Docs" for each of the 10 regions. These Super Docs will provide technical assistance at the regional office level. Some HEW regional representatives expressed concern that the DEMS central office is bypassing the HEW regions when developing programs and working through the Super Docs, leaving the regions "out in the cold" and "out of touch."

Need for Data Base and
Evaluations of the EMS Program

The EMS Systems Act requires HEW to conduct periodic evaluations to determine the impact EMS systems have had on the mortality and morbidity of patients using such EMS. The Investigative Staff determined that DEMS does not have an adequate data base to develop meaningful evaluations and, therefore, none have been made to date.

Program evaluation by HEW is essential to:

-- Determine the impact of the assistance provided under the EMS Systems Act.

-- Develop a framework in which EMS systems may be evaluated in an independent fashion.

-- Assist in providing standarized information approaches to improve EMS system management.

-- Provide leadership in strengthening future policy both for grantees as well as the Federal Government.

During the past 3 years there has been a great deal of confusion concerning the type, comprehensiveness, and magnitude of evaluations necessary to meet the intent of the EMS law. DEMS officials acknowledged that no data base exists which would be useful for the purpose of evaluations. They said that only limited process and resource data are available from the EMS grantee program; and, reports provided are on a case-by-case basis, and of little value in making a total program evaluation.

In an effort to develop a data base for evaluating the progress of EMS systems development, DEMS issued an evaluation workbook during FY 1977 to all EMS grantees. Workbook information will be collected from each grantee during the first

quarter of CY 1978, compiled, and used to portray the national impact of the EMS program. The evaluations are intended to cover 10 of the 15 congressionally mandated components of an EMS system as well as the clinical care categories involved. DEMS officials stated that the results should provide, for the first time, the necessary data base on which to make judgments as to actual EMS progress.

Use of Regional Workshops and National Symposia as Principal Means for Providing Technical Assistance

Because of the limited staff, the Director of DEMS instituted the use of regional workshops and national symposia to provide professional and technical assistance to communities seeking to initiate or improve EMS programs. When the EMS program first started in 1974, there was little or no information available on how to go about systematizing the regions. To provide the largest number of EMS representatives with EMS strategy, the workshop and symposia methods were adopted. The Director said he firmly believes that this method has been a most effective way to systematize EMS regions.

In FY 1976, four national and one international symposia were conducted to improve understanding of EMS, components of the systems, and the management capability. Also during this period, a total of 11 regional workshops were offered to provide technical assistance to grantees involved in program implementation. The regional workshops presented a comprehensive overview of the national EMS program and included discussions in categorization, evaluations, communication design and integration, training, and other significant subjects. Over 2,000 people attended the symposia gatherings and 2,600 attended the workshops.

In FY 1977, DEMS provided technical assistance by offering four national symposia on a wide range of EMS-related subjects including: model EMS legislation, program evaluation, planning and design of communications and transportation systems, and manpower development. These national symposia were attended by over 2,100 participants and 326 faculty instructors. In this same period, regional workshops were conducted at 3 different locations before about 1,200 participants and 225 faculty instructors. The workshops presented specific guidelines and criteria for grant management, technical assistance on the 6 critical care patient areas (trauma, burn, cardiac, poisoning, behavioral, and neonatal), and the 15 EMS components.

During the course of this study, the Investigative Staff attended two regional workshops covering a wide range of EMS subjects similar to those conducted in FY 1977. The workshop sessions covered grant implementation, management of EMS systems, resource coordination, and the role of State and regional EMS

authorities. A number of State EMS coordinators interviewed at these meetings by the Investigative Staff commented that the workshops and symposia have achieved the purpose for which intended, but are now overdone, repetitive, and no longer effective. These representatives voiced objections to the extensive use of national conferences for disseminating information because:

-- 264 of the 300 EMS regions have already been provided some type of grant support by HEW. Many EMS officials are already familiar with most of the instruction provided and believe the symposia are no longer as important as in the early years of the EMS program. However, attendance by State and local officials is necessary to obtain continued support from HEW. Many said the functions are becoming social gatherings.

-- Attendance at these meetings is expensive and EMS officials believe the limited funding available for EMS could be put to better use. In addition, some States limit the amount of out-of-State travel permitted their employees.

-- Despite all the meetings, the HEW regional offices and EMS managers are still without suitable written regulations or guidelines to carry on the program.

The Investigative Staff agrees with State EMS coordinators that HEW should reevaluate the use of the workshops and symposia especially in view of their high cost. DEMS officials estimated that the annual cost of workshops and symposia is in excess of $2.3 million of which about $1.9 million is from scarce HEW grant and operational funds. Those funds could have been used to support additional EMS grantees.

3. Administration of EMS Program by the DEMS Central Office

If Congress plans to support the EMS grant program beyond FY 1979, then the Investigative Staff believes there is an urgent need for a permanent DEMS central office staff. DEMS, with the administrative responsibility for EMS, was established in March 1973 within the Bureau of Medical Services, Health Services Administration. All 29 budgeted positions of DEMS were allocated to the HEW regional offices by direction of the Administrator, HSA. There are no positions included in the EMS budget for the central office. The DEMS central office is currently staffed with 13 positions assigned from the patient care activity, Bureau of Medical Services.

Since 1974, the DEMS central office has managed its program by using these borrowed positions. HEW initially viewed its EMS program as one temporarily providing support to a series

of demonstration projects. Each year since 1975, a zero based budget analysis of DEMS manpower requirements has been conducted by the DEMS central office. These analyses showed the need for increased central office staffing. Requests for additional staffing by DEMS were refused by either the HEW Secretary's Office or the Office of Management and Budget. As a result, the DEMS central office was left to drift with a relatively small staff, an increased workload, and mounting administrative problems.

The 1976 amendments to the EMS Systems Act, under Sections 1208 and 1209, added additional administrative responsibilities to an already understaffed DEMS central office. The amendments require DEMS to:

(a) 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 EMS systems assisted under Sections 1202, 1203, and 1204.

(b) Publish suggested criteria for collecting necessary information for the evaluation of projects and program funds under the act.

(c) Participate fully in the development of regulations, guidelines, funding priorities, and application forms relating to activities involving training, research, and the burn program.

(d) Be consulted in advance of the awarding of grants and contracts for training, research, and the burn program.

(e) Be consulted in advance of the issuance of regulations, guidelines, and funding priorities relating to research or training in the area of EMS carried out under any other authority of the EMS Systems Act.

(f) Provide technical assistance (with special consideration for applicants in rural areas) and monitoring with respect to grants under Sections 1202, 1203, and 1204, and the burn program.

(g) Provide for periodic, independent evaluations of the effectiveness of, and coordination between, the programs carried out under the act.

Also, DEMS and the Interagency Committee on Emergency Medical Services were to collaborate on preparing and publishing reports on the progress of EMS.

DEMS provided an analyses of its current manpower needs which projected a total requirement of 79 positions--42 to carry

out the central office functions and 37 for the regional activities. We do not fully agree with this staffing assessment which would increase the DEMS staff from a present combined total of 42 positions to 79 positions. However, as discussed above, it appears that an increase in personnel is needed in the DEMS central office to make sure the following activities are properly administered: the clearinghouse program, technical assistance, support of the Interagency Committee on Emergency Medical Services, the burn program, and an evaluation program to measure the progress being made by grantees. Likewise, some HEW regional offices could more effectively manage their EMS programs with the addition of a professional staff member.

The Investigative Staff also believes HEW should make an across-the-board accounting of its personnel needs in all grant areas including EMS to ensure that there is an equitable distribution of manpower. In reevaluating its personnel needs, DEMS should keep in mind that its regional workshops and national symposia meetings might be reduced, thereby freeing some manpower and operational funds for other administrative activities. After such an evaluation, HEW could reprogram some operational positions and dollars from other areas to DEMS for use in bolstering the central and regional office staffs.

