

The major responsibility and authority for planning, organizing, staffing, and day-to-day operations of the emergency medical services rests with Regional Health Authorities. They, in turn, delegate most of the responsibility to Area Health Authorities. In fact, with the exception of ambulance services in London and six other metropolitan areas, emergency medical services are completely organized and administered by Area Health Authorities.

The Department of Health and Social Security coordinates EMS delivery among the regions and provides guidance to the Regional and Area Authorities on matters of policy. The policy guidelines established by the Department are flexible, leaving much room for local interpretation to meet local needs. The guidelines cover ambulance, vehicle and equipment specifications; ambulance service and communications specifications; and ambulance training specifications.

All emergency medical services are paid through general revenues, which are allocated by the Department of Health and Social Security to Regional Health Authorities and, by them, to Area Health Authorities.

The United Kingdom does not have any specific laws and regulations covering emergency medical services. These services come under the general authority of the National Health Services Act.

The organizational structure of emergency medical services in the United Kingdom was impacted profoundly by a report prepared by a subcommittee of the National Health Service in 1962. The report, referred to as the Platt Report, made wide-ranging recommendations for the reorganization of hospitals, ambulance services, and health care personnel. The report made specific recommendations, for example, concerning (1) the rationalization of accident and emergency services; (2) the construction, staffing, and organization of hospital accident and emergency units; (3) the provision of accident and emergency beds within hospitals (30 to 35 per 100,000); (4) the duties of various medical personnel; (5) the designation of specific centers for burn treatment; and (6) the need to educate the public in prevention.

The United Kingdom's EMS system has also benefitted from the recommendations of several other major studies, including the 1976 report of the Expenditure Committee on Accident and Emergency Services, the 1978 report on ambulance training by the National Staff Committee for Ambulance Staff, and the 1979 report, "The Ambulance Service of the Future," by the National Health Service Training and Studies Center in Harrogate.

The United Kingdom is currently working to strengthen the following aspects of its EMS program: (1) further rationalization of hospital accident and emergency services; (2) the development of a more adequate research data base; (3) further studies into the training needs of ambulance attendants, particularly for acute cases; (4) the further definition of the roles of local general practitioners; and, of course, (5) more cost-effective methods for improving services.

SUMMARY DESCRIPTION:  
THE UNITED STATES' EMS SYSTEM

A major national effort to improve emergency medical services throughout the nation began with the passage of the Emergency Medical Services Systems (EMSS) Act in 1973. Prior to that time, federal support of emergency medical care was directed to isolated sub-systems, to special categories of patients, or to special and unique response activities.

The intent of the EMSS Act is to fund EMS projects at the regional level. To date, 304 EMS areas have been identified. Federal EMS programs funded with federal dollars must use a "systems approach" in planning, coordinating, and implementing EMS systems. The goal of the federal program is to initiate regional planning and integration of the following 15 mandatory components so as to provide the essential and appropriate emergency and critical care services for all emergency patients.

1. Provision of manpower
2. Training of personnel
3. Communications
4. Transportation
5. Facilities
6. Critical care units
7. Use of public safety agencies
8. Consumer participation
9. Accessibility to care
10. Transfer of patients
11. Standard medical record keeping
12. Consumer information and education
13. Independent review and evaluation
14. Disaster linkage
15. Mutual aid agreements

The central theme of the EMSS Act is to develop systems of emergency medical care that will be able to significantly decrease current death and disability rates. While the EMS system must respond to all declared emergency calls within its geographic region, the system must be geared to provide sound, medically competent and comprehensive care to critical patients who must have such a system to survive.

The current problem of these critically ill or injured patients is compounded by the 65 million citizens who enter the EMS system each year, 80 percent of whom cannot be considered "true medical emergencies." Of the remaining 20 percent, 15 percent are real emergencies requiring urgent care (i.e., minor trauma, infectious diseases, and other acute general medical and surgical problems); the other 5 percent are the critically ill and injured. Until a few years ago these critical cases could not be saved. Today, lives can be saved if initial, definitive, and rehabilitative care is given in time and the patient is moved through the regional system and provided essential medical care.

