RA
645.6
.I8
C66
1975

COMPREHENSIVE EMERGENCY MEDICAL SERVICES (EMS) PLAN

• • • • •

STATE OF IOWA

PREPARED BY:
GOVERNOR'S
EMERGENCY MEDICAL SERVICES
ADVISORY COUNCIL

IN COOPERATION WITH:
IOWA STATE DEPARTMENT OF HEALTH

PLANNING GRANT FROM:
IOWA REGIONAL MEDICAL PROGRAM

COMPREHENSIVE STATEWIDE EMERGENCY MEDICAL SERVICES PLAN

STATE OF IOWA

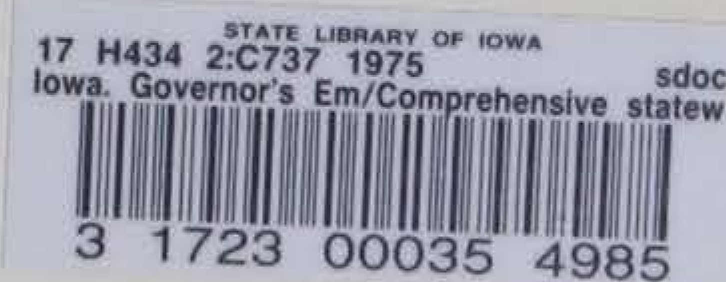
PREPARED BY: Governor's Emergency Medical Services Advisory Council
William R. Bliss, M.D., Chairman

IN COOPERATION WITH: Iowa State Department of Health
Norman L. Pawlewski, Commissioner

FUNDED THROUGH: Iowa Regional Medical Program Grant #58
(Statewide EMS Program -- Component I)

DECEMBER 1975

STATE LIBRARY OF IOWA
Historical Building
DES MOINES, IOWA 50319



Iowa

State Department of Health

LUCAS STATE OFFICE BUILDING
DES MOINES, IOWA 50319

NORMAN L. PAWLEWSKI
COMMISSIONER OF PUBLIC HEALTH

Governor's Advisory Council

10 November 1975

The Honorable Robert D. Ray
Governor of Iowa
Des Moines, Iowa

Sir:

It is with pleasure that we submit for your review the Comprehensive Emergency Medical Services Plan for Iowa. The Plan was developed in accordance with the requirements of Standard Eleven of the National Highway Safety Program and the Emergency Medical Services Act of 1973 through the joint efforts of the Governor's Emergency Medical Services Advisory Council and the Iowa State Department of Health. We believe it provides a basic framework for the development of the State's Emergency Medical Services System.

The Plan will be revised annually as the State develops its emergency medical service capabilities.

We wish to express our appreciation to you for the assistance rendered by your office during the development of the Plan. We look forward to continuing this relationship as we seek to improve emergency medical care in Iowa.

Very truly yours,

William R. Bliss

William R. Bliss, M.D., Chairman
Governor's Emergency Medical Services Advisory Council

Norman L. Pawlewski

Norman L. Pawlewski
Commissioner of Public Health

WRB:RJC/jcb
NLP

Enclosure

cc: Robert Tyson
Governor's Representative for Highway Safety

ACKNOWLEDGMENTS

Preparation of the *Comprehensive Iowa State Emergency Medical Services Plan* was facilitated through the joint efforts of the Governor's Emergency Medical Services Advisory Council and its co-sponsor, the Iowa State Department of Health. Acknowledgment is given for the many hours of time devoted by members of the Advisory Council and its Task Forces, Iowa State Department of Health Emergency Medical Services Staff, representatives of the EMS Development Group, and countless numbers of other individuals across the State to reviewing and commenting on drafts of the *Plan*. The hours of assistance rendered on behalf of project development by the Iowa Regional Medical Program Staff is also acknowledged.

Specific expressions of appreciation are directed to William Bliss, M.D., Chairman of the Governor's EMS Advisory Council; Norman Pawlewski, Commissioner of Public Health, Iowa State Department of Health; Ronald D. Eckoff, Chief, Division of Community Health, Iowa State Department of Health; and Michael New, Director of Operations, Iowa Regional Medical Program. Without the support of these individuals, successful completion of this project would not have been forthcoming.

Finally, deep appreciation is extended to Robert Carson and Jeane Brush, Advisory Council Staff, for the many hours of work expended on behalf of the Project.

PREFACE

In 1975 highway accidents in Iowa took the lives of 670 persons. Thirty-three thousand more persons were injured--3000 of them being permanently disabled. Major cardiovascular diseases will predictably kill an additional 16,200 persons, in 1975, 50 percent of whom will die before reaching a hospital.* Statistics further indicate that 20 percent of the accidental and coronary deaths could have been prevented if proper emergency medical services had been immediately available to the victims.

The agony and suffering that such tragedies inflict each year upon families across the State are compounded by the knowledge that prompt and adequate emergency care might have enabled many who perished or were permanently disabled to instead lead long and productive lives. Productivity lost annually in Iowa from deaths and permanent disabilities caused by accidents or sudden, acute illnesses amounts to thousands of man-years. The lost of these lives to the victims' families and communities is incalculable.

The State of Iowa is addressing this problem through the *Comprehensive Emergency Medical Services Plan for the State of Iowa*, presented in this publication. The basic purpose of the *Plan* is to provide guidelines for the establishment of regional Emergency Medical Services (EMS) Systems throughout the State. The *Plan* takes into consideration the technical and consultative assistance best provided by the State and provides a framework for the creation of effective EMS systems at the regional and local levels. The *Plan* identifies EMS needs and assists state and local government in EMS planning and development activities.

EMS planning is a continuous process that engages providers and consumers of emergency services in coordinated action to develop sound Emergency Medical Services. The *Plan* will be revised periodically to respond to current state and local EMS needs. Its ultimate goal is to stimulate establishment of a system capable of delivering comprehensive emergency services in an effective manner throughout the State.

The *Plan* was developed by the Governor's Emergency Medical Services Advisory Council in collaboration with the Iowa State Department of Health with the help of a grant from the Iowa Regional Medical Program. The document is based upon the belief that planning for comprehensive emergency medical services must be a cooperative process in which the primary responsibility for operations rests at the local level and involves both providers and consumers of the services.

* Based upon 1974 data - 16,129 fatalities (EMS estimate).

TABLE OF CONTENTS

BACKGROUND AND INTRODUCTION 1

Iowa EMS Activities 2

SECTION I

STATE ORGANIZATION FOR EMS PLAN DEVELOPMENT AND PROGRAM IMPLEMENTATION

Authority 6
Staff Structure 6
Functional Identification and Description 6
Emergency Medical Services Planning Area Identification 6
Advisory Groups 7
Legislation 9

SECTION II

PLANNING INFORMATION

Emergency Medical Services - Resources 10
Ambulance Services 10
Ambulances and Equipment 10
Personnel and Training 10
Hospital Emergency Facilities 11
Communications 12
Consumer Education and Training 13
Evaluation 13
Patient Flow Pattern 13
Description of the Program Area - Demographic Information 14
Population 14
SMSA Table 14
Counties, SMSA, and Selected Places - Map 15
Population Distribution Table 16
Area Characteristics (Roads) 18
High Accident Locations 18
Geographic and Climatic Conditions 18
Iowa Functional Classification Study 19
Statewide Mileage Summary 19
Road System - Map 20
Figure 1 - Nine High-Accident Counties 21
Figure 2 - Traffic Record in Iowa from 1940 to 1974 22
Economic and Social Conditions 23
Other Factors 24

SECTION III

EMS STANDARDS

Organizational 25
Operational 26
Personnel Training 26
Ambulances 27
Rescue Units 28

TABLE OF CONTENTS

Response Time 28
Communications 28
Hospital Facilities 29

SECTION IV

PROGRAM OBJECTIVES

Introduction 31
Identification of Deficiencies and Needs 31
Program Management 31
Regionalization 31
Physician and Other Professional Input 32
Manpower 32
Training 32
Emergency Medical Technician-Ambulance 33
Emergency Rescue Technician 33
Law Enforcement Officer and Fire Fighter 33
Dispatchers 34
Emergency Department Personnel 34
Emergency Medical Care Training 34
Training Program Administration 34
Communications 34
Transportation 35
Facilities 35
Critical Care Units 36
Public Safety Agencies 36
Consumer Participation 36
Accessibility to Care 36
Transfer of Patients 37
Standardized Patient Record-Keeping 37
Public Information and Education 37
Evaluation 38
Disaster Linkage 38
Mutual-Aid Agreements 38
Legislation 38
Cooperation and Coordination Requirements 38
Agencies and Organizations 39
First Level - Advisory Council and Its Task Forces 40
Second Level - EMS Development Group 40
Third Level - Regional EMS Council Review 40
Overall Goal 41
General Goals 41
Specific Objectives 43
Program Objective Priority 47

SECTION V

PROGRAM IMPLEMENTATION

Introduction 49
Description of Methodology for Achievement of Specific Objectives 50
Program Management 50
Regionalization 51

TABLE OF CONTENTS

Physician and Other Professional Input 52
Manpower 53
Training 54
Communications 56
Transportation 57
Hospital Facilities 57
Critical Care Units 58
Public Safety Agencies 59
Consumer Participation 59
Accessibility to Care 60
Transfer of Patients 60
Standardized Patient Record-Keeping 60
Public Information and Education 61
Evaluation 61
Disaster Linkages 61
Mutual Aid 62
Legislation 62

SECTION VI

PROGRAM IMPLEMENTATION SCHEDULE

Program Management 65
Regionalization 66
Physician and Other Professional Input 67
Manpower 68
Training 69
Communication 71
Transportation 72
Hospital Emergency Facilities 73
Critical Care Units 74
Public Safety 75
Consumer Participation 75
Acessibility to Care 76
Transfer of Patients 76
Standardized Record-Keeping 76
Public Information and Education 77
Evaluation 78
Disaster Linkages 78
Mutual Aids 78
Legislation 79

SECTION VII

PROGRAM RESOURCE SUMMARY

Manpower 81
Materials 82
Monies 82
Time 83

SECTION VIII

PROGRAM COMMITMENT SUMMARY

Program Management 84

TABLE OF CONTENTS

Regionalization 84
Professional Input 85
Manpower 85
Training 86
Communications 88
Transportation 89
Hospital Facilities 89
Critical Care Units 90
Public Safety 91
Consumer Participation 91
Accessibility to Care 91
Transfer of Patients 92
Standardized Record-Keeping 92
Public Information and Education 92
Independent Review and Evaluation 93
Disaster Linkages 93
Mutual Aids 94
Legislation 94

SECTION IX

BUDGET SCHEDULE -- FISCAL YEAR 1976 95

SECTION X

EVALUATION

Narrative 96

TABLE OF CONTENTS

APPENDICES

APPENDIX I

STATE ORGANIZATION FOR EMS PLAN DEVELOPMENT AND PROGRAM IMPLEMENTATION

Organizational Chart - ISDH I-A-1
EMS Functional Relationships I-A-2
EMS Regions in State of Iowa I-B-1
Illowa EMS Region I-B-2
Midlands EMS Region I-B-3
EMS Advisory Council Organization and Procedure I-C-1
EMS Development Group Organization and Procedure I-D-1
Existing Legislation from the 1975 Iowa Code I-E-1
Proposed Legislation - Paramedics I-E-20

APPENDIX II

PLANNING INFORMATION

Types of Ambulance Service in Iowa 1968-1975 . . . . . II-A-1
Distribution of New Ambulances Purchased That Meet Minimum
DOT Requirements II-A-2
EMT-A Training Composite September 1971 - August 9, 1975 . . II-A-3
Distribution of EMT-As by County Population II-A-4
Categorized Hospitals in Iowa II-B-1
Communication Plan Copies II-C-1
Rural & Urban Population by Area II-D-2
Proposed EMS Regions (as of 10/22/75) II-D-3
Region A - Northwest II-D-3
Region B - Southwest II-D-4
Region C - Central II-D-5
Region D - Northeast II-D-7
Region E - Southeast II-D-8
Region F - East Edge II-D-9
Statistical Summary-Personal Injuries-Fatalities Data II-D-10
Counties With Combines (Weighted) Fatality & Injury Rates II-D-11
Physician Survey - Iowa 1972 . . . . II-E-1
(Number & % of Physicians in Private, Specialty, etc.
Number Physicians, Number Retired, By County II-E-2
Number & Average Age Physicians, Private Practice, by County. II-E-3
Number Physicians by Type of Practice & Geographic Division . II-E-4

APPENDIX III

EMS STANDARDS

Basic ERT Course Copies III-A-1

ABBREVIATIONS

C-MED . . . . Communication-Medical Emergency Dispatch

DHEW . . . . Department of Health, Education, and Welfare

DOT . . . . Department of Transportation

EMS . . . . Emergency Medical Services

EMSCS . . . . Emergency Medical Services Communication Systems

EMT-A . . . . Emergency Medical Technician-Ambulance

ERT . . . . Emergency Rescue Technician

GEMSAC . . . . Governor's Emergency Medical Services Advisory Council

HEW . . . . Health, Education, and Welfare

ICU . . . . Intensive Care Unit

IHA . . . . Iowa Hospital Association

IRMP . . . . Iowa Regional Medical Program

ISHD . . . . Iowa State Health Department

IV . . . . Intravenous

LPN . . . . Licensed Practical Nurse

MEDIHC . . . . Military Education Directed Into Health Careers

OCHP . . . . Office of Comprehensive Health Planning

RN . . . . Registered Nurse

UHF . . . . Ultra High Frequency

US . . . . United States

VHF . . . . Very High Frequency

BACKGROUND AND INTRODUCTION

Emergency medical service has been designated as one of the nation's top health priorities. Several federal agencies have individually increased their efforts to assist in developing or improving local and regional emergency medical service (EMS) systems throughout the nation. National concern regarding EMS has prompted passage of federal legislation to deal on a long-term basis with the complex matter.

In Iowa, the importance of having an effective emergency medical service system has been well documented as illustrated in the February 1974 Report of the Hospital Emergency Facilities Task Force of the Governor's EMS Advisory Council.

> Nationally, accidents are the leading cause of death among persons of ages one through 37; and overall, the fourth leading cause of death. Motor vehicle accidents lead all other accidental causes of death among persons in the U.S. under age 75. In fact, of slightly more than 6.5 million accidental deaths that have occurred in the U.S. since 1903, motor vehicles were responsible for 1,690,000--26 percent.[1]

Out of the 117,000 U.S. accidental death toll in 1973, motor vehicles caused 55,000 of the deaths compared to only 14,200 caused by work accidents. Until recently, deaths from traffic accidents have shown a steady upward trend. Of all accidental deaths in the United States, nearly half result from motor vehicle injuries.

Each year one of every four Americans suffers some form of accident or injury. Children are especially vulnerable to traumatic injury and death. Each year, more than 15 million children are injured and 16,000 die in accidents, the highest incidence of mortality reaching its peak between two and three years. The Task Force report addressed itself to the appalling emotional and economic consequences of trauma resulting from accidental death and injury in the following manner.

> Compounding the tragedy for which accidental deaths are responsible is the knowledge that trauma kills thousands of the victims who otherwise might survive to enjoy long and productive lives. The productivity lost annually due to accidental deaths amounts to millions of man-years. The labor loss from disabilities caused by accidents each year adds up to a similarly awesome statistic. Preventing the human suffering and financial loss that accidental death and disability cause together poses a staggering public health problem. Permanent impairment was caused by 400,000 of 10.5 million disabling injuries suffered in the U.S. in 1965. Aggregating the $18 billion total cost of accidents in that year were the following expenses expressed in billions: wage losses, $5.3; medical expenses, $1.8; administrative and claim settlement costs, $3.6; property loss in fires, $1.4; property loss caused by motor vehicles, $3.1; indirect costs of work accidents, $2.8.[2]

---

[1] *REPORT ON A PROGRAM to CATEGORIZE Emergency Medical Service Facilities in Iowa Hospitals*, Facilities Task Force of the Governor's Emergency Medical Service Advisory Council for The State of Iowa, February 15, 1974.

[2] ibid.

In Iowa, accidents are the leading cause of death from age one through age 44 while heart disease is the leading cause after age 44. Accidents account for approximately 40 % of all deaths in children aged 1 to 4, 50% of all deaths in children aged 5-14, 50% of all deaths in the 15-24 year age group, and 25% of deaths in the 25-44 year age group. Heart disease accounts for approximately 23% of all deaths in the 25-44 year age group, 34% of all deaths in the 45-54 year age group, 50% of all deaths in the 55-64 year age group, and 60% of all deaths in the 65-84 year age group. These figures illustrate the importance of developing comprehensive emergency medical service systems throughout the State capable of providing immediate care to the acutely ill or injured. Seventy-one percent of the State's population reside in non-metropolitan areas, illustrating the importance of developing emergency medical service capacity in the rural areas of the State.