The Director of DEMS is the central figure in the management of HEW's EMS program. He formulates national EMS objectives, and establishes current priorities. Planning, such as it is, has been on a short-term ad hoc basis (less than 6 months), not in writing, and usually with a noted absence of staff and regional coordination. In the absence of formal program guidance, the Director's inability to provide timely oral guidance to everyone has contributed to the confusion existing in the field.

For more than a year, the addition of new responsibilities with no increase in personnel or operational funds has resulted in a serious breakdown in the management of the EMS program. To further complicate matters, the Director of DEMS traveled a total of 106 days during FY 1977 providing technical assistance, attending workshops, symposia, and visiting prospective EMS grantees and other officials. His absence from the central office also contributed to the DEMS backlog of unfinished tasks.

The small staff and lack of permanent (career) positions has produced serious morale problems and a high personnel attrition rate at the DEMS central office. The requirements of the grant program and the need to provide urgent ad hoc technical assistance, left DEMS personnel with very little time to fulfill their other legislative responsibilities. The small staff and lack of administrative leadership resulted in the following:

-- The clearinghouse functions were reduced to an information response activity.

-- Support of the Interagency Committee on Emergency Medical Services was inadequate and limited to preparation of agenda, announcement of meetings, and preparation of minutes.

-- The program monitoring effort was limited primarily to review of written quarterly and annual reports.

-- A suitable data bank for purposes of making evaluations of the progress of EMS was never started.

-- Reports required by Congress were either not prepared or were submitted late.

-- Many of the mandated functions listed under Sections 1208 and 1209 of the act were not addressed or not being carried out in a timely fashion.

Required Congressional Reports Given Low Priority

Indicative of the lack of support given the EMS program by HEW is its handling of congressional reporting requirements. An example of this is the reporting requirements under Section 1208(c)(1) of the EMS Systems Act requiring HEW to study and report on a continuing basis the roles, resources, and responsibilities of all Federal programs and activities related to EMS. Reports were due to the Congress on June 15, 1977, February 1, 1978, and annually thereafter. The June 15, 1977, and February 1, 1978 reports were not prepared. After a long delay, the Office of Planning, Evaluation, and Legislation (OPEL), HSA, contracted on September 30, 1977, for two evaluation studies (costing about $116,000) from which data will be used to prepare the required report. The OPEL contracts are scheduled to be completed by September 30, 1978. DEMS officials said that, in their opinion, they do not believe the OPEL contracts will provide sufficient information to allow development of a report satisfying congressional requirements.

Despite assurances by the Secretary of HEW to a member of the Senate in a letter dated October 4, 1977, that the report is scheduled for completion in April 1978, the Investigative Staff believes that if the required report is ever issued, it will not be until at least 1979, a delay of almost 2 years.

Similar conditions are delaying the meeting of other congressional reporting requirements including:

(a) A coordinated, comprehensive Federal EMS funding and resource-sharing plan.

(b) A description of the sources of Federal support for the purchase of vehicles and communications equipment and for training activities related to EMS.

(c) A uniform patient report system to be used to evaluate the effectiveness of EMS systems and the burn injury program.

DEMS's failure to meet congressional reporting and other requirements and to provide written guidance in a timely manner has had a detrimental effect on the EMS program. The EMS Systems Act provides for a significant expenditure of Federal funds to grantees over a 5-year period, and then an end to Federal involvement. In this respect, the establishment of an information system, producing timely and reliable data, is critical to the successful operation of the EMS program.

In summary the EMS program under DEMS is not administered consistent with many other Federal health programs sponsored by HEW. This is due mainly to a (1) shortage of staff and support funds, (2) lack of formal program guidance, and (3) insufficient direction and planned program objectives. Some DEMS officials believe that the program has not been supported adequately by the parent Health Services Administration or the Public Health Services offices.

4. EMS Training Activities

A number of Federal agencies support EMS training and provide assistance to programs which promote their interests. Such Federal assistance is provided primarily through the HEW, DOT, and the Department of Labor.

Dual Funding Sources and Differing Program Guidelines Complicate HEW Training Activities

Within HEW, two agencies, the Health Services Administration (HSA) through DEMS and the Health Resources Administration (HRA), provide assistance for EMS training activities. DEMS officials estimated that between 6 to 10 percent of the $32.8 million in grants awarded in FY 1977 for EMS systems development was devoted to training activities. HRA awarded $5.9 million for EMS training in FY 1977 under Section 789 of the Public Health Service Act.

Both HRA and HSA support short-term emergency medical technician (EMT) training programs. HSA support of EMS training has been limited to funding short-term EMT training as part of DEMS systems grants, while HRA provides Section 789 funding for both short-term EMT training and long-term training of emergency physicians and nurses. The two overlapping funding sources for EMT training have been a constant source of confusion and

dissatisfaction for State personnel managing the development of EMS systems. Seventeen of 20 State EMS coordinators interviewed expressed dissatisfaction with the HRA training program and cited the following problem areas:

-- The planning and managing of the State EMS program is complicated by different funding cycles for HSA and HRA. HSA's fiscal year funds from July 1 through June 30; HRA's is from October 1 to September 30.

-- States are uncertain whether to request EMT training assistance from DEMS or HRA. It is advantageous for a State to use HRA grants to fund EMT training and DEMS grants to fund the development of the other EMS system components. Each State receives a relatively fixed amount of assistance in the form of DEMS systems grants and HRA Section 789 grants represent an incremental source of funding. The decision on how to fund EMT training is complicated because DEMS systems grants are awarded several months before HRA grants.

A State which relies on HRA funding places itself in a precarious situation; for if the HRA grant is disapproved, the State will not have DEMS funds available for training requirements. If a State requests assistance from both DEMS and HRA for EMT training, the training is included in the DEMS systems grant and for that reason the HRA grant is disapproved. State EMS officials were dissatisfied with this arrangement and stated that HEW should better coordinate its training programs to ensure adequate support for EMT training.

-- State EMS officials complained that they were not given sufficient lead time to develop HRA grant applications nor the reasons when their applications were not funded.

-- EMS grant applications take a considerable amount of time and effort to prepare. By filing grant applications with both HRA and DEMS, the States are required to increase the time spent developing applications.

-- Some State EMS officials were unhappy over their lack of involvement with HRA grants. Although the State EMS office is responsible for developing and managing a comprehensive statewide EMS program, in some States, these officials had limited involvement with HRA training applications. This lack of involvement is

due to the HRA practice of soliciting grant applications directly from the academic institutions. When requested, State EMS officials endorse such applications regardless of coordination at the State level because they represent potential sources of additional Federal funds. Lack of input by the State is a major failing of the HRA program, since the State EMS coordinator is responsible for evaluating the State's EMS needs. The HRA program fails to provide the State EMS coordinator with sufficient leverage to ensure that the HRA training grant assists in the development and implementation of a comprehensive State EMS program.

-- One State EMS coordinator, although he did not assist in the HRA grant preparation, did evaluate and rate the State's HRA grant applications. Despite this assistance, the State EMS official's comments were not considered by HRA in the grant selection process.

The Investigative Staff sees no need for both HRA and HSA to fund EMT training. EMT training is a basic requirement of EMS systems development and should be funded through the HSA mechanism and completely controlled by DEMS. HRA support for the program should be limited to the present funding of long-term training for physicians and nurses.

5. HEW's Research Unresponsive to EMS Needs

The Investigative Staff believes that HEW research has been unresponsive to the needs of the developing EMS systems. Within the Health Resources Administration (HRA), the National Center for Health Service Research (NCHSR) is responsible for administering EMS research projects under Section 1205 of the EMS Systems Act. From the program's inception in FY 1974 through FY 1977, 65 research projects have been funded at a cost of almost $15.9 million, with another $3 million planned for FY 1978.

NCHSR officials view Section 1205 as a separate portion of the act. As these officials see it, their mission is to respond to a broad range of emergency medical problems as opposed to the specific needs of DEMS. Interviews with HEW officials disclosed that no evaluations had been made to determine the effectiveness of EMS research conducted under Section 1205. DEMS officials, for whom the research is intended, stated that the Section 1205 effort has been only marginally responsive to the needs of DEMS and its grantees. These DEMS officials said very little NCHSR research has produced specific results immediately applicable to operational EMS systems development.