In addition to including the mandatory 15 components, each regional EMS plan must include a description of the general and specific protocols for the emergent and nonemergent patients in its delivery system. It must also include a detailed explanation of triage patterns for critical groups (trauma, burns, acute cardiac, high risk and premature infants, poisonings, psychiatric, drug and alcohol overdose) by identifying the patient treatment needs as well as the involvement of the system's operational components (vehicles, telecommunications, manpower, facilities). These care patterns depend, of course, upon the clinical patient demands, the sophistication of the transportation capability, the level of care during transportation, the communications coordination, the delivery to a categorized general hospital or designated critical care facility, and the migration into the rehabilitation phase. These patient care programs must be established with appropriate back-up relationships by written arrangements among the various provider elements in order to ensure a sound and competent regional EMS system.

The development of regional EMS systems usually starts with an initial upgrading of existing resources and then progresses through periods of increasing sophistication. That is, following the establishment of a basic life support system within the region, there usually is a logical progression to the advanced life support system due to the increasing capabilities of the EMS region.

The federal lead agency for EMSS is the Division of Emergency Medical Services in the U.S. Department of Health and Human Services. The above requirements are spelled out in the Act or in special Program Guidelines, which describe the clinical significance of the systems approach.

In addition to the lead agency, the U.S. Department of Transportation regulates transport during the pre-hospitalization phase. Numerous other federal agencies as well as county, state, regional, and local agencies also set guidelines and develop accident prevention and EMS training programs.

The EMSS Act of 1973, amended in 1976 and 1979, covers federal grant programs that fund the comprehensive regional EMS systems. Incentives to follow federal legal requirements for EMS systems are loans, grants, etc., which are tied to compliance with federal regulations. Federal grant programs for establishing these systems are substantial. For example, grants under the EMSS Act total \$182 million for feasibility studies, systems planning, data collection, and establishing new or expanding or improving EMS systems. Moreover, since 1968, the Federal Highway Safety Act, administered by the Department of Transportation, has resulted in \$142 million in federal funds. Another \$500 to \$800 million have been available in non-federal funds.

State and regional lead agencies are responsible for the overall coordination and management of entire regional EMS systems, including cooperation between communities, system operations, and organization of regional resources. The lead agency must have the medical and

technical expertise to provide essential technical assistance appropriate to their respective regional EMS systems. Some lead agencies have other regulatory responsibilities (e.g., certification of EMS system personnel, ambulance licensing, etc.) and some have direct operational responsibilities (e.g., ambulance and/or dispatch services).

To improve the assessment of federal EMS grant programs, the Division of Emergency Medical Services recently developed a management information system called REMMIS (Regional Emergency Medical Management Information System). The system will provide well-defined and pertinent information on each of the 304 regional systems. An annual report will be prepared, summarizing the information collected. It will include a review of the components and resources among EMS regions at the planning, basic, and advanced levels of operational implementation; the volume of patients in all critical care groups impacted by the EMS; and reported changes in patient care outcomes.

Until REMMIS was instituted it was difficult to determine how many lives were being saved and the amount that disability was being reduced because of EMS systems.

The current federal thrust to categorize and regionalize hospital trauma critical care services is being carried out by the Committee on Trauma of the American College of Surgeons and the EMS Division of the U.S. Department of Health and Human Services. The federal guidelines are not regulatory in nature; compliance is progressing, however, due to financial incentives.

The U.S. Department of Transportation has developed training courses for ambulance personnel, dispatchers and first-responders, which are periodically revised. Professional associations provide training and certification criteria; registration for a wide variety of EMS specialties depend on these criteria.

Some of the special features of the EMS systems in the U.S. are: ambulance standards, hospitalization phase technology for specialty and trauma capabilities, communications technology with telemetry and repeater (or relay) linkages, regional poison information control, citizen CPR training, and specialized training for advanced cardiac and trauma care.