Iowa EMS Activities

Many health-related groups in Iowa have for the past four years been cooperatively studying and endeavoring to improve emergency medical services in the State. A two-day statewide conference on EMS was held in October 1971. The conference was planned and conducted by the Iowa Regional Medical Program, the Iowa Office for Comprehensive Health Planning, the Iowa State Health Department, and the University of Iowa Program in Health Occupations Education. Several health-related organizations--including the Iowa Medical Society and the Iowa Hospital Association--participated in the conference and have contributed greatly to progress that has since been achieved.

The objectives of the conference were as follows:

1. To underscore EMS needs (or concerns) in Iowa;
2. To make recommendations for planned action;
3. To nominate persons for the Governor's consideration as appointees to a Statewide EMS Advisory Council.

Governor Robert Ray's appointment of members to comprise the Advisory Council in December of 1971 represented achievement of an objective set forth at the EMS conference. The Council was charged to:

1. Survey emergency medical resources available in Iowa.
2. Make recommendations regarding ambulance services, EMS manpower training programs, EMS facilities, communications systems and supportive legislation.
3. Serve the State Health Department and Office of Comprehensive Health Planning (OCHP) in an advisory role in the development of a statewide EMS program.
4. Provide review and comment on Hill-Burton requests pertaining to emergency facility improvements.
5. Serve as a catalyst in effecting cooperative arrangements to improve and best utilize emergency medical resources in Iowa.

Representatives from the following organizations and interests comprised the 15-member EMS Advisory Council: Iowa Medical Society, Iowa Nurses Association, Iowa Department of Public Safety, Division of Civil Defense, hospital administration, academic community, consumers, Trauma Committee-Iowa Chapter of the American College of Surgeons, ambulance services, State Department of Health, State Department of General Services, Iowa Hospital Association, and the Fire Service Extension Program.

The EMS Advisory Council initially established the following task forces to address

specific problem areas and to respond to recommendations made at the October 1971 conference: Ambulance Service Operations, Emergency Personnel and Training, Communications, and Hospital Emergency Facilities.

The Ambulance Service Organization and Operations Task Force has drafted and promoted legislation to regulate ambulance services. Such legislation has not been passed by the Iowa General Assembly, but the outlook for the next session is favorable. The Task Force has also devoted attention to consideration of ambulance vehicle design and equipment and is experimenting with a standard ambulance patient form.

The Task Force on Emergency Personnel and Training undertook to develop standards fixing the level of competency that should be required of personnel staffing ambulances and hospital emergency rooms. The Task Force has examined the adequacy of existing curricula designed to teach competencies to EMS personnel. The Task Force reviews and comments on curricula and course content developed through the Statewide EMS Training Program.

The Communications Task Force undertook the complex and challenging task of studying and making recommendations regarding the emergency communications system in Iowa. The Iowa State Department of Health received a grant from the U.S. Department of Transportation to conduct a statewide emergency communications study in cooperation with the Communications Task Force. The study was contracted to Spectra Associates of Cedar Rapids. The final product, "An Emergency Medical Services Communications Plan for the State of Iowa," was submitted to the State Health Department by Spectra Associates in February 1973. The Plan was subsequently adopted by the State EMS Advisory Council.

The Communications Plan is intended as a guide for the development of an emergency medical services communications system for the State. Central to this proposed system is the development of regional emergency communications networks. The regional focus of the Plan emphasizes direct radio communications among hospitals, ambulances, and law enforcement agencies.

The Hospital Emergency Facilities Task Force was assisted by the Iowa Hospital Association and the State Health Department in the development of a mechanism for categorizing emergency medical facilities in Iowa. The Iowa Regional Medical Program provided funds and staff assistance for the actual categorization of emergency facilities, which was completed in the fall of 1973. The final report was made by the Task Force in February 1974.

A second statewide EMS conference was held in March 1974 to report to Iowans interested in EMS specific progress and problems experienced by the EMS Advisory Council and the many health organizations cooperating in the efforts of the Council. As a result of that meeting, it became readily apparent that certain kinds of EMS activities are best conducted at the state level. Technical assistance in developing programs is most effectively and efficiently offered to local or regional groups through a statewide program.

In October 1974, the Iowa Regional Medical Advisory Group approved for funding Component I of a Statewide Emergency Medical Services Program sponsored by the Advisory Council in cooperation with the Iowa State Department of Health. The Council utilized the funds to hire an EMS planner to develop a comprehensive state EMS plan, to assist areawide health planning agencies with EMS planning activities, and to provide administrative staff services to the Council and its task forces. A second component, sponsored by the IHA, was approved by the Iowa Regional Advisory Group in December 1974 and provided funds to explore the possibility of collecting, processing, and dis-

seminating information pertaining to emergency outpatients and facilities, utilizing techniques developed by the Iowa Hospital Association in establishing its Health Services Data System.

In February 1975 two additional task forces were established by the Advisory Council. A Public Information and Education Task Force was organized to increase public awareness of the magnitude of the problem resulting from trauma or acute illness. A Project Review and Program Evaluation Task Force was organized to review projects and develop ongoing evaluation techniques for measuring the impact of state and regional EMS programs in reducing morbidity and mortality resulting from trauma or acute illness. An Operations and Procedures Committee was also organized to assist the Council in reviewing its internal organization and administration so that it can better serve the people of Iowa in upgrading the State's emergency medical care delivery system. Finally, a Steering Committee for Plan Development consisting of the Advisory Council Chairman, Vice-Chairman, and the six task force Chairmen was formed to coordinate Council EMS planning and development activities.

The Iowa State Department of Health has a multi-faceted EMS Program funded primarily by the Governor's Highway Safety Program. Through this program, over 3400 students have completed EMT-A training, all Iowa Highway Patrol troopers and some local policemen have completed an emergency care course for law enforcement personnel, and a basic emergency rescue technician course has been developed and field tested. Over 65 ambulances have been purchased for local jurisdictions with funding assistance from this program, and many additional jurisdictions have had guidance in the purchase of ambulance vehicles and equipment. Over 55 ambulance radios have been purchased for existing ambulances with funding assistance. Many communities, counties, and regions have been assisted in planning their ambulance services, rescue services and communications systems.

Progress has been made at both the state and local level in improving emergency medical services. Statewide activities are being coordinated through the Section of Emergency Medical Services with policy recommendations from the EMS Advisory Council. Local and regional activities are being planned and coordinated in several areas of the State by committees of local comprehensive health planning councils. Two of the councils, the Health Planning Council of Central Iowa (Des Moines area) and the Hoover Health Planning Council (Cedar Rapids-Iowa City area), have received funding assistance, from the Robert Wood Johnson Foundation and the Iowa Regional Medical Program respectively, to develop regional EMS communications systems. In addition, the Siouxland and Lakes Area Health Planning Councils have received a grant from the Department of Health, Education, and Welfare to plan for the establishment of an EMS Region in Northwest Iowa. The Health Planning Council of the Midlands has also received funds from DHEW for the establishment of a State EMS region serving western Iowa and eastern Nebraska.

Grant funds have also been received from the U.S. Department of Health, Education, and Welfare by the Iowa State Department of Health to develop and conduct training programs for physicians and nurses, and to purchase equipment to use as training aids in EMS training programs. In addition, a planning grant has been awarded to the Iowa State Department of Health by DHEW to conduct feasibility studies for the development of a statewide EMS program. For the msot part regional EMS efforts to date have been concerned with generating local interest and cooperation with initial EMS planning activities. A significant problem for local groups has been that of finding ways to organize and finance comprehensive programs that meet the emergency medical service needs of its resident and transient populations. Local attempts at developing emergency medical service systems to serve the needs of area residents have often been concentrated

on only a few of the EMS system components rather than on a total systems approach. Often the financial resources of the areas have been insufficient to develop and sustain a total EMS systems operation.

It has become apparent that the EMS Section of the Iowa State Department of Health in conjunction with the Governor's EMS Advisory Council must provide the leadership and technical assistance in developing EMS regions throughout the State capable of utilizing total systems resources to meet the total EMS needs of the area. There is a need for the State Program to assist regions in coordinating the EMS system with the total health care delivery system for the region in order to maximize available medical resources for total emergency medical care, and to assist in developing mutual aid agreements for care of critically ill or injured patients entering the system. There is a need for the State Program to provide technical assistance to regions in training, communications fiscal management, and data processing. Finally, the State Program must concern itself with developing standards for EMS care and assigning priorities for funding to regions in accordance with the demonstrated capacities at addressing a total emergency medical service systems approach, utilizing all system components with emphasis on delivery of services to those critically ill or injured patients suffering the initial effects of acute illness or injury.

There is in essence a need to establish viable EMS regions in Iowa capable of providing essentially all definitive emergency medical care for most critically ill or injured patients. There is also a need to plan and implement state coordinative services to these regions.

I. STATE ORGANIZATION FOR EMS PLAN DEVELOPMENT AND PROGRAM IMPLEMENTATION

A. AUTHORITY

The Governor is responsible for the development of Iowa's EMS System and has appointed the State EMS Advisory Council to recommend policy for the State's EMS Program. Operational responsibility for this program has been assigned to the Commissioner of Public Health. The Commissioner established the Section of Emergency Medical Services within the State Department of Health's Division of Community Health Service in April 1971 to conduct the State's Emergency Medical Services Program.

The Director of the Section of Emergency Medical Services is responsible for the administration and operational functions of the State's EMS Program. The Director reports to the Chief of the Division of Community Health who provides overall medical and administrative supervision to the Section of Emergency Medical Services.

B. STAFF STRUCTURE

An organizational chart illustrating functional relationships for the State EMS Program is enclosed as Appendix I-A.

C. FUNCTIONAL IDENTIFICATION AND DESCRIPTION

The Governor has assigned responsibility for the development, coordination, implementation, and evaluation of the State's EMS Program to the Commissioner of Public Health. The Director of the Section of Emergency Medical Services has been delegated these responsibilities through the Chief of the Division of Community Health. The Director supervises the activities of the Section of Emergency Medical Services and acts as lead staff member for the Governor's Emergency Medical Services Advisory Council.

The Iowa State Department of Health through its Section of Emergency Medical Services is responsible for the establishment of a statewide system that will expedite and facilitate delivery of emergency medical services within the State. The Governor's EMS Advisory Council serves in an advisory capacity to the Iowa State Department of Health in the development of the State's emergency medical service system.

D. EMERGENCY MEDICAL SERVICES PLANNING AREA IDENTIFICATION

The Iowa State Office for Planning and Programming initially divided the State into sixteen regions for planning purposes. The boundaries established for areawide health planning by the Comprehensive Health Planning Agencies generally coincided with those established by the Office of Planning and Programming. Initial planning for emergency medical services in Iowa was developed in conjunction with the areawide Health Planning Councils. At the present time, all but one of the areawide Health Planning Councils have functioning EMS Councils. With the passage of the EMS Act of 1973 (Public Law 93-154) federal guidelines were established for the creation of EMS regions geographically delineated by existing patterns of patient flow, and having sufficient resources and financial support to maintain an EMS system capable of handling 95% of the emergency medical service needs of the region. At the same time, practical considerations make it imperative that the EMS regions approximate, wherever possible, the

boundaries created by the readjustment of health planning areas created in accor-with implementation of the National Health Planning and Resources Act (Public Law 93-641). The Governor's EMS Advisory Council developed preliminary alternatives for the delineation of emergency medical service regions for Iowa based on geographic patterns of patient flow, natural catchment, referral and treatment patterns, and location of primary, secondary, and tertiary treatment facilities. Resource materials reviewed included a patient origin study sponsored by the Iowa Hospital Association and a treatise entitled, A *Proposed Organizational Structure For Providing Health Services and Medical Care in the State of Iowa*, by John C. MacQueen, M.D., Associate Dean of the College of Medicine, University of Iowa, and Eber Eldridge, Ph.D., Professor, Department of Economics, Iowa State University. The Iowa Hospital Association study was an in-depth analysis of patient referral and flow patterns undertaken in September 1973. Data on residence of hospitalized patients was obtained both from hospitals in Iowa and neighboring hospitals in adjacent states. The MacQueen-Eldridge report resulted from a detailed demographic study of the population of Iowa in terms of a proposed health care delivery system designed to provide comprehensive health care. The proposed organization structure provides a basis for planning health services for Iowa citizens, utilizing a stratified health care delivery system in which care is provided at the primary, secondary, and tertiary level. The latter study has been approved as a concept by the Health Manpower Committee of the Iowa Comprehensive Health Planning Council.

All of the alternative proposals for emergency medical service regions developed by the Council essentially met criteria for referral and treatment patterns as illustrated by natural patient flow to primary, secondary, and tertiary levels of care provided in the respective regions. Natural patient flow as illustrated by the Iowa Hospital Association study is both intra- and inter-state and occurs predominantly in a north to south pattern for those areas of the State north of centers providing secondary and tertiary services and, conversely, south to north for those areas south of such centers.

Natural catchment, referral, and treatment patterns for the general emergent and critically ill or injured EMS patient would appear to follow lines of patient flow established by the Iowa Hospital Association study and the MacQueen-Eldridge report. However, an exact indication of EMS patient flow will not be possible until a statewide emergency medical service data system is established.

Utilizing available patient flow studies and natural catchment and referral patterns, the Governor's EMS Advisory Council developed six EMS administrative planning regions as illustrated in Appendix I-B. The boundaries established by the Governor's EMS Advisory Council generally coincide with those being established by the proposed Health Systems Agencies. Where differences do occur, joint planning by the affected subareas will be required.

E. ADVISORY GROUPS

Established in December of 1971, the Governor's EMS Advisory Council conducted its organizational meeting on February 22, 1972. Four regular meetings are conducted every year. In addition, special meetings are conducted at the call of the Chair. The six Task Forces and three related subcommittees meet approximately once every other month to study problems and make policy recommendations concerning manpower and training, public information and education, ambulance

service organization and operation, communications, program evaluation, hospital emergency facilities, legislation, and administrative procedures. (See Bylaws, Appendix I-C.)

The members of the Council and its Task Forces represent governmental, medical, and paramedical disciplines as well as the business community and the consumer. Current membership is representative of the following agencies and/or groups.

Iowa Medical Society
American College of Surgeons, Committee on Trauma - Iowa Chapter
American College of Emergency Physicians - Iowa Chapter
Emergency Department Nurses Association
University Hospitals and Clinics - State University of Iowa
Iowa Hospital Association
Iowa Ambulance and Rescue Association
Iowa Fireman's Association
Area College Health Occupations Coordinators
Consumers
Areawide Health Planning Council representation
State Agencies:
- Department of General Services, Division of Communications
- Department of Public Safety
- Department of Public Instruction
- Department of Public Defense, Division of Civil Defense
- Office for Planning and Programming
- Office of Comprehensive Health Planning
- Iowa State University, Fire Service Extension
- Department of Health

As illustrated previously, the Advisory Council together with Task Forces and related subcommittees become involved in many EMS activities including:

a. Recommendations for and review and approval of State's Comprehensive EMS Plan
b. Development of EMS legislation
c. Guiding the develoment of the State EMS Communications Plan
d. Review of grant proposals for DOT, HEW, IRMP, and Robert Wood Johnson Foundation
e. Review and comment regarding EMS Training Program
f. Development and Implementation of the Emergency Department Categorization Plan
g. Co-sponsoring Statewide EMS Conferences
h. Development of Statewide EMS Standards.

Areawide EMS Advisory Councils have been active in the development of areawide EMS program activities. Members of existing areawide EMS Councils will play an integral role in coordinating emergency medical services within their respective regions. The Governor's EMS Advisory Council will provide guidance to its EMS regions in the development of EMS Systems.

To provide effective liaison between the State EMS Advisory Council and the areawide EMS Councils, a sixteen person committee was created. Known as the EMS Development Group, this organization consists of an appointed representative from each of the 16 areawide health planning councils. A copy of the organization's bylaws is enclosed as Appendix I-D. Meeting approximately every two months,

this group had as its initial purposes the following items:

a. Identification and appointment of a local resource person to assist statewide agencies in the planning and implementation of the State EMS Plan.
b. Provide appropriate input to the Governor's EMS Advisory Council's Task Forces
c. Provide a forum for education of the members through sharing of ideas and information.
d. Promote the development of areawide EMS Councils and the design of areawide EMS Plans.
e. Provide liaison between the areawide EMS Councils, OCHP, and the Governor's EMS Advisory Council.
f. Promote standardization of EMS Systems.
g. Promote the development of appropriate EMS legislation.
h. Provide community education.

With the recent changes in health planning format, it is anticipated that this group will continue to provide a vital function in serving in a liaison capacity with the State EMS Program on behalf of the Regional EMS Advisory Councils.

