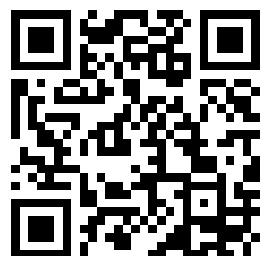

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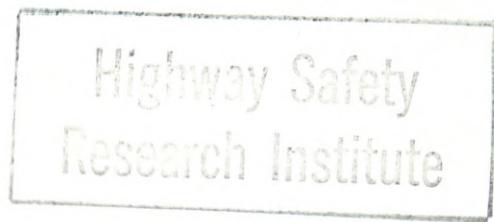
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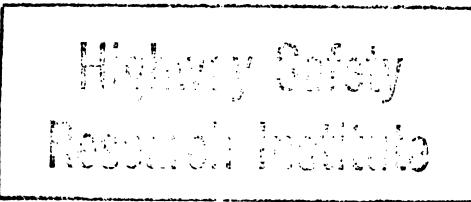


**U.S. Department
of Transportation
National Highway
Traffic Safety
Administration
Washington, D.C.
20590**



EMERGENCY MEDICAL SERVICES

Technical Report Documentation Page

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PREFACE

This special bibliography has been produced because of the interests of the National Highway Traffic Safety Administration and the community that it serves.

The documents cited in this publication are in the NHTSA Technical Reference Division collection and can be examined there. Since this collection was established in 1967 most of the publications cited bear a publication date of 1967 or later.

Citations and abstracts are those that have previously appeared in the NHTSA publication Highway Safety Literature.

HS-845 008

HELICOPTER SERVICES STUDY. FINAL REPORT

**California Dept. of Hwy. Patrol,
Sacramento**

1972 12447P 20REFS

**Sponsored by National Hwy. Traf. Safety Administration.
NTIS**

Helicopters, Aerial surveillance, Police vehicles, Emergency vehicles, California, Peak hour traffic control, Traffic law enforcement, Transportation of injured, Stolen vehicles, Automobile identification, Police traffic services, Traffic surveillance, Urban areas, Rural areas, Month, Traffic control costs, Patrolling, Vehicle operating costs, Benefit cost analysis, Police training, Radios, Vehicle maintenance, Abandoned vehicles, Radio communication, Disabled vehicles, Crowd management, Manuals, Pilots, Aircrew selection, Vehicle inspection, Vehicle usage, Insurance, Traffic delay minimization, Time of day, Program evaluation

Two helicopters were utilized in the San Francisco Bay and Indio Desert areas to determine the use of the helicopter as a patrol vehicle, as a vehicle for special missions, as an emergency transportation vehicle, and as a commuter traffic surveillance platform. The patrol phase, which involved enforcement surveillance and response to motorist demands, was effective only in the Indio Area. The scheduled special missions phase involved auto theft investigation, disaster surveillance, monitoring of demonstrations, and aerial photography. The helicopter's effectiveness in this area has not yet been evaluated. Helicopters were most effective in providing emergency transportation. The Bay Area helicopter was used for peak hour traffic surveillance for a three month period during which time 869 incidents, primarily involving aid to stalled vehicles, were acted upon. A benefit cost analysis of helicopter services was performed. Pilot and observer selection and training and helicopter services manuals are included.

**EMERGENCY MEDICAL SERVICES. CRASH INJURY
MANAGEMENT FOR TRAFFIC LAW
ENFORCEMENT OFFICERS. INSTRUCTOR'S
LESSON PLANS**

Dunlap and Associates, Inc., Darien, Conn.
A. M Cleven 1973 181p 7refs Rept. No. PB-226 933
Course Guide is HS-820 284; Student Study Guide is HS-820 282.
GPO

Emergency medical services, Police training, Instruction manuals, Physical examinations, Respiration, Airway maintenance, Resuscitation, Impact caused injuries, Shock (pathology), Burns, Occupant rescue, Emergency equipment, Drug effects, Legal factors, Hemorrhage, Fractures, Soft tissue injuries, Medical emergencies, Alcohol effects, Transportation of injured, First aid, Childbirth

A training course has been developed in emergency medical care, directed principally toward law enforcement officers patrolling highways and roads in radio-equipped cars and being first responders to traffic accidents. This volume in a three document series is intended to aid instructors who are conducting the training program. The rescuer is assumed not to be an ambulance medical technician, and his vehicle can have only limited space for emergency treatment, no space for transporting a patient, and only simple car tools. The course covers responsibilities at the accident scene, legal aspects, airway care, resuscitation, bleeding control, prevention of shock, crash-related injuries including wounds, fractures, and burns; preexisting illnesses and conditions, miscellaneous factors such as poisons and exposure; patient examination and diagnosis, gaining access to victims, moving injured persons, and use of dressings, bandages, and splints. Field training is also included.

HS-820 282

**EMERGENCY MEDICAL SERVICES. CRASH INJURY
MANAGEMENT FOR TRAFFIC LAW
ENFORCEMENT OFFICERS. STUDENT STUDY
GUIDE**

Dunlap and Associates, Inc., Darien, Conn.
A. M Cleven 1973 54p 1ref Rept. No. PB-226 932
Instructor's Lesson Plans is HS-820 283; Course guide is HS-820 284.
GPO

Emergency medical services, Police training, Workbooks, Manuals, Airway maintenance, Physical examinations, Resuscitation, Impact caused injuries, Occupant rescue, Emergency equipment, Burns, Transportation of injured, Soft tissue injuries, Shock (pathology), Hemorrhage, Fractures, Diabetes mellitus, Epilepsy, Drug effects, Childbirth, First aid, Medical emergencies

In a continuing effort to improve highway and road safety, a standardized approach has been developed to train law enforcement officers patrolling in radio-equipped cars who may arrive first at the scene of a traffic accident. This volume in a three volume course is a student study guide. It contains an overview of the human body for diagnosis and discusses emergency services. Information is given on breathing characteristics and airway equipment; pulmonary and cardiopulmonary resuscitation; shock, bleeding, and injuries to soft tissues; fractures and dislocations; skeletal and skull injuries; chronic existing ailments; poisons and drugs; burns and exposure to heat and cold; emergency childbirth; gaining access to victims; moving patients, patient examination and triage; and directions for field training.

HS-820 284

**EMERGENCY MEDICAL SERVICES. CRASH INJURY
MANAGEMENT FOR TRAFFIC LAW
ENFORCEMENT OFFICERS. COURSE GUIDE**

Dunlap and Associates, Inc., Darien, Conn.
A. M. Cleven 1973 27p 7refs Rept. No. PB-226 931
Instructor's Lesson Plans is HS-820 283; Student Study Guide is HS-820 282.
GPO

Emergency medical services, Police training, Impact caused injuries, Instruction manuals, Airway maintenance, Resuscitation, Physical examinations, Occupant rescue, Emergency equipment, Shock (pathology), Burns, Drug effects, Legal factors, Medical emergencies, Fractures, Hemorrhage, Childbirth, Alcohol effects, Diabetes mellitus, Transportation of injured, First aid, Soft tissue injuries, Epilepsy

A course is prepared for highway patrolling law enforcement officers who may arrive first at a traffic accident. The scope includes officer roles and responsibilities at the scene, legal aspects of rendering emergency medical care, life threatening emergencies, pulmonary and cardiopulmonary resuscitation, control of bleeding, prevention of shock; characteristics of injuries, fractures, dislocations, and burns; existing illnesses or conditions important in a crash, such as childbirth, diabetes, alcohol, or drug abuse; patient examination, access to victims with simple tools, moving injured persons; and equipment and supplies. This volume of a three volume set is a general guide to the course.

HS-820 231

HELICOPTERS IN EMERGENCY MEDICAL SERVICE. NHTSA EXPERIMENTS TO DATE

National Hwy. Traf. Safety Administration

1972 30P 11 refs
GPO \$0.40

Descriptors: *Helicopter ambulances, *Emergency medical services, *Demonstration projects, *Benefit cost analysis, *Accident survivability, *Radio communication, *Rural accidents, *Transportation of injured, *Urban accidents, *Ambulance personnel, *Emergency reporting systems, *Time factors, *State action, *Federal aid, *Military vehicles, *Safety laws, *Pennsylvania, *Nebraska, *California, *District of Columbia, *Detroit, *Arizona, *Minnesota, *Mississippi,

Extracts from final contract reports from 1967-1972 are presented. Demonstration projects conducted in Pennsylvania, Nebraska, California, District of Columbia, Detroit, Arizona, Minnesota, and Mississippi show that primary benefit of the helicopter ambulance is its speed of response and the benefit that this speed affords the victim. The helicopter ambulance is more effective in rural than urban areas and can provide medical advantage to only a small percentage of the sick or injured in any given operating area. Inadequate communications can negate the potential time advantage of the helicopter. Funds of \$200,000 to 250,000 per year, per helicopter are needed to start a helicopter ambulance service utilizing the 3,000 lb. class jet helicopter (FH-1100 or Bell Jet Ranger). Savings can be realized by fleet type operations and shared personnel and facilities. Utilizing military helicopters and medical corpsmen as an adjunct to local emergency medical service systems is discussed. The importance of cost benefit evaluation studies in planning helicopter ambulance services is emphasized.

HS-820 239

ACTIVITIES AND ACCOMPLISHMENTS IN CONFORMITY WITH THE HIGHWAY SAFETY ACT OF 1966

National Hwy. Traf. Safety Administration
1973 89P refs
NTIS

Descriptors: *Highway safety programs, *Highway safety standards, *Safety program effectiveness, *Vehicle inspection, *Vehicle registration, *Motorcycle safety standards, *Driver education, *Driver licensing, *Traffic courts, *Drinking drivers, *Traffic records, *Emergency medical services, *Pedestrian safety, *Police traffic services, *Debris removal, *Federal role, *Federal state relationships, *Blood alcohol levels, *Alcohol Safety Action Projects, *Fatality rates, *Traffic law uniformity, *National Hwy. Traf. Safety Administration,

State and local achievements in implementing safety program standards dealing with motor vehicle inspection, motor vehicle registration, motorcycle safety, driver education, driver licensing, traffic law uniformity, traffic courts, alcohol in relation to highway safety, traffic records systems, emergency medical services, pedestrian safety, police traffic services, and debris hazard control and cleanup are described. Two new standards were issued in mid-1972 covering pupil transportation safety and accident investigation and reporting. NHTSA's achievements are outlined and evidence that alcohol is involved in 50% of all highway fatalities is presented.

HS-820 264

Pl. 54; 1/1

AMBULANCE DESIGN CRITERIA. REV. ED.

National Hwy. Traf. Safety Administration 1973 46p 20refs
Prepared in cooperation with the Committee on Ambulance Design Criteria and the National Res. Council.

GPO \$0.50

*Ambulance design, *Design standards, *Vehicle safety standards, *Federal control, *Emergency equipment, *Vehicle performance, *Vehicle characteristics, *Electric system design, *Vehicle lighting, *Body design, *Passenger compartments, *Seat design, *Windows, *Rearview mirrors, *Controlled air environment systems, *Communication systems, *Spare tires, *Tools, *Sun visors,

Performance and design criteria for an ambulance vehicle are determined and documented in sufficient detail so that automotive designers can produce a vehicle suitable not only to present day practices, but also with adequate provision for future advances in equipment and administration of emergency care. Design criteria of special significance include patient compartment design for privacy and medical efficiency, standardization of optional equipment, environmental control, communications, external identification, rapid acceleration capability, and adherence to design standards applicable to the type of chassis employed. Design requirements for all ambulance systems are presented and applicable Federal Motor Vehicle Safety Standards are described.

HS-820 275

DESIGN MANUAL FOR STATE TRAFFIC RECORDS SYSTEMS. VOL. 2, STANDARD DATA ELEMENTS AND CODING. SECT. 5, EMERGENCY SERVICES DATA SUBSYSTEM

National Hwy. Traf. Safety Administration, Washington, D.C. 1973 65p
GPO

Information system design, Computerized records management, Coding systems, Data processing, Emergency medical services, Manuals, Emergency services, State planning, Traffic records

The Emergency Services Data Subsystem of the State Traffic Records System is designed to maintain an inventory of available organizations providing emergency services in response to traffic accidents and other emergency events on a State-wide basis; permit effective monitoring of the operations of the emergency services organizations in response to emergency situations; provide support to State agencies responsible for planning, implementation, and evaluation of emergency medical services (EMS) programs; and aid in the administration of service unit licensing, where applicable. The subsystem consists of an emergency services directory file, an emergency medical services inventory file, a hospital/medical center emergency room inventory file, and an EMS operations file. The data contents of the four subsystem files are summarized and detailed recommended coding formats and codes for the data elements contained in the subsystem files are described.

HS-820 166 Fld. 4/4; 1/5

**1970 REPORT ON ACTIVITIES
UNDER THE HIGHWAY SAFETY
ACT OF 1966. VOL. 2**

**National Hwy. Traf. Safety
Administration**

1970 130p

Summary report is HS-820 164

This volume supplements the summary report, describing in more detail the 1970 progress under the act. It includes a statistical compilation of accidents and injuries during the year, a list of federal safety standards, the degree of observance of the standards, enforcement actions and pending litigation, research grants and contracts with their problem areas, evaluation and policy recommendations on completed research and technological progress, effectiveness of state and local highway safety programs, and reports on the dissemination of information to the public and scientific communities.

Search terms: Highway Safety Act of 1966; Highway design; Vehicle registration; Driver education; Driver licensing; Traffic records; Traffic courts; Emergency medical services; Federal laws; Safety standards; Safety standards compliance; Vehicle safety; Safety design; Safety programs; Safety research; Highway safety; Accident statistics; Financing; Legal factors; Safety program effectiveness; Consumer education; State action; Community support; Drinking drivers; Accident location; Traffic control devices; Police traffic services; Accident investigation; Age factors; Sex factors; Fatality rates; Forecasting; Accident types; Motorcycle accidents; Urban accidents; Bicycle accidents; Time of accidents

AVAILABILITY: GPO by title, \$1.25

HS-820 214 Fld. 1/1; 2/2

COMMUNICATIONS: GUIDE-LINES FOR EMERGENCY MEDICAL SERVICES (EMS)

National Hwy. Traf. Safety Administra-tion, N19900

1972 72p

Types of emergency medical services (EMS) communication systems discussed include the universal emergency telephone number, phone and radio patch, paging systems, selective calling methods, physiological monitoring telemetry, hospital communication systems, and medical facility data banks. The role of the FCC in EMS communications is also discussed. Guidelines for implementing an EMS communications systems are provided and the organization of the Oregon EMS communications system is presented as a model.

Search terms: Communication systems; Emergency medical services; Emergency reporting systems; Radio communications; Telephones; Transmission bands; Data transmission; Costs; Oregon; Data banks; Questionnaires; Telemetry; Electronic monitoring systems

AVAILABILITY: GPO \$1.00

HS-820 215 Fld. 1/1; 2/2

**DISPATCHER. EMERGENCY
MEDICAL TECHNICIAN TRAIN-
ING COURSE**

National Hwy. Traf. Safety Administra-tion, N19900

1972 27p

This instructor's guide to use of emergency communications systems contains seven lessons on ambulance dispatching, telephone techniques, voice techniques and use of the radiotelephone at a base station or in a mobile unit, law enforcement and defense civil preparedness communications, equipment, and a sample testing procedure. The course serves as an adjunct to the Department of Transportation's Basic Training Program for Emergency Medical Technician-Ambulance.

Search terms: Curricula; Emergency reporting systems; Emergency medical services; Communication systems; Telephones; Radiotelephones; Radio communication; Telecommunication; National defense; Speech; Radio dispatcher training

AVAILABILITY: GPO \$0.60

HS-820 035 Fld. 1/1

**ECONOMICS OF HIGHWAY
EMERGENCY AMBULANCE
SERVICES**

National Highway Safety Bureau,
Washington, D.C.

Mar 1969 67p

Condensation of Dunlap and Associates, Inc. final report on Contract FH-11-6541, *Economics of Highway Emergency Ambulance Services*, v1:HS-003 295 (PB-178 837), v2:HS-003 296 (PB-178 838).

Outlines the status of emergency ambulance services; their costs; the advantages and disadvantages of commercial, hospital, municipal, and volunteer ambulance services; the impact of safety standards and legislation; the outlook for helicopter ambulances. Presents seven conclusions and recommendations for better ambulance service, emphasizing the need for community planning, subsidies to small communities, and good organization and management of ambulance services.

Search terms: Emergency medical services; Costs*; Ambulances; Helicopters; Safety standards; Community support; Hospitals*; Legislation

AVAILABILITY: GPO \$0.65

HS-820 047 Fld. 1/1

**HIGHWAY SAFETY PROGRAM
MANUAL. VOLUME 1 I.
EMERGENCY MEDICAL SERVICES**

National Highway Safety Bureau,
Washington, D.C.

Jan 1969 133p 20 refs

One of 17 volumes, two of which (vols. 12 and 13) are as yet unissued (see HS-820 036 to HS-820 050).

The complete manual supplements the Highway Safety Program Standards and presents additional information to assist State and local agencies to implement their highway safety programs. This volume is concerned with Emergency Medical Services (EMS) Programs to ensure that victims of traffic crashes receive prompt and adequate emergency care.

Search terms: Highway safety; Safety programs; State government; Local government*; Emergency medical services; Ambulances; Communication systems*; Helicopters

AVAILABILITY: Federal Highway Administration, Washington, D.C. 20591, Attn: Records Management Branch. \$6.50

HS-820 057 Fld. 1/1

**HIGHWAY SAFETY PROGRAM
PRIORITIES SEMINAR.
FREDERICKSBURG, VIRGINIA.
JULY 18-20, 1969. PROCEEDINGS.
VOL. 3: EMERGENCY MEDICAL
SERVICES**

National Highway Safety Bureau,
Washington, D.C.

1969 27p
Report no. PB-186 270

There is a well-documented national need to improve emergency medical services. Highway emergency medical services are motivating a comprehensive first effort, but inadequacy of a data base is a major deficiency and lack of individual interest in improving services is a major concern. The federal role should be the coordination of various agencies and programs to achieve an overall upgrading of these services. The inadequacies of the present ambulance system are outlined, including equipment, communications, and first aid training of personnel. Recommendations are made for seven steps which would offer the greatest benefits in improving emergency care.

Search terms: Emergency medical services; Ambulances; Ambulance personnel; Federal aid; Communication systems; First aid; Emergency equipment; Benefit cost analysis; Community support

AVAILABILITY: CFSTI as PB-186 270

HS-810 132 Fld. 1/1

EMERGENCY MEDICAL RESPONSE SYSTEMS

National Highway Safety Bureau, Washington, D. C., N18000

1970 19p

Presented at the First Technical Meeting on the U. S. Pilot Study on Road Safety, Brussels, 23 Mar 1970.

It is suggested that ambulance services in Europe are better organized and staffed than services in the United States. The problems of emergency medical services in the U. S. are outlined and attempts to improve them are described, including better trained personnel, helicopter use, better communications, better data recording.

Search terms: Emergency medical services /Europe; Emergency medical services /United States; Ambulances /Europe; Ambulances /United States; Ambulance personnel; Helicopters /Ambulances; Communication systems /Emergency medical services; Accident data

AVAILABILITY: NIHSB

HS-810 134 Fld. 2/0

PROGRESS OF STATE AND COMMUNITY HIGHWAY SAFETY PROGRAMS UNDER SAFETY STANDARDS ADMINISTERED BY THE NATIONAL HIGHWAY SAFETY BUREAU

**by Bradford M. Crittenden
National Highway Safety Bureau, Washington, D. C.
1969 17p**

Aspects of highway safety discussed include: requirements of the safety standards; state compliance with the standards; funding of programs; state laws dealing with highway safety. Much has been done to comply with standards on motorcycle safety helmets, drinking driver control through implied consent laws, emergency medical services. Compliance with other standards is discussed more briefly.

Search terms: Highway safety; Safety standards; Compliance; State laws; Motorcycle safety; Helmets; Drinking drivers; Implied consent laws; Emergency medical services; Safety programs/Finance; National Highway Safety Bureau

HS-810 235 Fld. 1/1

EMS IN THE USA -OVERVIEW

by D.A. Mills

National Hwy. Traf. Safety Administra-tion

1972 29p 17refs

Presented at 1st International Symposium on Emergency Medical Services, Honolulu, 31 Jul-4 Aug 1972. Sponsored by American Paramedical Inst.

The need for greater emergency medical services in the U. S. is stressed. Functions of an emergency medical system include: accident detection, accident reporting, medical emergency reporting, medical treatment at the scene, the role of the paramedic in treating the injured, transferring the injured, ambulance to the hospital, and providing definitive medical care in the hospital. Training, communications, and evaluation of the whole system are mentioned.

Search terms: Emergency medical services; Ambulances; Ambulance personnel training; Occupant rescue; Hospitals; Emergency reporting systems; First aid; Transportation of injured; Systems analysis; Communication systems

AVAILABILITY: NHTSA

HS-810 245 Fld. 2/0

INTERNATIONAL ASPECTS OF ROAD SAFETY

by R. Brenner

National Hwy. Traf. Safety Administra-tion, N19900

1972 17p

Presented at the Institute of Traffic Engineers meeting, San Gabriel, Calif., 18 Oct 1972.

The programs of NATO's Committee on the Challenges of Modern Society for promoting international cooperation in the study of environmental problems are outlined. The U. S. is responsible for coordinating the road safety efforts which are comprised of the following projects: alcohol and highway safety (Canada), vehicle inspection (Germany), identification and correction of accident prone locations (France), pedestrian safety (Belgium), emergency medical services (Italy), accident investigation (Netherlands), and experimental safety vehicles (U.S.) Each of the projects is briefly described.

Search terms: International factors; Environmental factors; Highway safety programs; Safety cars; Environmental vehicles; Accident location; Emergency medical services; Alcohol breath tests; Vehicle inspection; Pedestrian safety; Accident location; Drinking drivers

AVAILABILITY: NHTSA

HS-810 121 Fld. 2/0

VIOLENCE ON THE HIGHWAY

by William Haddon

National Highway Safety Bureau,
Washington, D. C. N18000

Published in *Traffic Digest and Review*
v16 n10 p4-8, 14 (Oct 1968)

In this speech Dr. Haddon tells of the role of the National Highway Safety Bureau in the overall traffic safety effort, and of the areas that need improvement if there is to be a reduction in the number of lives lost on the highways. These include: the elimination of road and vehicle hazards, better emergency medical care, better control of the drinking driver, and special attention to the elderly and school children.

Search terms: Traffic safety /Speeches; Accident prevention /Safety programs; Motorcycle safety; Highway safety /Accident prevention; Police traffic services; Emergency medical services; Drinking drivers /Enforcement; School traffic safety; Aged /Safety programs

HS-810 126 Fld. 2/3

PUBLIC SAFETY RESPONSIVENESS: ON-SITE MANAGEMENT OF HIGHWAY INCIDENTS

by Lawrence A. Pavlinski

National Highway Safety Bureau,
Washington, D. C. Highway Safety
Programs Service, N18600

1969 15p

Presented at the Highway Research Board 2d Western Summer Meeting, Salt Lake City, Utah, 11 Aug 1969.

The highway safety standard on debris hazard control and cleanup is discussed. Debris includes wreckage left after a crash, spilled cargo, hazardous materials, and various materials from beer cans to broken tree limbs and power lines. The standard calls for each state to enable rescue and salvage equipment to get to accident scenes promptly and to operate effectively, to extricate trapped persons from wreckage and to detour approaching drivers, and to handle spilled and hazardous materials safely. Training of rescue and salvage personnel and an adequate communications system are also needed.

Search terms: Debris removal / Safety standards; Accident location /Traffic control; Highway maintenance; Debris; Hazardous materials; Rescue operations; Extraction; Detours; Communication systems; Highway communication / Accident location; Hazards

AVAILABILITY: NHSB

HS-810 128 Fld. 2/0

THE NATIONAL HIGHWAY SAFETY PROGRAM

by Bradford M. Crittenden

National Highway Safety Bureau,
Washington, D. C., Highway Safety
Program Service, N18600

1970 32p

Presented to the National Extension Homemakers Council Conference on Highway Safety and Health, Michigan State University, February 2-4, 1970

The nature of the highway safety problem is outlined. Highway safety programs and laws are discussed, particularly the Highway Safety Act of 1966 and the National Traffic and Motor Vehicle Safety Act of 1966. The safety standards and progress made towards implementing them are outlined. The problems of young drivers, emergency medical services, and drinking drivers are discussed in some detail. It is recommended that the passage of implied consent laws be made a priority. Plans for the experimental safety car are discussed.

Search terms: Highway safety; Safety laws; Safety programs; Highway Safety Act of 1966; Safety standards; National Traffic and Motor Vehicle Safety Act of 1966; Problem drivers /Young adult drivers; Emergency medical services; Drinking drivers; Driver intoxication; Implied consent laws; Safety cars

AVAILABILITY: NHSB

HS-810 100 Fld. 1/1

EMERGENCY MEDICAL SERVICES FOR REDUCING HIGHWAY DEATHS AND INJURIES

by Robert Brenner

National Highway Safety Bureau, Washington, D. C., N18000

1969 19p

Prepared for presentation at the National Ambulance and Medical Services Assoc., 6th Annual Convention and Exhibition, San Juan, Puerto Rico, 21 Nov 1969.

Programs of the National Highway Safety Bureau are outlined, especially in relation to provisions of the Highway Safety Act of 1966 relating to emergency medical services. Projects established in various states to upgrade medical facilities are discussed, including the economics of ambulance service, ambulance design criteria, the use of helicopters as ambulances, and improved ambulance service in rural areas.

Search terms: Highway Safety Act of 1966; National Highway Safety Bureau; Emergency medical services; Care of injured; Helicopter / Ambulances; Ambulances / Costs; Ambulance design; Rural areas / Ambulances

AVAILABILITY: NHSB

HS-810 106 Fld. 1/0

REMARKS BEFORE THE WESTERN CONFERENCE ON HIGHWAYS AND TRAFFIC SAFETY, SCOTTSDALE, ARIZONA, MAY 29, 1969

by James M. Beggs

Department of Transportation, Washington, D. C., D17400

1969 7p

Results of some of the highway safety programs show that much can be done to reduce the injury and fatality rates. Discussion of these programs has been grouped into three basic categories: pre-crash - preventive; crash; crash - improving crash survivability; and post-crash - bettering the chances that injured people will survive.

Search terms: Highway safety / Speeches; Crash phase; Accident prevention; Emergency medical services

AVAILABILITY: Dept. of Transportation, Public Information Division, Washington, D. C.

HS-810 107 Fld. 1/1

THE NATIONAL PROBLEM OF EMERGENCY MEDICAL SERVICES FOR VICTIMS OF MOTOR VEHICLE ACCIDENTS

by John P. Stapp, Julie Waters

Nov 1967 4p

Presented at the 74th Annual Meeting, Assoc. of Military Surgeons, Washington, D. C., Nov 1967.

Emergency medical services for victims of motor vehicle accidents are compared with prevailing practices of volunteer and municipal fire departments. Emergency care for traffic victims should start with first aid at the scene of the accident, while overall goals are timeliness and adequacy. Guidelines for emergency medical services requirements for implementing three goal research projects underway are presented.

Search terms: Emergency medical services / Speeches; Traffic accidents; Care of injured

AVAILABILITY: Reference use only in NBSI Doc Center; no copies available for distribution

HS-810 110 Fld. 5/0; 4/4

KEYNOTE ADDRESS TO THE NATIONAL EXTENSION HOMEMAKERS COUNCIL, MICHIGAN STATE UNIVERSITY, EAST LANSING, MICHIGAN, JANUARY 10, 1968

by Bradford M. Crittenden

National Highway Safety Bureau, Washington, D. C. Highway Safety Programs Service, N18600

1968 21p

Two of the programs administered by the Highway Safety Programs Service are discussed: Standard 4.4.8 (Alcohol in Relation to Highway Safety) and Standard 4.4.11 (Emergency Medical Services). The most effective way for the National Extension Homemakers Council to work is to support state and local officers with tools to do the job: legislation, manpower, facilities and funds.

Search terms: Highway safety / Speeches; Drunk driving; Emergency medical services; Highway safety program standards; Driver intoxication; Federal-state relationships

AVAILABILITY: NBSB

HS-810 116 Fld. 2/0

REMARKS BEFORE THE PHOT CLUB INTERNATIONAL'S SEVENTH ANNUAL CONFERENCE IN HIGHWAY SAFETY, WASHINGTON, D.C., FEBRUARY 10, 1968

by William Haddon, Jr.

National Highway Safety Bureau, Washington, D. C. N18000

1968 16p

Speech previously presented before the National Conference of Women Community Leaders on Highway Safety, 27 Nov 1967.

A hypothetical crash is described dividing the crash events into pre-crash, crash, and post-crash phases. Crash factors, such as drunken driving and vehicle defects, determine whether a crash takes place. Crash phase factors, such as occupant packaging and highway design, determine whether injuries occur and, if so, their severity. Post-crash phase factors, such as emergency communication systems and emergency medical treatment, etc., determine whether the injured will live or die. Three actions suggested to improve the highway safety situation are: see that Dept. of Transportation highway safety standards are adopted quickly, when adopted, that these standards are properly implemented and keep up with new standards as they are issued.

Search terms: Speeches; Driver protection; Emergency medical services; Highway safety program standards; Driver intoxication; Federal-state relationships

AVAILABILITY: NBSB

**TESTIMONY ON PENDING
MATTERS RELATING TO THE
HIGHWAY SAFETY PROGRAMS**

by Robert Brenner

National Highway Safety Bureau,
Washington, D.C.

22 May 1969 37p

Prepared for delivery before the
Subcommittee on Roads of the
House Committee on Public Works.

Outlines the National Highway Safety
Bureau's role in carrying out pro-
visions of the Highway Safety Act of
1966. Discusses the effectiveness of
seat belts, motorcycle safety pro-
grams, drinking driver control, emer-
gency medical services, driver edu-
cation, accident investigation, the
National Driver Register, and other
aspects of the highway safety pro-
gram.

Search terms: Highway Safety Act
of 1966*; National Highway Safety
Bureau*; Safety standards; Safety
programs; Drinking drivers; Driver
education; Accident prevention;
Unsafe speed; Emergency medical
services; State government; Federal
aid; Seat belts*; Motorcycle safety;
Driver intoxication; Accident inves-
tigation; National Driver Register*;
Highway safety

AVAILABILITY: NHSB

HS-810 086 Fld. 3/5

HADDON ON HIGHWAY SAFETY

by William Haddon, Jr.

National Highway Safety Bureau,
Washington, D.C.

Published in *Analogy* p4-7 (Winter
1968)

In this interview on driver education,
Dr. Haddon discusses the importance
of knowledge of possible malfunction
of vehicles, of impairment by alcohol
and medical conditions, of hazards of
highway design deficiencies, and of
vehicle design, especially seat belts.
Drivers should be educated regarding
handling emergency situations in the
post crash phase. States vary in their
compliance to the federal driver
education standards.

Search terms: Driver education;
Hazards; Driver-vehicle interface;
Driver physical fitness; Seat belts;
Post-crash phase; Pre-crash design;
Crash phase; Standards; Compliance
procedures; Federal-state relation-
ships*; Defective vehicles; Safety
design; Emergency medical services

HS-810 087 Fld. 1/1

**THE LAW OFFICER AND FIRST
AID ON THE HIGHWAYS**

by John M. Waters, Jr.

National Highway Safety Bureau,
Washington, D.C. Highway Safety
Programs Service

Published in *Law and Order* v16 n6
p18,21-2, 106 (Jun 1968)

The police officer has a vital role in
detection of crashes, alerting of
rescue resources, initial first aid for
the injured, investigating the accident,
maintenance of order at the scene,
removal of debris, and restoration of
traffic flow. Emphasis is placed on
the importance of first aid training
for police and other emergency
personnel.

Search terms: Rescue operations;
Police; First aid; Emergency
medical services; Automobile
accidents

HS-810 090 Fld. 1/1

**EMERGENCY MEDICAL SERVICES
FOR HIGHWAY SAFETY**

by Robert Brenner

National Highway Safety Bureau,
Washington, D.C.

14 Oct 1969 11p

Prepared for presentation at 8th
Annual Conference of the Ambu-
lance Assoc. of America, Portland,
Ore.

Viewpoints and programs of the
National Highway Safety Bureau
regarding emergency medical services
are discussed. The inadequacy of
present services, especially in rural
areas, contributes to the highway
death toll. Safety standards, including
the one for emergency medical
services, are discussed. A key feature
of federal grant programs is the
training of ambulance attendants.
Several demonstration projects are
described. Program planning requires
decisions about what areas to concen-
trate on, how much can be spent,
and what type of service can be
considered optimum.

Search terms: National Highway
Safety Bureau; Emergency medical
services; Costs; Rural areas; Fatali-
ties; Safety standards; Federal aid;
Ambulance personnel; Decision
making; Highway safety

AVAILABILITY: NHSB

HS-810 093 Fld. 2/0; 5/0

**REMARKS AT THE FHWA HIGH-
WAY SAFETY SYMPOSIUM.
AIRLIE HOUSE, WARRENTON,
VIRGINIA**

by William Haddon, Jr.

National Highway Safety Bureau,
Washington, D.C.

31 Jul 1968 20p

Outlines progress made and standards
developed as a result of the passage
of the Highway Safety Act of 1966
and the National Traffic and Motor
Vehicle Safety Act of 1966. Cites
problems which are divided into three
general phases: the pre-crash, crash,
and post-crash. Cites specific prob-
lems as the lack of emergency
medical services, public under-
standing, alcohol involvement in acci-
dents, packaging of passengers,
highway design, and social issues.

Search terms: Highway safety;
Passenger packaging; Pre-crash
phase; Crash phase; Post-crash
phase; Emergency medical services;
Highway Safety Act of 1966; Na-
tional Traffic and Motor Vehicle
Safety Act of 1966; Sociological
aspects; Drinking drivers; Highway
design; Mass communication; Driver
intoxication; Restraint systems;
Safety design; Secondary collisions;
Injury factors

AVAILABILITY: NHSB

HS-810 044 Fld. 1/1

THE ROLE OF THE NATIONAL
HIGHWAY SAFETY BUREAU IN
RELATION TO STATE AND
COMMUNITY EMERGENCY
SERVICE

by William Haddon, Jr.
National Highway Safety
Bureau, Washington, D. C.

6-7 Apr 1967 7p

Presented at the American
Medical Association's
Conference on Emergency
Medical Services,
Chicago

HS-810 028 Fld. 2/0,5/0

FEDERAL GOVERNMENT PROGRESS
IN EVALUATING HIGHWAY SAFETY
PROGRAMS
by Robert Brenner
National Highway Safety
Bureau, Washington, D.C.

28 Oct 1968 13p
Presented at National
Safety Congress Traffic
Session, National Safety
Council, Chicago

Outlines progress being
made in highway safety due
to standards calling for
energy-absorbing steering
columns, laminated wind-
shields, and safety belts.
Comments on legislative
progress in the control of
drunken driving, licensing
of driver training schools.
Urges the establishment
of safety program priorities
to make best use of available
funds where immediate gains
are most likely, as in traf-
fic records, alcohol, motor
vehicle registration, emer-
gency medical services,
police traffic services,
driver licensing, and acci-
dent location problems. 65%
of funds should go to these
areas.

Search terms: Highway
safety, Energy absorption,
Steering columns, Laminated
glass, Windshields, Safety
belts, Safety standards,
Drinking drivers, Legisla-
tion, Driver education,
Safety programs, Cost data,
Traffic records, Alcoholism,
Motor vehicle registration,
Emergency medical services,
Police traffic services,
Driver licensing, Accident
location, Licensing, High-
way Safety Act of 1966,
United States Government

AVAILABILITY: NHSB

Many of those injured in
traffic accidents die
needlessly because they
do not receive prompt and
proper emergency medical
care. This talk relates
the responsibilities of
the Highway Safety Act
to activities and standards
required for the states to
improve emergency medical
services.

Search terms: Legislation,
Emergency Medical Service,
State government, Speeches,
Conferences, Meetings,
Highway Safety Act of 1966

AVAILABILITY: From NHSB

HS-810 057 Fld. 2/0,5/0,1/0

VEHICLE SAFETY (HIGHWAY)
by William Haddon, Jr.
National Highway Safety
Bureau, Washington, D. C.

Outlines the problems and
progress made in the highway
safety field. Among the
problems discussed are
pedestrian and motorcycle
safety, the better packaging
of passengers, better
steering wheels, windshields,
and emergency medical services.
Problems are divided into
pre-crash, crash, and
post-crash phases.

Search terms: Highway
safety, Passenger packag-
ing, Crash research,
Windshields, Steering
wheels, Pre-crash phase,
Crash phase, Post-crash
phase, Motorcycle safety,
Pedestrian safety,
Emergency medical services

AVAILABILITY: In DEPARTMENT
OF TRANSPORTATION INTRA-DEPART-
MENTAL SAFETY SEMINAR (1ST).
PROCEEDINGS, p99-118
(HS-810 055)

HS-810 071 Fld. 1/3; 3/4

SAFE DRIVING, A WAY TO A
BETTER LIFE

by Robert Brenner

National Highway Safety Bureau,
Washington, D.C.

24 Apr 1969 12p

Remarks prepared for delivery
before the Sixteenth Annual
District of Columbia Teenage
Traffic Safety Conference, Wash-
ington, D.C.

Discusses the increasing accident rate,
especially among young drivers.
Comments on the need for the auto-
mobile in cities, where public trans-
portation is deteriorating. Explains
the work of the National Highway
Safety Bureau in accident prevention,
drunk driver control, crash pro-
tection, motorcycle safety, emergency
medical services, and other aspects of
highway safety.

Search terms: Driver behavior,
Accident rates; Young adult
drivers*; Public transportation;
Urban areas; National Highway
Safety Bureau*; Accident preven-
tion; Drinking drivers; Driver intox-
ication; Occupant protection;
Motorcycle safety; Emergency
medical Services; Highway safety

AVAILABILITY: NHSB

STATISTICAL VIEWS OF
TRANSPORTATION SAFETY
by Robert Brenner
National Highway Safety
Bureau, Washington, D. C.

30 Dec 1967 17p
Presented at the Annual
Meeting of the American
Assoc. for the Advance-
ment of Science, New
York City

Thesis is that present nation-
wide crash information systems
fall short of yielding reli-
able data for safety planning,
because investigations are
oriented to litigation.
Three-phase categorization
suggested: prevention;
reducing injury severity;
better post-crash care.

Search terms: Accident
data, Accident preven-
tion, Accident responsi-
bility, Accident severity,
Care of injured, Emergency
medical services, Injury
severity, Post-crash
phase, Safety research

AVAILABILITY: NHSB

HS-810 016 Fld. 5/0,1/0

PREVENTION OF ACCIDENTS
AND INJURIES
by Robert Brenner
National Highway Safety
Bureau, Washington, D.C.

17 Apr 1968 10p
Presented at the National
Association of Independent
Insurers Claims Workshop
Meeting, San Francisco,
Calif.

Progress made since passage
of motor vehicle and highway
safety legislation. Pre-
crash, crash, and postcrash
measures in accident preven-
tion, safety equipment,
emergency care. Role in-
surance industry could play
in data gathering.

Search terms: Accident
data, Accident prevention,
Crash phase, Emergency
medical services, Highway
safety, Insurance industry,
Legislation, Post-crash
phase, Pre-crash phase,
Safety devices, Safety
laws, Safety standards

AVAILABILITY: NHSB

HS-810 024 Fld. 1/1

THE POSITION OF EMERGENCY
MEDICAL SERVICES IN SYSTEMS
FOR RESPONSE TO EMERGENCIES
OF ALL TYPES
by William Haddon, Jr.
National Highway Safety
Bureau, Washington, D.C.

18 Jan 1968 12p
Presented at "The Community
and Emergency Medical
Services," Sponsored by
the Commission on Emergency
Medical Services, American
Medical Assoc., San
Francisco, Calif.

Emphasizes the emergency
response systems must be
built on appropriate capability
for: signal generation,
communications, command and
control activities, transpor-
tation, and the capability
to superimpose appropriate
medical and other resources
as necessary for a particular
situation. Also emphasizes
that medical response systems
must be part of overall
systems for responses to
social disruptions of all
types.

Search terms: Emergency
medical services, Emer-
gency services, Standards,
Legislation, Speeches

AVAILABILITY: From
corporate author

HS-810 027 Fld. 2/0,5/0

IMPLEMENTATION OF THE HIGH-
WAY SAFETY ACT OF 1966
by Robert Brenner
National Highway Safety
Bureau, Washington, D.C.

22 Oct 1968 13p
Presented at Public Works
Congress, American Public
Works Association, Miami
Beach, Fla.

Outlines progress being made
in highway safety due to stand-
ards calling for energy-absorb-
ing steering columns, laminated
windshields, and safety belts.
Comments on legislative pro-
gress in the control of drunken
driving, licensing of driver
training schools. Urges the
establishment of safety pro-
gram priorities to make best
use of available funds where
immediate gains are most likely
as in traffic records, alco-
hol, motor vehicle regis-
tration.

Search terms: Highway
safety, Energy absorption,
Steering columns, Laminated
glass, Windshields, Safety
belts, Safety standards,
Drinking drivers, Legisla-
tion, Driver education,
Licensing, Safety programs,
Cost data, Traffic records,
Alcoholism, Motor vehicle
registration, Emergency
medical services, Police
traffic services, Driver
licensing, Accident loca-
tion, Highway Safety Act
of 1966, United States
Government

HS-800 897

**EMERGENCY MEDICAL SERVICES: CRASH INJURY
MANAGEMENT FOR TRAFFIC LAW
ENFORCEMENT OFFICERS. FINAL REPORT**

Dunlap and Associates, Inc., Darien, Conn.
A. M. Cleven, J. T. Fucigna 1973 36p 8refs
Contract DOT-HS-099-3-570
Report for 20 Nov 1972-20 Jun 1973.
NTIS

Emergency medical services, Police training, Emergency training, Curricula, Emergency equipment

HS-800 883

Fld. 1/1

**A STUDY OF MILITARY ASSISTANCE IN SAFETY AND TRAFFIC
(MAST). FINAL REPORT**

by M. D. Keller; W. R. Gemma; R. C. Chase;
H. F. Ptak

Ohio State Univ., Columbus

1973 143p
Contract DOT-HS-115-2-304

Report for 14 Feb-31 Dec 1972. Includes "A Study of
Military Assistance in Safety and Traffic (MAST),
San Antonio, Texas, 15 July 1970 to 31 December 1970,"
by M. D. Keller.

Four Military Assistance in Safety and Traffic (MAST)
operations at Fort Lewis, Luke Air Force Base, Fort
Carson, and Mountain Home Air Force Base are analyzed.
Organizational and regional differences were examined
to underline significant data and factors for planning
future MAST operations. A comprehensive list of
emergency medical services components and variables
related to MAST planning resources is presented. A
report to the first MAST operation, which was estab-
lished in San Antonio, is included.

Search terms: Emergency medical services; Seattle;
Phoenix; Denver; Boise; transportation of injured;
Helicopter ambulances; Military vehicles; Time factors;
Sex factors; Month; Day of week; Emergency medical
service council's; San Antonio; Local government;
Epidemiology; Ambulance personnel; Ambulance design;
Ambulance personnel training; Federal role; Planning

Availability: NTIS

HS-800 989

**TRAFFIC SAFETY '72. A REPORT ON THE
ACTIVITIES OF THE NATIONAL HIGHWAY
TRAFFIC SAFETY ADMINISTRATION AND THE
FEDERAL HIGHWAY ADMINISTRATION UNDER
THE HIGHWAY SAFETY ACT OF 1966 AND THE
NATIONAL TRAFFIC AND MOTOR VEHICLE
SAFETY ACT OF 1966**

National Hwy. Traf. Safety Administration, Washington, D.C.
Anonymous 1973 69p Rept. No. PB-226 859
Prepared in cooperation with Federal Hwy. Administration,
Washington, D.C.
GPO \$1.45 as Stock no. 5003-00139

National Traffic and Motor Vehicle Safety Act of 1966,
Highway Safety Act of 1966, Drinking drivers, Experimental
vehicles, Accident survivability, Restraint systems, Pedestrian
safety, Driver education, Motorcycle safety, Emergency medical
services, Federal laws, Vehicle safety standards, Accident
investigation, National Driver Register, Public information pro-
grams, Seat belt effectiveness, Fatality prevention, Driver
licensing, Traffic engineering, School bus safety, Highway
safety standards, Roadside hazards, Occupant protection,
Highway design, Safety design, Police traffic services

The report discusses a wide variety of subjects briefly includ-
ing: traffic safety, drinking drivers, Experimental Safety Vehi-
cle Program, crash survivability, safety belts, emergency medical
services, driver education and licensing, police, traffic
records, highway design, motorcycles, pedestrians, accident
locations, Federal Motor Vehicle Safety Standards, making
motor vehicles safer, research and highway safety, driver im-
provement, accident investigation, and public awareness of mo-
toring hazards.

