

**OFFICE OF
EMERGENCY MEDICAL
SERVICES**

Connecticut
General Assembly



LEGISLATIVE
PROGRAM REVIEW
AND
INVESTIGATIONS
COMMITTEE

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**CONNECTICUT GENERAL ASSEMBLY
LEGISLATIVE PROGRAM REVIEW AND INVESTIGATIONS COMMITTEE**

The Legislative Program Review and Investigations Committee is a joint, bipartisan, statutory committee of the Connecticut General Assembly. It was established in 1972 to evaluate the efficiency, effectiveness, and statutory compliance of selected state agencies and programs, recommending remedies where needed. In 1975, the General Assembly expanded the committee's function to include investigations, and during the 1977 session added responsibility for "sunset" (automatic program termination) performance reviews. The committee was given authority to raise and report bills in 1985.

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& INVESTIGATIONS COMMITTEE

Office of Emergency Medical Services

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Executive Summary

OFFICE OF EMERGENCY MEDICAL SERVICES

The state's role in the emergency medical services (EMS) system is to assure citizens that safe, effective, and suitable emergency medical services are available and being delivered. To achieve this mission, a two-prong approach is required. First, system development activities must be performed. By compiling data on the EMS delivery system, the state can assess the strength of the system, identify where weaknesses exist, and target areas in need of system growth. This is done in conjunction with information and input obtained at the local, regional, and state level, and from a variety of different parties. The second prong is regulating the delivery of EMS services. The state must ensure standards are being met by conducting regulatory enforcement activities. Both sets of activities, until recently, were the sole function of the Department of Public Health's Office of Emergency Medical Services.

The Legislative Program Review and Investigations Committee voted to study the Office of Emergency Medical Services (OEMS) in February 1997. The study focused on how the state ensures a coordinated emergency medical services (EMS) system, regulates those services, and how the public and interested parties have input into the system. As part of the review, the roles, activities, and resources of OEMS, its statewide advisory board, and the regional councils were examined. In addition, the state organizational structure used to regulate and plan for EMS delivery was also reviewed.

The office is located within the Department of Public Health's Bureau of Regulatory Services and has broad regulatory authority over the emergency medical service industry. The commissioner is responsible for the planning, coordination, and administration of a statewide emergency medical care service system and is assisted by an advisory board and five regional EMS councils. The office's responsibilities, as defined by statute, are enforcing regulatory standards including licensure and certification of providers and personnel, annually inspecting emergency vehicles, approving determination of need applications, and assigning primary service areas to ensure emergency coverage is available.

Major changes in the state's administration of EMS have occurred over the last two years. The office has been reorganized twice in this period, the second time during the program review committee study. The purpose of the reorganizations was to consolidate OEMS regulatory functions with similar activities performed by the Division of Health Systems Regulation (DHSR). The Office of Emergency Medical Services retained primary responsibility for system development activities.

One major role of the Office of Emergency Medical Services is to coordinate the activities of the individual service groups providing EMS as parts of a statewide system. The committee

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found, although after 20 years Connecticut has made great strides in developing the EMS program, key components are still absent. Statutory mandates have either never been fulfilled or reversed by the department without legislative approval. Basic information on the operation of local EMS systems at the state level is lacking. This includes:

- assignment of service providers for each category of response (from first responders through paramedics);
- availability of emergency medical dispatch (which provides prearrival instructors to 9-1-1 callers); and
- availability of automatic defibrillation (technology used to convert abnormal heart rhythms).

In addition, there is no patient data system, quality assurance is not performed, and no evaluation component exists for training or delivery of care in the prehospital setting. Finally, the committee found poor record-keeping in a number of areas, including documentation of primary service area assignments, complaint recording, and regional EMS council submissions.

The program review committee believes that to achieve a statewide system a stable state structure, along with stable funding, are needed. Key areas in need of program development to achieve a model EMS response have already been identified by representatives of the advisory board, committees, and regional councils. Although a comprehensive EMS plan was adopted in January 1997, little work toward its implementation has been accomplished. This occurred primarily because the office has been in a continuous state of organizational change with office vacancies hindering plan implementation. The department's role is to provide the leadership and coordination necessary for continuing the development of the EMS system through the Office of Emergency Medical Services. Conversely, if resources are not available, the state will need to lower the program goals.

The committee supports the reorganization of the office and recommends maintaining an Office of Emergency Medical Services as the principal policy-making, planning, and coordinating structure. In addition, the committee has put forth eight other recommendations. The recommendations are aimed at increasing department and regional accountability, formalizing input from the EMS advisory board, establishing EMS priorities, meeting statutory mandates, and restoring the planning function of the regional EMS councils. A grant program, to encourage investment in EMS equipment and other system development activities, is also recommended.

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RECOMMENDATIONS

1. **The Department of Public Health shall be the lead agency for the EMS program. An Office of Emergency Medical Services shall be established within the Department of Public Health. The office shall be responsible for program development activities, including but not limited to:**

- **public education and information programs;**
- **administering the EMS Equipment and Local System Development Grant Program;**
- **planning;**
- **regional council oversight;**
- **training; and**
- **providing staff support to the advisory board**

The commissioner shall provide staff to accomplish office objectives.

The commissioner shall report to the Committee of Public Health on implementation of EMS program development on January 1, 1999.

2. **C.G.S. Sec. 19a-175(14) shall be amended as follows: "Commissioner" means the Commissioner of Public Health [acting through the Office of Emergency Medical Services] (words in brackets deleted).**

3. **An EMS Equipment and Local System Development Grant Program be established within the Department of Public Health. The program shall be designed to provide incentive grants for enhancing emergency medical services and equipment. The commissioner shall define by regulation the entities eligible to receive grants under this program.**

The commissioner shall define the nature, description, and systems design for proposals and develop regulations for grant distribution based on the following factors:

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- demonstrated need within the community;
- the degree to which the proposal serves the EMS system plan; and
- the extent to which there is available adequate trained staff to carry out the proposal.

The commissioner shall maintain a priority list of eligible proposals and shall establish a system setting the priority of grant funding. In establishing such a priority list and ranking system, the commissioner shall consider all factors he deems relevant including, but not limited to the following: (1) the public health and safety; (2) population affected; (3) attainment of state EMS goals and standards; and (4) consistency with the state plan for EMS.

The commissioner shall consult with the appropriate regional council by sending such council a copy of any grant proposal. The regional EMS council shall review and comment upon any proposal. Each council shall indicate how the grant proposal addresses the regional EMS plan established priorities. The commissioner shall consider the recommendation of the regional council when making a final grant determination.

4. There shall be established within the Department of Public Health an EMS Advisory Board. The board shall consist of thirty-eight members including the commissioner or his designee and the state medical director. The governor shall appoint the following members: one person from each of the regional emergency medical services councils; one person from the Connecticut Association of Directors of Health; three persons from the Connecticut College of Emergency Physicians; one person from the Connecticut Committee on Trauma of the American College of Surgeons; one person from the Connecticut Medical Advisory Committee; one person from the Emergency Department Nurses Association; one person from the Connecticut Association of EMS Instructors; one person from the Connecticut Hospital Association; one person from the Connecticut Commercial Ambulance association; one person from the Connecticut Firefighters Association; one person from the Connecticut Fire Chiefs' Association; one person from the Connecticut Chiefs of Police Association; one person from the Connecticut State Police; and one person from the Connecticut Commission on Fire Prevention and Control.

An additional sixteen members shall be appointed from persons with experience in the following areas of expertise: municipal ambulance, for-profit ambulance,

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and volunteer ambulance services; an emergency medical technician (EMT) Paramedic, an EMT, and an EMT intermediate; three consumers; and persons from statewide organizations with interests in emergency medical services as well as any other areas of expertise that may be deemed necessary for the proper functioning of the board. The members shall be appointed as follows: four by the president pro tempore of the Senate, four by the majority leader of the House of Representatives, four by the minority leader of the Senate, and four by the minority leader of the House of Representatives.

The commissioner of public health shall appoint a chairperson who shall serve for a term of one year. The board shall elect a vice chairperson, and secretary. The board shall have committees made up of such members as the chairperson shall appoint and such other interested persons as the committee members shall elect to membership. The board may, from time to time, appoint nonmembers to serve on such ad hoc advisory committees as it deems necessary to assist with its functions.

The advisory board shall develop bylaws. A standing committee of the board shall be the Connecticut Emergency Medical Services Medical Advisory Committee. This committee shall provide the commissioner, the board, and other committees with advice and comment regarding the medical aspects of their projects. This committee may report directly to the commissioner regarding medically-related concerns that have not, in the committee's opinion, been satisfactorily addressed by the advisory board.

The term for each appointed member of the board shall be coterminous with the appointing authority. Appointees shall serve without compensation.

The board, in addition to other powers conferred, and in addition to functioning in a general advisory capacity, shall assist in coordinating the efforts of all persons and agencies in the state concerned with the emergency medical services system, and shall render advice on the development of the emergency medical service system where needed. The board shall make an annual report to the commissioner.

The board shall be provided a reasonable opportunity to review and make recommendations on all regulations, medical guidelines, and policies affecting EMS, before the department may establish such regulations, medical guidelines,

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or policies. The board shall recommend to the Governor and to the General Assembly such legislation as will in its judgment improve the delivery of emergency medical services.

5. The department shall move to a five-year EMS planning cycle -- for the state EMS plan, as well as regional plans. Each regional EMS council shall develop a five-year EMS plan for its region using a format established by the department. Annual updates for each regional plan shall be submitted, detailing accomplishments made toward plan implementation.

The department shall develop an annual contract compliance process that includes performance measures for evaluating regional EMS councils' accomplishments.

6. EMS instructors should be evaluated every two years by regional council staff. OEMS shall oversee the evaluation process by preparing an evaluation form, monitoring completion dates of evaluations, and preparing lists of instructors who have not been evaluated. These lists could be provided to the regional offices twice per year so regional personnel can schedule upcoming evaluations.

The office should analyze state EMT test results to recognize questions commonly missed on examinations, identify weak instructors, and take corrective actions. The pass/fail rate for examinations should be provided to each instructor. Corrective action that may be taken by the department shall include: requiring additional training, suspension, or revocation of certification as an EMS-I.

7. The Department of Public Health should develop:
 - standards on the length of time to initiate a response investigating all complaints;
 - formalized procedures for documenting complaints; and
 - appropriate training for complaint investigators.
8. The Department of Public Health should develop a data base to determine the number of providers requiring vehicle inspections, the date of last inspection, the date of next inspection, and any violations found.

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Emergency vehicles shall be inspected biennially. Spot checks shall be performed by the department on a routine basis.

- 9. The Office of Emergency Medical Services should create and distribute a quarterly newsletter. The newsletter should also be made available over the Internet.**

Introduction

OFFICE OF EMERGENCY MEDICAL SERVICES

The state's role in the emergency medical services (EMS) system is to assure citizens that safe, effective, and suitable emergency medical services are available and being delivered. To fulfill this role, the Office of Emergency Medical Services was established in the 1970s. The office is located within the Department of Public Health's Bureau of Regulatory Services and has broad regulatory authority over the emergency medical service industry.

The Legislative Program Review and Investigations Committee voted to study the Office of Emergency Medical Services (OEMS) in February 1997. The study purpose is to examine how the state ensures a coordinated emergency medical services system, regulates those services, and how the public and interested parties have input into the system. As part of the review, the roles, activities, and resources of OEMS, its statewide advisory board, and the regional councils are examined. In addition the state organizational structure used to regulate and plan for EMS delivery is reviewed in the study. For the purposes of this review, emergency medical services refers to pre-hospital emergency medical care.

The health commissioner is mandated to establish a coordinated system of emergency medical services with the advice of an advisory board. Statutorily, the department has a dual role in overseeing the EMS system, carrying out both system development and regulatory activities. Both sets of activities, until recently, were the sole function of the Office of Emergency Medical Services. The office is assisted by five regional emergency medical services councils that aid local providers in implementing EMS programs.

Major changes in the state's administration of EMS have occurred over the last two years. The office has been reorganized twice in this period, the second time during the program review committee study. The reorganization consolidated OEMS regulatory functions with similar activities performed by the Division of Health Systems Regulation (DHSR). The Office of Emergency Medical Services retained primary responsibility for system development activities.

Methodology. A variety of sources and research methods were used in conducting the study of the Office of Emergency Medical Services. State statutes, regulations, and budget and personnel documents were reviewed. A legislative history of EMS regulation, nationally and in Connecticut was also

compiled. Information was collected and analyzed on selected program development and regulatory activities. In addition, a phone survey was also conducted to obtain information on state administration and oversight of EMS operations in other states. (Profiles of selected state EMS programs are provided in Appendix A).

Extensive interviews were held with individuals in the administering agencies, as well as region EMS council member, physicians, and service providers involved in the delivery of emergency medical services. The program review committee also held two public hearing to gather additional testimony from interested parties.

Report organization. This report contains five chapters. Chapter One summarizes the oversight responsibilities of the department, office, and five regional EMS councils in planning for and ensuring a coordinated EMS delivery system. Chapter Two provides detailed information on the recently approved Connecticut EMS Plan and discusses the plan's goals and objectives. Chapter Three describes the reorganization and resources dedicated to EMS activities within the department. Chapter Four presents information on selected system development and regulatory operations conducted by the office. Chapter Five contains the committee's findings and recommendations. In addition, there are four appendices.

It is the policy of the Legislative Program Review and Investigations Committee to provide state agencies subject to a study with the opportunity to review and comment on the recommendations prior to the publication of the final report. The Department of Public Health chose not to submit a response.

KEY POINTS

Chapter One: Oversight of Emergency Medical Services

- Until the mid-1960s, coordinated prehospital emergency medical care was largely non-existent.
- During the 1970s, federal initiatives and the popularity of the television program, “Emergency”, helped initiate emergency medical services (EMS) programs and generated public support for establishment of comprehensive EMS systems in states.
- Connecticut began comprehensively regulating EMS in 1974 with the passage of Public Act 74-305.
- The commissioner of the Department of Public Health is responsible for the planning, coordination, and administration of a statewide EMS system.
- State statute creates an Office of Emergency Medical Services (OEMS) within the Department of Public Health and requires the commissioner appoint an office director.
- The office’s responsibilities, as defined by statute, are enforcing regulatory standards.
- The commissioner of public health is required to seek the advice of an advisory board when planning for the coordinated delivery of EMS.
- There is no statutory designation of the composition, representation, responsibilities, or appointments to the board.
- The commissioner is required to establish regional councils to assist in evaluating regional EMS services.
- There are five regional EMS councils. Each council must employ a regional EMS coordinator.

OVERSIGHT OF EMERGENCY MEDICAL SERVICES

Background

Federal legislation. Until the mid-1960s, coordinated prehospital emergency medical care was largely non-existent. Most ambulances consisted of hearses or station wagons and provided little more than a means of transport to a hospital. During the 1960s, however, concern grew over the rising morbidity and mortality rates from motor vehicle accidents. In 1966, a joint report by the National Academy of Sciences and the American Medical Association entitled “Accidental Death and Disability: The Neglected Disease of Modern Society” highlighted nationwide deficiencies in emergency first aid, prehospital care, in-hospital care, and trauma. As a result, Congress passed the National Highway Safety Act, requiring all states to have a highway safety program including standards for the pre-hospital phase of emergency medical treatment. The act:

- placed responsibility with the federal Department of Transportation;
- required the Federal Communications Commission (FCC) to define communications guidelines;
- mandated states develop emergency medical services (EMS) plans;
- led to the development of standards for ambulance design and training of EMS personnel;
- allowed for purchases of ambulances and equipment with federal funds;
- required equipment be used for prehospital care and hospital access; and
- established training programs for prehospital personnel.

Subsequent federal legislation. In 1973, Congress made funding available to states that had comprehensive emergency medical services legislation through the adoption of the comprehensive Emergency Medical Services Systems Act (EMSS). This act authorized and funded the Department of Health, Education, and Welfare (HEW) to designate more than 300 regional “EMS Systems” throughout the country. The federal Department of Transportation also provided matching funds for EMS training programs, communications equipment, and ambulances. Rules for EMS radio communication were established by the FCC, and specifications for ambulance vehicles were developed.

During the 1970s, the federal initiatives and the popularity of the television program "Emergency" helped initiate EMS programs and generated public support for establishment of comprehensive EMS systems in states. However, in 1981, the EMSS Act expired and the federal government withdrew direct financial support for EMS programs.

Although HEW was no longer directly involved in establishment of EMS systems, the U.S. Department of Transportation continues to play a significant role through the EMS branch within the National Highway Traffic Safety Administration (NHTSA).¹ The branch sponsored development of the original curricula for training basic and advanced life support emergency medical personnel (DOT National Standard Curricula) and worked with other agencies to establish and periodically update ambulance design specifications and radio communications systems. More recently, NHTSA has conducted studies of several states' EMS systems and made comprehensive recommendations. A summary of NHTSA's process and recommendations for Connecticut's EMS system is provided in Appendix B.

History of EMS regulation in Connecticut. Connecticut began comprehensively regulating EMS in 1974 with the passage of Public Act 74-305. The act split responsibility for EMS oversight between two state agencies - the Department of Health and the Commission on Hospitals and Health Care (CHHC). It authorized CHHC to plan, coordinate, and administer the system (including the authority to set ambulance rates). The act abolished the ambulance commission (which had some limited regulatory authority over commercial ambulance organizations only) and created an Office of Emergency Medical Services within the Health Department with the power to license, certify, and inspect specified aspects of the EMS system and act as the enforcement agency for standards established by the commission. The act required there be a director of the office.

The act also established a 25-member Advisory Committee composed of representatives involved in all aspects of EMS to advise and assist the commission in its functions. In addition, a state coordinated regional system for the delivery of EMS throughout the state was established. The act assigned the regions the activities of planning, monitoring and evaluating regional services, and inventorying EMS resources within the region.

Subsequent legislation. The following year, Public Act 75-112 transferred responsibility for the planning, coordination and administration of a statewide EMS system from CHHC to the commissioner of the Department of Health. In addition, the act transferred several responsibilities from the director of OEMS to the commissioner. These included responsibility for adopting regulations and authority to issue subpoenas. In 1977, Public Act 77-614 abolished the Connecticut Advisory Committee on Emergency Medical Services and replaced it with an undesignated "advisory committee" under Public Act 77-268. For a complete legislative history, see Appendix C.

¹William R. Roush, M.D., American College of Emergency Physicians, Principles of EMS Systems (ACEP, 1994), p. 5.

Current Statutory Mandates

The organizational structure for state oversight of the EMS system is depicted in Figure I-1. The commissioner is responsible for the planning, coordination, and administration of a statewide emergency medical care service system and is required by law to carry out these duties with the advice of an advisory committee on emergency medical services. In addition, the commissioner must establish regional councils to assist in evaluating regional EMS services. Although the commissioner is assigned broad EMS responsibilities, the statute (Sec. 19a-175) defines commissioner to mean "the commissioner of public health acting through the Office of Emergency Medical Services." The office's responsibilities, as defined by statute, are enforcing regulatory standards. Through the existence of the advisory board and the five regional EMS councils, OEMS receives constant feedback and input into its ongoing activities.

During the program review study, the department reorganized the Office of Emergency Medical Services. Most regulatory functions and the accompanying staff positions were transferred from OEMS into the Division of Health Systems Regulation. The office retained responsibility for program development functions. The new organization presents several conflicts with the current statute since the regulatory functions are specifically assigned to OEMS. The reorganization and its impact is discussed later in this report

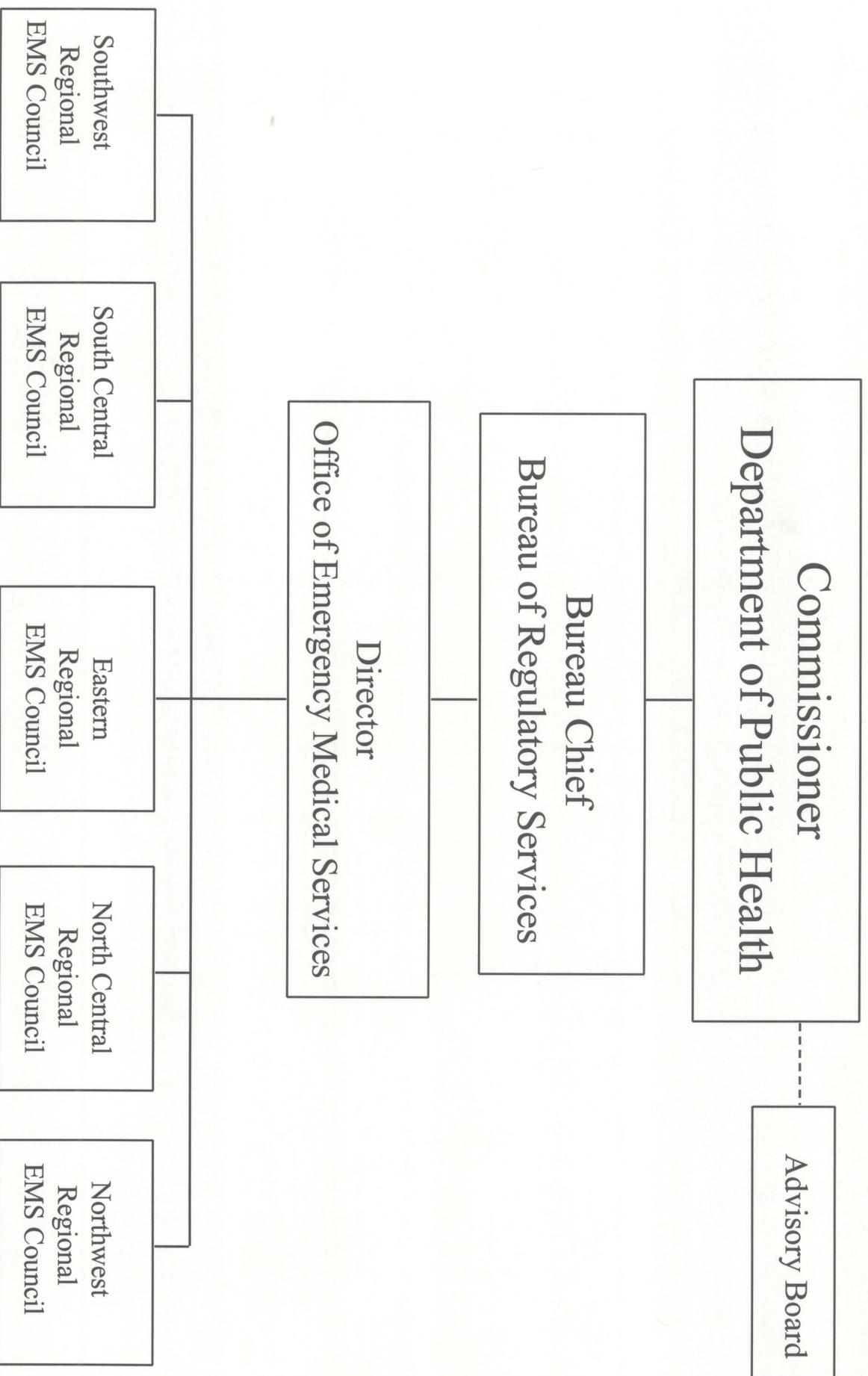
Commissioner responsibilities. The commissioner has broad powers to set policy and establish statewide priorities for emergency medical services. The statute assigns specific responsibilities to the commissioner including developing and annually updating a statewide plan for the coordinated delivery of emergency medical services. The plan must include:

- specific goals for EMS delivery;
- a timeframe to achieve those goals;
- cost data and alternative funding sources for development of goals; and
- performance standards for evaluating goals.