F. LEGISLATION

Iowa does not have comprehensive legislation covering emergency medical service systems. With the exception of general legislation covering the operation of all emergency vehicles (fire, police, ambulance and other emergency vehicles) the only current legislation provides for:

1. A good Samaritan act which covers only those rendering "emergency care or assistance without compensation..."
2. Authorization for cities, counties, or county hospitals to operate or contract for ambulance services.
3. Authorization for the use of National Guard helicopters as ambulances.

Several different versions of a bill to provide for the establishment of standards for ambulance services have been introduced in the Iowa Legislature since 1971. A bill to provide for an amendment in the Medical Practices Act to allow specially trained EMT-A's to perform certain advanced emergency care techniques under the direction of a physician has also been prepared. It is anticipated that both of these measures will be considered by the current legislature during its 1976 session.

The pertinent sections of the Iowa Code pertaining to existing legislation are listed below:

1. Authorization for Cities to Operate Ambulance Services 368.74 (Repealed)
2. Authorization for Counties to Operate Ambulance Services 332.3(23)
3. Authorization for County Hospitals to Operate Ambulance Services 347.16(13)
4. Authorization for National Guard to Provide Emergency Helicopter Ambulance 29A.79
5. Good Samaritan 613.17.

All legislation now existing or currently proposed is contained in Appendix I-E.

II. PLANNING INFORMATION

A. EMERGNECY MEDICAL SERVICES - RESOURCES

Ambulance Services. As of September 1, 1975 there was a total of 316 ambulance services in the State operating at 339 sites. This included 37 county-wide systems. Ambulance services are currently provided by 42 hospitals, 30 funeral homes, 32 private operators, 93 fire departments, 113 ambulance departments, and 6 police departments. Excluding hospital-based and private units there are 166 volunteer services, 29 services provided by county governmental units, and 17 services provided by other governmental units. From 1968 through August 1975 there was a decrease of 133 ambulance service operations. Two hundred forty funeral homes left the ambulance business during the seven-year interval. During that same time period, increases were observed for volunteer ambulance services separate from volunteer fire departments and hospital-based ambulance services. Appendix II-A illustrates the changes in the types of ambulance service since 1968.

Most private hospital and government-operated ambulance services charge for their services. Volunteer units quite frequently do not charge but accept donations and have annual fund drives. Almost all private operators operate under a contract with one or more governmental agencies for which a monthly or yearly subsidy is paid. While fees for service vary greatly, the average charges across the State appear to be $30 per patient plus $1 per mile outside the immediate area. Additional charges for oxygen, dressings, and other supplies are sometimes made.

Ambulances and Equipment. Since 1970, 185 ambulances meeting DOT specifications have been purchased throughout the State. Sixty-eight of these ambulances were purchased with the assistance of the Governor's Highway Safety Program funds.

A breakdown of the above vehicles by type is as follows:

Type	Description	Number
Type I	(Modular)	31
Type II; III	(Modified specialty vans)	89
Type IV	(Limousine)	46
Type V	(Standard van)	19
		185

Appendix II-A illustrates distribution of new ambulances purchased that meet minimum DOT requirements.

A survey is currently being prepared by the EMS Section which will obtain comprehensive information concerning personnel, training, ambulances, and related equipment. The survey will be implemented during the Fall of 1975 and will be updated annually.

A total of 62 communities have received Governor's Highway Safety Program funds for medical and communications equipment for use in ambulance and rescue units through the EMS Program administered by Iowa State Health Department. A total of 187 ambulance and rescue units have, have on order, or, are in the process of purchasing radios on the EMS Communications System.

Personnel and Training. Since 1971, statewide EMS training activities have been developed and coordinated by the Section of EMS. Courses currently being con-

ducted under the supervision of the Section include the following:

1. Basic Emergency Medical Technician-Ambulance Course (100 hours)
2. Basic Emergency Rescue Technician Course (60 hours)
3. Basic Emergency Care for Law Enforcement Officers (24 hours)
4. Crash Injury Management (40 hours)
5. Ambulance Orientation and Crash Simulation (8 hours)
6. Continuing Education Programs for EMT-A's
7. Continuing Education Programs for Law Enforcement Officers.

All students enrolled in the above courses are tested and certified by the Section.

Additional emergency care courses are being developed in cooperation with various agencies and committees. The training courses being developed include:

1. Basic Course in EMS Communications
2. C-MED Dispatcher Training
3. Emergency Medicine for Physicians
4. Emergency Medicine for Physicians
5. Emergency Health Care Delivery Seminars.

Special workshops are conducted to train and/or inform various groups. Since September 1974 eleven workshops have been conducted for Area College Health Occupation Coordinators, EMT-A Course Coordinators, EMS Training Coordinators, Rescue Instructors, and administrative personnel from hospitals operating ambulance services.

The EMS staff has actively participated in the development and coordination of the Basic Life Support (BLS) program initiated by the American Heart Association. Staff persons have assisted in BLS instructor-training programs and through grants from DHEW and Governor's Highway Safety Program, the Section has purchased twenty recording-annes, four resusci-annes, four anatomic-annes, and seventeen resusci-babies for use in all of the EMS training programs.

Through August 1975, 174 EMT-A clases were conducted through the Statewide EMS Training Program. Initial enrollment in these courses totaled 4,277. Of this number, 3465 individuals completed the course. Of those individuals completing the course, 3,013 or 88% passed the Iowa EMT-A Certification examination. While there are some ambulance personnel who have not completed the EMT-A course, most of these individuals have completed at least the Red Cross Advanced First Aid Course. Appendix 11-A provides information pertaining to distribution of EMT-A trained personnel.

Hospital Emergency Facilities. In 1973 each of the 140 hospital emergency departments was visited by an evaluation team in preparation for completion of the emergency department categorization program.

Results of the categorization survey indicated that the hospitals that meet the categorization criteria are not evenly distributed throughout the State. The frequency distribution of hospitals by categorization criteria currently is as follows:

Comprehensive Emergency Service -- 1 (University of Iowa Hospitals and Clinics - Iowa City)

Regional Emergency Service - Type A -- 12
Regional Emergency Service - Type B -- 16
Community Emergency Service -- 71
Immediate Aid Outpatient Service -- 40

The distirbution of hospital emergency facilities by area is outlined in Appendix 11-B.

The critieria established for the categorization process is also outlined in Appendix 11-B.

Communications. The Emergency Medical Services Section of the State Department of Health used Governor's Highway Safety Program funds to contract with an engineering firm to develop an EMS Communications Plan that would provide easy access by citizens, reduce ambulance and rescue unit response time, reduce the duplication of emergency unit response to medical emergencies; at the same time provide direct communications between ambulances and all responding units as well as hospitals, physicians, and a cnetral dispatch center. The Communications Plan was formally recommended for approval as the communications component of the State EMS Plan in February 1973. (See Appendix 11-C.)

The following frequencies are assigned for EMS Communications in the State of Iowa.

Com	155.340 MHz	Statewide/Nationwide EMS common calling frequency
Ops	155.XXX	Regional resource coordination center operational frequency
PTP	155.280 MHz	Statewide EMS interagency coordination channel (point to point)
AID	155.475 MHz	Statewide/Nationwide Public Safety Mutual Aid frequency

The Governor's EMS Advisory Council in May 1975 recommended to the Iowa State Department of Health for approval regional radio frequencies and subaudible tones in order to eliminate interference and intermodulation problems present under original assignments.

As of August 1974, 21 hospitals had or were establishing base stations with 155.340 MHz capabilities. Nine additional hospitals had base stations or remotes on EMS frequencies other than 155.340 MHz. As of March 1975, 45 ambulance services had 63 Emergency Medical Service Communications System radios transmitting on 1-5.340 MHz. Thirteen rescue units had such radios also transmitting on 155.340 MHz. Ten ambulance services had 15 radios transmitting on frequencies other than 155.340 MHz.

At the present time State patrol and local law enforcement radio systems are being converted to high-band systems. With the completion of the implementation of the four public safety communication systems (Iowa Highway Patrol, Local Law Enforcement, Fire EMS) on VHF high-band frequencies, the various public safety services will be on separate but compatible systems, linked together with a common high-band VHF mutual aid frequency. (155.475 MHz.)

The State EMS Communications Plan proposes the establishment of management agency resource coordination centers (C-MED) which will serve as a center for regional emergency medical service communications. The State EMS Communications Plan advocates access to the system through a seven-digit telephone number serving the free calling area of the communities in which the EMS Communication Centers are located or dial "0" in all communities outside of the free call area served by an EMS Communications Center. This access is intended as an interim step only until 911 is implemented.

Five Iowa cities have implemented 911 systems and two other cities are currently in the negotiation stages. The Department of General Services Division Communications Staff recommends implementation of 911 systems statewide. The Division has prepared a preliminary draft of 911 systems standards and planning guidelines for presentation to the Governor's EMS Advisory Council.

The Governor's EMS Advisory Council is currently studying UHF-VHF system interface. Major metropolitan areas are considering implementation of telemetry systems on UHF.

Consumer Education and Training. The number of ambulance services ceasing operation has generated much citizen interest and resultant press coverage. Discussions held in local communities while planning new services have created a means of educating the public to the requirements of an EMS system. The EMS Section has disseminated information concerning the program through news releases, displays at conventions, fairs, workshops, participations in meetings at the local level, and mailings to various agencies. News coverage of graduating EMT-A classes, disaster drills, and fund drives for new equipment have provided additional opportunities for distributing information regarding emergency medical services to the consumer. The Public Information and Education Task Force of the Governor's EMS Advisory Council has been organized to assist in developing a coordinated effort in the State to educate the consumer in gaining access to and the proper use of an emergency medical services system. Training of the public is provided through first aid and allied courses conducted by the American Red Cross.

Evaluation. The Governor's EMS Advisory Council's Project Review and Program Evaluation Task Force reviews and comments on all EMS project requests for State and federal funding and submits recommendations to the Council for approval or disapproval. Specific components of individual projects are submitted to various Task Forces having expertise for review. Staff emphasis is being placed on developing a total systems evaluation process.

While lack of staff and inadequate funding have prevented development of sophisticated data collection and analysis capability, surveys are being developed to provide baseline data for evaluation of EMS systems design in Iowa.

Patient Flow Pattern. In Iowa an individual requiring emergency medical care because of sudden acute illness or injury enters the EMS System following a call to local police, fire, or ambulance department. In case of accident involving personal injury, ambulance and police are dispatched. On arrival at the scene, the patient is evaluated, extrication and/or emergency care is given and the patient is transported to the hospital of his or her choice. If communication is available the hospital is notified of the patient's condition and expected time of arrival. On arrival at the hospital the patient is evaluated by medical staff and care provided.

B. DESCRIPTION OF THE PROGRAM AREA - DEMOGRAPHIC INFORMATION

Population. In 1970, Iowa had a total population of 2,824,376 which represented a 2.4 percent increase in population over the 1960 census population (2,757,537). Of the total population, 8.3 percent were under 5 years, 28.6 percent were under 15 years and 12.4 percent were 65 years of age or older. In 1970, Polk County was the most populous county (286,101) and Adams County the least populated (6,322). Fifty percent of the State's population lived in only 15 counties. There are seven metropolitan areas of the State which have a population of 50,000 people or more. The State has a total of 807,764 persons living in urban areas of the State (areas of 50,000 or more population). This comprises approximately 30 percent of the State's population with the other 70 percent living in rural areas of less than 50,000 population.

The urban distribution of the State's population is concentrated in the State's seven standard metropolitan statistical areas, three of which are interstate in nature. The map on the following page indicates the location of the standard metropolitan statistical areas in Iowa.

A total of 807,764 persons or 28.6 percent of the State's population reside inside standard metropolitan statistical areas. A total of 2,016,612 or 71.4 percent of the population reside outside standard metropolitan statistical areas.

The seven areas of the State designated as standard metropolitan statistical areas in the 1970 census report are as follows:

	SMSA Population	Urbanized Area Pop.
Cedar Rapids (Linn County)	163,213	132,008
Davenport, Ia.; Rock Island, Moline, Il. (Scott County, Ia.; Henry & Rock Island Counties, Il.)	362,638	266,119
Des Moines (Polk & Warren Counties)	286,101	255,824
Dubuque (Dubuque County)	90,609	65,550
Omaha, Ne.; Council Bluffs, Ia. (Pottawattamie Co., Ia.; Douglas & Sarpy Co., Ne.)	540,142	491,776
Sioux City, Ia. (Woodbury Co., Ia.); Dakota Co., Ne.	116,189	95,937
Waterloo (Black Hawk Co.)	132,916	112,881

Counties, Standard Metropolitan Statistical Areas, and Selected Places

LEGEND

- ⊙ Places of 100,000 or more inhabitants
- ● Places of 50,000 to 100,000 inhabitants
- □ Central cities of SMSA's with fewer than 50,000 inhabitants
- ○ Places of 25,000 to 50,000 inhabitants outside SMSA's

Standard Metropolitan Statistical Areas (SMSA's)

Comparison of distribution of Iowa's population during the past 70 years indicate a greater proportion of the population in the 65 and older age groups in recent decades. This is especially true of the 75 and older portion of the population. Age distribution of Iowa's population in 1970 compared to 1960 is as follows:

	Population		Percent Distribution	
	1970	1960	1970	1960
Total (Both Sexes-All Ages)	2,824,376	2,757,609	100.0	100.0
Under 5 years	233,212	307,214	8.3	11.1
5 to 9 years	280,101	291,819	9.9	10.6
10 to 14 years	293.440	258.819	10.4	9.4
15 to 19 years	273,475	202,940	9.7	7.4
20 to 24 years	203,691	155,335	7.2	5.6
25 to 29 years	167,505	151,804	5.9	5.5
30 to 34 years	147,263	165,052	5.2	6.0
35 to 39 years	141,941	170,193	5.0	6.2
40 to 44 years	154,955	164,912	5.5	6.0
45 to 49 years	158,126	157,392	5.6	5.7
50 to 54 years	152,726	145,111	5.4	5.3
55 to 59 years	140,549	134,918	5.0	4.9
60 to 64 years	127,099	124,343	4.5	4.5
65 to 69 years	107,701	114,360	3.8	4.1
70 to 74 years	92,860	91,380	3.3	3.3
75 years and over	149,732	122,017	5.3	4.4
Median Age	28.8	30.3		

Further population information is provided in Appendix II-D.

There are approximately 2,904 physicians in Iowa. Two counties, Johnson and Polk, have 419 (14.4%) and 440 (15.1%) physicians respectively. Black Hawk, Linn, Scott and Woodbury counties each have more than 100 physicians. These six counties have 48.4% of all the physicians in Iowa.

There are 1,609 (55.4%) physicians (excluding 11 semi-retired physician specialists) who are specialists. Of these physicians, 57% (917) are certified by a specialty board, 21.3% (342) are eligible for certification and the remaining 350 physicians are general practitioners who limit their practice.

There are 2,769 active physicians of whom 14.2% (194) are 65 years of age and above and 10.7% (297) are under 35 years of age. Of the physicians in specialty practice (1,620, including 11 semi-retired physicians), 9.1% (147) physicians are 65 years of age and above as compared to 21.4% (247) of general practitioners. Physicians under 35 years of age for the two groups total 13.0% (210) and 7.6% (87), respectively. There are very few (4.4%) specialty physicians under 35 years of age in private practice, probably because of the time required for residency or because they began their residency after a period of general practice. Of the general practitioners in private practice, there are 7.4% (82) under 35 years of age. Also, 21.3% (236) of general practitioners in private practice are 65 years of age and above compared to 10.9% (123) of specialists. There are 936 specialists in private practice in the age group of 35-64 as compared to 764 general practitioners.

Of the 2,904 physicians in Iowa, 77.3% (2,244) are in private practice, 18.1% (525) not in private practice, and 135 retired from practice. Physicians not in private practice include administrators, physicians in State and federal institutions, residents, researchers and teachers. Polk County has 74 physicians not in private practice and Johnson County, home of the University of Iowa Medical School, has 352 physicians. The remaining 99 physicians who are not in private practice, are mostly in counties where State institutions are located.

Of the physicians in private practice, 48.1% (1,079) are general practitioners and 50.4% (1,131) are in specialty practice. The latter are concentrated in 18 counties. These counties have 89.5% (1,013) of all specialists. Further, the counties with the largest concentration of specialists have 42.5% of the general practitioners. The counties with a concentration of physicians in specialty practice have 53% (1,499,276) of the total population and several large hospitals.

Population-physician ratios are used as an index of the availability of physician services. A population-physician ratio of 1500:1 is considered accessible to physician services, and any upward departure from this ratio as not readily accessible to physician services.