For additional information on all aspects of EMS systems in the United States, see Appendix D for a report prepared by Dr. David Boyd, Director of Emergency Medical Services, U.S. Department of Health and Human Services.

PART 2:

OVERVIEW OF EMERGENCY MEDICAL SERVICE SYSTEMS  
IN ELEVEN PARTICIPATING NATIONS

The following exhibits give brief summaries of the principal organizational and operational components of the emergency medical services systems in the nations that responded to the 1980 survey:

- "Overview of EMS Organization and Information Systems in Eleven Participating Nations"(Exhibit 3-A).
- "Overview of EMS System Design in Eleven Participating Nations" (Exhibit 3-B).
- "Overview of the Disaster Plan and Special Features of EMS Systems in Eleven Participating Nations" (Exhibit 3-C).

# OVERVIEW OF EMS ORGANIZATION AND INFORMATION SYSTEMS IN ELEVEN PARTICIPATING NATIONS\*

	EMS AUTHORITY/RESPONSIBILITY	REGIONAL ORGANIZATION
U.S.A.	At the national level EMS authority is mandated by EMS Acts of 1973, 1976 and 1979. Other EMS component authorities include DOT, Department of Defense, etc. At the State level model omnibus legislation is similar to federal EMS Act.	At the national level, pre-hospital EMS services are administered by the Department of Transportation. During the hospitalization phase, they are administered by the Department of Health and Human Services. Other federal agencies set guidelines for EMS systems, too.
U.K.	Although the Department of Health and Social Security develops national EMS policy guidelines, ultimate authority and responsibility for EMS rests with the Secretary of State. The Platt report had great impact on this re-organization.	This country is organized on a regional basis. Area Health Authorities report to Regional Health Authorities. Sizes and populations of each region vary greatly.
PORTUGAL	The Cabinet for Emergency Medicine shares responsibility with the National Ambulance Service for organizing the system. Once the EMS system is in place, the state will govern hospital emergency units and the National Ambulance Service will direct ambulance services.	In Portugal the EMS system is organized on a regional basis. There are three service regions -- North, South and Central.
NETHERLANDS	In the Netherlands, the Minister of Public Health and Environmental Hygiene is responsible for the overall operation of the health care system.	The Netherlands is divided into 50 areas with populations ranging from 24,000 to over 1,000,000. Each area has one central point to coordinate and operate ambulance services.
LUXEMBOURG	The Ministry of Health, in collaboration with the Medical Association and the Entente des Hospitaux, is organizing the EMS system.	Luxembourg's health care system is organized on a regional basis. There are three regions -- North, Central (where the capital is located) and South.
ITALY	The Ministry of Health is responsible for national emergency medical services, but all plans are developed at the regional level.	Italy's health and medical care services are organized on a regional basis. Regional Health Authorities develop plans and allocate funds within the region.
ICELAND	Both the Minister of Health and the National Health Head Physician are responsible for managing Iceland's emergency medical services. The National Civil Defense Organization is responsible for medical coordination in mass disasters.	Iceland's emergency health care system is organized into eight regions, one of which encompasses the capital Reykjavik, and another, the International Airfield.
GREECE	The Ministry of Health and Social Security is responsible for emergency medical services at the national level.	EMS services are not organized on a regional basis. Greece recently began operating a program of this type in the greater Athens area with the creation of an Emergency Medical Ambulance Center.
FRANCE	While the Ministry of Health is primarily responsible for the Emergency Medical Aid Services (SAMU), other ministries participate in the management of certain services. Prefets are responsible for establishing first-aid plans.	Regional emergency health care is an important concept in France. In every region, a designated hospital and university provide emergency care services and promote the SAMU concept.
CANADA	Canada's provincial and territorial governments are responsible for administering area hospitals and ambulance services. Air/Sea Rescue (Department of National Defense), the Department of Fisheries, and the Coast Guard provide rescue services.	EMS is divided along provincial and territorial lines with some provinces sub-dividing services by region.
BELGIUM	The Ministry of Public Health and Family is responsible for most aspects of the emergency medical services system. The Public Assistance Commission has responsibility for emergency transportation, and the Ministry of the Interior, for communications.	Belgium organized its EMS system initially at the national level. Several regional EMS programs now have a budget for ambulance driver training.