The plan also must consider the needs of the regional emergency medical service councils. In addition to the plan, the statute directs the commissioner to:

- annually inventory or cause to be inventoried EMS resources within the state, including facilities, equipment, and personnel, for the purposes of determining need for additional services and the effectiveness of existing services;
- review and evaluate all area-wide plans developed by the regional EMS councils;
- establish minimum standards and adopt regulations as may be necessary to develop the following components of an EMS system:
 - communications;
 - transportation services;
 - training; and
 - EMS facilities;

Figure I-1. State Oversight of Emergency Medical Services.



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- coordinate training of all personnel related to EMS;
 - develop a data collection system including a method of uniform patient record keeping from initial entry through discharge from the emergency room;
 - develop a public education and information program;
 - establish rates for licensed ambulance services and invalid coaches and an emergency service rate for certified ambulance services; and
 - submit an annual report to the governor and general assembly accounting for all funds expended on EMS; a statement and evaluation of the annual accomplishments of OEMS during the year; a description of goals for the upcoming year; and recommendations for legislation to facilitate a coordinated EMS system.

Office of Emergency Medical Services. State statute creates an Office of Emergency Services established within the Department of Public Health (C.G.S. Sec 19a-197). It also requires the commissioner appoint an office director. The office's specific regulatory authority includes:

- licensing and certifying EMS personnel and providers;
- conducting inspections of equipment and facilities;
- assigning primary service areas to service providers (first responders and ambulance providers are assigned to cover specific geographic areas);
- making determination of need decisions; and
- other duties assigned by the commissioner.

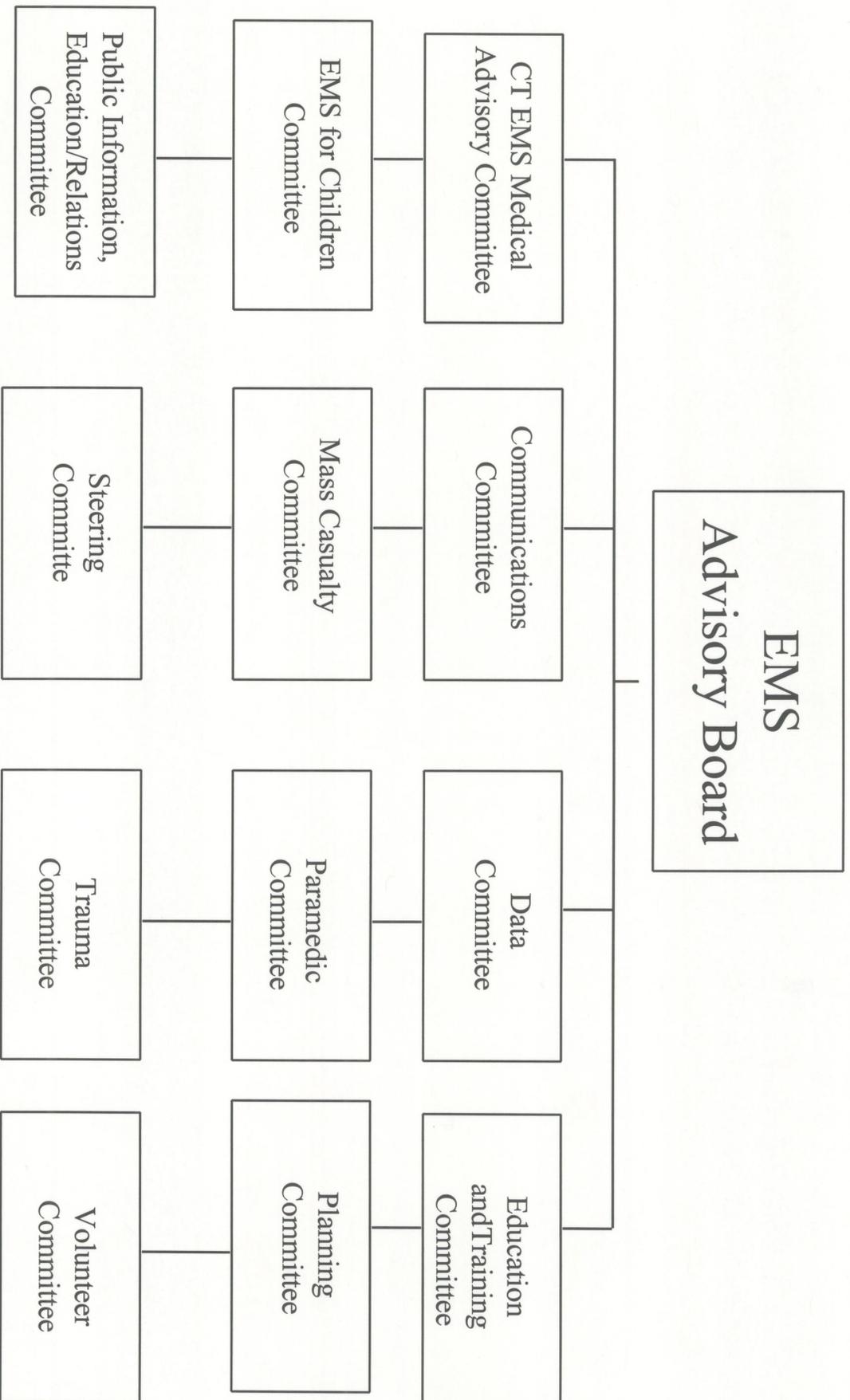
The director of OEMS is required to hold meetings with the chairpersons of the regional councils at least bimonthly to discuss the planning, coordination, and implementation of the statewide emergency medical care service system.

Statewide Advisory Board. The commissioner of public health is required to seek the advice of an advisory board when planning for the coordinated delivery of emergency medical services. There is no statutory designation of the composition, representation, responsibilities, or appointments to the board. Currently, the board's chairman is appointed by the commissioner. A nomination process is used by the board for seats that become vacant; nominees are not approved by the commissioner.

The board is broken down into 12 committees. Committee membership includes members from the board and those appointed on an ad hoc basis. The commissioner appoints committee chairs who as a group also make up the Steering Committee. The board and its committees are staffed by OEMS. Figure I-2 shows the organizational structure of the board.

Connecticut Emergency Medical Services Medical Advisory Committee (CEMSMAC). The CEMSMAC is a standing committee of the EMS Advisory Board. Members include the medical directors of each Regional EMS Council, other physician representatives, paramedic representatives,

Figure I-2. EMS Advisory Board.



and EMS hospital coordinators. The committee is responsible for developing medical guidelines and medically related performance standards and addressing other medical issues. This committee also renders advice and comment to the other committees of the board regarding the medical aspects of their projects. In addition, the office's EMS Policy and Procedures Manual states CEMSMAC has the option of reporting directly to the commissioner on medical issues that have not been sufficiently addressed by the Advisory Board. There is no statutory requirement for this committee.

Regional EMS Councils. There are five regional EMS councils whose boundaries follow the state uniform health and human service regions (shown in Figure I-3). The regional EMS councils are the designated area-wide planning and coordinating agencies for EMS and are required to provide continuous evaluation of EMS in their geographic regions. The department contracts with the five non-profit councils to assist in identifying needs, implementing and evaluating programs, and providing technical assistance to EMS providers, hospitals, and municipalities. Councils are required to submit their organizational structures, by-laws, and membership to the commissioner of the health department for approval.

Regional council membership is designated by statute to include representatives of: local governments; fire service and law enforcement; medical and nursing professions; paraprofessionals and other allied health professionals; ambulance providers; institutions of higher education; and consumers. Each council is statutorily required to develop and annually revise an EMS plan for its region and submit the plan to OEMS. The components of the regional plan mirror those of the statewide plan that is developed by the commissioner and must include:

- an evaluation of the current effectiveness of EMS and future needs;
- specific goals for the delivery of EMS within the council area, as well as a timeframe and cost estimates for achievement of those goals; and
- performance standards for the evaluation of the goals.

The statute also requires special emphasis to be placed on coordinating existing services into a comprehensive system. The plan must also contain provisions for:

- defined geographic regions to be serviced by each provider (called primary service areas) including cooperative arrangements and backup services;
- adequate numbers of trained personnel for staffing ambulances, communications facilities, and hospital emergency rooms;
- a communication system that includes a central dispatch center, two-way radio communication between an ambulance and a receiving hospital, and a universal emergency telephone number; and
- a public education program that stresses CPR training.

The regional council plans must be submitted to the public health commissioner by June 30 of each year.

Regional coordinator. Each council must employ a regional EMS coordinator. The coordinator, appointed by the EMS council, is subject to the commissioner's approval. The coordinator is responsible for:

- facilitating the work of the council in developing the plan ;implementation of the regional plan;
- continuous monitoring and evaluation of all EMS in that region;
- making a complete inventory of all personnel facilities and equipment within the region pursuant to guidelines established by the DPH commissioner;
- maintaining a liaison with the director of OEMS;
- acting as staff for the council;
- coordinating EMS planning activities related to disasters; and
- performing such other duties as are negotiated between the council and the commissioner.

Sponsor hospitals. By regulation, any service provider authorized to provide mobile intensive care (MIC) services (also referred to as advanced level skills) must have a sponsor hospital. MIC services include use of: drugs and intravenous solutions; semi-automatic defibrillators; auto injector epinephrine pens; military anti-shock trousers; and advanced airway interventions. Field personnel perform MIC interventions under the supervision and direction of a physician at the sponsor hospital. To be approved as a sponsor by OEMS, the hospital must appoint a MIC medical director who is responsible for operating protocols, medical supervision and training of MIC personnel, reviewing MIC performance, and withholding medical authorization if in the interest of patient care. In addition, the sponsor hospital must assign an emergency department staff person as liaison to MIC field personnel, and be able to maintain two-way radio communications with field personnel. There are 32 general hospitals in Connecticut with emergency departments and all of them are approved sponsor hospitals.

Summary

The legislation adopted in the mid-1970s established state oversight for the delivery of emergency medical service. The legislation focused on creating a dual role for the state -- EMS system developer as well as regulator. The act was designed to allow various EMS parties' participation in the development of a coordinated delivery system.

The act recognized the value of obtaining advice from a variety of different sources by creating a multi-layer planning requirement, beginning at the regional level. Using these plans and acknowledging the variation in resources and opinions at the regional level, the legislation provided opportunity to build consensus at the state level through an EMS advisory board. Ultimately, the commissioner is responsible for how best to coordinate the diverse components of the system and establish statewide policy. It should be noted that many individuals volunteer considerable time to sit on the advisory board, its committees, and the regional EMS councils in order to improve the EMS delivery system.

KEY POINTS

Chapter Two: Planning For and Delivering EMS Services

- The delivery of EMS in Connecticut involves a myriad of entities representing both public and private interests and contains public health, public safety, and medical components.
- There are three basic components of an EMS system including:
 - communications providing a dispatch mechanism to initiate a response;
 - service provider organizations and EMS field personnel to respond to the scene of an emergency; and
 - hospital emergency departments to which the patient is taken.
- Local police, fire, and ambulance services are the primary providers of prehospital patient care.
- Ambulance services are mostly composed of volunteer services. Of the 169 towns in Connecticut:
 - 75 percent are served by volunteer providers;
 - 15 percent by commercial ambulances; and
 - 5 percent by municipal providers.
- The elements of a comprehensive EMS system are contained in a state plan adopted in January 1997.
- Plan objectives range from improving the EMS communications network by upgrading obsolete equipment, providing prearrival instructions to 9-1-1 callers, improving training, and evaluating system performance.
- The state needs to take the lead role in ensuring program development occurs because no other mechanism exists to coordinate the individual service providers in the delivery of EMS.
- Aggregate baseline data has not been collected on how the EMS delivery system operates. In the absence of this information, it is difficult to determine the resources needed to achieve any of the plan goals.

PLANNING FOR AND DELIVERING EMS SERVICES

Introduction

Emergency medical services (EMS) consist of a number of related services that provide acute care for injury or illness in a prehospital setting.¹ To achieve optimal outcomes for persons in need of emergency medical services, a coordinated system of services needs to exist. These services include: rapid response; appropriate on-scene evaluation, care, and treatment; and available receiving hospitals able to provide the care needed. To deliver this care many different types of service providers are needed. The types of providers involved range from dispatchers who notify EMS field personnel of an emergency - typically fire, police or ambulance organizations -- who respond, deliver patient care, and transport the patient to a hospital staffed by emergency department physicians.

The delivery of emergency medical services in Connecticut involves a myriad of entities representing both public and private interests and contains public health, public safety, and medical components. Each of these entities must perform a different role, and for the system to function effectively, it is essential each participant in the system understands his or her responsibility and how to interact with the other system components.² The result is a complex and multi-faceted system with many types of providers performing different functions to ensure a patient receives adequate and timely care.

Basic Components

Emergency medical services in Connecticut are provided by a loosely structured delivery system organized often at the community level. Figure II-1 shows the three basic components of an EMS system and the various types of providers responsible for each aspect. Those components include:

- communications providing a dispatch mechanism to initiate a response;
- service provider organizations and EMS field personnel to respond to the scene of an emergency; and
- hospital emergency departments to which the patient is taken.

¹ State of Minnesota, Department of Health, Minnesota State EMS Plan, (1993), p. v.

² William R. Roush, MD. American College of Emergency Physicians, Principles of EMS Systems (ACEP, 1994). pp 3-6.

Figure II-1. Connecticut's EMS Delivery System

DISPATCH & COMMUNICATIONS	SCENE CARE	FACILITIES
108 Public Safety Answering Points 13 Emergency Medical Communications Centers	274 Provider Organizations 19,570 Certified Prehospital Personnel	32 Sponsor Hospitals

EMS service providers. Local police, fire, and ambulance services are the primary providers of prehospital patient care. Provision of basic ambulance services in Connecticut is mostly by volunteer services, as depicted in Figure II-2. The figure shows that of the 169 towns in Connecticut, 75 percent are served exclusively by not-for-profit providers, 15 percent by commercial ambulances and 5 percent by municipal providers. The remaining 5 percent are served by a combination of these providers or other provider types. Emergency call volume statistics are not collected by the Office of Emergency Medical Services so the program review committee was unable to determine the utilization of services based on the type of provider.

The Connecticut EMS Plan and Program Development

The Department of Public Health is charged with overseeing -- through regulation and program development activities -- the various system components. The commissioner of public health is responsible for the planning, coordination, and administration of a statewide emergency medical care service system, and is given broad powers to set policy and establish statewide priorities for emergency medical services (EMS). The elements of a comprehensive EMS system are contained in a state plan, adopted in January 1997, which provides for development of a number of EMS system components.

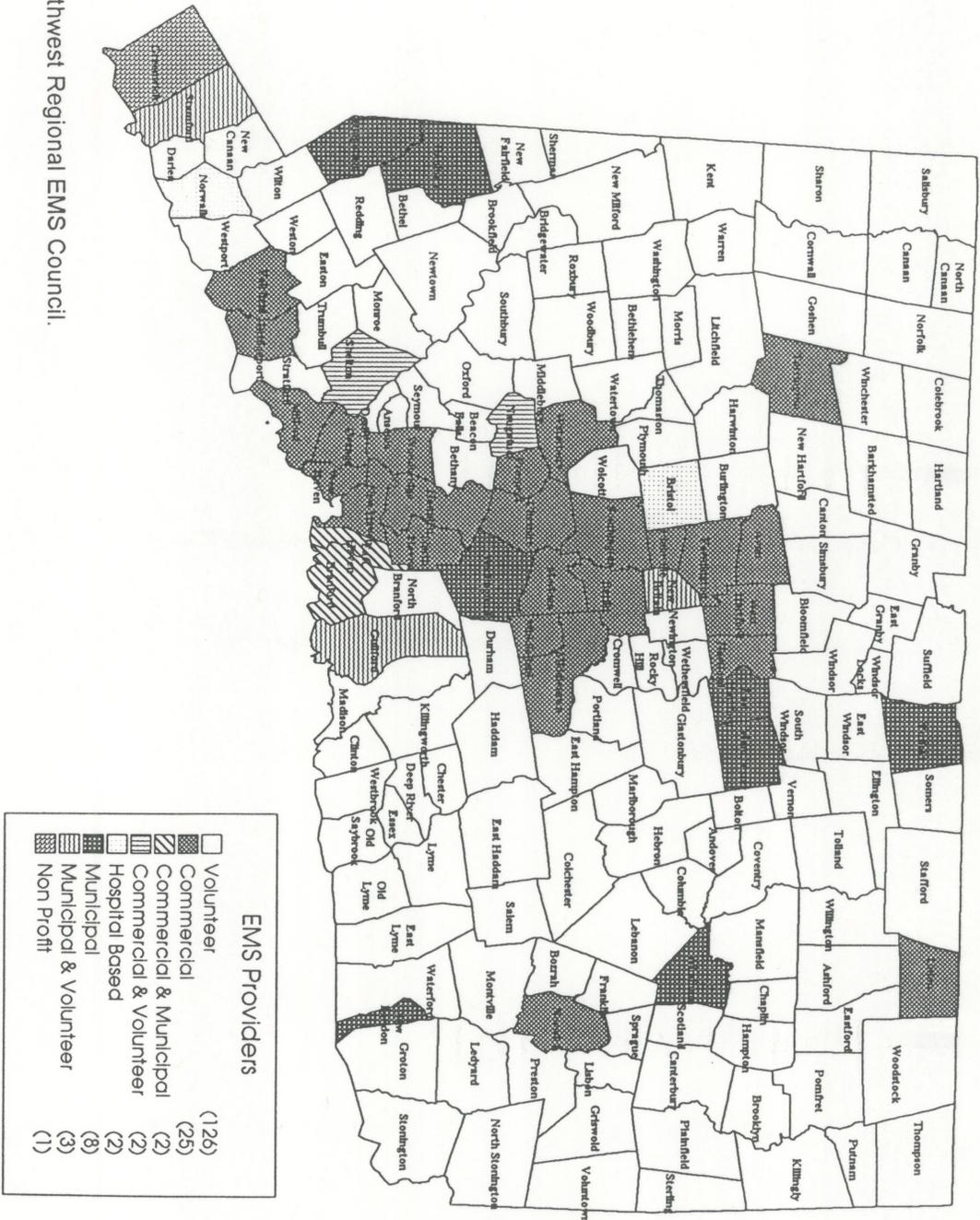
The state EMS plan was developed by the Connecticut EMS Advisory Board's Planning Committee in conjunction with the planning section of the state Office of Emergency Medical Services. The plan was a multi-year effort requiring input and compromise from, and consensus building among, a variety of different sources involved in the delivery and administration of EMS programs. *The Legislative Program Review and Investigations Committee found the plan to be comprehensive and adequate, but believes the department must make a commitment to implement it.*

Plan components. The state EMS plan identifies several areas in need of program development and is directed at building a model EMS system response in the state. The plan includes a:

- mission statement;
- brief history of federal and state legislation for EMS system development;
- description of model components for EMS system delivery;
- description of state and regional EMS administrative structures;
- summary of state and regional roles and responsibilities; and
- list of goals and objectives.

Mission statement. A broad mission statement for the EMS program was developed for inclusion in the plan. The mission's focus concerns prehospital treatment and rapid response to emergencies. It states:

Figure II-2. Types of EMS Providers.



Source: Northwest Regional EMS Council.

the mission of the Emergency Medical Service program in Connecticut is to minimize the time between the occurrence of a sudden serious illness or injury and the provision of definitive care at the scene, during transport, and at the destination hospital.

EMS plan goals and objectives. The goals and objectives are aimed at improving delivery and oversight of emergency medical services at all levels, are varied, and require the involvement of many different types of providers. Plan objectives range from improving the EMS communications network by upgrading obsolete equipment, providing prearrival instructions to 9-1-1 callers through emergency medical dispatch (EMD), improving training, to evaluating system performance. Appendix D shows the breadth of the plan and lists the goals and objectives. This information is provided in detail because, under the reorganization described in Chapter Three of this report, program development is now the primary responsibility and function of the Office of Emergency Medical Services.

Establishment of uniform standards. A major goal contained in the plan is the development of uniform statewide standards whenever possible. Although many standards currently exist, encompassing both prehospital personnel and service provider organizations, development of additional standards will occur as “best practices” are identified. The plan, however, acknowledges the need for statewide uniformity must be considered in the context of the differing resources and capabilities of the municipalities. To this end, the first priority is to develop an urban, suburban, and rural model in order to determine if different standards must be applied based on geographic variations.

The program review committee found a major weakness of the plan is that it contains no timelines or cost projections for implementation of each objective, nor performance measures for evaluating goals. The advisory board has already recognized that further planning needs to occur and has instructed the planning committee to begin work on developing this information, as well as establishing urban, suburban, and rural EMS delivery models. The program review committee believes the state needs to take the lead role in ensuring program development occurs because no other mechanism exists to coordinate the various providers in the delivery of EMS.