The population-physician ratios were computed using the 1970 population and the physicians in private practice for each county. Of the 99 counties, 9 counties have a ratio of less than 1000:1, 28 counties have a ratio between 1000-1500:1, 31 counties have a ratio of 1500-2000:1, and 31 counties have a ratio of above 2000:1. The counties were classified using a modified criterion excluding physicians 65 years of age and above. According to this criterion, 23 counties had a population-physician ratio of less than 1500:1, 4 counties between 1500-1600:1, and 72 counties above 1600:1. Additional information regarding physician-medical-personnel distribution is included in Appendix II-E.

Area Characteristics. (Roads.) Iowa's transportation investment is heavily oriented toward highways. Iowa's metropolitan areas are among the smaller standard metropolitan statistical areas in the country and have disbursed populations. The disbursement is even greater than in rural areas. Thus in comparison to states having major population centers, highways assume more importance in the total transportation system in Iowa than they might in other states.

In 1980 it is estimated that 95.3% of the public investment transportation dollar will be expended on highways. In 1990 the investment will be 91.7%. The expectations for Iowa's transportation system include the continued emphasis on highway system development, an increased emphasis on mass urban transit through 1980, a gradual growth in airport investment and a slight decrease in parking investment.

A statewide mileage summary and a map illustrating primary road systems in the State are provided on the two following pages.

High Accident Locations. In 1974 a total of 91,117 reportable crashes were recorded. There were 583 fatal crashes killing 685 persons, personal injuries to 31,679 persons, and an estimated 67,314 property damage collisions. The fatality figures represent a 16% decrease over the previous calendar year and a 20% decrease as compared to Iowa's previous four-year average.

Studies conducted by the Iowa Department of Public Safety indicate that 50% of this reduction resulted from the enactment of the 55 mph speed limit. Of the total crash experience in Iowa, analysis has shown that 69% of the fatal crashes and 76% of all personal injury crashes occur in and within 35 miles of population centers of 30,000, and over nine of the ninety-nine Iowa counties represent 30% of crashes in the State. Fatality-personal injury data in the nine high-accident areas is provided in Figure 1 (page

A comparison of Iowa crash statistics from 1970-1974 is provided below.

IOWA CRASH STATISTICS - 1970-1974

YEAR	NUMBER OF ACCIDENTS	NUMBER OF FATALITIES	NUMBER OF INJURIES	RATIO FAT./INJ.	NUMBER OF FATALITIES DECREASE
1970	87,808	911	33,101	1/36.33	----
1971	87,100	826	31,599	1/38.25	- 85
1972	91,918	874	35,487	1/40.60	+ 48
1973	96,620	813	35,059	1/43.12	- 61
1974	91,117	685	31,679	1/46.25	-128

Figure 2 illustrates the crash/injury/fatality pattern in Iowa from 1940 to 1974. (Page .)

Geographic and Climatic Conditions. The geographic area to be covered encompasses the entire State of Iowa, bounded on the north by Minnesota, on the east by Illinois, on the west by Nebraska, and the south by Missouri. The Missouri and Mississippi Rivers form the State's western and eastern boundaries respectively.

IOWA FUNCTIONAL CLASSIFICATION STUDY

STATEWIDE MILEAGE SUMMARY

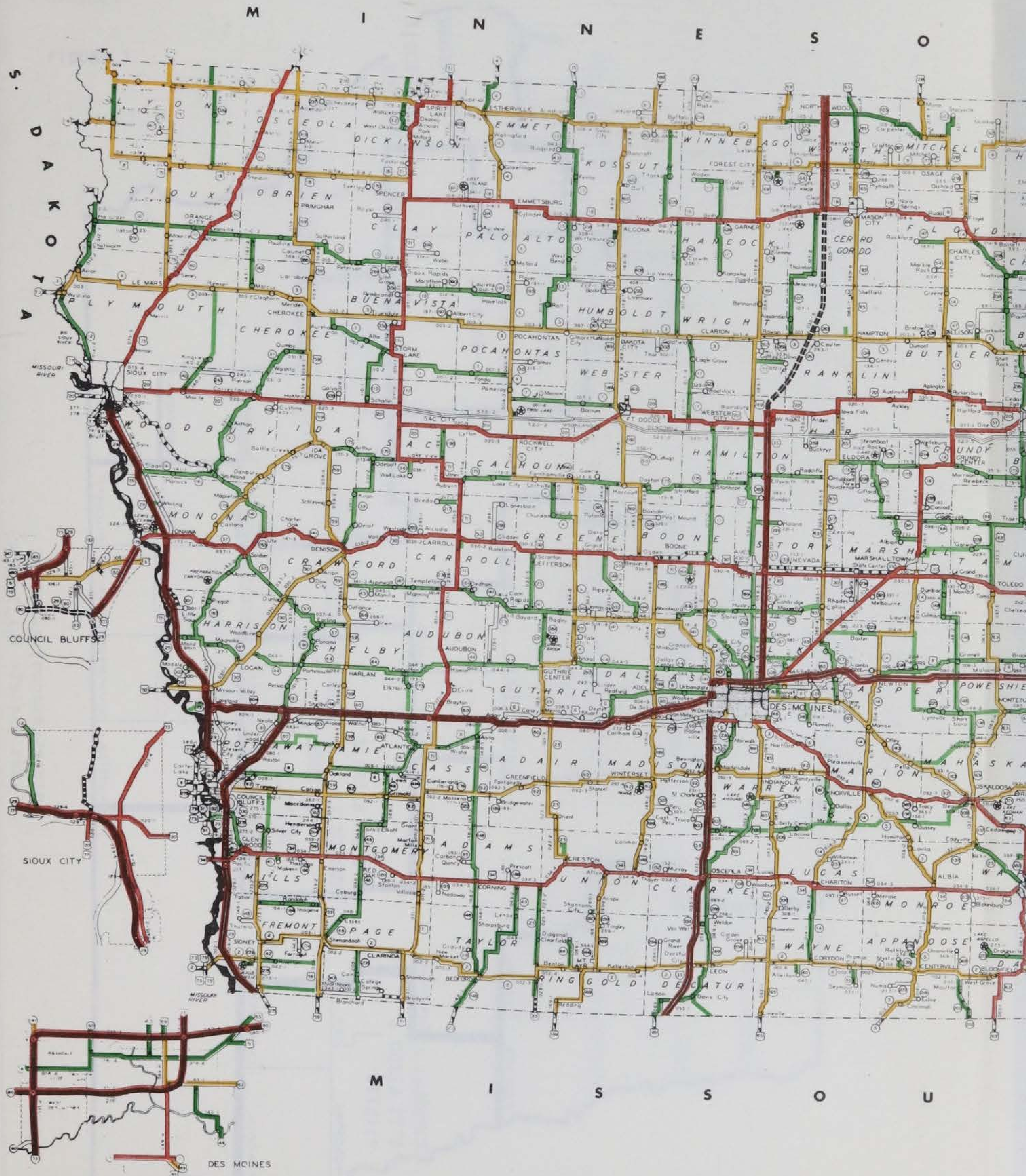
The following tabulation shows statewide miles of roads and streets in existence on January 1, 1970 by functional class as compiled from data furnished by the 99 county functional classification boards.

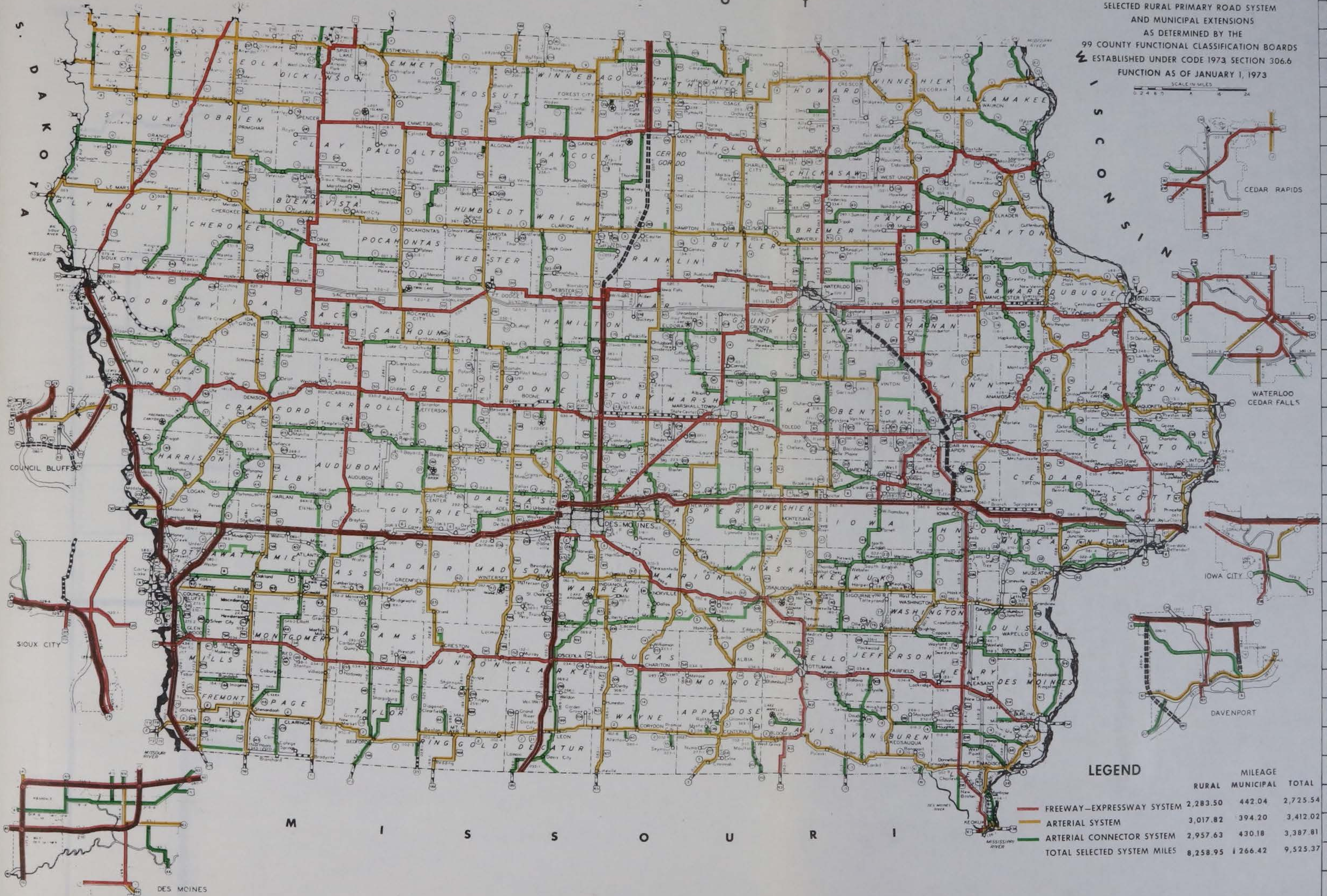
	Rural	Municipal	Totals	Legislative Limitations
Freeway-Expressway System	2,265.74	427.82	2,693.56	3,000
Arterial System	3,056.66	403.65	3,460.31	3,500
Arterial Connector System	2,943.88	399.32	3,343.20	
Subtotal - Proposed Primary System	8,266.28	1,230.79	9,497.07	
Trunk System	12,517.55	932.88	13,450.43	15,000
Trunk Collector System	16,420.43	517.21	16,937.64	20,000
Subtotal - Proposed Farm-to-Market	28,937.98	1,450.09	30,388.07	35,000
Area Service System	62,043.22		62,043.22	
Subtotal - Proposed Rural Secondary	90,981.20			
Municipal Arterial System	---	1,215.08	1,215.08	1/
Municipal Collector System	---	1,610.16	1,610.16	2/
Municipal Service System	---	8,211.70	8,211.70	
Subtotals - Proposed Municipal Jurisdiction	---	11,036.94		
Totals - Rural and Municipal	99,247.48	13,717.82	112,965.30	
State Park Roads			149.43	
Institutional Roads			89.75	
STATE TOTAL			113,204.48	

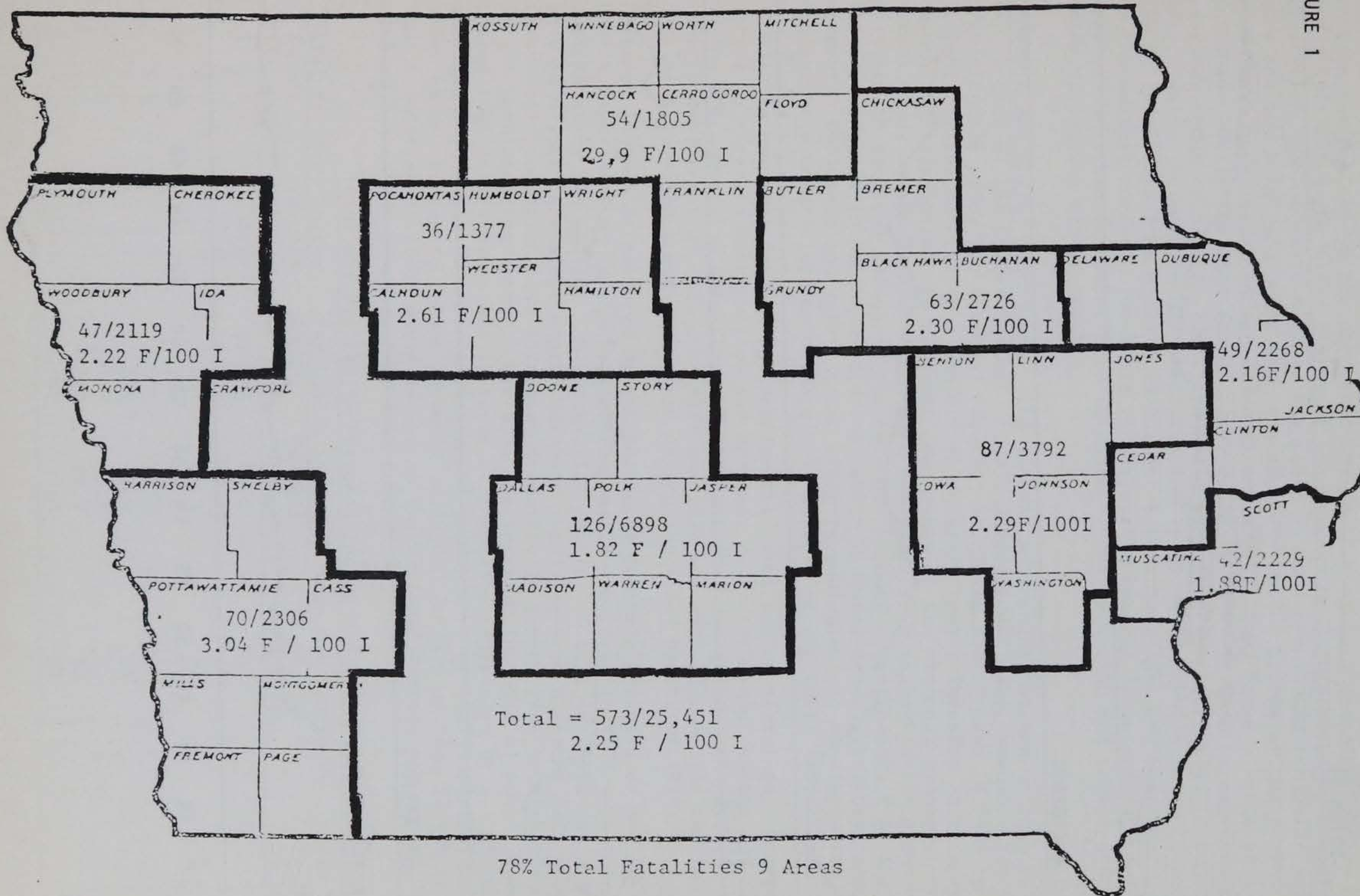
Notes:

1/ The municipal arterial system is not to exceed 15% of the entire street mileage under jurisdiction of a municipality (15% of entire city street mileage less primary, trunk and trunk collector extensions and state park and institutional roads), except that municipalities under two thousand population may exceed said limitation.

2/ The municipal collector system is not to exceed 20% of the entire street mileage under jurisdiction of a municipality (20% of entire city street mileage less primary, trunk and trunk collector extensions and state park and institutional roads), except that municipalities under two thousand population may exceed said limitation.