	LAWS & REGULATIONS	EMS DATA COLLECTION	PUBLIC EDUCATION
U.S.A.	The Highway Safety Act of 1966 covers the pre-hospitalization phase of EMS services. During the hospitalization phase, the Emergency Medical Services Act of 1973, amended in 1976 and 1978, covers grant programs administered by the Department of Health and Human Services.	The U.S. has developed a national data collection system (REMMIS), which gathers data on 304 regional EMS systems.	Several federal agencies and national organizations provide home safety, occupational safety, first aid and accident prevention programs.
U.K.	EMS comes under the general authority of the National Health Services Act. The Department of Health and Social Security issues specific guidelines for accident and emergency services.	The Regional and Area Health Authorities, in cooperation with the Department of Health and Social Security, are responsible for data collection.	Various national associations and professional societies conduct comprehensive health education and accident prevention programs.
PORTUGAL	Both the National Ambulance Service Public Law and the Ministerial Resolution, which established the Cabinet for Emergency Medicine, govern emergency medical services.	The National Ambulance Service and the Civil Defense Organization, currently being organized, will share data gathering responsibilities.	First aid programs are taught by the Red Cross. Various accident prevention campaigns focus on specific mishaps.
NETHERLANDS	A number of laws govern EMS services including the Social and Health Acts, administered by the National Health Institution, the Ambulance Transport Act and various acts covering mutual agreements for special situations.	Federal, regional, and local health services collect EMS data. A revised form for collecting data is being drafted.	Governmental ministries sponsor prevention programs covering accidents in the home, roadway, industry and school.
LUXEMBOURG	Several recent laws and regulations govern the provision of general health care, emergency medical care, and public safety and security services. Regulations issued in 1979 require hospitals to provide emergency services in the hospital.	The Ministry of Health collects hospital data and Civil Defense (Ministry of the Interior) collects some data on emergency calls.	Several national associations and the Red Cross offer training in first aid, accident prevention and safety in the workplace.
ITALY	Regional authorities develop laws and regulations covering emergency medical services.	Italy has no centralized data collection system. All information is collected at the regional level.	Italy has an active public education program promoted by all the media. Schools and businesses also teach first aid, accident prevention and EMS system access.
ICELAND	The Civil Defense Law requires the Director General of Public Health to administer those aspects of civil defense involving hospitals, medical treatment, and nursing. Hospital managers are responsible for operating hospitals and other services in emergencies.	The Ministry of Health, particularly the National Health Head Physician, collects and compiles EMS data.	Special purpose groups such as the Life-Saving Association, the Fire Department and the Red Cross teach courses on first aid and safety.
GREECE	No specific laws or regulations govern EMS services in Greece except for some regulations covering the Ambulance Center in Athens. The regulations do not cover equipment or operational aspects of the service, however.	No data collection system is currently in existence.	Public education programs are prepared by the Ministries of Health and Labor and the Automobile Association. No programs are given in schools, however.
FRANCE	A 1980 law covers health transportation and the government has issued many statements regarding private ambulance services. An Order in Council in 1965 established France's hospital mobile units.	The Ministry of Health collects and analyzes national EMS data. Every SAMU must compile its own statistics.	The SAMU or the Civilian Securite in the Ministry of the Interior have developed some public education programs.
CANADA	Five provinces have regulations governing the operation of ambulances, the medical equipment in the vehicles and the qualifications of ambulance personnel. The Health Departments of the other provinces have issued specific guidelines for ambulance use.	Statistics Canada collects annual data on hospital emergency units, outpatient visits and emergency unit staffing. Each province and territory collects data.	Many associations, as well as schools and businesses, offer education programs in first aid and accident prevention. Various media publicize EMS information.
BELGIUM	A 1964 law covers all EMS in Belgium. Modified in March of 1972, the law is also affected by a number of provisions of Arrêtes Royaux, and by several ministerial interpretations.	Ministry of Public Health and Family examines data on emergency calls, ambulance services, and emergency hospital admissions, and coordinates EMS survey projects.	The Road Safety Council prepares accident prevention programs. The Red Cross, nurses, and teachers provide courses in first aid for students and the public.