Future planning. Many of the plan objectives call for the development of data bases in order to provide a benchmark for the current system. *The program review committee found aggregate baseline data have not been collected on how the EMS delivery system operates.* In the absence of this information, it is difficult to determine the resources needed to achieve any of the plan goals. For example, although one objective is to integrate automatic and semi-automatic defibrillation into all first responder and basic ambulance services, the department does not know where gaps in service are on a statewide basis. Information on the number of towns that provide emergency medical dispatch (pre-arrival instructions) is also lacking.

Model EMS Response System

Basic components. The plan describes a model EMS response to victims of sudden illness or injury. The degree to which these components have been developed indicates the status of the EMS delivery system and is the basis for several goals and objectives in the plan on how to improve the current system. The 10 essential EMS system components are identified as:

- prevention;
- citizen recognition and action;
- notification;
- dispatch;
- scene care;
- transportation and care en route to hospital;
- facilities;
- medical direction;
- interfacility transfer; and
- rehabilitation.

Figure II-3 shows the EMS system response in Connecticut when an individual calls the enhanced 9-1-1 system (E 9-1-1) using the model components. Prevention and the provision of medical direction, two of the 10 components, are not included in the figure. A brief description of each component, as well as how Connecticut compares to the model, is provided below.

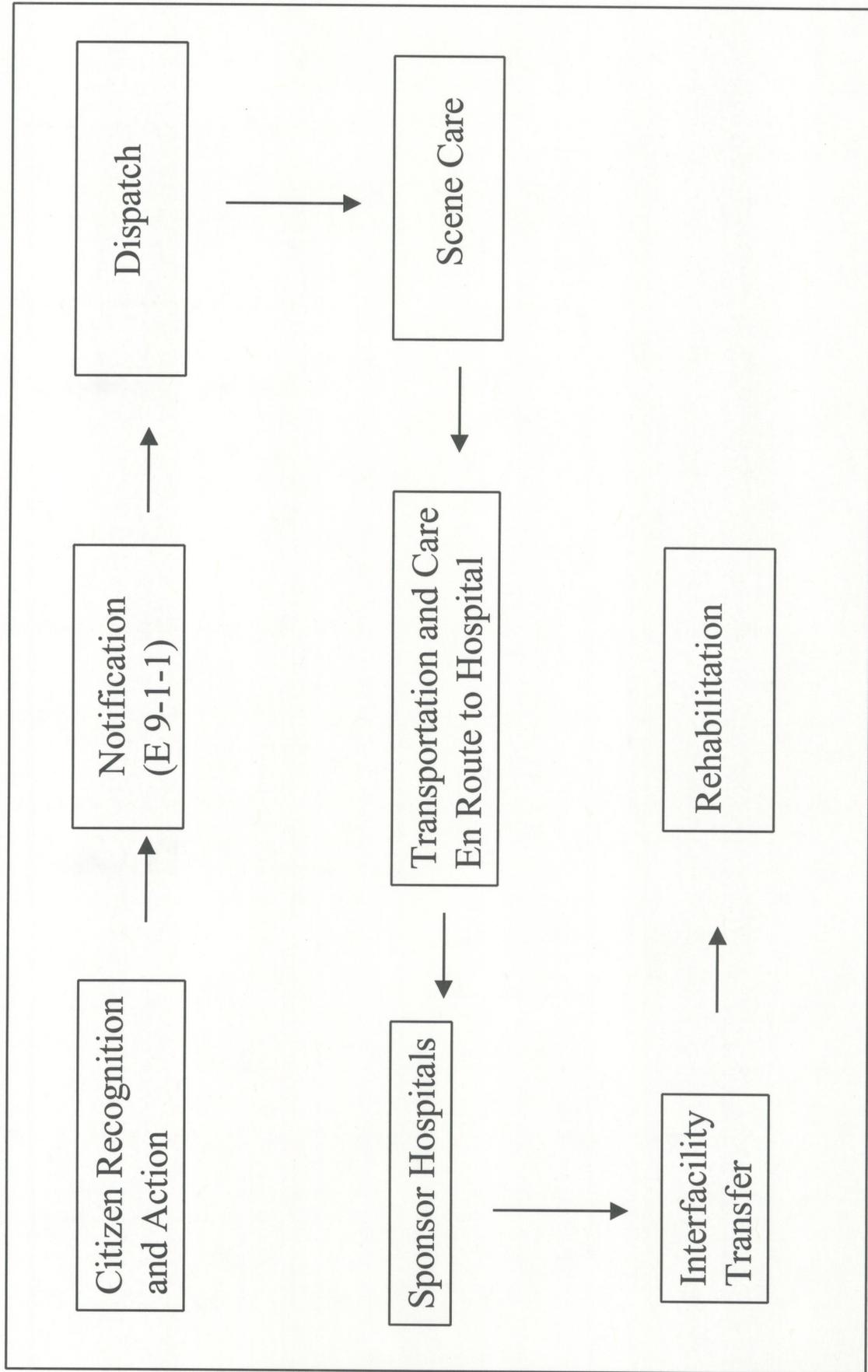
Prevention. According to the state EMS plan, an EMS system should include a prevention and public education component to educate the public on how to prevent injuries. Most public education focuses on either prevention programs that reduce trauma or those that reduce heart disease, two common medical emergencies. The purpose of injury prevention programs is to reduce injuries caused by trauma. These programs include:

- persuading an individual to alter behavior (e.g., gun safety);
- adopting laws to change behavior (e.g., drunk driving campaigns, seatbelt education, helmet laws, 55 speed limit); and
- increasing awareness of environmental protection devices (e.g., smoke detectors, air bags, etc.).

Other prevention programs target heart disease. These programs include smoking cessation, and education on exercise and nutrition.

Citizen recognition and action. Public information and education programs are designed to educate individuals to know when to activate the EMS system. Typically, this is when time is critical after potentially life-threatening injury or illness has occurred. The state plan identifies as

Figure II-3. Model EMS Response System.



a standard that at least 25 percent of the public should be trained in "bystander EMS", which includes recognition of life-threatening injuries and illness, the ability to perform cardiac pulmonary resuscitation (CPR), control hemorrhage, and understand when not to move a patient unnecessarily. OEMS was unable to provide the program review committee with figures on the current percentage of the population trained in CPR.

Notification. As shown in Figure II-3, the initial key component of the EMS system is telephone access. The E 9-1-1 system, with 100 percent statewide coverage since 1989, has greatly increased public access and reduced response time to emergency medical care. The system provides the ability to immediately pinpoint the address and telephone number of the calling party at the appropriate public safety answering point (PSAP), such as a local police or fire station. Connecticut has 108 PSAPs that receive E 9-1-1 calls and dispatch emergency medical help. The plan also notes the public should be instructed on when not to use E 9-1-1.

Dispatch. Once a call is received, dispatch of emergency medical help to the location identified by the caller should occur immediately. The plan states PSAPs should be staffed by properly trained emergency medical dispatchers who provide instructions to the caller using established protocols before the arrival of EMS field personnel. As noted in the plan, providing emergency medical dispatch (EMD) increases the number of bystanders who can actually initiate emergency care before arrival of field personnel to the scene. OEMS staff estimates 10 percent of Connecticut towns provide EMD.

In Connecticut, dispatch procedures are typically based on a tiered response pattern that recognizes that the emergency medical needs of a critically ill or injured patient increase incrementally from the time of a sudden onset of acute illness or trauma. Depending on the seriousness of the injury or illness, dispatchers can send up to four types of emergency medical services providers certified or licensed³ for varying levels of care, that carry different equipment in their vehicles and arrive at the scene of the emergency at different times. Because responses time among the different levels of providers can vary, several levels of providers are often dispatched simultaneously.

Scene care. The plan notes that in many medical emergencies time is a critical factor. Therefore, it is important to get trained help to the patient as soon as is safely possible. There are four levels of service providers and four levels of EMS field personnel approved by the state. Rapid response is accomplished through the use of first responders -- who most frequently are police or fire personnel trained and certified at least to the medical response technician (MRT) level. The other three levels are ambulance providers who may take more time to respond to the scene but provide an increasing higher level of care. The four types of service providers are described below.

³Nonprofit providers are certified; for-profit providers are licensed.

First Responder Services. Although any certified provider can be a first responder, it is most frequently police or fire personnel trained at least to the Medical Response Technician (MRT) level. First responders provide basic life saving skills and may be trained to provide defibrillation with an automatic external defibrillator for cardiac patients. First responder services need only provide an MRT at the scene of an emergency since it is important they arrive quickly to begin treatment. First responders do not transport patients to the hospital.

Basic Ambulance Services. The Basic Ambulance Service is dispatched simultaneously with the first responders and is required to be staffed by one MRT and one emergency response technician (EMT). EMTs possess a higher level of training and use more advanced equipment than first responders. In addition, they may provide primary non-invasive medical treatment and transport the patient to the hospital.

Mobile Intensive Care - Intermediate Services. An ambulance service certified or licensed at this level must have a minimum of an EMT and an EMT-Intermediate to respond to the scene of an emergency. EMT-Intermediates provide Mobile Intensive Care services (advanced level skills) as defined in Chapter One of this report.

Mobile Intensive Care - Paramedic Services. This is the highest level of service available and requires an EMT-paramedic (EMT-P) and an EMT at the scene of care. As noted in the plan, paramedics provide advance life support care for various medical emergencies and can administer IV therapy and medications, as well as perform endotracheal intubation, manual cardiac defibrillation, cardiac pacing, and other advanced level interventions.

Organizations providing emergency medical services may hold certification or licensure at one or more levels. Certification at each level is based on the type and number of EMS field personnel required to respond to the scene of each EMS call, the design of the emergency vehicle, and the equipment that must be on board the vehicle. The requirements are the least restrictive for First Responders and the most for Mobile Intensive Care-Paramedic Services. The number of EMS providers by category is shown in Table II-1.

EMS field personnel. EMS field personnel at all levels must be certified (P.A. 97-311 requires paramedic licensure) but cannot provide services independent of a certified or licensed service provider. Connecticut had 19,570 EMS personnel certified in Connecticut as of January 1997. Table II-2 shows the number of certified EMS field personnel by certification category. The majority (61 percent) are certified at the EMT level, while 27 percent are certified at the MRT (first responder) level. Only 5 percent of EMS field personnel are certified as EMT-Ps.

The scope of practice, as well as the number of hours and the type of skills performed by certified field personnel varies with an MRT performing the least invasive interventions and an EMT-P the most. While there are four levels of certification, individuals certified at the MRT and

EMT level may receive additional training through a sponsor hospital to provide specialized services such as automatic defibrillation. Thus, an individual may be certified as an EMT but volunteer or be employed by a service provider not providing advanced level interventions, while an MRT may have received additional training through a hospital and be able to perform advanced level skills, such as automatic defibrillation.

Table II-1. EMS Providers by Service Category.		
<i>Provider Category</i>	<i>Number*</i>	<i>Staffing Required</i>
First Responder	142	1 MRT
Basic Ambulance Service	176	1 MRT; 1 EMT
Mobile Intensive Care - Intermediate Level (MIC-I)	27	1 EMT; 1 EMT-I
Mobile Intensive Care - Paramedic (MIC-P)	52	1 EMT; 1 EMT-P
*The total number exceeds the actual number of providers operating in the state because several services hold multiple certification/licensure levels. Source of data: OEMS.		

Table II-2. EMS Field Personnel as of January 1997.	
<i>Level of Certification</i>	<i>Number Certified</i>
MRT (first responder)	5,365
EMT	11,947
EMT-I	1,257
EMT-P	1,001
Total	19,570
Source of data: Connecticut EMS Plan, January 1997.	

Recommended response times. Table II-3 shows the recommended response times in the EMS Plan for first responders and providers of ambulance services. It is important to note the response times contained in the plan are not mandated. Rather, the plan recognizes that “geographic,

environmental, and other site-specific variables may represent impediments to the realization of the time frames set forth” and indicates the department will assist local officials and EMS providers in developing other delivery strategies. Currently, the office does not collect information on response time patterns across the state, although providers are required to keep a record of patient transport times.

Table II-3. Recommended EMS Response Times.		
<i>Level of Response</i>	<i>Action Taken</i>	<i>Recommended Time</i>
First Responder	basic life saving skills defibrillation	4 minutes
Basic Ambulance Service	continue with initial treatment more definitive assessment prepare patient for transport	6-8 minutes
Mobile Intensive Care - Paramedic	advanced life support care	8-12 minutes
Source: CT EMS Plan, January 1997.		

The plan does not distinguish between Basic Ambulance Services and Mobile Intensive Care-Intermediate Services in terms of response time recommendations.

Transportation and care en route to hospital. Patients should be transported to a hospital able to provide the care necessary. In most cases, this is the nearest hospital. However, the plan states that patient destination determinations should be based on written protocols and/or direct instructions from the sponsor hospital after communication with emergency department personnel. Currently, the factors that influence patient destination include:

- patient choice;
- location of nearest hospital; or
- medical direction provided by a hospital emergency department physician to EMS field personnel at the scene and during patient transport.

In the case of serious trauma injuries, however, destination is determined by regulation and through established protocols.

Trauma injuries. Connecticut developed a trauma system in the mid-1990s. A patient sustaining a serious trauma injury must be brought to one of nine state-approved trauma facilities

unless the transportation time would exceed 20 minutes. If this occurs, EMS field personnel must contact an emergency department physician at their sponsor hospital who will determine patient destination. If the decision is to transport to a hospital not designated as a trauma facility, the emergency department physician must authorize an interfacility transfer once the patient is stabilized or document why the patient has been admitted.

Sponsor hospitals (Facilities). All 32 general hospitals in the state have emergency departments. The provision of medical services outside the traditional confines of a physician's office or hospital facility involves medical practice as delegated by physicians to non-physician medical providers.⁴ Medical accountability is built into the system by requiring provider organizations that employ personnel who perform advanced life support interventions to have a formal written agreement with a hospital. Field personnel performing these procedures come under the supervision and direction of a physician at their sponsor hospital. The sponsors, under the guidance of the emergency department's medical director, provide resources and medical direction, of which there are two types:

On-line medical direction: involves direct communication between the physician at the hospital's emergency department and EMS field personnel. Field personnel via two-way radio must directly contact medical personnel in their sponsor hospital emergency room in certain circumstances involving advanced care or for specific types of trauma calls. The communication interface between EMS field personnel and emergency department physicians at the hospital is provided through 13 Emergency Medical Communication Coordination Centers (EMCCs) statewide.

Off-line medical direction: concerns procedures and operating practices that have been established by hospital personnel in conjunction with EMS field personnel as to how an emergency is handled. Off-line direction can also include the development and implementation of standing orders and protocols that allow field personnel to perform certain procedures without first contacting the sponsor hospital emergency department. Other off-line medical direction activities include quality assurance and ongoing education.

Currently first responder services, and ambulance service organizations providing basic life support are not required to have a sponsor hospital and their EMS field personnel do not come under medical direction unless they are authorized to perform an advanced level skill, such as automatic defibrillation. The EMS plan recommends all field personnel receive medical direction, not only those performing advanced life support interventions.

⁴U.S. Department of Transportation, National Highway Traffic Safety Administration, State of Connecticut: An Assessment of Emergency Medical Services (May 21 - May 22, 1991), p.29.

According to the plan, all emergency departments should have the ability to initially treat all patients based upon accepted standards. However, for patients needing highly specialized care, emergency facilities should be categorized in accordance with their capabilities in the area of emergency and critical care medicine. These would include hospitals that have specialty care centers that treat patients with unique needs for injuries such as burns, spinal cord trauma, and pediatric emergencies. Physicians and nursing personnel should have specialized emergency medical training in advanced cardiac, trauma, and pediatric life support. As mentioned above, Connecticut has designated specific hospitals for treatment of serious trauma injury.

Interfacility transfer. Not all hospitals are equipped to treat every patient who needs specialty care. If a hospital is unable to provide appropriate care, the patient should be transferred to another facility. Patients requiring transfer to specialty care centers should be transferred according to standard guidelines and a specialized transport team should be available to ensure adequate care during the interfacility transfer.

Rehabilitation. The last component of the model is rehabilitative care. To ensure optimal patient outcome after an injury or illness, rehabilitative services should be available to persons in need of them. Rehabilitative services include physical, occupational, and speech therapy.

Summary

The Office of Emergency Medical Services as the lead agency for system development activities, with the assistance of the EMS advisory board, has delineated a model EMS response to improve the delivery system in Connecticut. These 10 components represent a highly organized and coordinated EMS system. Together, they comprise a complex delivery system of emergency care. The success of the model depends upon the development activities actually occurring, and sufficient resources devoted to each component, which can and do vary throughout the state.

Key areas in need of program development to achieve the model response have been identified by representatives of the advisory board, committees, and regional councils. The state EMS plan provides a common focus for all people and organizations concerned with the delivery of emergency medical services in the state. It states a number of broad goals and makes specific recommendations to improve EMS. The department's role is to provide the leadership and coordination necessary for continuing the development of the EMS system through the Office of Emergency Medical Services.

KEY POINTS

Chapter Three: Organization, Resources, and Activities

- The state's role in the EMS system is to assure citizens that safe, effective, and suitable services are available and being delivered.
- Major changes to the administration of EMS have occurred over the last two years with the public health department beginning an internal reorganization in 1995.
- During the course of this study, the Department of Public Health reorganized the Office of Emergency Medical Services (OEMS), effective September 8, 1997.
- The purpose of the reorganization is to consolidate OEMS regulatory functions with similar activities performed by the Division of Health Systems Regulation.
- OEMS retains primary responsibility for system development activities.
- The office staff has been significantly downsized over the last two years. Currently, the office consists of six filled staff positions -- four full-time (of which two are clerical) and two part-time.
- Department-wide, almost 17 full-time equivalent positions are dedicated to EMS activities -- however, two of these are key leadership and management positions and are vacant.
- The office is understaffed to carry out its current responsibilities.
- The office expended \$1,348,078 in FY 97. Of this, 31 percent were federal funds and 69 percent were general fund monies.
- The regional EMS councils are primarily funded by the department. FY 97 expenditures were \$531,660.

ORGANIZATION AND RESOURCES

The state's role in the emergency medical services (EMS) system is to assure citizens that safe, effective, and suitable emergency medical services are available and being delivered. To achieve this mission, a two-prong approach is required. First, system development activities must be performed. By compiling data on the EMS delivery system, the state can assess the strength of the system, identify where weaknesses exist, and target areas in need of system growth. This is done in conjunction with information and input obtained at the local, regional, and state level, and from a variety of different parties. The second prong is regulating the delivery of EMS services. The state must ensure standards are being met by conducting regulatory enforcement activities. Both sets of activities were, until recently, the sole function of the Department of Public Health's Office of Emergency Medical Services.

Reorganization of OEMS

The Department of Public Health. Major changes to the administration of EMS have occurred over the last two years with the department beginning an internal reorganization in 1995. As part of the reorganization, various functions were consolidated resulting in a reduction in the number of department bureaus (from five to three) and offices (from seven to three). In addition, department-wide staff reductions occurred in FY 96 eliminating 51 positions (from 628 to 577 staff), an 8 percent staff decrease. Figure III-1 shows the current department organization.

As part of the department restructuring, the Office of Emergency Medical Services has undergone two reorganizations, the first occurring in January 1996. The second occurred in September 1997, in the midst of the program review study. As a result, the office staff has been significantly downsized over the last two years. Each restructuring, and its impact on office staffing and functions, is discussed separately below.

1996 reorganization. The initial reorganization changed reporting lines within the department, transferred positions along with those functions into other divisions within the department, and restructured the office. The office was placed under the Bureau of Regulatory Services (see Figure III-2). Prior to that, the director of OEMS reported directly to the deputy commissioner rather than to a bureau head.

Figure III-1. Department of Public Health Organization.