**AN EVALUATION METHODOLOGY FOR
EMERGENCY MEDICAL SERVICES (EMS) SYSTEMS**

Computer Sciences Corp.
1973 197p
Contract DOT-HS-134-2-460

Report for Jul 1972-Feb 1973.

HS-800 602 Fld. 1/1

**TELEMETRY AND PHYSICIAN/
RESCUE PERSONNEL COMMU-
NICATION. FINAL REPORT**

by Eugene L. Nagel

Miami Univ., Fla.

1971 215p 12 refs
Contract FH-11-7198
Report no. UM-NHTSA-FH-11-7198

A demonstration project in Miami tested the feasibility of advanced emergency medical care in the field by paramedics, including defibrillation, intravenous fluids and drugs, and telemetered electrocardiographic and voice communication with the hospital. Advanced training programs for fire rescue were designed and tested. Community medical and lay acceptance of these techniques was tested. Comparisons were made of this system and other test systems. Evaluation was made of this system's ability to respond quickly to all types of medical emergencies, especially highway incidents involving both trauma and disease, and estimates were made of system effectiveness if extended over large population areas.

Search terms: Emergency medical services; Demonstration projects; First aid; Feasibility studies; Community support; Medical emergencies; Telemetry; Emergency reporting systems; Communication systems; Electrocardiography; Heart lung resuscitation; Medical treatment; Drugs; Resuscitation; Physicians; Hospitals; Occupant rescue; Fires; Miami; Ambulance personnel training; Emergency training

AVAILABILITY: NTIS

Availability: NTIS

*Emergency medical services, *Program evaluation, *Emergency reporting systems, *Emergency vehicles, *Ambulance personnel training, *Data acquisition, *Personnel, *Data analysis, *Field tests, *Multidisciplinary teams, *Transportation of injured, *Medical treatment, *Data processing, *Questionnaires, *Matrix reduction, *Emergency equipment, *North Atlantic Treaty Organization,

Methodology for the evaluation of Emergency Medical Services (EMS) systems was developed using a baseline questionnaire developed under the North Atlantic Treaty Organization (NATO). This was refined, expanded, and field tested in several states with the intention that, under NATO, it might become an international standard for EMS assessment. The survey guide is included and covers EMS organization, personnel, equipment, operational procedures and records and statistics. The evaluation summary sheet, which is also included, provides a flexible evaluation system based on a two-dimensional matrix concept. In addition to being able to arrive at an overall effectiveness index for the entire system, it is possible to obtain effectiveness indexes separately for each major element and sub-element and for each effectiveness parameter. Specific strengths and deficiencies can be pinpointed and quantitatively compared with those of other systems. A sample evaluation is presented.

HS-800 878

Fld. 1/1

**BASIC TRAINING PROGRAM FOR EMERGENCY
MEDICAL TECHNICIAN-AMBULANCE, CONCEPTS
AND RECOMMENDATIONS. FINAL REPORT**

by J. T. Fucigna; A. Cleven; R. D. Pepler
Dunlap and Associates, Inc.

1973 54p 52refs
Contract FH-11-6967

Availability: NTIS

*Ambulance personnel training, *Emergency medical services, *Curricula, *Instructor training,

The main objective of this project was to develop and pilot test a basic course for ambulance personnel with emphasis on the medical aspects of training. This included the identification of a medically acceptable text or manual for use as part of the course, the prerequisites for selecting students, and the qualifications of instructors. The concept of emergency medical technician as a new paramedical career is described and the course and the format and content of the related Instructor's Lesson Plans and Course Guide are summarized. Requirements for additional training courses and the need to develop a program for instructors are discussed and recommendations on steps that could be taken to assist in upgrading the performance and status of ambulance personnel are presented. Course and lesson objectives are included.

HS-800 557 Fld. 3/0

**EXPANSION OF VOCATIONAL-
TECHNICAL SCHOOL PRO-
GRAMS TO ACCOMODATE
HIGHWAY SAFETY MANPOWER
REQUIREMENTS. VOL. 3**

by Ronald D. Daugherty; W. Kent
Brooks; Carroll R. Hyder

Ohio State Univ.

1971 172p refs
Contract FH-11-7507

This volume covers vocational-technical programs for: alcohol in relation to highway safety, identification and surveillance of accident locations, traffic records, emergency medical services, and highway design, construction, and maintenance. It presents occupational summaries, manpower requirements and availability, program curricula and typical outlines, and relationships to the highway safety standards.

Search terms: Manpower utilization; Traffic engineering; Education; Safety education; Curricula; Instruction materials; Highway safety programs; Alcohol breath tests; Alcohol chemical tests; Medical education; Accident investigation training; Accident location; Traffic records; Emergency medical services; Highway design; Highway construction; Highway maintenance; Highway engineering; Highway safety standards

AVAILABILITY: NTIS \$3.00

HS-800 584 Fld. 1/1

**EXTENSION OF PROJECT CARE-
SOM (COORDINATED ACCI-
DENT RESCUE ENDEAVOR,
STATE OF MISSISSIPPI). FINAL
REPORT**

by Guy T. Peden; Don D. Doty;
Giovanni B. Giglioni; Dora R. Herring;
Leon J. Wilber

Mississippi State Univ.; University of
Southern Mississippi

1971 210p
Contract DOT-HS-019-1-020

Report for Nov 1970-Jun 1971.

The major objective of this, the second Project CARE-SOM, was the development of a workable, coordinated state-wide emergency medical system which would incorporate both helicopter and existing ground ambulance services. In so doing, the current project built not only upon the operational capabilities developed during the original Project CARE-SOM, but also upon the findings of other similar demonstration projects. Such matters as the use of helicopter ambulances for police traffic services, the costs of establishing and operating a state-wide medical emergency system, the appropriate State agency for operating such a system, and its impact upon ground ambulance forms were examined, developed, and evaluated.

Search terms: Emergency medical services; Helicopter ambulances; Transportation of injured; Police traffic services; Ambulances; Mississippi; Traffic surveillance; Hospitals; Costs; Financing; State planning; Communication systems

AVAILABILITY: NTIS

HS-800 589 Fld. 1/1

**CONSOLIDATED SYSTEM OF
EMERGENCY SERVICES
(PROJECT 20/20). FINAL RE-
PORT**

Nebraska Office of the Adjutant General

300p
Contract FH-11-6554

The project organized and operated a total system demonstration to evaluate improvements in accident notification, central aid dispatch, and vehicles and personnel which provide emergency services at the accident scene and enroute to the treatment center. Project elements were notification, video tape documentation, ambulance attendant training, computer assisted information system (dispatching), comparative analysis of air and ground ambulances, telemetry, and a demonstration classroom-laboratory. Benefits of the system are discussed.

Search terms: Emergency medical services; Demonstration projects; Communication systems; Ambulance personnel training; Helicopter ambulances; Telemetry; Benefit cost analysis; Nebraska; Emergency reporting systems

AVAILABILITY: NTIS

REFRESHER TRAINING PROGRAM FOR EMERGENCY MEDICAL TECHNICIAN-AMBULANCE. INSTRUCTOR'S LESSON PLANS

Dunlap and Associates

Mar 1971 50p
Contract FH-11-7475

Basic Training Program for Medical Technician-W ambulances, publications were announced as HS-800 181; HS-800 182; and HS-800 226.

This document has been prepared to aid the instructor in conducting a refresher training course for emergency medical technicians - ambulance. It contains detailed lesson plans for the course, guidelines for developing test materials and guidelines for conducting lessons in which student knowledge and skills are evaluated.

Search terms: Drowning; Childbirth; Ambulance personnel training; Curricula; Instructors; Instruction materials; Instruction manuals; Tests; Evaluation; Airway maintenance; Resuscitation; Transportation of injured; Burns; Injuries; Fractures; Mental disorders; Diabetes mellitus; Hemorrhage; Heart arrest; Pulmonary arrest; Cardiac massage; Cardiopulmonary responses; Shock (Pathology); Cerebrovascular diseases; First aid; Emergency medical services; Epilepsy; Drugs; Occupant rescue; Legal factors

AVAILABILITY: GPO \$1.50

REFRESHER TRAINING PROGRAM FOR EMERGENCY MEDICAL TECHNICIAN-AMBULANCE. COURSE GUIDE

Dunlap and Associates

Mar 1971 30p 8 refs
Contract FH-11-7475

Basic Training Program for Medical Technician-Ambulance publications were announced as HS-800 181; HS-800 182; and HS-800 226.

This "Course Guide" has been prepared to aid in organizing, conducting and standardizing a refresher course for Emergency Medical Technicians - Ambulance. It contains a detailed outline of the course; prerequisites for both students and instructors; suggested scheduling and class size; requirements for facilities, training aids and reference material; and guidelines for conducting the course.

Search terms: Ambulance personnel training; Curricula; Instructors; Instruction materials

AVAILABILITY: GPO \$0.35

THE FEASIBILITY OF DEVELOPING AN EXPERIMENTAL HELICOPTER AMBULANCE SERVICE IN THE WASHINGTON METROPOLITAN AREA

Metropolitan Washington Council of Governments

1969 74p
Contract FH-11-6853

The feasibility of a helicopter ambulance program for the greater Washington, D.C. area has been examined to define the services such a program could supply and the means of integrating these services into the existing ground crash rescue systems. Although information necessary to analyze the quality and determine specific deficiencies in the existing systems was not available, two demonstration plans were developed that would permit evaluation of a helicopter ambulance service under actual conditions of use.

Search terms: Helicopter ambulances; Emergency medical services; Ambulances; Time factors; Demonstration projects; Feasibility studies; Benefit cost analysis

AVAILABILITY: A reference copy only is in NHTSA Technical Reference Div.; no copies available for distribution

HS-800 461 Fld. 1/1

COORDINATED ACCIDENT RESCUE ENDEAVOR, STATE OF MISSISSIPPI. FINAL REPORT. VOL. 2. APPENDICES

by J. Edwin Clark; L. Ray Johnson; M. Wayne Parker; Donald W. Boatwright; Donald F. Fitzgerald

Mississippi State Univ.

Sep 1970 248p
Contract FH-11-7146

Project CARE-SOM was a study to develop and evaluate a comprehensive and integrated plan for a total emergency medical care system composed of ground ambulances and helicopters. This volume contains documentation for the study. Included are information supplied by attendants and hospitals; information on the helicopters and their operation and equipment; log of the helicopter missions; the simulation program and printout.

Search terms: Emergency medical services /Evaluation; Emergency medical services /Mississippi; Ambulances; Helicopter ambulances; Occupant rescue; Simulation models /Emergency medical services; Accident report forms

AVAILABILITY: NTIS

HS-800 495 Fld. 1/1

HELICOPTER AMBULANCE SERVICE TO EMERGENCIES. "PROJECT HASTE" FINAL REPORT

Metropolitan Inter-County Council; Minnesota Dept. of Health

31 Mar 1971 159p
Contract FH-11-7128

Appendix 3 includes: Final Report on a Radio Communication System for Project HASTE by John R. DuBois.

Project HASTE was conceived to bring highly trained emergency medical service personnel to the scene of a personal injury accident as quickly as practical and to transport the critically injured to hospitals by helicopter if time was of the essence. Eight counties comprising the metropolitan area of St. Paul-Minneapolis participated in the project. It was concluded that helicopter ambulance service in a large metropolitan area is not feasible because of operational limitations but would be reasonable in outlying areas where ground ambulances cannot respond so quickly and where transferring patients to a larger hospital would be beneficial. Even in outlying areas the helicopters would have to have multi-purpose use to be economically feasible.

Search terms: Helicopter ambulances; Emergency medical services; Time factors; Urban areas; Hospitals; Economic factors; St. Paul; Minneapolis; Rural areas; Injury severity

AVAILABILITY: NTIS

HS-800 504 Fld. 1/1

PATIENT HANDLING MANUAL FOR EMERGENCY MEDICAL TECHNICIANS-AMBULANCE

by Karen Bratsen; Arlene Cleven; Richard Warner

Dunlap and Associates, Inc.

1972 134p
Contract FH-11-7475

Aspects of patient handling discussed are: patient handling equipment, including equipment for carrying patients, ambulance design, and ambulance stretcher supplies; equipment selection and preparation; transferring of patients to stretchers; moving stretcher patients; loading and unloading ambulance; special problems in patient handling, such as spinal injuries, unconsciousness, resuscitation, extremity injuries, infants, hard to control patients, and handling in confined areas.

Search terms: Ambulance design; Ambulance personnel training; First aid; Emergency medical services; Transportation of injured; Ambulances; Medical treatment; Stretchers; Emergency equipment; First aid equipment; Resuscitation; Instruction manuals; Spinal injuries; Arm injuries; Leg injuries; Injury severity; Airway maintenance; Infants

AVAILABILITY: GPO S0.60

HS-800 417 Fld. 1/1

**EMERGENCY MEDICAL SERVICES
FOR AN URBAN AREA: THE
DETROIT DEMONSTRATION
PROGRAM. SUMMARY**

by Robert E. Scott; Erik Hanitzsch;
James O'Day

Michigan Univ., Ann Arbor. Highway
Safety Research Inst., M42600

Jul 1970 63p
Contract FH-11-6901

A study of the emergency medical services in the Detroit area is reported. The demonstration project investigated the following: frequency of emergencies and types of injuries; reporting, time delay, and use of citizen band radio; the service process including police service and firemen serving on rescue squads; commercial ambulance services; training of and treatment by ambulance attendants; and the number and placement of recovery vehicles. Cost effectiveness of each system is presented. A helicopter demonstration is analyzed.

Search terms: Emergency medical services /Detroit; Emergency reporting services /Medical emergencies; Emergency reporting services /Citizens band radios; Ambulance personnel /Police; Ambulance personnel /Firemen; Emergency vehicles; Ambulance personnel training; Emergency medical services /Benefit cost analysis; Accident research; Helicopter ambulances /Benefit cost analysis

AVAILABILITY: NTIS

HS-800 418 Fld. 1/1

**EMERGENCY MEDICAL SERVICES
FOR AN URBAN AREA: THE
DETROIT DEMONSTRATION
PROGRAM**

by Robert E. Scott; Erik Hanitzsch;
James O'Day

Michigan Univ., Ann Arbor. Highway
Safety Research Institute, M42600

Jul 1970 508p
Contract: FH-11-6901

Historical background and Michigan's ambulance act are discussed in addition to the material on the emergency medical services in Detroit reported in the summary volume. Conclusions follow: reducing response times further would be difficult; given comparable training and equipment, quality of treatment can be duplicated by dual function personnel provided that their activities at the scene are limited to emergency medical care; use of a municipal helicopter ambulance did not result in significant improvement in service time or in condition of patient; and the increased cost of an exclusive helicopter was not justified.

Search terms: Emergency medical services /Detroit; Emergency reporting services /Medical emergencies; Emergency medical services /History; Ambulance personnel /Police; Ambulance personnel /Firemen; Ambulance personnel training; Emergency vehicles; Emergency medical services /Benefit cost analysis; Helicopter ambulances /Benefit cost analysis; Accident research

AVAILABILITY: NTIS

HS-800 460 Fld. 1/1

**COORDINATED ACCIDENT RESCUE, ENDEAVOR, STATE OF
MISSISSIPPI. FINAL REPORT.
VOL. 1. OPERATION STRUCTURE AND PROCEDURES**

by J. Edwin Clark; L. Ray Johnson; M. Wayne Parker; Donald W. Boatwright; Donald F. Fitzgerald

Mississippi State Univ.

Sep 1970 183p
Contract FH-11-7146

Project CARE-SOM, a 15-month study of a total emergency medical service system, is described. The objective was to develop and evaluate a comprehensive and integrated plan for a total emergency medical care system composed of ground ambulances and helicopters. Findings and conclusions are presented in regard to emergency roadside telephones; ground ambulance response characteristics; medical attendant training and performance; emergency medical communications; helicopter operations and performance; a simulation model for a rescue system; and comparison of helicopter and ground ambulance response characteristics.

Search terms: Emergency medical services /Evaluation; Emergency medical services /Mississippi; Ambulances; Helicopter ambulances; Roadside telephones; Emergency medical services /Time factors; Occupant rescue; Ambulance personnel; Communication systems /Emergency medical services; Simulation models /Emergency medical services

AVAILABILITY: NTIS

HS-800 307 Fld. 1/1; 4/7

EMERGENCY AMBULANCE SERVICE DEMONSTRATION PROJECT

by Leonora Burkholz

New York (City). Office of the Mayor, N. Y., N49800

Apr 1970 137p 6 refs

Contract FH-11-6930

Report no. PB-195 053

The purposes of this project were to develop and demonstrate the application of scientific management tools for planning and control of emergency ambulance service in New York, including a mathematical model and a geographic information system using computers; and to make this system readily available for use by other urban areas. The project was divided into three areas: the simulation model, field experimentation, and the geographic information system. Recommendations for the management of ambulance services, based on the studies, are discussed.

Search terms: Emergency medical services / New York (City); Ambulances / New York (City); Simulation models / Emergency medical services; Information systems / Emergency medical services; Mathematical models / Emergency medical services; Emergency medical services / Administration

AVAILABILITY: NTIS

HS-800 308 Fld. 1/1; 4/7

DISPERSAL OF EMERGENCY AMBULANCES IN THE CITY OF NEW YORK: A DEMONSTRATION AND ANALYSIS

by Eugene L. Klemens; Richard P. Kuo

New York (City). Office of the Mayor, N. Y., N49800

Mar 1970 94p

Contract FH-11-6930

Report no. PB-195 054

A field test was conducted to determine whether dispersal of individual emergency ambulances in areas of predictably heavy demand would yield improvements in performance. The key criterion in determining whether or not performance was improved was response time reduction. Results yielded conclusive proof that dispersed ambulances respond faster than those operating under conventional patterns by an average of over 30%. Relocation of ambulances to areas of high call density did not reduce ambulance availability to other areas. The test demonstrated the feasibility of ambulance dispersal. Eight recommendations are made for the management of a dispersed ambulance service.

Search terms: Emergency medical services / New York (City); Ambulances / New York (City); Emergency medical services / Administration; Time factors / Ambulances; Information systems / Emergency medical services

AVAILABILITY: NTIS

HS-800 318 Fld. 4/2; 4/1

COMMUNITY ACTION PROGRAM FOR TRAFFIC SAFETY. GUIDE II: LEGAL AUTHORITY

by Mel D. Powell; Michael K. Gemmell; Donald Murray; Warren P. Howe

National Assoc. of Counties Research Foundation, Washington, D. C., N06600

Sep 1970 28p 44 refs

Contract FH-11-7091

Legal authority available and needed to implement local traffic safety programs is discussed. Specific areas discussed are driver education; codes and laws; traffic courts; alcohol; traffic records; accident locations; emergency medical services; highway design, construction, and maintenance; traffic control devices; pedestrian safety; police traffic services; debris hazard control and cleanup. The most valuable tools for legal planning are the Uniform Vehicle Code, the Manual on Uniform Traffic Control Devices, and the Model Traffic Ordinance.

Search terms: Traffic laws; Community support / Legal factors; Highway safety / Legal factors; Driver education / Legal factors; Traffic courts / Legal factors; Drinking drivers / Legal factors; Driver intoxication / Legal factors; Traffic records / Legal factors; Accident location / Legal factors; Emergency medical services / Legal factors; Highway design / Legal factors; Highway construction / Legal factors; Highway maintenance / Legal factors; Traffic control devices / Legal factors; Pedestrian safety / Legal factors; Police traffic services / Legal factors; Debris removal / Legal factors; Hazards / Legal factors; Uniform Vehicle Code; Manual on Uniform Traffic Control Devices for Streets and Highways; Model Traffic Ordinance; Community support / Highway safety

AVAILABILITY: NBS

HS-800 269 Fld. 1/1; 2/8

AIR MEDICAL EVACUATION SYSTEM (AMES) DEMONSTRATION PROJECT. EXECUTIVE SUMMARY

Arizona State Univ., Tempe, A55800

May 1970 32p

Contract FII-11-7090

HS-800 268 Fld. 1/1; 2/8

AIR MEDICAL EVACUATION SYSTEM (AMES) DEMONSTRATION PROJECT. APPENDICES

Arizona State Univ., Tempe, A55800

May 1970 approx. 50p

Contract FII-11-7090

The appendices of this report include: the Arizona State Highway Patrol Training Bulletins announcing the Air Medical Evacuation System; helicopter operations sub-contract request for quotations; data collection procedures and forms; patrol and surveillance study computer runs, SIMBOL rating system; Automotive Crash Injury Research classification and description of injuries; equipment and drug list for AMES doctor's bag.

Search terms: Helicopters /Police training; Emergency medical services /Contracts; Traffic surveillance /Automation; Emergency medical services /Data acquisition; Injury severity index; Emergency medical services /Drugs; Emergency equipment /Medical services

AVAILABILITY: NTIS

An air medical evacuation system, which incorporates the helicopter, well-trained para-medical personnel, and a well designed communications system was developed and tested in 1969-1970 by the Arizona State University. The two specialty equipped aircraft carried the pilot and a patrolman. Both men had received over 150 hours in an advanced in-hospital training program. Three physicians monitored the system continuously. Highway accidents accounted for approximately half of the missions flown involving patients. Other medical emergencies, search, and surveillance missions also were included in this project. Patients were evaluated with a quantitative scoring system. This program provided answers to the questions of cost and operational effectiveness of civilian air medical systems. Criteria were developed for suitability of patients for air evacuation, on scene first aid, standards of evacuation care, comfort of patient, telemetry, and choice of receiving hospital.

Search terms: Emergency medical services /Helicopters; Emergency medical services /Ambulance personnel; Rescue operations /Helicopters; Ambulance personnel /Medical education; Emergency medical services /Physicians; Emergency medical services /Traffic accidents; Rescue operations /Benefit cost analysis; Helicopters /Benefit cost analysis; Injury severity index; Telecommunication /Emergency medical services; Aerial surveillance; Rescue operations /Arizona; Rescue operations /Hospitals

AVAILABILITY: NTIS

HS-800 289 Fld. 1/1; 2/2

POST-CRASH COMMUNICATIONS. FINAL REPORT

by Harold Lunefeld; Robert G. Varady; Gerald N. Newburg

• Airborne Instruments Lab., Deer Park, N. Y., A14400

Jul 1970 184p 70 refs

Contract FH-11-7335

Report no. AIL-9362-1

The post-crash problem was studied in terms of the physical environment, post-crash incidents and emergencies, and community emergency response resources. Benefits that could be derived by a communications system that would reduce present detection and notification time lags were evaluated. A system to detect and locate crashes was developed and a cost benefit analysis conducted. It was concluded that such a system is technically feasible. Coded or uncoded beacon technology seems to be the most promising approach. The primary recommendations of the study were to develop, integrate, and demonstrate this concept with existing or proposed surveillance, communications, and control systems; to define injury-time relationship and accuracy to response time lags more precisely; and to improve resource allocation and management.

Search terms: Emergency services /Postcrash phase; Emergency medical services /Postcrash phase; Postcrash phase; Debris removal; Communication systems /Postcrash phase; Accident surveillance /Warning systems; Benefit cost analysis /Communication systems; Injuries /Time factors; Emergency medical services /Time factors

AVAILABILITY: NTIS

HS-800 247 Fld. 1/1; 4/4

EMERGENCY MEDICAL SERVICES SURVEY AND PLAN DEVELOPMENT, EVALUATION AND REVISION OF PRELIMINARY GUIDANCE DOCUMENT. FINAL REPORT. [VOL. 1]

Stanford Research Inst., Menlo Park, Calif. S36400

Mar 1970 142p

Contract FH-11-6554

The preliminary Guidance Document was designed for use by states in planning and implementing a comprehensive emergency medical services program in accordance with Federal Highway Safety Standards. The document includes organizational and planning procedures required at the state level, steps required to implement a state program, actions required at the local level to facilitate program implementation, and data needs for EMS evaluation and determination of program priorities. The guidance is supported by detailed procedures on organization, data collection, data processing, and reporting. This study reflects actual field experience in use by state and local officials, particularly as concerns the data system.

Search terms: Emergency medical services /Federal state relationships; Emergency medical services /Data acquisition; Emergency medical services /Information systems; Emergency medical services /Data processing; Emergency medical services /Surveys

AVAILABILITY: CFSTI

HS-800 248 Fld. 1/1; 4/4

EMERGENCY MEDICAL SERVICES SURVEY AND PLAN DEVELOPMENT, EVALUATION AND REVISION OF PRELIMINARY GUIDANCE DOCUMENT. FINAL REPORT. [VOL. 2]

Stanford Research Inst., Menlo Park, Calif., S36400

Mar 1970 244p

Contract FH-11-6554

The purpose for the study of executive summary was for the development of uniform reporting formats, procedures, and criteria for estimating the capabilities of existing emergency medical services, including consideration of survey techniques for evaluating the different categories of information involved. The Preliminary Guidance Document was designed for use by states in planning and implementing a comprehensive emergency medical services program in accordance with Federal Highway Safety Standards. The document includes organizational and planning procedures required at the state level, steps required to implement a state program, actions required at the local level to facilitate program implementation, and data needs for EMS evaluation and determination of program priorities. The guidance is supported by detailed procedures on organization, data collection, data processing, and reporting.

Search terms: Emergency medical services /Federal state relationships; Emergency medical services /Data acquisition; Emergency medical services /Information systems; Emergency medical services /Data processing; Emergency medical services /Surveys

AVAILABILITY: CFSTI

HS-800 267 Fld. 1/1; 2/8

AIR MEDICAL EVACUATION SYSTEM (AMES) DEMONSTRATION PROJECT. FINAL REPORT

Arizona State Univ., Tempe, A55800

May 1970 226p 27 refs

Contract FH-11-7090

An air medical evacuation system, which incorporates the helicopter, well-trained para-medical personnel, and a well designed communications system was developed and tested in 1969-1970 by the Arizona State University. The two specially equipped aircraft carried the pilot and a paramedic. Both men had received over 150 hours in an advanced in-hospital training program. Three physicians monitored the system continuously. Highway accidents accounted for approximately half of the missions flown involving patients. Other medical emergencies, search, and surveillance missions also were included in this project. Patients were evaluated with a quantitative scoring system. This program provided answers to the questions of cost and operational effectiveness of civilian air medical systems. Criteria were developed for suitability of patients for air evacuation, on scene first aid, standards of evacuation care, comfort of patient, telemetry, and choice of receiving hospital.

Search terms: Emergency medical services /helicopters; Emergency medical services /Ambulance personnel; Rescue operations /Helicopters; Ambulance personnel /Medical education; Emergency medical services /Physicians; Emergency medical services /Traffic accidents; Rescue operations /Benefit cost analysis; Helicopters /Benefit cost analysis; Injury severity index; Telecommunication /Emergency medical services; Aerial surveillance; Rescue operations /Arizona; Rescue operations /Hospitals

AVAILABILITY: NTIS

HS-800 161 Fld. 1/1

FEASIBILITY STUDY OF BALISTIC CUTTING OF VEHICLE STRUCTURES. FINAL REPORT

Ordnance Engineering Associates, Inc., Des Plaines, Ill.

12 May 1969 39p 7 refs
Contract FH-11-6887

The feasibility of using ballistic devices to cut auto structures in order to remove injured and entrapped occupants has been studied. It was concluded that the roof structures of most autos are similar enough to allow a single ballistic kit to provide access to most trapped occupants. A ballistic cutting kit has been designed which is simple, safe, easy to use, rapid, reasonable in cost, and with no fire hazard. Cutting a panel out of the car top is recommended because there are a minimum of structural members there. Cutting doors would be more difficult and possibly dangerous. Cutting is done with flexible linear shaped charge (FLSC) which uses a minimum explosive charge.

Search terms: Extraction*; Rescue operations*; Metal cutting*; Explosives*; Fire prevention; Care of injured; Debris removal; Automobile design; Ballistics*; Roofs*; Emergency equipment*

AVAILABILITY: CFSTI.

HS-800 181 Fld. 1/1

BASIC TRAINING PROGRAM FOR EMERGENCY MEDICAL TECHNICIAN-AMBULANCE: CONCEPTS AND RECOMMENDATIONS

Dunlap and Associates, Inc., Darien, Conn. D31800

Oct 1969 51p 52 refs
Contract FH-11-6967

The main objective was to develop and pilot test detailed lesson plans and instructor guidelines for organizing, administering, and teaching a basic course for ambulance personnel with emphasis on the medical aspects of training. The pilot test was to assess the mechanics of the course. Assessment of whether students provide more effective emergency medical care as a result of training was not considered within the scope of the pilot test.

Search terms: Ambulance personnel; Medical education; Curricula; Instructors;

AVAILABILITY: GPO \$0.35

HS-800 182 Fld. 1/1

BASIC TRAINING PROGRAM FOR EMERGENCY MEDICAL TECHNICIAN-AMBULANCE: COURSE GUIDE AND COURSE COORDINATOR ORIENTATION PROGRAM

Dunlap and Associates, Inc., Darien, Conn. D31800

Oct 1969 46p
Contract FH-11-6967

The detailed "Instructor's Lesson Plans" will be published by GPO as a separate document at a later date.

This "Course Guide" has been prepared to aid in organizing, conducting, and standardizing a basic training course for emergency medical technicians. It contains a detailed outline of the course; prerequisites for both students and instructors; suggested scheduling and class size; requirements for facilities, training aids, and reference material; and guidelines for conducting the course.

Search terms: Ambulance personnel; Medical education; Curricula; Instructors

AVAILABILITY: GPO \$0.30

HS-800 226 Fld. 1/1

BASIC TRAINING PROGRAM FOR EMERGENCY MEDICAL TECHNICIAN-AMBULANCE. INSTRUCTOR'S LESSON PLANS

by Joseph T. Fucigna; Richard D. Pepler; Arlene Cleven

Dunlap and Associates, Inc., Darien, Conn.

Feb 1970 244p 51 refs
Contract FH-11-6967

This teacher's manual contains detailed lesson plans, guidelines for developing test materials, conducting lessons, and teaching effectively, supplementary references, and sample forms for training program for emergency medical technicians performing as attendants and drivers on ambulances. The course represents the first phase of this training. Lesson plans cover the topics: the role and responsibilities of the emergency medical technician and his equipment; airway obstructions, pulmonary arrest, and their treatment; cardiac arrest; bleeding, shock, and resuscitation; wounds; fractures of the extremities; injuries of the head, face, neck, spine, eye, chest, abdomen, pelvis, and genitalia; medical emergencies; childbirth and child patient problems; lifting and moving patients; environmental emergencies; extrication from automobiles; driving and maintenance of an emergency vehicle, records, communications, and hospital emergency room procedures; and responding to an ambulance call.

Search terms: Ambulances; Driver education; Emergency medical services/Education; Ambulance personnel/Medical education; Accident investigation training; Ambulance personnel; Airway maintenance/ Instructional materials; Hemorrhage/First aid; Shock (pathology)/First aid; Resuscitation/Instructional materials; Heart arrest/First aid; Fractures/First aid; Head injuries/First aid; Facial injuries/First aid; Neck injuries/First aid; Eye injuries/First aid; Chest injuries/First aid; Abdominal injuries/First aid; Spinal injuries/First aid; Pelvic injuries/First aid; Medical emergencies/First aid; Genital injuries/First aid; Childbirth/Instructional materials; Children/First aid; First aid/ Instructional materials; Extraction/ Instructional materials; Ambulance personnel/ Instructional materials; Pulmonary arrest/First aid; Burns/First aid; Drowning/First aid; Emergency medical services/Instructors; Ambulance personnel/Manuals

AVAILABILITY: GPO \$2.50

HS-800 155 Fld. 1/1

**EXTRICATION METHODS AND
AMBULANCE OPERATIONAL
GUIDELINES. FINAL REPORT.
PART 1, EXTRICATION METHODS**

Autonetics, Anaheim, Calif.

Apr 1969 456p 34 refs

FH-11-6943

Report no. C9-592/037-Vol-1

The purpose of this study was to determine the range of techniques and devices needed for extricating victims of automobile crashes. The major emphases of the study have been related to gaining access to the victims, disentangling machinery from around them, preparing them for removal, and removing them to the ambulance. The study also required the development of a training manual for the use of extrication equipment and emergency medical treatment. Recommendations are presented to provide a basis for emergency rescue services performing extrication activities. An attempt has been made to find a pattern in extrication problems in order to determine what procedures and equipment are basic. Little has been published on this problem, and suggestions for further study are given.

Search terms: Post-crash phase; Ambulances*; Emergency medical services; Emergency equipment*; Rescue operations*; Care of injured; First aid; Automobile accidents; Access to crash scene; Accident factors; Accident data; Interviews*; Extraction*; Questionnaires*; Injury factors; Emergency services; Deformation; Debris removal; Systems analysis; Personnel*; Administrative procedures

AVAILABILITY: CFSTI as PB-184
904

HS-800 156 Fld. 1/1

**EXTRICATION METHODS AND
AMBULANCE OPERATIONAL
GUIDELINES. FINAL REPORT.
PART 2, AMBULANCE OPER-
ATIONAL GUIDELINES**

Autonetics, Anaheim, Calif.

Apr 1969 115p 85 refs

Contract FH-11-6943

Report no. C9-592/037-Vol-2

This volume contains an analysis of representative ambulance operational functions and tasks, identification of ambulance operational personnel and their inter-relationships, and development of ambulance operational guidelines. A field tested performance model and a related criticality scale are included.

Search terms: Extraction*; Ambulances*; Emergency equipment*; Emergency medical services; Rescue operations*; Care of injured; First aid; Post-crash phase; Automobile accidents; Accident factors; Systems analysis; Models; Questionnaires*; Personnel*; Administrative procedures; Field tests

AVAILABILITY: CFSTI as PB-184
905

HS-800 157 Fld. 1/1

AMBULANCE DESIGN CRITERIA

National Academy of Engineering, Washington, D.C. Committee on Ambulance Design Criteria

30 Jun 1969 58p 30 refs

Contract FH-11-6959

Prepared in cooperation with the Highway Research Board, Washington, D.C.

Engineering design criteria for emergency vehicles have been determined. Criteria will include medical equipment, service required, type of terrain in which vehicles will be used, and safety characteristics. Present ambulances can be modified to meet these performance standards in part, and new ones should incorporate these criteria. Driver and patient compartments, conditions the ambulance should be prepared to deal with, supplies it should carry, and design of the vehicle are described.

Search terms: Ambulances*; Emergency medical services; Medical emergencies; First aid; Care of injured; Emergency equipment*; Performance characteristics; Standards; Motor vehicle design; Emergency vehicles; Communication systems; Rescue operations*; Extraction*; Resuscitation*; Safety design

AVAILABILITY: CFSTI as PB-185
106

**METHODS FOR SURVEYING
HIGHWAY EMERGENCY MEDICAL
SERVICES**

Standford Research Inst., Menlo Park,
Calif.

1968 304p
Contract FH-11-6554
Report no. PB-178 231

A data system suitable for assessing emergency medical services and upgrading them must have the capacity to measure their demand, performance, and basic capabilities, while reflecting their existing organization. Case studies in four states indicated need for comprehensive data gathering, organization at the state and local level. An eight-step program is suggested, beginning with the establishment of state-level organization and concluding with the establishment of procedures for periodic evaluation of emergency medical services.

Search terms: Emergency medical services; Accident data; Accident reports; Data acquisition; Administrative procedures; Hospitals; Injuries; Motor vehicle accidents; Information systems; State government; Ambulances; Field tests; Liability

AVAILABILITY: CFSTI as PB-178 231

HS-800 081 Fld. 1/1

**EMERGENCY MEDICAL SERVICES
SURVEY AND PLAN DEVELOP-
MENT. PRELIMINARY GUIDANCE
DOCUMENT**

Stanford Research Inst., Menlo Park,
Calif.

1968 209p
Contract FH-11-6554
Report no. PB-178 232

The purpose of this guidance document is to assist states in complying with the federal standard on emergency medical services. Specific attention is given to the requirements of a comprehensive state program and to organizational procedures. An eight-step program is suggested.

Search terms: Emergency medical services; Standards; State government; Administrative procedures; Accident data; Hospitals; Injuries; Motor vehicle accidents; Data acquisition; Accident reports; Local government; Field tests; Data processing; Information systems

HS-800012

**DESCRIPTION AND ANALYSIS
OF EIGHTEEN PROVEN EMERGENCY
AMBULANCE SERVICE SYSTEMS**

National Association of
Counties Research Founda-
tion, Washington, D. C.
by Cooper, C. &

Powell, M.D.
1968 430 p.

FH-11-6686

AVAILABILITY: CFSTI

Of the 18 ambulance services studied, 3 were provided by fire departments, 2 by police departments, 4 by private companies, 4 by volunteer rescue squads (2 associated with volunteer fire departments), 2 by hospitals, and 1 each by a mortician, a mixed municipal and private operation, and helicopters. Seven systems operated in urban areas, 6 in urban and rural areas (including the Chicago helicopters which operate also over Lake Michigan), and 5 in rural areas. Major conclusions: 1. Ambulance service, particularly rural, has not kept pace with progress in the medical sciences; 2. Post-crash handling of accident victims is an important factor in reducing deaths and effects of injuries; 3. Diversity of organization and lack of coordination characterize U.S. ambulance service systems; 4. Deficit operation of ambulances has forced morticians to discontinue this service; 5. Problems in rural areas are different from those in urban areas.

HS-800 039

**EMERGENCY MEDICAL CARE AND
TRAFFIC FATALITIES**

Rand Corp.,
Santa Monica, Calif.
by H. H. Mitchell
Apr 1968 35 p.
RM-5637-DOT
FH-11-6698

AVAILABILITY: CFSTI as
PB-179 018

Attempts to assess quantitatively the effect of improved emergency medical care on traffic fatalities. Examination of military surgical experience reveals information useful in improving the salvage record for traffic accident victims. Vietnam experiment shows time lag between injury and definitive medical care critical in reducing fatalities if lag is reduced below 6-12 hrs. Stateside studies reveal most pre-admission treatment is inadequate. Suggests more research on medical description of traffic casualty from accident scene on, costs and effects of earlier treatment programs, and residual impairment of survivors.

HS-800 006

EMERGENCY CARE SYSTEMS
DEMONSTRATION PROJECTS. VOL.
1. SUMMARY, CONCLUSIONS,
AND RECOMMENDATIONS
Franklin Inst. Research
Labs., Philadelphia, Pa.
by Kenneth R. Bordner,
Calvin Burkhardt,
John M. Howard, and
Albert G. D. Levy
Jun 1968 43 p.
TR-1-214
FH-11-6596
• AVAILABILITY: CFSTI

Recommends better data collecting for motor vehicle deaths and injuries, combined with accident investigation reports; upgrading of ambulance attendants into a licensed professional group; tax-supported ambulance service; studies of needs for emergency vehicle and equipment design; coordinated emergency care services; use of resources now reserved for Office of Civil Defense; program development jointly between NHTSB and Public Health Service; use of helicopter rescue services of Armed Forces; method of evaluating highway safety programs; phasing out of morticians' ambulance service; establishment of communications control centers.

HS-800 007

EMERGENCY CARE SYSTEMS
DEMONSTRATION PROJECTS.
VOL. 2. THE EMERGENCY
CARE SYSTEM

Franklin Inst. Research
Labs., Philadelphia, Pa.
by Kenneth R. Bordner,
Calvin Burkhardt,
John M. Howard, and
Albert G. D. Levy
Jun 1968 100 p.
TR-1-214
FH-11-6596
AVAILABILITY: CFSTI

Emergency care cycle is divided into 11 stages containing four subsystems: transportation, communication, treatment, and documentation. This volume examines subsystems in detail. Transportation subsystem consists of getting help to accident scene and moving patient to definitive care facility. Communications subsystem includes accident detection, notifying and dispatching help, and coordinating transportation, treatment, and care facilities. Treatment subsystem provides care at scene and enroute to hospital. Documentation subsystem records history from accident through cure and is useful in management. A special investigation included applicability of helicopters to emergency care services; plans and costs are included.

EMERGENCY CARE SYSTEMS
DEMONSTRATION PROJECTS.
VOL. 3. OPERATIONAL PLANS
Franklin Inst. Research
Labs., Philadelphia, Pa.
by Kenneth R. Bordner,
Calvin Burkhardt,
John M. Howard, and
Albert G. D. Levy
Jun 1968 74 p.
TR-1-214
FH-11-6596
AVAILABILITY: CFSTI

This volume describes operational plans for demonstration projects. Three plans were developed: one for a rural community and two for combined rural-urban communities. Plans are adaptable to different demographic and climatic conditions. Plans require a resource inventory, determination of resources needed, establishment of management plan, and method of measuring improvements. Also included is a list of objectives and tasks to meet them, suggested management plans, resources, public relations, and measurement procedures.

HS-800 009

EMERGENCY CARE SYSTEMS
DEMONSTRATION PROJECTS.
VOL. 4. APPENDICES
Franklin Inst. Research
Labs., Philadelphia, Pa.
by Kenneth R. Bordner,
Calvin Burkhardt,
John M. Howard, and
Albert G. D. Levy
Jun 1968 123 p.
TR-1-214
FH-11-6596
AVAILABILITY: CFSTI

Contains background material and results of pilot testing done in connection with planning of emergency care systems analyzed in HS800 006-8. Includes many samples of accident emergency care reports, national death and injury statistics, and bibliography.

HS-013 363

1/1

THE AUSTRALIAN MEDICAL ASSOCIATION

AMBULANCE SURVEY

Australian Medical Assoc., Glebe

E. S. Stuckey 1972

In HS-013 337, Papers Presented at the National Road Safety Symposium, Canberra, March 14-16, 1972, p308-319

Ambulances, Emergency medical services, Ambulance personnel, Transportation of injured, Vehicle mileage, Fatality rates, Injury rates, Australia, Surveys, Questionnaires

During the first quarter of 1971 there were 1.1 million ambulance trips in Australia, 12,494 accidents attended by ambulances, and 17,797 accident victims carried in ambulances. Less than 4% of accident victims are dead at the scene or die in transit. Deaths in transit in general amount to .7% or less. Accidents producing deaths at the roadside or in transit are highest in rural areas. States with large rural areas have more ambulances, but the workload per vehicle in rural areas is less than in urban areas. Accidents requiring attendance by more than one ambulance are more common in major cities. Accidents involving transport of more than one patient occur more frequently in rural areas. The most populous states do not usually use two ambulance officers per vehicle for accident trips. Part-time ambulance officers are used more frequently in rural areas.

HS-013 364

1/1

ORGANISATION AND OPERATION OF RURAL AMBULANCE SERVICES

Victorian Ambulance Services (Australia)

H. G. Berry 1972

In HS-013 337, Papers Presented at the National Road Safety Symposium, Canberra, March 14-16, 1972, p320-327

Ambulances, Emergency medical services, Rural areas, Emergency reporting systems, Radiotelephones, Radio communication, Ambulance personnel training, Medical case reports, Ambulance design, Emergency equipment, Inhalation devices, Burns, Fractures, Shock (pathology), Analgesics, Transportation of injured, Aircraft, Australia

Suggestions for improvement of Australian rural ambulance services include greater use of two way radio systems by doctors at the hospital to advise ambulance personnel at the accident scene; ensuring that emergency radiotelephones are always answered by an experienced resuscitationist familiar with the ambulance personnel and procedures; acceptance of report forms by ambulance officers and hospital staff; and establishment of formal clinical teaching for ambulance personnel. Ambulances should be designed to carry two patients under the best circumstances but be capable of carrying up to four stretcher patients with some compromise of facilities. It is not feasible to manufacture a special vehicle specifically for ambulance work. Ambulance equipment used for handling patients and treating respiratory injuries, bleeding, fractures, burns, analgesia, and shock is discussed. Air ambulance service is available in Queensland, Victoria, New South Wales, South Australia, and Tasmania. It is recommended that helicopter ambulances be adopted when economically feasible.