# OVERVIEW OF EMS SYSTEM DESIGN IN ELEVEN PARTICIPATING NATIONS

	EMERGENCY COMMUNICATIONS	TRANSPORTATION
U.S.A.	Ten Duplex-channels are reserved for EMS systems. Communications Centers, ambulances and hospital emergency rooms have full frequency capability. These centers have public telephone interface and direct lines to various agencies. A "911" number is widely used.	Road ambulances are governed by federal standards that cover the design, size, construction equipment, and exterior ID markings, lights and signs. Vehicles used for mass casualties are not covered. A set of air ambulance guidelines have also been developed.
M.X.	The public can use a universal "999" system in emergency situations. Thirty channels in the VHF high band are for ambulance use. Non-ambulance health services can use four other channels.	National standards exist for vehicle design, identification and equipment. Regional and Area Health authorities can deviate from these standards and have final authority to expend funds for equipment.
PORTUGAL	Portugal has instituted a "115" central emergency telephone number for emergency calls. SOS call boxes in rural area supplement this central telephone system. There are nine radio frequencies for emergency use.	Funding for the national ambulance service is based on a 1% surcharge on certain classes of insurance. The Director of the National Ambulance Service and the Cabinet for Emergency Medicine share responsibility for the service.
NETHERLANDS	The Ambulance Transport Act covers requirements for emergency communications. The Ministry of Traffic runs a "radio control service," which has its own national frequency.	Except for certain national requirements, provinces establish standards for the number of ambulances. Both the Ambulance Transport Act and the Ministry of Transport, Hydraulics and Public Works promulgate regulations for emergency transport vehicles.
LUXEMBOURG	Radio frequencies have been allocated for use by Civil Defense, the Police, the Gendarmerie and for liaison with hospitals. Frequencies are sufficiently broad to permit multiple use. Citizens access the system by telephone or roadside call boxes.	National regulations require ambulance vehicles to comply with certain specifications covering lights, sirens, etc.
ITALY	Police are responsible for emergency communication arrangements and linkages to hospitals and related EMS services. A state agency with appropriate national clearance allocates radio frequencies for emergency use.	All ambulances are owned and operated by Regional Authorities; there are no private ambulances. Specifications for special ambulance units and life support vehicles are established by Regional Health Authorities.
ICELAND	Reykjavik's ambulance service and policy headquarters are equipped with direct telephone lines and have designated radio frequencies. Other localities share their radio frequencies with other services.	Hospitals or Red Cross Chapters operate most of Iceland's ambulance services. The Icelandic Red Cross and the Ministry of Health are developing standards for ambulances.
GREECE	The emergency communications system is excellent in Athens, but elsewhere the situation is far from satisfactory. Athens has dedicated radio frequencies which allow physicians stationed at the Emergency Medical Ambulance Center to instruct ambulance personnel.	All ambulances are controlled by the government and most are located in Athens. The government has issued no guidelines for the design or equipment in road ambulances or other rescue vehicles. Ambulances are modified vans, painted yellow or white.
FRANCE	EMAS posts, located in hospitals, function as communications centers for dispatch and deployment of personnel. SAMU are connected by radio to the fire department and the local and national police. Special frequencies reserved for SAMU.	Two principle vehicles differentiated by size, equipment, and function are used for patient transport. Helicopter bases near the coast handle certain rescue situations.
CANADA	All emergency services vehicles have two-way radios. Most provinces assign one to ambulance services, enabling the vehicles to connect with a large dispatch center or smaller hospital based center.	Provincial regulations control emergency vehicles and their equipment. There is a trend toward larger vehicles which enhance access and mobility. One province is experimenting with a dedicated helicopter service.
BELGIUM	Both the Minister of Health and the Minister of the Interior are responsible for Belgium's communications centers. Rescue services have a reserved band of frequencies. All hospitals having a permanent physician to treat emergencies share a special radio frequency.	Ambulance services must comply with certain requirements for the organization of the service, personnel, vehicles and equipment. Currently, 4/6 ambulances meet these requirements. A National Police helicopter service is available for emergency rescues.