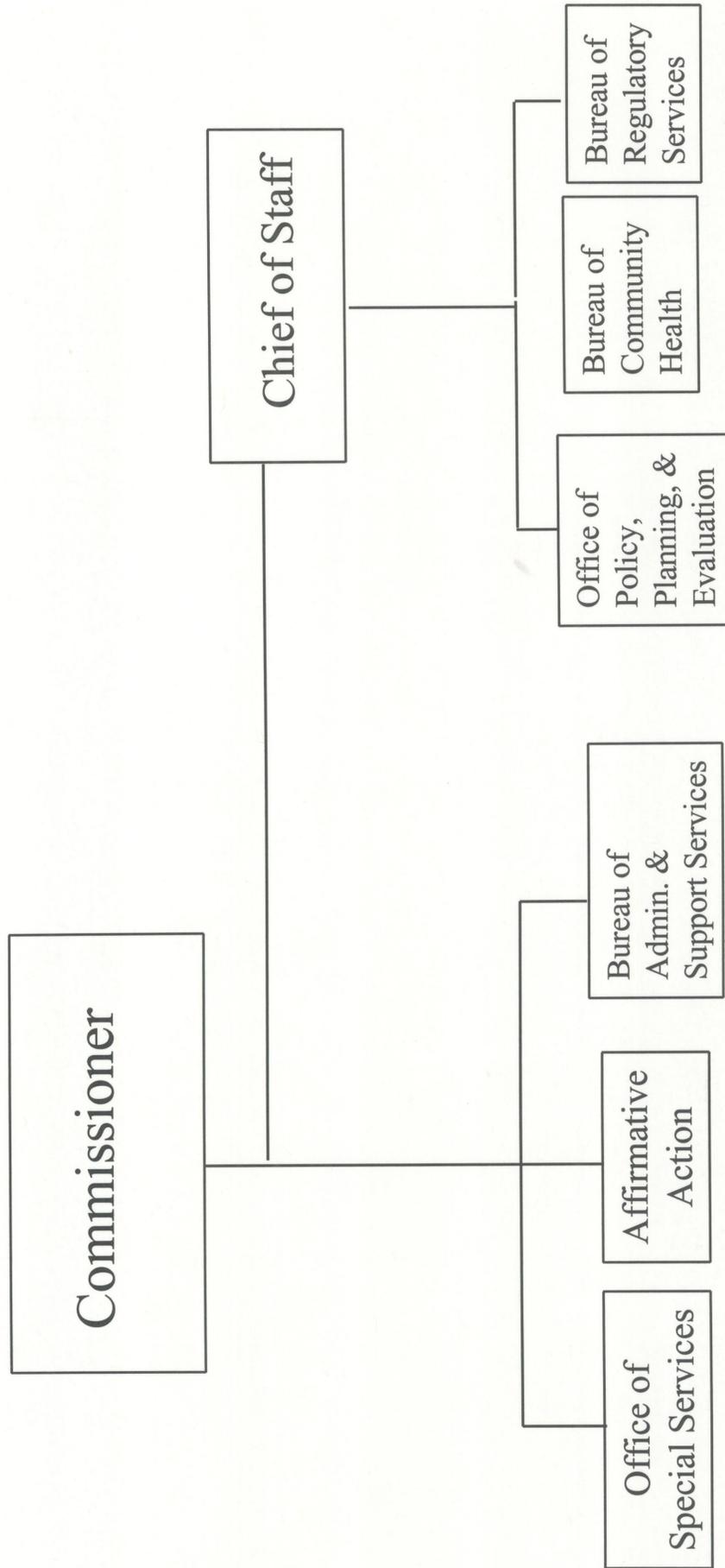
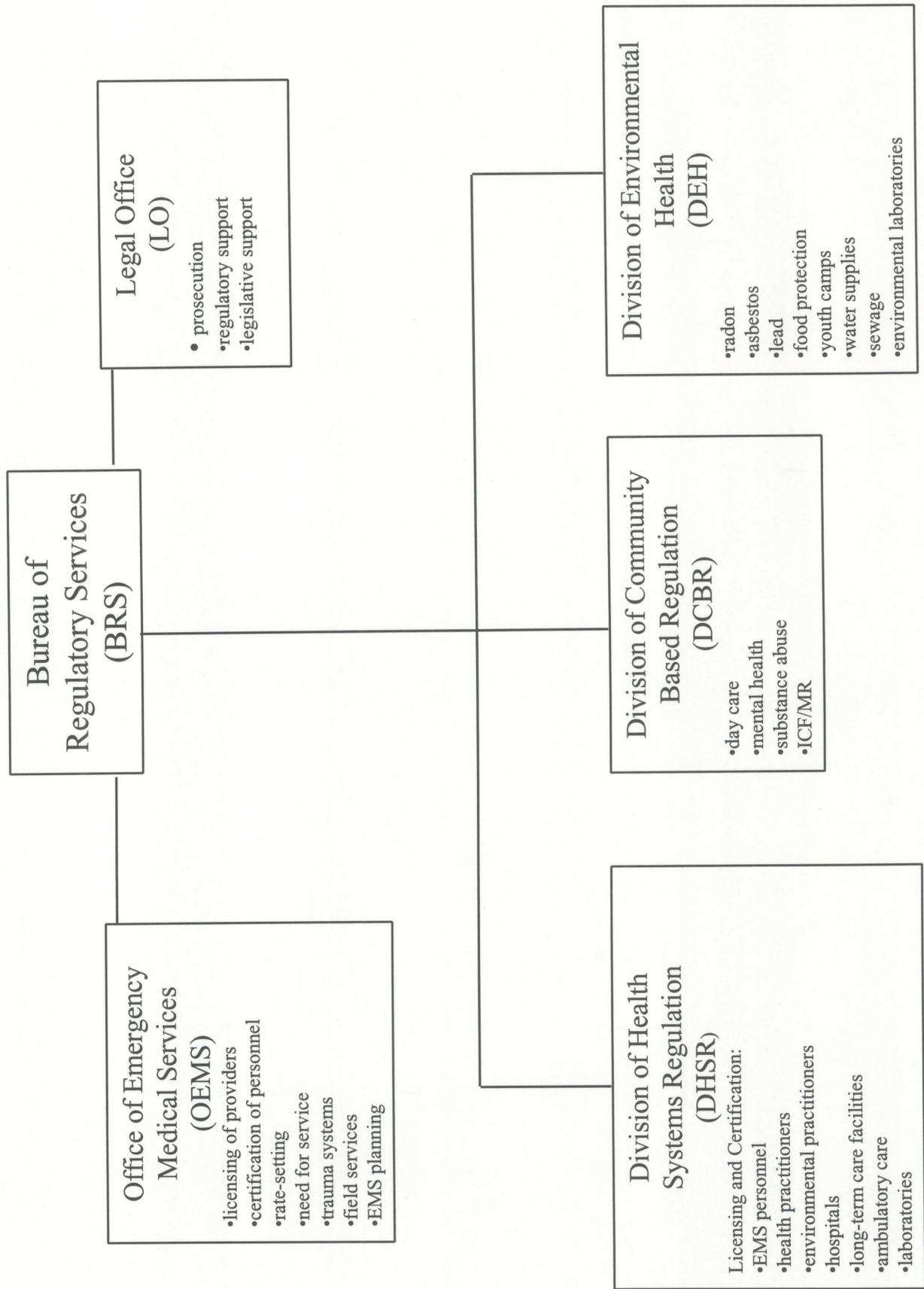


FIGURE III-2. BUREAU OF REGULATORY SERVICES.



Staffing. Figure III-3 shows the office's organization as of April 30, 1995, and Figure III-4 as of January 1996. In 1995, prior to the restructuring, there were 22 staff positions within the office including a director, an assistant director, and four section chiefs. Two of the positions were part-time. By January 1996, as part of the reorganization mentioned above, the office was consolidated and two positions -- an assistant director and chief of education/training -- were eliminated. Federal funding for an additional position (trauma system coordinator) expired. The chief of planning and communications was placed under the field services chief. In addition, five positions and the functions performed -- adjudicator, testing coordinator, processing technician, system development, and an administrative assistant -- were reassigned to other divisions within the department. Thus, as of January 1996, the office had 15 staff positions of which two were part-time (a staff decrease of 32 percent from 1995).

Following the restructuring, the office was organized functionally and divided into three sections -- field services, regulations and standards, and administration. The major functions of each section were:

Field Services: responsible for planning, analysis, and evaluation of the EMS system; providing technical advice and consultation to EMS provider organizations and municipalities; negotiating and monitoring contracts with the five regional EMS councils; coordinating regional council activities; developing and coordinating public information programs; and overseeing the EMS communications system.

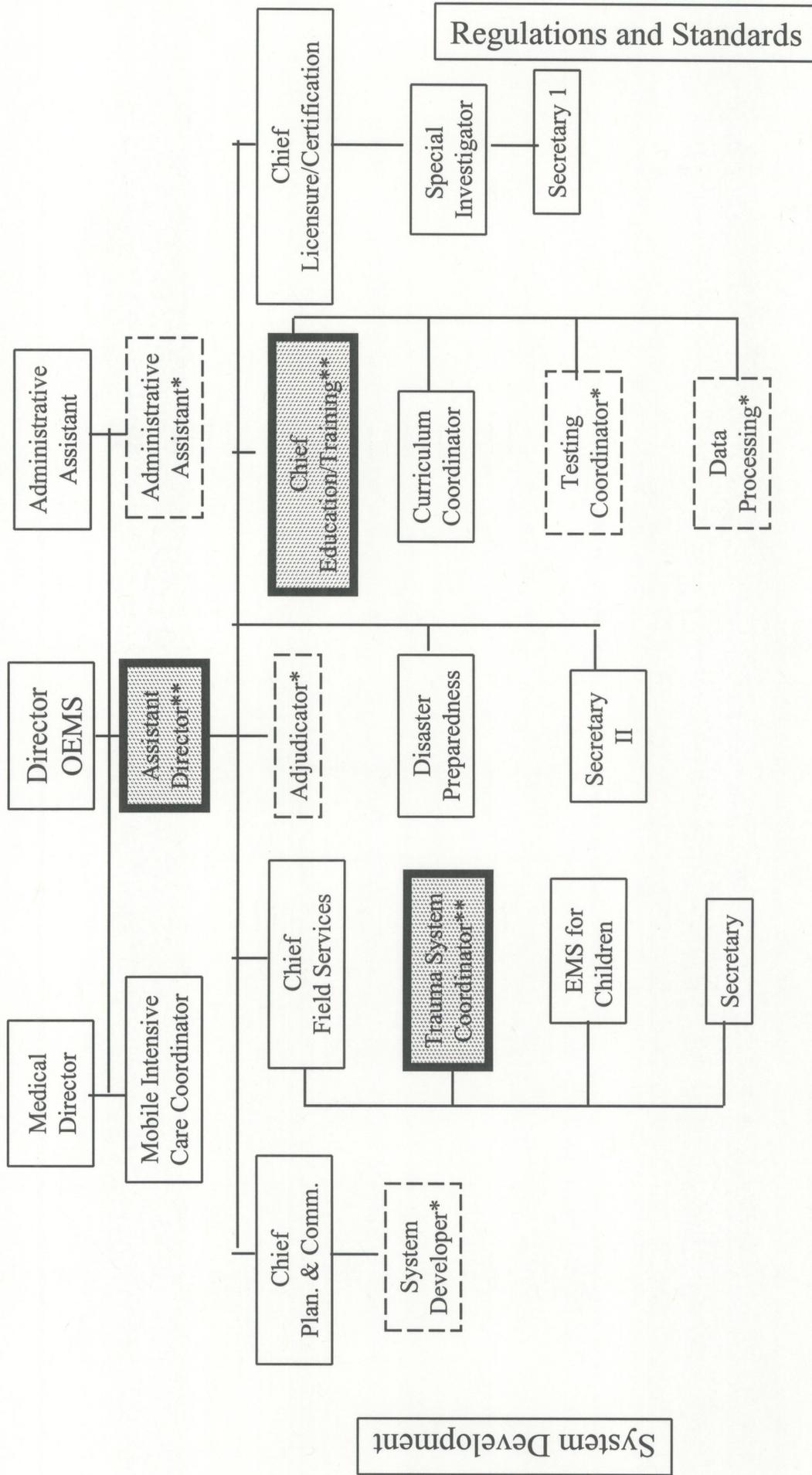
Regulations and Standards: performed all enforcement activities related to statutory and regulatory mandates. This included: investigation of complaints, ambulance vehicle inspections, and certification/licensure of all ambulance providers. Statewide EMS coverage through provider assignment to geographic areas, and determination of need applications were also reviewed and approved through this section.

Administration: responsible for administrative activities of the office including personnel management and all fiscal matters. The section was also responsible for program development, implementation and administration of a statewide EMS program, and setting rates for commercial ambulance providers.

1997 reorganization. The office was reorganized for a second time in September 1997. The purpose of the reorganization is to consolidate OEMS regulatory functions with similar activities performed by the Division of Health Systems Regulation (DHSR). The Office of Emergency Medical Services retains primary responsibility for system development activities.

Division of Health Systems Regulation. The Division of Health Systems Regulation since August 1996 has had regulatory responsibility for all aspects of the health care delivery system with the sole exception of the pre-hospital setting. The division licenses and certifies all health care

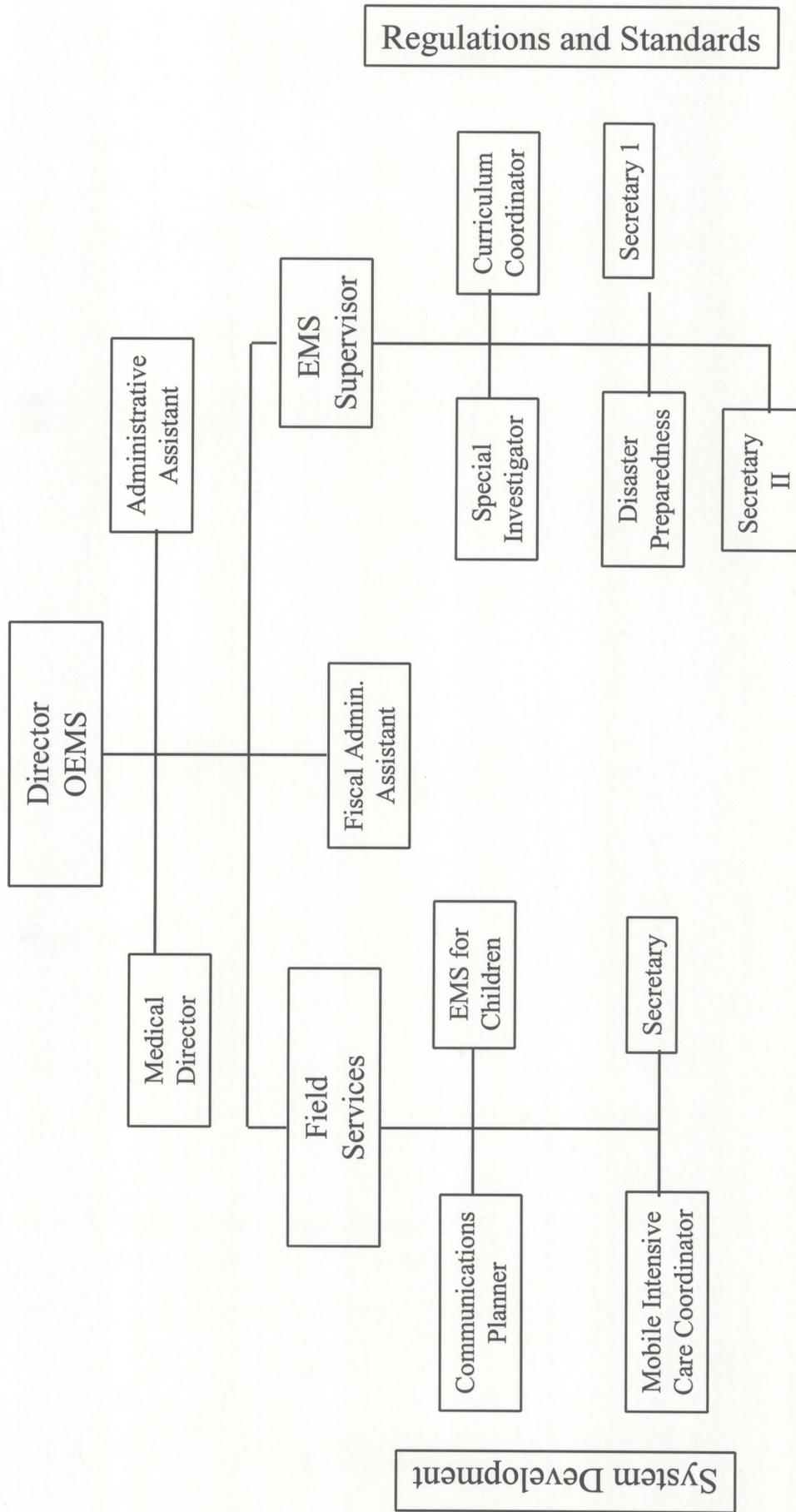
Figure III-3. OEMS - Organizational Chart (April 1995 - January 1996).



*Position transferred during reorganization.

** Position eliminated during reorganization

Figure III-4. OEMS - Organizational Chart (January 1996).



institutions, including hospitals and emergency rooms, and certifies and licenses nearly fifty categories of health care practitioners. The department maintains that:

- a functional realignment for EMS regulatory activities is a more appropriate use of resources;
- day-to-day regulation of health professionals and facilities should occur within the same division; and
- greater staff resources will be available to handle backlogs experienced under OEMS in the areas of emergency vehicle inspections and complaint investigations.

Both OEMS and DHSR are within the Bureau of Regulatory Services.

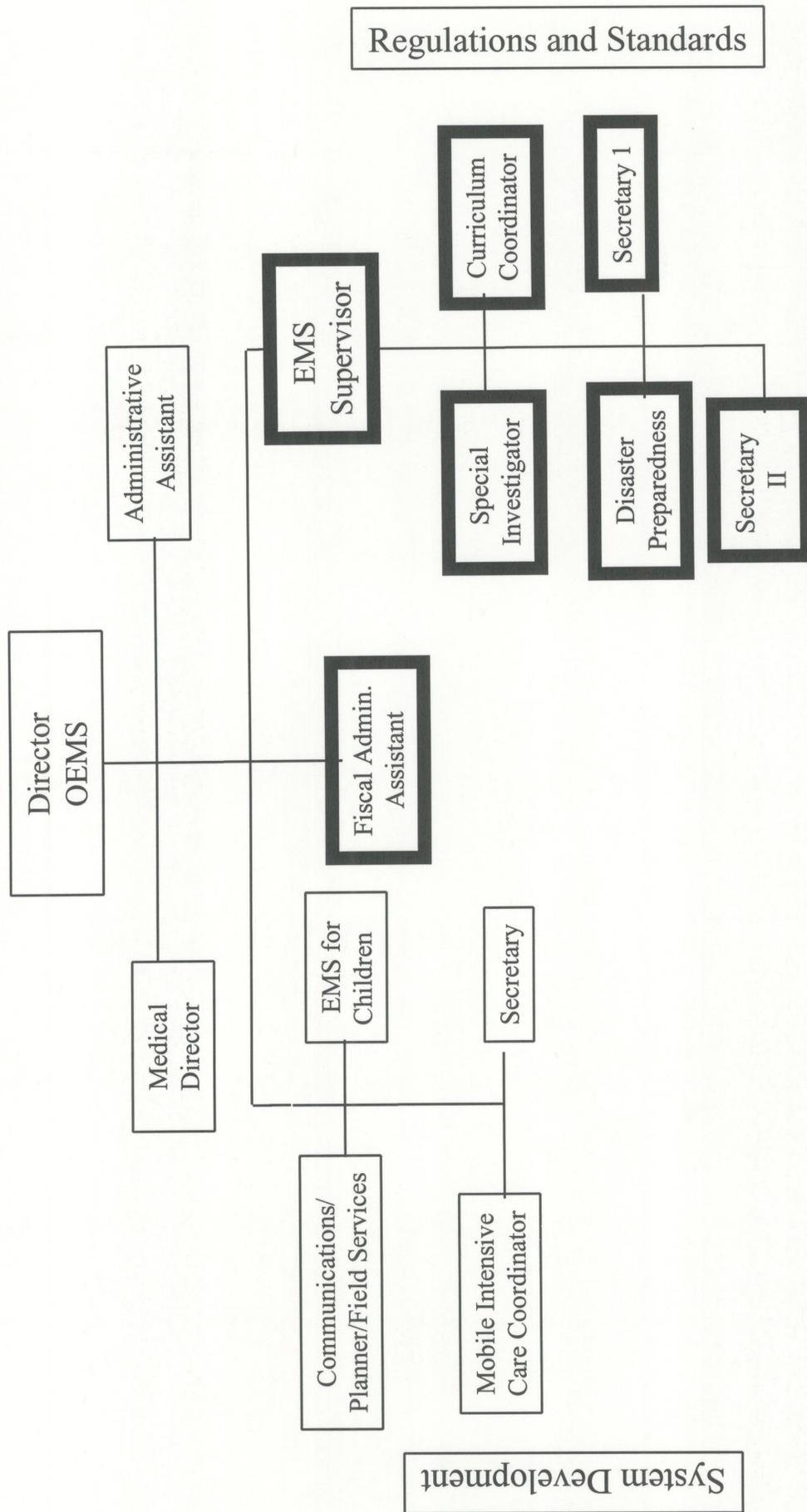
Current staffing. As shown in Figure III-5, the September 1997 reorganization resulted in the transfer of seven staff positions and the accompanying functions out of the office -- six positions to the Division of Health Systems Regulation and one to the Bureau of Regulatory Services (which oversees both DHSR and OEMS). The functions include the regulatory oversight of EMS providers and vehicles, investigation of complaints, curriculum review, and disaster management. (Certification of prehospital personnel was transferred from OEMS to DHSR in 1996, prior to the most recent changes). Shortly after the reorganization, the EMS supervisor position, now under DHSR, became vacant.

The current organization of the office is shown in Figure III-6. There are six filled OEMS staff positions -- four full-time (of which two are clerical) and two part-time. In addition to the seven positions transferred from the office in September, two positions in the office recently became vacant. The position of Field Services chief became vacant in August 1997 due to the state early retirement program and the director's position also became vacant after the reorganization.

Examined another way, Table III-1 shows the total number of full-time equivalent (FTE) staff positions within the Department of Public Health assigned to EMS functions. According to the department, almost 17 full-time equivalent positions are dedicated to EMS activities -- two, however, are vacant. The two vacancies are key positions providing leadership and management for statewide EMS administration and include the positions of director of the OEMS and an EMS supervisor under DHSR.

As shown in the table, 52 percent of the total staff are assigned to regulatory functions; an additional 29 percent is allocated to the office. The remaining 19 percent include support provided directly by the bureau and a staff position responsible for development of an EMS data system.

Figure III- 5. OEMS Organizational Chart (September 8, 1997).



Position Transferred

Figure III-6. OEMS Organization Chart (October 1997).