M I N N E S O
S. DAKOTA
M I S S O U
COUNCIL BLUFFS
SIOUX CITY
DES MOINES
MISSOURI RIVER
LYON
OSCEOLA
DICKINSON
EMMET
KOSSUTH
WINNEBAGO
MITCHELL
SIOUX
OBRIEN
CLAY
PALO ALTO
HANCOCK
CERRO GORDO
FLOYD
PLYMOUTH
CHEROKEE
BUENA VISTA
POCAHONTAS
HUMBOLDT
WRIGHT
FRANKLIN
BUTLER
WOODBURY
IDA
SAC
CALHOUN
WEBSTER
HAMILTON
HARDIN
GRUNDY
MONONA
CRAWFORD
CARROLL
GREENE
BOONE
STORY
MARSHALL
TAMA
HARRISON
SHELBY
AUDUBON
GUTHRIE
DALLAS
JASPER
POWESHIEK
POTTAWATTAMIE
CASS
ADAIR
MADISON
WARREN
MARION
MAHASKA
MILLS
MONTGOMERY
ADAMS
UNION
CLARKE
LUCAS
MONROE
FREMONT
PAGE
TAYLOR
RINGGOLD
DECATUR
WAYNE
APPANOOSE
LE MARS
SIOUX CITY
DENISON
CARROLL
JEFFERSON
MARSHALLTOWN
DES MOINES
ATLANTIC
CRESTON
CLARINDA
EMMETSBURG
ALGONA
MASON CITY
FT DODGE
WEBSTER CITY
NEVADA
HARLAN
AUDUBON
WINTERSET
INDIANOLA
KNOXVILLE
OSKALOOSA
CHARITON
CORYDON
CENTERVILLE
LEON
BEDFORD
SIDNEY
GLENWOOD
RED OAK
CORNING
GREENFIELD
OSCEOLA
ALBIA
TOLEDO
NEWTON
HAMPTON
CLARION
POCAHONTAS
ROCKWELL CITY
SAC CITY
STORM LAKE
CHEROKEE
PRIMGHAR
ORANGE CITY
SPENCER
ESTHERVILLE
GARNER
FOREST CITY
NORTHWOOD
OSAGE
CHARLES CITY
ALLISON
ELDORA
GRUNDY CENTER
BOONE
LOGAN
GUTHRIE CENTER
ONAWA
IDA GROVE
SPIRIT LAKE


IOWA
SELECTED RURAL PRIMARY ROAD SYSTEM
AND MUNICIPAL EXTENSIONS
AS DETERMINED BY THE
99 COUNTY FUNCTIONAL CLASSIFICATION BOARDS
ESTABLISHED UNDER CODE 1973 SECTION 306.6
FUNCTION AS OF JANUARY 1, 1973
SCALE IN MILES
0 2 4 6 8 8 16 24
MINNESOTA
S. DAKOTA
WISCONSIN
MISSOURI
MISSOURI RIVER
MISSISSIPPI RIVER
DES MOINES
CEDAR RAPIDS
WATERLOO CEDAR FALLS
IOWA CITY
DAVENPORT
COUNCIL BLUFFS
SIOUX CITY
DES MOINES
LEGEND
MILEAGE
RURAL MUNICIPAL TOTAL
FREEWAY—EXPRESSWAY SYSTEM 2,283.50 442.04 2,725.54
ARTERIAL SYSTEM 3,017.82 394.20 3,412.02
ARTERIAL CONNECTOR SYSTEM 2,957.63 430.18 3,387.81
TOTAL SELECTED SYSTEM MILES 8,258.95 1266.42 9,525.37



78% Total Fatalities 9 Areas

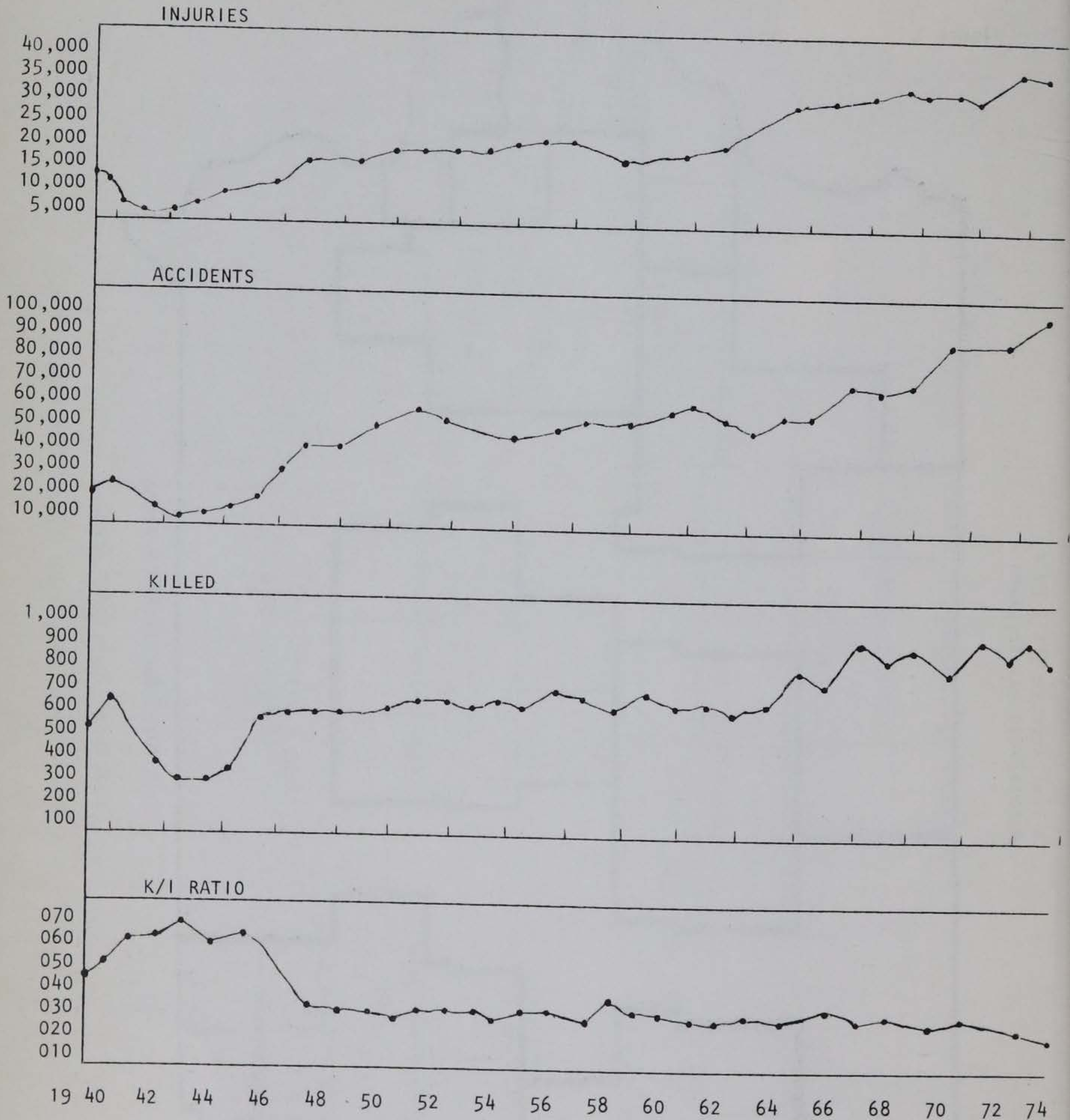
67% Total Injuries 9 areas

The 9 areas represent 71% of Iowa Population.

FIGURE 1

This map identifies the nine high-accident counties accounting for 30% of all reported crashes.

FIGURE 2 TRAFFIC RECORD IN IOWA FROM 1940 to 1974



Elevation ranges from 480 feet above sea level in the southeastern part of the State to 1,675 feet in the northwestern part. The greatest departures from the prairie surface are in the northeast and southwest, both characterized by bluffs and cliffs above the flood plains of the State's bordering rivers. Because of glaciation, the northern half of the State is more broken and irregular and has more shallow lakes and ponds than the southern half. As one of the plains states, Iowa ranks as a leader in agricultural endeavors. Iowa has a climate of great extremes. While the mean annual temperature is 49°F. (9.44°C.), extremes per year may range as high as 135°. Rainfall is unequally distributed throughout the year. While the mean annual precipitation is 31.44 inches (79.86 cm.), about 71% of this falls from April 1 to October 1 with May, June and September generally the wettest months. The State is subject to natural disasters from major weather disturbances, especially tornadoes in early spring and summer and blizzards during the winter months.

Economic and Social Conditions. The general employment pattern of Iowa is similar to that of the United States. Iowa's unemployment rate, however, has been traditionally below the national figures, averaging 3.0 percent in 1974 to 5.4 percent for the country as a whole. In general, Iowa's industry is of a stable nature and lags behind the cyclical downswings of the national economy. In a recent study by the Bureau of Economic Analysis, Iowa ranked forty-second in sensitivity to cyclical swings in the national economy. Over one-half of the labor force is engaged in non-manufacturing, which includes trade, services, and government. Wholesale and retail trade alone is equivalent to manufacturing, both respectively comprising approximately 18 percent of the total labor force.

A definite seasonal pattern in unemployment rates can be discerned. Unemployment naturally rises in construction and agriculture in the winter months and falls during the summer. A comparison of the last four years shows the marked improvement in employment of 1973 over 1971 and 1972 but also illustrates the rapidly declining economic trends evidenced during the final months of 1974.

Personal income, as measured by the Bureau of Economic Analysis of the United States Department of Commerce, increased by 14.1 percent in 1973 to a total of approximately $14 billion. A substantial portion of this increase was attributable to higher farm proprietors' earnings resulting from a strong farm economy. Industrial production also increased dramatically giving rise to higher earnings in the manufacturing sector. Overall, the increase in total personal income placed Iowa in seventh place in terms of the gains registered by all states. Almost all of the states experiencing rapid growth were basically agricultural. As shown below, percapita income advanced to $4,869 in 1973 up from $4,300 in 1972. Iowa's relative position moved closer to the national average per capita income of $4,918 equaling 99 percent of that number.

Total and Per Capita Personal Income and Relatives, 1965-1973

YEAR	Total Personal Income: Amount Billions	Total Personal Income: Percent Change	Per Capita Income: Amount Dollars	Per Capita Income: Percent Change	Iowa Per Capita As % of U.S. Per Capita	Iowa Total Income As % of U.S.
1965	$ 7.6	14.0	$2,735	14.0	100	1.41
1966	8.3	9.2	3,013	10.1	101	1.40
1967	8.5	2.4	3,051	1.3	96	1.36
1968	9.1	7.0	3,264	7.0	95	1.32
1969	9.9	8.8	3,549	8.7	95	1.32
1970	10.6	7.1	3,688	3.9	94	1.30
1971	11.0	3.7	3,877	5.1	95	1.29
1972	12.4	12.7	4,300	10.9	96	1.33
1973	14.1	14.1	4,869	13.2	99	1.37

Proprietors' income and property income accounted for 20.3 and 14.8 percent, respectively, of total income. The largest component of proprietors' income is in the farm sector which is nearly twice as large as the non-farm proprietors' income.

Total personal income varies from county to county. The counties with the lowest incomes are located in south-central Iowa and have a higher than average percentage of income derived from farm earnings. The metropolitan areas of the State have higher total and per capita income figures and naturally a lower percentage of total earnings derived from farm earnings.

Data from the 1970 Decennial Census, the most recent and comprehensive source of data available for minority groups, indicated that non-whites have lower incomes and poorer housing than their white counterparts. The median income of white families throughout the State in 1970 was $9,040 compared to a family income of $6,916 for blacks. It also indicates a population group for which accessibility to the emergency medical service system is potentially limited because of inability to pay.

A recent study prepared by the Midwest Research Institute compared states on the basis of quantitative and qualitative indicators. This study ranked Iowa's educational system as the best in the United States with a composite rating of 1.47. Iowa ranked ahead of other states with excellent systems such as California, Oregon, Utah, and Wyoming.

Holding power measures the ability of a school system to retain those students until twelfth grade who entered at the ninth grade level and thus reduce the dropout rate. This ability reflects the effectiveness of the school system to make the student's learning experience meaningful. Holding power also reflects the importance placed on education by society and its willingness to support the educational process financially and philosophically.

The holding power of Iowa's schools is one of the highest in the nation. Almost 91 percent of those students entering the ninth grade complete their education. This provides EMS planners a significant proportion of the population for which to develop information and education programs regarding utilization and access to emergency medical service systems.

Other Factors. In recent years, Iowa has experienced an increase in the number of recreational opportunities through development of both natural and man-made lake areas. There is a vital need to study the effects of seasonal population variations in these areas on emergency medical service systems.

Appendix II contains a number of additional maps and charts which contain information regarding emergency medical service resources, population densities, medical personnel, roads, high-accident locations, economic and social conditions, and epidemiological characteristics.

III. EMS STANDARDS

A. ORGANIZATIONAL

There are two aspects of organization which must be considered in the development of organizational standards for the State of Iowa. First is the overall directional organization required at the state level; second is the "grass-roots" organization developed at the regional or "community" level.

The state level organization is covered fully in Section I of this Plan under the title "State Organization for EMS Plan Development and Program Implementation." State level organization envisages the implementation of a statewide EMS Plan under the guidance of the Governor's EMS Advisory Council. It places the responsibility for EMS implementation and evaluation on the Commissioner for the development of an effective statewide Emergency Medical Services System.

1. State Standards Established: The Governor's EMS Advisory Council is responsible for recommending EMS standards for the following:

   a. System operations
   b. Personnel training
   c. Ambulances, rescue units, and equipment specifications
   d. Response time
   e. Communication
   f. Hospital facilities

   These Standards, recommended by the Advisory Council, are applicable for statewide planning.

2. Regional Implementation Planning: On the regional level, the Regional EMS Councils are responsible for the development of a Regional EMS Implementation Plan. This Plan shall address Standards and approach established at the State level for comprehensive EMS systems, apply them to the regional situation, and adjust them if necessary subject to the approval of the Governor's EMS Council. The Regional EMS Councils shall insofar as possible coordinate their activities with those of the Health Systems Agencies for their respective areas.

   The first step in developing an adequate EMS Implementation Plan is to secure the cooperation and involvement of all appropriate community agencies and health facilities through the organization of a Regional EMS Council. Essential to the success of any EMS Council is the representation of three main groups: (a) the health care providers; (b) involved public agencies; and (c) community leaders.

   a. Providers: This includes local medical society or societies, hospital administrators, nursing groups, ambulance services, and local chapters of voluntary health organizations.

   b. Public Agencies: This includes fire and police departments, civil defense, health departments - including the medical examiner, planning agencies and local governments.

   c. Community Leaders: This includes the consumer representatives of civic and service clubs, traffic and highway safety groups, telephone companies, public utilities, and any others with an interest in EMS, which could strengthen the Council or increase community support and involvement--including the news media.

The above listing is not all-inclusive and, depending on circumstances, could encompass others such as school systems, major industries, employers, insurance executives, farm organizations, women's organizations, American National Red Cross, and both technical experts and decision-making executives from the communications industry.

3. Plan and Grant Approval: Plans developed by the Regional EMS Councils in conjunction with their respective Health Systems Agencies shall be reviewed by the GEMSAC and the EMS Section staff to determine compatibility with the State EMS Plan. Approval (or disapproval) with comments shall be made in writing to the appropriate regional Councils.

   Grant Applications from local jurisdictions to the EMS Section shall be reviewed by the appropriate EMS Council and Health Systems Agency to assure compatibility with the Regional EMS Implementation Plan.

B. OPERATIONAL

The operational standards are based on the interrelationship between EMS <u>system functions</u> and all supporting components. System functions include the following:

1. Detecting the incident.
2. Reporting the incident.
3. Dispatching ambulances, rescue vehicles, public safety vehicles, and alerting emergency care facilities.
4. Driving ambulances and rescue units to the scene.
5. Rendering emergency care to the victims.
6. Extricating victims, if required.
7. Transferring injured persons to the hospital and administering emergency care en route.
8. Admitting the injured to the emergency department of a hospital.
9. Transferring the injured from one hospital facility to another.

The Governor's EMS Advisory Council will ensure the development of an Operational Procedure Manual which will identify the roles and responsibilities of each component of the EMS system and how the various components interrelate.

C. PERSONNEL TRAINING

Employee or volunteer members of public and private organizations having responsibility for delivery of emergency health services must be trained in, and held accountable for, administration of specialized emergency care and delivery of the victims of injury or acute illness to the appropriate medical facility. Standards for training of persons involved in the EMS system include the following:

1. General Public: All persons who may be called upon to render first aid, including school children, should be given opportunities to learn the fundamentals of first aid. The "American Red Cross Standard First Aid and Personal Safety Course," is suitable for this purpose, providing it includes life support (CPR) training.

2. Law Enforcement and Fire Fighters: The "Crash Injury Management Course" is the recommended course of instruction for law enforcement officers and fire

fighters. This course is designed to provide instruction in initial care for the victims prior to the arrival of the emergency medical technician.