## \*BASED ON RESPONSES TO CCMS/EMS 1980 SURVEY

	HOSPITALS	PERSONNEL
U.S.A.	Hospital categorization and specific "specialty center" designations provide the basis for areawide planning and regionalization of emergency and critical care.	Specialty physicians including the new specialty of Emergency Medicine, emergency nurses, EMTs (basic, intermediate and paramedic), first responders, as well as administrators, are all trained and certified by appropriate national training standards.
U.K.	Rationalization (limiting the availability of accident and emergency services) enables hospitals to service a large population group. This practice is feasible only in densely populated areas.	Comprehensive training in treating accident and emergency cases exists for physicians, EMS registrars and specialists, and nurses. Ambulance attendants attend one of twelve special schools.
PORTUGAL	In Portugal, all hospitals are state hospitals which respond to local and regional interests. They are all funded by the central government and certified to receive emergencies.	Ambulance attendants, police, and firefighters must complete basic first-aid courses. No other special training requirements exist.
NETHERLANDS	By regulation, hospitals in the Netherlands are divided into three categories. Categorization depends on the number of beds and the variety of specialists in the medical facility.	The Ambulance Transport Act proscribes proper methods for recruiting and licensing ambulance operators. Nurses receive training in a variety of critical care areas.
LUXEMBOURG	Medical care facilities participating in the EMS system must comply with standards set out in the August 1979 Grand Duchal regulation. The Minister of Health reserves a certain number of beds in each region for acute medical emergencies.	No special training in EMS care is available for nurses or doctors, with the exception of training in anaesthesiology and resuscitation for EMS specialists. Ambulance attendants receive training in treating shock, asphyxia, various injuries, and infection control.
ITALY	In Italy, the Regional Health Authorities designate hospitals according to their treatment capabilities.	The Regional Health Authority is responsible for orienting health care personnel and for all training. In cooperation with university medical schools and schools of nursing, medical students and nurses are trained in emergency medicine.
ICELAND	Hospital managers must prepare and implement measures for receiving and treating the injured. Reykjavik's three hospitals have agreed to take lead responsibility in one of three areas: brain surgery, ophthalmology and burn cases.	Medical students attend Icelandic State University. Icelandic State School of Nursing conducts nursing education.
GREECE	Greece's total hospital bed capacity is equally split between government-owned units and private units (clinics). Private clinics tend to be small and dispersed. Ambulances are dispatched to receiving hospitals based on the specialties of the medical staff.	No speciality courses or certifications are required for EMS personnel. Nurses and ambulance attendants are required to have general nursing or first aid qualifications, respectively.
FRANCE	Hospitals are classified in four categories: the community hospital, the general hospital, the specialized hospital and the regional hospital. This system enables the Ministry of Health to compose a list of health facilities capable of receiving emergencies.	Health care personnel attend special training courses offered by universities. Ambulance attendants and other personnel enroll at one of 39 special emergency training centers located near the SAMU.
CANADA	A federal/provincial group is developing guidelines for pre-hospital emergency care and hospital emergency units. A number of localities have entered into cooperative agreements regarding the transfer of stabilized patients for continuing care.	Most provinces require standard first aid training or EMT preparatory courses for ambulance personnel. For physicians, the recognition of emergency medicine as a specialty is growing.
BELGIUM	To be eligible to provide emergency services hospitals must supply such basic services as resuscitation, blood transfusion, oxygen therapy, x-ray, and laboratory work. Physicians in the Department of Surgery control hospital emergency services sections.	Ambulance personnel are required to take a 20-hour course, which covers rescue, resuscitation and first-aid for accident victims. Refresher courses must be taken every 5 years. Nurses and physicians attend specialized courses.