NCHSR officials claim one reason for research being unproductive is that they have not received quality research proposals addressing problems faced by the developing EMS systems. EMS officials believe the NCHSR grant selection process is partially responsible for this shortcoming. Under the NCHSR grant selection process, research applications with design weaknesses are rejected without considering the merits of the area proposed for study. Most State EMS officials responsible for EMS systems development are not research oriented and consequently their research proposals are rejected due to poor project design, even though the subject matter proposed for study is perhaps critical. As a result, NCHSR has been awarding research grants and contracts to academically oriented medical institutions which write well designed research proposals concerned with problems peripheral to those of the developing systems.

Most EMS research projects awarded were long-term, multi-year studies aimed at evaluation or model development and are not timely in meeting the needs of the developing EMS systems. DEMS officials complained that NCHSR research funds are not available to solve high-priority, short-term operational problems. NCHSR considers studies of this nature to be short-term analysis as opposed to research and, therefore, they have not provided funding. The Investigative Staff believes this is a major failing on the part of NCHSR. Timely information is essential because the Federal EMS program contains a built-in "sundown clause," or a specific time limit (by FY 1979) for having these systems in place and ending Federal involvement. If NCHSR research cannot provide help in solving problems within this time frame, it is of little value to DEMS in EMS systems development.

The EMS regional systems are faced with a multitude of problems requiring study and analysis. The Investigative Staff believes NCHSR has been unresponsive in answering those problems. The NCHSR grant selection process should be reexamined. Research proposals by State EMS officials should not be automatically rejected because of minor project design errors; consideration should be given to the proposal's merit and research design assistance made available to applicants who propose to study high-priority problems facing EMS systems.

In summary, the Investigative Staff feels that the ability of research to respond to problems facing DEMS should be evaluated. If it is determined that the HEW research programs cannot address issues critical to EMS systems development, and provide timely information for use by these systems, then funding for research under Section 1205 of the act is not meeting its objectives and should be applied to other areas of EMS systems development.

B. Role of the Department of Transportation in EMS

The Office of the National Highway Traffic Safety Administration (NHTSA), Department of Transportation (DOT), is responsible for administering the 10 year old DOT emergency medical care program. The Highway Safety Act of 1966 provided, under Section 402, Federal formula grants to help States develop and operate a highway safety program and authorized DOT under Section 403 to carry out highway safety research and development activities. The act also required DOT to establish uniform highway safety standards around which States and local communities were to organize their highway safety programs. DOT satisfied this requirement by developing 18 uniform highway safety standard programs. Standard 11, titled "Emergency Medical Services," outlines the requirements for a State EMS program.

HEW and DOT have traditionally played different roles in emergency services. In contrast with HEW's EMS program which emphasizes regional development, DOT concentrates its effort in the prehospital sector. DOT is primarily concerned with providing emergency medical care for persons injured on the highways. NHTSA funding under Section 402 for EMS activities is used by the States to finance the individual elements of a community's emergency medical care system.

During the past 10 years, NHTSA has contributed significantly to the improvement of emergency medical care nationally. In the first few years after passage of the act, NHTSA developed program guides and manuals emphasizing the value and effectiveness of various system components such as the use of helicopters in the delivery of emergency services. Training standards for ambulance and rescue personnel, and a series of training programs were also developed. Transportation and communication equipment were purchased by local governments with NHTSA funds. From FY 1967 through FY 1977, NHTSA provided over $106.4 million to the States for Standard 11 EMS programs under Section 402. In this same period, over $9.3 million was obligated by DOT for EMS research and development programs under Section 403 of the Highway Safety Act.

1. DOT Has Little Control Over State Spending of Section 402 Funds for EMS

To manage the EMS program, the NHTSA central office has a staff of 10 people. In addition, approximately 1 1/2 man-years of effort is expended in each DOT regional office to oversee EMS activities. Neither the NHTSA central office nor the DOT regional offices have much influence over how the States obligate their Section 402 funds for any of the 18 uniform highway standard programs. How these funds are spent is left to the discretion of the State. The amount of funds a State

receives is determined through a formula grant involving population and road mileage.

Because each State, through the Governor's Representative, exercises almost full control over spending of Section 402 funds, DOT has only a minor role with respect to managing the EMS program and, for this reason, has only limited contact with HEW regional and State EMS officials. The role of the Governor's Representative is discussed in Section V of this report.

The Investigative Staff believes that DOT regional officials should encourage Governor's Representatives to coordinate EMS funding with the State EMS coordinators. Close cooperation at the State level will eliminate independent assessment of EMS needs, encourage the orderly development of EMS systems, and eliminate confusion for those seeking Federal assistance.

2. DOT Research Effort Supports EMS

The DOT research program, Section 403 of the Highway Safety Act, is administered by the NHTSA central office. DOT has supported numerous demonstration projects in urban and rural areas to improve emergency medical practices and technology. Since 1967, approximately $9.3 million has been obligated for 42 EMS research projects. Research has been conducted, for example, into areas of emergency vehicle deployment, communications systems, and helicopter evaluation. Section 403 funding has been used to develop EMS training courses and equipment specifications.

DOT and HEW officials stated that there has been very little coordination on research or exchange of information between the two departments. As previously discussed in this report, DOT research has emphasized prehospital emergency care, while HEW research has been of a more general nature. In view of the potential for overlap and duplication of research effort and the consequent ineffective use of research funds, the Investigative Staff is of the opinion that the research efforts of both departments should be reviewed, evaluated, and coordinated through the Interagency Committee for Emergency Medical Services.

3. Deemphasis of Standard 11 is Cause for Concern

A major cause for concern for many EMS officials is the proposed deemphasis of Standard 11 by DOT. In July 1977, the Secretary of Transportation issued a report to Congress, mandated by the 1976 Highway Safety Act, entitled "An Evaluation of the Highway Safety Program." The report is part of a continuing

effort to review and improve the Federal role in highway safety. The review evaluated the adequacy and appropriateness of the 18 uniform highway safety standards and led DOT to make two basic conclusions concerning the program's future:

-- A more flexible approach is needed for management of a State and Community Highway Safety program; and

-- Insistence upon mandatory compliance with the 18 uniform highway safety program standards is no longer appropriate.

The report also concluded that (a) State highway safety agencies have developed to the point where they should be relied upon to identify their own safety problem areas and develop means of addressing these problems; and (b) only where nationwide standardization is an essential component of the safety program should mandatory compliance with Federal standards be required by the Federal Government.

DOT recommended that mandatory compliance with the present 18 uniform highway safety standards be replaced with a limited number of uniform requirements that must be satisfied by the States. These would be developed in the following six areas:

(a) Rules of the Road
(b) Driver Licensing
(c) Vehicle Registration, Titling, and Theft
(d) Traffic Control Devices
(e) Highway Design, Construction, and Maintenance
(f) Traffic Records Systems

Standard 11, Emergency Medical Services, along with other standards, not included above, would serve only as guidelines for States and local governments.

The Investigative Staff noted that State EMS coordinators were adamant in their opposition to the deletion of Standard 11. They claimed that a significant reduction of DOT Section 402 funds for EMS would result from elimination of Standard 11 as a mandatory program. Many State EMS programs rely heavily upon Section 402 funding for support. Although DOT officials stated they were not deemphasizing EMS, most agreed that EMS funding would probably be reduced. The Investigative Staff was told by several Governors' Representatives that should EMS be deleted as a mandatory requirement, EMS would receive low priority in their States. Already there is a trend in some States to reduce DOT EMS funding whenever HEW awards an EMS systems grant.

The Investigative Staff believes that deletion of Standard 11 as a mandatory requirement will result in reduced funding for

EMS and will adversely effect EMS systems development throughout the United States.