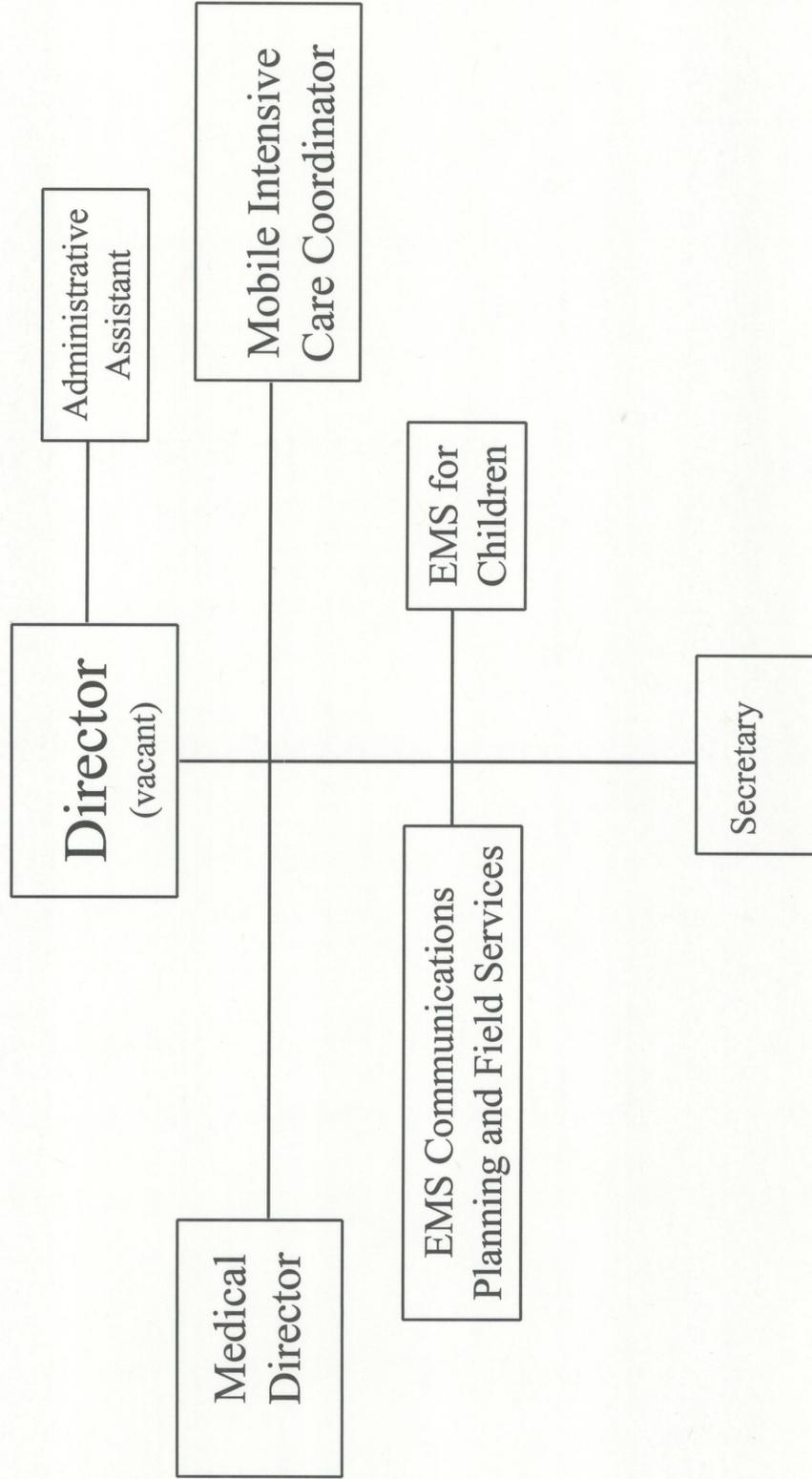
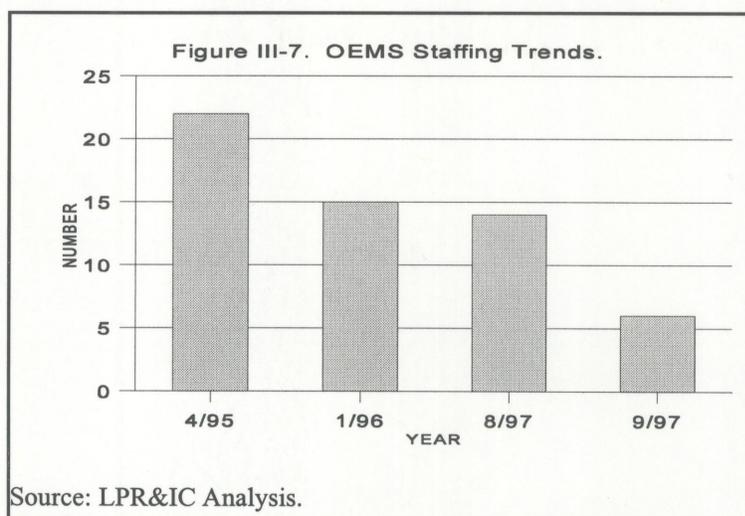


Table III-1. Funded Positions Dedicated to EMS Activities -- Department Wide.	
<i>Organizational Location</i>	<i>FTE Staff Positions (%)</i>
OEMS(programmatic)	4.8 (29%)
DHSR (regulatory)	8.8 (52%)
Other (data system design or reports directly to Bureau)	3.2 (19%)
Total	16.8
Source: LPR&IC Analysis.	

The program review committee found the office is understaffed to carry out its current responsibilities. A single full-time office staff person is responsible for coordinating and overseeing the emergency communications function, EMS planning, and overseeing the five regional councils. The other full-time staff is in a federally-funded position and must exclusively work on EMS for children issues. Although the department indicated to the committee it will replace the director with a manager, make one part-time position full-time, and eventually return the position of curricula review from DHSR to the office, this has yet to occur. If components of the EMS plan are going to be implemented, day-to-day management of the office, as well as staff direction, needs to be provided.

Staffing trends. The office staffing patterns since July 1, 1995, are shown in Figure III-7.



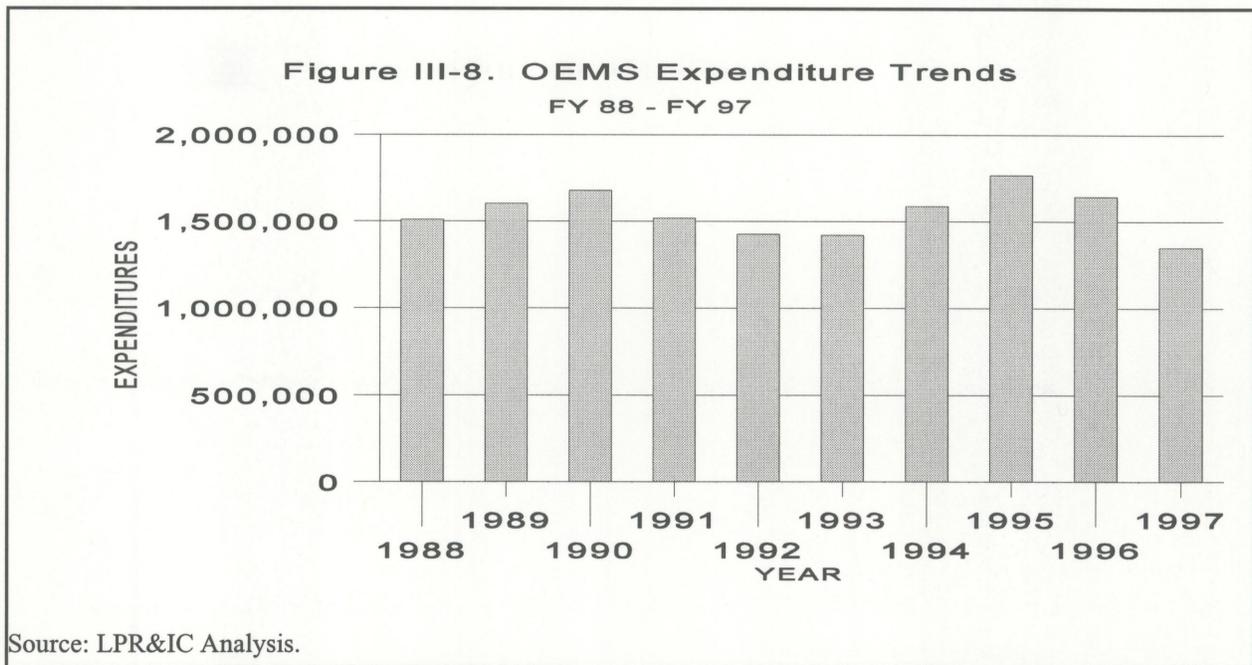
It is important to note that although the staffing of the office has decreased by 73 percent since FY 95, the majority of the positions were relocated to another division and the functions removed from OEMS' responsibility.

Resource Analysis

Office expenditures. The Office of Emergency Medical Services expended \$1,348,078 in FY 97. Of this, 31 percent were federal funds and 69 percent general fund monies. Included in the total

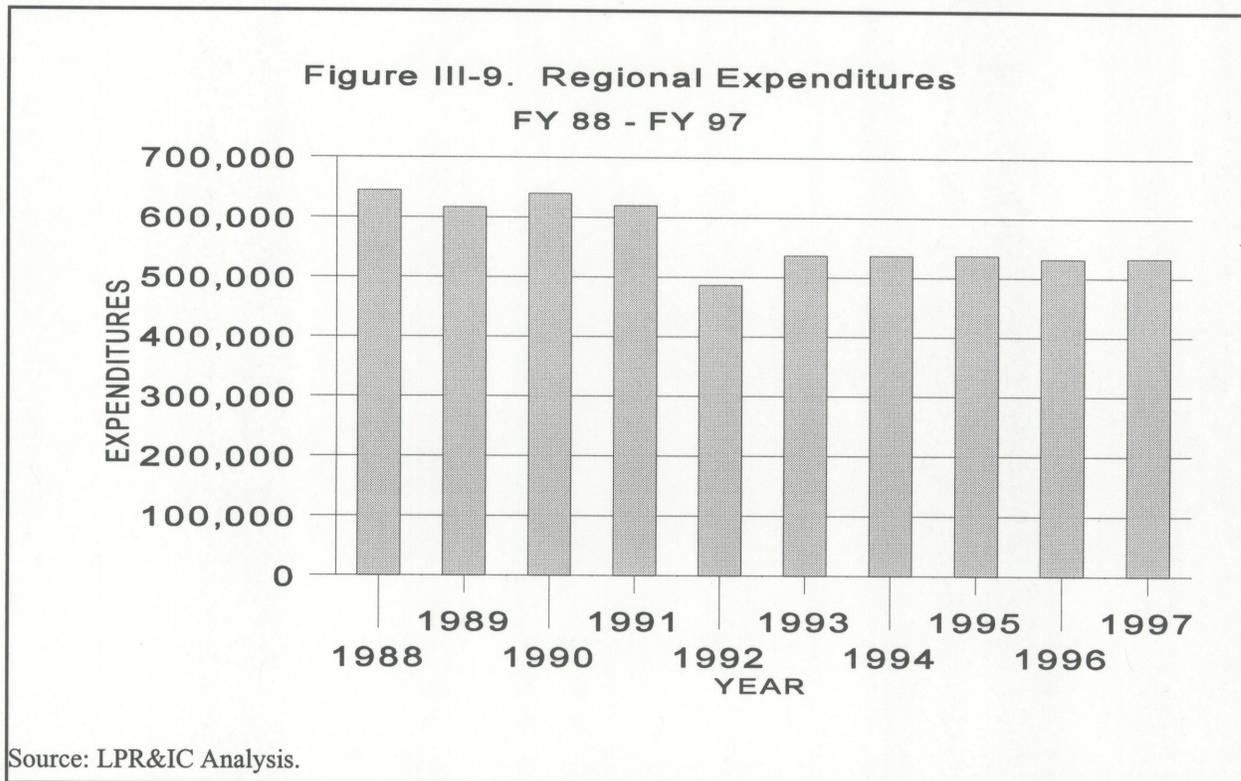
expenditure is \$531,660 provided under contract to the regional councils.

Expenditure trends. The program review committee examined office expenditures since FY 88. Figure III-8 shows expenditure levels rising and falling over the 10 year period examined with an overall decrease of 11 percent between FY 88 and FY 97. The office had the greatest expenditures in FY 90 (\$1,677,386) and FY 95 (\$1,767,929). However, between FY 96 and FY 97, an 18 percent decrease in OEMS expenditures occurred, coinciding with the staff changes under the initial reorganization. The office expenditures include regional council funding over the 10 year period.



Regional EMS Council expenditures. The regional councils are primarily funded by the Department of Public Health, although some local funds have been acquired through fund-raising activities and community grants. Figure III-9 depicts total DPH regional council funding since FY 88. Funding from the department is equally divided among the five regions. In FY 97, each council received \$106,332 from the department with total expenditures (for five councils) of \$531,660. Of this, 71 percent were state funds and 29 percent federal block grant.

Regional funding had an overall decrease of 17 percent between FY 88 and FY 97. As shown in the figure, funding was at its highest level in FY 88 (\$644,816) and its lowest in FY 92 (\$486,385). Between FY 91 and FY 92, department funding decreased by 22 percent. Since FY 93, funding has remained relatively constant for the councils, at approximately \$530,000.



Summary

The Office of Emergency Medical Services has been in a continuous state of organizational change since 1995. Although these changes are part of a broader reorganization within the Department of Public Health, and the functions absorbed within other department divisions, the impact on resources dedicated to the office has been significant.

It is difficult for the program review committee to determine optimal office staffing levels. *The committee found even before 1995, when staff reductions and transfers began, many statutory mandates were not being met by the office.* However, what once was a management problem when resources were more plentiful, has been compounded by the organizational changes resulting in vacancies in key positions or areas that appear understaffed.

KEY POINTS

Chapter Four: System Development and Regulatory Activities

- OEMS plans and advocates for system change through a variety of mechanisms including planning, developing policies and medical guidelines, and educating providers.
- The office's regulatory activities focus on the delivery of services in the prehospital setting.
- EMS training programs are offered by instructors who are certified by the department.
- The department approves all training programs for EMS field personnel leading to certification at the EMT level or higher.
- After an individual successfully completes an approved training program, a written (and for some levels a practical) exam is given before the state will issue certification.
- Since June, the percentage of candidates who pass examinations for EMT certification has significantly decreased.
- The department is in the process of phasing out an old curriculum (EMT-A) and phasing in a new curriculum (EMT-B) that provides for an expanded scope of practice. As of February 1998, all candidates will receive training in EMT-B curriculum programs and sit for the National Registry EMT-B curriculum exam.
- The department has taken several steps to correct the decline in examination scores including: notifying instructors of the rigorous nature of the National Registry exams, reminding instructors to submit for certification testing only the names of those candidates who have successfully completed the EMT-B curriculum, and examining instructor-specific program performance.

SYSTEM DEVELOPMENT AND REGULATORY ACTIVITIES

Development Activities

The main purpose of system development is to identify system gaps and then establish a consistent and uniform approach to service delivery. OEMS plans and advocates for system change through a variety of mechanisms and has a lead role in EMS system development activities for several reasons. First, although services are delivered by a mix of public and private providers, a single centralized government structure is needed to provide leadership and advocate statewide for system growth. In addition, emergency medical services can be considered a public good since it is important services are available to all citizens.

The office activities have focused on EMS planning, education of providers, and development of various system documents aimed at standardizing service delivery across the state. Most of the office's system development efforts and the products produced were multi-year efforts and were conducted with the assistance of the advisory board, its committees, and the regional councils. System development activities are an on-going activity of the office. The office has:

- **adopted a statewide EMS plan** that defines a model EMS response and contains comprehensive recommendations toward implementing a more uniform and comprehensive EMS system;
- **developed and distributed an EMS Policy and Procedure Manual** to EMS provider organizations and sponsor hospitals containing: all statutes and regulations; EMS medical protocols; medical guidelines; and office policies for quick, easy, and consistent reference;
- **developed and implemented a statewide system of trauma care:** activities included provider education programs, designating nine hospitals as trauma facilities, developing field triage protocols and regulations, and creation of a state trauma registry.
- **developed “do not resuscitate” (DNR) regulations** requiring policy development and education of prehospital personnel on proper identification of patients with DNR orders when transporting patients among health facilities;

-
- **developed medical protocols** in the area of Field Trauma Triage Protocols which require EMS field personnel and sponsor hospital emergency department physicians to follow certain steps in patient assessment and hospital destination for victims of trauma;
 - **developed medical guidelines** which serve as a guide for EMS field personnel to follow when providing care to a patient in the areas of:
 - advanced life support treatment;
 - advanced life support pediatric;
 - withholding resuscitation;
 - paramedic utilization; and
 - interfacility ambulance transfers; and
 - **educated providers on EMS for children** to encourage actual and permanent modifications of EMS services for children on the local level and developed a statewide EMS plan for children that contains recommendations based on the 10 model components identified in Chapter Two of this report.

Patient data. Another system activity occurring outside of OEMS, but within the department, is the creation of a data base that tracks patients using the EMS system from initial entry into the system through discharge. The project was transferred from OEMS in 1996 and put within the Bureau of Administrative and Support Services during the office's first reorganization. The data system, however, is not yet operational.

Regulatory Activities

The state regulates the delivery of emergency medical services to ensure that statewide standards, providing uniformity across communities, exist. Enforcement activities focus on the delivery of services in the prehospital setting, care provided by service provider organizations, and EMS field personnel. The main EMS regulatory activities are:

- **approval of EMT training programs** -- development of curricula and approval of initial and recertification training programs for emergency medical service field personnel.;
- **certification and licensure of service providers** -- organizations providing ambulance services are regulated and must be certified or licensed;
- **certification and licensure of EMS field personnel** -- individuals providing emergency medical services are regulated and must be certified or licensed;

-
- **vehicle inspections** -- ambulance vehicles and equipment are inspected annually, and providers are required to maintain records on ambulance transports;
 - **complaint investigation** -- complaints filed against prehospital personnel and service program organizations are investigated;
 - **assignment of primary service areas** -- responsible for assigning service providers to specific geographic regions (municipalities, areas within a town, etc.) to ensure statewide coverage;
 - **determination of need** -- a service provider who wants to offer a new or expanded service, open a principal office or branch not authorized, or purchase an emergency medical vehicle, ambulance, or invalid coach, must first have a determination of need application approved;
 - **setting rates of service providers** -- all service providers (volunteers, municipal, hospital-based or commercial) who charge for service delivery have their rates set by the department; and
 - **approval of Mobile Intensive Care Upgrades by providers** -- provides technical assistance and approval to service providers seeking to provide advanced level services and thereby increasing their medical capabilities.

Under current law, the Office of Emergency Medical Services is assigned responsibility for most of the EMS regulatory functions cited above. However, all but three of these activities were transferred from the office to the Division of Health Systems Regulation within the department during the program review study.

Overview of Selected Functions

The program review committee gathered information on selected regulatory activities and reviewed them prior to their transfer from the office. Short descriptions of each, as well as summary statistics, are presented below.

Approval of EMS training programs. The department approves all training programs for EMS field personnel leading to certification at the EMT level or higher. Regional offices approve training courses at the MRT (first responder) level. Training courses are offered by instructors who are certified by the department to teach a program. Applicants (called the instructor-of-record) must submit an application to the department at least 30 days before initiation of a training program.

The instructor-of-record is responsible for ensuring all training components are met; however, ad-hoc instructors who are not certified may be brought in to teach class segments. The application must include: a list of teaching facilities, available teaching aids, and supplies; a list of proposed instructors; and a statement of compliance that the program meets the most recent National Standard Training Curricula, as approved by the U.S. Dept. Of Transportation, National Highway Traffic Safety Administration. The department is required to seek a recommendation from the regional council where the course will be located before making a decision on course approval. Once the submission is complete, the department reviews and approves the program.

EMS training instructors. Training programs for individuals leading to certification can be taught by individuals certified as emergency medical services instructors (EMS-Is), hospitals, or colleges and universities. To become an instructor, an individual must be: certified as an EMT, paramedic, nurse, or physician; be active with an ambulance or rescue service for at least 12 months; obtain a letter of recommendation from the regional council in which he or she teaches; and if an EMT, pass an approved instructor training course. To maintain an instructor certificate, individuals must accrue a minimum of 50 credit units in each successive 24 month period by teaching and attending an instructor education program.

Types of training programs. Table IV-1 shows the four types of training programs and the number of hours required for completion. The MRT program requires the least number of hours for certification and regional EMS councils have the authority to approve these programs. EMT-I and EMT-P programs require the greatest number of hours since they may perform advanced life support skills and these programs involve clinical rotations as part of the course requirement.

Table IV-1. Types of Training Programs for EMS Field Personnel.		
<i>Course Type</i>	<i>Number of Hours</i>	<i>Approval of Course Content</i>
MRT	42	Region
EMT	120	State
EMT-I	EMT Certification plus an additional 65-85 hours	State
EMT-P	600-1000	State

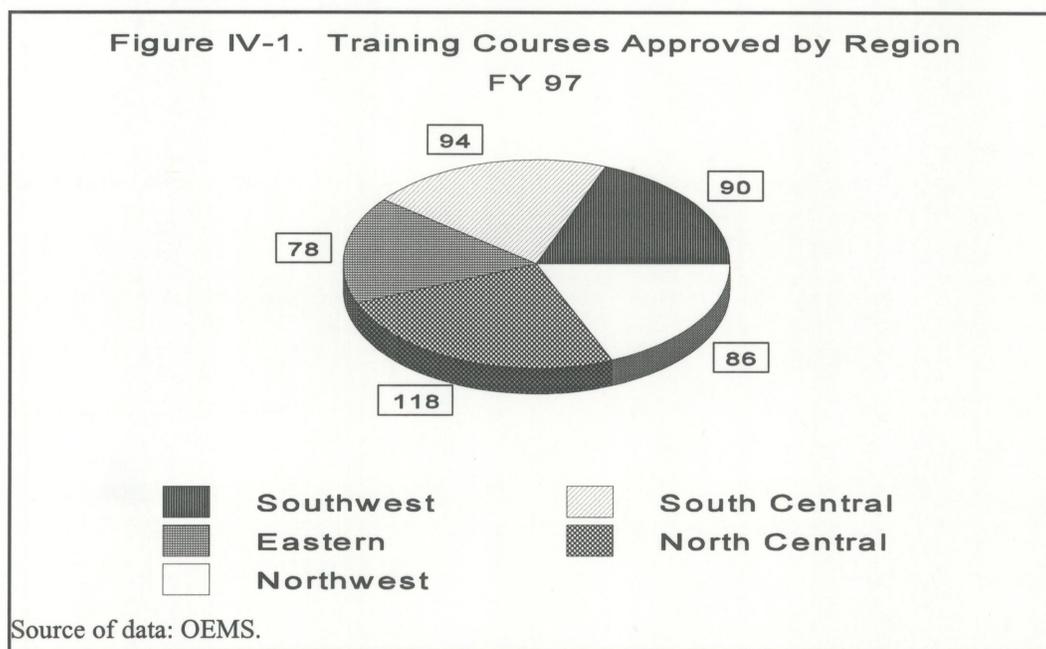
Source: Office of Emergency Medical Services.

Recertification requirements. All prehospital personnel must be recertified periodically. This requires a 15-hour course for MRTs and a 25-hour course for EMTs every two years. However, if an individual is recertified for six consecutive years, subsequent recertification is every three years

instead. Forty-eight hours continuing education every two years is required for EMT-Is and EMT-Ps.

Recertification exams at all levels are conducted by the course instructor with the exception of the written paramedic recertification exam, which is administered by the state. The department does not maintain test scores for recertification examinations. Documentation of successful completion of a recertification course provided by an EMS instructor is the only requirement for recertification.

Statistics. In FY 97, 466 training programs were approved statewide. Of those, 150 programs were offered leading to initial certification and the remainder were recertification programs. Figure IV-1 shows the number of programs approved for each region. The greatest number of programs were approved in the North Central region (118), and in the Eastern region, the least (78).