HS-013 619

MISSISSIPPI HIGHWAY SAFETY INFORMATION SYSTEM

Systems Science Devel. Corp., McLean, Va. 1972 64p Rept. No. SSDC-TR-72-371

Sponsored by Mississippi Central Data Processing Authority. Reference copy only

Computerized records management, Automated accident records, Computerized driver records, Information systems, Mississippi, Flow charts, Driver identification, Data acquisition, Data processing, Vehicle registration, Licensing, Highway accident potential, Accident location, Communication systems, Planning, Emergency medical services, Traffic records, Automated law enforcement systems, Benefit cost analysis

Mississippi is developing a Highway Safety Information System (MHSIS) which will provide the information needed to assess existing highway safety programs and conditions, build new programs, and evaluate the results of the new program; support the highway safety related regulatory and operational requirements of each highway safety agency; operate within existing legislation; build upon the existing computer subsystems and be in accord with the CDPA Computer Master Plan and the Criminal Justice Information System Plan; and provide cost-effective information services. To meet these requirements the HSIS will include driver, vehicle, accident, highway/roadway, and communications information subsystems. In the future the MHSIS will also encompass emergency medical services, a local traffic records system, and a selective enforcement program.

HS-013 855

BATTLEFIELD STRATEGY FOR CIVILIAN TRAUMA CARE

Journal of American Insurance v49 n3 p5-9 (Fall 1973)

Anonymous 1973

See serial citation

Emergency medical services, Radio communication, Emergency reporting systems, Medical treatment, Accident hospitals, Medical emergencies, Medical case reports, Illinois

With a trauma patient, time is the critical factor. A trauma care system is described and requirements for trauma centers presented. A statewide network in Illinois is used to illustrate an actual coordinated community resource reducing death and disabilities among the critically injured. Case histories are included.

EMERGENCY MEDICAL SERVICES: WHERE WE ARE; WHAT WE NEED

Anonymous

Signal 99 v2 n2 p2-6 (Spring 1973?)

*Emergency medical services, *North Carolina, *Ambulances, *Ambulance personnel, *Radios, *Ambulance personnel training, *Ambulance laws, *State action, *State planning, *Frequencies, *Passenger compartments, *Ambulance design, *Time factors.

North Carolina's emergency medical services are evaluated and needs and recommendations are presented. Emphasis is placed on increasing the number of service units and upgrading existing units; coordination and centralized planning, funding, and regulation of emergency medical services; reducing emergency vehicle response time; increasing the number of well-trained ambulance personnel; patient compartment minimum space requirements; and improving two-way radio systems with a single statewide frequency for ambulance and hospital communications.

HS-013 336 1/0; 2/0; 3/0; 4/0; 5/0

A REPORT OF DISCUSSIONS. A COMPANION TO PAPERS PRESENTED AT THE NATIONAL ROAD SAFETY SYMPOSIUM, CANBERRA, MARCH 14-16, 1972

1972 282P
Corporate author, P.O. Box 367, Canberra, A.C.T. 2601

Highway safety, Accident prevention, Injury prevention, Accident research, Pedestrian safety, Motorcycle safety, Bicycle safety, Drinking drivers, Traffic management, Traffic law enforcement, Intersection collisions, Emergency medical services, Highway safety organizations, Young adult drivers, Adolescent drivers, Highway design, Vehicle design, Alcohol usage deterrents, Driver education, Safety campaigns, Australia, Transportation planning, Land usage planning

Commentaries are given on papers presented at the conference and discussions which occurred at the end of each session are reported. Major topics covered at the conference were accident information--present knowledge and future needs; traffic law enforcement; intersection accidents; pedestrians, motorcyclists, and cyclists; the alcohol problem; traffic management techniques; emergency rescue services; institutional framework in which road safety operates; the young driver as a special case; effects of road design on road safety; vehicle factors; alcohol countermeasures; transportation and land usage planning; and education and publicity.

HS-013 337 2/0; 1/0; 3/0; 4/0; 5/0

PAPERS PRESENTED AT THE NATIONAL ROAD SAFETY SYMPOSIUM, CANBERRA, MARCH 14-16, 1972

1972 680P REFS

Includes HS-013 338--HS-013 405.
Corporate author, P.O. Box 367, Canberra, A.C.T. 2601

Accident prevention, Accident research, Accident rates, Australia, Traffic law enforcement, Intersection collisions, Traffic management, Emergency medical services, Driver education, Highway safety organizations, Safety education, Transportation systems, Highway design, Drinking drivers, Alcohol usage deterrents, Pedestrian safety, Adolescent drivers, Young adult drivers, Safety campaigns, Vehicle design, Safety design, Occupant protection, Seat belt usage laws, Injury prevention, Motorcycle safety, Bicycle safety, Traffic control devices, Transportation planning, Benefit cost analysis, Highway safety, Land usage planning

This symposium was an integral part of a national review of the road accident situation in Australia undertaken by the Expert Group on Road Safety. The topics covered include present accident knowledge and information needs for the prevention of future accidents, traffic law enforcement, intersection collisions, pedestrians, bicyclists, motorcyclists, the alcohol problem and countermeasures, traffic management techniques, emergency rescue services; the institutional framework in which road safety operates, the young driver, highway design, vehicle factors, planning for future problems, and highway safety education and publicity.

HS-013 362 1/1

A STUDY OF THE MELBOURNE SYSTEM OF EMERGENCY RESCUE SERVICES

Monash Univ., Clayton (Australia)
P. D. Clark 1972 43refs

In HS-013 337, Papers Presented at the National Road Safety Symposium, Canberra, March 14-16, 1972, p297-307

Emergency medical services, Ambulances, Hospital emergency rooms, Communication systems, Police traffic services, Ambulance personnel training, Occupant rescue, Ambulance design, Emergency equipment, Postcrash phase, Ambulance personnel, Emergency signaling devices, Time factors, Transportation of injured, Data acquisition, Data processing, Melbourne, Systems analysis, Towing

Melbourne's emergency care system is examined with a view to describing the roles of the separate services in the provision of care for the injured. The desirability of an overall systems approach to emergency care problems is emphasized. Direct observation of the care provided for crash victims at the scene and in the hospital casualty department suggests that standards of ambulance care in Melbourne are satisfactory within the limits of present operations. There is a need for reorganization of hospital casualty departments and centralized control over emergency beds to ensure the distribution of emergency patients between the hospitals and to prevent use of these departments by non-urgent patients seeking primary medical care. A nationally coordinated integrated data recording system to permit continuous collection of data which relate to patient care from the time of the crash until the recovery of the injured victim is needed.

HS-012 874

Fld. 1/1

DEVELOPMENT OF AN EMERGENCY MEDICAL PLAN FOR THE STATE OF NORTH CAROLINA

Research Triangle Inst.

S. Trustman

Sponsored by the Governor's Hwy. Safety Program of the State of North Carolina.

1973

Published in HS-012 850, American Assoc. for Automotive Medicine Conference (16th) Proceedings, New York, 1973 p348-56.

Availability: Corporate author, 801 Green Bay Road, Lake Bluff, Illinois 60044. \$10.00 postpaid.

*Emergency medical services, *North Carolina, *Surveys, *Ambulances, *Hospital emergency rooms, *Ambulance personnel training, *Queueing models, *Time factors,

A statewide analysis of the current status of North Carolina's emergency medical services and future requirements for such services was initiated in April, 1972. Assistance is being provided to the State of North Carolina in setting up a well-planned Emergency Medical Service Program, fully responsive to the needs of the people of the State and to Federal guidelines. The study includes a comprehensive survey of existing emergency ambulance services in North Carolina, projecting demand five years into the future, and developing a comprehensive plan for meeting emergency medical service needs. Motor vehicle accidents represent a primary source of demand, but other types of emergency needs are included. The survey data are processed so that the resulting file can form the basis of a management information system in the future.

HS-012 875

Fld. 1/1

E. M. T.--THE NEW MAN IN OUR TOWN

Yale Univ.

W. H. FrazierP. P. LallyT. J. Krizek

1973 5refs

Published in HS-012 850, American Assoc. for Automotive Medicine Conference (16th) Proceedings, 1973 p357-64.

Availability: Corporate author, 801 Green Bay Road, Lake Bluff, Illinois 60044. \$10.00 postpaid.

*Ambulance personnel training, *Emergency medical services, *Ambulance personnel, *Curricula, *Instruction materials,

To improve the quality of emergency medical services, an emergency medical technician (EMT) course was developed for ambulance personnel by the surgical staff at the Yale-New Haven Medical Center. Administration of the program, course participants, and the course curriculum are briefly discussed. Using the American College of Surgeons curriculum, 131 ambulance attendants have completed the course. To determine if there has been an objective change in the level of emergency care as a result of the course, a study of ambulance cases comparing care delivered by EMT's versus non-EMT's has been started. Preliminary results show that in terms of quality of care delivered, two EMT's as a driver-attendant combination are superior to one EMT and one non-EMT, and the latter are superior to two non-EMT's.

HS-012 876

Fld. 1/1

MILITARY ASSISTANCE TO SAFETY AND TRAFFIC (MAST)

Army Aeromedical Res. Unit

W. P. Schane

Published in HS-012 850, American Assoc. for Automotive Medicine Conference (16th) Proceedings, 1973 p365-71

Availability: Corporate author, 801 Green Bay Road, Lake Bluff, Illinois 60044. \$10.00 postpaid.

*Emergency medical services, *Helicopter ambulances, *Military vehicles, *Transportation of injured, *Rural areas, *Medical emergencies,

Military Assistance to Safety and Traffic (MAST) is a cooperative effort of the Transportation, Defense, and Health, Education and Welfare departments to provide military helicopters and paramedical personnel in selected rural and remote areas to augment civilian emergency medical service capabilities where conventional ground transportation is not readily available. MAST programs, begun in 1970, operate out of Fort Sam Houston, Texas; Fort Lewis, Washington; Fort Carson, Colorado; Luke Air Force Base, Arizona; and Mountain Home Air Force Base, Idaho. As of September 1972, a total of 1,340 missions have been flown; 1,642 patients transported; and 2,837.8 flying hours accumulated by the five MAST programs. Criteria for the establishment and operation of MAST are outlined. Advantages and disadvantages of helicopter ambulances are discussed.

HS-012 890

Fld. 1/1; 1/3; 4/3; 1/5

EMERGENCY VEHICLE ACCIDENT INVOLVEMENT 1969-1970

New York State Dept. of Motor Vehicles

F. D. NewcombK. Carpenter 1972 44p 5refs
Corporate author

*Emergency vehicle accidents, *Ambulances, *Fire fighting, *Police vehicles, *Accident statistics New York (State), *Driver age, *Driver records, *Male drivers, *Failure caused accidents, *Defects, *Accident costs, *Life value, *Accident analysis, *Intersection collisions, *Driver error caused accidents, *Audio warning devices, *Benefit cost analysis, *Vehicle inspection, *Accident prevention,

Accident data for New York State indicate that emergency vehicles are two and one-half times more vulnerable to vehicles entering from a cross street, than non-emergency vehicles. All emergency vehicle drivers are male, and those involved in accidents are over represented in the 25-39 age groups and have 3.2 more accidents on the average than other male drivers. Emergency vehicle drivers cause fewer accidents while operating emergency vehicles than standard vehicle operators cause while operating standard vehicles. Emergency vehicle defects, while a small problem, were disproportionate to vehicle defects occurring in ordinary vehicles, occurring 50% to 500% more frequently. Losses from ambulance accidents are \$1.3 million per year, and fire truck accident losses are \$0.7 million per year. If 30 or more lives are saved per year by ambulance emergency vehicle status, society realized a net gain, based on National Safety Council loss for each life, of \$45,000.

HS-012 627

Fld. 1/1; 2/3

**TRAFFIC CRASH CONTROL AND CLEANUP. VOL. 2.
ADMINISTRATIVE GUIDE FOR POST TRAFFIC
CRASH/INCIDENT PROCEDURES**

Smith (Wilbur) and Associates, S18600
1972 95p 7refs

Prepared for Virginia Hwy. Safety Div. in
cooperation with National Hwy. Traf. Safety
Administration

*Emergency services, *Debris removal, *Postcrash phase,
*First aid, *Emergency traffic control, *Government employees,
*Accident location, *Hazardous materials, *Emergency equipment,
*Fire extinguishers, *Virginia, *Directories, *Manuals,

This manual provides a catalog of information and procedures for use during postcrash/incident cleanup of motor vehicle accidents or other highway related incidents involving debris on streets and highways. Procedures are briefly outlined for securing the accident scene, notifying authorities, handling hazardous materials, giving first aid, and removing accident debris. A directory of federal, state, local, and private agencies in Virginia related to debris hazard control is included. A table of hazardous materials is also included which indicates the seriousness, type of hazard, actions to be taken, first aid, health hazards, flammability, instability hazards, oral toxicity rating, action on skin, and fire extinguisher requirements for each substance.

HS-012 627

HS-012 658 Fld. 1/1; 1/3

THE CALL OF THE SIRENS

New York State Dept. of Health
R. W. Nickels 1973 8p
Corporate author

*Emergency vehicle accidents, *Ambulances, *High speed caused accidents, *Intersection collisions, *Driver error caused accidents, *Careless driving, *Accident studies, *Warning signals, *Audio devices, *Traffic laws, *Head on collisions, *Vehicle pedestrian collisions, *Ejection, *Ambulance personnel, *Centerline crossover collisions, *Drinking drivers, *Traffic signal violations, *Accident responsibility, *Accident statistics, *New York (State), *State laws,

States have been urged to review both existing motor vehicle laws that relate to the operation of emergency vehicles and their enforcement. Emergency vehicles should be required to comply with all traffic laws, except in a life-and-death situation. Even then, the vehicle operator must drive with due regard for the safety of all persons. From January 1, 1969, to December 31, 1970, at least 617 ambulances were involved in vehicle accidents in New York State resulting in seven fatalities and 750 injuries. The accidents were tabulated by county and classified into four categories: intersection collisions (313); accidents where excessive speed by the ambulance driver appeared to be a major contributing factor to the accident (164); accidents where an ambulance driver appeared to be careless in the operation of his vehicle (157); other accidents such as head-on accidents, accidents where the ambulance driver was cited for being drunk, accidents involving pedestrians, accidents where the ambulance driver or passengers were ejected (75).

HS-012 850

Fld. 1/2; 1/1; 3/4; 1/3;
5/14; 3/1

**AMERICAN ASSOCIATION FOR AUTOMOTIVE MEDICINE CONFERENCE (16th) PROCEEDINGS,
CHAPEL HILL, NORTH CAROLINA, OCTOBER 19-21, 1972**

American Assoc. for Automotive Medicine 1973 419p refs

Sponsored by North Carolina Univ. Hwy. Safety Res. Center, Duke Univ., and Bowman-Gray School of Medicine.

Availability: Corporate author, 801 Green Bay Road, Lake Bluff, Illinois 60044 \$10.00 postpaid.

*Injury prevention, *Injury research, *Accident studies, *Emergency medical services, *Occupant protection, *Air bag restraint systems, *Restraint system usage, *Alcohol effects, *Drugs effects, *Driver behavior, *Fatalities, *Accident research, *Conferences, *Drinking drivers, *Medical factors, *Forensic medicine, *Impact attenuators, *Pedestrian accidents, *Visual acuity, *North Carolina,

Topics covered at the conference included emergency medical services, injury research, accident causation, occupant protection, the role of alcohol and drugs in accidents, biomedical monitoring of drivers, and driver behavior.

HS-012 873

Fld. 1/1

THE RESUSCITATION OF THE MULTIPLE INJURED TRAFFIC VICTIM

Emergency Associates (Canada)

L. E. Dagnone

1973 7refs

Published in HS-012-850, American Assoc. for Automotive Medicine Conference (16th) Proceedings, New York, 1973 p341-7.

1973 7refs

Availability: Corporate author, 801 Green Bay Road, Lake Bluff, Illinois 60044 \$10.00 postpaid.

*Emergency medical services, *Ambulances, *Resuscitation, *First aid, *Accident survivability, *Time factors, *Ambulance personnel training, *Urban areas, *Rural areas, *Kingston (Canada), *Transportation of injured,

In the Kingston, Ontario area between July and December 1971, the response of ambulance services to 369 emergency calls involving motor vehicle accidents was studied. The time elapsed before the injured reached a treatment center, the type of first aid given at the accident scene and in the ambulance, and changes in the status of the injured during transport were determined. There was a significant time lapse between the notification of a traffic accident and treatment in a hospital's emergency room. In rural areas where 48% of the calls originated, the time elapsed was accentuated, averaging 52 minutes as opposed to 24 minutes in urban areas. During transport the condition of 24 patients improved, 328 remained unchanged, 14 deteriorated, and in two patients there was a loss of vital signs. The need to train ambulance personnel to perform basic resuscitative procedures is emphasized.

HS-012 431 Fld. 1/0

THE PROBLEM OF MOTOR VEHICLE ACCIDENTS: THE ROLE OF THE PHYSICIAN AND THE CHALLENGE TO MEDICINE. SUMMARY ADDRESS

by N. C. Kiefer

Equitable Life Assurance Society of the United States, E17850

Published in HS-012 408, *Triennial Congress on Medical and Related Aspects of Motor Vehicle Accidents (3rd) Proceedings*, p305-12

Summarizing statements on the conference sections are presented. They deal with accidents, emotional factors, special problems related to age groups, natural deaths, suicidal drivers, alcohol effects, and emergency medical services.

Search terms: Accident causes; Psychological factors; Age factor in accidents; Natural deaths; Suicide by vehicle; Alcohol effects; Emergency medical services; Physicians and highway safety

HS-012 545

Fld. 1/1

"DOA" OR... THE EMERGENCY PROBLEM

W. L. Roper

Published in *California Highway Patrolman* v36 n1 p4-5, 20-21, 24-25, 27 (Jan 1973)

*Ambulance personnel training, *Ambulance design, *Emergency medical services, *First aid equipment, *Emergency reporting systems, *Fatality prevention, *Roadside telephones, *Transportation of injured, *California, *Chicago, *Iowa,

It is estimated that trained ambulance crews and properly equipped ambulances could reduce accident fatalities by 10 to 20% annually. Emergency services are inadequate in rural areas, but California has begun using helicopter ambulances in remote locations. A study conducted by the Claremont Colleges concluded that separate, poorly coordinated communication systems between sheriff, police, fire department, highway patrol, and ambulance services seriously impede the efficient provision of emergency care. The importance of having a single emergency phone number to avoid confusion is emphasized. Ambulance service is inadequate because it has been unable to pay its own way, and patients are sometimes subjected to high-pressure tactics used by ambulance operators attempting to collect fees.

HS-012 626

Fld. 1/1; 2/3

TRAFFIC CRASH CONTROL AND CLEANUP. VOL. 1. TRAFFIC CRASH PROCEDURES

Smith (Wilbur) and Associates, S18600
1972 38p

Prepared for Virginia Hwy. Safety Div. in cooperation with National Hwy. Traf. Safety Administration. Condensation of HS-012 627.

Corporate author

*Emergency services, *Postcrash phase, *Debris removal, *Emergency traffic control, *Hazardous materials, *Accident location, *First aid, *Fire extinguishers, *Manuals, *Accident factors, *Virginia,

This manual is designed to familiarize individuals involved in traffic accidents with procedures and policies designed to minimize post traffic accident/incident problems. Procedures are outlined for securing the accident scene, notifying authorities, handling hazardous materials, giving first aid, and removing accident debris. A table of hazardous materials, commonly transported by trucks, is included which indicates the seriousness, type of hazard, actions to be taken, first aid, health hazards, flammability, instability hazards, oral toxicity rating, action on skin, and fire extinguisher requirements for each substance.

HS-012 626

HS-012 408 Fld. 1/3; 1/2; 3/4;
3/1; 1/5

**TRIENNIAL CONGRESS ON
MEDICAL AND RELATED AS-
PECTS OF MOTOR VEHICLE
ACCIDENTS (3RD) PROCEED-
INGS, NEW YORK, MAY 29-JUNE
4, 1969**

International Assoc. for Accident and
Traf. Medicine (Sweden), 137200

1971 321p refs

Includes HS-012 409-HS-012 432.

Papers were presented on the following topics: the magnitude of the problem of motor vehicle injuries and deaths; personality and psychological factors among drivers; special problems of various age groups; physiological factors; natural deaths as causes of motor vehicle accidents; death caused by suicide; accidents with less than four wheeled vehicles; accidents to pedestrians; alcohol and motor vehicle accidents; relationship of other drugs or toxic substances to motor vehicle accidents; injury patterns and motor vehicle design; emergency medical services; types of motor vehicle accidents and their injuries; and the role of the physician in the problem of motor vehicle accidents.

Search terms: Accident investigation; Driver performance; Accident causes; Injury causes; Accident statistics; Fatality causes; Driver personality; Driver age; Age factor in accidents; Natural deaths; Suicide by vehicle; Pedestrian accidents; Motorcycle accidents; Bicycle accidents; Driver intoxication; Drinking drivers; Accident analysis; Emergency medical services; Accident types; Injury research; Physicians and highway safety; Drug effects; Driver physical fitness

HS-012 427 Fld. 1/1

**COMPREHENSIVE AMBULANCE
SERVICE FOR A CITY**

by J. M. Waters, Jr.

Jacksonville Office of the Director of
Public Safety, Fla., J00100

Published in HS-012 408, *Triennial Congress on Medical and Related Aspects of Motor Vehicle Accidents (3rd) Proceedings*, Ann Arbor, 1971, p235-48

1971

The history and current status of the Jacksonville, Fla. emergency service is described. Emphasis is made on the communication system, dispatching methods, emergency care, and training of personnel. Cost figures are given for the ambulance fleet. The service has been extended to include cardiac emergencies unrelated to highway accidents.

Search terms: Emergency medical services; Ambulances; Emergency reporting systems; Costs; Emergency training; Jacksonville (Fla.); Helicopters; Myocardial infarct

HS-012 428 Fld. 1/1

**CRITERIA SELECTION IN
EMERGENCY MEDICAL SYSTEM
ANALYSIS**

by R. B. Andrews

California Univ., Los Angeles, C18600

Published in HS-012 408, *Triennial Congress on Medical and Related Aspects of Motor Vehicle Accidents (3rd) Proceedings*, Ann Arbor, 1971, p248-59

1971 21refs

The emergency medical care (EMC) process begins with recognizing what is a medical emergency. It includes all communications related to the incident, delivery of medical care to the scene, and transportation of the victim to an appropriate medical facility. It concludes with the medical and/or surgical alleviation of the emergency conditions. Finally, the victim may be released or transferred to a hospital for recovery or for treatment of residual nonemergency conditions. The components of a general evaluative model are the occurrence of emergency and emergency-like medical incidents; the outcome of true medical emergencies; the outcome of emergency-like medical incidents; the operational characteristics of the EMC system; and the total cost of creating and operating the EMC system.

Search terms: Emergency medical services; Cardiopulmonary responses; Hemorrhage; Shock (pathology); Medical emergencies; Heart arrest; Asphyxia

A PLAN FOR A CASUALTY CARE AND TRANSPORTATION PROGRAM

by R. J. Wheeler; M. Dale

Published in *Highway Research Record*
n402 p37-44 (1972)

1972

Sponsored by Highway Res. Board
Com. on Motorist Services.

A general plan for organizing and initiating a medical emergency service program is outlined. For competent and economical operation, it is imperative that preliminary planning of the entire operation be carried out on a statewide basis to prevent wasteful duplication and to ensure that each area has adequate facilities available. The selection of personnel, their training, and their salaries will be the largest single item of the service. The system is dependent on a coordinated communications system with links from the local areas to district and regional bases. Intercommunication with law enforcement and other emergency personnel is also vital. An outline for ambulance design is presented in addition to suggestions for an auxiliary trailer to be used in disaster conditions.

Search terms: Emergency medical services; Detroit; Ambulance personnel; Ambulance design; First aid equipment

HOW DETROIT HANDLES EMERGENCIES

by G. M. Griffin

Published in *Traffic Safety* v72 n11
p22-5, 39-40 (Nov 1972)

1972

Detroit's emergency medical service division now is a separate division within the Detroit Fire Department. Previously emergency medical services were carried out by the police department and a special unit of the fire department, yet in neither department was this a primary responsibility. The new division's personnel, services, and equipment are described. The new division exclusively dedicated to the handling of emergency patients, not only provides better treatment for the victim but also it enables the fire and police departments to provide better services.

Search terms: Emergency medical services; Detroit; Ambulance personnel; Ambulance design; First aid equipment

DIGIT PREFERENCE IN REPORTED TIME OF COLLISION. RESEARCH NOTE

by S. P. Baker

Published in *Accident Analysis and Prevention* v3 n1 p77-80 (Jul 1971)

1971

Sponsored by Insurance Inst. for Hwy. Safety and the Maryland Medical Legal Foundation, Inc.

This study of Maryland accidents was undertaken to determine the extent to which digit preference is evident in recorded time of collision, and the possible usefulness of the phenomenon in assessing the degree to which times are approximated rather than known. Digit preference was also analysed in relation to hour of the day. Other variables of interest included severity of crash, time of notification, and elapsed time from notification to arrival of police at the scene. Minutes after the hour were recorded as a multiple of five in 77% of all cases. Collisions were recorded as having occurred exactly on a quarter-hour in 42% of all cases. In general, nighttime crashes showed more digit preference than daytime crashes. The evidence suggests that rounding to 15 min. intervals in time of crash is due not to lack of interest in precision but rather to lack of knowledge of exactly when a crash occurred. The study pertains to determining the delay in emergency medical care.

Search terms: Time of accidents; Time of day; Accident severity; Accident reports; Maryland; Accident studies; Day vs night accidents; Emergency medical services

HS-011 997 Fld. 2/0; 4/2; 1/5

STATE OF WASHINGTON HIGHWAY SAFETY PROGRAM

Washington Traf. Safety Commission

1969 347p 140refs

Prepared with the assistance of Wilbur Smith and Associates.

This document evaluates and reports on the status of highway safety program activities at the state and local levels with respect to the 16 national highway safety standards. It outlines program needs, establishes an initial priority schedule, and sets forth a proposed implementation schedule. The program is designed to provide the guidelines for development of a total statewide program of a scope beyond the minimum requirements established by the National Highway Safety Standards. The complete text of the Highway Safety Act of 1966 and the basic requirements of the 16 federal highway safety standards are given in appendices. State accident statistics are included.

Search terms: Highway safety standards; Highway safety programs; Accident statistics; Debris removal; Highway Safety Act of 1966; Driver licensing; Traffic laws; Driver education; Traffic courts; Vehicle inspection; Safety standards compliance; Washington (State); Vehicle registration; Motorcycle safety; Pedestrian safety; Drinking drivers; Safety standards costs; Accident location; Highway design; Traffic records; Emergency medical services; Highway construction; Highway maintenance; Traffic control devices; Accident costs; Police traffic services; Priorities

HS-012 013 Fld. 2/0

ESTIMATE OF THE COST OF CARRYING OUT THE PROVISIONS OF THE HIGHWAY SAFETY ACT OF 1966. A REPORT TO THE CONGRESS FROM THE SECRETARY OF TRANSPORTATION

Dept. of Transp.

1968 121p 6refs

This report contains detailed cost estimates developed primarily by the states and communities based on broad guidelines prepared by the National Highway Safety Bureau. Major findings in the report with respect to the state programs include the following: total annual needs for state and local highway safety programs, as estimated by the states, are \$2.5 billion in 1968 and will grow to \$4.5 billion by 1976; state and local governments spent \$1.9 billion in 1967 on highway safety and are expected to continue providing more than 50% of safety program needs over the next ten years. Each of the highway safety standards is discussed in terms of needs and costs, and the research and development needs are outlined.

Search terms: Highway Safety Act of 1966; Safety standards costs; Highway safety programs; Vehicle inspection; Vehicle registration; Motorcycle safety; Driver education; Safety laws; Traffic courts; Drinking drivers; Accident location; Driver licensing; Federal state relationships; State action; Traffic records; Emergency medical services; Highway design; Highway construction; Highway maintenance; Traffic control devices; Pedestrian safety; Police traffic services; Debris removal; Economic analysis; Highway safety standards; Safety research

HS-012 142 Fld. 1/3; 1/1; 3/6

A SURVEY OF MEDICAL ASPECTS OF TRAFFIC SAFETY

by R. Andreasson

Published in *Technical Aspects of Road Safety* n49 p.4.1-4.7 (Mar 1972)

1972

Serious efforts are now being made to prevent motor vehicle accidents, thanks to a growing number of professional people who set up an epidemiology of accidents and want health education to be concerned about teaching the driving population safe driving habits and physicians to advise their patients concerning the relationship between health and motor vehicle safety. A traffic medicine association should, in the field of preventive medicine, develop mechanisms for prevention of traffic accidents, and in the field of public health, educate people about the medical aspects of traffic safety, and develop programs for the rehabilitation of persons who have been involved in accidents. Physicians should concern themselves with driver license standards. A first aid program for motorists in Sweden is described, and it is suggested that many lives could be saved if passing motorists could give immediate aid to accident victims.

Search terms: Physicians and highway safety; First aid; Driver rehabilitation; Epidemiology; Accident prevention; Safety education; Driver license standards; Accident survivability; Sweden

HS-011 857 Fld. 1/1

EXTRICATION OF TRAPPED CASUALTIES

by R. Snook

Published in *British Medical Journal* v4 p478-80 (22 Nov 1969)

One of the most demanding situations the rescue services have to face is that of the seriously injured casualty who has become trapped in a smashed-up vehicle. It can make difficult demands on the doctor unless he knows a little of the procedures of the rescue services, and any doctor is greatly helped if the ambulance staff is familiar with the medical equipment being used. An emergency equipment vehicle is described, a modified four-wheel drive Landrover. It has a built-in generator for powering a wide range of electrical tools and three powerful floodlights. It also carries a wide range of portable hydraulic apparatus as well as ordinary hand tools and oxyacetylene cutting equipment; the vehicle itself is fitted with a power winch. Drums of cable allow the equipment to be operated at distances of more than 100 yards (91 meters) from the vehicle with ease.

Search terms: Physicians; Occupant rescue; Emergency medical services; Metal cutting; Emergency vehicles; Fire prevention; Emergency equipment

HS-011 916 Fld. 1/1

THE DESIGN OF AMBULANCES

by P.S. London

Published in *Institution of Mechanical Engineers Proceedings* v182 pt2A n7 p188-99 (1967-68)

4refs

Although only about 5% of the work of ambulance services concerns emergency cases, it is the seriously ill or injured patients that pose the most difficult problems in design. Much of this difficulty springs from the fact that only a few hundred ambulances are required each year, which means that vehicles produced as a result of special research and design would be very expensive. Ambulances should be designed to eliminate jolts without causing nauseating swaying; to provide a vehicle in which a stretcher trolley can be firmly fixed either in the center of the vehicle or along each side; to provide the storage space for necessary medical and some light rescue equipment; to provide easy entry for stretcher trolleys at the rear and easy passage between the crew and patient compartments. Ideally, the suspension should be appropriate for a load of two crew, two stretcher patients, and necessary equipment.

Search terms: Ambulance design; Accessibility; First aid equipment; Stretchers; Transportation of injured

HS-011 917 Fld. 1/1; 4/3

WHAT HAPPENS AFTER THE ACCIDENT?

by F.J. Wegmann; W.D. Wyant; R. Jordan, Jr.

Published in *Traffic Quarterly* v26 n2 p299-314 (Apr 1972)

11refs

This paper discusses the problem of the time separation between recognition of an accident and the initiation of definitive medical aid. Excessive time delays are encountered because of roadway alignment, traffic congestion, inclement weather, etc. It is proposed that helicopters, proven to be critical in reducing battlefield death rates, be utilized for transporting accident victims. Helicopter-ground communications are essential in alerting emergency rooms of the patient's expected arrival. Cost effectiveness of helicopter ambulances is discussed. Their use in rural areas is urged.

Search terms: Helicopter ambulances; Emergency medical services; Transportation of injured; Communication systems; Benefit cost analysis; Time factors; Accident survival time; Accident survivability; Rural areas

HS-011 782 Fld. 1/1

ILLINOIS STATEWIDE TRAUMA CARE SYSTEM. STATUS REPORT

by Boyd, D.R.; Mains, K.D.; Flashner, B.A.

1972 7p 11refs

Reprinted from *Illinois Medical Journal* (Jan 1972).

A statewide system of trauma centers is being developed in Illinois. It will have some 40 specialized centers for the care of critically injured patients. These centers will be specially staffed and equipped to handle the complex needs of the critically injured. A critical injury index is given. Planning for ambulance services is discussed.

Search terms: Emergency medical services; Medical treatment; Ambulances; Injury severity index; Illinois; Hospital emergency rooms; Accident hospitals; State planning; Resuscitation

HS-011 783 Fld. 1/1

THE CRISIS IN AMBULANCE SERVICE

by Eisenhardt, C.A., Jr.

Published in *Nation's Cities* p20-2 (Sep 1967)

Prohibitive operating costs have forced many privately owned ambulance services out of business, leaving smaller cities with diminished or no ambulance service. Solutions to this problem are briefly discussed. Alternatives include an ambulance franchise, volunteer ambulance squads, hospital operated ambulance services, and police or fire department ambulance services.

Search terms: Ambulances; Economic factors; Financing; Emergency medical services; Contracts; Local government; Syracuse (N. Y.)

HS-011 784 Fld. 1/1

OUR GROWING AMBULANCE CRISIS

by Fry, D.

Published in *California Highway Patrolman* p8-9, 58, 61-3 (Oct 1969)

With the constant increase in California's highway traffic and a natural growth in injury cases as a result, the ambulance problem becomes increasingly critical. In case of a major disaster, it could become a crisis. Speedier service is one facet of the ambulance problem now troubling many California communities. In many cases the trouble appears to stem from inadequate, or nonexistent ambulance service, untrained ambulance personnel and occasionally it is due to monopoly franchises, or contracts for all service in a certain area.

Search terms: Ambulances; Emergency medical services; Ambulance personnel training; Financing; Contracts; California; First aid

HS-011 855 Fld. 1/1

MEDICAL ORGANIZATION

by K. C. Easton

Published in *British Medical Journal* v4 p150-1 (18 Oct 1969)

7refs

An all-embracing emergency system, co-ordinating the efforts of police, physicians, ambulance drivers, firemen, and hospitals, to provide the best possible emergency care to traffic accident injured, is proposed.

Search terms: Emergency medical services; Physicians; First aid; Police cooperation with other agencies; Great Britain

HS-011 856 Fld. 1/1

TREATMENT OF SOFT TISSUE INJURIES AT THE ROADSIDE

by P. S. London

Published in *British Medical Journal* v4 p284-6 (1 Nov 1969)

1ref

A brief guide to the first aid treatment of traffic accident soft tissue injuries is presented. The management of injuries of the soft tissues may be summarized: apply a dressing; stop accessible bleeding; and try to mitigate the effects of bleeding or burning. A list of equipment for first aid kits is given.

Search terms: Physicians; First aid equipment; First aid; Injuries; Medical treatment

Search terms: Emergency medical services; Physicians; First aid equipment; First aid; Medical treatment

**A STATISTICAL SURVEY AND A
METHODOLOGY USED TO
DEAL WITH THE OBSERVA-
TIONS COLLECTED FROM 6000
ROAD CASUALTIES**

by P. Bourret; N. Alaouie; M. C. Rambach; M. Margaine; O. Coppet

Salon-de-Provence Hosp. (France);
Organisme National de Securite Routiere
(France)

Published in HS-011 551, *Stapp Car Crash Conference (15th) Proceedings*,
New York, 1972 p287-300

Report no. SAE-710859

Presented at the fifteenth Stapp Car Crash Conference, Coronado, Calif., 17-19 Nov 1971.

A data base of the circumstances of 800 accidents, the injuries observed, their treatment, evolution, and final results with their sociological and economical consequences has been established. The data can be used for various studies such as injury frequency, length of hospital stay, mortality relationship with road type or age, and accident location.

Search terms: Data processing; Accident statistics; Fatality rates; Injury rates; Accident types; France; Data analysis; Injuries by body area; Fatalities by age; Recovery time

HS-011 628 Fld. 1/1; 4/7

OPTIMIZING AMBULANCE SERVICES FOR SEMI-RURAL COUNTIES

by N. K. Geller; S. R. Kennedy

Published in *HIT LAB Reports* p1-9
(Feb 1972)

2refs

An analytical modeling method developed to provide a tool for evaluating the potential effectiveness of alternative ambulance service location schemes for semi-rural (i.e., mixed urban and rural) areas is presented. Its application in a specific semi-rural county situation (Washtenaw County, Michigan) is described.

Search terms: Emergency medical services; Ambulances; Mathematical models; Computerized simulation; Michigan; Rural areas; Urban areas; Simulation models

HS-011 708 Fld. 1/1

THE CRITICALLY INJURED PATIENT. CONCEPT AND THE ILLINOIS STATEWIDE PLAN FOR TRAUMA CENTERS

by D. R. Boyd; B. A. Flashner

Illinois Dept. of Public Health

1971 80p 16refs
Report no. Circ-11.075

Chapter 1 is a reprint of "The Critically Injured Patient: A Plan for the Organization of a Statewide System of Trauma Facilities," from *Illinois Medical Journal* (Mar 1971).

The basic unit of the statewide plan is the emergency room of a community hospital, and if present, its intensive care unit. It functions as the immediate provider of care. Attached to its emergency room is a specialized ambulance. Servicing many local basic units is the area-wide trauma center. This is a hospital with a house staff, teaching programs, specialized treatment units, and many specialty services not available at the local level. Finally, there will be a small number of university-based regional trauma centers for the care of patients whose condition warrants intensive diagnosis and therapy. One of the centers will act as the coordinator and administrator of the proposed state program.

Search terms: Illinois; Hospital emergency rooms; Ambulances; Helicopter ambulances; Emergency medical services; Transportation of injured; Injury severity; State planning; Fatality prevention; Epidemiology; Rehabilitation; Medical treatment; Accident hospitals; Data acquisition; Accident survivability; Resuscitation; Diagnosis

EVALUATION OF THE MANAGEMENT OF VEHICULAR FATALITIES SECONDARY TO ABDOMINAL INJURY

by Harold R. Gertner, Jr.; Susan P. Baker; Robert B. Rutherford; Werner U. Spitz

Published in *Journal of Trauma* v12 n5 p425-31 (May 1972)

11refs

Presented at the 14th Annual Conference, American Association for Automotive Medicine, Ann Arbor, 19-20 Nov 1970.

The adequacy of hospital care received in Baltimore by 33 drivers, passengers, and pedestrians who died following isolated abdominal injury was investigated. The reviewing surgeons estimated that half of these lives might possibly have been salvaged by prompt and proper diagnosis and treatment. The investigation suggests that there is much room for improvement even in basic principles of managing the injured. Over one third of the cases showed a need for more aggressive treatment of patients in shock. Nearly half involved either failure to operate or excessive delay in operation, despite symptoms of abdominal injury. It appears that more improvement is needed in hospitals which treat the smallest number of highway injuries than in hospitals where the staff is attuned to problems of acute trauma.

Search terms: Abdominal injuries; Fatalities; Fatality causes; Transportation of injured; Autopsies; Baltimore; Accident survivability; Surgery; Emergency medical services; Hospitals; Shock (pathology); Diagnosis; Medical treatment

TESTING AN EMERGENCY AND REGIONAL MEDICAL HELICOPTER TRANSPORT SYSTEM (ABRIDGMENT)

by R. F. Jordan, Jr.; F. J. Wegmann; E. C. Carter

Published in *Highway Research Record* n358 p46-7 (1971)

Sponsored by Committee on Motorist Services and presented at the Highway Research Board 50th annual meeting.

The objective of this study was to plan the organization of a helicopter delivery system to serve both emergency and regional medical needs in West Virginia. Simulation techniques were used to examine alternative helicopter systems for various levels of emergency evacuations, routine interhospital patient transfers, and preventive medical care demands. Results indicate that it is possible to deploy a helicopter transport system to handle both emergency and routine medical transportation.

Search terms: Helicopter ambulances; Emergency medical services; Transportation of injured; West Virginia; Simulation models

MANAGEMENT SCIENCE APPROACHES TO THE DETERMINATION OF URBAN AMBULANCE REQUIREMENTS

by W. K. Hall

Published in *HIT Lab Reports* p4-8 (Jan 1972)

7refs

Contract FH-11-6901

Based on remarks prepared for the 1971 Systems Engineering Conference of the American Institute of Industrial Engineers, Phoenix, Ariz., 11-13 Feb 1971. Reprinted from *Socio-Economic Planning Sciences* v5 n5 p491-9 (1971).

A study was conducted in Detroit, Michigan, to determine the number and placement of ambulances necessary to provide adequate service to two selected representative urban areas. A mathematical model was developed to quantify the qualitative effects of alternative recovery system configurations, using data on the characteristics of emergency occurrence and service processes for the areas under consideration. The data analysis and the development of the analytical model are summarized, the predictions derived from the model are discussed, and the resulting recommendations presented.

Search terms: Ambulances; Mathematical models; Data analysis; Transportation of injured; Detroit; Emergency medical services; Systems analysis

HS-011 469 Fld. 1/1

EMERGENCY

by Virginia Wayland

Published in *Highway User* p4-7, 30 (Jan 1972)

The inadequacies of emergency medical services in most cities are discussed. Jacksonville, Florida, has perhaps the best ambulance service in the country. Traffic accidents in Jacksonville from 1968 to 1971 have risen 31% but the death rate from crashes has dropped 35%. Credit is given to the emergency medical ambulance service, whose services, communication system, and medical training of ambulance personnel are discussed.

Search terms: Emergency medical services; Transportation of injured; Ambulance personnel training; Firemen; First aid; Fatality rates; Jacksonville

HS-011 282 Fld. 1/1

AREA WIDE EMERGENCY HEALTH SERVICE COUNCILS: THE GRASS ROOTS OF EMER- GENCY CARE

by D. T. Freier; C. F. Frey

Michigan Univ.

Published in HS-011 284, *American Association for Automotive Medicine Proceedings of Fifteenth Conference*, New York, 1972, p393-97
4refs

Presented at the fifteenth conference of the American Assoc. for Automotive Medicine, Colorado Springs, 20-23 Oct 1971.

Emergency health care has been receiving increasing attention in recent years. There are eighteen national organizations at least whose objectives include the improvement of emergency care, and coordination of their efforts is needed. Coordination of emergency care at the local level is also needed to eliminate waste and achieve efficiency.

Search terms: Emergency medical services; Community support; Local government; Regional planning

A SURVEY OF EMERGENCY MEDICAL SERVICES IN THE DETROIT METROPOLITAN AREA

by Ronald L. Krome; Robert F. Wilson; Spencer Schron

Wayne State Univ.; Greater Detroit Area Hospital Council

Published in HS-011 284, *American Association for Automotive Medicine Proceedings of Fifteenth Conference*, New York, 1972, p398-409

Presented at the fifteenth conference of the American Assoc. for Automotive Medicine, Colorado Springs, 20-23 Oct 1971.

On-site investigations and a questionnaire were used to evaluate the following parameters: organization of emergency departments; physical facilities; available equipment; emergency department staffing patterns; hospital admission policies; back-up staff for the emergency department; availability of special care units, operating rooms, laboratories, blood bank facilities, and X ray units.

Search terms: Emergency medical services; Surveys; Detroit; Hospitals; Hospital emergency rooms; Man-power utilization; Questionnaires

HS-011 470 Fld. 1/1

ROAD ACCIDENT RESCUE TECHNIQUES

by R. Snook

Published in *Medical and Biological Illustration* v21 p66-72 (Apr 1971)

9refs

Cooperation among firemen, police, ambulance drivers, and physicians in Bath, England is described. Rescue equipment for trapped and injured occupants is discussed. Feedback regarding the patient's final diagnosis, treatment, and recovery can contribute to the training of ambulance drivers.

Search terms: Occupant rescue; Ambulance personnel training; Police; Escape from vehicle; First aid equipment; Bath (England); Emergency medical services; Firemen; Physicians; Emergency equipment; Resuscitation

**WARNING LIGHT STUDY. A
STUDY OF THE EFFECT ON
DRIVER BEHAVIOR OF OPER-
ATING EMERGENCY AMBER
LIGHTS**

California Hwy. Patrol

1971 200p
Report no. PB-199 108

Prepared in cooperation with California Division of Highways and Federal Highway Administration.