C. Department of Labor Supports EMS Training Activities

The Department of Labor (DOL) supports EMS training under a number of DOL programs, and is a participating member of the Interagency Committee on Emergency Medical Services (IAC-EMS). Funding for DOL training is offered primarily under the Comprehensive Employment and Training Act (CETA), approved December 29, 1973, and amended on December 31, 1974. State and local governments use CETA funds to sponsor a variety of EMS training programs for the unemployed, underemployed, and the economically disadvantaged.

The Investigative Staff requested DOL to provide funding information on the extent of Federal support of CETA EMS training activities from FY 1974 through FY 1977. DOL canvassed its regional offices for data which had to be collected from various levels of State and local governments. Information available at the time of this report was fragmented and inconclusive, however, it appears that a significant amount of CETA funds have been expended on EMS training programs. An interim response provided by DOL covering four regional offices (Atlanta, Denver, San Francisco, and Seattle) showed that for the period FY's 1974 through 1977 almost $11 million was expended for EMS training activities. However, this information was considered incomplete by a DOL official who advised that the amount should be significantly higher when final tabulations are completed.

DOL Fails to Coordinate EMS Initiative Through Interagency Committee on Emergency Medical Services

The Investigative Staff determined that at least one DOL training program had not been adequately coordinated before inception with the IAC-EMS or with existing Federal and State EMS training programs.

The DOL emergency medical technician (EMT) apprenticeship program sponsored by the International Association of Fire Fighters and the International Association of Fire Chiefs duplicates existing HEW and State EMS programs. EMS training needs are currently identified by State and local EMS officials and funded on a priority basis as funds become available. In most States, professional fire fighters were already being provided an appropriate level of training.

The EMT apprenticeship program was designed to develop, promote, and implement EMT training programs for professional fire fighters. To accomplish this goal, DOL, in June 1977, awarded a contract for $1.26 million to the International Association

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of Fire Fighters and the International Association of Fire Chiefs. The contract provided little money for actual EMT training and most of the money was earmarked primarily for funding the administration of the national apprenticeship program and promoting public awareness of the need to improve prehospital care, especially the need for an apprenticeship program for professional fire fighters.

Of 22 State EMS coordinators interviewed, 20 saw no need in their State for an EMT apprenticeship program for training professional fire fighters. State EMS coordinators said that an EMT apprenticeship program would duplicate existing State EMT training programs and that fire fighters were already receiving this training when appropriate. State EMS officials were concerned about the cost of supporting an EMT apprenticeship program at the State and local levels considering the limited funding available for EMS. Some questioned the use of Federal funding for a promotional campaign designed to influence State and local communities to establish an expensive EMT training program for a special interest group, when what was needed was Federal funding for existing EMT training programs.

The Investigative Staff noted that DOL failed to coordinate or consult with the IAC-EMS before signing a contract with the International Associations of Fire Fighters and Fire Chiefs establishing the national EMT apprenticeship program. The IAC-EMS did not explore the need for this program nor the possibility of duplication. Although the national EMT apprenticeship program was not a well coordinated effort, it was approved by the Director of DEMS. The approval was in response to assurances that the program would be run in conformance with nationally established EMS standards.

The Investigative Staff found that the utility of the Federal dollars that will be spent on the DOL national EMT apprenticeship program did not receive serious consideration by the Director of DEMS or by the IAC-EMS. It is believed this situation occurred because: (1) neither has significant control over programs enacted by other Federal agencies, and (2) DOL funds are viewed as an additional source of funding and while the utility may be low, the incremental funding "can't hurt."

The Investigative Staff recommends that DOL, in coordination with the IAC-EMS, critically review its CETA and other EMS training programs to ensure that duplication does not take place with existing Federal and State EMS programs. DOL EMS training programs should be coordinated with State health departments to obtain the State EMS coordinators input, thereby reducing the possibility of duplication and increasing the effectiveness of DOL training dollars.

IV. NEED FOR IMPROVED COORDINATION AMONG FEDERAL AGENCIES

A. The HEW/DOT Relationship

Since passage of the EMS Systems Act in 1973, petty bickering over the roles of HEW and DOT by DEMS and NHTSA officials has marred the orderly process for EMS systems development by these two major financial providers. In addition, some EMS programs conducted by other Federal agencies have not been adequately coordinated with HEW and DOT. As discussed previously in this report, the EMS program in the United States is Federally supported principally by HEW and DOT under two separate acts.

The principal objective of the EMS Systems Act is the development of an effective health delivery system. It is not a program to just develop sophisticated communications networks, and provide expensive fleets of ambulances, emergency facilities, and more employment. It is a system designed to bring these components together in a coordinated manner to provide effective and efficient care for persons faced with emergency health care needs. Funding provided by HEW, DOT, and other Federal agencies must be used in the best interests of systems development. A team effort by all concerned Federal agencies with respect to planning, execution, and operation of the EMS system can significantly increase the impact of the Federal dollar.

The Investigative Staff, in its review, observed that the spirit of cooperation and coordination is obviously missing at the Federal level despite the claims by some HEW/DOT representatives that they are attempting to coordinate their programs. Many of the State EMS coordinators interviewed expressed disappointment and concern over the poor relationship between HEW and DOT. One State EMS coordinator stated that HEW and DOT "fight like cats and dogs." This lack of Federal leadership and coordination has had a negative effect upon many State and local representatives involved in the EMS program.

A major stumbling block in coordinating the HEW/DOT programs has been the reluctance on the part of DOT officials to recognize that EMS systems development requires medical leadership. Such leadership can obviously be best provided by HEW with its extensive medical resources and background. The fact that DOT has been active in prehospital EMS programs since 1966 (before HEW) has made it difficult for some DOT officials to accept the lead agency role that HEW now exercises. According to HEW officials, major areas of controversy between the two departments include implementation of new standards, new investigative studies, and EMS program priorities. Generally, these efforts are very poorly coordinated by both HEW and DOT.

Despite differences of opinion concerning who is the lead agency for EMS and other turf problems, officials of HEW and DOT agree that the separate laws under which they function leave ample opportunity to carry out systems development and to complement each other in the process. Both agencies are concerned with providing EMS care; DOT primarily in the prehospital phase, HEW in developing an entire EMS system. To ensure that the programs complement each other and also to simplify State EMS planning, the Investigative Staff recommends that DOT and HEW develop a single set of program guidelines satisfying the requirements of both departments.

Coordination Between HEW and DOT with Regard to Communications and Disaster Preparedness

Communications is a major system component requiring a large resource commitment and is an important consideration of State and local officials working toward development of EMS systems. HEW and DOT along with the Federal Communications Commission share the principal Federal agency responsibility for communications planning. Their efforts are coordinated through a workgroup on communications established by the Interagency Committee on Emergency Medical Services. Primarily, Federal coordination is directed toward development of specifications and has little to do with initial funding. In part, this is because DOT has little influence on how a State spends DOT provided funds.

The responsibility for disaster preparedness has been fragmented among many Federal agencies including HEW, the Department of Defense through its Defense Civil Preparedness Agency, and the General Services Administration. Neither DOT nor HEW EMS programs directly address disaster preparedness. The Investigative Staff believes the Interagency Committee on Emergency Medical Services should review Federal planning for disaster preparedness and determine the ability of State EMS coordinators and EMS regional systems to participate in the program when called upon.

B. Memorandum of Understanding Between HEW and DOT is Waiting for Approval

HEW and DOT have been working since 1974 to develop a written memorandum of understanding defining responsibilities for EMS systems development. During this study, HEW and DOT officials informed the Investigative Staff that a draft memorandum of understanding has been drawn up and is waiting for final approval from both departments. The administrative responsibilities of HEW under Title XII of the Public Health Service Act and of DOT under the Highway Safety Act, respectively, are formally delineated in this agreement. When signed by both parties, the document will represent the first real effort to coordinate EMS activities. As of January 1978, the agreement had not been finalized.