# OVERVIEW OF DISASTER PLAN & SPECIAL FEATURES OF EMS SYSTEMS IN ELEVEN PARTICIPATING NATIONS

\*BASED ON RESPONSES TO  
CCMS/EMS 1980 SURVEY

	DISASTER PLAN	SPECIAL FEATURES
U.S.A.	Disaster planning is one of 14 mandatory components of the national EMS program. It requires both linkages with other disaster preparedness groups and annual disaster drills.	Regional poison information and control, citizen CPR training of 25 million Americans and special training for advanced cardiac and trauma care.
U.K.	Regional Health authorities coordinate plans among service areas and maintain lists of hospitals to receive casualties. Planning for major disasters is voluntary.	A centralized poison information service is located in London. In some areas general practitioners are organizing teams to provide on-location care for road accident victims.
PORTUGAL	Portugal is beginning to organize a National Civil Defense System. No guidelines or policies exist for institutional or community disaster planning.	Both the National Ambulance Service and the Cabinet for Emergency Medicine can sponsor EMS research.
NETHERLANDS	The Netherlands is preparing municipal and hospital disaster plans. Specialized plans for airfield and railroad disasters, now being developed, include the formation of traumatology teams.	The Netherlands is now developing municipal and hospital disaster plans, as well as specific plans for air and rail disasters. Plans include the formation of traumatology teams.
LUXEMBOURG	Luxembourg hospitals have no formal plans for receiving victims in the event of a major disaster.	Luxembourg is working with the European Community on Reciprocal Health Assistance on plans for dealing with disasters, major accidents and exceptionally grave illnesses.
ITALY	Italy's Ministry of Health has developed guidelines for mass casualty situations. Both the National and Regional Health Authorities and the Army have developed disaster plans for air, rail and highway disasters.	In Italy, a model Poison Control Center now operates in three cities. The use of mobile hyperbaric chambers for rescuing divers is presently under study.
ICELAND	National Civil Defense, which oversees community civil defense planning, coordinates disaster plans. The Medical Service shares responsibility for disaster response with National Civil Defense.	Scout rescue teams assist the medical services in emergency and disaster situations, rendering first aid and assistance at hospitals.
GREECE	Greece has no disaster plan.	A project is currently underway to design an EMS system, but currently emergencies are handled on an ad hoc basis. No hospital has a designated emergency or casualty unit; cases transported to a private clinic, first aid station or hospital.
FRANCE	A disaster activates the implementation of five services including Police and Liaison, Rescue and First Aid, Mutual Aid and Medical Care, Transport and Works Services, and Coordination under the authority of the prefects.	SAMU is a part of France's insured health services. Hospitals play a central role in the emergency medical services by providing medically equipped ambulances and administering the SAMU.
CANADA	Overall coordination of federal disaster plans is by Emergency Planning Canada. All provinces encourage community disaster planning, including health response plans. Emergency Services and Hospital Accreditation Association also provide plan guidelines.	For advice and response, directories list telephone numbers for Poison Control Centers. A similar mechanism exists to handle serious chemical spills. Canada is experimenting with emergency long distance transmission of x-rays by satellites.
BELGIUM	Both the Minister of Health and the Minister of Interior coordinate disaster rescue operations. Civil Defense prepares general and special plans ranging from plans for war to those covering train and air disasters.	Belgium has established a mutual aid agreement with France's EMS system (SAMU). Courses on poison control for nurses and physicians are provided.