Amber lights were operated on three types of vehicles; black and white enforcement, tow service truck, and maintenance pickup trucks, for three levels of traffic volume. The amber light had little effect on traffic flow during the day. There was some slowing of traffic at night on the two lane, light volume road. The vehicle effect varied; the black and white vehicle had the greatest effect, the pickup the least effect. Experimental design, statistical methodology, and analysis of findings are described in detail.

Search terms: Driver behavior; Warning signals; Night driving; Police vehicles; Traffic flow; Traffic volume; Pickup trucks; Wreckers; Two lane roads; Flashing warning signals; Signal colors; Speed patterns; Statistical analysis; Color coding

**AVAILABILITY: NTIS as PB-199
108**

**HIGHWAY SAFETY PROBLEMS
WHICH ARISE BECAUSE OF
OPERATIONAL DEFICIENCIES**

by Walter W. Mosher, Jr.

California Univ. Los Angeles

1967 44p

Design and control aspects of the nation's highway transportation system need improvement. A far-reaching highway safety program to eliminate these faults should be undertaken. Much of the required technology exists to solve many of the problems, but lack of public and governmental interest has prevented their solution. To overcome the general problem, it will be necessary to bring about changed attitudes. Specific examples in which deficiencies presently exist are: design of the area immediately adjacent to the road; design of freeway ingress and egress; uniform ramp design; traffic capacity; road alignment and poor sight distance; freeway access and movement of emergency vehicles; service, rest, and recreational facilities. Deficiencies in traffic control are also described.

Search terms: Highway design; Safety design; Highway transportation; Roadside hazards; Fixed objects; Community support; Highway safety programs; Freeways; Ramps; Traffic capacity; Highway design speed; Emergency vehicles; Traffic control; Highway characteristics; Highway engineering; Sight distances; Rest areas; Recreational facilities; Service needs; Exits; Access control; Alignment

**GOVERNMENT ROLE IN
STATE AND COMMUNITY
EMERGENCY RESPONSE
SYSTEMS**

by Dawson A. Mills

National Hwy. Traffic Safety Administration

Published in HS-011 284 *American Association for Automotive Medicine Proceedings of Fifteenth Conference*, New York, 1972, p383-92

Presented at the fifteenth conference of the American Assoc. for Automotive Medicine, Colorado Springs, 20-23 Oct 1971.

The state programs in emergency medical services are discussed in relation to the requirements of the Highway Safety Act of 1966. The quality of ambulance service needs improvement. Too much of the present emergency medical service facilities are fragmented and uncoordinated.

Search terms: Emergency medical services; Highway Safety Act of 1966; Ambulances; Federal role; Community support; State action

HS-010 808 Fld. 1/3; 1/1; 1/2; 5/4;
5/7

CONFERENCE ON ROAD SAFETY. VOL. 2 BIOMECHANICS OF ACCIDENTS, PT. 2

Fonds d'Etudes et de Rech. p.la Sec. Rout. (Belg.)

1968 265p

Text in English, French, Dutch, and German. Includes HS-010 802, 807, 810, 832, 845, 856, 857, 871.

Eight articles are presented under the following titles: Potential head and neck injuries from windshield impacts; The windscreen and road safety; Utilization of thin glass, with high mechanical resistance, for the manufacture of high-security windscreens; Protection of drivers of trucks and agricultural tractors in case of overturning or impact; The New York safety car, its evolution and its progress; Automobile collision and the effect of the new U.S.A. standards; Bus safety; and First-aid to road accident victims.

Search terms: Biomechanics; Emergency medical services; School bus safety; Occupant protection; Injury research; Windshield caused injuries; Safety standards; Safety cars; Injury prevention; Safety design; Truck overturn accidents; Farm tractor design; Truck design; Windshield impact tests; Glass tests; Glass caused injuries; Windshield design; Head impact tolerances; First aid; Neck impact tolerances

HS-010 954 Fld. 1/1

THE CHALLENGE OF THE TRAUMA PROBLEM TO ORGANIZED MEDICINE

by Oscar P. Hampton, Jr.

Published in *Journal of Trauma* v10 n11 p926-31 (Nov 1970)

10refs

The current status of programs for prevention of injuries and prehospital and in-hospital management of trauma victims presents a challenge to organized medicine. Members of medical organizations should encourage and help bring about: adequate safety regulations (implementation of the standards of the National Highway Safety Bureau would accomplish it); an effective system of emergency medical services in their communities; the promotion, provision, and participation in continuing medical education in the life-saving techniques for the critically injured for physicians, particularly those who are not surgical specialists; and support of the concept of regional categorization of hospitals according to their capabilities, with the understanding that trained emergency medical technicians will take injured patients to the best organized and qualified institutions to render life-saving care, regardless of previous or future physician-patient relationships.

HS-010 880 Fld. 1/1

EMERGENCY MEDICAL CARE SYSTEMS

by Alan M. Nahum

Published in *Journal of the American Medical Association* v217 n11 p1530-2 (13 Sep 1971)

Improving a medical care system requires an understanding of input and output functions and how they are achieved. Changes should be preceded by the establishment of a data system that will produce accurate measurements before and after change so that evaluation is possible. An initial approach, once measurement techniques have been established, would be to conduct a pilot study on an isolatable portion of the system. This might be beneficial when dealing with large urban systems but, perhaps, unnecessary for smaller rural or suburban systems. Changes will depend upon public pressure for improvement and availability of funds to meet the costs of preserving life and good health.

Search terms: Emergency medical services; Systems analysis

Search terms: Medical emergencies; Injury prevention; Postcrash phase; Hospital emergency room standards; Emergency medical services; Ambulance personnel training; Medical education; Transportation of injured; Medical treatment; Highway safety standards; Community support; Physicians and highway safety; Hospitals; First aid; Highway safety programs

HS-010 712 Fld. 1/1

**THE ORGANIZATION OF AIR
TRANSPORT SERVICES FOR
SICK AND INJURED PERSONS,
PARTICULARLY ROAD ACCI-
DENT VICTIMS**

by T. Lomonaco

Published in *Panminerva Medica* v11
n7-8 p343-6 (Jul-Aug 1969)

nd

Original text published as "L'organizzazione dei Trapianti Aerei per Feriti ed Ammalati e Particolamente per le Vittime della Strada," in *Minerva Aerospaziale*.

The employment of air transport services for road accident victims is discussed. The use of helicopters is examined in detail and pathophysiological limitations (such as anoxia, total barometric depression in case of high altitude flight, and excessive acceleration, vibration, luminous radiation, and unsatisfactory temperatures) as well as the means to eliminate them are illustrated.

Search terms: Helicopter ambulances; Transportation of injured; First aid; Anoxia; Emergency equipment; Environmental factors; Medical emergencies

HS-010 803 Fld. 1/1; 1/2

**TRAFFIC FATALITIES IN
PHILADELPHIA**

by Joseph W. Spelman; Kenneth R. Bordner; John M. Howard

Published in *Journal of Trauma* v10 n10 p885-9 (Oct 1970)

1 ref

This study reviews 486 traffic accident victims covering the period 1964 through 1967. The purpose was to analyze the experience with a view to possible future improvements in emergency care, thus providing a sound base upon which a more effective emergency care system might be built. It was found that almost half of the victims were injured between 1 p.m. Friday and 9 a.m. Mondays. Earlier blood transfusion and more adequate and earlier respiratory support would probably have saved a number of lives.

Search terms: Fatalities; Autopsies; Accident survival time; Day of week; Time of accidents; Time of day; Fatality causes; Emergency medical services; Accident survivability; Medical treatment; Resuscitation; Blood transfusion

HS-010 802 Fld. 1/1

**LES SECOURS AUX ACCIDENTS
DE LA ROUTE (FIRST-AID TO
ROAD ACCIDENT VICTIMS)**

by H. M. Verheyen

Gendarmerie Belge

Published in HS-010 808, *Conference on
Road Safety, Vol. 2. Biomechanics of
Accidents, Pt. 2*, Brussels, 1968 pA18-
(1-9)

11 refs

Text in French. Summaries in English, German and Dutch.

Adequate measures applied in time can save 40% of the victims likely to die after a road accident. The author examines questions relating to the teaching and application of first-aid (methods, equipment, means of transport, first-aid centers). The paper ends with a study of the possibilities afforded by the helicopter as a means of evacuating injured persons.

Search terms: First aid; Emergency training; Emergency equipment; Emergency reporting systems; Transportation of injured; Resuscitation; Ambulance personnel; Helicopter ambulances; First-aid equipment; Emergency medical services

HS-010 804 Fld. 1/1; 3/4

**SAFE DRIVING OF AM-
BULANCES**

by Robert F. Hanlon

Published in *Hospital Topics* v46 p83, 85
(Jun 1968)

Defensive driving concepts for ambulance drivers are discussed. The importance of safe arrival, danger of excessive speed, right-of-way privilege, and the proper use of the siren are discussed, as well as typical kinds of accidents in ambulance driving.

Search terms: Ambulance personnel; Transportation of injured; Emergency vehicle accidents; Driver behavior; Driver performance under stress; Defensive driving

HS-010 670 Fld. 4/6

INSURANCE SUPPORT FOR FEDERAL ACTION

by Leonard J. McEnnis, Jr.

Published in *Journal of Insurance Information* v28 n5 p32-6 (Sep-Oct 1967)

HS-010 638 Fld. 1/2; 1/1; 4/3

MOTOR VEHICLE INJURY PREVENTION AND EMERGENCY HEALTH SERVICES. REPORT OF 1967 HEALTH PROGRAM ANALYSIS REVIEW GROUP FOR SELECTED DISEASE CONTROL PROGRAMS

Public Health Service

1967 116p refs

Benefit cost analysis is made of six programs: restraining systems for motor vehicle occupants; medical aspects of driver licensing and driver evaluation; motorcycle injury prevention; reduction of pedestrian injuries; decreasing the amount of driving exposure when the risk of accident involvement has been significantly increased by use of alcohol; and improvement in emergency health services for motor vehicle occupants.

Search terms: Injury prevention; Fatality prevention; Safety programs; Accident prevention; Federal role; Benefit cost analysis; Emergency medical services; Driver license standards; Restraint system effectiveness; Program evaluation; Motorcycle safety; Drinking drivers; Driver intoxication; Accident risks; Epidemiology; Driver physical fitness; Medical factors; Accident costs; Injury costs

HS-010 640 Fld. 1/3; 4/7; 2/8

ON THE EFFECTIVENESS OF STATISTICAL CONTROL CHART TECHNIQUES IN SELECTIVE ENFORCEMENT APPLICATIONS. FINAL REPORT

by Gary R. Fisher

California Univ. ITTE

1970 90p 5 refs

Report no. 70-12; PB-200 669

Sponsored in cooperation with the California Business and Transportation Agency and the U.S. Bureau of Public Roads.

Control chart techniques can assist operational personnel in detecting stable patterns among fluctuating accident rates. This study was conducted in part to examine the effect of motorcycle officer allocation upon traffic accidents in Los Angeles. Statistical tests and control charts were used on data from police enforcement beats, but difficulties such as confounding of enforcement effects and exposure effects led to inconclusive results. The techniques have utility in real-time allocation of ambulance services, police, manpower and accident investigation teams.

Search terms: Police traffic services; Traffic law enforcement; Manpower utilization; Law enforcement effect on accident rates; Accident risk forecasting; Accident rates; Accident statistics; Emergency medical services; Statistical analysis; Los Angeles; Accident investigation; Accident studies; Accident control charts; Decision making; Time of accidents

AVAILABILITY: NTIS

"Operation Cover-All" is an industry wide effort aimed at mobilizing grassroots support for several of the highway safety standards. The Insurance Institute for Highway Safety has been designated to take the lead in the campaign. "Operation Cover-All" gives special emphasis to the following five standards: motor vehicle inspection; re-examination of drivers; driver education; traffic records; and emergency medical service.

Search terms: Safety standards; Safety programs; Vehicle inspection; Insurance industry; Driver license renewal; Driver education; Traffic records; Emergency medical services; Safety campaigns; Safety propaganda; Community support

HS-010 711 Fld. 1/1

FIRST AID FOR MOTORISTS

by Hanns Pacy

Published in *Medical Journal of Australia* v2 p280-3 (8 Aug 1970)

nd 4 refs

The fate of road accident victims is usually in the hands of the first person who stops and renders first aid. A proposal for first aid training that would be part of driver licensing examinations is put forward. Methods of resuscitation are discussed, and techniques for removing injured victims from wrecked cars are described. Motorists trained in first aid could save lives which are now lost before an ambulance can arrive.

Search terms: First aid; Occupant rescue; Accident survival time; Resuscitation; Emergency medical services; Accident survivors

HS-010 507 Fld. 1/1; 4/2

ESTABLISHING A SYSTEM OF
EMERGENCY HEALTH SERV-
ICES IN NEW YORK STATE

by Caldwell B. Esselstyn

New York State Dept. of Health

Published in HS-010 504, *Proceedings of the 14th Annual Conference of the American Association for Automotive Medicine*, 1970 p183-93

Presented at the annual conference,
Ann Arbor, 19-20 Nov 1970.

The New York State Department of Health is developing a statewide system of emergency health services which includes medical defense, accident prevention and injury control, investigating physical requirements for driver licensing, administration of ambulance regulations, training of ambulance attendants, designing a statewide system of emergency health communications, research, and the establishment of 30 area emergency medical care committees with full-time staff. Although ultimately dependent on hospital emergency department cooperation and performance, the emergency health services system is largely a universe composed of agencies and organizations outside of the hospital, such as community colleges, city and village police, fire departments, Red Cross, local government, the Interdepartmental Traffic Safety Committee, the State Medical Society and others.

Search terms: Emergency medical services; First aid; Physicians and highway safety; Great Britain

HS-010 506 Fld. 1/1

TRAUMA AND THE GENERAL PRACTITIONER (ABRIDGED)

by Kenneth C. Easton

Published in *Proceedings of the Royal Society of Medicine* v63 p1321-3 (Dec 1970)

4 refs

Unless medical care is available at the site of accidents and in transit, some lives are lost that could have been saved and some injuries are aggravated. The state of road emergency care in Great Britain is briefly reviewed and "The Road Accident After Care" scheme of the North Riding of Yorkshire is proposed as an example of what should and can be achieved to provide excellent emergency care.

Search terms: Emergency medical services; First aid; Physicians and highway safety; Great Britain

HS-010 573 Fld. 1/1; 1/2

ROAD ACCIDENTS: AN INTRODUCTION TO A DISCUSSION UPON THE TREATMENT OF ROAD ACCIDENT CASUALTIES; MANAGEMENT IN HOSPITAL OF CASUALTIES FROM ROAD ACCIDENTS

by Kenneth C. Easton; P. S. London

Published in *Medical Society of London Transactions* v84 p16-26 (1968)

Presented at a meeting of the Medical Society of London, 23 Oct 1967.

Of 392,454 people involved in road accidents in Great Britain in 1966, 8,000 died. The mortality rate would be greatly reduced if prompt, efficient attention were given to victims immediately at the accident site. The old idea of taking the wounded to the hospital immediately (cared for enroute by police and firemen) must be abandoned. General practitioners should be called instantly to serious accidents so that proper care can be given without delay. A brief description is given of equipment that should be carried on all emergency vehicles and of procedures to be followed in particular types of injuries. At the hospital, the first need is to alleviate threats to life—which may lie in defective breathing or circulation, or in unconsciousness—before full examination and diagnosis.

Search terms: Emergency equipment; Emergency medical services; Ambulances; Postcrash phase; First aid; Medical treatment; Chest injuries; Injuries; Fatality prevention; Airway maintenance; Blood circulation; Injury severity

HS-010 370 Fld. 1/1

SURVEY OF EMERGENCY SERVICES IN GENERAL HOSPITALS, WISCONSIN, 1968

Wisconsin Dept. of Health and Social Services

1968 34p 23 refs

The Bureau of Health Statistics of Wisconsin surveyed 132 general hospitals regarding the organization and administration of the emergency service, staffing patterns, equipment and ancillary services, volume of patients, and communication among hospitals and ambulances, fire, and police departments. It was determined that emergency services vary greatly and that all but three of the hospitals have an emergency room.

HS-010 284 Fld. 4/2; 4/4

THE FEDERAL-STATE HIGHWAY SAFETY PARTNERSHIP IN NORTH CAROLINA

by Elbert L. Peters, Jr.

Published in *Traffic Digest and Review* v19 n7 p1-7 (Jul 1971)

Highway safety programs in North Carolina since the Highway Safety Act of 1966 are described. Electronic speed metering equipment was bought for 48 political subdivisions; a training course in accident investigation procedures has been offered with 1,200 out of the State's 8,000 police officers participating; chemical test equipment to use in the fight against drinking drivers has been purchased. Most popular of all, 24 jurisdictions are receiving federal matching funds to provide emergency medical service. Another major project has been the establishment of six regional driver education centers.

Search terms: Federal state relationships; Federal aid; Highway Safety Act of 1966; Financing; Grants; Alcohol chemical tests; Driver education; Emergency medical services; Highway safety programs; North Carolina; Drinking drivers; Police training; Speed sensors; Accident investigation training

HS-010 233 Fld. 1/1

HELICOPTER AMBULANCES: AN EVALUATION OF THEIR OPERATIONAL AND ECONOMIC FEASIBILITY

by Hale C. Bartlett

Published in *Traffic Digest and Review* v19 n7 p1-7 (Jul 1971)

69 refs

The expected mortality rate among victims of serious accidents increases threefold for each 30 minutes elapsing between injury and definitive medical care. With its speed and flexibility, the helicopter is helping to attain the objective of minimizing time between injury and hospital treatment. Several experimental programs are described, and an evaluation of the operational and economic feasibility of two in particular is made: the Air Medical Evacuation System developed by Arizona State University, and the Ohio State University Medicopter Program.

Search terms: Helicopter ambulances; Emergency medical services; First aid; Accident survival time; Time factors; Costs; Accident severity

HS-010 239 Fld. 1/2; 1/1; 5/14

NEW CONCEPTS IN TRAUMATIC SURGERY

by Preston A. Wade

Published in *Proceedings of the Rudolf Virchow Medical Society in the City of New York* v22 p114-29 (1963)

Transportation of the injured and the problems in the hospital emergency rooms are reviewed and suggestions are made for improvement. The relationship of automobile design to injury patterns is discussed. Ejection, safety belts, impacts with the interior of the car, and door opening problems are described. Organizations interested in the trauma of accidents are briefly discussed. The article mentions surgery very briefly.

Search terms: Injury statistics; Safety design; Transportation of injured; Emergency medical services; Hospital emergency rooms; Accident hospitals; Injury severity; Door system failures; Ejection; Secondary collisions; Automobile design; Occupant protection; Seat belts

HS-010 505 Fld. 1/1

TRAINING EMERGENCY MEDICAL TECHNICIANS

by Charles F. Frey; William C. Grabb

Michigan Univ.

Published in HS-010 504, *Proceedings of the 14th Annual Conference of the American Association for Automotive Medicine*, 1970 p175-81

7 refs

Presented at the annual conference, Ann Arbor, 19-20 Nov 1970.

Emergency medical service at its best is a complex system of integrated components. These component parts include well trained rescue workers. Historically, ambulance workers have not been well trained. The 70-hour training program for rescue workers in Washtenaw County constitutes an interim program, an intermediate step between the advanced Red Cross first aid course, and a truly professional one- to two-year community college hospital-based program.

Search terms: Emergency medical services; Ambulance personnel training; First aid; Heart lung resuscitation; Medical emergencies; Michigan; Curricula; State action

AMBULANCE SERVICE IN
VERMONT

by Julian A. Waller; Lee Jacobs

Vermont Univ.; Vermont Dept. of
Health

1970 50p 4 refs

Supported by a grant from the Insurance Institute for Highway Safety.

The purposes of this report are three-fold. First, it describes briefly what is known about the quality of emergency health services available to a group of individuals who were fatally injured on the Vermont roads during 1966 and 1967. Second, it surveys the existing pattern of ambulance services in Vermont and the currently unmet needs for better emergency services. Lastly, it provides a summary of the past program and future plans of the Vermont State Health Department to improve emergency health services in Vermont. It is estimated that nearly 25% of the highway fatalities died of survivable injuries. The inadequacies in first aid, equipment, and trained personnel in the present ambulance services are described.

Search terms: Ambulances; Ambulance personnel training; Emergency medical services; Transportation of injured; First aid; Emergency equipment; Fatalities; Vermont; Accident survivability

CAUSAL CHAIN APPROACHES
TO THE EVALUATION OF HIGH-
WAY SAFETY COUNTER-
MEASURES

by William K. Hall; James O'Day

Published in *Journal of Safety Research*
v3 n1 p9-20 (Mar 1971)

19 refs

The process of evaluation of highway safety countermeasures is examined from two points of view—evaluation at the project planning stage in which cost-effectiveness analysis is appropriate and evaluation after implementation using the techniques of experimental design and statistical analysis. The use of a causal chain approach to evaluation of highway safety countermeasures is recommended. In this approach, measurements of the direct effects of a countermeasure are made, and these are related to the ultimate (accident) measure by analyzing the chain of events which follows. Three examples of this technique are given—a speed control program promoted by a police agency, a motor vehicle inspection program, and an improved ambulance system. The causal chain approach can yield rather immediate and useful results. While these measures may not be politically as satisfying as dramatic life-saving claims, they have the virtue of being more realistic indicators of the success of a countermeasure program.

Search terms: Causality; Highway safety programs; Benefit cost analysis; Program evaluation; History; Vehicle age; Accident risks; Fatalities; Drinking drivers; Vehicle mileage; Speed limits; Ambulances; Vehicle inspection

MISSISSIPPI STATE U DEVEL-
OPS TOTAL EMERGENCY
MEDICAL CARE SYSTEM

by J. Edwin Clark

Published in *Traffic Safety* v71 n4
p22-4, 38 (Apr 1971)

A 15-month study in Mississippi is described. Helicopter ambulances and a radio communication system were used to improve emergency medical care. Recommended steps for upgrading emergency medical services are: (1) Establish a statewide emergency medical radio communications network that incorporates hospitals and ambulances on a common statewide emergency frequency compatible with that of adjacent states; (2) Establish training requirements in emergency medical care for ambulance personnel; (3) Determine if adequate coverage is provided by the existing ground ambulance service by use of a method such as time-advantage maps.

Search terms: Emergency medical services; First aid; Ambulances; Helicopter ambulances; Emergency reporting systems; Ambulance personnel training; Radio communication; Time factors

HS-009 757 Fld. 1/1

AMBULANCE SERVICE AND TRAFFIC CASUALTIES. REPORT OF THE CORNWALL AREA TRAFFIC CASUALTY STUDY, DECEMBER 1st, 1959 TO NOVEMBER 30th, 1960,

by L. A. Caldwell

Published in *Ontario Medical Review*
p172-82, 233-4 (Mar 1961)

27 refs

The present status of emergency ambulance services in Ontario is reviewed. Allegations of inadequate returns for emergency ambulance services on the highway are substantiated. There is a complete lack of provincial regulations governing the licensing, equipment, and staffing of ambulances. The same lack applies to first aid certification of ambulance personnel and regular inspection of ambulances. Recommendations for improvement are given.

Search terms: Ambulances; Transportation of injured; Ambulance personnel training; Ambulance licensing; Emergency equipment; First aid; Economic factors; Emergency medical services; Time factors; Vehicic operating costs; Ontario

HS-009 767 Fld. 2/3; 1/3; 2/9

RESTORING FREEWAY OPERATION AFTER TRAFFIC ACCIDENTS

by Frank L. Lynch; Charles J. Keese

Texas A & M Univ. Texas Transp. Inst.

1964 21p 7 refs

Report no. Bull-28

The effects of traffic accidents on freeway operation were studied. A research project was established to determine areas where possible improvements could be made in reducing the time lost to freeway users due to an accident occurring on the freeway and restricting the flow. Another phase of the project included the determination of the drivers' reaction to the situation, once involved in an accident. This report was designed to encourage awareness on the part of the police department, the investigation officers, and the freeway drivers of the problems encountered by each after an accident, and to indicate problem areas that may be improved by departmental operation changes, individual improvements, and increased education of the freeway drivers.

Search terms: Debris removal; Emergency vehicles; Wreckers; Accident location; Traffic flow; Freeways; Police response time; Traffic congestion; Emergency reporting systems; Roadside telephones; Time factors; Accident investigation

HS-009 820 Fld. 1/1

THE INTERDISCIPLINARY DEVELOPMENT OF AMBULANCE DESIGN CRITERIA

by John E. Baerwald

Published in *Highway Research Record*
n332 p54-62 (1970)

7 refs

Sponsored by HRB and presented at its 49th annual meeting.

The wide variation in ambulance equipment and regulation of ambulance services, coupled with the development of federal safety standards for all types of vehicles operating on the highways, resulted in the National Academy of Engineering being asked to undertake a study of ambulance design criteria. This study was performed by an interdisciplinary committee consisting of physicians, ambulance operators, automotive engineers, and specialists in related fields. In addition to describing the organization and activities of the committee, this paper summarizes the major ambulance design criteria recommended by the committee and concludes with a listing of the elements essential for successful interdisciplinary efforts to solve a specific problem.

Search terms: Ambulance design; Emergency medical services; Multidisciplinary teams

HS-009 585, Fld. 2/0

HIGHWAY SAFETY-A PROGRESS REPORT

by William Haddon, Jr.

Published in *Journal of the Medical Association of Georgia* v56 n11 p456-9 (Nov 1967)

Highway casualties in the United States total over 10,000 injuries daily, more than 1,000 deaths weekly, require 8 million days of hospitalization each year to treat survivors, and cost about \$1 billion each month. The precrash, crash, and postcrash phases of this national problem are discussed. The inadequacy of emergency medical services, the role of the secondary collision in causing injuries, and accident factors such as roadside hazards are discussed. The National Traffic and Motor Vehicle Safety Act and the Highway Safety Act established standards for dealing with highway safety problems.

Search terms: Precrash phase; Post-crash phase; Impact phase; Emergency medical services; Vehicle safety; Highway safety; Highway Safety Act of 1966; National Traffic and Motor Vehicle Safety Act of 1966; Secondary collisions; Safety standards; Roadside hazards

HS-009 677 Fld. 1/1; 4/2

EMERGENCY MEDICAL SERVICES

National Safety Council.

[1970] 9p 12 refs

Included in the Safety through Action to Enlist Support (STATES) program publicity kit.

This fact sheet is intended for use in promoting public support for state highway safety programs on emergency medical services. Authorities have estimated that 20,000 die needlessly and another 25,000 are permanently disabled annually because of inadequate emergency medical care at the scene of an accident and in transit to a hospital. The standard requires each state to develop an adequate emergency medical services response system. The provisions for such a system are listed, and the requirements briefly noted. The rationale for the implementation of these systems is discussed. A pattern newspaper release and a pattern public service announcement are included.

Search terms: Highway safety programs; Highway safety standards; Emergency medical services; State laws; Safety propaganda; Community support

HS-009 756 Fld. 1/1

TRANSPORTATION OF THE ACUTELY INJURED - A NEGLECTED "DISEASE" WITH A "CURE"

by J. T. Littleton

Published in *Police* v9 n2 p16-21 (Nov-Dec 1964)

Transportation of the acutely injured is not always handled properly, whether at the scene of the accident or within the hospital. A survey showed that the average number of acutely injured patient moves was 6.7. A system for patient transport is described. It consists of a removable stretcher top which reduces the number of painful moves for acutely injured patients to two, from the street to the stretcher-top and from the stretcher top to the ultimate hospital bed. A technique is also described whereby this system can be adapted to provide facilities for transporting and housing multiple acutely injured patients from mass casualty accidents. This system has been used only in a rural community, but theoretically it could lend itself to municipalities as well.

Search terms: Transportation of injured; Ambulances; Stretchers; Hospital emergency rooms; Emergency medical services; Injury severity

HS-009 285 Fld. 1/1

A CURRICULUM FOR TRAINING EMERGENCY MEDICAL TECHNICIANS

by J. D. Farrington; Oscar P. Hampton, Jr.

Published in *Bulletin of the American College of Surgeons* 4p (Oct 1969)

14 refs

Reprint.

Outlines a curriculum for ambulance personnel, and lists references, printed material, audiovisual aids, and equipment for the course.

Search terms: Ambulance personnel training; Curricula; Instructional materials; Audiovisual aids

HS-009 286 Fld. 1/1

ESSENTIAL EQUIPMENT FOR AMBULANCES

by J. D. Farrington; Robert H. Brown; Francis J. Cox; Walter A. Hoyt, Jr.; William R. Ausland, Jr.; Charles S. Neer, 2nd; Watts R. Webb

Published in *Bulletin of the American College of Surgeons* p8-13 (Oct 1969)

Reprint

Equipment essential if ambulance attendants are to provide adequate care for the critically ill and injured at the emergency scene and during transport to medical facilities is listed and illustrated. Extrication equipment necessary if no rescue vehicle accompanies the ambulance is listed.

Search terms: Ambulances; First aid equipment; Occupant rescue; Emergency equipment

HS-009 474 Fld. 1/1

THE AIR AMBULANCE: QUICK MEDICAL RESPONSE IN EMERGENCIES

Anonymous

Published in *Research Trends* p34-7 (Summer 1970)

The air ambulance of the future has been pictured as a multi-purpose vehicle which may control rush hour traffic, assist at fires, provide night surveillance of streets and shopping centers, and perform aerial surveys and mapping. Possible emergency use would be in conjunction with paramedical personnel. In a simulated school bus accident, helicopters made the round trip to and from the hospital (11 miles by air) in 20 minutes as compared with a conventional ambulance which made the trip (23 miles by congested highways) in 46 minutes.

Search terms: Helicopter ambulances; Emergency medical services; Accident simulation; School bus accidents; Travel time

HS-009 475 Fld. 1/1

NEEDED - FAST AID FOR CRASH CASUALTIES

by Wynne Delacom

Published in *Journal of Insurance* v31 n3 p24-9 (May-Jun 1970)

It is estimated that 20,000 accidental deaths could be prevented each year by improving post-accident care. Agencies across the country are giving emergency medical service a new top priority in the national highway safety effort. Use of helicopters and training and licensing of ambulance personnel are two approaches being considered as ways of improving emergency medical services for accident victims. Federal aid in upgrading emergency medical services is briefly discussed.

Search terms: Ambulances; Emergency medical services; Ambulance personnel training; Helicopter ambulances; Federal aid

HS-009 574 Fld. 1/1

EMERGENCY MEDICAL SERVICES AND POLICE OFFICERS

by Oscar P. Hampton, Jr.

Published in *Police Chief* v37 n9 p38-41 (Sep 1970)

The essentials of first class emergency ambulance services are listed, and an approach for citizens to take in acquiring such services is outlined. Local governments should consider assuming responsibility for these services. A community council should decide what type of service is needed. The use of police and fire department vehicles as ambulances, the regulation of ambulance service, and the place of the helicopter as an emergency ambulance are discussed.

Search terms: Emergency medical services; Ambulances; Ambulance laws; Ambulance personnel training; Helicopter ambulances; Community support; Police vehicles; Firemen

HS-009 576 Fld. 1/3; 1/1; 4/3

HEALTH PROGRAM ANALYSIS REVIEW GROUP FOR SELECTED DISEASE CONTROL PROGRAMS. MOTOR VEHICLE INJURY PREVENTION AND EMERGENCY HEALTH SERVICES. REPORT OF 1967

Public Health Service

Aug 1967 115p refs

A cost effectiveness study of six highway safety program areas was made. The program units are: decreasing driving exposure by drinking drivers; restraint systems for motor vehicle occupants; medical aspects of driver licensing and driver evaluation; motorcycle injury prevention, especially wearing of helmets; reduction of pedestrian injuries through safety education of the aged and young children; and emergency health services improvement.

Search terms: Benefit cost analysis; Highway safety programs; Safety program effectiveness; Accident prevention; Motorcycle safety; Alcohol usage deterrents; Drinking drivers; Pedestrian safety; Motorcycle safety; Helmets; Restraint systems; Driver license standards; Driver physical fitness; Aged pedestrians; Child safety education; Emergency medical services; Injury prevention; Fatality prevention

HS-009 282 Fld. 1/1

**THE ROLE OF THE HOSPITAL
IN EMERGENCY TREATMENT**

by W. H. Ghent

Traffic Injury Res. Foundation of Canada

Published in HS-009 279; *Canada Safety Council, Proceedings of the 1st Conference*, 1969, 8p

Presented at First Conference of the Canada Safety Council, Ottawa, 5-7 May 1969.

Ontario legislation for hospital managed emergency medical services and the implementation of that legislation is described.

Search terms: Ontario; Emergency medical services; Hospitals; Ambulance laws

HS-009 283 Fld. 1/1

EMERGENCY SERVICES

by Kenneth E. Wilson

Traffic Injury Res. Foundation of Canada

Published in HS-009 279; *Canada Safety Council, Proceedings of the 1st Conference*, 1969, 3p

Presented at First Conference of the Canada Safety Council, Ottawa, 5-7 May 1969.

The role of the physician in emergency services is discussed.

Search terms: Emergency medical services; Physicians

HS-009 284 Fld. 1/1

**AID TO THE INJURED: THE
SOUTH CAROLINA CONCEPT**

Anonymous

Published in *Journal of American Insurance* v46 n3 p1-8 (May-June 1970)

South Carolina's emergency medical care system is described. The helicopter service doubles as traffic surveillance and ambulance.

Search terms: South Carolina; Emergency medical services; Helicopter ambulances

HS-009 279 Fld. 1/1; 4/1; 5/2;
5/20; 3/6

**CANADA SAFETY COUNCIL.
PROCEEDINGS OF THE 1ST
CONFERENCE, OTTAWA, May
4-7, 1969.**

Canada Safety Council

1969 200p

The Canada Safety Council is the result of a merger of the Canadian Hwy. Safety Council, the National Safety League of Canada, and the Canadian Industrial Safety Assoc. Includes HS-009 280 - HS-009 283; HS-009 287; HS-009 288; HS-009 300; HS-009 311 - HS-009 313; HS-009 326; HS-009 335 - HS-009 339; HS-009 345 - HS-009 350; HS-009 371 - HS-009 373.

Papers were presented on the following subjects: medical aspects of safety; uniform traffic legislation; school bus safety; snowmobiling; communication; defensive driving; traffic accidents; hearing conservation; and home safety. The twenty six films shown at the conference are listed.

Search terms: Emergency medical services; Uniform vehicle code; Traffic laws; Uniformity; School bus safety; Snowmobiles; Safety; Defensive driving; Traffic accidents; Hearing; Noise control; Motion pictures; Public relations

HS-009 280 Fld. 1/1

**TRANSPORT OF THE SICK AND
INJURED BY AIR**

by R. F. Thatcher

Canada Air Transport Command

Published in HS-009 279; *Canada Safety Council, Proceedings of the 1st Conference*, 1969, 6p

Presented at First Conference of the Canada Safety Council, Ottawa, 5-7 May 1969.

The role the Canadian Forces plays in the transport of the sick and injured on the west coast of Canada is presented. The operation is the responsibility of the Air Transport Command. Their mode of operation, their equipment, preparation of patients for transport, and problems which arise in the air are described.

Search terms: Canada; Emergency medical services; Aircraft evacuation; Helicopter ambulances; First aid equipment; First aid

HS-009 281 Fld. 1/1

**BRIDGING THE GAPS IN EF-
FECTIVE MEDICAL CARE. THE
ONTARIO AMBULANCE SER-
VICE PROGRAM**

by N. H. McNally

Ontario Hosp. Services Commission

Published in HS-009 279; *Canada Safety Council, Proceedings of the 1st Conference*, 1969, 8p

Presented at First Conference of the Canada Safety Council, Ottawa, 5-7 May 1969.

The Ontario Ambulance Service Program is described. Plans and recommendations for personnel and personnel training as well as ambulance design and its standardization are discussed.

Search terms: Ontario; Ambulance personnel; Ambulance personnel training; Ambulance design; Standardization; Emergency medical services

HS-009 013 Fld. 1/2; 1/1

TRAUMA AT YALE

by John Robinson

Published in *Yale Alumni Magazine* v33 n5 p30-5 (Feb 1970)

The Yale Trauma Study is devoted to research on accidental injury with the goal of depriving it of its present distinction as the leading cause of death in the 1-44 year age group. Motor vehicle accidents account for some 40% of all trauma deaths, but many factors contributing to these accidents can be controlled or eliminated. The initial purpose of the study was to explore and analyze emergency treatment services in the New Haven area. Some factors dealing with emergency care are discussed.

Search terms: Emergency medical services; Fatality causes/Age factors; Accident rates; Vehicle accidents; Injury research; Accident research

HS-009 028 Fld. 2/0; 3/1; 1/3

THE "UNDERWRITER" COLUMNS ON HIGHWAY LOSS REDUCTION

by William Haddon, Jr.; Albert Benjamin Kelley

Insurance Inst. for Highway Safety, Washington, D.C., 136600

Apr 1970 30p

Reprint of five articles from *National Underwriter*, Sep 1969-Jan 1970.

This discussion of highway safety includes five aspects: strategies for cutting highway losses, such as accident prevention, occupant protection, and post-accident aid; covering the crash, emphasizing a three-phase approach; speed does kill; detecting drunk drivers through pre-arrest testing; supercars and crash losses.

Search terms: Accident prevention; Occupant protection; Emergency medical services; Precrash phase; Crash phase; Postcrash phase; High speed caused accidents; High powered automobiles/Accident factors; Alcohol breath tests /Arrests; Drinking drivers/Alcohol breath tests

AVAILABILITY: Corporate author

HS-009 114 Fld. 1/3; 3/2

MEASUREMENT OF HUMAN FACTORS IN ACCIDENT RESEARCH

by Ross A. McFarland

Harvard School of Public Health

Published in *Impact of Environment on Accidental Injuries and Fatalities*, Chicago, 1966, p102-11

23 refs

Presented to Panel 4: Accident Research.

Four major strategies for reducing accidental injuries and deaths are outlined: the control of exposure to hazards; the prevention of accidents in hazardous situations; the minimization of injury consequent to accidents; and the minimization of long term effects of injury through adequate emergency care. Inherent in these strategies are the general epidemiological principles of prevention.

Search terms: Injury prevention; Fatality prevention; Human factors/Accident research; Emergency medical services; Epidemiology/Accident prevention; Hazards/Accident prevention; Environmental factors/Accident research

AVAILABILITY: In HS-009 109

HS-009 126 Fld. 1/3

DEVELOPING EMERGENCY MEDICAL SERVICES. GUIDELINES FOR COMMUNITY COUNCILS . . . STARTING POINTS FOR COMMUNITY ACTION

by I. E. Hendryson

American Medical Assoc.

18p 9 refs

Guidelines for developing emergency medical services are presented under the following headings: the emergency medical services council; community evaluation; and planning for better emergency care.

Search terms: Emergency medical services/Community support; Emergency medical services/Organizations; Emergency medical services/Evaluation; Emergency medical services/Planning

HS-009 195 Fld. 1/1

PENNSYLVANIA'S HELICOPTER AMBULANCE STUDY

by Robert R. Coleman

Published in *Highway Research Record* n272 p50-64 (1969)

Presented at the Highway Research Board 48th annual meeting.

The feasibility of using a helicopter as an ambulance is being studied in the Philadelphia suburban area. The basic premise was that delay in getting accident victims to proper medical aid could be caused by urban traffic congestion and travel distance in rural areas. The helicopter and its crew and equipment are described. During the study 38 victims were airlifted from traffic accident scenes. Average time from receipt of alert to delivery of victim to the hospital was 20.9 minutes. Trip time from accident scene to hospital averaged 6.0 minutes. Reaction to the experiment has been favorable.

Search terms: Helicopter ambulances/Suburban areas; Helicopter ambulances/Travel time; Helicopter ambulances/Reaction time; Traffic delay minimization/Helicopter ambulances; Feasibility studies/Helicopter ambulances

HS-008 755 Fld. 1/1

WISCONSIN EMERGENCY AMBULANCE SURVEY. REPORT B. DESCRIPTION AND ANALYSIS OF EMERGENCY AMBULANCE SERVICE

by Martin A. Werner; Peter K. Wright

Wisconsin. Dept. of Health and Social Services. Div. of Health, W19520

May 1970 210p 59 refs

Wisconsin Emergency Ambulance Survey. Report A. Inventory of Ambulance Services in Wisconsin, 1969 was announced as HS-007763.

Description and analysis of emergency ambulance services in Wisconsin are presented for the following aspects: distribution of services; personnel and training; operating policies and procedures; vehicles and equipment; and economic problems. Questionnaires and tables are included.

Search terms: Ambulance /Costs; Ambulance personnel training; Ambulance personnel; Ambulances /Management; Ambulance design; Emergency medical services /Wisconsin; Emergency medical services /Questionnaires; Emergency medical services /Statistics

HS-008 814 Fld. 1/1

DEVELOPMENT OF A COMPREHENSIVE EMERGENCY MEDICAL SERVICES PLAN FOR LOUISIANA. FINAL REPORT

Gulf South Research Inst., Tallahassee, Fla., G31300

1 Oct 1969 400p

57 refs

Development of a comprehensive emergency medical services plan for Louisiana is outlined. The quality of emergency medical care available in Louisiana is unsatisfactory in all but the largest metropolitan areas, and even in these locations the services are minimal. A survey of ambulance services conducted by Gulf South Research Institute in connection with this project, for example, indicated that only nine percent (19 out of 214) ambulance services in the state meet the most minimum equipment and training standards. A survey conducted by the Institute of hospital emergency departments indicated that 61.6 percent of the hospitals surveyed could be rated as having only limited emergency medical care capability. The survey also indicated that nearly all of the major emergency care hospitals are located in medium- to large-sized metropolitan areas, and five of the complete emergency care facilities are located in New Orleans. The survey indicated a lack of adequate emergency care facilities in most rural areas of the state. This report describes a proposed five-year program for improving the quality of emergency medical services in Louisiana.

Search terms: Emergency medical services /Louisiana; Ambulances /Louisiana; Emergency medical services /Planning; Emergency medical services /Urban areas; Emergency medical services /Rural areas; Ambulance personnel training; Ambulances /Costs; Hospital emergency rooms; Emergency medical services /Communications systems

HS-008 855 Fld. 1/1

IS THE HELICOPTER THE ANSWER?

by James Kiely

Published in *Traffic Safety* v70 n10 p8-10, 40 (Oct 1970)

Successful use of helicopters for evacuating wounded in Vietnam has aroused widespread interest in their use as civilian rescue vehicles. They have been tested in various localities, and their proper role in highway emergencies is now becoming clearer. Their use in Chicago, chiefly as ambulances, is described.

Search terms: Helicopter ambulances /Emergency medical services; Helicopter ambulances /Chicago; Emergency services /Helicopters

HS-008 867 Fld. 2/0

MOBILITY WITHOUT MAYHEM

President's Task Force on Highway Safety, Washington, D.C., P32500

Oct 1970 65p 39 refs

The nature of the highway safety problem is outlined. Recommendations for solving aspects of the problem and goals to be achieved are discussed. Management and supporting service aspects are described. It is recommended that action be taken on the following major elements of highway safety: highways, vehicles, drivers, enforcement, alcohol and drugs, pedestrians, emergency medical services, and public education.

Search terms: Highway safety; Vehicle safety; Driver behavior /Highway safety; Law enforcement /Highway safety; Alcoholic beverages /Highway safety; Drugs /Highway safety; Pedestrian safety; Emergency medical services; Highway safety programs /Management; Safety education; Highway safety /Safety campaigns

AVAILABILITY: GPO \$0.35

HS-008 545 Fld. 1/1
EMERGENCY MEDICAL PROBLEMS IN RURAL AREAS

by Valentin Wohlauer

Published in *Rocky Mountain Medical Journal* v64 p43-8 (Aug 1967)

Presented at the American Medical Association meeting, St. Louis, Feb 18-19, 1967.

The problems of emergency medical services in rural areas are discussed, and it is suggested that rural populations have shown more initiative to help themselves than city dwellers. Aspects discussed include medical self help training, packaged disaster hospitals, training for medical personnel, ambulance service, blood banks, poison control, and accident prevention.