3. Rescue Unit Personnel: The "Basic Emergency Rescue Technician's Course" is the recommended course of instruction for rescue squad personnel. This course is designed to provide instruction in initial care for the victims, and in proper techniques for extricating the victim and preparing him for transportation. The outline and training plan for this course are included as Appendix III-A.

4. Ambulance Personnel: The "Basic Training Program for Emergency Medical Technician-Ambulance" is the recommended course of instruction for ambulance drivers and attendants. This DOT course is designed to provide the minimum acceptable level of performance and competence required of trained ambulance personnel. Paramedic training programs will be established subsequent to development of standards and the passage of enabling legislation. A committee of the Personnel and Training Task Force of the Governor's EMS Advisory Council has been appointed to develop criteria for the training of advanced EMT-A's.

5. Dispatchers: Personnel who are assigned responsibility for dispatching emergency medical services vehicles should, as a minimum, complete an "Emergency Medical Technician-Dispatcher Course" (to be developed). This course will be designed to provide the minimum acceptable level of performance and competence for trained EMS dispatchers. It will include training in the area of initial care, ambulance and emergency department operations, and the proper use of radios and other communications equipment.

6. Emergency Department Personnel: The emergency department nurse must be adequately trained to provide, under standing orders, immediate care to all emergency patients received in the facility. Special training programs for emergency department nurses are being developed and will be implemented subject to approval of the Governor's EMS Advisory Council.

   Physicians regularly attending patients in emergency departments should receive adequate initial training in life support and emergency care. Special training programs for physicians are being developed and will be implemented subject to approval of the Governor's EMS Advisory Council.

D. AMBULANCES

An ambulance is defined as:

> Any privately or publicly owned vehicle designed to transport the sick, wounded, or otherwise incapacitated who are in need of emergency medical assistance, or whose condition requires treatment or continuous observation while being transported by a person with training adequate to enable him to provide emergency medical treatment.

1. Ambulances purchased after the adoption of the Standards should meet or exceed the current Iowa ambulance specifications. (See Appendix III-B.)

2. Ambulances should be equipped with all equipment listed in the current Iowa ambulance equipment list (see Appendix III-C), which shall include the current Essential Equipment for Ambulances list provided by the Committee on Trauma, American College of Surgeons. Ambulance services which do not have a capable rescue unit available for emergency calls should also carry the basic rescue equipment listed with the ambulance equipment (see Appendix III-D).

3. It is recommended that all ambulances be manned by at least two certified Emergency Medical Technicians-Ambulance (EMT-A's).

E. RESCUE UNITS

A rescue unit is defined as:

> Vehicles especially staffed and equipped for extrication of victims or remedying of dangerous physical situations (including fire, gas, and water threats). Their primary purpose is extrication and not patient transportation.

1. All rescue units should be appropriately designed to meet the specific needs of the community. Sufficient space should be provided for the safe transportation of a minimum crew of four.

2. Rescue units should be equipped with all items listed in the Essential Rescue Unit Equipment List (see Appendix III-E), and any additional equipment considered necessary by the local department.

3. It is recommended that all rescue units be manned by a minimum of two certified Emergency Rescue Technicians (ERT).

F. RESPONSE TIME

Ambulances and rescue units (or adequately equipped engine or truck companies) should be available to everyone residing within an EMS region. Seventy percent of the population should be able to expect the first unit (ambulance <u>or</u> rescue) to arrive on the scene within four to seven minutes after the call is received by the dispatcher. Ground, air, and water transportation vehicles should be placed throughout the State so as to ensure maximum response times of ten minutes for all calls in urban areas and 20 minutes for all calls in rural areas. Full-time paid ambulance services should be on the street <u>no later</u> than two minutes after a call is received; volunteer units should always be on the street within five minutes.

G. COMMUNICATIONS

The State Emergency Medical Services Communications System (EMSCS) provides for

coordinated communications between all components of the EMS System and provides standards for all phases of the EMS response system. They are described in more detail in the State EMS Communications Plan. Each region needs to set an order of priority on the communications links. The Communications System will typically have the following telecommunications links:

1. Efficient communications links between those who request emergency medical service and those who have or know the appropriate service (regional EMS Central Medical Emergency Dispatch [C-MED] centers).

2. A two-way communications link between the C-MED Dispatchers and the EMT-A's inside ambulances and ERT's inside rescue units.

3. A communications link from the C-MED Dispatcher to personnel in hospital emergency departments.

4. A two-way communications link between the C-MED personnel and the personnel at local law enforcement communications center(s).

5. A communications link from EMT-A's inside the ambulance to personnel in the hospital emergency department.

6. A two-way communications link between EMT-A's inside the ambulance and rescue units and law enforcement personnel.

7. A two-way communications link between EMT-A's inside the ambulance and personnel inside C-MED and hospitals during long-distance transfer of patients, inter- and intra-state.

8. An ambulance-to-ambulance two-way voice communications link.

9. A two-way communications link between hospital personnel in a regional/community grouping.

10. Areawide EMT-A, physician, and nurse selective calling.

H. HOSPITAL FACILITIES

Hospital emergency facilities should be available to deliver necessary emergency care to everyone in the State. To meet this goal, the following standards have been adopted.

1. For each EMS Region, an Emergency Medical Service Implementation Plan will be designed to assure that no citizen within the planning region will be more than 60 minutes from an emergency service that meets the standards of one of the four official categories. The 60-minute time frame shall be measured from receipt of the call by the dispatcher to the arrival of the patient in the emergency department. Unusual delays caused by heavy traffic, severe weather, difficult extrication problems, and other similar unplanned-for circumstances shall not be included in this 60-minute time frame.

2. Hospitals that are not required under a regional EMS Plan to possess community emergency service capabilities shall, nevertheless, be required to maintain at least basic resuscitation equipment and have staff proficient in its use.

3. Hospitals shall not arbitrarily be required to maintain a complete emergency room if under a regional EMS Implementation Plan it would present duplicate or unnecessary services. (A change in State Health Department rules and regulations will be required to implement this standard.)

4. Highway hospital signs may be placed in accordance with DOT guidelines for all four (4) classes of categorized hospitals in the categorization schema identifying their location. All such hospitals will be advised of the availability of highway signs for their facility. Signs may also be placed for hospitals not meeting the minimum categorization criteria if the hospital agrees to provide physician availability within fifteen minutes of the arrival of the patient if the condition of the patient warrants. Each hospital sign would have a mileage indication posted so that the traveler could estimate the time that would elapse before help could be obtained.

   To apply for a highway sign for a hospital not meeting minimum categorization criteria, the following procedure shall be used:

   a. That each uncategorized hospital receiving a hospital sign would agree to provide physician availability within 15 minutes of arrival of the patient if the condition of the patient warrants.

   b. That this agreement would be signed by the hospital administrator.

   c. That this signed agreement would be mailed by the hospital to the Director of the EMS Section of the Iowa State Department of Health.

   d. That the Director of the EMS Section of ISDH will then indicate his approval by signing the form, will obtain the signature of legal counsel for form approval, and will forward the signed agreement to the Iowa Department of Transportation for processing.

5. Each Regional EMS Implementation Plan shall provide for categorization and access (including appropriate transportation) to specialized critical care services, units, and/or centers. These services, units, and/or centers shall include, but are not limited to the following:

   a. Trauma (including burns and spinal cord injuries)

   b. Coronary care

   c. Poisoning

   d. Neonatal

   e. Detoxification (drug overdose, acute alcoholic intoxication)

   f. Psychiatric emergencies.

   Regions not possessing these critical care facilities shall identify appropriate facilities outside their region and adopt formal procedures for transfer of patient to said facilities.

IV. PROGRAM OBJECTIVES

A. INTRODUCTION

Many individuals suffering sudden illness or injury die needlessly or are permanently disabled because they do not receive prompt and proper emergency care. Few areas of the State now have comprehensive emergency medical service systems. In most areas there has been inadequate planning and implementation of emergency medical service programs with major attention often concentrated on one or two components rather than total system requirements. Hospitals and ambulances often have radio or other direct communications links either to each other or to police radio communications systems to facilitate the rapid delivery of the patient to appropriate care centers but are not connected with C-MED centers.

1. Identification of Deficiencies and Needs: Specific needs of the Iowa EMS System include the following:

   a. Program Management

      (1) EMS Focal Point: The Governor has designated the Iowa State Department of Health as the focal point for all EMS activities in the State. The Department, through its Section of Emergency Medical Services, must provide the leadership, staff, and coordination for program generation and management in accordance with the policies and goals established by the Governor's Emergency Services Advisory Council. Inasmuch as leadership in providing statewide EMS related functions will be largely the responsibility of the State Health Department, additional staff is necessary in order for the State to be responsive to requests for assistance in planning, training, program development, and funding.

      (2) Funding: Except for certain revolving funds for supporting services, the EMS Section is currently funded entirely by the federal government (HEW and DOT). There is a need to expand the capacity of the Section as a State agency--funded by State funds--in order for it to become totally functional throughout the entire EMS spectrum by assuring its continued existence. At the same time, there is a need to coordinate EMS programs funded by different sources in order to obtain maximum program effectiveness and efficiency.

   b. Regionalization

   There is a need to establish viable EMS regions for the State of Iowa. Such regions must be geographically delineated by existing patterns of patient flow and must be large enough to serve 95 percent of their emergency medical service needs. A region must be able to coordinate EMS planning activities, including the development of an EMS Council to serve in an advisory capacity for the entire area. The State's EMS regions must be contiguous with adjoining regions, with mutual aid arrangements developed where care deficiencies of a highly sophisticated nature exist. A region must have sufficient resources and financial support to maintain an EMS system. Coordination mechanisms must be developed between intra- and inter-state regions. Wherever patient flow patterns cross state lines, coordinated efforts must be made at interfacing services supplied by adjoining regions to ensure optimum care to the patients utilizing the system.

   Each EMS planning region must establish and maintain a viable EMS Council charged with: (1) the responsibility of developing a regional EMS plan within the standards and guidelines developed by the Emergency Medical Service

Advisory Council; (2) assisting local governments in the development of an organization responsible for implementation; and (3) monitor system development through project review, program evaluation, and plan review, modification, and update.

c. Physician and other Professional Input

There is a need to develop at both state and regional levels optimum medical provider input in order to assure the development of optimum levels of medical care from the point of entry into the system through discharge and rehabilitation, including access or linkages to other systems for specialized critical care services that are beyond the capability of the immediate system. Physician input is especially required to ensure the support and full participation of medical practitioners in the development and implementation of state and regional EMS programs. There is a need to identify at the regional level physicians who will serve as medical advisors for EMS systems in their areas and who will rally support of their peers for EMS programs, especially critical care components.

d. Manpower

The State EMS Program has a need to develop a coordinative approach in establishing throughout the State a pool of professional and paraprofessionals including first responders, EMS communications dispatchers, emergency and specialty physicians, emergency department and critical care unit nurses, emergency medical technicians-ambulance, emergency rescue technicians and advanced EMT-A's capable of providing emergency medical services on a 24-hour, 7-day a week basis within the service areas of the State. There is a need to develop a mechanism for determining manpower needs on a continuing basis. This requires knowledge of current utilization patterns with regard to emergency medical services and date on turnover in EMS personnel categories to determine where and how frequently basic training programs have to be given, and advanced EMS training programs offered.

e. Training

Designated as the lead agency for EMS activities at the state level, the Iowa State Department of Health, through the Section of Emergency Medical Services coordinates EMS training activities throughout the State in accordance with priorities and goals developed by the Governor's EMS Advisory Council.

Training of all personnel within an EMS system is vital to an effective operation. The various disciplines must be trained within the scope of responsibility, however, training must be coordinated to eliminate inconsistencies and differences in techniques. To reach that end, the state program must provide the assistance toward the development of the training program to adequately serve the state's EMS needs.

The state EMS program has a need to develop as part of the state's EMS system, training programs for health professionals engaged in emergency medicine that will provide initial and continuing education for EMS personnel appropriate to their roles on the EMS health care delivery team. There is a continuing need for the state program to develop an evaluation mechanism for training programs to determine which health professions or allied professions should be included in training, whether content or length of course should be revised, to determine the needs for additional or refresher training and what should

be included, and to revise curriculums as necessary. In addition, the Iowa State Department of Health supports the effort of the American Red Cross to train the general public in basic and advanced first aid techniques, and encourages continuation of these activities.

Training needs for specific types of EMS personnel are as follows:

(1) Emergency Medical Technician-Ambulance

(a) With the phase out of funeral homes from the ambulance business, voids in the provision of ambulance services have been largely assumed by hospital- based ambulance services, public volunteers, or private ambulance services. Unlike the two- or three-person funeral home operation, the volunteer unit averages about 15 persons per unit while the paid department usually requires eight persons per unit. This has, therefore, increased the number of personnel required while reducing the number of ambulance services. It has also increased the educational requirement for the system, posing a burden especially on volunteer groups who often have to participate in the training courses offered on their own time and at their own expense. Most ambulance personnel in Iowa are volunteers and the units they staff experience a turnover rate of approximately 20 percent per year. Because of low salaries paid to ambulance personnel as compared with other types of allied health personnel, a significantly large turnover is experienced. Even within the fire service, significant turnover is experienced because of promotion and/or transfer within the department.

Continued statewide coordination of the EMT-A training program is needed to provide the number of trained personnel required to properly man the ambulances in Iowa.

(b) EMT-A's are certified by the State Department of Health for a period of three years. Recertification requires a minimum of 24 hours of qualified continuing education each year. These training programs, involving approximately 1,000 personnel at any given time, must be certified and coordinated. Additional staff and resources must be acquired to maintain this standard of training.

(c) An advanced course must be made available to qualified EMT-A's to further increase service and treatment capabilities. Legislation is needed that will allow specifically trained EMT-A's to administer drugs and I.V.s, defibrillate, and intubate. With the passage of such legislation, State Health Department staff must be available to assist in development of an advanced EMT-A course.

(2) Emergency Rescue Technician

Rescue squadmen responding to emergencies have had little training beyond the first-aid level, and need to learn more about emergency care, extrication, and rescue techniques. The Basic Emergency Rescue Technician's (ERT) course has been developed, and is available to rescue personnel across the State, utilizing input from public, private, and academic sectors.

(3) Law Enforcement Officer and Fire Fighter

The increased ability of EMT-A's to provide emergency care has made some law enforcement officers and fire fighters aware of the need for additional training. Although the Department of PUblic Safety has adopted the Crash Injury Management Course, in most cases the local law inforcement officer and fire fighters have not received this training. The Crash Injury Management course is available to all law enforcement officers and fire fighters.

(4) Dispatchers

(a) The Central Medical Emergency Dispatch (C-MED) centers to be established in accordance with the State EMS Communications System (EMSCS) Plan will require operation by trained dispatchers. A C-MED Dispatch Training Course needs to be developed and provided to an estimated 100 dispatchers.

(5) Emergency Department Personnel

There is a need to coordinate the provision of continuing education courses for emergency department physicians and nurses designed to supplement existing professional training in emergency care. There is further need to coordinate the resources of University Medical Centers available to the State in the development of such courses.

(6) Emergency Medical Care Training

Emergency medical care training needs to be included in nursing schools and colleges of medicine.

(7) Training Program Administration

(a) Development and implementation of these training programs will require additional staff at the state level for statewide coordination and supervision.
(b) Additional funds must be acquired before satisfactory implementation of EMS training programs can be accomplished.

f. Communications

While the Statewide EMS Communications Plan has been developed, and implementation has been initiated in two of the areawide communications systems within the State, several problems in existing communication systems have been identifed. These problems are:

(1) There are a variety of methods of requesting emergency assistance in Iowa, often leading to uncertainty and delay which can result in unnecessary suffering and death.

(2) Multiple requests from several citizens to different services result in duplicated emergency vehicle response to the same incident.

(3) There is inadequate hospital-to-ambulance communication capability in most communities. This provides little opportunity for needed patient information transfer between the emergency medical technician and emergency department personnel at the receiving health facility.

The existence of inadequate or incompatible systems throughout the State illustrates a need to ensure the development of areawide EMS Communica-

tions Systems in accordance with the State EMS Communications System Plan. More specifically, there is a need to develop procedures for the practical implementation of areawide EMS Communications systems in such a manner as to ensure compatibility with the provisions of the State EMS Communications Plan. There is also a need to develop objective criteria for the assigning of priorities for areawide communications system implementation by grantor organizations.

g. Transportation

There is need to develop as part of the total statewide EMS system the capabilities of EMS regions for providing a pool of EMS vehicles including ambulances, rescue vehicles, civil defense vehicles, non-emergency vehicles, and when necessary advanced life support ground, air, and water emergency vehicles that meet the highest standard for design and equipment and that are capable of performing their appropriate functions in the EMS Health Care Delivery System.