Basically the agreement is intended to prevent confusion and duplication of effort by DOT and HEW. Pursuant to their respective statutory requirements, and the terms of the agreement, DOT and HEW will cooperate when developing, establishing, and implementing comprehensive national uniform standards, regulations, procedures, resources, and technical assistance for the prehospital and interhospital transportations phases of emergency care.

The Investigative Staff believes that the two departments appear to be making a sincere effort to arrive at an understanding of their respective roles. This is a step in the right direction. However, implementation of this agreement will demand a continuous, joint, coordinated effort by DEMS and NHTSA central office officials to make it workable. Also the regional offices of DOT and HEW, the State EMS coordinators and the Governors' Representatives must be fully cognizant of the joint agreement in all details to ensure a sound and orderly development of EMS nationwide.

C. Interagency Committee on Emergency Medical Services Fails to Coordinate Federal EMS Programs

Establishment of an Interagency Committee on Emergency Medical Services (IAC-EMS) was required and its duties authorized in Section 1209 of EMS Systems Act. The act provided that the Secretary of HEW or his designee chair the IAC-EMS and that its membership include five individuals from the general public, appointed by the President, as well as representatives from Federal agencies involved in EMS. The act required that the IAC-EMS meet four times a year at the call of the chairman. The Secretary of HEW is tasked with making available to the IAC-EMS such staff, information, and other assistance as it may require to carry out its activities.

The purpose of the IAC-EMS is to coordinate and provide for the communication and exchange of information among all Federal programs and activities relating to EMS. Specific responsibilities of the IAC-EMS are to:

(1) Evaluate on a continuing basis the adequacy, technical soundness, and redundancy of all Federal programs and activities relating to EMS.

(2) Develop and annually update the Federal EMS funding and resource-sharing plan and recommend uniform standards with respect to EMS equipment and training.

(3) Make recommendations to the Secretary of HEW regarding the administration of the EMS program.

Presently, the IAC-EMS is composed of 23 Federal representatives and 5 public members. IAC-EMS work groups on training, communications, transportation, financing and administration, perform staff work and provide recommendations for consideration at IAC-EMS meetings.

1. IAC-EMS Fails to Satisfy Congressional Requirements

The IAC-EMS has successfully endorsed uniform standards with respect to EMS equipment and training but has failed to adequately evaluate or coordinate the Federal EMS effort. As of January 1978, the IAC-EMS had not evaluated and reported upon the adequacy, technical soundness, and redundancy of all Federal programs and activities relating to EMS (the act required a report be issued to Congress not later than June 15, 1977); had not developed a comprehensive Federal EMS funding and resource-sharing plan; and had not developed a useful description of the sources of Federal support available for the purchase of vehicles and communication equipment (the act required both these reports be developed and published by July 1, 1977).

2. State EMS Coordinators Criticize IAC-EMS

State officials were extremely critical of the IAC-EMS and the Federal Government's failure to coordinate Federal EMS programs. They emphasized that State personnel have a limited amount of time available to acquaint themselves with Federal program guidelines and cited the need for consolidation of Federal funding and for a useful description of the sources of Federal funding available to their State. Twenty of the 24 State EMS coordinators interviewed stated that coordination at the Federal level was inadequate with respect to EMS funding and program guidelines.

State EMS coordinators also criticized the IAC-EMS for not addressing or seeking answers to the critical problems faced by EMS providers at the State level. They argued that the EMS program is implemented at the State level and that the IAC-EMS did not fully appreciate the problems encountered by State and local officials. State EMS coordinators saw the IAC-EMS as basically a rubber stamp for formalizing Federal EMS standards and expressed the need for State representation.

The Investigative Staff agrees that the IAC-EMS has not addressed or taken an apparent interest in problems faced by State and local officials implementing Federally funded EMS programs. In our opinion, State representation on the IAC-EMS could serve to focus Federal attention on critical EMS problems and help promote cooperation between Federal agencies.

3. Federal Agencies Reluctant to Coordinate

To date, the IAC-EMS's review of Federal EMS activities has been superficial. A public member of the IAC-EMS at the September 14, 1977, meeting, commented that IAC-EMS members just hear reports on what different Federal agencies do (stating how good their programs are) and then go home until the next meeting. Public members of the IAC-EMS were concerned over the IAC-EMS's failure to come to grips with problems facing EMS. These members felt that they were not being asked to come up with recommendations for better methods of implementing EMS, particularly, in relation to Federal agencies.

The Investigative Staff found a general reluctance on the part of the Federal agencies involved in EMS to coordinate their activities through the IAC-EMS. The Federal agencies appear content to go their own way and carry out their own programs without outside involvement. Each Federal agency functions in accordance with its laws and carries out its mandates and procedures in accordance with those laws. There is no mandate requiring coordination of Federal EMS activities. These agencies do not feel the need to obtain IAC-EMS approval for new or existing EMS activities and jealously guard what they consider their turf.

One example of the lack of coordination is the Department of Labor's EMT apprenticeship program discussed in Section III of this report. The Investigative Staff found that the need for this program is questionable in light of HEW and State training programs.

4. IAC-EMS Provided Inadequate Staffing

The IAC-EMS lacks directions. Its inability to address problems facing EMS is, in part, a result of the Secretary of HEW's failure to provide the IAC-EMS with staffing, information, and other assistance necessary to carry out its activities.

The Secretary of HEW delegated the responsibility for IAC-EMS staffing to the Director of DEMS. The Director of DEMS has a small central office staff which has difficulty managing the DEMS program. IAC-EMS meetings are arranged only during periods when DEMS personnel are available to coordinate them. During the year 1977, the IAC-EMS met only twice, on February 9 and September 14, 1977. (The act requires that the IAC-EMS meet at least four times yearly.) The IAC-EMS meetings were not properly planned or coordinated. At the September 14, 1977, meeting neither the minutes of the previous meeting nor the agenda for the September 14, 1977, meeting had been distributed to the IAC-EMS members beforehand. Thus, IAC-EMS members had no time to familiarize themselves with the topics presented, to consider associated problem areas, and to develop appropriate input.

The Investigative Staff believes that the IAC-EMS cannot successfully address problem areas or monitor Federal involvement in EMS by meeting for only one day twice a year, with little or no contact in between these meetings. Adequate staffing must be provided if the IAC-EMS is to function properly.

V. EMS PROGRAM AND HOW IT WORKS AT THE STATE LEVEL

A. EMS Systems Dependent Upon State Support

The Director of DEMS stated that continuation of quality emergency medical care to all persons within a State is dependent upon strong State direction and financial support. State support is necessary to keep EMS systems intact. An EMS system uses the combined resources of the counties, cities, and townships in a designated geographic region to provide quality emergency care to all persons regardless of their ability to pay. The promise of Federal funding by HEW has promoted coordination by local governments and other providers, such as hospitals, for the development of EMS systems. When Federal funding is discontinued, many systems may fall apart as the individual local governments and hospitals making up the system seek to promote their own parochial interests.

It is very difficult to hold together an EMS regional system composed of perhaps 30 or more counties. Funding of an EMS system on a local level is complicated because the EMS region is not a political unit with direct taxing authority or other means of generating revenue. Therefore, should Federal funding end, EMS systems would have to rely upon the local governments making up the system to finance operational costs. Difficulties arise in determining what each county feels is a satisfactory level of EMS and what each feels its fair financial contribution to the EMS system should be. Resource availability and willingness to fund vary from county to county; and persons from one county may refuse to pay for medical care for persons from another county. Another problem is that many local governments and service providers do not fully accept the regional system concept. They want to run their own independent EMS program. Many local governments are reluctant to relinquish management and operational control over EMS resources to an EMS system and will do so only if it is to their personal advantage. It is, as long as Federal funding is provided.

The State government is the political body which must assume responsibility for continuation of these systems. The State government has the ability to (1) provide direct funding, (2) coordinate State agencies and resources, (3) provide policy leadership, (4) program from the State legislature, and (5) use regulatory powers to promulgate standards. The Investigative Staff believes that the establishment of a strong State EMS program is necessary to maintain current advances in EMS.