Search terms: Emergency medical services /Rural areas; Hospitals; Ambulance personnel; Ambulances; Accident prevention; First aid; Disasters /Emergency medical services; Poison control centers; Blood banks; Medical education /Rural areas

HS-008 478 Fld. 1/1

NEBRASKA'S AIR AMBULANCE PROJECT. "OPERATION SKY-AID". FINAL REPORT

by C. P. Karthauser; John D. German; James L. Sweetman; Paul R. Haith

Nebraska. State Patrol, Lincoln, N35800; Nebraska. Army National Guard, Lincoln, N35650

1 Jul 1969 42p

The role of the helicopter in emergency service was tested under civilian conditions. Recommendations and findings include: standby helicopter ambulance program is not feasible because of costs and organizational requirements; including emergency medical services with other helicopter operations such as traffic surveillance would be more feasible; helicopter transportation could be used in other than traffic emergencies such as scheduled transportation of patients from one hospital to another. The study was carried out as a cooperative effort of medical, military and law enforcement personnel.

Search terms: Helicopters /Emergency medical services; Helicopters /Costs; Helicopters /Multidisciplinary teams

AVAILABILITY: Corporate author

HS-008 596 Fld. 1/3; 1/2; 3/1

PROCEEDINGS OF THE THIRTEENTH ANNUAL CONFERENCE OF THE AMERICAN ASSOCIATION FOR AUTOMOTIVE MEDICINE, OCTOBER 16 AND 17, 1969, MINNEAPOLIS, MINNESOTA

American Assoc. for Automotive Medicine, Salem, N. J., A24900

1969 376p 224 refs

Prepared in cooperation with Michigan Univ. Highway Safety Research Inst., General Motors Corp., and American Motors Corp.

Papers and a panel discussion presented at the conference are given. Subjects covered are: neck injuries, statistics of car crash injuries, face fractures, impact injury tolerances of children, restraint systems, driver education, alcohol effects on driver performance and accidents, driver alertness, pedestrian visibility, splenectomy, and emergency services.

HS-008 585 Fld. 1/1

EMERGENCY SERVICES. AN EMERGENCY DEPARTMENT RECORD FORM

by Charles F. Frey

Michigan Univ., Ann Arbor. Medical Center, M41950

Published in *Proceedings of the 13th Annual Conference of the American Assoc. for Automotive Medicine*, 1969, p313-26

6 refs

Presented at the 13th annual conference of the American Assoc. for Automotive Medicine, Minneapolis, Minn., 16-17 Oct 1969.

The design and considerations which we conceived important in developing an Emergency Department record responsive to the needs of hospital and community planning of The University of Michigan Medical Center are reviewed here.

Search terms: Emergency medical services /Michigan Univ. Medical Center; Medical records; Medical case reports /Accident causes

AVAILABILITY: In HS-008 596

Search terms: Neck injuries /Rear end collisions; Injuries /Seat position; Vehicle miles /Accident risks; Spinal fractures /Acceleration injuries; Whiplash injuries /Pathology; Facial bone fractures /Motor vehicle accidents; Restraint systems /Injury prevention; Child injuries /Impact tolerances; Injury prevention /Safety standards; Driver education; Child restraint systems /Design; Infant restraint systems /Design; Air bag restraint systems /Occupant protection; Driver performance /Blood alcohol levels; Pupil responses /Vigilance tests; Pedestrian visibility /Reflecting surfaces; Spleen injuries /Medical treatment; Emergency medical services; Motorcycle operator fatalities /International aspects; Pedestrian fatalities /International aspects; Truck accidents /Driver intoxication; Alcoholism /Accident causes; Blood alcohol levels /Alcohol laws; Alcoholism /Psychological factors; Alcoholism /Medical treatment; Public opinion /Drinking drivers; Conferences

AVAILABILITY: (Includes HS-008 585-92; 008 595; 008 600-609; 008 611; 008 616-619)

HS-008 291 Fld. 2/0

THE PHYSICIAN'S ROLE IN HIGHWAY SAFETY. PT. 5: WHAT THE DOCTOR CAN DO TO CUT THE TRAFFIC TOLL

John H. Rosenow; Robert W. Watkins
Published in *Police* v14 n3 p59-64
(Jan-Feb 1970)

14 refs

The precrash, crash, and postcrash phases of auto accidents are discussed. Aspects described include driver physical and mental fitness; the role of the environment; the man machine system; the role of auto design; the prototype safety car; pedestrian accidents; emergency medical services, including the use of helicopters. Physicians are urged to acquaint themselves with these factors.

Search terms: Physicians /Highway safety; Precrash phase; Crash phase; Postcrash phase; Automobile accidents /Environmental factors; Man machine systems; Automobile design /Accident factors; Safety cars; Pedestrian accidents; Emergency medical services; Helicopters /Emergency medical services; Driver physical fitness; Driver mental fitness

HS-008 323 Fld. 4/5; 1/1

EMERGENCY MEDICAL SERVICES DATA SUBSYSTEM. A DATA SUBSYSTEM OF THE LOUISIANA HIGHWAY SAFETY INFORMATION SYSTEM

Gulf South Research Inst., Baton Rouge, La., G31200
22 Jul 1969 116p
Project GSRI-MS-21'3

In order to improve the quality of emergency medical services for traffic accident victims, it is necessary to determine the shortcomings of the present system and recommend changes based on reliable information. An emergency medical services data system has been designed to provide the needed information base. The information requirements, input, file design, and output of the system are discussed.

Search terms: Information systems / Highway safety; Information systems /Louisiana; Highway safety / Louisiana; Emergency medical services /Louisiana; Emergency medical services /Information systems

HS-008 325 Fld. 4/5; 2/0

DEVELOPMENT OF AN INTEGRATED LOUISIANA HIGHWAY SAFETY INFORMATION SYSTEM. FINAL REPORT

by Yvonne L. Day

Gulf South Research Inst., Baton Rouge, La., G31200

15 Jul 1969 240p
Project GSRI-MS-213

An information system is described, including data elements and sources of data, the flow of information within the system, and the conceptual system logic necessary to indicate interrelationships among subsystems. Subsystem designs have been developed for driver licensing, vehicle data, accident summary data, traffic law enforcement data, emergency medical services, communications, and financial responsibility.

Search terms: Information systems /Louisiana; Highway safety /Louisiana; Highway safety /Information systems; Driver licensing /Information systems; Accident data /Information systems; Traffic law enforcement /Information systems; Emergency medical services /Information systems; Highway communications /Information systems; Financial responsibility /Information systems; Motor vehicle registration /Information systems; Motor vehicle inspection /Information systems

HS-008 347 Fld. 1/1

WHAT ARE YOUR CHANCES IN A MEDICAL EMERGENCY?

Charles Bonnie Remsberg

Published in *Good Housekeeping* v165 n5 (p100,265-66,271) (Nov 1967)

Many victims of auto and other accidents die needlessly or are disabled because of inadequate emergency medical services. It is estimated that one emergency case out of every three is mishandled in some way. The need for setting up and enforcing standards to control ambulance services is outlined. Some cases of gross negligence are described. Efforts made in some cities to improve the quality of emergency medical care are outlined.

Search terms: Emergency medical services; Ambulance laws; Emergency medical services /Negligence; Community support /Emergency medical services

HS-008 380 Fld. 1/1

COMMUNITY ACTION ON EMERGENCY MEDICAL SERVICE

Anonymous

Published in *Journal of the Medical Association of the State of Alabama*, v37 n9 p1003, 1106, 1109-11 (Mar 1968)

An estimated 20,000 victims of automobiles and other accidents die needlessly each year because of inadequate emergency medical services. Fatalities and injuries increase annually. This report offers guidelines to aid formation of community action programs in the following areas: first aid; communications; transportation; and emergency facilities.

Search terms: Emergency medical services /Community support; First aid; Highway communications; Emergencies; Ambulances

HS-008 477 Fld. 1/1

HELICOPTER AMBULANCE STUDY. FINAL REPORT

by Robert R. Coleman

Copter's Inc., Bryn Mawr, Pa., C67000
May 1969 116p

This study concluded that the helicopter can improve the level of medical service by reducing travel time even in an area where existing ambulance service is considered to be above average. The helicopter should function as part of a regional emergency medical center in cooperation with other emergency services within the region. The study included police services as well as traffic services. There were 144 accident responses with 49 air lifts completed during a 12 month period. Helicopter models were discussed in relation to function. Other matters presented were: hospital landing facilities; communications; uses other than medical emergencies, legal aspects, existing emergency medical services, accident data, and cost analysis.

Search terms: Helicopters /Emergency medical services; Helicopters /Costs; Accident data; Helicopters /Police traffic services; Helicopters /Communication systems; Helicopters /Legal factors

AVAILABILITY: Corporate author

HS-008 113 Fld. 1/1

ROAD ACCIDENTS. AN INTRODUCTION TO A DISCUSSION UPON THE TREATMENT OF ROAD ACCIDENT CASUALTIES. MANAGEMENT IN HOSPITAL OF CASUALTIES FROM ROAD ACCIDENTS

by Kenneth C. Easton; P. S. London
Published in *Transactions of the Medical Society of London* v84 p16-26 (1968)

Emergency medical services and rescue of victims from wrecked vehicles are discussed. Medical and emergency equipment which should be carried to the scenes of accidents, first aid measures, and priorities for emergency room procedures are described.

Search terms: Emergency medical services; Rescue operations; Extraction/Disabled vehicles; Emergency services; First aid; Hospitals; Emergency equipment

HS-008 128 Fld. 4/5; 2/0

CURRENT STATUS OF HIGHWAY SAFETY RELATED RECORDS IN FLORIDA

by Norman B. McPherson; Alan D. Cochrane; Patrick J. McCue; Earl Schroeder; James W. Dixon; Yvonne L. Day; Bobbie J. Grand

Gulf South Research Inst., Tallahassee, Fla., G31300
1970 376p

The highway safety-related records systems at the state and local levels have been surveyed to aid in design of a total highway safety information system concept for Florida. Record areas examined include: accident records; traffic law enforcement; driver licensing; motor vehicle registration and titling; motor vehicle inspection; financial responsibility; driver education; alcohol and highway safety; emergency medical services; traffic courts; traffic engineering.

Search terms: Highway safety / Florida; Information systems / Florida; Information systems / Highway safety; Accident records; Traffic law enforcement; Driver licensing; Motor vehicle registration; Motor vehicle titling; Motor vehicle inspection; Financial responsibility; Driver education; Drinking drivers; Driver intoxication; Emergency medical services; Traffic courts; Traffic engineering

HS-008 153 Fld. 1/1

COMMUNITY RESPONSIBILITY IN THE CARE OF EMERGENCY PATIENTS

by Robert H. Kennedy
Published in *Journal of Oral Surgery* v27 p533-7 (Jul 1969)

The community responsibility for the care of trauma patients is outlined. A brief review of the historical growth of interest in the injured patient is presented. The necessity for all hospitals to have efficient emergency rooms, ambulance facilities, and paramedical personnel is emphasized.

Search terms: Emergency medical services /Community support; Hospitals; Ambulances; Medical treatment /Injuries

HS-008 155 Fld. 1/3; 4/7

MODELING THE TRAFFIC SAFETY SYSTEM

by Bruce F. Goeller

Published in *Accident Analysis and Prevention* v1 n2 p167-204 (Oct 1969)

23 refs

A traffic accident progresses through a series of phases. A model is formulated as a chain of phases, each with alternative possible outcomes which have different relations to accident likelihood or severity. The chain of phases comprising the model is separated into three natural stages. The pre-accident stage consists of four phases, predisposition, initiation, juxtaposition with danger, and evasion. The intra-accident stage consists of a first collision phase and a second collision phase. The post-accident stage for the injured consists of three phases, initial treatment, emergency transport, and primary treatment. This study emphasizes the pre-accident stage, the only one in which accidents can be prevented. Focus is on the driver and his vehicle. Based on perception of risk, the driver continually makes decisions that result in either safe or vulnerable driving.

Search terms: Crash phase; Pre-crash phase; Postcrash phase; Accident prevention; Accident risks; Driver performance; Secondary collisions; First aid; Emergency medical services; Driver vehicle interface; Driver behavior; Accidents /Models; Accident research; Accident severity; Forecasting /Accidents

HS-008 231 Fld. 1/1

EMERGENCY SERVICE

by Steve Sink

Published in *Traffic Digest and Review* v17 n12 p19-20, 24 (Dec 1969)

6 refs

Emergency medical transportation and treatment have become a national problem. Hiring and training standards for ambulance personnel are either nonexistent or too lax, and the withdrawal of privately owned services for economic reasons is causing a shortage of emergency transportation. Alternatives for solving the problem are discussed, including federal financial aid, public subsidies to private operators, publicly financed services, volunteer services, and hospital-based services.

Search terms: Emergency medical services; Ambulance personnel; Ambulances /Federal aid; Emergency medical services /Federal aid; First aid; Finance /Emergency medical services; Finance /Ambulances

HS-008 290 Fld. 1/3

ARE CROWDED HIGHWAYS GETTING SAFER?

Anonymous

Published in *U. S. News and World Report* v68 n5 p50-2 (2 Feb 1970)

After a sharp rise during the 1960's, traffic fatalities are now rising at a slower pace. A downturn in accident fatalities is expected to appear by 1972 or 1973 and to continue for some years, despite an increasing number of vehicles. The death rate per 100 million vehicle-miles is expected to be cut in half because of safer cars, more driver education, and improvements in occupant protection. Problems such as alcoholic drivers and inadequate emergency medical services remain.

Search terms: Accident rates /Forecasting; Fatalities /Forecasting; Fatalities /Vehicle mileage; Motor vehicle safety /Accident rates; Driver education /Accident rates; Occupant protection /Fatalities; Alcoholism; Emergency medical services

HS-007 929 Fld. 2/4; 4/2

MARYLAND'S HIGHWAY SAFETY NEEDS IN HIGHWAY DESIGN CONSTRUCTION AND MAINTENANCE

by S. F. Coffman; Marshall F. Reed, Jr.; Dean Morgan; Robert Spicher

Automotive Safety Foundation, Washington, D. C., A82200

1969 85p
Project NHTSA-PA-68-2-001

Recommendations are made for a Maryland program to improve elements of highway design, construction, and maintenance in the following areas: crash survivability through improvement of accident locations; roadway lighting; rail-highway grade crossings; pavement treatment for skid resistance; pedestrian safety; highway maintenance; construction site safety; safety training for highway personnel; compilation of highway geometric design manuals; pavement design; emergency medical services; land policy.

Search terms: Highway safety / Maryland; Safety programs / Maryland; Highway design; Highway construction; Construction sites; Highway improvements / Accident location; Highway maintenance; Emergency medical services; Land use; Highway lighting; Skid resistance; Pedestrian safety; Safety education; Railroad grade crossings; Pavement skidding characteristics; Hazards Highway design

AVAILABILITY: NTIS

HS-008 070 Fld. 1/1

EMERGENCY TRANSPORTATION: A NEGLECTED SERVICE

by Robert M. Kennedy

Published in *Safety Maintenance* p36-8 (Sep 1968)

Emergency transportation and personnel should represent an extension of medical services, not merely transportation to a hospital. Successful examples of expanded service from police departments with first aid training are discussed. Advanced first aid training for ambulance personnel is badly needed. A model ordinance for ambulance services is discussed and recommended. Community planning for good ambulance service is urged.

Search terms: Ambulance personnel / Medical education; Ambulance licensing; Model ambulance ordinance; Emergency medical services / Community support; Police / First aid

HS-008 091 Fld. 4/5; 2/0

DESIGN AND DEVELOPMENT OF A FLORIDA HIGHWAY SAFETY INFORMATION SYSTEM. FINAL REPORT, VOL. 2: APPENDICES

Gulf South Research Inst., Tallahassee, Fla., G31300

1 Jul 1970 180p

This volume contains codes developed for use in an automated highway safety information system in Florida. The codes include: city/county identification; state and territorial possession identifier; vehicle description; traffic violations; court types; terminal location, uses, and mnemonic identifiers; administrative message procedures; emergency medical service personnel inventory; law enforcement data; ambulance service inventory; and emergency facility inventory.

Search terms: Data processing / Highway safety; Highway safety / Information systems; Highway safety / Florida; Emergency medical services / Florida; Motor vehicle characteristics / Information systems; Law enforcement / Information systems; Traffic violations / Information systems; Law enforcement / Information systems

HS-007 832 Fld. 1/1

TRAINING TECHNICIANS FOR COMBINATION EMERGENCY AND RESPIRATORY SERVICE

by Robert W. Loehning

Published in *Northwest Medicine* v68 p339-42,392 (Apr 1969)

13 refs

A pilot project is described in which technicians were trained to work as respiratory therapists in hospitals and also to operate a community emergency service program. When employed in the hospital on the respiratory service they can also man emergency vehicles to give life-saving care not now generally available, such as mechanical heart-lung resuscitation, defibrillation, intravenous infusions, and tracheal intubation. Experience in the pilot project suggests that this training should be a two-year program, combining college work with the hospital environment.

Search terms: Ambulance personnel /Medical education; Emergency medical services; First aid / Medical emergencies; Resuscitation; Respiratory system /Medical emergencies; Pulmonary arrest; Heart arrest

HS-007 918 Fld. 1/1

AIRBORNE SAVIOURS' CRAFT COMPETE

by E. Colston Shepherd

Published in *New Scientist* v42 n655 p707 (26 June 1969)

The use of helicopters for search and rescue operations is described. Overlapping of various national rescue services led to the institution of annual competitions in 1967, in which various European countries demonstrate their helicopters, airplanes and rescue equipment.

Search terms: Helicopters /Rescue operations; Rescue operations / Aircraft; Emergency equipment

HS-007 919 Fld. 1/1

THE ECONOMICS OF HIGHWAY EMERGENCY AMBULANCE SERVICES

by Anonymous

Published in *Northwest Medicine* v68 p333-8 (Apr 1969)

10 refs

Reprinted from *Safety Research Information* v1 n1 (Jan 1969).

The inadequacies of present ambulance services are outlined. Costs are intimately tied to the wage level of ambulance personnel. Since an effort is being made to upgrade their skills, it is likely that costs will continue to increase. Area-wide planning is needed to save a substantial portion of the estimated 20,000 victims who die yearly because of inadequate emergency medical services. Costs of ambulance operation are discussed and compared for commercial firms, volunteer groups, funeral homes, and tax-subsidized community services.

Search terms: Costs /Emergency medical services; Costs /Ambulances; Ambulance personnel

HS-007 921 Fld. 1/2; 1/1; 5/4

VEHICLE POSTCOLLISION CONSIDERATIONS

by Arnold W. Siegel; Alan M. Nahum

California Univ., Los Angeles, C18600

Published in *1970 International Automobile Safety Conference Compendium* (P-30), New York, 1970, p1222-49

86 refs

Report no. SAE-700435

Presented at 1970 International Automobile Safety Conference: Detroit, Mich., 13-15 May 1970. Brussels, Belgium, 8-11 Jun 1970.

The relationship of vehicle design to human and environmental factors is examined, insofar as their relationship affects injury and the subsequent survival of the occupants in the postcollision phase. The post-impact phase is divided into four time periods: zero time; a few minutes after impact; rescue operations; tow service and site clean-up. Historically, attention has been focused upon medical problems of extrication and transportation of the injured. Post-collision design principles and information needs are suggested. Seventeen suggestions are made for reducing injuries and making escape from wrecked vehicles easier.

Search terms: Postcrash phase / Reviews; Extraction; Rescue operations; Crashworthiness; Debris removal; Emergency medical services; Automobile design /Safety design; Injury prevention /Safety design; Automobile design /Human factors; Postcrash phase /Environmental factors; Body failures / Postcrash phase; Postcrash phase / Fires; Towing /Disabled vehicles

AVAILABILITY: SAE; In HS-007 859

HS-007 634 Fld. 1/2; 1/3; 3/4

PRESENT KNOWLEDGE OF MEDICAL AND BEHAVIORAL FACTORS IN HIGHWAY CRASHES: OPTIONS FOR LOSS REDUCTION

by Julian A. Waller

Vermont Univ., Burlington, V04200
1970 10p
Report no. SAE-700197

Presented at Automotive Engineering Congress, Detroit, Mich., 12-16 Jan 1970.

Human factors are important in initiating crashes and in determining their outcome. However, in many cases inappropriate acts are complex behavioral phenomena, rather than simply voluntary events avoidable through better motivation. Furthermore, environmental factors as well play an important role in initiating these events, and are the major determinant of the severity of injury. Because of the extreme cost and limited likelihood for success in many areas of behavior modification, the first lines of attack must be lessening of driving demands, moderation of energy transfer, and improvement of rescue services. Modification of behavior is an important but supplementary approach.

Search terms: Driver behavior /Accident causes; Environmental factors /Accident causes; Driver improvement /Costs; Driving tasks /Accident prevention; Driver physical fitness /Accident causes; Driver intoxication /Accident causes; Alcoholism /Accident causes; Pedestrian accidents; Emergency medical services; Driver improvement /Accident prevention; Energy absorption /Injury severity

AVAILABILITY: SAE

HS-007 763 Fld. 1/1

WISCONSIN EMERGENCY AMBULANCE SURVEY. REPORT A: INVENTORY OF AMBULANCE SERVICES IN WISCONSIN, 1969

Wisconsin. Dept. of Health and Social Services, Madison

1969 67p

The distribution of emergency operators and personnel in Wisconsin; listing of the states' 531 known ambulance operators by county, city, and type of operation; and listings of ambulance services by type of operation are given. Inventory was made comprehensive so plans for emergency medical services could be formulated.

Search terms: Surveys; Emergency medical services; Ambulances /Surveys; Ambulance personnel /Surveys; Emergency medical services /Wisconsin

AVAILABILITY: Corporate author

HS-007 830 Fld. 1/1

WHY MANY CRASH VICTIMS DIE. OUR AMBULANCE CRISIS

By Sid Ross; John G. Rogers

Published in *Parade* p8-9 (2 Mar 1969)

Improper and inadequate emergency medical services cost the lives of many auto crash victims. The shortcomings of present ambulance services are outlined. Better laws, better trained ambulance attendants, and the use of helicopters are recommended.

Search terms: Emergency medical services; Ambulance personnel; Ambulance laws; Helicopters /Ambulances

HS-007 831 Fld. 1/1

COMMUNITY AMBULANCE PROGRAM EXPEDITES EMERGENCY SERVICES. OUTPATIENT CARE

by Benjamin B Rosenthal

Published in *Hospital Topics* v49 p53-4 (Feb 1969)

A small community hospital in Milford, Connecticut, maintains efficient ambulance service through cooperative effort among the hospital, the community, and the operator of private ambulance fleet. Details of the system are outlined.

Search terms: Emergency medical services /Connecticut; Ambulance

HS-007 697 Fld. 1/1

EVALUATION OF THE FAIRCHILD HILLER FH-1100 AS AN AIR MEDICAL EVACUATION HELICOPTER

by James L. Schamadan; Victor E. Rothe; N. R. Lincoln, Jr.; Robert L. Sears; William R. McKenney; Lyle L. Milhone

Arizona State Univ., Tempe. Coll. of Engineering Sciences

Jun 1968 57p

During the past year, Arizona State University has been developing the details of an Air Medical Evacuation System to use helicopters for rescue and evacuation of injured persons from rural and remote areas and traffic surveillance. Evaluation of the Fairchild Hiller FH-110 helicopter revealed that the aircraft could perform the mission with the two-man crew. It is recommended that the FH-1100 be modified to accommodate the following:

- installation of a high intensity, swiveling landing light;
- a combination siren/loudhailer;
- a highway patrol radio in the cockpit of the helicopter;
- a portable oxygen-resuscitator unit;
- storage of the litters on the outside of the aircraft;
- a medical supplies cabinet;
- hooks for hanging intravenous fluid bottles;
- a suction system;
- storage of rescue and emergency medical kit equipment.

Search terms: Helicopters /Rescue operations; Helicopters /Personnel; Helicopters /Emergency medical services; Helicopters /Maintenance; Helicopters /Traffic surveillance; Helicopters /Radio communication; Helicopters /Fire fighting; Extraction; First aid

AVAILABILITY: From corporate author

HS-007 486 Fld. 2/0; 1/1; 1/2

TREATMENT OF THE INJURED

by Henry H. Balch

Georgetown Univ., Washington, D. C.,
School of Medicine, G15900

Published in *Traffic Safety: a National
Problem* p147-59 (1967)

1967 13p

Presented at National Academy of
Engineering Symposium,
Washington, D. C., 28 Apr 1966.

More education in simple, effective roadside first aid is needed for the general public. The order of priority for good management by on-the-spot persons should be: ensure the patient's optimal breathing, control external hemorrhage, cover open wounds, and splint fractures. Any movement of the patient must be gently, knowledgeable, and avoid flexing the body. At the hospital, one doctor must coordinate management of the patient's injuries. The suggested order of priorities for the surgeon is: establishment of an adequate airway and control of hemorrhage; closure of gastro-intestinal tract perforations; elevation of fractured skull depressions; repair of significant internal organ lacerations; repair or replacement of major tears in extremity arteries; surgical treatment of large massively injured muscles and decontamination and closing of open wounds; setting of fractures. Discussion is included.

Search terms: Injuries /First aid; Injuries /Medical treatment; Medical treatment /Priorities; Emergency medical services; Airway maintenance; Hemorrhage; Fractures; Shock (pathology); Pneumothorax; X ray analysis; Skull fractures

AVAILABILITY: In HS-007 477

HS-007 508 Fld. 1/1; 4/8

**CURRENT HIGHWAY PROGRAMS
OF OUR NATIONAL HIGHWAY
SYSTEM**

by Everett Hutchinson

Department of Transportation,
Washington, D. C. D17400

1967 6p

Presented at the National Conference on Highway Transportation in an Emergency, Washington, D. C., Oct 25-26, 1967.

Touches current highway programs which have a direct impact on the national highway system in event of an emergency. Electronic data processing traffic control systems can record response of emergency aid to highway accidents.

Search terms: Transportation planning /Disasters; Emergency medical services; Data processing / Federal state relationships; Emergency services; Highway safety / Federal aid

AVAILABILITY: In HS-007 502

HS-007 537 Fld. 1/1

**IMMEDIATE CARE TO VEHICLE
ACCIDENT VICTIMS**

by Louis C. Kossuth

Published in *Post Graduate Medicine*
v41 n4 p407-13 (Apr 1967)

First aid rules and techniques are pictorially presented: basic principles (maintain an airway, be gentle, stop hemorrhage); the steps of immediate care; step-by-step procedures for removing injured persons from vehicles; splint patients where they lie unless it is hazardous to leave them in the vehicle.

Search terms: Emergency medical services; Traffic accidents; First aid /Education; Extraction

HS-007 633 Fld. 1/1

**AMES: AIR (HELICOPTER)
MEDICAL EVACUATION SYSTEMS**

by James J. Hegarty

Published in *Police Chief* v37 n6 p22.
26, 28 (Jun 1970)

The Arizona Highway Patrol's Air Medical Evacuation System (AMES) is described. The training of personnel, medical equipment carried, and types of missions are discussed. About half the first 96 missions were to aid auto accident victims. After nine months of operation, public acceptance and cooperation of law enforcement agencies are good.

Search terms: Rescue operations / Helicopters; Emergency medical services /Helicopters; Emergency equipment/First aid; Police /Emergency medical services; Emergency medical services /Arizona

HS-007 448 Fld. 2/0

THE PRE-CRASH, CRASH, AND
POST-CRASH—PARTS OF THE
HIGHWAY SAFETY PROBLEM

by William Haddon, Jr.

National Highway Safety Bureau,
Washington, D. C., N18000

1968 12p

Presented at the Canadian Highway
Safety Council 14th Annual
Conference, Victoria, B. C., 6-8 May
1968. Also announced as HS-810
043 and HS-810 034.

The highway safety problem is
outlined and divided into three phases:
the pre-crash phase, including the
circumstances which increase the
likelihood of accidents; the crash
phase, including the circumstances
which determine whether people will
be injured and how severely; the
post-crash phase, including the quality
of emergency medical services
available to crash victims. What is
being done about each of these phases
is outlined.

Search terms: Highway safety;
Precrash phase; Crash phase;
Postcrash phase; Emergency medical
services; Injury severity; Accident
factors; Fire

AVAILABILITY: *In* HS-007 437

HS-007 477 Fld. 2/0

TRAFFIC SAFETY. A NATIONAL
PROBLEM

Eno Foundation for Highway Traffic
Control, Saugatuck, Conn., E17000

1967 170p

A symposium sponsored by The
National Academy of Engineering,
held in Washington, D. C. 28 Apr
1966.

As a service to the nation, the National
Academy of Engineering chose traffic
safety as the subject for its 1966
spring symposium. Papers included
are: An introduction to the traffic
safety problem; The statistics of
accidents; The legal environment and
traffic safety; The driver and safety;
The vehicle and safety; The highway
environment and safety; Engineering
studies of motorist injury exposures
from rear-end collisions; The accident
and the injuries; Treatment of the
injured; and Closing discussion.

Search terms: Accidents /Statistics;
Legal factors /Highway safety;
Drivers /Highway safety; Motor
vehicles /Highway safety; Environmental
factors /Highway safety; Rear end
collisions /Injury research; Human factors
engineering/Rear end collisions;
Accidents /Injury factors; Medical
treatment; First aid; Emergency
medical services

AVAILABILITY: Corporate author
(Includes HS-007 478 - HS-007 486)

HS-007 478 Fld. 2/0; 1 0

AN INTRODUCTION TO THE
TRAFFIC SAFETY PROBLEM

by William Haddon, Jr.

New York (State). Dept. of Health,
Albany, N50400

Published in *Traffic Safety: A National
Problem* p1-7 (1967)

1967 7p

Presented at National Academy of
Engineering Symposium,
Washington, D. C., 28 Apr 1966.

Three crash phases, referred to as
"initiation", "crash", and "cleanup"
phases, are discussed, highlighting the
importance of highway and vehicle
design as well as driver education.
Total prevention of all crashes is seen
as unrealistic. The reduction of injuries
and fatalities through occupant
protection devices and safe vehicle
design is emphasized. Further research
to determine which programs are most
effective as well as continuing effort to
improve the highway safety situation
are urged.

Search terms: Crash phase;
Precrash phase; Postcrash phase;
Motor vehicle design /Injury
prevention; Occupant
protection /Injury prevention;
Emergency medical service; Safety
programs; Highway design /Injury
prevention

AVAILABILITY: *In* HS-007 477

HS-007 270 Fld. 1/2

TRAUMA. REPORT ON CONFERENCE

Public Health Service, Bethesda, Md.,
P37800

1966 12p
Report no. PHS-Pub-1565

Sponsored by the National Institute of General Medical Sciences and held at the National Institutes of Health, Bethesda, Md., 24-25 Feb 1966.

The National Institute of General Medical Sciences convened a group of physicians and scientists for a 2 day conference. Three broad viewpoints of the entire problem of injuries were discussed: the physiology of shock considered from the systems and organ level; the study of trauma at the cellular and subcellular levels; the management of trauma, including hospital arrangements and training. Military and civilian accident rates were compared. Recommendations emphasize the need for more basic research in this area. This report is a brief summary of the conference proceedings.

Search terms: Injuries; Conferences*; Accident research; Emergency medical service; Injury prevention; Accidents

AVAILABILITY: Corporate author

HS-007 303 Fld. 1/1

EMERGENCY CARE OF THE SICK AND INJURED. A MANUAL FOR LAW-ENFORCEMENT OFFICERS, FIRE-FIGHTERS, AMBULANCE PERSONNEL, RESCUE SQUADS AND NURSES

by Robert H. Kennedy, ed.

American Coll. of Surgeons, Chicago, Ill., A31200

Publisher: W. B. Saunders Co., Philadelphia, Pa.

1966 146p refs

Lives are lost between the place of accident and arrival at a hospital because emergency care has not been carried out by trained personnel. Emergency care needs to be taught by physicians to all personnel concerned with the immediate care and transportation of the sick and injured. This includes law enforcement officers, fire fighters, volunteer rescue squads, ambulance drivers and attendants, dispatchers, nurses, and medical corpsmen. This manual, approved by the Committee on Trauma and the Board of Regents of the American College of Surgeons, is presented as a text for immediate care courses.

Search terms: Emergency medical services /Manuals; Ambulance personnel; Police traffic services /First aid; Firemen /First aid; Rescue operations; Nurses; Physicians /Instructors

AVAILABILITY: Publisher

HS-007 400 Fld. 1/2

AUTOPSY FINDINGS IN 127 PATIENTS FOLLOWING FATAL TRAFFIC ACCIDENTS

by John F. Perry, Jr; R. James McClellan

Published in *Surgery, Gynecology and Obstetrics* v119 p586-90 (Sep 1964)

The clinical and autopsy records of 127 pedestrians, auto occupants, and cyclists who died after traffic accidents revealed the primary cause of death to be head injury. Hemorrhage following pelvic fractures is also an important cause of death in pedestrians. The majority of patients who died in the hospital later, as a result of thoracic trauma, succumbed to the deleterious effects of flail chest. Recognition of abdominal injuries in traffic victims is difficult. Patients with such injuries, who reach the hospital alive, usually survive long enough for adequate treatment to be carried out.

Search terms: Pedestrian fatalities; Passenger fatalities; Driver fatalities; Motorcycle accidents /Fatalities; Emergency medical services; Head injuries /Fatalities; Hemorrhage /Fatalities; Pelvic injuries /Fatalities; Chest injuries /Fatalities; Abdominal injuries /Fatalities; Autopsies; Age factors /Fatalities; Sex factors /Fatalities

HS-007 081 Fld. 1/1

**EMERGENCY HEALTH SERVICES
IN AREAS OF LOW POPULATION
DENSITY**

by Julian A. Waller

Published in *Journal of the American Medical Association* v207 n12 p2255-58, (24 Mar 1969) 15 refs

Presented at the American Medical Association National Conference on the Community and Emergency Medical Services, San Francisco, Jan. 19, 1968.

This article is concerned with emergency health services as distinguished from a physician's services. It discusses rural occurrence of death--usually before arrival at the hospital; types of emergencies seen; urban residents with emergencies in rural areas, serious emergencies. Ten recommendations are offered as most appropriate to the rural problem.

Search terms: Emergency services /Rural areas; Survival /rural accident

AVAILABILITY: Dr. Julian A. Waller, Given Medical Bldg., University of Vermont, Burlington, Vt. 05401

HS-007 108 Fld. 1/1

COMMUNITY EMERGENCY MEDICAL CARE

by Jack R. Karel

Published in *Journal of the Medical Society of New Jersey* v64 p642-43 (Dec 1967)

Organization and training to prepare for disaster emergencies are discussed. The need for properly trained ambulance personnel is stressed. A good communications network and sound regionalization of control are the secrets of good disaster and emergency medical care.

Search terms: Emergency medical services; Care of injured; Disasters; Ambulance personnel; Communication systems

HS-007 209 Fld. 1/1

**AT THE SCENE OF AN ACCIDENT.
PT. I. READ TO FIND OUT WHAT
YOU CAN DO WHEN YOU
ARRIVE...**

by American National Red Cross, Washington, D. C. A35700

Published in *International Teamster* v64 n1 p23-4 (Nov 1967)

First of 4 articles about what to do when you arrive at an accident scene.

What you can do to protect the injured: Prevent a second accident, determine priorities for first aid needs, prevent unnecessary movement of victim, call for help, and keep traffic moving so help can get to the scene.

Search terms: Emergency medical services; Care of injured /Traffic accidents; First aid; Care of injured /Emergency services; Access to crash scene

HS-007 210 Fld. 1/1

**WHAT CAN YOU DO TO SAVE A
LIFE? PT. 2. WHEN YOU ARRIVE
AT THE SCENE OF AN ACCIDENT**

by American National Red Cross, Washington, D. C. A35700

Published in *International Teamster* v64 n12 p22-4 (Dec 1967)

Second of 4 articles about what to do when you arrive at an accident scene.

Control of bleeding by direct pressure and by tourniquet is explained. First aid for shock also is discussed with emphasis on positioning the victim.

Search terms: Emergency medical services; Care of injured /Traffic accidents; Hemorrhage /First aid; Shock (pathology) /First aid

HS-007 211 Fld. 1/1

**WHAT CAN YOU DO TO SAVE A
LIFE? PT. 3. WHEN YOU ARRIVE
AT THE SCENE OF AN ACCIDENT**

by American National Red Cross, Washington, D. C. A35700

Published in *International Teamster* v65 n1 p22-4 (Jan 1968)

Third of 4 articles about what to do when you arrive at an accident scene.

This article discusses ways to open breathing passages. Procedures to help a person who is breathing with difficulty and for one who has stopped breathing are given. Mouth to mouth resuscitation is the method of choice. Special care must be given to the infant.

Search terms: Emergency medical services; Care of injured /Traffic accidents; Resuscitation

HS-007 212 Fld. 1/1

**WHAT CAN YOU DO TO SAVE A
LIFE? PT. 4. WHEN YOU ARRIVE
AT THE SCENE OF AN ACCIDENT**

by American National Red Cross, Washington, D. C. A35700

Published in *International Teamster* v65 n2 p23-4 (Feb 1968)

Fourth of 4 articles about what to do when you arrive at an accident scene.

Protective transfer and rescue of the injured, care of burns, and care of broken bones is discussed.

Search terms: Emergency medical services; Care of injured /Burns (injuries); Care of injured Fractures; First aid; Evacuation of injured; Ambulances

HS-006 953 Fld. 1/1

EMERGENCY MEDICAL SERVICES

by Perry Stearns

Published in *Maryland Medical Journal* v18 n4 p115 (Apr 1969)

Specific goals for state emergency medical services are itemized. In Maryland there were 867 fatalities resulting from 754 motor vehicle accidents; there were 54,325 reported injuries as a result of 94,513 accidents. No one knows how many deaths or disabling injuries could have been prevented with better ambulance service.

Search terms: Emergency medical services /Maryland; Maryland / Emergency medical services; Accident rates /Maryland; Maryland / Accident rates; Ambulances /Standards; Standards /Ambulances; Emergency medical services /Standards; Standards /Emergency medical services

HS-006 954 Fld. 1/1

MODEL FOR THE ANALYSIS OF EMERGENCY MEDICAL SERVICE SYSTEMS

by Robert R. Hare, Jr.; Abigail B. Wemple

Operations Research, Inc. Silver Spring, Md. J15-406

May 1969 169p
Contract PH-86-68-175
Report no. ORI-TR-555

A simulation model is described which can be used in planning and developing a community emergency medical service system. The Emergency Medical Service System Model (EMSS II) is a closed, event-based simulation programmed in a version of FORTRAN. The model includes detection, communication, patient acquisition, transport, and treatment functions of these systems.

Search terms: Ambulances; Emergency medical services /Simulation models; Simulation model; Emergency medical services; Fortran; Communication systems; Medical treatment; Computerized simulation /Emergency medical services; Emergency medical services /Computerized simulation

AVAILABILITY: Corporate author

HS-006 987 Fld. 1/1

TRAINING OF AMBULANCE PERSONNEL

by George Johnson, Jr.; Jesse H. Meredith

Published in *Southern Medical Journal* v62 n3 p336-8 (Mar 1969)

The immediate care given the injured person may be critical to the saving of life. North Carolina, through the organized effort of both public and private agencies, has evolved a means of providing early management of the injured by trained personnel, both at the scene of the accident and during transportation to the hospital. This is assured through a statewide network of organized courses and official recognition of trained ambulance technicians.

Search terms: Care of injured; Education /Ambulance personnel; Ambulance personnel /Education; Emergency medical services /North Carolina; North Carolina /Emergency medical services; Emergency medical services /Standards; Standards /Emergency medical services

HS-007 053 Fld. 1/1

EMERGENCY: EMERGENCY HEALTH SERVICES

by Frank L. Mitchell

Published in *Journal of American Osteopathic Association* v67 p544-6 (Jan 1968)

Odds for survival are better on the battlefield than on the home front in any emergency. The elements of an efficient community emergency ambulance service program are discussed.

Search terms: Emergency; Ambulances; Emergency medical services

HS-007 054 Fld. 1/1

THE CARE OF THE INJURED. THE DEVELOPMENT AND PURPOSE OF AN ACCIDENT HOSPITAL

by William Gissane

Published in *Annals of the Royal College of Surgeons of England*, v41 p335-43 (Oct 1967)

The 25-year history of the Birmingham Accident Hospital as a treatment and research center is traced. Services of the hospital and its advantages are described.

Search terms: Care of injured; Great Britain; Great Britain /Care of injured; Accident hospitals; Great Britain; Great Britain Accident hospitals

HS-006 833 Fld. 1/1: 1/3: 5/4

THE PHYSICIAN'S ROLE IN HIGH-WAY SAFETY. PT. 3. HOW MANY TRAFFIC DEATHS ARE CAUSED BY MISTREATMENT AND MIS-DESIGN?

by John H. Rosenow; Robert W. Watkins

Published in *Police* v14 n1 p56-61 (Sep-Oct 1969)

The inadequacy of emergency medical care and ambulance services is examined. Lack of resuscitation knowledge, lack of trained ambulance attendants, and running of ambulances services by morticians are discussed. Causes of injuries in auto accidents are outlined and related to design factors of the auto. Study of 177 fatalities showed ejection to be the leading cause of death, which restraint systems would prevent. Crushing of the passenger compartment, impact on the steering assembly, and other secondary collisions, especially those injuring the head and thorax, are discussed.

Search terms: Emergency medical services; Ambulances; Fatalities; Automobile design; Ejection; Restraint systems; Crushing; Steering wheel impacts; Secondary collisions; Head injuries; Chest injuries; Injury factors; automobile design; Resuscitation; Ambulance personnel; Accident studies; Physicians; Highway safety

HS-006 833 Fld. 1/1

RESUSCITATION AND SURVIVAL IN MOTOR VEHICLE ACCIDENTS

by Charles F. Frev; Donald F. Huelke; Paul W. Gikas

Published in *Journal of Trauma* v9 n4 p292-310 (Apr 1969)

12 refs

Grant HSRI-32951; USPH-AC-00107; UI-00021

Presented to 28th annual session of American Association for the Surgery of Trauma, Montreal, 18-20 Oct 1968.

Autopsies of 159 auto accident victims are reviewed. Of these cases, 28 could have recovered their health if they had survived. The performance of resuscitative measures of endotracheal intubation, intravenous fluid therapy, and aspiration of tension pneumothorax would have been essential to their survival. These measures would have been necessary at the accident site in 12 cases and during transit to the hospital in 11 others. The purpose of this study was to determine what percentage could have survived if skilled resuscitation had been available at the accident scene and in transit to the hospital. Salvage was considered probable in 18%.

Search terms: Autopsies; Resuscitation; Survival; Survival; Resuscitation; Emergency medical services; Resuscitation; Emergency medical services; Care of injured; Resuscitation; Resuscitation; Care of injured; Fatalities; Case reports; Case reports; Fatalities; Motor vehicle accidents; Fatalities; Motor vehicle accidents; Motor vehicle accidents; Survival; Survival; Motor vehicle accidents

HS-006 894

A MEDICAL I.D. TAG CAN SAVE YOUR LIFE

by Richard Dunlop

Published in *Today's Health* v41 n7 p8-13 (Jul 1963)

Some 40 million Americans have medical problems that can interfere with emergency treatment. They should wear a symbol which alerts first aid personnel to look for their special conditions. Diabetics in insulin shock are often assumed to be drunk. There are some 200 conditions for which medical identification symbols should be worn. Several cases involving motor vehicle accidents are described.

Search terms: Emergency medical services; Medical conditions; Identification; First aid; Accident factors; Diabetes mellitus

HS-006 834 Fld. 1/1

HOW GOOD IS YOUR EMERGENCY MEDICAL SERVICE?

Anonymous

Published in *Journal of American Insurance* v44 n2 p1-4 (Mar-Apr 1968)

20,000 accident victims die needlessly each year because of deficiencies in emergency services. 25,000 cases of permanent injury and disability arise yearly from training deficiencies among ambulance attendants and other rescue workers. A community score sheet is given to rate ambulances and hospitals. Steps for improvement of community medical services are also discussed.

Search terms: Community support; Emergency medical services; Ambulances; Care of injured; Hospitals; First aid; Ambulance personnel; Fatalities; Injury factors

HS-006 670 Fld. 2/3

PUBLIC SAFETY RESPONSIVENESS. ON-SITE MANAGEMENT OF HIGHWAY INCIDENTS

by Lawrence C. Pavlinski

Published in *Traffic Digest and Review* v17 n10 p1-7 (Oct 1969)

The highway safety standard on debris hazard control and cleanup is discussed. Each state should have rescue equipment to get people out of wrecked vehicles, and salvage equipment to remove vehicles and spilled loads. A number of accidents are described in which hazardous substances were spilled on the highway, or massive traffic jams developed, or other vehicles crashed into wreckage. Better management of these hazards is needed.