There is a further need for ensuring that all ambulances within the State are manned by at least two Emergency Medical Technicians-Ambulance and that systems of mutual aids are established throughout the State.

There is need at the state level to develop a mechanism to ensure that services are provided without prior inquiry as to ability to pay.

Distribution of ambulance and rescue services now varies from well-planned multi-county services to services restricted to the city limits of small communities. Regional EMS Councils need to identify areas of duplication and voids in both types of services and develop, as a component of their EMS system, plans to eliminate duplication and cover areas not presently served.

h. Facilities

There is a need to update the statewide categorization of emergency service facilities and to assist regional EMS areas in utilizing the results obtained from the categorization project in planning regional EMS programs. There is a need for reviewing the criteria established for categorization and for revising that criteria in the light of technological advances, patient flow patterns, and critical care planning components.

There is a need to establish a coordinative mechaniam for evaluation of the functions that emergency service facilities serve, whether they be community, regional, or comprehensive in scope. The establishment of standards for the state's emergency facility is an ongoing activity that must be accomplished in order to provide a planning base for regional EMS programs in such a way that all categorized emergency facilities throughout the State meet minimum criteria for providing basic resuscitation and life support services. Specific standards established for categorization of a given type will define the equipment, personnel, training and organization necessary to delivery of this type of care.

There is a need for regional EMS planning councils to develop as a component of their regional EMS systems a plan for establishment of categorized hospital emergency departments in sufficient locations to adequately provide initial and definitive care for all types of medical emergencies where realisti-

cally viable. There is a need to design at the state level mechanisms for encouraging interfacility coordination, formalized by written agreements both within and between contiguous regions of the State. Finally, there is need to develop mechanisms for ensuring utilization of the categorization process by first responders and other EMS providers.

i. Critical Care Units

There is a need to establish criteria and identify the institutions and programs both within Iowa and in adjacent states capable of assuming lead responsibilities for critical care capacities in trauma, spinal cord injuries, cardiovascular diseases, neonatal, burns, chemical dependency including drug abuse and alcoholism, poisoning, and psychiatric emergencies.

There is a need for determining existing mechanisms by which access is gained to critical care units by the above patient categories.

There is a need to develop interfacility services through the use of specially trained personnel, mobile ICU's and/or portable medical equipment which are capable of providing care to patients with special needs. There is a need to develop in each of the State's EMS Regions an operational plan for utilization of critical care units, whether through a single facility or a consortium of facilities, capable of providing comprehensive EMS care to all critically ill or injured patients. Those services that are not feasible to be provided in a given region should be obtained in a contiguous region through the use of mutual aid agreements.

j. Public Safety Agencies

There is a need to develop a coordinated approach for effective utilization of such public safety agencies as police, fire, and civil defense in standard EMS and disaster operating procedures, including the shared use of appropriate personnel, facilities, and equipment as required. There is a need for statewide coordination to ensure integration of public agencies into the EMS system. This involves working with local government to ensure adequate funding for public safety personnel, review of facilities and equipment prerequisites for adequate emergency service, and review of existing mutual-aid agreements with public safety agencies in communities throughout the State to determine whether changes are necessary to maximize effective utilization of available agencies in an emergency or disaster, particularly when these agencies may answer to different government authorities.

k. Consumer Participation

The State EMS Program has a need to develop as part of its total EMS system the involvement of consumers as well as EMS health providers and local government officials in planning and policy-making. There is a need to develop procedures for ensuring consumer participation in the formulation of policy at state, regional and local levels. Such procedures should ensure valid geographical representation and should be standardized for application throughout the State.

l. Accessibility to Care

Of special importance is the need for ensuring accessibility to transient, impoverished, and high-risk groups. The State EMS Program must develop pro-

cedures to monitor for restrictive measures that may eliminate any person or group of persons from equal access to services within the region by reason of inability to pay.

m. Transfer of Patients

There is need to be developed as part of the total EMS system standards for the transfer of patients to facilities and programs which offer such follow-up care and rehabilitation as is necessary to effect the maximum recovery of the patient. There is also a need to provide for a continuum level of care in the transfer of emergency patients from the emergency site to the emergency department, critical care unit, or to follow-up and rehabilitation centers. There is further need to integrate transfer of such patients with the training, transportation, and record-keeping components of an EMS system.

n. Standardized Patient Record-Keeping

There is a need for Iowa to develop as part of its total EMS system standardized reporting forms that can be used in all EMS regions by EMS health professionals throughout the State so that standardized evaluation may be obtained of the EMS system from the patient's entry into the system until his discharge. There is currently a general absence of EMS information available to evaluate the care of the patient as he progresses through the system.

A need exists for the creation of reporting forms that would be consistent in content for application in all EMS regions throughout the State. As a minimum, such forms should include dispatcher records, ambulance records, and emergency department records. In addition, there is need to develop a statewide EMS data system to enable the State EMS Program to readily determine total EMS system needs while at the same time maintaining individual patient confidentiality.

o. Public Information and Education

There is need to develop a statewide public awareness and education program that will ensure that the medical service system resources available throughout the State are made known to Iowa residents and visitors to the State. There is a need for programs to encourage all residents of the State to participate in ongoing programs to be educated in accident and sudden illness prevention and treatment offered for the public by such agencies as the American Red Cross.

The implementation of regional emergency medical service systems will cause an overall upgrading in the delivery of EMS care for all residents throughout the State. With this upgrading must come generally disseminated information on what those changes are, how they can be of benefit, and how the public can take advantage of them. If this is not done, the public will never gain maximum benefit from the establishment of these systems. A need exists to begin a program of public awareness aimed at informing the public about the services and facilities available through state and regional EMS systems and the means by which the public can gain access to these systems. There is a further need for the State to coordinate EMS oriented public education activities through the State EMS program. The State should assist various educational institutions and agencies in pooling knowledge and resources. In essence, an accessible EMS system requires that people know now to gain access to the system quickly, and be aware of what a layman can do to minimize emergency situations.

p. Evaluation

Technical assistance must be provided by the State EMS Program in the development of independent evaluation techniques for improving the EMS programs within the State. Standardized evaluation techniques need to be developed for application in all EMS regions of the State. Techniques must be developed not only for evaluation of EMS Programs throughout the State but also to evaluate the effect of the EMS System on the patient from entry until discharge.

q. Disaster Linkage

The EMS regions must develop procedures for ensuring that each region is capable of providing EMS in its geographical area during mass casualties, natural disasters or national emergencies. Standards must be established and agreements formulated between participating agencies concerned with providing EMS in a disaster-stricken area. The State Emergency Medical Program must ensure the inclusion of EMS systems disaster plans within the State and regional civil defense plan. Also inter-region agreements and interstate agreements should be formalized under the auspices of civil defense disaster plans in Iowa and surrounding states.

r. Mutual-Aid Agreements

There is need for the formalization of written mutual-aid agreements between contiguous geographic regions, thereby establishing appropriate linkages for provision of more efficient emergency care. Such agreements should cover the exchange of service coverage, communication linkages, licensure and certification and reimbursement (as appropriate).

s. Legislation

Iowa does not have comprehensive emergency medical service legislation. Along with general legislation covering the operation of emergency vehicles with regard to sirens and lights, the only current legislation provides for:

(1) A good Samaritan Act which covers only those rendering "emergency care or assistance without compensation..." (613.17, Iowa Code).
(2) Authorization for cities, counties, or county hospitals to operate or contract for ambulance services (368.74; 332.3(23); 347.14(13) Iowa Code).
(3) Authorization for the use of National Guard helicopters as ambulances (29.79, Iowa Code).

Several different versions of a bill governing operation of ambulances and training of ambulance personnel have been considered in the Iowa Legislature since 1971 but final passage of such legislation has not been forthcoming. Voluntary participation in the process of upgrading the ambulance system has been gratifying. There are, however, clearly identifiable areas where little or no progress has been made, thereby illustrating the need for legislation in this area. There is also need to obtain passage of advanced EMT-A legislation in order to facilitate development of advanced life support systems in those areas potentially capable of providing this type of service.

2. Cooperation and Coordination Requirements. The State EMS Program recognizes the need for coordination and cooperation of agencies at all levels concerned with the planning and delivery of emergency medical services. Attainment of the goals

of the Iowa EMS program will be realized by gaining the interest, cooperation, and active participation of state and local government agencies and other organizations and individuals. Local agencies play a decisive role in the development, implementation, and conduct of the statewide program. When local agencies are definitely unable to perform necessary functions, they should seek assistance from neighboring community, county, or state organizations.

There is a need for close coordination with contiguous political jurisdictions. Ambulance Service and patient referral patterns in Iowa cross the borders of the contiguous states of Minnesota, Wisconsin, Illinois, Missouri, Nebraska, and South Dakota. Past efforts of coordination and cooperation with these states have produced new referral patterns and a much closer inter-relationship among citizens living across state borders from one another. Development of the best possible working relations with neighboring states will assure utilization of facilities, personnel, and equipment to the fullest possible extent in protection of citizens of the area, rather than just the single states.

Cooperation can be expected from the following agencies and organizations which are currently assisting or will assist the EMS Advisory Council and the State Department of Health in the development and implementation of a program to improve EMS systems in Iowa:

American College of Emergency Physicians
American College of Surgeons
American Red Cross
Area Colleges - Adult Education Division
College of Osteopathic Medicine
Communication Division - Department of General Services (Iowa)
Comprehensive Health Planning (A & B Agencies)
County Communications Commissions
County Crime Commissions
Creighton University School of Medicine
Emergency Department Nurses Association
Emergency Medical Services Administrators Association
Fire Service Extension - Iowa State University
Health Systems Agencies
Law Enforcement Administrators Telecommunications Advisory Committee
Iowa Ambulance and Rescue Association
Iowa Firemen's Association
Iowa Department of Public Safety
Iowa Department of Transportation
Iowa Heart Association
Iowa Highway Patrol
Iowa Hospital Association
Iowa Medical Society
Iowa Nurses Association
Iowa Office of Planning and Programming
Iowa Regional Medical Program
Iowa Society of Osteopathic Physicians and Surgeons
Iowa State Department of Public Instruction
National EMT-A Registry
Program in Health Occupations Education and Adult Education Division
of the Area Schools
State Trauma Society and other Specialty Physician Associations

University of Iowa School of Medicine
U.S. Department of Health, Education, and Welfare
U.S. Department of Transportation

Coordinative relationships need to be established with the new Health Systems Agencies currently being developed in accordance with the National Health Planning and Resource Development Act of 1974. In addition, regional inputs will be obtained through the statewide EMS Development Group and regional EMS Councils as they are established. Input will be at three distinct levels of detail and involvement as follows:

(a) First Level - Governor's EMS Advisory Council and its Task Forces. Participants at this level will work directly with Health Department and Office of Planning and Programming staffs and consultants to provide the proper perspective for program needs and requirements. The EMS Advisory Council and Task Force members will review all program materials, contribute to their revision, and actively solicit additional provider and consumer involvement.

(b) Second Level - EMS Development Group. The Development Group will play a key role by providing input to the Council and its Task Forces regarding plan implementation. The group will also serve in a liaison capacity with regional and areawide EMS Advisory Councils regarding the State EMS Program.

(c) Third Level - Regional EMS Council Review. Following designation of EMS regions and establishment of EMS Councils, proposed drafts of State EMS Programs and proposed Standards will be submitted to regional EMS Councils for review and comments. This should allow regional groups opportunity for input into suggested State EMS functions. Extensive provider and consumer involvement is judged a critical element in the program development process.

It is believed that these three levels will provide the required and needed provider-consumer involvement. Professional involvement and input will be actively solicited at all three levels of activity.

In the development of the State EMS Program, Advisory Council responsibilities will be:

(a) Provide advice and leadership to State Health Department staff on the overall organization and development of State EMS Program.
(b) Obtain input and delineate the concerns of all appropriate organizations, institutions, and agencies in the development of the State EMS Program.
(c) Provide comment and recommendations on Program Proposals.
(d) In conjunction with staff, review comments and recommendations from various groups and recommend revisions in program content based on the comments received as assessed against established Advisory Council philosophy, principles, and policies.
(e) The Advisory Council will establish procedures for regularly informing interested groups of the program's progress.
(f) Following approval of proposed program segments by the Advisory Council, the Public Information and Education Task Force will provide leadership

in obtaining public understanding of program goals and recommendations.

State Health Department staff will be working with current areawide planning agencies, regional EMS Councils, and the new Health Service System Agencies to organize the EMS regions for planning, implementation, and expansion of emergency medical services. With the creation of regional emergency medical service councils, the regions will assume an active role in developing EMS Systems in their areas. The EMS Regions will assume primary responsibility for developing EMS systems for their areas with administrative guidance and coordinative services available from the Iowa State Health Department EMS Program. The Health Systems Agencies for the respective EMS Regions will facilitate EMS planning activities and will in some cases function as the sub-grantee for federal EMS funds dispersed to the State's EMS Regions.

1. Overall Goal. The primary goal of the State EMS Program is to provide coordination and technical assistance for its identified geographical EMS Regions in planning and implementation of EMS Systems that provide definitive treatment of the emergent and critical EMS patient from his initial entry to his eventual discharge. Supporting these systems will be appropriately trained EMS personnel, functional and cost-efficient EMS communications, properly equipped EMS transportation and secondary transfer vehicles, coordination of public safety and disaster planning efforts, mutual-aid agreements for ensuring provision of advanced levels of care to the critically ill and injured, public awareness and education services, standardized medical record-keeping and data analysis, accessibility to care assurances, active consumer participation, and protocols for independent review. Within each region, overall system goals will include the following:

   a. To provide for quick identification and response to accidents and sudden illnesses.

   b. To sustain and prolong life through proper emergency care measures at the scene, en route to, and at medical facilities.

   c. To profide the coordination of standards of transportation methodology and communication techniques that will bring the sick and injured and definitive medical care together in the shortest time possible.

2. General Goals

   a. Program Management

      (1) To provide a sufficient number of professionals and clerical staff in the EMS Section, funded by State funds, to adequately develop and maintain a statewide EMS Program.

      (2) To provide coordination and technical assistance at the state level in developing EMS system components in order to ensure comprehensive EMS programs to the citizens of Iowa and the State's transient population.

      (3) To develop grant management functions at the state level for EMS programs in the State to ensure efficiency and effectiveness

of system operations.

(4) To develop and implement statewide standards for components required for comprehensive EMS systems.

b. Regionalization
The establishment of viable EMS regions within the State, geographically delineated by existing patterns of patient flow and able to serve 95 per cent of the area's EMS needs.

c. Physician and other Professional Input
The identification and recruitment of a cadre of professionals, especially physicians, to serve as advocates for EMS both at the state and regional level and to rally support of their peers for EMS programs with emphasis on critical care patient needs.

d. Manpower
The provision of sufficient EMS manpower coverage throughout the State for both basic and advanced life support programs on a 24-hour, seven-day week basis within the service areas of the State.

e. Training
The development and provision of training programs for all levels of health professionals and auxiliary personnel engaged in emergency medicine including first responders, EMS communication dispatchers, emergency and specialty physicians, emergency department and critical care unit nurses, emergency medical technicians-ambulance, emergency rescue technicians, and emergency medical technicians-paramedics, utilizing all educational resources available from existing academic programs.

f. Communications
Develop and coordinate mechanisms for practical implementation of the State EMS Communications Plan in every region of the State.

g. Transportation
Provide for a sufficient number of EMS vehicles (including Emergency Ambulances, Rescue Vehicles, Non-Emergency (transfer) Ambulances, and special Critical Care Transfer Units) which are adequately distributed throughout the State to assure access by all citizens of the State in compliance with vehicle, equipment and response standards established by the EMS Advisory Council.

h. Hospital Facilities
To ensure an adequate number of easily accessible categorized hospital emergency departments, appropriately distributed throughout the State, capable of providing services on a continuing basis and properly staffed and trained to ensure access to necessary emergency services within a reasonable period of time.

i. Critical Care Unit
To ensure an adequate number of critical care units by patient category readily accessible to all persons in the State in need of such care.

j. Public Safety Agencies
Provision of coordinated approach for utilization of public safety agencies in standard EMS and disaster operating procedures including use of shared personnel and equipment as appropriate.

k. Consumer Participation
Development of mechanisms for ensuring consumer participation in development, implementation and review of State and Regional EMS Systems and their components.

l. Accessibility to Care
To ensure the availability of emergency care to all persons regardless of ability to pay.

m. Transfer of Patients
To ensure a continuum level of care appropriate to the patient's illness or injury by providing adequate transfer mechanisms between established provider linkages both regionally and statewide.

n. Standardized Patient Record-Keeping
The development of standardized reporting formats to facilitate evaluation of EMS patient care from entry into the system until eventual discharge.

o. Public Information and Education
The provision of effective, multi-faceted, coordinated, public education and information programs designed to educate the consumer about the location of available EMS resources, the means of gaining access to the EMS System, proper action at the scene of an accident, and medical self-help and first-aid techniques.

p. Evaluation
Development and application of standard techniques for evaluating EMS programs at the state and regional level.

q. Disaster Linkages
Development of disaster linkages through interfacing of EMS and disaster plans.

r. Mutual-Aid Agreements
Development of mutual-aid agreement linkages between contiguous geographic regions of the State.

s. Legislation
To obtain passage of EMS legislation establishing minimum standards for ambulance services and personnel; to obtain passage of paramedic legislation in order to facilitate development of advanced life-support systems.