B. EMS Councils Vital for EMS Systems Development

The availability of HEW grant dollars has brought together EMS providers, public agencies, community leaders, and EMS users for concerted analysis and study of EMS problems facing their regions. These EMS councils or committees were formed to provide a team approach to planning, execution, and operation of an EMS system.

Staffing for EMS councils is provided by the State EMS office or from a local management entity. This staff acts to write the EMS grant application, keep the EMS council together, and do the legwork necessary to implement and monitor system development. In most EMS regions, staffing is paid from DEMS grant awards. During discussions with State and local EMS officials, the Investigative Staff found a great deal of concern stemming from State EMS staff members not knowing whether their region's DEMS grant application had been approved. If the grant was not approved, EMS staff personnel would not be paid and in all likelihood would have to seek other jobs. A source of intense dissatisfaction was HEW's failure on many occasions to promptly notify the field of a grant award.

The establishment of regional and State EMS councils has led to a growing awareness at the grassroots level of the profound problems inherent in existing emergency medical care. The future of EMS councils after the EMS region has received the maximum 5 year of DEMS funding is uncertain. Some EMS officials said the regional EMS councils will not continue to operate without State or Federally funded staffing and the incentive of Federal grants. In our opinion, the loss of the EMS council as a sounding board, monitor, policymaker, and guidance mechanism would seriously impair an EMS system's chance of remaining intact.

C. State Health Department Lead Agency for EMS

The management structure of the State EMS program varies from State to State depending upon the State's financial support of EMS, geographic and demographic conditions, and the personalities of people involved. In virtually all States, the State health department is the lead agency responsible for the development and implementation of a comprehensive State EMS program.

Within the State health department, the State's EMS coordinator is responsible for developing a statewide EMS program and plays a critical role in EMS systems development. The State EMS coordinator's more important functions are described below:

(1) Relays information from DEMS central and regional offices to the developing EMS systems within the State.

(2) works to organize local EMS councils and resources for development of EMS systems in each region within the State.

(3) Develops a staff to provide technical assistance to the EMS regions. In most States, the EMS coordinator and his staff assist in preparation of DEMS Section 1202, 1203, and 1204 grant applications, monitor EMS systems development and troubleshoot statewide as necessary.

(4) Lobbies for financial and legislative support for the State's EMS program. He seeks support from the State as well as from Federal sources, he establishes EMS priorities (with assistance from the State EMS advisory council) and in most instances has considerable influence on how DOT and HEW money made available for EMS is spent.

(5) Because State EMS coordinators are responsible for developing adequate systems of EMS care statewide, they are confronted with the problems facing rural areas and regions lacking the human and financial resources necessary to develop an EMS system. They represent the interests of these regions and work on their behalf to provide Federal and State funding.

In summary, the State EMS coordinator works with regional EMS councils and EMS systems managers to develop a statewide network of comprehensive EMS systems consisting of the 15 required congressional components. Development of each EMS system requires a significant resource commitment as well as input and cooperation from all EMS providers. The State EMS coordinator's ability to provide guidance and assist the region in obtaining financial support is critical to the development of these EMS systems.

D. Governor's Representative Controls the Use of DOT Highway Safety Funds

To accomplish the objectives of the Highway Safety Act, the Governor of each State was charged with the responsibility for developing a highway safety program in accordance with 18 uniform highway safety standard programs. The day-to-day operation of this highway safety program in each State is handled by the Governor's Representative. Most of a Governor's Representatives's time is spent managing the Federal grant program (Section 402 of the Highway Safety Act); very few have a major impact on the allocation and use of State or local funds.

Each Governor's Representative develops an annual work plan detailing how Section 402 funds will be spent. In preparing this annual work plan, the Governor's Representative reviews accident data, identifies and sets priorities on reasons for accidents, and works to develop adequate countermeasures. The

Governor's Representative is in the business of accident prevention. Although concerned with postcrash care, the major interest is in the precrash prevention area.

The annual work plan is submitted to the DOT regional office where it is reviewed to ensure compliance with the 18 uniform standard areas. Even so, the Governor's Representative has almost complete discretion on how available monies will be spent for Section 402 including funding for Standard 11, Emergency Medical Services.

The Governor's Representative, in most States, permits the State EMS coordinator to develop the EMS portion of the annual work plan, detailing how funds for EMS will be obligated. Nineteen of 28 State EMS coordinators interviewed by the Investigative Staff stated that they planned the EMS needs under Section 402. In these States, the Governor's Representative compares the State EMS coordinator's input to alternatives identified in the other 17 standard areas and determines what proportion of the funds will be allocated for EMS.

Those Governor's Representatives who chose not to have the State EMS coordinator develop the EMS portion of the annual work plan determine EMS needs through requests received from local communities, input from the State EMS coordinator, data derived from vehicle accident reports, and local politics. The degree to which the Governor's Representative uses these sources varies from State to State. For example, in some States, the State EMS coordinator has no input into the annual work plan while in other States his input is given serious consideration.

The Governor's Representative's view of the EMS program varied from State to State as did the portion of Section 402 funds allocated for EMS. In some States, the State EMS coordinator lamented the lack of support given the EMS program by the Governor's Representative. In one such State, the Governor's Representative told the Investigative Staff that DEMS officials had created unrealistic expectations by telling EMS personnel and elected public officials that the State highway department had a large amount of money available to fund EMS equipment. He resented DEMS officials putting pressure on his office to provide EMS with what he considered a disproportionate share of the available Section 402 funding.

E. Complexity of EMS Systems Grants Limits Availability for Rural Areas

The DEMS program favors EMS regions having the administrative and financial resources necessary to develop an EMS system consisting of the 15 required components. The Investigative Staff was told by concerned State EMS coordinators that rural and "have not" regions are at a distinct disadvantage when applying for

sections 1202, 1203, and 1204 funds. These areas do not have the hospitals and medical personnel necessary for development of an EMS system. In addition, the financial base is not sufficient to guarantee continuance of the program when Federal funding ends. DEMS grant funds have been used for numerous purposes--support of the State EMS office, travel, ambulances, training, and communications equipment, among others--all in conformance with EMS systems development. However, these funds are not available to develop EMS care capabilities in regions which cannot support EMS systems development.

Many State EMS programs rely heavily upon DOT funds under section 402 of the Highway Safety Act. Section 402 funds, unlike DEMS grants, are not subject to a complicated set of guidelines and provide a fast simple method of financing. A Governor's Representative in one State said he made available Section 402 funding within a week to satisfy an urgent EMS requirement. Basically, all that is required for Section 402 funding is an identification of the problem.

The principal guidelines affecting Section 402 funding for EMS are those established by the Governor's Representative and concern the type of expenditures deemed appropriate. Use of funds must be in conformance with DOT established standards for quality; for example, an ambulance, to be purchased, must meet DOT specifications. Section 402 funding is not limited to EMS systems development and can be used to assist rural and "have not" regions which do not have the human or financial resources to develop an EMS system or even a DEMS grant application.

The Investigative Staff learned that Section 402 funding was often used to prepare a region for a DEMS grant. In these instances, Section 402 funding was used to purchase basic EMS components which would increase the region's chances for DEMS assistance. Many State EMS coordinators said that Section 402 funding played a vital role in their efforts to develop a statewide EMS program and expressed concern that Section 402 funding for EMS might be withdrawn or reduced.

F. Uncoordinated EMS Programs Exist In Some States

The Investigative Staff found that some State EMS coordinators and Governor's Representatives did not enjoy a close working relationship. In some States, they disagreed on what their respective roles should be, on EMS priorities, or on the proportion of Section 402 funds which should be allocated to support EMS. As a result, in 9 of the 28 States in which EMS programs were reviewed by the Investigative Staff, 2 uncoordinated EMS programs were run at the State level, both funded through Federal grant programs. DOT does not require the Governor's Representative to coordinate his funding of EMS in

conjunction with the State EMS coordinator who is responsible for the development of a statewide EMS program.