Search terms: Debris removal; Disabled vehicles; Hazardous materials; Traffic congestion; Hazards; Safety standards; Extraction; Rescue operations; Accident factors; Highway administration; State government; Emergency equipment

HS-006 699 Fld. 4/8; 1/1

PREFERENCES FOR MULTI-ATTRIBUTED ALTERNATIVES

by Howard Raiffa

Rand Corp., Santa Monica, Calif.

Apr 1969 116p 16 refs

Contract DOT-3-0008

Report no. RM-5868-DOT/RC

Techniques for assessing the utility of complex alternatives are presented. A hierarchical structuring procedure for obtaining a relevant list of attributes is described and examples are given from problems of the Northeast Corridor Transportation Project and from medical treatment problems. The ideas developed are applied to various problems, particularly the problem of assessing the economic value of a life, an area of importance in both transportation and medical treatment applications.

Search terms: Benefit cost analysis; Transportation planning; Safety measures; Decision theory; Decision making; Mathematical analysis; Economic analysis; Medical services

AVAILABILITY: Corporate author

HS-006 713 Fld. 1/1

COMMUNITY TRAINING OF AMBULANCE ATTENDANTS

by Paul Campbell

Published in *Northwest Medicine* v67 n11 p 1084-6d (Nov 1968)

Training ambulance attendants in advanced first aid techniques is a medical responsibility. The Portland Community College cooperated with a committee of physicians in presenting a comprehensive course lasting ten weeks. Plans are being made to present the course in other Oregon communities. The curriculum of this emergency medical care course is included.

Search terms: First aid; Ambulance personnel; Oregon; Emergency medical services; Curricula; Physicians

HS-006 773 Fld. 1/2

MORE RURAL INJURIES ARE FATAL

by Julian A. Waller; Robert Curran; Frank Noyes

Published in *California's Health* v22 n9 p65-8 (1 Nov 1964)

A study was made of 782 traffic deaths in rural and urban California counties during 1961. Rural accidents tended to be single vehicle accidents involving less severe injuries, while urban accidents tended to involve two or more vehicles and to result in more serious injuries. However, rural accident victims more often died at the accident scene and from less serious injuries because of slower emergency medical care. Of rural fatalities, 32% were urban and out-of-state residents, suggesting that accidents involving nonresidents burden rural medical resources.

Search terms: Accident severity; Fatalities; California; Urban accidents; Rural accidents; Single vehicle accidents; Collisions (accidents); Injury severity; Emergency medical services; Accident studies

HS-006 523 Fld. 4/1; 1/1

COMPENDIUM OF STATE STATUTES ON THE REGULATION OF AMBULANCE SERVICES, OPERATION OF EMERGENCY VEHICLES AND GOOD SAMARITAN LAWS. REV. ED.

Public Health Service, Washington, D.C.

Jun 1969 108p
Report no. PHS-Pub-1071-A-11

This compendium is intended for public health officials and groups concerned with improving the organization and delivery of emergency medical services. It details laws concerning emergency vehicles including ambulances and their equipment, first aid, ambulance crews and their qualifications, record keeping, inspection of vehicle and equipment, and registration. For Good Samaritan laws, year of enactment and kinds of coverage provided are detailed.

Search terms: Good Samaritan laws; First aid; Emergency medical services; Ambulances; Emergency vehicles; Emergency equipment; Motor vehicle inspection; Motor vehicle registration; Liability; Ambulance personnel; State laws; Ambulance laws

AVAILABILITY: GPO \$1.50

This ordinance, which can also serve as a model state law, covers ambulance licensing, licensing standards, liability insurance, duties of license and health officers, standards for ambulance equipment, standards for drivers and attendants, renewal and revocation of license, requirements for filing of reports, traffic laws for ambulances, penalties for non-compliance.

HS-006 524 Fld. 4/1; 1/1

A MODEL ORDINANCE REGULATING AMBULANCE SERVICE

Joint Action Program, Chicago, Ill.
Aug 1966 23p

Reproduced with permission by Public Health Service, Washington, D.C.

Search terms: State laws; Ambulances; Ambulance personnel; Local government; Licensing; Traffic laws; Penalties; Emergency equipment; Emergency medical services; Liability insurance; Public health; Driver license standards; Standards; Model ambulance ordinances; Ambulance licensing

AVAILABILITY: Information Clearing House, Public Health Service, 6935 Wisconsin Ave., Chevy Chase, Md. 20015

HS-006 547 Fld. 1/1

AMBULANCE DESIGN AND EQUIPMENT FOR RESUSCITATION

by Peter Safar; Richard A. Brose

Published in *Archives of Surgery* v90 p343-8 (Mar 1965) 12 refs

Most present ambulances are not designed and equipped for modern care of unconscious, nonbreathing, and pulseless patients. Modifications are recommended to provide access to the patient for respiratory resuscitation and external cardiac compression; hand-operated ventilation equipment; powerful suction from ambulance engine or electric motor; large reservoir of oxygen; bag-mask for oxygen inhalation; oropharyngeal tubes; portable equipment for ventilation, oxygen inhalation, and suction. Additional equipment is recommended for ambulances manned by physicians.

Search terms: Ambulances; Resuscitation; Physicians; First aid; Care of injured; Respiratory system; Oxygen; Heart; Emergency equipment

HS-006 669 Fld. 2/3

CLEANUP ON THE HIGHWAY

by Lawrence A. Pavlinski

Published in *Traffic Safety* v69 n11 p6, 9-10, 32-4 (Nov 1969)

The highway safety standard on debris hazard control and cleanup is discussed. The standard calls for each state to remove wreckage, spillage, and debris from highways to reduce the likelihood of additional crashes and conditions hazardous to safety, and to provide rescue and salvage equipment. Detection of crashes, prompt notification to officials, quick response, and restoration of the accident site to normal service are necessary for the resumption of safe traffic movement.

Search terms: Debris removal; Disabled vehicles; Hazardous materials; Traffic congestion; Hazards; Safety standards; Rescue operations; Accident factors; Highway administration; State government; Emergency equipment; Accident location; Extraction

HS-006 430 Fld. 1/1

EARLY MANAGEMENT OF THE CRITICALLY INJURED

by Donald J. Currie

Published in *Canadian Medical Association Journal* v95 n10 p862-70 (22 Oct 1966) 16 refs

Presented in part to the Thunder Bay Medical Society, Port Arthur, Ont. Nov. 18, 1965.

Priorities of treatment must guide the management of the critically injured patient. The aim is to save life rather than limb; function rather than structure. A plan is offered which indicates management for: airway, bleeding and shock; consciousness, digestive organs, excretory organs and fractures at the scene of the accident, in the emergency department, and in the surgical operating room. Maintenance of adequate ventilation and circulation are the most important priorities. Procedures are written for the physician or surgeon.

Search terms: Care of injured; Emergency medical services; Physicians; Medical treatment; Injuries; Airway maintenance; Hemorrhage; Shock (Pathology); Fractures; Gastrointestinal system; Urogenital system; Nervous system; Surgery; First aid

HS-006 431 Fld. 1/1

ALLIED HEALTH PERSONNEL: A REPORT ON THEIR USE IN THE MILITARY SERVICES AS A MODEL FOR USE IN NON-MILITARY HEALTH-CARE PROGRAMS

National Academy of Sciences-National Research Council, Washington, D.C. Div. of Medical Sciences

1969 30p 33 refs

Using the military medical departments as a model, this report explores the feasibility of training nonprofessional health manpower to perform tasks associated with direct health services which may not require full professional training and skills. It is recommended that medical corpsmen should be recruited into the civilian medical field when they leave the military services. Other suggestions are made on the training of medical personnel.

Search terms: Military personnel; Medical services; Military organizations; Manpower utilization

AVAILABILITY: Corporate author

HS-006 432 Fld. 1/1

THE DOCTOR'S DILEMMA

by James R. DeNoyer

Published in *Traffic Safety* v62 n2 p8-10, 37 (Feb 1963)

Controversy surrounding Good Samaritan legislation is discussed. Medical, legal, and moral problems connected with a physician's decision to administer emergency services to an accident victim and the serious implications which can follow are also covered.

Search terms: Good Samaritan laws; Physicians; Negligence; First aid; Liability insurance; Medical ethics; Legal responsibility

HS-006 488 Fld. 1/1

TASK FORCE ON AMBULANCE SERVICES. SUMMARY REPORT

National Academy of Sciences-National Research Council, Washington, D.C. Div. of Medical Sciences

23p 5 refs
Contract PH-86-65-104

The present status of ambulance service is outlined with respect to organization and management, personnel, vehicles, equipment, and communication. Deficiencies are pointed out and corrective measures discussed. The NAS-NRC Committee on Emergency Medical Services disagrees with the task force recommendation that rescue equipment should not be carried on ambulances.

Search terms: Ambulances; Ambulance personnel; Emergency equipment; Communication systems; Rescue operations; Emergency vehicles; First aid; Standards

AVAILABILITY: Corporate author

HS-006 489 Fld. 1/1

CARE FOR THE ILL AND INJURED

by Robert H. Kennedy

Published in *The National Sheriff* v20 n5 p4-5, 28-30 (Sep-Oct 1968)

A good community program should cover planning for traffic accident victims and the victims of other types of accidents and disasters. The history of ambulance service in the United States is outlined briefly. The difference in quality between urban and rural service is pointed out. It is urged that law enforcement officers should be trained in first aid. Better training for ambulance attendants is also needed.

Search terms: Emergency medical services; Ambulances; History; Urban accidents; Rural accidents; First aid; Ambulance personnel; Police; Local government; Disasters; Accident factors

HS-006 490 Fld. 1/1

BATTLEFIELD EVACUATION TECHNIQUES. WHAT WE CAN LEARN FROM THEM

by Spurgeon H. Neel

Published in *Traffic Safety* v8 n8 p8-11, 38-9 (Aug 1968)

Presented at the 21st National Conference on Rural Health, Seattle, Washington.

Army experience with helicopter evacuation in battle in Korea and Vietnam is summarized. The major lessons learned could be applied to the improvement of civilian emergency medical services in the United States. The mortality rate among wounded in Vietnam is only 2.3%, and helicopter evacuation makes this possible. Helicopter crew training, radio communication, and other techniques are discussed.

Search terms: Emergency medical services; Fatalities; Helicopters; Ambulances; Evacuation of injured; Ambulance personnel; Radio communication

HS-006 274 Fld. 1/1

TRANSPORTATION OF INJURED PERSONS

by George Curry

Published in *Clinical Orthopaedics and Related Research* n59 p189-91 (Jul-Aug 1968)

A letter to the editor of the journal discusses immediate care and transportation of the injured, and stresses the importance of adequately training ambulance attendants, suggesting minimum requirements; covers the hazards of a speeding ambulance, and recommends that these vehicles observe local speed laws and retain the use of sirens for identification and to obtain the right of way; and voices the necessity of annual conferences for all those associated with or interested in this aspect of emergency services.

Search terms: Emergency medical services; Ambulances; Care of injured; Speed limits; High speed

HS-006 319 Fld. 1/1

MEDICAL REQUIREMENTS FOR AMBULANCE DESIGN AND EQUIPMENT

National Academy of Sciences—National Research Council, Washington, D.C. Committee on Emergency Medical Services

Sep 1968 26p 15 refs
Contract PH-110-68-1

Design requirements for an ambulance are discussed. Included are the general vehicular design, the driver and patient areas, security and rescue equipment, emergency care equipment and supplies, communication equipment, and helicopters as ambulances. The types of medical emergencies for which equipment should be carried are detailed.

Search terms: Ambulances; Emergency equipment; Helicopters; Care of injured; Medical treatment; First aid; Rescue operations; Communication systems; Emergency medical services

AVAILABILITY: Corporate author

HS-006 320 Fld. 1/1

ROAD ACCIDENTS AND THE FAMILY DOCTOR

Anonymous

Published in *British Medical Journal* v2 n5654 p398-9 (17 May 1969)

It is suggested that one-fourth of the accident fatalities in Great Britain occur between the accident and arrival at the hospital. Suggestions for better emergency medical care are given, including better organization, better first aid training, and use of family doctors to treat victims.

Search terms: Emergency medical services; First aid; Fatalities; Physicians; Great Britain; Medical treatment

HS-006 321 Fld. 1/1

ACCIDENTAL DEATH AND DISABILITY: THE NEGLECTED DISEASE OF MODERN SOCIETY

National Academy of Sciences—National Research Council, Washington, D.C. Div. of Medical Sciences
Sep 1966 39 p 16 refs

The present status of medical care and emergency medical services afforded the victims of accidental injury has been reviewed. These studies include reviews of ambulance services, voice communication systems, emergency departments and intensive care units of hospitals, appraisal of current research in shock, trauma, and resuscitation, revision of first aid textbook, statement on cardiopulmonary resuscitation, and participation in disaster survey studies. This pamphlet summarizes current practices and deficiencies at various levels of emergency care and presents specific recommendations designed to reduce accidental deaths and disability.

Search terms: Emergency medical services; Care of injured; Communication systems; Disasters; Ambulances; Hospitals; First aid; Accident factors; Resuscitation; Fatalities; Injuries

AVAILABILITY: Corporate author

HS-006 323 Fld. 1/2

MOTOR VEHICLE ACCIDENTS AND THEIR SEQUELAE

by Charles F. Frey

Published in *Journal of Medical Education* v43 p1254-6 (Dec 1968)

At the University of Michigan, a sixteen hour 7-session course entitled "The Auto Accident Sequence" is a requirement for first-year medical students. The course, which treats motor vehicle accidents as a disease with an etiology and a pathogenesis, is believed to be the first such program to be included in the curriculum of a U.S. medical school as a requirement. Course content is briefly described.

Search terms: Care of injured; Accident factors; Injury factors; Medical education; Medical treatment

HS-006 381 Fld. 1/1

AERIAL AMBULANCE

by Frank McClung

Published in *Bee-Hive/United Aircraft* v43 n3 p9-13 (Sum 1968)

In this Ohio experiment a helicopter with medical personnel aboard speeds accident victims to the hospital. Pilots using the UH-19D (Sikorsky S-55) are linked with patrol headquarters and with police cruisers by short wave radio. Costs of \$2200 per month for maintenance are equated to the three lives saved in the first month. Goals in the Columbus medicopter experiment were to test feasibility of moving critical patients to hospitals and moving physicians and medical equipment to accident sites on highways.

Search terms: Helicopters; Ambulances; Emergency medical services; Ohio; Care of injured; Evacuation of injured; Highway communication; Police traffic services; Radio communication; Physicians

HS-006 268 Fld. 1/1; 2/0

THE REVOLUTION IN TRAFFIC SAFETY

by Edwin L. Kirby

National Safety Council, Chicago, Ill.
17p

Traces the history of traffic safety and outlines the major provisions of the Highway Safety Act of 1966. Background data concerning a model ordinance regulating ambulance service is presented. Three main problem areas are considered: traffic regulation of casualty carrying vehicles; training and competency of ambulance personnel; equipment of emergency vehicles.

Search terms: Ambulances; Emergency medical services; Legislation; Highway Safety Act of 1966; Personnel; Traffic safety; Emergency equipment

AVAILABILITY: *In* Nebraska Univ. Dept. of Surgery, PROCEEDINGS OF 1966 NEBRASKA CONFERENCE ON AMBULANCE AND RESCUE SQUAD SERVICES, 1 Mar 1967 (HS-006 265)

HS-006 269 Fld. 1/1

NEBRASKA'S CONTRIBUTION TO AMBULANCE AND RESCUE SERVICES

by Burl M. Johnson

Nebraska. State Civil Defense Agency, Lincoln

10p

Questionnaires were mailed to 1248 physicians, 125 rescue squads, 154 private ambulance operators and 540 mayors. The survey dealt with the ambulance, medical equipment of ambulances, medical communications, ambulance attendant training-education. Excerpts from the summary are presented.

Search terms: Questionnaires; Nebraska; Ambulances; Emergency medical services; Personnel; Communication systems; Rescue operations; Emergency equipment; Standards

AVAILABILITY: *In* Nebraska Univ. Dept. of Surgery, PROCEEDINGS OF 1966 NEBRASKA CONFERENCE ON AMBULANCE AND RESCUE SQUAD SERVICES, 1 Mar 1967 (HS-006 265)

HS-006 270 Fld. 1/1

SEMINAR ON EDUCATION OF EMERGENCY PERSONNEL

by Carl W. Sasse, Jr.; Roswell K. Brown; Joseph Billodeau; Ted Dappen; E. P. Schroeder; Ed Thilliander

3p

This panel explored the national, state, and local aspects of education for those involved with ambulance and rescue squad services. The overall national program, education from the standpoint of the American Red Cross at the state level, educational facilities available to the public through the Nebraska Safety Patrol, the educational programs established at the local level were discussed.

Search terms: Ambulances; Emergency medical services; Personnel; Local government; Education; Safety programs; Nebraska; Rescue operations; First aid; Medical treatment

AVAILABILITY: *In* Nebraska Univ. Dept. of Surgery, PROCEEDINGS OF 1966 NEBRASKA CONFERENCE ON AMBULANCE AND RESCUE SQUAD SERVICES, 1 Mar 1967 (HS-006 265)

HS-006 271 Fld. 1/1

SEMINAR ON COMMUNICATIONS PROBLEMS AND SOLUTIONS

by Carroll M. Fuller, moderator

3p

Reports reactions of the participants to the communications situation in relation to ambulances and hospitals. Topics discussed by panel members included: telephone services provided within Nebraska and standardization of emergency telephone numbers; two-way radio communication and a proposed state-wide medical communications network.

Search terms: Ambulances; Communication systems; Emergency medical services; Telephones; Radio communication; Hospitals; Standardization; Emergency services

AVAILABILITY: *In* Nebraska Univ. Dept. of Surgery, PROCEEDINGS OF 1966 NEBRASKA CONFERENCE ON AMBULANCE AND RESCUE SQUAD SERVICES, 1 Mar 1967 (HS-006 265)

HS-006 272 Fld. 1/1

SEMINAR ON EXPERIENCES WITH THE EXPERIMENTAL AMBULANCE

by Roy Shaeff, moderator; Royce Ling, moderator

3p

Explains the purposes of the Econoline Ford Ambulance Study, the objectives, reactions of the users and the participants of the conference. Funeral directors were opposed, firemen accepted the concept. Concern for continuation of experimental work on ambulances and the need for establishing an ambulance testing laboratory were expressed.

Search terms: Ambulances; Ford Motor Co.; Experimental vehicles; Firemen; Test facilities

AVAILABILITY: *In* Nebraska Univ. Dept. of Surgery, PROCEEDINGS OF 1966 NEBRASKA CONFERENCE ON AMBULANCE AND RESCUE SQUAD SERVICES, 1 Mar 1967 (HS-006 265)

HS-006 273 Fld. 1/1

SEMINAR ON THE AMBULANCE, EQUIPMENT, DESIGN AND ECONOMICS

by John McCammond, moderator; Everett O. Govier, moderator

2p

The economic aspects of ambulance operations were discussed. The greatest concern centered around the elimination of the rural funeral director from ambulance service. It was expected that many communities in Nebraska would be without emergency services when half the funeral directors discontinued ambulance operation. The participants felt that the public should be expected to pay a reasonable fee for such services.

Search terms: Ambulances; Emergency medical services; Nebraska; Economic factors; Community support; Emergency equipment

AVAILABILITY: *In* Nebraska Univ. Dept. of Surgery, PROCEEDINGS OF 1966 NEBRASKA CONFERENCE ON AMBULANCE AND RESCUE SQUAD SERVICES, 1 Mar 1967 (HS-006 265)

HS-006 265 Fld. 1/1

**PROCEEDINGS OF 1966
NEBRASKA CONFERENCE ON
AMBULANCE AND RESCUE
SQUAD SERVICES**

Nebraska Univ., Omaha. Dept. of
Surgery

1 Mar 1967 126p 6 refs

Sponsored by Public Health Service, Washington, D.C.

During the last half of 1965, a study was conducted of medical transportation and communications in Nebraska. As part of this program a conference on medical transportation and communications was held. Information concerning patient transport from the site of injury or accident to a hospital was sought. The events leading to the conference, major addresses given, seminar reports, subsequent projects and conclusions are presented.

Search terms: Conferences; Emergency medical services; Ambulances; Evacuation of injured; Nebraska; Communication systems

AVAILABILITY: Corporate author (Includes HS-006 265 to HS-006 273)

HS-006 266 Fld. 1/1

**AMBULANCE SERVICES IN THE
UNITED STATES IN 1966**

by Roswell K. Brown

American Coll. of Surgeons, New York

24p 6 refs

Reviews emergency ambulance services in the United States: organization and management, business and legal aspects, personnel, vehicles, equipment and communications. Suggests standards relating to these areas. Considers that proper ambulance services can and should save lives, shorten hospital occupancy, and lessen both temporary and permanent disabilities.

Search terms: Ambulances; Economic factors; Legal factors; Personnel; Emergency vehicles; Communication systems; State of the art studies; Emergency medical services; Standards

AVAILABILITY: In Nebraska Univ. Dept. of Surgery, PROCEEDINGS OF 1966 NEBRASKA CONFERENCE ON AMBULANCE AND RESCUE SQUAD SERVICES, 1 Mar 1967 (HS-006 265)

HS-006 267 Fld. 1/1

**THE ROLE OF THE PUBLIC
HEALTH SERVICE IN EMER-
GENCY MEDICAL SERVICES**

by John Hove

Public Health Service, Kansas City, Mo.

9p

The Public Health Service's Emergency Medical Services Branch is concerned with minimizing the consequences of accidental injury or sudden illness. Two approaches are used: (1) improved methods of early management and treatment; and (2) community organizations of services to expedite care at the site of injury, during ambulance transportation, and in the hospital.

Search terms: Public Health Service; Emergency medical services; Care of injured; Safety programs; First aid; Medical treatment; Ambulances; Injury factors; Accident factors

AVAILABILITY: In Nebraska Univ. Dept. of Surgery, PROCEEDINGS OF 1966 NEBRASKA CONFERENCE ON AMBULANCE AND RESCUE SQUAD SERVICES, 1 Mar 1967 (HS-006 265)

HS-006 100 Fld. 1/2; 1/1

THE TREATMENT OF HIGHWAY INJURY: AN INTERNATIONAL BIBLIOGRAPHY

by Eric G. Hanitzsch

Michigan Univ., Ann Arbor. Highway Safety Research Inst.

1969 160p

The effectiveness of an emergency medical system must depend upon both the timeliness of response within the system, and the adequacy of professional care offered by the system. The Highway Safety Research Institute has developed a mathematical model of a recovery system relating these various factors. The present bibliography was prepared in order to provide real data to this model. Literature was sought which reported on multiple cases of trauma from either the field treatment (ambulance) or hospital point of view. Annotations, subject and author indexes are provided for approximately 650 references.

Search terms: Classifications; Bibliographies; Fatalities; Injuries; Accident data; Traffic accidents; Emergency vehicles; Helicopters; Care of injured; Emergency medical services; Medical treatment; First Aid; Ambulances; Medical services; Evacuation of injured

AVAILABILITY: Corporate author

HS-006 104 Fld. 2/0; 4/1

REPORT OF THE LEGISLATIVE RESEARCH COUNCIL RELATIVE TO MASSACHUSETTS IMPLEMENTATION OF THE NATIONAL HIGHWAY SAFETY ACT OF 1966

by Robert D. Webb

Massachusetts. Legislature, Boston

30 Jan 1968 77p

Report no. Senate-980

The provisions of the Highway Safety Act of 1966 are outlined and the extent to which Massachusetts has complied are detailed. The problems of financing compliance are discussed. Included are efforts to meet standards in driver education, licensing, motorcycle safety, traffic records, motor vehicle inspection and registration, highway design, traffic control devices, accident location identification, codes and laws, traffic courts, emergency medical services, implied consent laws and blood alcohol tests, and drugs.

Search terms: Highway Safety Act of 1966*; Compliance procedures; Driver education; Driver licensing; Motorcycle safety; Traffic records; Motor vehicle inspection; Motor vehicle registration; Highway design; Traffic control devices; Accident location; Traffic laws; Traffic courts; Emergency medical services; Implied consent laws*; Blood alcohol levels*; Drugs; Massachusetts*

HS-006 157 Fld. 1/1; 5/4

DENNIS FD4 AMBULANCE

by A. J. P. Wilding

Published in *Commercial Motor* v129 n3326 p52-4, 57 (13 Jun 1969)

Road test information on a British prototype ambulance—the Dennis Brothers Ltd. FD4—is provided. It is the first ambulance to be designed as such while fulfilling requirements on ambulance crew training and equipment.

Search terms: Ambulances; Great Britain*; Road tests; Motor vehicle design

HS-006 158 Fld. 1/1

WHAT'S THE REAL TROUBLE WITH AMBULANCE SERVICES?

by Julian A. Waller

Published in *Traffic Safety* v65 n10 p10-1, 35 (Oct 1965)

Improvement of emergency medical services depends on careful evaluation of the needs and problems in each individual community, and an awareness that an emergency care program involves much more than ambulance service alone. Adoption of the model ambulance ordinance and sufficient financial support are recommended.

Search terms: Ambulances; Financing; Emergency medical services; First aid; Care of injured

HS-006 188 Fld. 3/5

POLICE FLEET SAFETY: TRAINING AND DISCIPLINARY PRACTICES. PART 2

by Martin W. Johnson

Published in *Traffic Digest and Review* v13 n9 p7-1 (Sep 1965)

State and city police organizations were surveyed for their practices on pursuit driving and defensive driving. Their driver training programs are described.

Search terms: Police traffic services; Defensive driving*; Driver training; Police chases*; Police cars*; Fleet driver training*

HS-005 861 Fld. 1/1

THE UCLA EMERGENCY MEDICAL CARE PROJECT

by Eugene P. Durbin

Published in *Traffic Digest and Review* v17 n5 p3-7 (May 1969)

To provide community planners with data of value in choosing among emergency care alternatives, the UCLA project is studying factors such as the effectiveness of helicopters as ambulances, ambulance operations, ambulance attendant training, equipment, communications, the need for a collection of research data, and cost information. A computer simulation of a general emergency care system has been developed. Los Angeles is serving as a test area in the project.

Search terms: Emergency medical services; Ambulances*; Helicopters; First aid; Motor vehicle accidents; Computerized simulation; Communication systems*; Rescue operations*; Data acquisition; Costs*; Los Angeles*; Emergency equipment*

HS-006 042 Fld. 1/0; 3/0

TRAFFIC "ACCIDENTS", A MEDICAL VIEWPOINT. PART 1

by Julian A. Waller

Published in *Automotive Industries* v136 n8 p87-90 (15 Apr 1967)

Severe accidents are discussed in three major aspects: (1) when the involved drivers or pedestrians frequently have identifiable impairment as alcoholism; (2) the frequent inadequacy of the packaging of the fatally injured as automobile defects and lack of protective clothing; and (3) location of the accident where early and adequate assistance may be available only by chance.

Search terms: Traffic accidents; Pedestrian accidents; Fatalities; Protective clothing*; Motor vehicle safety; Accident severity; Injuries; Handicapped drivers; Alcoholism; Medical factors; Diseases; Packaging; Motor vehicle design; Drinking drivers; Defective vehicles; Accident location; Emergency medical services

HS-006 043 Fld. 1/0; 3/0

TRAFFIC "ACCIDENTS", A MEDICAL VIEWPOINT PART 2

by Julian A. Waller

Published in *Automotive Industries* v136 n10 p92-4 (15 May 1967)

Interactions of the laws of sociology, psychology, and physiology as factors in accident occurrence are covered in detail. Countermeasures suggested to reduce accident toll include the removal of impaired drivers from the road, utilization of a different system of transportation, modification of training and driver behavior, modification of environment to simplify driver tasks, and improvement of emergency medical services.

Search terms: Traffic accidents; Human behavior; Packaging; Driving tasks; Sociological aspects; Psychological aspects; Physiology; Accident factors; Driver education; Emergency medical services; Accident severity; Pedestrian accidents; Alcoholism; Handicapped drivers; Drinking drivers; Medical factors; Violations; Accident research

HS-006 046 Fld. 2/0; 3/9; 3/6

PRE-CRASH FACTORS IN TRAFFIC SAFETY: 12th ANNUAL SYMPOSIUM

by George G. Snively, ed.

American Assoc. for Automotive Medicine, Salem, N.J.

17-18 Oct 1968 311p

Highway safety should be of concern to medical schools. Seventeen papers explore many aspects of the highway safety problem from the standpoint of public health and preventive medicine.

Search terms: Highway safety; Medical sciences; Pre-crash phase; Driver behavior; Driver education; Conferences*; Human factors engineering; Safety standards; Driver licensing; Crashworthiness*; Emergency medical services; Traffic safety; Public health*; Accident factors

AVAILABILITY: Corporate author (Includes HS-006 047 to HS-006 063)

HS-006 052 Fld. 2/0; 1/1; 1/3

AN ANALYSIS OF EMERGENCY MEDICAL SERVICE FATAL AND NON-FATAL MOTOR VEHICLE INJURIES IN SAN FRANCISCO

by Barry Griffith King; Gertrud Weiss; Ellis Sox

Environmental Control Administration, Cincinnati, Ohio. Injury Control Program

9 refs

The nature and severity of injury and the physical characteristics of the victim are principal factors in establishing the demands on an emergency care system. Analysis was made of 1,162 dead-on-arrival victims and a 20% sample of some 50,000 other cases. Survival potential of the fatality cases is analyzed and three case histories given. Detailed information on injuries and time factors is necessary to evaluate emergency medical care systems.

Search terms: Accident data; Emergency medical services; Ambulances; Autopsies*; Fatalities; Hospitals*; Time factors*; Case reports*; Injury factors; Injury severity; San Francisco*; Motor vehicle accidents

AVAILABILITY: In American Assoc. for Automotive Medicine. PRE-CRASH FACTORS IN TRAFFIC SAFETY, 17-18 Oct 1968, p117-39 (HS-006 046)

HS-006 099 Fld. 1/1

FALCK & ZONEN IN DENMARK

by O. Soborg Nielsen

Danske Redningskorps Falck og Zonen, Copenhagen (Denmark) 1968 28p

Company brochure describes private ambulance services, fire fighting and rescue operations which provide assistance throughout Denmark. Motor vehicle accidents are included in their operations.

Search terms: Emergency vehicles; Ambulances; Emergency medical services; Denmark*; Debris removal; Motor vehicle accidents; Fire fighting equipment

AVAILABILITY: Corporate author

HS-005 565 Fld. 1/1

HELICOPTERS EXPAND HOSPITAL SERVICE AREA

by Jean Ross Howard

Published in *Modern Hospital* v105 n5 p99-104 (Nov 1965)

Suggests that hospitals should have heliports so that auto accident victims can be brought to emergency rooms more promptly. Outlines the cost, size, and operations of the 34 hospital heliports already in use.

Search terms: Emergency medical services; Hospitals*; Helicopters; Care of injured; Automobile accidents; Costs*; Heliports*

HS-005 607 Fld. 1/1

AN INFLATED "AIRLITTER" FOR TRANSPORTATION AND IMPACT PROTECTION OF THE INJURED. FINAL REPORT

by Carl Blechschmidt; Carl Clark

Martin Co., Baltimore, Md.

Jan. 1966 32p 11 refs.

Contract NASw-877;

Report no. ER-14109

Report on the Airlitter addendum to Pilot Compartment Airbag Restraint System.

Describes a 3 x 3 x 8 foot boxlike unit which unzips to provide two beds. It is made of rubberized fabric and contains upper and lower full length airbags and head and foot end bags. A drop test showed that an occupant could survive a 30 foot fall in it. It can be transported on rough surfaces and stacked in piles. It is useful for helicopter ambulances.

Search terms: Ambulances; Helicopters; Airlitters*; Impact protection; Care of injured

AVAILABILITY: Corporate author

HS-005 608 Fld. 1/1

HOT WIRES: THE HOWS AND WHYS; THE DO'S AND DON'TS

by Sherman R. Knapp

Published in *FBI Law Enforcement Bulletin* v38 n5 p2-6 (May 1969)

Inform: the law enforcement officer of the hazards and procedures involved in an electric power emergency where there is a fallen or dangerous wire. Includes problems caused by auto accidents such as striking utility poles. Rules, rescue aids, and techniques for lifting a fallen wire are given.

Search terms: Police; Emergency services; Accidents; First aid; Automobile accidents; Utilities*; Power; Poles (supports); Rescue operations*

HS-005 728 Fld. 1/1

THE POLICE AND THE AMBULANCE

by Donald P. Burke

Published in *Aid (Journal of the Ambulance Association of America)* v3 n6 p6, 8-9 (Nov-Dec 1965)

Outlines a course in ambulance and first aid training for police officers. It includes both classroom training and demonstrations with ambulances and their equipment. Police with this training can help prevent deaths and disabilities to auto accident victims.

Search terms: Automobile accidents; Emergency medical services; Ambulances; Police; First aid; Fatalities; Care of injured; Curricula*; Pomona*

HS-005 808 Fld. 3/9; 1/3; 3/1

MEDICAL IMPAIRMENT AND HIGHWAY CRASHES

by Julian A. Waller

Published in *Journal of the American Medical Association* v208 n12 p2293-6 (23 Jun. 1969) 22 refs.

Presented to American Medical Association Automotive Safety Symposium, Washington, D. C., Sept. 13, 1968.

Impairment to drivers or pedestrians from chronic medical problems may be a contributing factor in 15 to 25% of crashes. In addition, alcoholism is a factor in a third of fatal crashes. Drivers with medical problems should be reported to licensing authorities, but no more than a quarter of these drivers should have their licenses revoked. For the remainder, driving and walking tasks should be simplified. Energy absorption capacity of vehicles and highways should be improved and emergency health services upgraded.

Search terms: Accident data; Accident risks; Fatalities; Head injuries; Chest injuries; Accident factors; Sociological aspects; Emergency medical services; Hospitals*; Physicians*; Age factor in accidents; Sex factor in accidents; Time factors; Injury factors; Australia*; Statistics*

Search terms: Alcoholism; Drinking drivers; Driver intoxication; Energy absorption; Driver physical fitness; Pedestrian characteristics; Driver license revocation; Driving tasks; Walking*; Accident factors; Handicapped drivers; Medical conditions; Fatalities; Emergency medical services; Physicians.

HS-005 205 Fld. 2/0; 5/0

POLICY ON ROAD SAFETY

Australian Medical Assoc., Glebe, N.S.W. (Australia)

Nov 1968 12p

The road safety problem in Australia is attacked through a series of recommendations by its medical association on: road design, vehicle design, inspection, accident reporting, insurance, emergency services, driver education and licensing, implied consent laws, and accident prevention.

Search terms: Implied consent laws*; Highway safety; Australia*; Accident prevention; Community support; Physicians*; Safety programs; Driver licensing; Driver education; Highway design; Automobile design; Motor vehicle inspection; Accident reports; Insurance; Drinking drivers; Driver intoxication; Emergency medical services

AVAILABILITY: From corporate author

HS-005 261 Fld. 1/3

TRAFFIC ACCIDENTS: MEDICAL BIBLIOGRAPHY 1955-67

Traffic Injury Research Foundation of Canada, Ottawa, Ont. (Canada)

1967 61p

Subjects included are: accidents to children; industrial traffic accidents; traffic injury and safety research; connection of alcohol and drugs to traffic accidents; neurological disorders, behavior defects, and visual implications in connection with accidents; emergency care, first aid, and ambulance services; medical and surgical problems of injured; medical assessment and driver licensing; community organizations and conferences; education and preventive measures; law and traffic accidents; general and statistical papers.

Search terms: Bibliographies; Accident causes; Children; Traffic accidents; Motor vehicle accidents; Injury research; Safety research; Drinking drivers; Driver intoxication; Drugs; Nervous system; Driver physical fitness; Statistics*; Legal factors; Driver behavior; Vision; Emergency medical services; First aid; Ambulances; Surgery*; Medical treatment; Driver licensing; Community support; Driver education; Accident prevention

AVAILABILITY: Corporate author

HS-005 199 Fld. 1/1

"THE HOT-LINE": A UNIQUE AMBULANCE-EMERGENCY ROOM COMMUNICATION SYSTEM

by Carl Jelenko; George H. Yeager
Published in *Journal of Trauma* v8 n6 p1102-4 (1968)

A unique private, nondialing direct telephone communication system which connects the ambulance dispatcher to the emergency room in 13 of the major hospitals in Baltimore provides prior warning of arrival of the severely injured or ill. A representative case is presented. Cost averages 30 cents per day.

Search terms: Ambulances; Emergency medical services; Telephone*; Hospitals*; Case reports*; Maryland*; Communication systems*; Automobile accidents

HS-005 200 Fld. 1/1

IMPROVING THE ACCIDENT VICTIM'S CHANCES. RADIO PLUS COMPUTER PLUS HELICOPTER

Anonymous

Published in *Public Safety Systems* v34 n1 p16-7 (Jan-Feb 1969)

Describes a Nebraska project using helicopters to transport accident victims. The victim's condition is radioed to a computer during transport to the hospital. Emergency care instructions can be returned to the helicopter while it is in flight.

Search terms: Emergency medical services; Computers; Helicopters; Nebraska*; Care of injured; Motor vehicle accidents; Radio communication; First Aid

HS-005 379 Fld. 1/1

HELP IS A HELICOPTER

by Morton J. Schultz

Published in *Today's Health* v47 n4 p20-3, 72-3 (Apr 1969)

Describes the use of helicopter ambulances for accident victims. Critically injured persons can be saved, especially when a doctor-nurse team goes with the helicopter. Helicopters are also useful for getting help to injured persons in remote areas.

Search terms: Helicopters; Ambulances; Care of injured; Emergency medical services; Motor vehicle accidents

HS-005 389 Fld. 2/2; 2/8

THEY LOOK DOWN ON HIGHWAYS!

Anonymous

Published in *Highway User* p30-1 (Feb 1969)

The Illinois toll highway system maintains a helicopter to patrol the freeways and assist motorists in numerous ways. It has been used chiefly for spotting trouble, and its public service functions will be increased by equipping it to serve as an ambulance.

Search terms: Helicopters; Ambulances; Illinois*; Toll roads; Highway communication; Emergency services; Police traffic services

HS-005 479 Fld. 1/1

THE POLICEMEN AT THE SCENE OF THE ACCIDENT

by Claude R. Hitchcock

Published in *Police* v13 n3 p16-9 (Jan-Feb 1969)

Customarily police officers are the first legally responsible people to arrive at the accident scene. Their ability to act quickly and effectively may make the difference between life or death for a crash victim. First aid procedures are outlined.

Search terms: Emergency medical services; Care of injured; Police; First aid; Accident factors

THE HIGH TRAFFIC ACCIDENT RATE AMONG THE MIDDLE-AGED. A PROBLEM AND ITS SOLUTION.

PART II

by Julian A. Waller

Published in *Traffic Digest and Review* v15 n9 p13-8 (Sep 1967)

For part I, see HS-000 586.

Certain groups of middle-aged drivers with chronic medical conditions are high risk cases, as are drinking drivers and pedestrians. Excessive risk is also associated with such environmental factors as poor roads, poor vehicle design, and rural environment. Accident reduction can be achieved by regulating drivers, changing vehicle and road design, better packaging of vehicle occupants, and better emergency medical care. It is suggested that emphasis should be placed on detecting of alcoholism and on improvement of the vehicle.

Search terms: Accident prevention, Alcoholism, Drinking drivers, Driver intoxication, Accident risks, Adult drivers, Automobile design, Highway design, Safety design, Rural accidents, Emergency medical services, Driver physical fitness, Driver restrictions, Socioeconomic data, Smoking factor in driving, Traffic accident analysis, Pedestrian-vehicle interface

HS-005 050 Fld. 1/1

HIGHWAY HELICOPTERS HOSPITAL HELIPORTS—PARTNERS IN PROGRESS

by Jean Ross Howard

Published in *Rotor & Wing* v1 n2 p44-49, 61 (Jul 1967)

Rescue capabilities of helicopters for emergency services are detailed. Basic requirements, cost range (from \$100 for a sod surface to \$30,000 for paved, lighted facility) are given. State-federal cooperative effort in establishing heliports at hospital sites is recommended.

Search terms: Helicopters, Ambulances, Heliports*, Emergency medical services, Highway safety, Federal-state relationships, Standards, Hospitals*, National Highway Safety Bureau*

HS-005 095 Fld. 1/1

THE GRIM STATE OF EMERGENCY MEDICAL SERVICES

by Howard Pyle

National Safety Council, Chicago, Ill.

Published in *Traffic Safety* v69 n2 p6-7, 32 (Feb 1969)

Many highway accident victims die because of inadequate emergency services. Recommends a program to include training for ambulance personnel, standards for the vehicles and their equipment, criteria for two-way communication systems, and a comprehensive plan for the management of emergency medical services. Discusses federal and other standards for such services.

Search terms: Emergency medical services, Care of injured, Ambulances, Fatalities, Communication systems*, Standards, Motor vehicle accidents

HS-005 138 Fld. 1/3

SEMINAR ON THE MEDICAL ASPECTS OF TRAFFIC SAFETY

by John E. Miller

Published in *Maryland State Medical Journal* v16 p45-7 (Jun 1967)

General discussion of the auto accident problem and its increasing seriousness. Of the three factors involved (driver, vehicle, and road), the driver is regarded as the principal cause by most authorities. Young male drivers and drinking drivers are particularly dangerous. Better treatment of the injured is helpful but does not solve the problem.

Search terms: Accident factors; Accident causes; Automobile accidents; Driver behavior; Drinking drivers; Care of injured; Emergency medical services; Age factor in accidents; Sex factor in accidents; Young adult drivers*; Highway characteristics

HS-005 096 Fld. 1/1

EMERGENCY CARE OF THE ILL AND INJURED

by Jack Wickstrom

Published in *Journal of the Louisiana State Medical Society* v119 n9 p362-4 (Sep 1967)

Thousands of lives could be saved by better care for road accident victims. Especially needed are better designed and equipped ambulances, with communication equipment, and better training for ambulance crews. Emergency rooms are not as well organized and equipped as they should be. Physicians should exert their influence to correct these deficiencies.

Search terms: Emergency medical services, Ambulances, Hospitals*, Physicians*, Care of injured, Motor vehicle accidents, Communication systems*

HS-005 198 Fld. 1/1

THE CARE AND TRANSPORTATION OF THE SEVERELY INJURED. A PROPOSAL

by James F. Newsome; Robert Price

Published in *North Carolina Medical Journal* v29 n10 p416-9 (Oct 1968)

Suggestions for improving North Carolina's emergency medical services include: establishment of regional trauma centers; use of helicopters in addition to ambulances for rapid transport of accident victims; a state-wide communications network for medical services; and comprehensive training of ambulance attendants in proper care of injured, particularly positioning patient properly, adequate airway maintenance, stopping flow of blood, splinting of fractures, and carrying out other resuscitative efforts.

Search terms: North Carolina*; Helicopters; Ambulances; Emergency medical services; First Aid; Communication systems*; Care of injured; Motor vehicle accidents; Accident location; Rural areas; Medical treatment; Injuries; Airway maintenance*; Hospitals*; Fractures*; Resuscitation*; Hemorrhage*

**A BACKSEAT DRIVERS GUIDE: OR
WOMEN'S ROLE AND RESPONSIBILITY
IN THE TRAFFIC MORTALITY
PROBLEM**
by R. K. Y. Dusinberre

1969 148p
Published by Magee
Publishing Co., Bordentown,
N. J.

HS-004 931 Fld. 2/0

**A FACT-GATHERING GUIDE TO
ASSIST STATES IN DEVELOPING
A HIGHWAY SAFETY PROGRAM**
Automotive Safety Foundation,
Washington, D. C.

1968 178p 91 refs

Purpose of guide is to assist states to comply with Highway Safety Act of 1966. Guide covers accident records and research; driver education and licensing; emergency medical services; highway design, construction, and maintenance; laws and ordinances; motor vehicle registration and titling; periodic motor vehicle inspection; police traffic services; public information and public support; traffic courts; and traffic operations. These are discussed in relation to the federal safety standards.