It is important to note that certain advanced level skills (such as automatic external defibrillation) are not required for MRT and EMT levels, but may be provided to EMS field personnel through training courses offered at the local level through a sponsor hospital. These training programs were not reviewed or certified by the OEMS training section, but were reviewed and approved by the Regional EMS Council, the OEMS Mobile Intensive Care Coordinator, and the Director of OEMS. Any EMS field personnel using these skills must have a sponsor hospital.

Certification of personnel. Certification of EMS field personnel, as noted above, was formally done by OEMS but was transferred from the office to the Division of Health Systems Regulation in 1996. The department certifies all EMS field personnel; however, Public Act 97-311 requires paramedics be licensed beginning October 1, 1997.

After an individual successfully completes an approved training program, a written (and for some levels a practical) exam is given before the state will issue certification. Table IV-2 shows the origin of exam development. As shown, depending on the certification level, the design of the written exam is done by an instructor, regional council, state agency, or professional organization. With the exception of MRTs, the state administers the written test leading to initial certification. The MRT testing is done locally, as are all refresher courses for recertification.

Table IV-2. Development of Written Exam for EMS Certification.	
<i>Level of Certification</i>	<i>Test Origin</i>
MRT	State or Regional Designed
EMT	National Registry Exam
EMT-I	State or Instructor Designed
EMT-P	Professional Examination Services out of NYC
Source: OEMS.	

Table IV-3 shows the type of exam given for certification and who is responsible for its administration. To be certified all candidates must pass a written exam. Exams for MRT and EMT-I certification, as shown in the table, may be administered by either the course instructor, a region designee, or the state Department of Public Health. The state administers the exam for EMTs and EMT-Ps. A practical examination is given only to MRTs and EMTs for state certification. No practical exam is given by the state for EMT-Is or EMT-Ps because the training programs for these levels include clinical experience and testing of skills is an integral part of a hospital program.

Decline in exam scores. Since June, the percentage of candidates who pass examinations for certification at the EMT level has significantly decreased. Over the last year, the department has been in the process of phasing out an old curriculum (EMT-A) for EMT training programs, and phasing in a new curriculum (EMT-B) that provides for an expanded scope of practice. Different examinations are administered depending on the training program curriculum used.

Table IV-3. Exam Type and Administration.				
<i>Certification Level</i>	<i>Written (y/n)</i>	<i>Administrator</i>	<i>Practical (y/n)</i>	<i>Administrator</i>
MRT	yes	course instructor or regional designee	yes	course instructor or regional designee
EMT	yes	state	yes	state
EMT-I	yes	course instructor or regional designee	no	-
EMT-P	yes	state	no	-

Source: OEMS.

The program review committee found a decline in the pass rate for the EMT-A curriculum exam was a result of movement from a regionally developed exam to a national exam. In 1997, the department discontinued using the regional exam (developed by the New England Council for EMS and Professional Examination Services) and contracted with the National Registry, a professional organization that develops and scores examinations, to provide the exam. Although both the regional and the National Registry examinations are based on the EMT-A curriculum, the regional exam contained 100 questions. The National Registry Exam was composed of 150 questions.

Individuals who completed training courses using the EMT-A curriculum were given the new National Registry EMT-A curriculum examination beginning June 20, 1997. Table IV-4 compares examination results from candidates taking the New England regional exam to the National Registry exam. As shown in the table, the percentage of candidates passing the exam was lowest in June, July, and August with the introduction of the National Registry Exam. The department decided to return to the regional-developed exam as a result of the low pass scores and because the last exam for certification under the EMT-A curriculum will be administered in January 1998. After this date, all candidates will receive training in EMT-B curriculum programs and sit for the National Registry exam.

EMT-B curriculum examination results. Similar problems have occurred under the EMT-B curriculum examinations. The department in conjunction with the Connecticut Society of EMS Instructors has held three training sessions on the new EMT-B curriculum. One was held in the fall of 1995, another in the spring of 1996, and the last in the summer of 1997. Table IV-5 shows the examination results for candidates tested on the EMT-B curriculum since June 1997. Although initially there was a 79 percent pass rate, the percentage of students receiving passing scores has fallen significantly.

Table IV-4. Results of EMT-A Exams.					
<i>Exam Date</i>	<i>Exam Type*</i>	<i>Number of New Candidates</i>	<i>Percent passing</i>	<i>Number of retaking Candidates</i>	<i>Percent passing</i>
10/1/96	DPH-A	14	64%	2	50%
10/18/96	DPH-A	40	90%	25	64%
11/15/96	DPH-A	1	100%	12	50%
1/3/97	DPH-A	98	79%	10	50%
1/10/97	DPH-A	98	89%	3	67%
1/24/97	DPH-A	91	79%	15	33%
2/11/97	DPH-A	43	86%	0	0%
2/14/97	DPH-A	111	90%	26	50%
2/20/97	DPH-A	30	87%	13	39%
3/18/97	DPH-A	35	74%	25	60%
6/20/97	NR-A	35	57%	0	0
07/11/97	NR-A	82	48%	0	0
8/27/97	NR-A	3	33%	66	21%
10/4/97	DPH-A	0	0%	88	70%
<p><i>*DPH-A</i> - An EMT-A curriculum exam developed by the Department of Public Health, the New England Council for EMS, and Professional Exam Services</p> <p><i>NR-A</i> - National Registry of EMTs developed EMT-A curriculum examination.</p> <p>Source: DPH.</p>					

Department action. The department acknowledged difficulties with the transition to the new national test, new curriculum, and problems with immediately identifying the trend in the low pass rates. The department has taken several steps to correct the deficiencies. The function of training course approval has been temporarily moved from OEMS to the Division of Health Systems Regulation. During this time, the staff person responsible for training program approval and the staff responsible for testing are working together to provide for a smoother transition to the new

curriculum. Both staff attend meetings of the Advisory Board's training committee to respond to committee questions and concerns.

Table IV-5. Examination Results based on EMT-B Curriculum.

<i>Exam Date</i>	<i>Exam Type</i>	<i>Number of Candidates</i>	<i>Percent Passing</i>	<i>Number Retaking</i>	<i>Percent Passing</i>
6/6/97	NR-B	53	79%	0	-
6/28/97	NR-B	28	61%	0	-
7/18/97	NR-B	57	64%	2	100%
7/26/97	NR-B	27	74%	0	-
8/28/97	NR-B	62	55%	25	56%
9/26/97	NR-B	14	50%	4	50%
10/3/97	NR-B	56	64%	19	58%
Source: DPH.					

The department also sent a notice telling instructors to emphasize to their students that the National Registry written examination is more rigorous than the previous examination. The notice also reminds instructors to submit for certification testing only the names of those candidates who have successfully completed the EMT-B course. Some instructors, according to the department, submitted all of their students for certification testing regardless of the student's demonstrated achievement in class.

The National Registry will be providing DPH information on instructor-specific program performance. The department will use these data to target training programs in need of improvement. The department also encouraged instructors to attend the Connecticut Society of EMS Instructors Annual Fall Educational Conference this November 1997. Representatives from the National Registry were present to discuss and answer questions about the exam

Licensing and certification of provider organizations. All service providers must be certified (nonprofits) or licensed (for-profits) to operate as a first responder or ambulance service. The vast majority of services are nonprofits and thus certified, accounting for 92 percent of the total number of service providers.

Prior to the office reorganization in September 1997, a certificate or license was issued by the office after the service provider furnished proof of financial responsibility, filed a certificate of proof of insurance, and met the minimum standards in terms of personnel, vehicle design, and equipment. The cost of a license (for *licensed service providers*) is \$100 and is valid for one year.

Certification/Licensure categories. As described in Chapter Two, a service provider may be certified or licensed to provide four categories of service:

- First Responder service;
- Basic Ambulance service;
- Mobile Intensive Care -Intermediate Level service; and
- Mobile Intensive Care - Paramedic Level service.

Organizations providing emergency medical services may hold certification or licensure at one or more levels. Several different types of organizations provide first responder or ambulance services. They include: volunteer associations, volunteer fire departments, police departments, commercial ambulance services, municipal fire departments, and hospital-based services.

Availability of response services. Each basic ambulance service and Mobile Intensive Care service must be able to respond to EMS calls for geographic areas in which they are assigned (primary service areas) on a 24-hour, seven-day-a-week basis. A provider unable to ensure full-time coverage must arrange with another certified or licensed response service to cover its area during those hours with no reduction in service level.

Service records. Each certified or licensed emergency medical service is required to retain records on each person employed by the service in a paid or unpaid capacity. Records also must be maintained by a service provider on each request for service for at least seven years including:

- name of patient;
- date;
- time of notification;
- time of response;
- location of response;
- time of arrival at scene;
- patient condition upon arrival;
- treatment rendered;
- destination location; and
- time of arrival at destination

OEMS has the authority to routinely inspect provider records. However, the office, according to

staff, does not conduct inspections of provider records.

Motor vehicle registration. Each ambulance or rescue vehicle must also be registered with the Department of Motor Vehicles (DMV). DMV cannot issue a registration unless OEMS conducted an inspection to ensure the vehicle meets the minimum standards and issues a safety certificate. Each vehicle must be inspected annually. A service provider's vehicle registration is revoked by DMV if an ambulance fails to meet minimum standards.

Vehicle inspections. The office, until the September reorganization, inspected all vehicles of service providers except for those of first responders. Minimum vehicle standards are defined in regulation and inspections are conducted annually at designated areas. The focus of the inspection is to ensure the required equipment is on board and vehicles display the appropriate markings. There are no inspections of staff or records. In addition, OEMS has authority to conduct unannounced spot checks but reports it has not had the resources to do this for several years. At the time this function was reviewed, one office staff person conducted all vehicle inspections. Table IV-6 shows the number and type of EMS vehicles inspected in annually. In addition to the 821 vehicles inspected by OEMS, there are an additional 480 emergency vehicles used for first responder services which are not inspected by OEMS.

The inspection, as performed by the office, was scheduled in advance and occurred at the service provider's place of business. According to the inspector, the focus of the inspection process is on correction, not on penalties. If there is a deficiency or lack of equipment that can't be corrected while the inspector is at the service provider's garage, the vehicle is failed; the inspection form states when the inspector will return. In some cases of minor deficiencies, the service provider can contact the inspector when the problem is fixed and set up a time for reinspection. For serious vehicle deficiencies (such as bald tires or cracked glass) the inspector will take the vehicle off the road. The OEMS inspector estimated approximately eight vehicles are taken off road per year.

Table IV- 6. EMS Vehicles Inspected and Stickered Annually.

<i>Type of Vehicle</i>	<i>Number</i>
Ambulances	547
Invalid Coaches	167
Non-transporting EMS vehicles (paramedic intercept)	107
Total	821

*480 first responder vehicles not inspected or stickered by OEMS

Source: OEMS.

Complaint investigations. Complaints filed against prehospital personnel and service provider organizations are investigated by the department. This function was transferred in the September reorganization from OEMS to the Division of Health Systems Regulation. The analysis below is based on a data base provided to committee staff by OEMS in July, prior to the transfer.

Complaint database. There were 65 complaints contained in the data base, of which one complaint was received in FY 95, 36 in FY 96, and 28 in FY 97. The office determined it had the authority to investigate 53.

The program review committee examined the 53 complaints investigated by the office and found no "date filed closed" had been entered into the data base for 30 complaints. Eight complaints still open dated back to FY 96, with one involving a complaint of patient death received November, 1995.

Reason for complaint. There were 11 complaint categories. Table IV-7 shows the reason for the complaint as well as the number of complaints for each category. The most frequently cited reason involved complaints about patient care. Complaints classified as other included complaints concerning unauthorized activity by a provider, unauthorized procedures, or were unclassified).

Table IV-7. Reason for Complaint.	
<i>Reason</i>	<i>Number of Complaints</i>
Advertising	4
Billing	4
Patient Care	12
Patient Care - Death Involved	5
Primary Service Area Dispute	4
Theft	7
Trauma System Violation	4
Uncertified Personnel	2
Unlicensed Service	2
Other	9
Total	53
Source: LPR&IC Analysis.	

Action taken. Of the 23 complaints that had a date entered for “file closed” -- only 15 contained information regarding the action taken by the department. Table IV-8 shows the office found no violation in the majority of complaints. Other action taken included letters of reprimand, notice to cease and desist, and suspension or revocation of certification.

Table IV-8. Actions Taken on Complaints.	
<i>Action Taken</i>	<i>Number of Cases</i>
Complaint Withdrawn	1
Letter of Reprimand	3
No Violation	7
Notice to Cease and Desist	2
Other	1
Revocation of Certification	1
Suspension of Certification	1
Unable to Contact	1

Summary. The program review committee believes the reliability of the complaint data base is questionable and is symptomatic of larger management issues within the office. Given that large amounts of information are missing from the complaint data base, the committee is concerned about the way in which complaints are logged in and documented. In public hearing testimony before the committee, the department stated the number of unresolved complaints was one reason why this function was transferred under the reorganization. The department also established two performance measures in its testimony -- the number of unresolved complaint investigations involving EMS personnel will be decreased by 33 percent in one year as a result of the reorganization, and the average time needed to complete a complaint investigation will be reduced by 30 percent. Committee findings and recommendations also address this issue in the next chapter.

KEY POINTS

Chapter Five: Committee Findings and Recommendations

Findings:

- The committee supports the department's reorganization and found the performance of the two functions -- regulation and system development -- by the same office incompatible.
- While volunteers support local EMS operations in many communities, equipment is usually purchased through donations with little financial support provided by municipal government.
- There is no statutory designation of the composition, representation, responsibilities, or appointments to the EMS Advisory Board.
- The regional EMS councils have strayed from the purpose for which they were created -- planning and evaluation.

Recommendations:

- The Department of Public Health shall be the lead agency for the EMS program. An Office of Emergency Medical Services shall be established and responsible for EMS program development activities.
- The definition requiring the commissioner of Public Health to act through the office of emergency medical services shall be repealed.
- An EMS Equipment and Local System Development Grant Program shall be established within the Department of Public Health.
- The EMS Advisory Board shall be designated in statute.
- The department and regional EMS councils shall move to a five-year planning cycle.
- EMS instructors should be evaluated every two years by regional council staff and OEMS should oversee the evaluation process.
- Formalized procedures for documenting complaints and standards on the length of time to initiate a response should be developed by the department.
- Emergency vehicles shall be inspected biennially. The department shall perform spot checks on a routine basis.
- The Office of Emergency Medical Services should create and distribute a quarterly newsletter.

FINDINGS AND RECOMMENDATIONS

Introduction

The delivery of emergency medical services is unusual when compared to other aspects of health care because of the conglomeration of different disciplines involved -- dispatchers, volunteer or professional ambulance and fire services, police departments, and hospitals. The General Assembly recognized in the 1970s in order to achieve a comprehensive emergency medical service program, the state needed to play a major role in identifying weaknesses and coordinating improvements in EMS operations across the state. To accomplish this mandate, broad statutory powers were assigned to the commissioner of health to establish a statewide emergency medical care service system. One major role of the Office of Emergency Medical Services is to coordinate the activities of the individual service groups providing EMS as parts of a statewide system.

The program review committee believes that to achieve a statewide system a stable state structure, along with stable funding, are needed. Although a comprehensive EMS plan was adopted in January 1997, little work toward its implementation has been accomplished. This occurred primarily because the office has been in a continuous state of organizational change with office vacancies hindering plan implementation. Appointment of an individual to head OEMS is essential for providing direction to office and regional staff, offering leadership to the EMS community, and moving forward with plan implementation. Conversely, if resources are not available, the state will need to lower the program goals.

After 20 years, Connecticut has made great strides in developing the EMS program but key components are still absent. *The committee found the EMS program at the state level has not been well managed.* Statutory mandates have either never been fulfilled or reversed by the department without legislative approval. Basic information on the operation of local EMS systems at the state level is lacking. This includes:

- assignment of service providers for each category of response (from first responders through paramedics);
- availability of emergency medical dispatch (which provides prearrival instructors to 9-1-1 callers); and
- availability of automatic defibrillation (technology used to convert abnormal heart rhythms).

In addition, there is no patient data system, quality assurance is not performed, and no evaluation component exists for training or delivery of care in the prehospital setting. Finally, the program review committee found poor record-keeping in a number of areas, including documentation of primary service area assignments, complaint recording, and regional EMS council submissions. This chapter focuses on areas in need of improvement.

These findings and recommendations concern a need for increasing department and regional accountability, establishing EMS priorities, meeting statutory mandates, and restoring the planning function of the regional councils. A grant program, to encourage system development activities, is also recommended.

Administrative Structure

Reorganization. The Office of Emergency Medical Services, as described in Chapter Three, has undergone a significant reorganization. *The program review committee supports the department's reorganization and found the performance of the two functions -- regulation and system development -- by the same office incompatible for several reasons.*

The purpose of EMS regulatory enforcement is to provide government oversight in an area deemed in need of public health and safety assurances, and consumer protection. The regulation of ambulance providers and prehospital personnel should be a solitary mission, not commingled with development by providing program support one day and conducting regulatory enforcement the next. This blurs the lines of separation that must exist and creates an inherent conflict of interest.

The program review committee believes EMS regulatory functions are more appropriately housed in the Division of Health Systems Regulation, which is responsible for regulating the rest of the health industry and its personnel. The division licenses and certifies all health care institutions, including hospitals and emergency rooms, in addition to nearly 50 categories of health care practitioners regulated by the state. In the opinion of the committee the functional consolidation in September of the regulatory activities will improve regulatory enforcement and insure the integrity of the activity.

However, given the above arguments, the committee is concerned three regulatory functions remain located within OEMS. These include:

- rate-setting for all service providers charging fees;
- processing determination-of-need applications; and
- approval of applications for mobile intensive care upgrades (i.e., allows a service or municipality to upgrade services to a more advanced level).

Although the rate-setting and determination-of-need functions were not examined by the program

review committee (because of their heavy impact on nonemergency transportation), the committee believes the issue needs to be studied by the department and the EMS Advisory Board to determine if these functions should be placed within the department or in another agency. A single staff person provides assistance to providers on mobile intensive care upgrades, as well as approves the application, a regulatory function. In the opinion of the committee, this function should be split and the regulatory approval process relocated.

Statutory conflict. The program review committee found the department's reorganization conflicts with current statutory authority. Under current law, the office is assigned responsibility for EMS regulatory functions. For the reorganization to be in compliance, the statute must be amended. In addition, OEMS needs to be provided statutory authority for its program development responsibilities. Therefore, the program review committee recommends:

The Department of Public Health shall be the lead agency for the EMS program. An Office of Emergency Medical Services shall be established within the Department of Public Health. The office shall be responsible for program development activities, including but not limited to:

- **public education and information programs;**
- **administering the EMS Equipment and Local System Development Grant Program;**
- **planning;**
- **regional council oversight;**
- **training; and**
- **providing staff support to the advisory board**

The commissioner shall provide staff to accomplish office objectives.

The commissioner shall report to the Committee of Public Health on implementation of EMS program development on January 1, 1999.

The program review committee recommends maintaining an Office of Emergency Medical Services as the principal policy-making, planning, and coordinating structure. In the opinion of the committee, the complexity and critical nature of EMS administration (at the state and regional level) and delivery (at the local level) requires state resources to coordinate the various program components. This is best accomplished with a strong office and a single focus -- program development.

The committee realizes program development and regulatory activities are not entirely discrete. The department must establish formal lines of communication and reporting between the office and the regulatory division to ensure information about EMS activities is exchanged.

However, since both the office and division are within the Bureau of Regulatory Services, both formal and informal links should be easier to create.

Definition of commissioner under C.G.S. Sec. 19a-175(14). Connecticut General Statute Section 19a-175(14) defines commissioner to mean “the Commissioner of Public Health acting through the office of emergency medical services.” The committee interpreted this language to mean the commissioner is required to accomplish the EMS responsibilities assigned in statute through the Office of Emergency Medical Services.

The program review committee found this definition severely limits the agency head’s authority. Emergency medical services is a key component of the state’s public health system. The definition removes direct accountability for EMS planning, coordination, and administration of a statewide EMS system from the office by filtering the commissioner’s performance of those activities through the office. Finally, in a review of the statutes, the committee found no similar restrictive definitions for any other state agency commissioners. For these reasons, the program review committee recommends the definition of commissioner as defined in C.G.S. Section 19a-175(14) be amended as follows:

“Commissioner” means the Commissioner of Public Health [acting through the Office of Emergency Medical Services] (words in brackets deleted).

EMS Grant Program

The Department of Public Health’s EMS Plan contains 11 broad goals and 66 objectives designed to improve delivery and oversight of services. Plan objectives include improving EMS communications networks, providing basic equipment, as well as upgrading obsolete equipment, improving training, and evaluating system performance. To achieve these objectives, the state has invested funds in two grant programs. One program provides resources to support the five regional EMS councils responsible for planning, coordinating, and implementing EMS activities in their respective regions. A second grant program provides funds to community colleges to enhance training.

Together, these programs only partially address the needs of the state as outlined in the EMS plan. A third major component of the system beyond training and planning is adequate equipment to serve the needs of communities. Towns support fire and police equipment but have been unable to make the investment in EMS equipment. While volunteers support local EMS operations in many communities, equipment is usually purchased through donations with little financial support provided by municipal government.

To encourage an investment in valuable services by local communities, the state frequently will establish financial incentives to achieve a public good. EMS represents such a valuable public

good. Further recognizing the importance that state-of-art equipment plays in saving lives, it is logical for the state to provide incentives in this area. Providing EMS equipment will allow for system development at the local level and insure all citizens have access to vital medical care. The program review committee recommends:

An EMS Equipment and Local System Development Grant Program be established within the Department of Public Health. The program shall be designed to provide incentive grants for enhancing emergency medical services and equipment. The commissioner shall define by regulation the entities eligible to receive grants under this program.

The commissioner shall define the nature, description, and systems design for proposals and develop regulations for grant distribution based on the following factors:

- **demonstrated need within the community;**
- **the degree to which the proposal serves the EMS system plan; and**
- **the extent to which there is available adequate trained staff to carry out the proposal.**

The commissioner shall maintain a priority list of eligible proposals and shall establish a system setting the priority of grant funding. In establishing such a priority list and ranking system, the commissioner shall consider all factors he deems relevant including, but not limited to the following: (1) the public health and safety; (2) population affected; (3) attainment of state EMS goals and standards; and (4) consistency with the state plan for EMS.