By establishing a separate EMS program, the Governor's Representative reduces the necessity for local communities to band together to form regional EMS systems. Instead of working together to develop an EMS regional system composed of the 15 required components to obtain HEW funding, local groups can go directly to the Governor's Representative, thereby, avoiding DEMS requirements. Such a procedure does not enhance EMS systems development.

In addition, Governor's Representatives, working from the State highway department, do not have the contacts with local EMS providers that the State EMS coordinators working from the State health departments have. Governor's Representatives have difficulty getting guidelines out to local EMS officials so they can identify EMS problem areas. Local EMS officials in a large western State told the Investigative Staff that information on how to obtain Section 402 funding was kept a "big secret."

The Investigative Staff believes that lack of cooperation and bad feelings between DOT and HEW at the federal level, have directly contributed to the operation of uncoordinated EMS programs in some States. DOT and HEW need to clarify the roles they expect the State health and State highway departments to play in EMS development. The Governor's Representative should be encouraged to accept the State EMS coordinator's assessment of EMS needs and not run an independent EMS program. Dual assessment of EMS needs is duplicative, creates needless confusion at the local level, and retards EMS systems development.

G. Individual Guidelines for DOT and HEW State EMS Plans Cause Confusion

The State EMS plan submitted to DEMS is a comprehensive document detailing the establishment, operation, and expansion of EMS systems. This plan is developed as follows. DEMS divides each State into regions. Each region plans for development of its EMS system by addressing in a DEMS grant application the 15 system components required by the EMS Systems Act. The plan is developed at the local level with persons controlling local EMS resources playing the major role in its preparation. Combined, the regional EMS plans form the State DEMS plan. The prehospital EMS function is an integral part of the State DEMS plan and DOT specifications for prehospital resources are mandatory.

The purpose of the DOT State EMS plan, developed by the Governor's Representative with input from State EMS officials, was to encourage States to inventory their prehospital resources, identify gaps in service, and seek remedies for EMS deficiencies.

The DOT State EMS plans were developed in accordance with guidelines contained in the Highway Safety Program Manual and are essentially an inventory of prehospital resources. Because of this, in the opinion of one DEMS official, the word "plan" is actually a misnomer. In visits to the DOT regional offices, the Investigative Staff found that many DOT State EMS plans were dated in 1974 and had not been updated since.

Confusion exists at both the State and Federal level concerning the requirements for DOT and HEW State EMS plans. The respective purpose of the DOT and HEW State plans, and what each state should have in terms of current updated plans is unclear.

Fifteen of the 28 State EMS coordinators interviewed said their State had developed a single comprehensive State EMS plan which, in their opinion, satisfied both DOT and HEW requirements. Development of a State EMS plan takes a great amount of time and coordination. An EMS plan, if it is to remain useful as a workable document for EMS implementation, needs periodic updating. Due to limited State resources, most States consider their current DEMS grant application to be the State's updated State EMS plan, satisfying both DOT and HEW requirements.

The Investigative Staff recommends that DOT and HEW determine what is acceptable in terms of an updated State EMS plan. In the opinion of the Investigative Staff, two sets of guidelines and two State EMS plans are not useful. Since HEW plans to fund "wall-to-wall" EMS systems within each State and since the HEW plan encompasses the prehospital function as well as making DOT specifications for prehospital resources mandatory, we feel the HEW plan should suffice for both DOT and HEW. HEW plan guidelines should be reviewed by DOT and, if necessary, changes recommended so the plan satisfies both departments.

h. Standard Recordkeeping and System Evaluation Inadequate

DEMS grant guidelines require that EMS systems establish standardized medical recordkeeping systems which cover patient treatments from initial entry into the system through discharge. Standard recordkeeping is necessary to provide data for program evaluation and management purposes.

The Investigative Staff found that standard medical recordkeeping systems have not been fully implemented by the regional EMS systems visited. EMS officials said that it is extremely difficult to get hospitals to use standard forms. Hospital administrators are reluctant to handle the extra paperwork or provide information because of patient confidentiality and the possibility of malpractice suits. Some EMS officials questioned the usefulness of any information which might be provided. They believed that data submitted would be self-serving and that the

seriousness of the patient's condition is a judgment call which varies from hospital to hospital making comparisons difficult. The cost of gathering and compiling information is considered prohibitively high by State and local officials.

State EMS officials were frustrated by DEMS standard record-keeping and evaluation requirements. To date evaluations have not been made by State and local officials showing the impact EMS systems have had on patient care. State EMS officials were uncertain of what was expected since adequate data bases do not exist upon which to develop evaluations. One EMS official estimated it would take twice the number of people presently on his staff a full year to develop useful data for evaluation purposes. In addition, State EMS officials were concerned about the use which might be made of evaluations performed by State and local authorities. Would further Federal assistance be dependent upon good figures?

In summary, standard recordkeeping and system evaluation are costly propositions and are viewed unfavorably by hospital administrators and EMS providers. The Investigative Staff believes that action will not be taken in this area unless increased Federal emphasis is placed on standard recordkeeping and evaluation, and incremental funding is made available specifically for this purpose.

VI. FISCAL DATA

Although the Interagency Committee for Emergency Medical Services has identified 64 separate Federal programs that provide support for EMS, it was unable to develop fiscal data reflecting the amount of Federal, State, or local funds that have been expended over the years on EMS. However, by the end of FY 1978, the two major agencies, HEW and DOT, will have allocated more than $300 million for EMS program support in the United States.

A. Department of Health, Education, and Welfare

During the period FY's 1974 through 1978 inclusive, HEW through the Public Health Services, Health Services Administration and the Health Resources Administration, will have obligated $192 million for EMS programs. During these 5 years, HEW will have provided direct grant support under Sections 1202, 1203, and 1204 totaling $143 million, research support of $18.9 million, training support of $13.6 million, and burn injury program support totaling $6.1 million. The allocation of HEW funds by program and fiscal year are summarized below:

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EMERGENCY MEDICAL SERVICES PROGRAM
ALLOCATION OF FUNDS UNDER THE PUBLIC HEALTH SERVICE ACT
FISCAL YEARS 1974-1978

Program	FY 1974	FY 1975	FY 1976	FY 1977	Estimate FY 1978	Totals
Feasibility and Planning Section 1202	$ 2,250,000	$ 4,617,800	--	$ 986,563	$ 925,000	$ 8,779,363
Initial Operations Section 1203	10,400,000	19,500,000	$21,636,475	21,767,304	14,800,000	88,303,779
Expansion Section 1204	4,350,000	8,125,000	7,278,825	10,021,133	20,900,000	50,674,958
Research Section 1205	3,333,000	4,500,000	4,175,000	3,925,000	3,000,000	18,933,000
Training Sections 776/789	6,667,000	--	--	5,910,496	6,000,000	18,577,496
Burns Section 1221	--	--	--	3,130,314	3,000,000	6,130,314
Administration*	--	257,200	334,700	294,686	--	886,586
TOTALS	$27,000,000	$37,000,000	$33,625,000	$46,035,496	$48,625,000	$192,285,496

* Used primarily for evaluation of EMS program.

D. Department of Transportation

During the period FY's 1967 through 1977, DOT allocated $839 million for the 18 uniform highway safety standard programs under Section 402 of the Highway Safety Act of 1966. Of this amount, $106 million or 12.7 percent was used for Standard 11 EMS activities, principally in the area of prehospital care. For FY 1978, DOT officials advised that $168.7 million has been appropriated for Section 402, but they could not estimate the amount the States will obligate for EMS-type expenditures during the year because of the uncertainty regarding Standard 11 continuance as a mandatory standard. Some officials believe that because of the deemphasis, the percentage of funds going into EMS will be much less in FY 1978 than in FY 1977.

The following table shows the total amount obligated each year for FY's 1967 through FY 1977 under Section 402, and the amount and percentage obligated for Standard 11.