Search terms: Safety Programs, Highway Safety Act of 1966*, Safety standards, State government, Compliance procedures, Accident records, Accident research, Driver education, Driver licensing, Emergency medical services, Highway design, Highway safety, Highway construction, Highway maintenance, Legislation, Motor vehicle registration, Motor vehicle ownership, Motor vehicle inspection, Police traffic services, Public opinion, Community support, Traffic planning

AVAILABILITY: From corporate author

Discusses the highway safety problem, in particular the role of high-speed turnpikes, speeding trucks, the need for speed governors, the problems of brakes, drinking, young drivers, speeding ambulances and their accident involvement, law enforcement in traffic cases. Includes discussion of the public's attitudes towards these problems.

Search terms: Highway safety, High speed, Trucks, Law enforcement*, Ambulances, Brakes (motion arresters), Drinking drivers, Driver intoxication, Traffic courts, Ambulances, Speed control, Adolescent drivers, Young adult drivers, Age factor in accidents, Attitudes, Community support, Toll roads, Accident causes, Sex factor in driving, Speed regulators*

HS-005 006 Fld. 1/1

**HELICOPTER EVACUATION OF
HIGHWAY INJURIES**
by Edward R. Jenkins

Published in GP (General Practice) v38 n6 p151-2 (Dec 1968)

Helicopters offer the best solution for rapid evacuation of accident victims from remote areas to emergency care facilities. In California, more than 50% of traffic deaths occur in unincorporated areas where prompt emergency care is not available. Plans for helicopter ambulances and radio communications for use in California are outlined.

Search terms: Ambulances, Helicopters, Fatalities, Emergency medical services, Radio communication*, Rural accidents, Motor vehicle accidents, California*

HS-005 007 Fld. 1/1,4/2

**TRUCK HITS SCHOOL BUS: A
PRACTICAL LESSON IN
COMMUNITY DISASTER PLANNING**
by John A. Hampsey

Published in Pennsylvania Medicine v70 n5 p107-9 (May 1967)

Describes an accident which provided a good test of a community's disaster planning. The accident was well handled with cooperation among police, fire department, and hospital emergency room which was notified how many casualties to expect. It is recommended that those making disaster plans should "think small," since ten casualties at the same time will constitute a disaster in most hospitals. Good management at the accident site is also recommended instead of "siren-screaming chaos."

Search terms: Disasters, Police, Fire fighting equipment, Hospitals*, Emergency medical services, Care of injured, School buses, Truck accidents, Motor vehicle accidents, Medical emergencies, Community support

HS-004 616 Fld. 1/1

MOBILE INTENSIVE CARE IN
MYOCARDIAL INFARCTION
by R. J. Kernohan,
R. B. McGucken

Published in British
Medical Journal v3 n5611
p178-80 (20 Jul 1968)

An ambulance equipped as
an intensive care unit has
been used for a rural area
in Northern Ireland, with
a radius of about 25 miles
from the hospital. In six
months it has answered 164
calls and on the average
can provide intensive care
in less than 30 minutes.
The cost and use of skilled
staff have been justified
by the results.

Search terms: Ambulances,
Medical emergencies,
Heart injuries, Northern
Ireland*, Myocardial
infarct*, Emergency
medical services, Auto-
mobile accidents

HS-004 676 Fld. 1/0,3/0

DISEASE CONTROL PROGRAMS.
MOTOR VEHICLE INJURY
PREVENTION PROGRAM
Department of Health,
Education, and Welfare,
Washington, D. C.

Aug 1966 193p
Report no. 1966-1.

Motor vehicle accidents
are considered a major
health problem today. This
report uses benefit-cost
analysis to compare acci-
dent prevention and control
programs. Some factors
are: morbidity savings,
reduction in driver
drinking, injury avoidance,
etc.

Search terms: Cost data,
Motor vehicle accidents,
Injury prevention,
Benefit cost analysis*,
Driver licensing,
Statistics*, Accident
research, Fatalities,
Safety programs,
Driver education,
Emergency medical services;
Drinking drivers,
Pedestrian training,
Seat belt usage*,
Motorcycle safety,
Restraint systems

AVAILABILITY: From
corporate author

HS-004 678 Fld. 1/1

HANDLING OF EMERGENCY CASES
by Robert H. Kennedy

Published in Archives of
Environmental Health v13
n4 p511-15 (Oct 1966)

Problem areas in handling
accident emergency care
patients are discussed:
function of the ambulance
and its attendants, types
of service, equipment,
personnel, training and
legislation.

Search terms: Ambulances,
Emergency vehicles,
Emergency medical services

HS-004 801 Fld. 1/1

WHIRLIBIRDS TO THE RESCUE
Anonymous

Published in American
Motorist v36 n9 p12-3
(Jan 1968)

Describes the use of heli-
copters for evacuating wounded
and injured persons in Vietnam
and suggests that the same
kind of service should be
available for highway accident
victims. Almost three-fourths
of fatalities happened on
stretches of highway far from
first aid, adequate communi-
cation, and adequate medical
facilities, and even in cities
most ambulance service is of
poor quality.

Search terms: Helicopters,
Ambulances, Emergency
medical services, First
aid, Accident location,
Communication systems*,
Care of injured, Motor
vehicle accidents

HS-004 804 Fld. 1/3,3/0

THE PUBLIC HEALTH SERVICE
VIEWS AUTO SAFETY
by Robert L. Price

Published in Journal of the
Louisiana State Medical
Society v119 n9 p355-7
(Sep 1967)

Outlines the motor vehicle
accident problem, increase in
the death rate, the higher
incidence among males and
young age groups, and gives
figures on pedestrian acci-
dents. Programs needed to
reduce the accident toll are:
improved driver licensing
standards, improved driver
training, control of drunk
drivers, reducing pedestrian
injuries, increasing seat
belt use and improving
restraint systems, increas-
ing use of protective devices
for motorcyclists, and improv-
ing emergency medical services.

Search terms: Highway safety,
Motor vehicle accidents,
Fatalities, Age factor in
accidents, Sex factor in
accidents, Driver license
standards, Driver edu-
cation, Drinking drivers,
Driver intoxication,
Pedestrian accidents,
Accident prevention, Seat
belt usage*, Restraint
systems, Motorcycle safety,
Safety devices, Emergency
medical services, Acci-
dent data, Injury prevention

HS-004 859 Fld. 1/1

INTEREST IN AIR AMBULANCE USE
INCREASES
by Nieson S. Himmel

Published in Aviation Week
& Space Technology v90 n12
p71-2,77-8 (24 Mar 1969)

Describes usage of helicopters
as ambulances, often by high-
way patrols, police and fire
departments. Various heli-
copter models are discussed
with emphasis on the time
needed to convert them from
ordinary usage to ambulance
usage. Lists communities
and organizations using the
modified helicopters.

Search terms: Helicopters,
Time factors*, Ambulances,
Emergency medical services

HS-004 555 Fld. 1/1

THE EARLY MANAGEMENT OF THE
SEVERELY INJURED
by R. S. Garden

Published in Journal of
Neurology, Neurosurgery
and Psychiatry v30 p587-8
(Dec 1967)

Outlines hospital organization to treat 2,000 auto accident cases yearly. Treatment of the gravely injured depends largely on organization of an accident service, with at least two full-time medical officers on duty at all times. Ambulance workers are integral part of the team and are given regular lectures with particular emphasis on the importance of maintaining the airway; 36% of those dead on arrival had clogged respiratory passages.

Search terms: Emergency medical services, Medical emergencies, Care of injured, Ambulances, Respiratory system, Aspiration*, Airway maintenance*, Automobile accidents, Multiple injuries*, Injuries

HS-004 556 Fld. 1/1

LOUISIANA STATE MEDICAL SOCIETY: CONFERENCE ON THE MEDICAL ASPECTS OF AUTOMOTIVE SAFETY
Anonymous

Published in Journal of the Louisiana State Medical Society v119 n9 p331-2
(Sep 1967)

Outlines the Louisiana State Medical Society's campaign for better automotive safety. Includes accident causes, better emergency medical services, better driver training and licensing standards.

Search terms: Emergency medical services, Accident causes, Highway safety, Driver education, Driver license standards, Louisiana*, Louisiana State Medical Society*

HS-004 557 Fld. 1/1

MEDICAL FIRST-AID AT THE ACCIDENT SITE
by William Gissane

Published in Journal of the Philippine Federation of Private Medical Practitioners v13 n12 p783-8 (Dec 1964)

Every doctor should give first aid at the site of an accident when a condition threatening life is present and should keep in his car a kit for this purpose. The percentage of fatalities due to asphyxia or circulatory failure by the roadside or during transport to hospitals could be significantly reduced. A list of 18 items needed for a doctor's first aid kit is included.

Search terms: Physicians*, Care of injured, First aid, Medical emergencies, Emergency medical services, Fatalities, Cardiovascular system, Asphyxia*, Motor vehicle accidents

HS-004 558 Fld. 1/1

NEEDED: FIRST AID FOR AMBULANCE SERVICES
by Irwin Ross

Published in Reader's Digest v90 p98-102 (Feb 1967)

Deplores the quality of most ambulance services, the lack of first aid training for their personnel. Suggests legal regulation of ambulance services. Praises the quality of service in Chicago, where emergency ambulances are housed in neighborhood firehouses and are thus spotted throughout the city, and in Louisville, where police station wagons are used as ambulances. In these cases firemen and policemen have been trained in first aid.

Search terms: Emergency medical services, Ambulance, First aid, Police, Firemen*, Legal factors

HS-004 571 Fld. 1/3

RESEARCH WITH RESPECT TO FATAL ACCIDENT CAUSES: IMPLICATIONS FOR VEHICLE DESIGN
by William Haddon, Jr. New York (State) Dept. of Health, Albany

1961 32p
Report no. SAE-366A

Discusses the reasons for automotive engineers to participate in the reduction of highway trauma, spells out strategies for reducing its incidence and severity (modification of vehicle use, reduction in crashes, prevention of injuries in crashes, and emergency and long range medical care). The paper ends with the prediction, "...the success of your profession in the present decade will be largely weighed in terms of its success in handling this now overwhelming problem."

Search terms: Motor vehicle accidents, Fatalities, Accident causes, Accident prevention, Automobile design, Injury prevention, Medical services, Drinking drivers

AVAILABILITY: From SAE

HS-004 466 Fld. 1/1

HIGHWAY ACCIDENT CARE
by W. S. Reid

HS-004 455 Fld. 1/2

THE MULTIPLE INJURY PATIENT
Anonymous

Published in Ohio State
Medical Journal v63 n6
p789-801 (Jun 1967)

A simulated patient was
used to teach care of the
severely injured. The
patient was assumed to be
an auto accident victim.
Priorities in diagnosis
and treatment are discussed.

Search terms: Multiple
injuries, Emergency medical
services, Diagnosis, Medi-
cal treatment

HS-004 469 Fld. 1/2

A REGIMEN FOR THE EARLY CARE
OF THE PATIENT WITH CRUSHED
CHEST
by William M. Herbert,
Eva Schlessinger, Rubin
Lewis, Paul C. Samson

Published in Manitoba
Medical Review v45 p19-20
(Jan 1965)

Recommended medical manage-
ment at the site includes:
(1) triage; (2) maintenance
of airway; (3) control of
hemorrhage; (4) treatment
of shock; (5) selective
administration of narcotics;
(6) positioning for trans-
portation; (7) medical
history taking. Releasing
trapped victims also dis-
cussed.

Search terms: Emergency
medical services, Am-
bulances, First aid

Published in Journal of
Trauma v4 p325-38 (1964)

Presents a classification
of chest injuries resulting
from auto accidents with
rapid deceleration and im-
pact against steering wheel
or other objects. Recom-
mends a team approach to
care for the victims.

Search terms: Chest
injuries, Medical treat-
ment, Automobile accidents,
Deceleration, Steering
wheel impacts, Impact
severity, Emergency medi-
cal services, Nursing care

HS-004 467 Fld. 1/1

THE IMMEDIATE CARE OF ROAD
TRAFFIC AND TRACTOR CASUALTIES
IN A RURAL AREA
by W. Dewi Rees

Published in Journal of Royal
College of General Practitioners
v15 p115-22 (Feb 1968)

Details are given of the
local management, methods
of transport and ultimate
disposal of people injured
in motor vehicle accidents
in a relatively isolated
rural area in Britain.
Seventy-three per cent of
the people fatally injured
were found dead at the site
of accident, 27 per cent
died in hospital, and there
were no deaths in transit.

Search terms: Emergency
medical services, Rural
areas, Care of injured,
Traffic accidents, Farm
tractors, Motor vehicle
accidents, Fatalities,
Great Britain

HS-004 498 Fld. 1/1

HIGHWAY INJURIES
by Stanley A. Hill

Published in Southern
Medical Journal v59 n7
p870-1 (Jul 1966)
Editorial

Urges the medical profession
to step up safety propaganda.
Details the kind of emergen-
cy medical services which
should be available to
highway accident victims.
More efficient use of both
the knowledge and equip-
ment now available could
be made. Better treatment
and equipment need to be
developed.

Search terms: Emergency
medical services, Motor
vehicle accidents, Safety
propaganda, Medical treat-
ment, Medical emergencies,
Crash injuries, Care of
injured, Editorials*

HS-004 343 Fld. 1/1

**S Y M P O S I U M O N R O A D
A C C I D E N T S**

by Patrick C. Carey

Published in *Journal of the Irish Medical Association* v53 p88-9 (Sep 1963)[

From a hospital point of view, accident problem needs a central organization to review services and reduce number of casualty departments. Major units should be formed in zoned areas and should be adequately staffed at all times. Many accident victims are so seriously injured that reliance on junior resident staff for their emergency room care is inadequate.

Search terms: Emergency medical services; Crash injuries; Coordination; Planning; Medical emergencies; Hospitals; Care of injured; Traffic accidents

HS-004 368 Fld. 1/1

**THE DANISH ACCIDENT
AMBULANCE**
by S. Ua Conchubhair

Published in Journal of The Irish Medical Association v53 p93 (Sep 1963)

Describes an ambulance meant to give seriously ill person a comfortable ride and facilities for treatment en route, and equipped to take care of the unconscious and to deal with bleeding and fractures. It is built on Ford chassis, has stretcher convertible into trolley with shaft for towing.

Search terms: Ambulances, Care of injured, Fractures, Hemorrhage, Medical emergencies

HS-004 396 Fld. 1/1

ROAD ACCIDENTS
by Norman Capener

Published in Annals of the Royal College of Surgeons of England v59 p158-60 (Sep 1966)

Discusses the highway accident toll in Great Britain from the point of view of emergency medical care. Too many small hospitals are not equipped to care for seriously injured patients. Both staff and buildings need improvement. Ambulance service is also inadequate.

Search terms: Emergency medical services, Hospitals, Great Britain, Care of injured, Ambulances, Motor vehicle accidents

HS-004 399 Fld. 1/3, 1/2

AUTOMOBILE ACCIDENTS
by James K. Stack

Published in Journal of Trauma v5 p851-4 (Nov 1965)

Comments on the problem of minor accidents which do not have to be reported in many states, and ways in which they can be avoided. Discusses results of tests on effects of alcohol on driving ability, with or without food. Drinking without eating raises blood alcohol faster and impairs driving ability sooner. Describes a North Carolina study on the early management of trauma in hospitals, analyzing the errors most commonly made.

Search terms: Accident prevention, Food, Alcoholic beverages, Driver physical fitness, Drinking drivers, Blood alcohol levels, Hospitals, Emergency medical services, Medical emergencies, North Carolina, Motor vehicle accidents, Injuries, Care of injured

HS-004 401 Fld. 1/3, 3/0

**REPORT OF THE COMMITTEE ON
THE MEDICAL ASPECTS OF
TRAFFIC ACCIDENTS**
by Wallace Troup
Canadian Medical Association, Ottawa (Canada). Committee on the Medical Aspects of Traffic Accidents

Published in Canadian Medical Association Journal v91 p511-13 (5 Sep 1964)

Discusses many phases of accident problem and gives recommendations of committee on driver fitness, ambulance services, seat belts, head rests, driver training in high schools, drinking drivers, and research on accidents and highway safety.

Search terms: Accident data, Driver physical fitness, Ambulances, Driver education, High school drivers, Seat belts, Headrests, Safety research, Drinking drivers, Alcoholism, Highway safety

HS-004 454 Fld. 1/2

**MOTOR VEHICLE DEATHS IN
LOUISIANA**
by Dudley Andry

Published in Journal of Louisiana State Medical Society v119 n9 p355-8 (Sep 1967)

Statistics are presented indicating that Louisiana has the highest mileage death rate in nation. Standards required by National Traffic and Motor Vehicle Safety Act of 1966 are discussed. The medical profession is urged to play a role in traffic safety programs, especially in setting standards for emergency medical care.

Search terms: Accident rates, Fatalities, Louisiana, Insurance claims, Community support, Safety programs, Highway safety, National Traffic and Motor Vehicle Safety Act of 1966, Emergency medical services

HS-004 214

ROAD ACCIDENTS--ESSENTIALS
IN TREATING CEREBRO-CRANIAL
INJURIES
by H. Kraus
1963 7 p.
AVAILABILITY: Published in
CIBA Symposium 1963 v11
p115-121

Deaths resulting from cerebro-cranial injury could be prevented if only the appropriate steps were taken--firstly at the site of the accident and later in hospital. Particular importance attaches to immediate measures. Ambulance services should be so organized that the ambulance staff are able to perform all essential measures on the spot. All patients with cerebro-cranial injuries should be admitted to suitably equipped surgical departments and not merely to the nearest local hospital, where the requisite further treatment is usually quite out of the question.

HS-004 261

EMERGENCY CARE OF THE ILL
AND INJURED
Tulane Univ., New Orleans,
La. School of Medicine
by Jack Wickstrom
Sep 1967 3 p.
AVAILABILITY: Published in
Journal of the Louisiana
State Medical Society 1967
v119 n9 p362-364

Thousands of lives could be saved if decent care were given right after road accidents. Physicians should work to correct such deficiencies as poorly designed, equipped, and manned ambulances, inadequate laws, and overworked and inadequate hospital emergency rooms.

HS-004 265

VEHICLE ACCIDENTS: IMMEDIATE
CARE TO BACK INJURIES
Air Force Medical Service
School, Gunter AFB, Ala.
by Louis C. Kossuth
1966 10 p.
AVAILABILITY: Published in
Journal of Trauma 1966 v6
n5 p528-591

Suggests equipment for handling victims with back injuries: winch board, chair splint, seat slat, back splint. Techniques are outlined for removing and handling supine, seated, and prone patients.
(Presented at the Annual Meeting of the American Association for Automotive Medicine, Rochester, Minnesota, Oct. 22, 1965)

HS-004 286

ACCIDENT PREVENTION ACTIVITIES OF THE PUBLIC HEALTH SERVICE
Public Health Service,
Washington, D.C. Div.
of Accident Prevention
Feb 1966 5 p.
AVAILABILITY: Published in
Public Health Reports 1966
v91 n2 p138-142

The most important achievements by the Public Health Service in accident prevention are: the establishment of productive research activities in injury control; the applications of new knowledge in accident prevention developed through research grants; its emergency medical services program, safe transportation of the injured, and followup of medical care in hospital emergency units.

HS-004 290

THE EPIDEMIOLOGY OF ROAD ACCIDENTS
World Health Organization,
Geneva (Switzerland)
Nov 1966 15 p.
AVAILABILITY: Published in
WHO Chronicle 1966 v20 Nov
p393-406

The science of epidemiology offers a new approach to the understanding of road accidents and may lead to the formulation of measures that will materially reduce them. Improvements to roads, the replanning of towns, the safer design of vehicles, and increased educational effort, improvement in communication and in ambulance services, and a revision of the legislation in the light of research on human behavior on the road would all materially reduce the injury and death rates.
(Based on papers and discussions presented at Inter-regional seminar on the epidemiology, control and prevention of road traffic accidents held by WHO at Alexandria, United Arab Republic, from 25 October to 1 November 1965.)

HS-004 310 Fld. 1/3

AN ELECTRONIC GOOD SAMARITAN
by Dick Smith
Published in Highway User p21 (Sep 1968)

Installation of telephone call boxes on Los Angeles freeways has prevented accidents to people who would otherwise have to walk along road to get help after their cars broke down. Phones connect with Highway Patrol or Police Department communications centers which can send patrol cars, tow trucks, or ambulances. All calls are recorded.

Search terms: Accident prevention; Telephones; Traffic congestion; Police traffic services; Communication systems; Police cars; Ambulances; Pedestrian safety

HS-004 148

THE PROBLEM OF IMMEDIATE CARE
American Coll. of Surgeons, New York
by Robert H. Kennedy
Jan/Feb 1966 4 p.
AVAILABILITY: Published in Journal of the Ambulance Association of America 1966 v4 n1 p22-24, 26

Provides early history of the ambulance service; notes state legislation and ordinances, some faulty; discusses ambulance attendant training including proposed junior college two year courses. (Presented at the Ambulance Assn. of America Convention, Kansas City, Mo., Nov. 9, 1965.)

HS-004 149

THE REMOVAL OF INJURED PERSONNEL FROM WRECKED VEHICLES
Air Force Medical Service School, Gunter AFB, Ala.
by Louis C. Kossuth
Nov 1965 5 p.
AVAILABILITY: Published in Journal of Trauma 1965 v5 n6 p705-708

USAF Air Training Command's Medical Service School initiated a new dimension in first-aid training-treatment of the injured in the vehicle. Former practice of pulling patient out of vehicle, lying him flat causes torsion, angulation, & additional trauma which can be avoided.

HS-004 150

THE TRAGIC INEFFICIENCY OF OUR HOSPITAL EMERGENCY WARDS
by Ruth Brecher and Edward Brecher
Sep 1964 4 p.
AVAILABILITY: Published in Red Book 1964 v123 n5 p55, 110, 112, 113

Offers 3 factors for emergency care - a good hospital emergency department with fully qualified physicians and the necessary equipment; a good ambulance service; and organized system of emergency care - and ways to judge and encourage improvements in your community.

HS-004 209

EMERGENCY CARE OF THE INJURED: DO WE REALLY CARE?

Nebraska Committee on Medical Transportation and Communications, Omaha, and American Medical Association, Chicago, Ill. by Lynn W. Thompson and John E. Gartland
Jan 1968 7 p.
AVAILABILITY: Published in Traffic Safety 1968 v68 n1 p22-25, 38-40, 42

Definitive medical care and rehabilitation in the United States are the best in the world, but emergency medical services have not kept abreast of educational programs in safety and methods of care. The general public is insensitive to the magnitude of the problem and the medical profession has failed to coordinate its efforts to bring about improvement. Describes formation of a Committee of the Board of Trustees of the American Medical Association to attempt coordination in this field.

HS-004 212

"THE HOT-LINE:" A UNIQUE COMMUNICATION SYSTEM FOR THE EMERGENCY SERVICE
University Hospital, Baltimore, Md. Emergency Service, and Baltimore City Fire Dept., Md. Ambulance Service
by Carl Jelenko, III
George H. Yeager, and Martin C. McMahon
Apr 1968 4 p.
AVAILABILITY: Published in Southern Medical Journal 1968 v61 Apr p434-437

A unique communication system is described which connects the Emergency Service at the University of Maryland Hospital and 12 other local hospitals with the Baltimore City Fire Department's ambulance dispatcher. Prior warning can be given on this "Hot-Line" of the imminent arrival in these Emergency Services of a severely ill patient.

HS-004 146

EMERGENCY SERVICES MUST BE REORGANIZED. ADMINISTRATORS ARE URGED TO TAKE THE LEAD IN ACHIEVING COMMUNITYWIDE COORDINATION OF EMERGENCY CARE

Public Health Service, Washington, D.C. Emergency Medical Services Branch by Joseph K. Owen
Dec 1966 5 p.
AVAILABILITY: Published in Modern Hospital 1966 v107 v6 p84-87, 90

Urge hospital administrators to take the lead in achieving community wide coordination of emergency care - ambulance services and hospital emergency department operations.

HS-004 147

NEUROSURGICAL ASPECTS OF TRAFFIC ACCIDENTS: REPORT OF A SUB-COMMITTEE OF THE CANADIAN NEUROSURGICAL SOCIETY
Canadian Neurosurgical Society, Toronto, Ont. (Canada)
25 Nov 1967 5 p.
AVAILABILITY: Published in Canadian Medical Association Journal 1967 v97 Nov. 25 p1364-1368

Of Canadian road accident victims 70% sustain a head injury, 10% a spinal injury. Canadian Neurosurgical Society recommends (1) training general practitioners in neurology, (2) establishing trauma teams in major hospitals, (3) developing regional accident services.

HS-004 109

THE CURRENT STATUS OF EMERGENCY TREATMENT IN AUTOMOBILE ACCIDENTS: WITH RECOMMENDATIONS TO PROFESSIONAL AND CIVILIAN PERSONNEL
Methodist Hospital, Memphis, Tenn.
by J. C. Lougheed
Sep 1965 6 p.
AVAILABILITY: Published in Southern Medical Journal 1965 v58 Sep p1083-1088

A 5-year survey was made of Methodist Hospital, Memphis, with evaluation of 616 accident cases. Nine conclusions are presented: better first aid training is needed for police, fire, and ambulance personnel; medical societies should set up such courses; first aid equipment needs upgrading; pattern of treatment needs to be worked out; the field of trauma should be taught in medical school; there should be an emergency room committee to promote improvements; a mass media campaign to promote these goals should be undertaken; national, state, and county medical societies should support them; and state laws should be passed to prevent lawsuits arising from first aid administration.

-HS-004 112

MODIFIED GOLF CART GOES WHERE AMBULANCE CANNOT
by Norma Levalley
Feb 1968 2 p.
AVAILABILITY: Published in Hospital Topics 1968 v46 Feb p71-72

Describes a golf cart ambulance, battery powered, equipped for night calls with head & tail lights, accommodating 3 passengers and one stretcher patient. Used on the university campus.

HS-004 114

DESIGNING FOR ROAD SAFETY
Anonymous
6 Nov 1965 2 p.
AVAILABILITY: Published in Lancet 1965 v2 n7419 p941-942

The familiar formula for reducing road deaths--education, planning, design, and research--seems so comprehensive that it is hard to find any new suggestions. It should now be possible, however, to identify the components of the formula which have been successful and those which have been less effective. Medical advances in care of the severely injured and better alignment of bends on rural roads have been most successful, one-way systems and guard rails less effective. Comments on needs for improving car design and the causes of fatalities.

HS-004 142

AMBULANCE SERVICE IN COLORADO
Colorado Univ., Denver.
Dept. of Surgery
by J. Cuthbert Owens and William D. Shaw
Jan/Feb 1966 5 p.
AVAILABILITY: Published in Journal of the Ambulance Association of America 1966 v4 n1 p6-7, 10-11, 24

Most of the Colorado ambulance services surveyed to date are disorganized and misdirected. It is concluded that much needs to be done not only by the medical profession but also by the communities to elevate the quality of care in the transportation of the ill & injured.

HS-004 144

A COMMUNITY DISASTER EXERCISE IN HARTFORD, Conn.
Hartford. Health Dept., Conn.
by Leonard F. Menczer
Apr 1968 7 p.
AVAILABILITY: Published in Public Health Reports 1968 v83 n4 p288-294

A disaster can be a fatal traffic accident or a holocaust involving hundreds of people. This exercise simulated a boiler explosion with accompanying fire and partial collapse. Results were evaluated from verbal, written reports & video-tape.

HS-004 145

AN EMERGENCY MEDICAL SERVICE SYSTEM-ANALYSIS OF WORKLOAD
National Center for Urban and Industrial Health, Cincinnati, Ohio
by Barry G. King and Ellis D. Sox
Nov 1967 14 p.
AVAILABILITY: Published in Public Health Reports 1967 v82 n11 p995-1008

Investigates an established system (San Francisco) in terms of its components and their interrelations as a basis for general description, such as mathematical model suitable for analysis and evaluation of other existing or contemplated emergency care systems.

HS-003 995

TRANSPORTATION IN HEALTH SERVICES
Yale Univ., New Haven, Conn.
School of Medicine
by Jerome S. Beloff
Aug 1967 4 p.
AVAILABILITY: Published in Connecticut Medicine 1967 v31 n8 p564-567

Social, scientific, and political changes have helped produce a complex, fragmented system of medical care. Efficient and sophisticated transportation facilities are needed to bring together patients and health services. Suggests that innovative ideas are needed, such as neighborhood health centers, regional health programs, extended care facilities, and organized home care services. Comments on inadequacy of ambulance service and access roads to medical centers. (Presented at a meeting of the Connecticut Health League Statewide Conference on Transportation for Health Care, Jan. 18, 1967, Bloomfield, Conn.)

HS-004 044

ACCIDENTS, EMERGENCIES, AND AMBULANCES: A SURVEY IN PORTSMOUTH
Wessex Regional Hosp. (England)
by W. N. F. Boughey
10 Feb 1968 4 p.
AVAILABILITY: Published in British Medical Journal 1968 v1 Feb 10 p369-372

A pilot study to measure factors occurring at sites of accidents or emergencies, factors influencing treatment at site, and treatment and handling of patients during transport to hospital. These factors were then considered in conjunction with the subsequent progress of the patient. Of 127 unconscious patients, 36.4% were carried in an unsatisfactory position. The judgment of the ambulance crew on what aid to render was rated reasonable 60% of the time, 25% fair, and 15% poor. Recommends that crews should be more thoroughly trained and equipped, especially in regard to treating unconscious patients.

HS-004 046

CASUALTY CARE AND TRANSPORTATION IN NON-METROPOLITAN MISSOURI
Missouri Univ., Columbia
School of Medicine
by Marjorie Dale
May 1966 7 p.
UHF Grant No. 34
AVAILABILITY: Published in Missouri Medicine 1967 v63 n5 p352-358

Evidence indicates that ambulance or emergency vehicle service in non-metropolitan areas of Missouri falls short of desirable levels, both quantitatively and qualitatively. Improvements were suggested.

HS-004 047

THE EFFECT ON SURVIVAL OF DELAY IN EMERGENCY CARE IN MOTOR VEHICLE INJURIES IN LOUISIANA
Tulane Univ., New Orleans, La.
School of Medicine
by M. Clinton Miller and W. Randolph Page

Jan 1968 5 p.
AVAILABILITY: Published in Journal of the Louisiana State Medical Society 1968 v120 n1 p1-6

Several action programs are needed to improve emergency medical services: 1. A test of improved communications in selected urban and rural areas of high collision risk. 2. A test of the effectiveness of generally available ambulance service. 3. Training program for ambulance personnel. 4. Program for improved reporting of injuries sustained in auto collisions by emergency treating facilities. In general, there was progressive increase in delay times from suburban through metropolitan to rural communities. There was very little difference between total elapsed time for patients who survived and those who died, but notification delay was greatest in rural fatalities. A surprising number of victims were transported in police cars or private cars. Statistical analyses included.

HS-004 049

IMMEDIATE MEASURES AT SITE OF ACCIDENT
German Red Cross, Bonn.
Mar 1966 16 p.
AVAILABILITY: Published in The Journal of Trauma 1966 v6 n2 p285-298

Translation of Sofort Massnahmen am Unfallort: Kurzinformation fur jedermann, a German Red Cross bulletin, giving information and advice for laymen encountering traffic accidents.

HS-004 050

ROAD ACCIDENTS AND ACCIDENT SERVICES
Anonymous
Sep 1964 6 p.
AVAILABILITY: From WHO Regional Office for Europe, Copenhagen (Published in WHO Chronicle 1964 v18 Sep p349-354)

Discusses first aid measures (freeing the airway, mouth to mouth resuscitation); ambulance services; hospital and research services; the present situation in Europe (obtained via questionnaires from the World Health Center).

HS-003 987

COMMUNITY EMERGENCY MEDICAL SERVICES--A CHALLENGE TO THE HOSPITAL STAFF
Public Health Service, Washington, D. C. Emergency Health Services Branch
by Joseph K. Owen
May 1967 6 p.
AVAILABILITY: Published in Military Medicine 1967 v132 n5 p335-340

Suspension of ambulance services by many funeral directors has precipitated a problem in coordinated community emergency services. Basic elements for such services are presented; the hospital's role is discussed.

HS-003 975

FATAL ROAD ACCIDENTS
Anonymous
10 Aug 1968 2 p.
AVAILABILITY: Published in Lancet 1968 v2 n7563 p339-340

While road accidents are increasing in Great Britain, the number of deaths represents a surprisingly small proportion of the number of injured. This is due not only to safety legislation and use of seat belts but to improvement in accident services, to the use of early and adequate blood transfusion in hemorrhagic shock, to advances in anesthesia, and to discovery of antibiotics. Orthopedic surgeons now have patients with multiple injuries who would formerly have died. Comments on a paper by S. Sevitt in British Journal of Surgery, 1968, volume 55, on dealing with multiple trauma.

HS-003 986

AMBULANCE SERVICE. TRANSPORTATION OR MEDICAL CARE
California. Dept. of Public Health, Berkeley.
by Julian A. Waller
Oct 1965 8 p.
AVAILABILITY: Published in Public Health Reports 1965 v80 n10 p847-853

Considers ambulance service as the first phase of the medical care sequence and should be considered as a bona fide area of medical care. Discusses all phases of the service (organization, personnel, equipment, financial patterns.)

HS-003 990

THE HARTFORD DISASTER EXERCISE

Hartford. Health Dept., Conn.
by Leonard F. Menczer
11 Apr 1968 3 p.
AVAILABILITY: From Dr. Menczer, Hartford Health Dept., 56 Coventry St., Hartford, Conn. (Published in The New England Journal of Medicine 1968 v278 n15 p822-824)

For sound community planning, disaster training should be related to the natural events that may involve large numbers of casualties such as floods, tornadoes, and hurricanes, or from accidents such as fires, explosions, and vehicular, train, or aircraft catastrophes. A simulated disaster exercise involved 64 persons to be rescued from a building explosion, and use of ambulance, police, fire, health department, and Red Cross personnel. Conclusions pointed up inadequacy of planning and lack of coordination. Some of ambulances took 40 minutes to get to disaster scene and then could not find hospitals due to lack of adequate street signs. Equipment and communications of ambulances were also poor. Recommends better planning and an overall authority to coordinate efforts.

HS-003 992

A RURAL EDITOR LOOKS AT EMERGENCY MEDICAL SERVICE
Nashville News, Mich.
by John Boughton
May 1968 4 p.
AVAILABILITY: Published in Michigan Medicine 1968 v67 n9 p627, 631-2, 635

A California study showed that 1 1/2 times as many people are injured in rural traffic accidents as in urban accidents, and that the injured are four times as likely to die, apparently because of inadequate first aid and longer time to get to a hospital. Farm accidents are the longest delayed in getting help. Discusses the problem in Michigan, where small towns and rural areas have trouble recruiting physicians, which makes the problem more acute. Best solution is a community emergency medical program involving emergency rooms, well trained ambulance attendants, and a good communications network. All these efforts are underway in Michigan.

HS-003 994

TORONTO'S UNIQUE AMBULANCE DISPATCH CENTRE
Toronto. Metro Toronto Emergency Ambulance Dispatch Center, Ont. (Canada)
Anonymous
Apr 1968 2 p.
AVAILABILITY: Published in Canadian Hospital 1968 v45 Apr p46-47

Describes the Metro Toronto Emergency Ambulance Dispatch Centre, the first of its kind of Canada, which handled 45,000 emergency calls during 1967, its first year of operation. A large electronic city map and a communication system provided by Bell Canada are used. Ambulances can be routed to highway accidents quickly and easily. 88% of calls require emergency ambulance.

HS-003 867

ROAD ACCIDENTS: THE MEDICAL RESCUER

Tea Gardens Memorial Hospital Trust, N.S.W. (Australia)
by Hanns Pacy
22 Apr 1967 5 p.
AVAILABILITY: Published in Medical Journal of Australia 1967 p806-810

Experiences with a medical rescue service on the scene of road accidents, in an area where ambulances and appropriately staffed hospitals are remote, have been recorded during two years. These accidents are discussed with reference to the role of the doctor, the securing of an airway and oxygenation, blood volume replacement, the use of the central venous route, medicolegal considerations and organization. In such an area, medical rescue is inevitable, life-saving, essential, economic and practicable.
(Presented at the Third Australian General Practitioners' Convention, Adelaide, October 22 to 28, 1966.)

HS-003 871

UTILIZATION OF AMBULANCE SERVICES IN A RURAL COMMUNITY
by Julian A. Waller, Richard Garner, and Robert Lawrence
Mar 1966 8 p.
AVAILABILITY: Published in American Journal of Public Health 1966 v56 n3 p515-520

Of 923 ambulance trips in a rural California county traffic accidents accounted for 33.1% of the trips and 23.6% of the fatalities. Cardio-vascular and respiratory disease comprised 20.7% of the trips and 50.0% of the fatalities. Red lights and siren were used on 35.3% of the calls while carrying a patient, with police initiating the majority of such calls. The annual utilization rate was 29.6 trips per 1,000 population, with higher rates for older persons and for subscribers to a prepayment ambulance plan.

HS-003 938

PROVINCIAL WIDE AMBULANCE SERVICE FOR MANITOBA
by W. R. Welply
Jan 1965 3 p.
AVAILABILITY: Published in Manitoba Medical Review 1965 v45 n1 p16-18

The present level of ambulance service in Manitoba is unsatisfactory. An ideal ambulance service should be available 24 hours a day, should have fully trained personnel, and there should be ambulance service by air and boat. Costs are high, especially for rural areas. Manitoba Medical Association should lead in the formation of an adequate ambulance service.

HS-003 936

HELICOPTERS AND MEDICAL EMERGENCIES
Anonymous
29 June 1968 1 p.
AVAILABILITY: Published in British Medical Journal 1968 v2 n778 p778

Presently in Britain about 100 sick and injured persons are carried by helicopter each year. While they are useful in removing sick and injured persons from ships at sea or from inaccessible areas such as mountains and islands it is not economically feasible to use them as a substitute for regular ambulance service.

HS-003 937

HELICOPTERS FOR EMERGENCIES
Doctors Hosp., Mobile, Ala., and Methodist Hosp., Dallas, Texas
by Kenneth Whisenand and Ted Sparling
Mar 1968 4 p.
AVAILABILITY: Published in Hospital Progress 1968 v49 n3 p68-71

Survey conducted in a 70-mile radius around St. Louis concludes that helicopters should be used for emergencies. Contrast between the use of helicopters for the injured in Vietnam compared to the lack of similar transportation in a U.S. freeway pile-up is striking. Ten million dollars is to be spent on a research campaign for helicopter usage in auto accidents by the Department of Transportation.

HS-003 939

SYMPORIUM ON ROAD ACCIDENTS.
(3) THE CLASSIFICATION OF ROAD ACCIDENT CASES IN HOSPITAL
Our Lady of Lourdes Hosp., Drogheda (Ireland)
by M. Vincent Sheehan
Sep 1963 4 p.
AVAILABILITY: Published in Journal of the Irish Medical Association 1963 v53 p89-92

It is important to assess priorities for treatment in order to prevent respiratory obstruction, hemorrhagic shock, and wound infection. Outlines techniques for quick blood transfusions and diagnosis of multiple injuries. Describes types of injuries typical of auto crashes: head and limb injuries in motorcyclists, abdominal and chest injuries in auto occupants.

THE ORGANIZATION OF
RESUSCITATION AND CASUALTY
SERVICES. SUMMARY REPORT
World Health Organization,
Copenhagen (Denmark).
Regional Committee for
Europe
1967 3 p.
EUR/RC13/Tech.Disc.7
AVAILABILITY: (In HS003560,
p138-140)

Casualty services are
under review in many Euro-
pean countries. Suggests
that all who receive driv-
ers' licenses should have
first aid courses.
Discusses closed chest
cardiac compression, mouth-
to-mouth respiration &
their teaching.

HS-003 610

**MEDICAL ASPECTS OF MOTORCYCLE
SAFETY**

American Medical Association,
Chicago, Ill.
Committee on Medical Aspects
Of Automotive Safety. Jul 1968
2 p Availability: Corporate
author. Published in JAMA
v205 n5 p92-93

To help reduce motorcycle acci-
dent and injury rates, suggestions
are given concerning: driver
health, the vehicle, vehicle
operation, clothing and equip-
ment, courtesy, and emergency
care.

HS-003 701

ESTIMATING COMMUNITY REQUIRE-
MENTS FOR THE EMERGENCY CARE
OF HIGHWAY ACCIDENT VICTIMS
National Center for Urban and
Industrial Health, Cincinnati,
Ohio, Injury Control Program
by King, Barry G.
Aug 1968 9 p.

AVAILABILITY: Published in
American Journal of Public
Health 1968 v58 n8 p1422-1430

Compares rate of injury acci-
dents to estimate emergency
care work load contributed by
highway accidents. Considers
the ambulance system, the
surveillance, detection &
communication system to es-
tablish service objectives
and standards. (Presented
at the Epidemiology Section
of the American Health Asso-
ciation at the 99th Annual
Meeting in Miami Beach, Fla.,
Oct 26, 1967)

HS-003 729

ACCIDENT PREVENTION IN

MARYLAND
Maryland. State Dept.
of Health, Baltimore
by Prather, Perry F.
Sep 1965 4 p.

AVAILABILITY: Published in
Public Health Reports 1965
v80 n9 p833-836

Accidents are leading cause
of death in Md. among those
1-35 years in age. 40% are
motor vehicle accidents.
Discusses state programs to
provide emergency medical
care, to deal with pedestrian
safety and drunk drivers, to
train ambulance workers, and
to set up services such as
poison control centers.

HS-003 788

A SURVEY OF EMERGENCY AMBU-
LANCE SERVICE
by Louis C. Kossuth
Sep 1967 2 p.
AVAILABILITY: Published in
Traffic Safety Research
Review 1967 v11 n3
p73-74

Questionnaire survey of
133 cities and towns reveals
that the usual high standards
of medical activity in U. S.
are not reflected in emergency
medical care services. No
government control in 38%
of the cities. Medical
professional faulted for
not demanding standards.

HS-003564

JUGOSLAV LEGISLATION ON THE DUTY TO RENDER FIRST AID IN ROAD ACCIDENTS
Ljubljana Univ. (Yugoslavia). Inst. for Forensic Medicine by Milcinski, Janez 1967 3 p.
AVAILABILITY: (In HS003560, p24-26)

Failure to give first aid can result in a year's imprisonment. A driver's leaving injured persons at accident scene can result in five years' imprisonment. Since laws went into force, many people have studied first aid.

HS-003566

NINE YEARS OF ASSISTANCE TO INJURED PEOPLE ON THE ROAD
Hopital de Salon, Salon-de-Provence (France) by Bourret, Paul 1967 2 p.
AVAILABILITY: (In HS003560, p30-31)

Describes a French ambulance service's experience in caring for more than 500 severely injured persons, the first aid measures used before reaching hospital, and ambulance-hospital radio contact.

HS-003603

ACCIDENTAL DEATH AND DISABILITY: THE NEGLECTED DISEASE OF MODERN SOCIETY
National Academy of Sciences-National Research Council, Washington, D.C., Div. of Medical Sciences Sep 1966 39 p.
AVAILABILITY: From Corporate Author

Summarizes status of initial care and emergency medical services for victims of accidental injuries. Formation of a National Council on Accident Prevention at executive level among recommendations.

HS-003 647

AEROMEDICAL ASPECTS OF HELICOPTER OPERATIONS IN THE TACTICAL SITUATION
Advisory Group for Aerospace Research and Development, Paris (France) May 1967 279 p.
AVAILABILITY: CFSTI N68-19325 thru N68-19329

Papers cover military use of helicopters for casualty evacuation; including computer simulation in evaluating evacuation systems and potentials of hovercraft.

HS-003 648

COMMUNITY PLANNING FOR ACCIDENT COVERAGE
by McDonald, William J. Nov 1963 2 p.
AVAILABILITY: Published in Public Health Reports 1963 v78 n11 p1010-1011

Describes an ambulance service established by group of doctors in Missoula, Montana to improve handling of accident victims. Included disaster planning, and worked well in a 500-casualty train wreck. Doctors also campaigned for seat belt use. (Presented at the Idaho State Health Conference, Sun Valley, May 1963)

HS-003579

FIRST AID FOR VICTIMS OF ROAD TRAFFIC ACCIDENTS; PRINCIPLES AND ORGANIZATION. DISCUSSION
by Holmdahl, Martin H., Moderator 1967 21 p.
AVAILABILITY: (In HS003560, p117-137)

Compares standards and practices of ambulance service in various countries; equipment ambulances should carry; training the crew should have; how hospitals should handle the cases; how victims should be rehabilitated.