The commissioner shall consult with the appropriate regional council by sending such council a copy of any grant proposal. The regional EMS council shall review and comment upon any proposal. Each council shall indicate how the grant proposal addresses the regional EMS plan established priorities. The commissioner shall consider the recommendation of the regional council when making a final grant determination.

The goals and objectives contained in the state EMS plan require numerous resources to implement. The best way to achieve program development is to involve those closest to the programs and services. Establishment of a grant program will provide incentives, allow for plan components to be developed, and allow the commissioner to invest in EMS. In addition, dollars will be spent on direct services, thereby impacting actual service delivery.

Advisory Board

The commissioner of public health is required to seek the advice of an advisory committee when planning for the coordinated delivery of emergency medical services. *Although an EMS Advisory Board does exist, the program review committee found it is loosely structured, with no statutory designation of the board's composition, representation, responsibilities, or appointments made to the board.* The committee was initially told the board was composed of 48 members, but later a list in the EMS plan identified 38 members. When asked to explain the discrepancy, the department said the exact number of members was unknown.

Currently, the board chairman is appointed by the commissioner. A nomination process is used by the board for seats that become vacant; however, nominees are not approved by the commissioner. In addition, membership and representation to the board is difficult to determine since a member may have multiple roles -- for example, affiliated with a provider organization and sit on a regional EMS council.

To formally define the board's structure and responsibilities, the program review committee recommends:

There shall be established within the Department of Public Health an EMS Advisory Board. The board shall consist of thirty-eight members including the commissioner or his designee and the state medical director. The governor shall appoint the following members: one person from each of the regional emergency medical services councils; one person from the Connecticut Association of Directors of Health; three persons from the Connecticut College of Emergency Physicians; one person from the Connecticut Committee on Trauma of the American College of Surgeons; one person from the Connecticut Medical Advisory Committee; one person from the Emergency Department Nurses Association; one person from the Connecticut Association of EMS Instructors; one person from the Connecticut Hospital Association; one person from the Connecticut Commercial Ambulance association; one person from the Connecticut Firefighters Association; one person from the Connecticut Fire Chiefs' Association; one person from the Connecticut Chiefs of Police Association; one person from the Connecticut State Police; and one person from the Connecticut Commission on Fire Prevention and Control.

An additional sixteen members shall be appointed from persons with experience in the following areas of expertise: municipal ambulance, for-profit ambulance, and volunteer ambulance services; an emergency medical technician (EMT) Paramedic, an EMT, and an EMT intermediate; three consumers; and persons

from statewide organizations with interests in emergency medical services as well as any other areas of expertise that may be deemed necessary for the proper functioning of the board. The members shall be appointed as follows: four by the president pro tempore of the Senate, four by the majority leader of the House of Representatives, four by the minority leader of the Senate, and four by the minority leader of the House of Representatives.

The commissioner of public health shall appoint a chairperson who shall serve for a term of one year. The board shall elect a vice chairperson, and secretary. The board shall have committees made up of such members as the chairperson shall appoint and such other interested persons as the committee members shall elect to membership. The board may, from time to time, appoint nonmembers to serve on such ad hoc advisory committees as it deems necessary to assist with its functions.

The advisory board shall develop bylaws. A standing committee of the board shall be the Connecticut Emergency Medical Services Medical Advisory Committee. This committee shall provide the commissioner, the board, and other committees with advice and comment regarding the medical aspects of their projects. This committee may report directly to the commissioner regarding medically-related concerns that have not, in the committee's opinion, been satisfactorily addressed by the advisory board.

The term for each appointed member of the board shall be coterminous with the appointing authority. Appointees shall serve without compensation.

The board, in addition to other powers conferred, and in addition to functioning in a general advisory capacity, shall assist in coordinating the efforts of all persons and agencies in the state concerned with the emergency medical services system, and shall render advice on the development of the emergency medical service system where needed. The board shall make an annual report to the commissioner.

The board shall be provided a reasonable opportunity to review and make recommendations on all regulations, medical guidelines, and policies affecting EMS, before the department may establish such regulations, medical guidelines, or policies. The board shall recommend to the Governor and to the General Assembly such legislation as will in its judgment improve the delivery of emergency medical services.

The program review committee believes the EMS Advisory Board has played an invaluable role over the last several years. The board has been instrumental in serving as the impetus for many program development activities such as creation of medical protocols and guidelines, and the EMS plan. Furthermore, the time given by members who sit on the board and the board's committees provide an invaluable free resource to the state in terms of expertise, knowledge, and commitment to development of EMS in the state.

In addition, physician involvement in EMS is absolutely essential. Establishing the Connecticut Emergency Medical Services Medical Advisory Committee as a standing committee ensures emergency physician input into development of the EMS system.

Oversight of Regional EMS Councils

The department contracts with five regional EMS councils who are the designated area-wide planning and coordinating agencies for EMS. The councils are required to provide continuous evaluation of EMS in their geographic regions and each employs a regional coordinator to assist in this endeavor.

Regional planning. Each regional council is statutorily required to develop and annually revise an EMS plan for its region and submit the plan to the commissioner of public health. The components of the regional plan mirror those of the statewide plan developed by the commissioner and must include:

- an evaluation of the current effectiveness of EMS and future needs;
- specific goals for the delivery of EMS within the region, as well as a timeframe and cost estimates for achievement of those goals; and
- performance standards for the evaluation of the goals.

A major responsibility of the regional coordinator is to facilitate the council's work in plan development and implementation.

The program review committee found the Regional EMS Councils have not submitted annual plans since 1994. According to the department, a decision was made in 1994 to replace the regional plans with a single statewide plan. However, the department never sought legislation repealing the regional planning requirement. Rather, the department has redirected the work programs of the regional EMS councils.

Although an annual planning requirement is too labor intensive, the committee believes regional planning is an important activity and should serve a dual purpose. First, it provides a mechanism for regional councils to become familiar with their local EMS providers and their needs. This helps establish priorities. Additionally, information obtained in regional plans should be

aggregated and analyzed to provide an accurate picture of EMS programs throughout the state. In this way, system benchmarking could occur so progress within and among regions, as well as statewide, could be measured.

OEMS oversight of regional contracts. The program review committee examined regional EMS council contracts and annual reports submitted to OEMS upon contract completion for FY 95, FY 96, and FY 97. *The committee found:*

- *contract measures used to evaluate regional coordinator performance are often based on the process measures (such as number of meetings attended) rather than accomplishment of substantive program goals;*
- *contracted items have never been completed because OEMS failed to provide program guidelines and forms;*
- *completed EMS surveys, a FY 97 contract item, were not submitted until the program review committee requested them in October 1997;*
- *annual reports submitted by each council for FY 97 and requested by the program review committee in October 1997 could not be provided by the department; and*
- *no review is performed by the office to determine if contractual obligations have been met.*

Often, specific work detailed in the contract is dependent upon further direction from the office. Thus, regional councils are unable to fulfill many contract requirements because OEMS failed to provide what was needed. For example, although the contract required a regional evaluation of sponsor hospitals, the uniform evaluation instrument and accompanying guidelines were never developed by the state. Therefore, councils either developed their own evaluation tool as a regional initiative (and never provided it to the office) or did not conduct evaluations.

The program review committee found the regional EMS councils have strayed from the purpose for which they were created -- planning and evaluation. Given the lack of statewide information, council resources need to be used constructively. The committee recommends:

The department shall move to a five-year EMS planning cycle -- for the state EMS plan, as well as regional plans. Each regional EMS council shall develop a five-year EMS plan for its region using a format established by the department. Annual updates for each regional plan shall be submitted, detailing accomplishments made toward plan implementation.

The department shall develop an annual contract compliance process that includes performance measures for evaluating regional EMS councils' accomplishments.

Regional councils provide a local point of entry for volunteers, coordinate services with other providers in their regions, and maintain a network for disseminating information. The goal is to allow regions flexibility in determining their priorities, but within a framework developed by OEMS. This would allow the office to aggregate each plan, target areas in need of program development, and understand EMS delivery from a statewide perspective.

Compliance with Statutory Mandates

The program review committee found several EMS statutory mandates have not been implemented. *Although the EMS system has made great progress since legislation was passed in 1974, the committee found the department has still not:*

- *developed EMS plan time frames, cost data and alternative funding sources, and performance standards for evaluation;*
- *determined effectiveness of existing services;*
- *reviewed and evaluated all regional plans (because regions are no longer doing plans)*
- *established minimum standards and adopted regulations for communications (equipment, radio frequencies, and operational procedures) and emergency medical service facilities (treatment capabilities and ancillary services);*
- *developed a data collection system that captures patient information from initial entry through discharge from the emergency department; and*
- *developed a public education program.*

In addition, the Office of Emergency Medical Services is assigned specific statutory responsibilities that have not been implemented. *Specifically the office does not license or certify:*

- *ambulance drivers;*
- *emergency rooms; or*
- *communications facilities.*

The office is also required to periodically inspect emergency facilities. *The program review committee found inspections are not performed by the office.*

Assignment of primary service area responders. OEMS by regulation was responsible for assigning in writing a primary service area responder (PSAR) to ensure statewide emergency medical coverage is available in specific geographic areas by granting monopolies to service providers. All municipalities must be covered by the PSA assignments for each category of service provider (first responder, basic ambulance, and mobile intensive care). Prior to granting an assignment, the office is required to seek the advice and recommendation of the appropriate regional council and the chief administrative official of the municipality. The commissioner of public health

may withdraw PSAR status when in the best interests of patient care. This function was recently transferred to the Division of Health Systems Regulation under the reorganization.

The program review committee found documentation on existing PSA assignments is incomplete and the office is unsure what percent of the state has actually been assigned coverage at each of the three emergency service levels. This creates several problems. First, it is difficult to determine the statewide nature of Connecticut's EMS program when the department does not know existing levels of coverage statewide. Furthermore, disputed PSA assignments may give rise to legal challenges among competing providers.

Data. The Connecticut EMS Plan recognizes the most significant deficiency of the EMS system is the lack of a uniform data collection system and a process for evaluating system performance. As stated in the plan, "to date we have no mechanism to evaluate the effectiveness of the services and the appropriateness of care provided." Although the statute requires a data system that captures patient information from initial system entry through discharge from the emergency room, the requirement was never implemented.

Although there currently is an effort by the department to establish a statewide data base, the committee is aware that similar efforts have been undertaken since the 1980s and yet, no data set has ever become operational. The lack of available aggregated data seriously impacts the ability of the department to manage the program. Before outcome measures can be developed and applied, the capacity to collect data needs to be present. The program review committee believes the need to establish baseline information is key to assessing system strengths and weaknesses.

Evaluation of Selected Office Operations

As part of the review of OEMS, the committee examined selected activities of the office. These included approval of training programs for prehospital personnel, investigation of complaints filed with the office, inspection of emergency vehicles, and assignment of primary service areas. Although these functions were moved as part of the recent reorganization, the recommendations below are still valid and highlight the need for better program management to ensure public health and consumer safeguards are present.

Training. *The program review committee found no systematic evaluation of instructors or training programs.* Approval of training courses by the department is purely a paper review to ensure an instructor submits a completed application. Chapter Four describes the recent problems that have occurred related to training and testing of candidates for EMT certification. While the department has taken some action to address decreases in examination scores, the program review committee believes an evaluation component needs to be built into the department's oversight of training programs. Therefore, the program review committee recommends:

EMS instructors should be evaluated every two years by regional council staff. OEMS shall oversee the evaluation process by preparing an evaluation form, monitoring completion dates of evaluations, and preparing lists of instructors who have not been evaluated. These lists could be provided to the regional offices twice per year so regional personnel can schedule upcoming evaluations.

The office should analyze state EMT test results to recognize questions commonly missed on examinations, identify weak instructors, and take corrective actions. The pass/fail rate for examinations should be provided to each instructor. Corrective action that may be taken by the department shall include: requiring additional training, suspension, or revocation of certification as an EMS-I.

Analysis of test results should be used to provide feedback to instructors and incorporated into the instructor evaluation process. The results of each test question should be calculated to help instructors recognize areas where they may not be providing adequate instruction and strengthen their teaching skills. Without this feedback it is difficult for the instructor to alter his or her teaching methods to address problematic areas.

The responsibilities of OEMS and the regional office personnel need to be coordinated to minimize the duplication of work in evaluating instructors. Also, it is crucial the office design the evaluation form, provide instruction on how to complete it so it is a reliable instrument, and use it as a comparative tool.

Complaint investigations. *The program review committee found OEMS did not investigate and resolve complaints in a timely manner. One of the office's oldest complaint investigations involves serious allegations involving patient death. High priority should be given to resolution of complaints in a timely manner. In addition, the committee found complaint documentation was inadequate. Therefore, the committee recommends the department establish:*

- **standards on the length of time to initiate a response investigating all complaints;**
- **formalized procedures for documenting complaints; and**
- **appropriate training for complaint investigators.**

The committee believes the transfer of the complaint investigation function to the Division of Health Systems Regulation will adequately address many of the problems. However, procedures for record-keeping, as well as standards on how to proceed, will strengthen the integrity of this activity.

Inspection of emergency vehicles. Under the reorganization, the Division of Health Systems Regulation became responsible for inspection of emergency vehicles, except those of first responders. Minimum vehicle standards are defined in regulation and inspections are conducted annually at designated areas. The focus of the inspection is to ensure the required equipment is on board and vehicles display the proper markings. All inspections are scheduled. The inspection, obviously, only measures a point in time -- thus, a vehicle may pass an inspection, go out on a call, and be out of compliance if all the equipment used is not immediately replaced.

The program review committee examined the function while OEMS was still responsible and found several problems related to the inspection of emergency vehicles including:

- *backlogs in annual inspections have occurred for the last three fiscal years;*
- *vehicle inspections are scheduled rather than unannounced;*
- *no spot checks are performed even though the office has the authority;*
- *ambulances are allowed to replace missing equipment in the midst of an inspection without penalty;*
- *providers with excessive penalties or types of penalties are not tracked to determine trends;*
- *the inspection form, which is based on the regulations, is outdated; and*
- *OEMS lacks records regarding the number and type of deficient EMS vehicles.*

The program review committee recommends:

development of a data base to determine the number of providers requiring vehicle inspections, the date of last inspection, the date of next inspection, and any violations found.

Emergency vehicles shall be inspected biennially. Spot checks shall be performed by the department on a routine basis.

The committee believes unannounced spot checks would identify more deficiencies and allow for the department to better target problem providers or types of violations. By moving to a two-year cycle of scheduled inspections, the department would be able to use staff resources to conduct spot checks.

Communication

An easy and direct way for the department to communicate with the several thousand prehospital personnel involved in the EMS delivery system, service provider organizations, sponsor hospitals, and others involved in EMS delivery is to institute a newsletter. Although the program review committee was told the department used to distribute one, it was discontinued several years

ago. The committee finds this an invaluable tool, given the different types of providers involved in the system and the changing nature of EMS. In addition, it provides a mechanism to keep volunteer and professional groups informed about a variety of EMS-related activities. Therefore, the committee recommends:

the Office of Emergency Medical Services create and distribute a quarterly newsletter. The newsletter should also be made available over the Internet.

A wealth of information could be transmitted from the office to those involved in delivery services. The newsletter could contain news on office initiatives, enforcement activities, regional highlights, and new technology being used or tested.

APPENDIX A
OTHER STATE EMS PROGRAMS

Other State EMS Programs

Several different organizational models for EMS oversight were proposed at two public hearings held by the program review committee. Suggestions included moving EMS into its own departmental division, shifting it to another state agency, or creating an independent entity responsible for all EMS decisions. The committee examined other state organizational structures for EMS programs and concluded that no single model has been shown as the best way to plan, develop, and regulate the emergency medical services system.

The committee found broad variation among states' administration of EMS in terms of their organizational structures, resources, and responsibilities. The scope of authority, resources, presence of county government, and geographic landscape vary widely from state to state, and impact the way services are delivered and how states oversee EMS programs.

In general, states have three broad areas of responsibility including: planning for system development, training activities, and regulatory enforcement functions. However, when specific state information was compiled, the committee found these functions may be performed solely by a state's EMS office, may be split across various entities within a state agency, or even be performed by a county, or municipality.

Information on other state EMS programs was compiled from three sources. First, the program review committee obtained a 1994 survey conducted by the National Association of State EMS Directors. (1994 Association survey).¹ Each state's EMS director was asked to respond to a series of questions regarding state organization and types of EMS oversight functions performed. Forty-nine responses were received. Another source was the 1997 Emergency Medical Services State and Province Survey published in the 1996 edition of Emergency Medical Services Journal (1997 EMS Journal survey). Finally, telephone interviews were conducted with selected states.

Authority. Many states have designated a lead agency for the state EMS. In the 1994 association survey, 39 state EMS programs were created by legislation, 10 by administrative action, and 2 states reported they were created by executive order.

Although the delivery of emergency medical services involves both public health and public safety components, the vast majority of states placed administration of EMS programs within their health departments. Almost all states have dedicated EMS units (either bureaus, divisions, offices, or sections usually located in the health department), statewide advisory boards, and regional councils. Divisions or units within an agency have then been assigned responsibility for various aspects of the EMS program. As shown in Table A-1, of the fifty states, 41 (82 percent) placed EMS responsibilities within the Department of Health and only one state in the Department of Public

¹The EMS Office: Its Structure and Functions, 1994. National Association of State Emergency Medical Services Directors.

Safety. An additional seven states had independent boards or commissions, and one state located EMS functions within its Department of Consumer Affairs and Industry Services.

Table A-1. Location of State EMS Programs.	
<i>State Agency Responsible</i>	<i>Number of States</i>
Health Department	41
Public Safety Department	2
Independent	7
Department of Consumer Affairs and Industry Services	1
Source: State and Province Survey, Emergency Medical Services, December, 1996,	

EMS advisory committees. In the 1994 association survey, almost all states (46) reported having a statewide EMS committee, council, or the equivalent. Of those 46 states, 34 statewide entities are mandated by state law, eight are created by administrative action, and four are by executive order. The governor appoints committee members in 21 states and the average size is 20 members. In 31 states the committee functions in a purely advisory capacity and 11 have policy-making authority. Seven state committees have regulatory authority and 27 are involved in long-range planning. In addition, five state EMS committees have budget oversight responsibilities and two states report that the committee appoints the EMS director.

Regional councils or offices. Of the 49 states responding to the 1994 association survey, 32 states report they have regional offices. Regional offices in sixteen states are staffed with state EMS Office personnel and 10 states use non-profit personnel. The most frequent functions performed by regional offices included public education, prehospital personnel training, planning and advocacy, and technical assistance to municipalities or service providers.

Staffing. The number of state staff dedicated to EMS activities, as reported in the 1997 EMS Journal survey, ranged from three in Delaware to 69 in Texas. The average number of staff was 19.

Funding. Forty state EMS offices receive funding from their state's general fund with an average funding level of \$1.6 million. Other funding sources include ambulance license fees, personnel license fees, and other fees (5 states).

Dedicated funding. Several states have dedicated funds used to pay for system development activities. Table A-2 shows the state and the type of dedicated fund. The amount allocated from these special funds averaged \$2.1 million.

Table A-2. States with Dedicated Funding	
<i>State</i>	<i>Source of Funds</i>
Arizona	DWI assessment
Colorado	motor vehicle registration fee
Florida	motor vehicle fines motor vehicle registration fee
Idaho	motor vehicle fees
Indiana	traffic violation surcharges
Minnesota	driver's license fee DWI assessment seatbelt violation fee
Mississippi	moving violation surcharge
New Jersey	motor vehicle registration fee
New Mexico	motor vehicle registration fee
Pennsylvania	moving violations surcharge DUI assessment
Rhode Island	moving violations surcharge
Utah	moving violations surcharge
Virginia	motor vehicle registration fee
Source: OEMS (from State and Province Survey, Emergency Medical Services (magazine), Vol. 21 No.12 December, 1992, p1196 et seq.	

Selected State Profiles

Colorado. The Department of Public Health and Environment is the lead state agency responsible for EMS activities in the state. The department recently reorganized, merging the Division of Emergency Medical Services with a division responsible for prevention programs. The new EMS and Prevention Division is responsible for multiple programs including the pre-hospital care program (formerly the EMS division), the Trauma Program, the Injury Epidemiology Program, and the Injury Prevention Program. There are also programs dealing with specific health issues such as cancer and heart disease under the division.

Under the reorganization, all functions and staff were transferred from the EMS division into the new division except for the EMS division director. The duties of the EMS director were reassigned to a program administrator. Managerial functions are handled by the new division director. There are 11 staff performing EMS regulatory and system development functions. This includes certification of prehospital personnel, approval of training programs, administration of a grant program, and other activities. Ambulance providers are regulated by the 63 counties in Colorado, not by the state.

Advisory council. The state program is assisted by a statewide advisory council. The statutorily designated council is composed of 20 members and is representative of the EMS community. The governor makes all council appointments. Council member terms are for 3 years but they may be reappointed unlimited. Each county also has an EMS council.

Funding. There is a dedicated fund for EMS programs -- a \$1 surcharge on every motor vehicle registration is used directly for EMS programs -- totaling approximately \$3.8 million. About 20 percent of the fund is used for state office operations, 20 percent is provided to each county for coordination and planning, and 60 percent of the monies are used for a grant program.

Grant program. Grants are awarded once a year to EMS providers and training programs for prehospital personnel. A 50 percent match is required although it is waived in hardship cases. All EMS providers and training programs are eligible to receive grant funds. Colorado gives approximately 100 grants per year accounting for \$2.1 million. Grants may be used for equipment, training, injury prevention programs and special projects that have state-wide implication. Rural and areas with tourist volume are given grant preference.

Florida. The Florida Bureau of Emergency Medical Services is located in the Department of Health. The bureau is within a larger division. There are 68 staff within the bureau responsible for certifying and recertifying the 35,000 emergency medical personnel in the state, permitting vehicles, licensing providers, investigating complaints, and administering grants. Program development activities include injury prevention, developing medical protocols, data collection, planning, and quality assurance.