DEPARTMENT OF TRANSPORTATION
EMERGENCY MEDICAL SERVICES PROGRAM
NHTSA SECTION 402 OBLIGATIONS UNDER THE HIGHWAY SAFETY ACT
FISCAL YEARS 1967-1977

Fiscal Year	Total Funds Obligated Under Section 402 (000)	Standard 11 EMS (000)	Standard 11 As Percent of Total
1967	$ 646	$ --	--
1968	23,900	1,646	6.9
1969	63,800	6,801	10.7
1970	67,950	6,942	10.2
1971	72,100	7,631	10.6
1972	76,360	10,883	14.3
1973	91,307	11,652	12.8
1974	76,241	10,949	14.4
1975	96,202	13,715	14.3
1976	145,189	19,237	13.3
1977	125,700	16,996	13.5
Total	$839,395	$106,452	12.7

NOTES: FY 1976 includes Transition Quarter.

FY 1977 excludes funds appropriated for FHWA Highway Safety Standards.

The following table shows that a total of $9.3 million in DOT funds were obligated under Section 403 for 42 research and development projects during the period FY's 1967 through 1977:

Fiscal Year	Number of Projects	Amounts (000)
1967	6	$1,311
1968	13	2,503
1969	8	2,893
1970	2	505
1971	-	-
1972	-	-
1973	-	-
1974	-	-
1975	2	1,361
1976	2	13
1977	9	704
Total	42	$9,290

C. Funding of EMS by State and Local Communities

DOT could not provide data showing the amounts spent by States and local communities for EMS requirements. Officials stated that fiscal data available at State and local levels varied and that the definitions of what constituted capital and operating expenditures were never uniformly interpreted by State and local EMS officials. As a result, a compilation of data on hard cash spending and other types of contributions would be very difficult to accumulate.

DOT officials advised that the accounting for the totality of State and local annual expenditures for emergency medical care has not been required, nor is it considered economically feasible. State and local grantees, who receive Section 402 funding, report their contribution to show they have satisfied the minimum 30 percent matching requirements. However, data are not available from jurisdictions having no Federal grant awards.

Annual Federal funding has continued to provide limited financial support to a relatively small number of the 20,700 plus rural and urban jurisdictions. Accordingly, it is unlikely that those communities which have not received Federal grants for this purpose, would be concerned or interested in responding annually to a request for expenditure data. DOT representatives said making such inquiries mandatory would result in significant costs, with uncertain validity as to the product, and would impair and diminish the credibility of Federal program administration.

Alternative methods of estimating these expenditures have been attempted. DOT provided "best estimates" of State and local expenditures based on a study in FY 1967 which showed that emergency medical services cost $32.8 million ($24.2 million local and $8.6 million State) exclusive of any Federal funds prior to enactment of the Highway Safety Act of 1966. Their figures were conservatively estimated annually by adding a plus 3 percent inflationary factor. Estimates of combined State and local expenditures for EMS activities under this formula are as follows:

Fiscal Year	Amount (in millions)
1971	$37.9
1972	39.0
1973	40.2
1974	41.4
1975	42.6
1976	43.9
1977	45.2

3. Ambulance Procurement With HEW and DOT Funds

Both HEW, through DEMS systems grants, and DOT through Section 402 Standard 11 funding have assisted States, local communities, and regional EMS systems in procuring ambulances. According to information provided by DEMS officials, HEW supported the purchase of 577 ambulances during the period FY 1974 through FY 1977 at an average support per unit of $11,592 as summarized below:

Fiscal Year	Number of Ambulances	Total Support	Average Support Per Unit
1974	223	$2,391,412	$10,724
1975	144	1,821,906	12,652
1976	130	1,477,527	11,366
1977	80	997,510	12,469
Totals	577	$6,688,355	$ 11,592

During the period FY 1968 through FY 1976, DOT participated with States in the purchase of at least 3,502 ambulances with Section 402, Standard 11 funds at an average support of $5,632 per unit. Information on procurement of ambulances in FY 1974 was not readily available because DOT changed over to a new management information system, and complete data can now only be obtained by surveying the individual States. This was not

considered feasible by DOT. DOT officials said the individual States have varying policies regarding the amount of Section 402 funds that are provided for ambulance purchases. The local communities pay the difference between total cost and the amount covered by Section 402 funds.

The following tabulation shows the number of ambulances procured, Section 402 dollars used, and the average Federal support per unit purchased for the period FY 1968 through FY 1976:

Fiscal Year	Number of Ambulances	Section 402 Funds Used	Average Support Per Unit
1968	124	$ 654,370	$5,277
1969	334	1,781,097	5,333
1970	379	2,092,270	5,521
1971	379	2,118,030	5,588
1972	520	3,128,057	6,015
1973	466	3,113,082	6,680
1974*	-	--	--
1975	647	3,045,000	4,706
1976	653	3,792,000	5,807
Totals	3,502	$19,723,906	$5,632

* Information on ambulance procurement not available for FY 1974 because of changeover by DOT to a Management Information System.

E. HEW'S Long-Range Plans for Grant Support of the 300 State-Designated EMS Regions

The purpose of the Emergency Medical Services Systems Act was to establish EMS regions and to assist each region in developing an effective system for emergency medical care delivery. At the end of FY 1977, 264 of the 300 EMS regions had received Federal grants for planning or systems development. Twelve regions had completed the maximum 5 years of grant support. PL 94-573 enacted in 1976 extended the Federal EMS program for 3 years. However, the nationwide network of systems is not expected to be fully in place by the end of FY 1979 when the current legislation expires.

Officials from the Division of Emergency Medical Services (DEMS), HEW, estimate that to fully develop the 300 EMS regional systems a total of $475 million in HEW Sections 1202, 1203, and 1204 grant support will be required. As envisioned by DEMS officials, the program will require another 3-year extension of the act with Section 1203 and 1204 funding provided through FY 1985. Combined with continued DOT support the total investment in EMS by these two agencies could exceed $800 million by 1985.

The Investigative Staff believes that before HEW is given authorization to extend the EMS program, there are several areas which require serious consideration. Among these are:

(1) It appears that there will be a significant reduction in DOT Section 402 funds provided for EMS, nationwide. We believe the effect this will have on developing EMS systems should be studied.

(2) The EMS regions which were initially funded were considered the most likely candidates for successful EMS systems development. EMS systems which are presently in the early stages of development and those which are not yet funded will be more difficult to develop. The Investigative Staff doubts that EMS regional systems capable of providing advanced life support can be developed wall-to-wall throughout this country. Perhaps HEW should consider a less ambitious EMS program; one designed to provide an adequate level of emergency medical care in those regions which cannot support more advanced systems.

(3) Evidence indicates that many EMS regional systems will cease to operate as a system when Federal funding ends. The primary cause of a system breakdown is the large number of local governments and EMS providers involved. Difficulties will arise in obtaining local funding for the system and in settling disputes among EMS providers stemming from professional jealousy. The Investigative Staff visited EMS management officials in Jacksonville, Florida, and the Washington, D.C., Metropolitan area (Northern Virginia, District of Columbia, and adjacent Maryland). It found that the eight counties in the Jacksonville region were providing EMS care on an independent basis and that Maryland had pulled out of the D.C. Metropolitan EMS region. Discussions with officials in these regions indicated that the failure to operate as integrated systems definitely affected the quality of EMS care provided.

(4) There is little doubt that when the maximum 5 years of funding has been completed under Sections 1202, 1203, and 1204, the withdrawal of HEW support will have a decided effect on many EMS systems. The Investigative Staff was told by 5 of 27 State EMS coordinators interviewed that some regional systems in their State would definitely collapse; an additional 6 said it was too early to tell. To date, the problems experienced by regional EMS systems, when Federal funding ends, have not been adequately studied.

To summarize, many EMS systems will have difficulty remaining intact. In some instances, the Federal dollars spent to coordinate systems development should be reviewed in this context. HEW should include an evaluation of the EMS program with any proposals to Congress for extending the act beyond FY 1979.

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