HS-003546

THE STRUGGLE WITH SEVERE
MULTIPLE TRAFFIC INJURIES IN
BULGARIA
by Lukanov, A. &
Satin, P. D.
1966 1 p.
AVAILABILITY: (In HS003499,
p43)

Pirogov Emergency Medical
Institute in Sofia, which
has treated 2,100 cases of
severe multiple injuries with
a mortality rate of 11%,
established for traffic
casualties.

HS-003543

ON-THE-SPOT AID BY THE ROAD
SAMARITAN CORPS, THE SWEDISH
GREEN CROSS
by Andreasson, Rune
1966 1 p.
AVAILABILITY: (In HS003499,
p38)

A part of the second-largest
automobile association in
Sweden, the Abstaining Motor-
ists' Association. Drivers
have had first aid training
and carry equipment in their
cars to provide emergency help
before ambulances arrive.

HS-003544

ORGANIZED PHYSICIAN'S FIRST
AID IN TRAFFIC ACCIDENTS.
EXPERIENCES AT THE SCENE OF
ACCIDENT AND DURING
TRANSPORTATION
by Roese, Wolfgang
1966 2 p.
AVAILABILITY: (In HS003499,
p48-49)

Describes "Schnelle Hilfe"
(fast help) system in East
Germany. Ambulance with crew
of three and some emergency
equipment. A third of calls
are for traffic accident vic-
tims. Credited with saving
victims who would not other-
wise have survived.

HS-003545

PRESENT FEATURES OF FIRST HELP
TO ROAD ACCIDENT VICTIMS IN
SPECIAL HOSPITALS
by Monticelli, Giorgi
1966 1 p.
AVAILABILITY: (In HS003499,
p58)

Recommends special rather
than general hospital for
treatment and rehabilitation
of traffic accident victims.
Immediate surgery aids the
recovery of multiple frac-
ture cases.

HS-003561

AMBULANCE ORGANIZATION IN
SWEDEN
Stockholm Univ. (Sweden).
Universitetskanslersambetet
by Ahlstrom, Bengt
1967 2 p.
AVAILABILITY: (In HS003560,
p13-14)

National Board of Health
supervises ambulance service,
and National Telegraph Service
has a telephone call system.
More training for present
ambulance personnel is planned.

HS-003562

ON-THE-SPOT AID BY THE ROAD
SAMARITAN CORPS, THE SWEDISH
GREEN CROSS
Green Cross Road Samaritans
Corps, Stockholm (Sweden)
by Andreasson, Rune
1967 7 p.
AVAILABILITY: (In HS003560,
p15-21)

Group of drivers who have
taken first aid courses and
carry emergency equipment at
all times are helpful in acci-
dents before ambulance arrives.
Members of an automobile club.

HS-003563

THE ORGANIZATION OF RESCUE-
SERVICE IN WEST BERLIN
Berlin. Rettungsaamt
Berlin (West Germany)
by Boesselman, Annemarie
1967 2 p.
AVAILABILITY: (In HS003560,
p22-23)

Berlin Emergency Service
(Rettungsaamt Berlin) coordinates
supplying of ambulances, beds,
and other medical services.
Fire Brigade is called first
in accident and poisoning
cases.

HS-003532

COMMUNITY-WIDE EMERGENCY CARE
FOR ACUTELY LIFE-THREATENING
CONDITIONS
Pittsburgh Univ., Pa. School
of Medicine
by Safar, Peter
1965 9 p.
AVAILABILITY: (In HS003499,
p9-17)

Recommendations for upgrading
quality of ambulance services
from simple first aid and
transportation to emergency
room. Includes physician
staffed ambulances, first aid
training for public, better
emergency room care.

HS-003533

A CONTRIBUTION TO THE ORGANIZA-
TION OF FIRST AID AT THE PLACE
OF ACCIDENT
by Knobloch, Jan
1966 2 p.
AVAILABILITY: (In HS003499,
p45-46)

Survey of first aid in Czecho-
slovakia. Programs for training
children and young people.
Work by Red Cross. Failure to
give first aid to persons in
danger of death carries a
sentence of imprisonment.

HS-003534

DEFINITIVE CARE, RESUSCITATION
OR TRIAGE
by Noer, Rudolf J.
1966 1 p.
AVAILABILITY: (In HS003499,
p39)

Recommendation that seriously
injured victims should be taken
directly to operating room,
bypassing the emergency room.
Describes operation of this
plan in Louisville General
Hospital, Kentucky.

HS-003535

DIAGNOSIS AND OBSERVATION OF
CARDIAC EMERGENCIES
by Halmagyi, M., Ahnefeld,
F. W. et al.
1966 3 p.
AVAILABILITY: (In HS003499,
p52-54)

13% of traffic accident vic-
tims in West Germany die, partly
because of failure of ambulance
crews to detect cardiac emer-
gencies and perform correct
first aid. Describes "Teldi-
cord," a device aiding in
cardiac diagnosis.

HS-003536

EMERGENCY COMPLEX RESUSCITATION
IN SEVERE MULTIPLE TRAFFIC
INJURIES
by Lukonov, A. &
Satin, P. D.
1966 1 p.
AVAILABILITY: (In HS003499,
p44)

Treatment of 2,100 patients
with severe multiple trauma.
Measures for the relief of
shock so that patients can
go to surgery in 15 to 40
minutes. Traffic accidents
caused 2/3 of total
casualties.

HS-003537

HOSPITAL CASUALTY SERVICES
Sweden. National Board
of Health, Stockholm.
by Lindgren, Stig
1966 9 p.
AVAILABILITY: (In HS003499,
p27-35)

Recommendations for care of
traffic accident victims;
organization of emergency
room. General hospitals ver-
sus special centers for emer-
gency care. Need for rehabil-
itation of disabled victims.

HS-003539

INTRODUCTION OF AN EMERGENCY
CARD
by Halldin, Matts
1966 1 p.
AVAILABILITY: (In HS003499,
p56)

Card used in Sweden listing
blood group, medical history,
treatment with anticoagulants,
and other information needed
in case of accidents or
disease.

HS-003541

MODERN EMERGENCY CARE DURING
AMBULANCE TRANSPORTATION TO
THE HOSPITAL
Mainz Univ. (West Germany)
by Ahnefeld, F. W. &
Halmagyi, M.
1966 9 p.
AVAILABILITY: (In HS003499,
p18-26)

Design and equipment for
emergency ambulances, espe-
cially for a rear compart-
ment to serve as a miniature
emergency room. Better train-
ing for ambulance crews
needed.

HS-003296

ECONOMICS OF HIGHWAY EMERGENCY

AMBULANCE SERVICE. Vol. 2.

APPENDICES.

Dunlap and Associates, Inc.,

Darien, Conn.

Jul 1968 197 p.

RFP-158

FH-11-6541

AVAILABILITY: See Corporate
Author

National survey of emergency
ambulance services. Cost
analyses. Queueing theory
applied to planning. Location
of services. Statistical
analysis of emergency calls.
Helicopter trip length.

HS-003377

SUMMARY REPORT OF THE TASK
FORCE ON AMBULANCE SERVICES

National Academy of Sciences
National Research Council,

Washington, D. C.

Apr 1967 22 p.

PH-86-65-104

AVAILABILITY: See Corporate
Author

Present status of ambulance
services in United States, de-
ficiencies in services, and
possible corrective measures.
Ambulances and rescue vehicles
should not be combined, as
rescue equipment is too bulk.
Lists criteria for ambulances.

HS-003378

TRAINING OF AMBULANCE PERSON-
NEL AND OTHERS RESPONSIBLE
FOR EMERGENCY CARE OF THE SICK
AND INJURED AT THE SCENE AND
DURING TRANSPORT

National Academy of Sciences-
National Research Center

Washington, D. C.

Mar 1968 30 p.

PH 110-68-1

AVAILABILITY: See Corporate
Author

Guidelines for training in
emergency care, rescue proce-
dures, equipment use, medico-
legal problems. In-hospital
training included. Nation-
wide training program
recommended.

HS-003499

INTERNATIONAL ASSOCIATION FOR
ACCIDENT AND TRAFFIC MEDICINE.

PROCEEDINGS OF THE SECOND

CONGRESS, STOCKHOLM, SWEDEN,

AUG 9-12, 1956. VOL I.

by Wulff, H. B. &

Forsberg, E., eds.

1966 191 p.

AVAILABILITY: Gunnar Ekstrom,

Kronprinsessan Louisas

Barnsjukhus, Polhemsgatan 30,

Stockholm K. (incl. HS 003500-
3559 & 000580)

Main subjects are first aid for
victims of road traffic acci-
dents; diseased, disabled, and
elderly persons in road traffic;
children and young people in
road traffic. Includes paper
by Dr. Wm. Haddon, Jr.

HS-003529

AMBULANCES CALLED TO ROAD
ACCIDENTS IN DENMARK DURING ONE
YEAR. ANALYSIS OF THE ACCIDENTS

by Dam, Willy

1966 1 p.

AVAILABILITY: (In HS003499,
p35)

Time of day of accidents;
higher rate on weekends;
accident locations; severity
of injury; men have more
accidents than women.

HS-003530

ON CARDIAC MASSAGE IN
EMERGENCY FIRST AID

by Engelhardt, G. H. &
Hernandez-Richter, J.

1966 2 p.

AVAILABILITY: (In HS003499,
p50-51)

Describes practices of a
hospital in Cologne-Merheim,
West Germany in restarting
heart action. Internal cardiac
massage seems superior to
external cardiac resuscitation
at accident site. Two emergency
cars take doctors to sites.

HS-003073

EMERGENCY HELICOPTERS CAN CUT
HIGHWAY DEATH RATE
Aerospace Industries Association, Washington, D. C.
Vertical Lift Aircraft Council
by Howard, J. R.
1968, 3 p.
AVAILABILITY: American Aviation, January 1968

Helicopters used as ambulances. Highway Safety Bureau has contracted five studies. Manufacturers' adaptations described.

HS-003 201

COMMUNITY-WIDE EMERGENCY MEDICAL SERVICES

American Society of Anesthesiologists. Committee on Acute Medicine
13 May 1968 8p
Availability: Pittsburgh Univ. Dept. of Anesthesiology (Publ. in JAMA v204 n7 1968 p595-602

Resuscitation & life-supporting measures at accident scenes, during transport, and in hospitals training by physicians for ambulance attendants and equipment for ambulances and emergency rooms.

HS-003089

WORKING PARTY ON AMBULANCE TRAINING AND EQUIPMENT, PART II: EQUIPMENT AND VEHICLES
Ministry of Health, London, England, Scottish Home and Health Department
1967, 56 p.
AVAILABILITY: Her Majesty's Stationery Office, London, England

These recommended standards for Great Britain are suitable for other jurisdictions selecting and stocking ambulances.

HS-003 220

EXTRICATION OF VICTIMS-- SURGICAL PRINCIPLES

by Dr. J. D. Farrington, Minocqua, Wisconsin (Published in Journal of Trauma 1968 v8 n4 p493-512

Recommends removal of victims from wrecked vehicles with long or short spine boards regardless of type of injury. He should be strapped to board as well as body. Includes discussion of rescue equipment

HS-003 152

HELICOPTER AMBULANCES AND TRAFFIC CASUALTIES

Pennsylvania Dept. of Highways
by Robert E. Hetherington
Aug 1968 2p
Availability: Traffic Engineering v38 n11 1968 p42-43

Testing value of helicopters in Pennsylvania. Used as ambulances, to patrol highways on holiday weekends, during weather emergencies. Expected to save lives by cutting time needed to get accident victims to hospital.

HS-003295

ECONOMICS OF HIGHWAY EMERGENCY AMBULANCE SERVICE. Vol. 1.
TECHNICAL REPORT.
Dunlap and Associates, Inc., Darien, Conn.
Jul 1968 174 p.
RFP-158
FH-11-6541
AVAILABILITY: See Corporate Author

National survey of emergency ambulance services. Size of systems, level of service, cost estimates, bases for subsidies, sources of revenue. Potential use of helicopters as ambulances. Planning of ambulance services.

HS-002 559

A STUDY OF IOWA AMBULANCE SERVICE

Iowa University, Iowa City, Bureau
of Police Science
by L. L. Shook 1968 67p
Availability: Corporate author

Reports on emergency medical
transportation in the state of
Iowa including cost data, personnel,
training, equipment and standards.

HS-002 578

EMERGENCY AMBULANCE SERVICE

Office of the Mayor, New York, N. Y.
Office of Administration
by M. L. Spiegel, E. S. Savas
1968 79p
Availability: Corporate Author

Gives background of emergency
ambulance service in New York,
discusses roles of hospitals and
police, suggests improvements,
and makes cost-effectiveness
analysis and proposals based on
computer simulation.

CURRENT FEDERAL MOTOR VEHICLE
SAFETY STANDARDS AS THEY APPLY
TO FUNERAL COACHES AND
AMBULANCES
Superior Coach Corporation,
Lima, Ohio
1968, 8 p.

AVAILABILITY: See Corporate
Author

Safety standards that apply
specifically to funeral
coaches and ambulances.

HS-002701

THE MANAGEMENT OF MULTIPLE
INJURY PATIENTS (The Journal
of Trauma, Vol. 8, No. 1,
January 1968, pp. 91-103)
Beekman-Downtown Hospital,
New York, New York
Department of Surgery
by Pizzi, W. F.
1968, 12 p.

AVAILABILITY: See Corporate
Author

Discusses life saving meas-
ures in treating multiple
injury patients including
on-the-scene resuscitation,
and effective communication
with the hospital.

HS-002 607

IT'S THE AMBULANCE OF TOMORROW

Traffic Digest & Review v16 n4
April 1968 p15-7
by J. Kielty April 1968 3p
Availability: Corporate author

Discusses use of helicopters to
bring traffic accident victims and
competent medical treatment to-
gether.

HS-002 641

**A GUIDE FOR OPERATING AMBULANCE
FLEETS**

National Safety Council, Chicago,
Illinois, Motor Transportation
Department 1965 34p
Availability: Corporate author

Guido suggests minimum standards
that the ambulance fleet operator
can use as guidelines to help
prevent accidents involving his
drivers and establish sound oper-
ating policies for his fleet.

HS-002944

**HOSPITAL-BASED AMBULANCE
SERVICE**

Iowa University, Iowa City.
Bureau of Police Science
by Shook, L. L. &
Holcomb, R. L.
1968, 121 p.

AVAILABILITY: See Corporate
Author

Development of ambulances as
mobile emergency rooms with
well-trained crews, and better
communications. Includes
costs, legal liability problems.
Helicopters considered too
costly and impractical for
winter.

HS-003068

REPORT BY THE WORKING PARTY
ON AMBULANCE TRAINING AND
EQUIPMENT: PART I - Training
Ministry of Health, London,
England Scottish Home and
Health Department
1966, 55 p.

AVAILABILITY: Her Majesty's
Stationery Office,
London, England

Evolving program recommended
for United Kingdom emergency
personnel.

HS-002187

A SELECTED BIBLIOGRAPHY OF
REFERENCE MATERIALS IN SAFETY
ENGINEERING AND RELATED FIELDS
American Society of Safety
Engineers, Park Ridge, Ill.,
Committee on Colleges and Soci-
eties
by Tarrants, W. E., 1967, 160 p.
AVAILABILITY: See Corporate Author
Price \$7.00

Covers accident prevention;
communications; data processing;
emergency services; human factors
engineering; air pollution;
medical factors; and traffic,
transportation, and motor vehicle
safety.

HS-002219

DISEASE CONTROL PROGRAMS,
MOTOR VEHICLE INJURY PREVENTION
PROGRAM
Department of Health, Education
and Welfare, Washington, D. C.,
Office of the Assistant Secretary
for Program Coordination
August 1966, 192 p., 1966-1
AVAILABILITY: See Corporate Author

Focuses on issue of applying
monetary units to measure medical
program outcomes.

HS-002299

NEW CONCEPTS FOR EMERGENCY
EVACUATION OF TRANSPORT AIR-
CRAFT FOLLOWING SURVIVABLE
ACCIDENTS
North American Rockwell Corpor-
ation, Los Angeles, California
by Roebuck, J. A., January 1968,
397 p., FAA ADS 68 2, FA 67 WA
1766
AVAILABILITY: CFSTI AD 665 329
HC \$3.00 MF \$.65

Purpose of study was to develop
a series of concepts which will
provide a theoretical basis for
avoidance of fatalities in
survivable aircraft accidents.

HS-002373

LET'S PROVIDE UPDATED TRAINING
FOR EMERGENCY SERVICE PER-
SONNEL! (Traffic Digest &
Review, October 1967, pp. 3-
8)

American Academy of Orthopae-
dic Surgeons, Chicago, Ill.,
Committee on Injuries
by Hoyt, W. A.
October 1967, 6 p.

AVAILABILITY: See Corporate
Author

Article on training courses
for emergency medical aid and
transportation for accident
victims.

HS-002514

FIRST AID FOR EMERGENCY
CREWS
Thomas (Charles C.) Pub.,
Springfield, Illinois
by Young, C. B.
1955, 180 p.

AVAILABILITY: See Corporate
Author

Pocket manual for all types
of emergency medical ser-
vices.

HS-002515

TRANSPORTATION OF THE IN-
JURED
American Red Cross, Corpus
Christi, Texas, Nueces
County Chapter
by Young, C. B.
1958, 254 p.

AVAILABILITY: Thomas (Charles
C.) Pub., Co., Springfield,
Illinois

Manual for use of first aid
crews aid for administrative
heads of emergency medical
services.

HS-002156

AN OVERVIEW OF EMERGENCY MEDICAL CARE SERVICES, THE EMERGENCY MEDICAL CARE SYSTEM, (JAMA, Vol. 200, No. 4, April 24, 1967, pp. 124-128)

American Medical Association, Chicago, Illinois

by Manegold, R. F., Silver, M. H., April 1967, 5 p.

AVAILABILITY: See Corporate Author

Discusses emergency medical systems in cities, including shortcomings, and potential problems being considered to improve these systems.

HS-002170

OPPORTUNITY FOR COMMUNITY LEADERSHIP: EMERGENCY SERVICES MUST BE REORGANIZED, (The Modern Hospital, December 1966)

Public Health Service, Washington, D. C., Division of Direct Health Services

by Owen, J. K., December 1966, 8 p.

AVAILABILITY: See Corporate Author

Surveys, evaluates and provides recommendations for improvement of ambulance and hospital emergency unit services.

HS-002 172

A MODEL ORDINANCE OR STATUTE REGULATING AMBULANCE SERVICE

Joint Action Program, Policy Committee October 1963 15p
Availability: National Safety Council, Chicago, Illinois

Discusses and presents a design for state ordinances regarding all aspects of ambulance service.

HS-002176

DISASTER FIRST AID, PART I Police, Vol. 12, No. 3, January/February 1968, pp. 74-79
by Phillips, P. J., February 1968, 6 p.

AVAILABILITY: See Corporate Author

Presents information on advance training in first aid to persons with elementary first aid training. The information is geared for disasters involving nuclear attack; other problems of mass casualties are applicable.

HS-002182

SELECTION OF THE OPTIMUM EMS SYSTEM

National Highway Safety Bureau, Washington, D. C., Division of Emergency Treatment and Transfer of the Injured

January 1968, 4 p.

AVAILABILITY: See Corporate Author

Discusses detection and reporting of crashes, dispatching rescue equipment, effective emergency treatment, and transfer of injured.

HS-002183

CONDUCTING THE STATE EMS SURVEY

National Highway Safety Bureau, Washington, D. C., Division of Emergency Treatment and Transfer of the Injured

January 1968, 3 p.

AVAILABILITY: See Corporate Author

Discusses major points to be considered in conducting state survey from which a comprehensive plan for emergency medical services can be developed.

HS-002184

HELICOPTERS IN CIVIL MEDICAL EVACUATIONS

National Highway Safety Bureau, Washington, D. C., Division of Emergency Treatment and Transfer of the Injured

by Waters, J. M., 1968, 13 p.

AVAILABILITY: See Corporate Author

Discusses military uses of helicopters since 1940, and potential for helicopters in states and municipal governments in times of civilian emergencies.

HS-002185

STATE PLANNING FOR HIGHWAY EMERGENCY MEDICAL SERVICES

National Highway Safety Bureau, Washington, D. C., Division of Emergency Treatment and Transfer of the Injured

by Waters, J. M., 1968, 23 p.

AVAILABILITY: See Corporate Author

Discusses need for a survey of state highway emergency services and recommends Federal government develop a methodology for the surveys.

HS-001689

DEATH IN A DITCH
Bulletin, American College of
Surgeons, May-June 1967, pp. 1-10
by Farrington, J. D., 1967, 11 p.
AVAILABILITY: See Corporate Author

Article on rescue procedures in
regard to injured accident victims
in order to prevent further injuries
during rescue.

HS-001708

AIR AMBULANCE...A GROWING SERVICE,
(Flight Magazine, July 1967,
pp. 36-39)
National Air Taxi Conference,
Washington, D. C.
by Hudgens, R. P., February-
July 1967, 4 p.
AVAILABILITY: See Corporate Author

Report on emergency medical ser-
vices performed by air taxis.

HS-001709

THE TRAINING OF AMBULANCE PER-
SONNEL
National Highway Safety Bureau,
Washington, D. C., Division of
Emergency Treatment and Transfer
of the Injured
January 1968, 3 p.
AVAILABILITY: See Corporate Author

A brief discussion of training re-
quirements for ambulance personnel.

HS-001852

ROAD ACCIDENTS
Heidelberg University, Germany,
Surgical Clinic
by Cogler, E., 1965, 176 p.
AVAILABILITY: See Corporate Author

Describes clinical aspects of ac-
cidents, giving injury severity and
type, and accident type. Motor
vehicle design and accident statis-
tics are also discussed.

HS-001874

A SURVEY OF EMERGENCY AMBULANCE
SERVICE, (Traffic Safety Research
Review, September 1967, pp. 73-74)
USAF Medical Service School,
Gunter AFB, Alabama
by Kossuth, L. C., September 1967,
2 p.
AVAILABILITY: See Corporate Author

Survey results of agency controlled
ambulance service establishments.

HS-002 052

STANDARDS FOR EMERGENCY DEPARTMENTS
IN HOSPITALS

American College of Surgeons
Chicago, Illinois, Committee on
Trauma February 1963 2p
Availability: Corporate author

The standards outlined for emer-
gency departments in hospitals
include: authority, status, direc-
tion, personnel, records, general
policies, and facilities.

HS-002 062

MINIMAL EQUIPMENT FOR AMBULANCES

Bulletin, American College of
Surgeons, Mar-Apr 1967
American College of Surgeons,
Chicago, Illinois, Committee on
Trauma April 1967 6p
Availability: Corporate author

Discusses four new items added to
the standard list of ambulance
equipment as recommended by the
committee on trauma.

HS-002 116

FINAL REPORT OF EMERGENCY MEDICAL
SERVICE TRAINING PROGRAM FOR
AMBULANCE PERSONNEL, POLICEMEN,
EMERGENCY SQUADS AND RESCUE SQUADS
OF THE STATE OF MARYLAND

Baltimore City Hospitals and Balti-
more City Fire Department, Maryland
11p Availability: Corporate author

Describes planning and program of
an ambulance and rescue training
course.

HS-001342

IMMEDIATE CARE AND TRANSPORT OF THE INJURED

McLaren General Hospital, Flint, Michigan, Surgery of Trauma by Curry, G. J., et al, 1965, 100 p.

AVAILABILITY: C. C. Thomas, Publisher, Springfield, Ill.

Covers injury management including use of emergency vehicles and first aid.

HS-001376

CHALLENGE TO THE INDUSTRY: SAVING THE LIVES OF 10,000 U.S. HIGHWAY ACCIDENT VICTIMS YEARLY

National Highway Safety Bureau, Washington, D. C., Division of Emergency Treatment and Transfer of the Injured by Waters, J. M., November 1967, 20 p.

AVAILABILITY: See Corporate Author

Stresses the helicopter as a key to more effective highway emergency medical treatment.

HS-001373

THE ROLE OF COMMUNICATIONS IN HIGHWAY EMERGENCY MEDICAL RESPONSE

National Highway Safety Bureau, Washington, D. C., Division of Emergency Treatment and Transfer of the Injured by Waters, J. M., October 1967, 15 p.

AVAILABILITY: See Corporate Author

Discusses importance of communications in highway emergency medical care systems and examines some devices in use.

HS-001377

THE EFFECT OF THE NATIONAL HIGHWAY SAFETY ACT ON AMBULANCE SERVICE

National Highway Safety Bureau, Washington, D. C., Division of Emergency Treatment and Transfer of the Injured by Waters, J. M., 1967, 11 p.

AVAILABILITY: See Corporate Author

Discusses problems of ambulance service and suggests remedies for the more serious deficiencies.

HS-001374

THE HELICOPTER AND HIGHWAY SAFETY

National Highway Safety Bureau, Washington, D. C., Division of Emergency Treatment and Transfer of the Injured by Waters, J. M., January 1968, 12 p.

AVAILABILITY: see Corporate Author

Discusses use of helicopters in emergency rescue operations.

HS-001470

THE STORY IN CHARTS OF THE ACCIDENT BURDEN ON HOSPITALS

American Medical Association, Chicago, Illinois, Bureau of Medical Economic Research 1958, 6 p., Bulletin-104A

AVAILABILITY: See Corporate Author

Graphic description of hospital over-burdening due to accidents.

HS-001375

THE BLOODY LANES

National Highway Safety Bureau, Washington, D. C., Division of Emergency Treatment and Transfer of the Injured by Waters, J. M., 1967, 11 p.

AVAILABILITY: See Corporate Author

Discusses need for effective systems of communications, transportation, and emergency medical treatment in administering first aid to highway accident victims.

HS-001688

STANDARDS FOR EMERGENCY AMBULANCE SERVICES, (Bulletin, American College of Surgeons, May-June 1967)

American College of Surgeons, Chicago, Illinois, Committee on Trauma

1967, 2 p.

AVAILABILITY: See Corporate Author

Article on ambulances as emergency vehicles and procedures to be followed by ambulance attendants during emergency.

HS-000276

Cornell University, Buffalo, N. Y.
Division of Epidemiologic Research
FIELD STUDIES IN ACCIDENTAL TRAUMA
AND EMERGENCY CARE
by McCarroll, J.
March 31, 1966, 19 p.

Series of related studies designed to explore the contribution which epidemiologic techniques might make in identifying or clarifying causes of injury in either the accident itself, or in the emergency medical care given the accident victim.

HS-000299

State of California, Sacramento
Department of Public Health and
Highway Patrol
STUDY OF EMERGENCY AMBULANCE OPERATIONS - A PRELIMINARY REPORT, by West, I., Kleinman, G., et al.
December 1964, 15 p.

Reports emergency trip data given by ambulance personnel on the traffic accident hazard, speed limits, emergency status of patients, and traffic accident victims.
See Corporate Author.

HS-000512

Federal Aviation Agency
Aviation Medical Service Research
Division
EVALUATION PATTERN ANALYSIS OF A SURVIVABLE COMMERCIAL AIRCRAFT CRASH by Hasbrook, A. H., Garner, J. D. et al.
May 1962, 11 p.

Describes evacuation of survivors of a jet transport crash involving a post crash fire.

HS-000701

American College of Surgeons, Chicago, Illinois, Committee on Trauma
ISSUE STANDARDS FOR EMERGENCY AMBULANCE SERVICE, October 1967, 2 p.
AVAILABILITY: Traffic Safety, Vol. 67, No. 10, October 1967, pp. 8-19.

Includes requirements for appraisal and immediate care at site of injury, followed by safe and comfortable transportation to hospital.

HS-000725

ROAD TRAFFIC ACCIDENTS, EPIDEMIOLOGY, CONTROL, AND PREVENTION
London Transport Executive, Great Britain
by Norman, L. G., 1962, 110 p.
AVAILABILITY: Columbia University Press, International Documents Service, New York

Causative factors, preventive measures and emergency medical services for traffic accidents.

HS-00791

OPERATING PROCEDURES, EMERGENCY AMBULANCE SERVICES, DISTRICT OF COLUMBIA
Fire Department, Washington, D. C.
Revised May 1967, 14 p., F. D. Bulletin 39
AVAILABILITY: See Corporate Author

Discussed are: hospital, emergency departments, transportation of patients to hospitals, cleaning of ambulances and equipment, and other aspects of emergency ambulance service.

HS-000810

ORGANIZING AMBULANCE SERVICES IN THE PUBLIC INTEREST
North Carolina Hospital Education and Research Foundry, Inc., Chapel Hill by Cadmus, R. R., Ketner, J. H., January 1965, 125 p., CH-35-5
AVAILABILITY: See Corporate Author

Studies organizational and legal aspects of ambulance service in an effort to find solutions to some of the existing and potential problems of ambulance service in North Carolina.

HS-001341

AERONAUTICS AND SPACE - TITLE 14
Federal Register, 32 F.R. 13255, September 20, 1967, pp. 1896-2409
September 1967, 14 p.
AVAILABILITY: See Corporate Author

Amendments to improve the emergency evacuation equipment requirements and operating procedures for transport category airplanes.

1. HS NO.	HS-700 491	2. FLD.	1/2; 5/14; 1/1
3. TITLE			
AUTOMOBILE CRASH INJURIES			
4. BY	5. CORPORATE AUTHOR		
P. A. Wade			
6. PUBLISHED IN		7. DATE	8. COLLATION
Louisiana State Medical Society Journal v118 n5 p167-75 (May 1966)		1966	
11. SUPPLEMENTARY NOTE Presented at New Orleans Graduate Medical Assembly 28th annual meeting, New Orleans, 9 Mar 1965.			
12. ABSTRACT Two responsibilities of the medical profession in regard to highway safety are delineated. One is the responsibility to promote safety design and seat belt usage and to educate the public in this regard. Improvements in vehicle safety design and the effectiveness of seat belts in reducing injuries are discussed. The major responsibility of the medical profession lies in the treatment of accident victims. The present state of ambulance services and the quality of emergency room care are considered and some means of improving the situation are proposed.			
13. SEARCH TERMS			
Injury research Accident survivability Injury prevention Injury factors Seat belt effectiveness Accident survival time Emergency medical services Hospital emergency rooms Medical treatment		Injury case reports Transportation of injured Accident case reports Automobile safety characteristics	
14. AVAILABILITY			
See serial citation			

1. HS NO.	HS-700 486	2. FLD.	1/1
3. TITLE			
HISTORY AND DEVELOPMENT OF CONTRACT AMBULANCE SERVICE IN CHARLOTTE, N. C.			
4. BY	5. CORPORATE AUTHOR		
J. C. Goodman		Charlotte, N. C., City Police Dept.	
6. PUBLISHED IN		7. DATE	8. COLLATION
		1964	17p
9. CONTRACT	GRANT	10. REPORT NO.	
11. SUPPLEMENTARY NOTE Presented at American Assoc. for Automotive Medicine annual meeting, Louisville, 26-27 Oct 1964.			
12. ABSTRACT A synopsis of events leading to the establishment of the Ambulance Service of Charlotte, North Carolina, in 1960, is presented. Ambulance operational procedures, present operations, and a summary of service rendered by the Ambulance Service during its first four years are included. The Charlotte city ordinance governing ambulances is also included.			
13. SEARCH TERMS			
Ambulances Ambulance design First aid equipment Emergency medical services Transportation of injured Ambulance licensing Emergency reporting systems		Ambulance personnel training Ambulance laws State laws	
14. AVAILABILITY			
Reference copy only			

1. HS NO. HS-700 461		2. FLD. 1/1
3. TITLE THE HANDLING AND TREATMENT OF ROAD ACCIDENT CASUALTIES		
7. DATE 1963	8. COLLATION 20p	9. CORPORATE AUTHOR Automobile Assoc. of South Africa
11. SUPPLEMENTARY NOTE Text also in Afrikaans.		
12. ABSTRACT The existing state of ambulance services, roadside treatment of injuries, and reception and treatment at hospitals in South Africa is reviewed and compared with practices overseas. The deficiencies of the present emergency services are described and recommendations are made for overhauling and improving the present system.		
13. SEARCH TERMS		
Emergency medical services Emergency equipment First aid Accident hospitals Ambulances Ambulance personnel Hospital emergency room standards Postcrash phase Transportation of injured Emergency training	Accident statistics South Africa Emergency reporting systems Accident survival time Program evaluation	
14. AVAILABILITY Reference copy only		

1. HS NO. HS-700 485		2. FLD. 1/1
3. TITLE SLAUGHTER--AND WHAT TO DO ABOUT IT		
4. BY R. H. Kennedy	7. DATE 1964	8. COLLATION 6p
11. SUPPLEMENTARY NOTE Presented at American Assoc. for Automotive Medicine annual meeting, Louisville, 26-27 Oct 1964.		
12. ABSTRACT Problems in providing adequate emergency medical services are outlined and some recommendations for improvement are given. Types of ambulance services, ambulance personnel training, model ambulance ordinances, licensing, equipment, and economic factors are briefly covered.		
13. SEARCH TERMS		
Transportation of injured Emergency equipment First aid Ambulances Hospital emergency rooms Ambulance personnel training Economic factors	14. AVAILABILITY Reference copy only	

1. HS NO. HS-700 370	2. FLD. 4/4	
3. TITLE THE SECRETARY'S ADVISORY COMMITTEE ON TRAFFIC SAFETY REPORT		
7. DATE 1968	8. COLLATION 262p 26refs	9. CORPORATE AUTHOR Department of Health, Education, and Welfare, Washington, D. C.
12. ABSTRACT The role of the Department of Health, Education, and Welfare in traffic safety and the Department's relationship to the Department of Transportation are discussed. Recommendations are made for the establishment of research priorities, a national program of emergency medical services, and an evaluation of the effectiveness of driver education required by the Highway Safety Act of 1966. Federal efforts should be directed toward the study of accidents and alcoholism, of violent behavior that contributes to automobile accidents, and to a public education program in safety measures such as the use of seat belts. A Presidential commission is recommended to review the process of accident investigation, enforcement of traffic laws, and the litigation of claims arising from highway crashes.		
13. SEARCH TERMS		
United States Government Federal role Highway safety programs Highway Safety Act of 1966 Safety research Highway research Accident research Driver behavior Drinking drivers Driver intoxication Alcoholism Alcohol usage	Emergency medical services Driver education Driver education evaluation Psychological factors Driver mental fitness Seat belt usage Seat belt campaigns Public information programs Traffic courts Traffic court cooperation with other agencies Traffic law enforcement	Litigation Accident statistics
14. AVAILABILITY Corporate author		
1. HS NO. HS-700 447	2. FLD. 2/11	
3. TITLE PRESENT STATUS OF TRAFFIC RECORDS SYSTEMS IN CALIFORNIA, PHASE 1 REPORT. VOL 1, SUMMARY OF EXISTING SYSTEMS		
7. DATE 1970	10. REPORT NO. TR-68-003	8. CORPORATE AUTHOR Young (Arthur) and Company
11. SUPPLEMENTARY NOTE Sponsored by California Dept. of Highway Patrol.		
12. ABSTRACT The first step in the development of the desired statewide integrated system necessarily involves the determination of the status of the existing traffic records systems in use at all levels of government throughout the state as well as their interfaces with the private sector. This report contains: a summary description of the operation of existing traffic records systems in the California Highway Patrol, the California Division of Highways, the California Department of Motor Vehicles, city and county public works departments, local law enforcement agencies, municipal and justice courts, and other related areas; a summary description of the data utilized in traffic records systems studied; an evaluation of existing systems; a summary data dictionary for each functional area; and a detailed system description of each functional area.		
13. SEARCH TERMS		
California Systems analysis Traffic records Information systems State highway departments State motor vehicle departments Accident records Data banks Automated law enforcement systems Data acquisition Data processing Records retention	Records Data analysis Driver records Police reports Data uniformity Information system design Flow charts Driver education Emergency medical services Courts	

1. HS NO. HS- 700 237	2. FLD. 1/1
3. TITLE TRANSPORTATION OF THE INJURED, A REPORT	
4. BY O. P. Hampton, Jr.	5. CORPORATE AUTHOR
6. PUBLISHED IN v45 p55-9 (Jan-Feb 1950)	7. DATE 1960
8. ABSTRACT Survey results from 365 cities indicate that each city and state should adopt a program of emergency medical care and transportation of the injured as follows: emergency medical care should be carried out at the scene of the accident sufficient to permit safe transportation of the injured to medical facilities by the ambulance personnel assisted as necessary by police or firemen; only ambulances or dual purpose patrol cars should be used for the transportation of the injured; ambulances should be adequately equipped for splinting fractures, controlling hemorrhage, dressing wounds, and giving oxygen; all personnel who attend traffic casualties should be given a refresher course every year; ambulance equipment and personnel training should be regulated by city ordinance or state statute which carry penalty clauses sufficient to effect compliance with the law; and ambulances should adhere to all traffic laws.	
13. SEARCH TERMS	
Ambulance personnel training Transportation of injured First aid Ambulance laws	Emergency equipment Urban areas Police vehicles Ambulance personnel

1. HS NO. HS- 700 261	2. FLD. 1/1
3. TITLE HANDLING OF EMERGENCY CASES	
4. BY R. H. Kennedy	5. CORPORATE AUTHOR
6. PUBLISHED IN Archives of Environmental Health v13 p511-5 (Oct 1966)	7. DATE 1966
8. SUPPLEMENTARY NOTE Read before the Third American Medical Association Congress on Environmental Health Problems, Chicago, 4-5 Apr 1966.	
9. ABSTRACT The uncertain period between sustaining a serious injury and arrival in a hospital deserves more thoughtful planning than it now receives. Ambulance personnel should be trained to produce an open airway, stop bleeding, splint fractures, and, if the patient is pulseless or not breathing, to employ mouth to mouth breathing and external cardiac compression promptly and correctly. Ambulance services and laws are reviewed.	
10. SEARCH TERMS	
Ambulance personnel training Emergency medical services Ambulances Transportation of injured	Resuscitation Artificial respiration Cardiac massage Ambulance laws

1. HS NO. HS-	700 072	2. FLD.	1/1
3. TITLE WANTED: BETTER EMERGENCY CARE FOR TRAFFIC INJURED			
4. BY	5. CORPORATE AUTHOR Insurance Inst. for Hwy. Safety, 136777		
6. PUBLISHED IN		7. DATE 1968	8. COLLATION 11p
12. ABSTRACT Factors contributing to the poor quality of emergency medical services in the U.S. include inadequate emergency communication systems, lack of properly trained ambulance personnel, lack of ambulance design and equipment standards, and improper control of ambulances. Recommendations for improvement are made.			
13. SEARCH TERMS			
Ambulance laws Ambulance licensing Ambulance design Ambulance personnel training Emergency medical services Helicopter ambulances Emergency equipment		Emergency reporting systems Transportation of injured	
14. AVAILABILITY Reference copy only			

HS-700 187	2) Fld. 1/2; 1/1												
3) TITLE THE ACCIDENT SURGERY OF MOTORWAYS													
4) by	Preston A. Wade												
5) Corp. Author													
6) Published in	Journal of Bone and Joint Surgery v43-B n4 p634-646 (Nov 1961) 8refs												
12) Abstract Seat belt and other safety devices that have been in use recently have greatly reduced the number of highway fatalities yet there are still many safety factors that must be taken into consideration by automobile manufacturers. More important in the abating of highway accidents is the judgement of the driver. The medical profession is helping to educate the public in this respect and is cooperating in an effort to expand the use of seat belts. The major responsibility of the medical profession is the treatment of injuries to the accident victim. Improvements in the transportation of the injured are being made as well as close scrutiny of care given in hospital emergency rooms, since many hospitals are not equipped to handle an emergency. Much more emphasis is needed in trauma training than is presently given in medical schools of its surgeons. It would be ideal to take every injured person to a specialized hospital fully equipped and staffed for an emergency but it is hoped that in the future accident victims will receive													
13) Search terms													
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1. MS NO. HS- 700 C22	2. FLD. 1/1
3. TITLE ANALYSIS OF A HOSPITAL AMBULANCE SERVICE	
4. BY L. J. Taubenhaus; J. R. Kirkpatrick	5. CORPORATE AUTHOR
6. PUBLISHED IN Public Health Reports v82 n9 p23-7 (Sep 1967)	7. DATE 1967
8. COLLATION 4refs	
12. ABSTRACT Analysis of a hospital ambulance service is valuable in planning for purchase of ambulance equipment and training of ambulance personnel. A study of Boston City Hospital's ambulance service from December 1, 1965 to February 10, 1966, revealed that the service played a minor role in the transportation of emergency patients. Of the 432 ambulance trips analyzed only 120 (28%) were classified as emergencies. More often than not emergency service was provided by the police department. The hospital ambulance service did, however, play an important role in the medical care system. It provided an essential transportation link between various medical care facilities and nursing homes and the hospital.	
13. SEARCH TERMS	
Ambulances Transportation of injured Emergency medical services Hospitals Police traffic services Posters	Program evaluation Ambulance personnel training Trip purpose
14. AVAILABILITY See serial citation	

1. MS NO. HS- 700 C30	2. FLD. 1/3; 3/4; 1/2
3. TITLE CURRENT RESEARCH IN ROAD SAFETY IN THE UNITED STATES OF AMERICA	
4. BY R. A. McFarland	5. CORPORATE AUTHOR
6. PUBLISHED IN The Practitioner v193 n1126 p457-66 (Apr 1962)	7. DATE 1962
8. COLLATION 48refs	
12. ABSTRACT Safety research activities relating to the driver component (age, personality, and behavior); alcohol, drugs, and driving; driver diseases and disabilities; human factors in engineering; and accident and injury prevention are briefly surveyed. The need for methodological studies to improve research methods and to devise experimental designs appropriate to analyse the complex problems in these areas is stressed.	
13. SEARCH TERMS	
Accident research Medical factors Safety research Safety, pre rows Emergency medical services Human factors engineering Driver road interface Accident prevention Injury prevention Driver behavior research	Drug effects Accident factors Research methods Alcohol effects
14. AVAILABILITY See serial citation	

1. HS NO. HS- 700 005	2. FLD. 1/2
3. TITLE TRAFFIC INJURIES--A SURGICAL PROBLEM	
4. BY R. W. Zollinger	5. PUBLISHED IN Archives of Surgery v70 p694-700 (1955)
	6. COLLATION lref
7. DATE 1955	
11. SUPPLEMENTARY NOTE Presented at the 62nd Annual Meeting of the Western Surgical Assoc., Colorado Springs, 2 Dec 1954.	
12. ABSTRACT A 1953 survey of 9059 emergency room visits in Mt. Carmel Hospital, Columbus, Ohio revealed traffic injuries accounted for 8% of the total. Of all the traffic victims, 25% required hospitalization. Over 70% of all traffic injuries were treated between noon and midnight. There were fewer injuries in winter and the greatest number happened in the fall. The majority of traffic victims were 30 years of age or younger. The majority of injuries were diagnosed as lacerations, abrasions, and contusions with the head being the part of the body most frequently injured (42% of the total cases). The majority of the hospital surgical procedures were for fractures.	
13. SEARCH TERMS	
Injuries by age Injuries by body area Injury rates Injury statistics Injury severity Emergency medical services Hospital emergency rooms Time of accidents	Surgery Fatality rates Time of day Contusions Fractures Head injuries
14. AVAILABILITY See serial citation	

1. HS NO. HS- 700 007	2. FLD. 1/2
3. TITLE INJURIES FROM ROAD ACCIDENTS	
4. BY W. Gissane; J. Bull	5. CORPORATE AUTHOR
6. PUBLISHED IN The Practitioner v188 n1126 p489-97 (Apr 1962)	
7. DATE 1962	
8. COLLATION 4refs	
12. ABSTRACT Tabulations are given for injuries and deaths in Birmingham, England for a 22 month period. Injuries are usually multiple, and require immediate attention for diagnosis, blood transfusion, and surgery. It is recommended that accident departments in the various hospitals of an area should be reinforced by a central accident department with special facilities available at all times.	
13. SEARCH TERMS	
Traffic accidents Multiple injuries Injury prevention Diagnosis Injury severity Injury statistics Medical treatment Emergency medical services	Injuries by body area Fatality causes Fatalities by age Fatalities by sex
14. AVAILABILITY See serial citation	

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