Advisory board. The Secretary is assisted by a state-wide advisory board. The statutorily created board has 19 members and is representative of the EMS community. Term limits are staggered and the secretary of the department makes appointments.

Funding. The state has dedicated a fund to EMS activities by placing a surcharge on certain traffic offenses such as driving while intoxicated and reckless driving. This fund generates about \$10 million per year and its use is specified in statute. Of the \$10 million, 40 percent is awarded through competitive EMS grants, 45 percent is returned directly to counties, and 15 percent is used to operate the state bureau.

Competitive grants may be awarded to any organization that impacts EMS including, universities, cities and towns, and private ambulance providers. Grant monies may be used for purchasing equipment, training of EMS personnel, public education, and computer equipment. Since 1987, the year the grant program began, about \$43.2 million has been generated and 9 percent used for computer projects and an addition 7 percent for quality assurance activities.

Maryland. Maryland established a state Institute for Emergency Medical Services located at one of its state university campuses. The institute is governed by a state EMS Board which in turn has an advisory council. The institute is responsible for coordination of all emergency medical services. The institute is an independent agency located at the University of Maryland at Baltimore. It is governed by an 11-member State Emergency Medical Services (EMS) Board appointed by the Governor. The EMS Board, with the governor's approval, appoints an executive director who serves as the administrative head of the board and of the institute. The board's duties include developing and adopting an EMS plan and evaluating of emergency medical services in the state.

The EMS Advisory Council has 27 members appointed by the EMS Board and subject to the governor's approval. The council assists and advises the EMS board in performing its duties.

Minnesota. The Minnesota Emergency Medical Services Regulatory Board (EMSRB) is the lead state agency for EMS activities in the state. Eight regional EMS programs are designated by the EMSRB as responsible for coordinating regional EMS activities. Local EMS systems are comprised of first responder units and licensed ambulance services. The majority of EMS personnel are volunteers, especially in rural areas. A close relationship is maintained by EMSRB with regional and local people through placement of five EMS Specialists throughout the state. These specialists provide compliance inspections and technical assistance through monitoring of ambulance operations and EMS training activities.

Funding for EMS in Minnesota is from local, state, and federal sources. Annual funding is approximately \$3.7 million of which one-half of that is passed through to the regions. State and federal funds are administered by the board.

Through June 30, 1996, the Minnesota Department of Health was the lead EMS agency for the state. On July 1, 1996, the new regulatory entity, the EMSRB was granted statutory authority for EMS regulation in Minnesota. All staff and functions were transferred from the health department to the board. Prior to this, there was a Minnesota EMS Advisory Council, established by statute in 1990. The council did not have regulatory authority however. The EMSRB is responsible for:

- ambulance licensure review and final authority for granting licenses;
- standard setting for ambulance operations;
- certification of emergency medical technicians and registration of first responders;
- approval of training programs for first responders and EMTs;

- reimbursement of training for volunteer ambulance personnel;
- program direction and funding for regional EMS programs
- maintaining a state emergency response plan with other state agencies;
- development of the state's EMS system through regulation, funding, and programs.
- conduct complaint investigations.

Operational policies and procedures exist at the local level, and are at the discretion of the local service and its medical director.

The board is independent and reports directly to the governor. The board also appoints an executive director who serves in an unclassified position. There are 18 staff, in addition to the director that support the board.

Virginia. Virginia's state EMS office is located in the Department of Public Health. It is responsible for all aspects of the EMS system including providing technical assistance to localities and conducting regulatory enforcement activities. In 1993, there were 35 staff to perform these functions and office operations accounted for \$1.5 million.

Funding. Virginia, through a motor vehicle registration fee, has a dedicated fund for EMS programs. A one dollar fee was initiated in 1983 and was raised in 1990 to two dollars. Currently, approximately \$10 million per year is generated. Of this, 25 percent is required by law to return to the locality to be used for equipment and training. An additional 30 percent is used to support a rescue squad assistance fund which volunteer service providers use to purchase equipment. An additional 10 percent is used to support eight regional EMS councils. Remaining funds are used for training, program development, and operation of the state office.

APPENDIX B
NATIONAL HIGHWAY TRAFFIC
SAFETY ADMINISTRATION ASSESSMENT

National Highway Traffic Safety Administration Assessment

In 1988, the National Highway Traffic Safety Administration (NHTSA) created the Emergency Medical Services Technical Assessment Program. The program allows states to use highway safety funds for a technical evaluation of existing and proposed EMS programs. NHTSA serves as a facilitator and assembles a team of national experts in emergency medical service systems. The team conducts an initial evaluation and then measured progress toward implementation by revisiting the state in subsequent years to document improvements.

Model components. The National Highway Traffic Safety Administration's standards define 10 essential components of a model statewide coordinated emergency medical system. The NHTSA report contained recommendations based on each component and identified standards by which to measure progress. The components include:

- regulation and policy;
- resource management;
- manpower and training;
- transport;
- facilities;
- communication;
- evaluation;
- public information and education;
- medical direction; and
- trauma systems.

Assessment process. Between February 1988 and July 1993, 35 states including Connecticut participated in the NHTSA assessments. The team visited each state for three days conducting interviews to collect the necessary information to complete an assessment and then developing recommendations for EMS system improvement. None of the participating states met all the criteria of the 10 essential components of a statewide EMS system. NHTSA cited the use of training and certification programs for prehospital providers as the most well-developed component of state EMS systems.

Aggregated state results, reported in 1995, showed the greatest weaknesses in the areas of: comprehensive quality management and EMS system evaluation programs; enabling legislation for EMS; trauma system development; assessment of system resources; state EMS planning; aging and unreliable communications equipment; lack of fully operational prehospital data collection systems; and lack of consistent medical oversight for all prehospital providers.¹

¹Journal of the American College of American Physicians, Annals of Emergency Medicine, Emergency Medical Service System Development: Results of the Statewide

NHTSA evaluation of Connecticut's EMS system. The Connecticut Department of Transportation, Bureau of Highways, Office of Highway Safety, in conjunction with the then Connecticut Department of Health Services requested the NHTSA evaluation of the Connecticut statewide EMS program. The evaluation was conducted over a three day period between May 21 - 23, 1991. Information was presented to the assessment team by over 35 individuals involved in EMS delivery in the state. Following the briefings the technical assistance team met privately to evaluate the EMS system and to develop a set of recommendations for improvements.

The report issued by the team was based on the 10 EMS model components and contained 82 recommendations of which 32 were identified as high priority areas. Although commending Connecticut for its comprehensive EMS legislation identifying a lead state EMS agency, the team's assessment cited state agency lack of leadership, deficiencies in data systems, and absence of quality assurance as areas requiring improvement.

The report recommended:

- strong central leadership, including a strengthened role for emergency department medical directors;
- planning and data collection be performed;
- quality assurance and evaluation systems be developed;
- improvements in public information role;
- improvements in training and certification process; and
- development of a trauma system plan.

Implementation of NHTSA recommendations. In 1995, NHTSA surveyed OEMS on the implementation status of the 1991 recommendations. The purpose of the survey was to collect information on the state's progress, although no new report was issued by NHTSA. In its response the office noted several recommendations were either fully or partially implemented including:

- a state OEMS director had been hired;
- an EMS Advisory Board had been re-established with subcommittees;
- a trauma system was developed, with regulations;
- work toward a state EMS plan had begun; and
- a data plan had been approved in 1994 and work toward a standard prehospital patient care record had begun.

Current status. The technical assessment team of NHTSA was scheduled to conduct a site visit and reevaluate the state's efforts in April 1997. The evaluation would have resulted in a report documenting progress, a discussion of the current status of EMS delivery system and oversight of

Emergency Medical Service Technical Assessment Program, June 1995, Volume 25 no.6, p.768.

the system, and additional recommendations. The commissioner of the Department of Public Health postponed the evaluation until the culmination of the program review study.

Summary. Connecticut has built upon the 1991 NHTSA report by establishing its own comprehensive plan, complete with EMS model components and goals and objectives on their achievement. The goals and objectives have been identified by representatives of the advisory board, committees, and regional councils as key areas in need of program development. The state role will be to provide the leadership and coordination necessary for continuing the development of the EMS system.

APPENDIX C
LEGISLATIVE HISTORY

Appendix C. Legislative History

<i>Mandates</i>	
<i>Public Act Number</i>	
PA 74-305	<p>Established a state coordinated regional system for the delivery of EMS throughout the state. It empowered the then Commission on Hospitals and Health Care (CHHC) to plan, coordinate, and administer the system (including the power to set ambulance rates). It creates within CHHC the position of Deputy Director of EMS to act as state coordinator for the system. It also establishes an advisory committee composed of representatives involved in all aspects of EMS to advise and assist the commission in its functions. The act abolishes the ambulance commission (who had some regulatory authority over commercial ambulance organizations only and ended amidst scandal) and creates in its place an Office of Emergency Medical Services within the Health Department with the power to license, certify, and inspect specified aspects of the EMS system and act as the enforcement agency for standards established by the commission.</p> <p>On the regional level, the act designates the comprehensive health planning "b" agency (established by federal law) as the planning and coordination agency for the state and requires that this agency develop a plan for delivery of EMS in the area. It establishes a regional EMS council in each region composed of representatives of groups involved in the EMS system to advise the planning agency on policy and regional priorities, review the area plan, and review funding and contract applications with the planning agency. In addition, the new regional coordinator is to aid the EMS Council and planning agency in developing and implementing the plan, monitoring and evaluating regional services, and inventory EMS resources within the region. The act also requires all ambulance services, including volunteer and municipal services, to be certified for operation.</p>
PA 75-112	<p>Transferred responsibility for the planning, coordination, and administration of a statewide EMS system from CHHC to the Department of Health.</p>
PA 77-614	<p><i>(An act Concerning the Reorganization of the Executive Branch of State Government)</i> This act abolished the CT Advisory Committee on Emergency Medical Services effective January 1, 1979.</p>

PA 77-268	<p>Required the chairpersons of the regional EMS councils to meet at least bimonthly as a group with the director of OEMS to discuss planning/coordination of the EMS system. The act also required in the development of the plan, the commissioner of health act with the advise of an advisory committee rather than with the advise of the CT Advisory Committee on Emergency Medical Services (which was abolished under PA 77-614), and with the benefit of the bimonthly meetings of chairpersons of regional councils.</p> <p><i>The act also required each of the 5 health systems agencies to annually update plans in their area. Previously, such agencies had been required to develop such plans by 12/31/74 but not to update them.</i></p>
PA 77-349	<p>Permits a paramedic to carry out all phases of CPR and defibrillation and administer drugs and IV under the written or oral authorization of a licensed. The act also allows a paramedic to administer controlled substances. The act also grants immunity from liability for civil damages for personal injuries resulting from acts constituting ordinary negligence, if such acts and emergency care are performed gratuitously and in other than the ordinary course of employment by medical technicians and persons trained in CPR.</p>
PA 80-480	<p>Requires the health services commissioner to establish an EMS rate for certified ambulances (as opposed to licensed) and to adopt regulations establishing methods for setting rates and conditions for charging these rates. Also, the act requires OEMS in approving permits for new or expanded services in any region to: 1) consult with EMS regional council in that region; 2) hold a public hearing to determine necessity for such services; and 3) give notice of the hearing to current providers of such service in the area where the new or expanded service is proposed. The act exempts any volunteer ambulance service which does not charge for its services from the approval procedure.</p>
PA 81-260	<p>Requires the commissioner of health services to adopt regulations requiring all EMS ambulances? to be staffed by a minimum crew of two - 1 MRT and 1 EMT. The current Public Health Code requirement that 1 EMT must be in the patient compartment attending the patient during the entire transportation period remains in effect.</p>
PA 83-240	<p>Requires the commissioner of health services to adopt regulations requiring who have completed six continuous years of service as an EMT be recertified every 3 years instead of every two. Such EMTs must complete 25 hours of refresher training every 36 months in order to maintain an acceptable proficiency level.</p>

<p>PA 87-420</p>	<p>Designates DPH as the lead agency for public health planning in the state. <i>The act repeals all statutory references to the federally created health systems agencies (HSAs). Also, the act gives the regional EMS councils the powers and responsibilities regarding regional EMS planning previously held by the HSAs.</i> The HSAs performed functions required by the federal National health Planning and Resource Development Act of 1974 (That federal law was repealed as of 10/1/86). Prior to HSA elimination the regional councils: 1) reviewed the EMS plan submitted by the relevant HSA; 2) advised the HSA in its regions on policies and priorities concerning EMS services; 3) reviewing all grant and contract applications for federal and state funds concerning such services. Under the act - the councils will undertake those duties relevant to EMS previously undertaken by the HSA. These include: 1)develop and annually revise the plan for delivery of EMS in the area; 2) submit the plan to the health services region; 3) review the grant and contract applications on their own. The commissioner of health must designate regions- given the repeal of HSA references.</p>
<p>PA 89-278</p>	<p>Requires the state to indemnify EMS Instructors certified by the Dept. Of health Services from claims of personal injury or property damage (acts while discharging duties; not wanton, reckless or malicious acts).</p>
<p>PA 90-172</p>	<p>Requires OEMS to license management services. A "management services" is an organization providing EMTs or paramedics to any entity including an ambulance service but not a commercial, volunteer, or munciple service. Under existing law, volunteer or municipal ambulance and rescue services must be certified by OEMS while commercial ambulance services must be licensed by them. The existing annual license fee which would apply to a management service is \$100.</p>
<p>PA 91-130</p>	<p>Requires the governor to proclaim the 1st Saturday in August of each year as Volunteer fire fighter and volunteer EMS Personnel Day in recognition to their contributions to public health and safety.</p>
<p>PA 94-208</p>	<p>Expands the property tax exemption municipalities can provide for certain ambulance services. Municipalities can, by ordinance, exempt ambulances from property taxes if the owners charge no fees for moving injured people. This act allows municipalities to exempt only personal property -- not just ambulances owned by nonprofit ambulance companies. It also allows them to exempt ambulances owned by any nonprofit organization, even if they charge fees. Municipalities providing these exemptions must do so by adopting ordinances..</p>

PA 95-198	Establishes a complaint and hearing process for any municipality aggrieved by an action of an regional EMS council. Complaints may be filed with OEMS and than referred to DPH hearing Office. The act prohibits the termination of services by an EMS council or system to a municipality for nonpayment of disputed bills for such services while a complaint investigation, hearing, or appeal is pending.
PA 95-7	Allows towns to provide pensions for active members of their volunteer ambulance companies. They could already do this for volunteer fire departments, some of which provide ambulance services. Thus, the act affects volunteer ambulances companies that are not affiliated with volunteer fire departments.
PA 96-150	Requires the Office of Statewide Emergency Telecommunications (within Dept. Of Public Safety) to develop and administer by July 1, 1997 an enhanced 9-1-1 program that among other things replaces 9-1-1 terminal equipment, establishes incentives to encourage regionalization of 9-1-1 services, and provides enhanced subsidies for towns with more than 70,000 people. The program must be developed pursuant to regulations that must be adopted by the public safety commissioner by 4/1/97 and recommendations of the task force established by 95-318 to study E9-1-1-services. The act also establishes a funding mechanism. (A public safety answering point (PSAP): e9-1-1 calls are routed to PSAPs which are usually located in police or fire departments. A PSAP is a facility operated on a 24-hour basis that receives 9-1-1 calls and dispatches emergency response services or transfers calls to other public safety agencies).
PA 97-170	Requires the commissioner to adopt regulations to provide for state-wide standardization of certification for Emergency Medical Technician- Intermediate; allow coursework for such certification to be taken statewide, and allow persons certified to perform within their scope of certification statewide.
PA 97-311	Requires licensure of Emergency Medical Technicians-Paramedic rather than certification beginning October 1, 1997. Paramedics who are certified, will be deemed licensed as of October 1, 1997.
Source: Office of Legislative Research, Summary of Public Acts 1974- 1996.	

APPENDIX D
CONNECTICUT EMS PLAN
GOALS AND OBJECTIVES

Appendix D. Goals and Objectives of the Connecticut EMS Plan.

<i>Area</i>	<i>Goal</i>	<i>Objectives</i>
EMS Response	All citizens will receive appropriate EMS care within the time parameters established in the "Model EMS Response" section of the plan for life threatening, time critical emergencies.	<ul style="list-style-type: none"> • assign primary service areas (PSAs) for first responders and paramedics; • integrate automatic and semi-automatic defibrillators into first responder and basic ambulance response services; • each community shall develop a local EMS plan; • make recommendations on alternative forms of transportation for non-urgent patients; • develop prehospital manual that provides guidelines for field treatment, communications, and transportation; • develop urban, suburban and rural model approaches to planning and delivery of EMS.
Human Resources, and Training	All EMS training programs will conform to uniform national and statewide standards. Training programs will be available to ensure an approved level of proficiency for every class of EMS personnel	<ul style="list-style-type: none"> • complete integration of EMT-B curriculum; • include early defibrillator training in all MRT, EMT, EMT-I, initial and refresher courses; • streamline administrative functions of OEMS training section; • develop a standardized operating procedures manual for OEMS training section; and • include regional staff into appropriate training functions, implement prehospital field triage training into the basic EMT curriculum, implement an emergency vehicle operators training program, annually conduct a statewide EMS educational conference, and develop procedures for dissemination of training information, policies and procedures to the regional councils and EMS providers.
Communications	Develop a technologically effective and comprehensive communications network to facilitate rapid access to care and provide the communications pathways between the field and the emergency medical facility necessary to enhance on-line medical direction.	<ul style="list-style-type: none"> • require all EMS providers use statewide EMS communication system; • develop and annually update a state EMS communications plan; • support efforts of state e 9-1-1 commission and Office of Statewide Emergency Telecommunications (OSET) in updating the capabilities of the statewide E 9-1-1 system; • adopt comprehensive emergency medical dispatch (EMD) standards and promulgate regulations to ensure implementation statewide; • develop comprehensive EMD training curriculum for inclusion in the OSET Public Safety Telecommunicator course; • ensure proper funding for Emergency Medical Communications Centers (EMCCs); • develop with medical advisory committee, the communications portion of the Medical Directors course; • develop a system of performance review to ensure compliance with standards; • maintain state-wide EMS communications committee with representation from the EMCCs.

Appendix D. Goals and Objectives of the Connecticut EMS Plan.		
Area	Goal	Objectives
EMS for Children	Optimize the level of emergency care for children within the existing structure of the statewide EMS system	<ul style="list-style-type: none"> develop 5 year plan addressing children's needs within EMS system; develop funding sources for continued implementation of the EMS-C plan; adopt training and equipment standards for pre-hospital and hospital providers; in conjunction with Public Information, Education, and Relations (PIER) committee develop program to address childhood injury prevention, accessing EMS and bystander care while waiting for EMS
Medical Direction	Ensure emergency medical care is rendered consistent with standards of quality medical practice via the involvement of physicians in the design, implementation, management, and provision of emergency care	<ul style="list-style-type: none"> revise EMS regulations to reflect the American College of Emergency Physicians definition of medical direction; develop statewide guidelines for medical directors and the provision of medical direction; develop criteria for evaluation of sponsor hospitals; maintain, monitor, and modify where appropriate, statewide guidelines and standing orders under which prehospital care providers function; require provision of medical direction for all OEMS certified prehospital personnel; require accreditation of all advanced EMS training institutions to national standards; develop or adopt medical protocols for priority emergency medical dispatch (EMD) with pre-arrival instructions; establish criteria for determining patient destination; develop process to insure the proper utilization of E 9-1-1 in conjunction with managed care providers; and study need for and appropriateness of expanding role of EMS providers in the field.
Facilities	Ensure adequate number of designated emergency facilities and specialty care centers are accessible to patients needing care.	<ul style="list-style-type: none"> evaluate all facilities to determine capability to provide care based on accepted standards; develop standards for triage and transfer of specialty patients to designated facilities according to national recognized standards; perform quality assurance of facilities to ensure compliance with standards.

Appendix D. Goals and Objectives of the Connecticut EMS Plan.

<i>Area</i>	<i>Goal</i>	<i>Objectives</i>
Trauma System	Develop an organized system of trauma care statewide and implement the necessary components to insure trauma system performance is cost effective, efficient and provides appropriate level of care.	<ul style="list-style-type: none"> • develop and implement trauma plan; • education prehospital and hospital providers regarding the system, policies, procedures, and protocols; • designate trauma facilities; • analysis date, disseminate reports that measure performance and cost.
Data and Evaluation	A functional system for collecting data and evaluating system components will be designed and instituted to ensure the quality and integrity of the EMS system.	<ul style="list-style-type: none"> • hire a full time data systems manager; • develop generic system able to link to other systems and a "user friendly" system; • pilot test the data system; • explore long-term funding sources; • periodically evaluate data system performance; • disseminate reports addressing EMS system performance based on the results of the EMS data system.
Funding	Establish a funding source	<ul style="list-style-type: none"> • continue to promote "A Dollar for Life" as a dedicated funding source; • provide financial assistance to specific EMS project areas.
Public Information, Education, and Relations (PIER)	The general public and EMS providers will receive information and education programs concerning all aspects of EMS system.	<ul style="list-style-type: none"> • develop newsletter; • network with other agencies interested in emergency access, safety, prevention and emergency medical care; • develop and distribute public information; • ensure funding to support public information, education and relations programs; • develop a statewide EMS computer bulletin board to provide on-line EMS information; • inform public of need for citizen CPR training.

Appendix D. Goals and Objectives of the Connecticut EMS Plan.		
<i>Area</i>	<i>Goal</i>	<i>Objectives</i>
<p>Mass Casualty Care</p>	<p>All patients in Connecticut who are injured in an event at which five or more others are also injured will receive optimal emergency medical care at the scene, during transportation, and at the hospital.</p>	<ul style="list-style-type: none"> • 80% compliance in drills and field operations using all appropriate mass casualty protocols and guidelines; • 90% subordination of all scene EMS operations to a formally established incident command system; • written and approved local mass casualty response plans and written mutual aid protocols; • 80% of all personnel assigned a primary or organization role at all drills and MCI events will be trained in the Triage and Mass Casualty Scene Management course. • Evaluation of all drills and MC events using formal evaluation guidelines; • Regulations will be drafted to mandate compliance of objectives.
<p>Source: Office of Emergency Medical Services, Connecticut EMS Plan, January, 1997.</p>		