3. Specific Objectives

a. Program Management
(1) By January 31, 1976 conduct a review relative to the functions of the

Iowa State Department of Health, Section of EMS, as the lead agency for all EMS Activities.

(2) By June 30, 1976 facilitate the provision of adequate staff to the Iowa State Department of Health, Section of EMS to enable it to fulfill its role as the lead agency for all EMS activities.

(3) By June 30, 1976 establish specific State Health Department services relative to grants management functions for State and Regional EMS Programs.

(4) Establish specific State Health Department services relative to components required of Comprehensive EMS Systems. (Ongoing--see Objectives for individual Components.)

(5) To develop and implement standards required of comprehensive EMS system components in accordance with timetables approved by the Governor's EMS Advisory Council. (Ongoing.)

b. Regionalization

By June 30, 1976 establish viable EMS Regions for the State of Iowa.

c. Physician and other Professional Input

(1) By November 30, 1975 identify and establish physician consultants for EMS programs in each EMS region of the State.

(2) By January 31, 1976 provide for physician direction of essential critical care clinical aspects of State and regional EMS systems development relating to critical care patient categories.

d. Manpower

(1) By March 31, 1976 develop a mechanism for determining the number of EMS personnel (by category) required to provide basic life-support programs on a 24-hour, 7-day a week basis within the service areas of the State.

(2) To continue statewide support of EMT-A, ERT, dispatcher, physician, nurse, and first responder training programs (ongoing).

(3) To encourage the utilization of veterans of the Armed Forces with medical training and experience in State and regional EMS programs (ongoing).

(4) By March 31, 1976 ensure that at least one hospital in each EMS region of the State has 24-hour emergency department physician coverage.

e. Training

(1) By June 30, 1976 develop a Training Component Model which will meet the State projected EMS manpower needs.

(2) To continue statewide coordinative functions for existing EMT-A, ERT, dispatcher, and first responder training programs. (ongoing)

(3) To continue statewide support of basic EMT-A, ERT, dispatcher, and first

responder programs. (Ongoing.)

(4) By June 30, 1976 coordinate statewide emergency physician, nurse and advanced EMT-A continuing education programs.

f. Communications

Immediate Objectives:

(1) By June 30, 1976 establish a mechanism for completing implementation of the State EMS Communications Plan.

(2) By October 31, 1976 coordinate the placement of the first two regional C-MEDs in operation.

Long-Range Objectives: (To be developed.)

(1) By January 1, 1977 have regional EMS Communications plans completed by the Regional EMS Councils.

(2) By April 20, 1978 have the first four regional C-MEDs fully operational.

(3) By June 30, 1982 all regional C-MEDs shall be in full operation in accordance with the State EMS Communications Plan.

g. Transportation

Immediate Objectives:
By March 31, 1976 develop a mechanism for determining proper placement, distribution, and number of adequate ground, air, and water transportation vehicles in such a manner as to ensure maximum response times of ten minutes for all calls in urban areas and 20 minutes for calls in rural areas.

h. Hospital Facilities

(1) By December 31, 1975 facilitate continuing review, revision, and implementation of the categorization process.

(2) By March 31, 1976 develop and distribute to the Regional EMS Councils a Health Facilities Standards and Distribution Guide to be used as a planning mechanism for determining proper distribution of categorized emergency medical service facilities which collectively provide total patient care requirements and which will place all persons in Iowa within 60 minutes of a categorized hospital after the dispatch of an ambulance.

(3) By June 30, 1976 establish the regional EMS Councils as the identified emergency facility planning bodies in each region of the State.

(4) By June 30, 1976 establish a mechanism for ensuring interfacility coordination formalized by written agreements between facilities within and contiguous to each EMS region of the State.

i. Critical Care Units

(1) By June 30, 1976 assess critical care capacity existing in the State by patient category.

(2) By June 30, 1976 develop standards for specialized I.C.U. vehicles and equipment utilized in transportation of critically ill or injured patients.

(3) By June 30, 1976 establish a mechanisms for the creation of mutual-aid agreements to ensure that critical care services are provided across geographical and political boundaries.

j. Public Safety Agencies

(1) to continue to integrate public safety agencies in the total EMS system. (ongoing.)

(2) By December 31, 1975 develop coordinative procedures for utilization of public safety agencies in Standard EMS and Disaster Operating Procedures.

k. Consumer Participation

(1) By January 31, 1976 develop mechanisms for consumer participation in formulation of EMS policy at State, Regional, and Local Levels.

(2) By December 31, 1975 develop ongoing educational program to educate both EMS consumers and providers as to the need for their involvement in the development of local and regional EMS systems.

l. Accessibility to Care

By June 30, 1976 develop procedures for monitoring EMS systems within the State to ensure that services are provided without prior inquiry as to ability to

m. Transfer of Patients

By March 31, 1976 develop mechanisms and guidelines for coordinating transfer of patients in such a manner as to ensure continuity of care in facilitating the maximum recovery of the patient.

n. Standardized Patient Record-Keeping

Immediate Objective:

By June 30, 1976 develop an implement standardized reporting form models to facilitate evaluation of patient care from entry into the EMS system until discharge.

Long-Range Objectives:

(1) By June 30, 1977 implement standardized reporting forms statewide.

(2) By June 30, 1977 coordinate the establishment of a centralized EMS data collection and processing system.

o. Public Information and Education

(1) By December 31, 1975 coordinate statewide program for dissemination of EMS information to the citizens of Iowa.

(2) By June 30, 1976 establish guidelines for the development of local EMS education programs

p. Evaluation

By March 31, 1976 develop standardized evaluation techniques for application at state and regional levels.

q. Disaster Linkages

(1) By April 30, 1976 develop procedures for inclusion of EMS System Activities Within State and Regional Civil Defense Programs.

(2) By June 30, 1976 coordinate agreements between contiguous regions relative to the provisions of EMS in times of disaster.

r. Mutual Aid

By June 30, 1976 develop mechanisms for establishing mutual aid linkages with contiguous areas for EMS system components.

s. Legislation

(1) By February 29, 1976 facilitate passage of acceptable EMS legislation providing for the licensing of ambulance services and the certifying of ambulance personnel.

(2) By February 29, 1976 revision of the Medical Practice Act, Code of Iowa, to authorize trained EMT-A's to intubate, defibrillate, and administer drugs and IVs under a physician's supervision.

(3) By June 30, 1976 revise Iowa State Department rules relative to hospital licensing in order to allow hospitals to discontinue maintenance of a complete emergency department if not provided for in Regional EMS Facilities Utilization Plans and the categorization of Hospital Facilities report of the Governor's EMS Advisory Council.

B. PROGRAM OBJECTIVE PRIORITY

Immediate attention will be given to program management objectives designed to establish operational procedures for the conduct of statewide and regional EMS programs.

During fiscal year 1976, priority will be given to the establishment of coordinative mechanisms by which the State will provide the leadership and technical assistance in developing EMS Regions to meet the total EMS needs of the State. Components relating to program management, regionalization, physician and professional input, public information and education, and legislation will be extensively developed in order to create the environment for the implementation of EMS systems during succeeding fiscal years. At the same time all phases of EMS training will be given top priority on a statewide basis to assure the availability of trained

personnel statewide. High priority will also be devoted toward implementation of the State EMS Communications Plan, refinement of the emergency facility categorization process, an inventory of critical care capacity, and development of patient transfer mechanisms. Development of specific Health Department functions for the remaining components will also be addressed with implementation of these functions scheduled for subsequent fiscal year periods.

V. PROGRAM IMPLEMENTATION

A. INTRODUCTION

Successful implementation of this plan will result in the establishment of six viable emergency medical service regions within the State, geographically delineated by existing patterns of patient flow and able to serve 95 percent of their respective emergency medical service needs. Coordinative and technical assistance to these regions will be provided by the ISDH as the lead agency for State EMS activities in planning and implementation of Emergency Medical Service Systems that provide definitive treatment of the emergent EMS patient from his initial entry into the system until his eventual discharge. Supporting these systems will be appropriately trained EMS personnel, functional and cost-efficient EMS communications, properly distributed and equipped EMS transportation vehicles, coordination of public safety and disaster planning efforts, mutual aid agreements for ensuring advanced levels of care to the critically ill and injured, public awareness programs, standardized medical record-keeping and data analysis, accessibility to care assurances, active consumer participation, and protocols for independent review.

EMS system capacity development will be the primary responsibility of the State's EMS regions as designated by the Governor's EMS Advisory Council. Initial planning efforts will be the function of existing areawide planning Councils and their successor Health Systems Agencies developed in accordance with The National Health Planning and Resource Development Act of 1974 (Public Law 93-641). Each regional system will be developed in accordance with standards established in the State EMS Plan. Coordination and technical assistance will be provided by the ISDH in each of the system components as outlined below, thereby ensuring the provision of coordinated comprehensive EMS programs to the citizens of Iowa and the State's transient population.

Each region will establish a regional EMS Advisory Council consisting of government officials, EMS providers, and consumers which shall assume responsibility for overseeing the development of an EMS system. These Councils shall consolidate and update past EMS planning efforts in their respective regions and provide ongoing planning and development activities. Wherever possible, the Regional EMS Councils shall be established in conjunction with the formation of Health Service Area advisory groups and will be responsible for making recommendations on EMS system's development to the Health Systems Agency designated for their respective areas. The EMS Advisory Councils will be responsible for developing and constantly revising regional EMS plans which will be approved by their respective Health Systems Agencies with review and comment provided by the EMS Section of the Iowa State Department of Health and the Governor's EMS Advisory Council.

Each regional system will provide for immediate, easily attainable citizen access to Regional Central Medical Emergency Dispatch Centers which will provide for an appropriate response consisting of emergency care both at the scene and en route to an appropriate categorized hospital. Special critical care units will be identified by specific patient categories and methods of emergency transfer will be developed.

All persons employed in the EMS delivery system will be trained within their area of responsibility and continuing education programs will be provided to maintain proficiencies that have been developed.

A communications system will be developed in accordance with the State EMS Commu-

nication Plan and will provide adequate communication linkages between providers operating within the system. Upon completion of the system a patient should be able to expect immediate response and professional care while at the scene, en route to, and in the emergency facility.

A person involved in an auto crash should be able to expect an ambulance or rescue unit to arrive on the scene within a few minutes after the person detecting the crash notifies the central dispatch point (C-MED).

The first crew to arrive (either trained ambulance or rescue unit personnel) will provide any lifesaving care needed. Voice contact will be made with the appropriate hospital emergency department to announce the estimated arrival time and provide patient data and vital signs. Care will continue to be provided en route to the emergency department as voice contact is maintained as required. The C-MED dispatcher will coordinate any additional communications that may be required.

Upon arrival at the categorized emergency department, initial medical care will be provided. Should transfer to another facility be required in order to provide the patient with more definitive care, the patient will be transferred by ambulance, Critical Care Transfer Unit, or air in accordance with standards and criteria established by the EMS Plan for the region.

Therefore, when the implementation of this Plan is completed, the State of Iowa will have an emergency care system that will:

1. Provide quick identification and response to accidents and sudden illnesses.
2. Sustain and prolong life through proper emergency medical care measures, both at the scene and in transit.
3. Provide the coordination, transportation, and communications necessary to bring the sick and injured and definitive medical care together in the shortest practicable time without simultaneously creating additional hazards.

B. DESCRIPTION OF METHODOLOGY FOR ACHIEVEMENT OF SPECIFIC OBJECTIVES

Program Management.

1.0 By January 1, 1976 conduct review relative to the functions of the Iowa State Department of Health, Section of Emergency Medical Services, as the lead agency for all EMS activities.

Milestones:

1.1 By October 31, 1975 determine the areas of deficiencies existing relative to the provision of technical and coordinative assistance by the State Department of Health to regional EMS Programs.

1.2 By November 15, 1975 determine program needs of the Section according to areas of deficiencies.

1.3 By November 30, 1975 develop a draft of comprehensive program needs, identifying potential sources of funding for presentation to the Commissioner of Public Health.

1.4 By December 22, 1975 submit the draft of program needs to the Governor's EMS Advisory Council for review and comment.

1.5 By January 1, 1976 present a final draft of program needs to the Commissioner of Public Health.

2.0 By June 30, 1976 facilitate the provision of adequate staff to the Iowa State Department of Health, Section of Emergency Medical Services to enable it to fulfill its role as the lead agency for all State EMS activities.

Milestones:

2.1 By November 15, 1975 identify staff needs for the Iowa State Department of Health, Section of Emergency Medical Services to fulfill its role as the lead agency for all State EMS activities.

2.2 By November 1975 prepare a proposal for funding program staff to be submitted as a supplemental State appropriations request for Fiscal Year 1977.

2.3 By March 31, 1976 prepare and submit federal funding proposals for supplemental staff support to adequately meet the needs of the State in the development and maintenance of the State EMS Program.

2.4 Recruit and train new State EMS staff personnel according to funding made available through State and federal appropriations. (Ongoing.)

3.0 By June 30, 1976 establish specific State Health Department services relative to grants management functions for State and Regional EMS programs.

Milestones:

3.1 By January 31, 1976 identify funding resources available to each EMS region.

3.2 By January 31, 1976 distribute grant application materials.

3.3 By February 29, 1976 receive grant application material from EMS Regions.

3.4 By March 31, 1976 assign priorities for funding and submit statewide grant applications to DHEW and DOT respectively for funding consideration during Fiscal Year 1977.

3.5 By April 15, 1976 conduct conferences with Health Department fiscal staff regarding staffing needs to provide grants management functions.

4.0 Establish specific State Health Department services relative to components required of Comprehensive Emergency Medical Service Systems. (Ongoing - see specific objectives and methodologies for individual components.)

5.0 To develop and implement standards required for comprehensive emergency medical service systems components in accordance with time tables approved by the Governor's Emergency Medical Services Advisory Council. (Ongoing.)

Regionalization.

6.0 By June 30, 1976 establish viable Emergency Medical Service Regions for the State of Iowa.

Milestones:

6.1 By August 21, 1975 delineate geographical boundaries for the establishment of EMS Regions for the State of Iowa.

  1.1 By July 7, 1975 complete demographic studies pertaining to patient flow.

  1.2 By July 25, 1975 conduct conferences with input groups relative to proposed geographical boundaries for EMS Regions.

  1.3 By July 31, 1975 develop and refine alternative proposals for EMS Regions.

  1.4 By August 21, 1975 select most feasible alternative.

6.2 By January 31, 1976 establish viable EMS Councils in designated EMS Regions.

  2.1 By August 15, 1975 meet with EMS Development Group to inform members of regionalization format and to obtain participation and assistance in implementing the regionalization concept.

  2.2 By September 30, 1975 make final boundary adjustments and inform public of designated EMS Regions.

  2.3 By October 31, 1975 meet with respective areawide EMS Councils to review regionalization format and select representatives to attend organization meetings for respective EMS Regions.

  2.4 By November 30, 1975 conduct organizational meeting for respective EMS Regions in order to establish guidelines for organization, including requirements for physician input, and elect temporary chairman.

  2.5 By December 31, 1975 conduct second series of organizational meetings in order to establish guidelines for structure, appoint operating procedures and bylaws committee, and appoint nominating committee.

  2.6 By January 31, 1976 conduct third series of organizational meetings in order to elect officers, establish task forces, and approve bylaws establishing formal EMS council structure.

6.3 By January 31, 1976 establish policy and procedures guidelines for regional implementation of EMS Programs.

6.4 By March 31, 1976 assist EMS Regions in identifying and making application for EMS program funding, utilizing federal funds available under the EMS Act of 1973 and the State Highway Safety Program for the 1977 Fiscal Year funding cycle.

6.5 By June 30, 1976 each EMS planning region shall have completed a regional EMS plan.

Physician and Other Professional Input.

7.0 By November 30, 1975 identify and establish physician consultants for emergency medical service programs in each EMS Region of the State.

Milestones:

7.1 By October 31, 1975 identify physicians in each of the EMS Regions to serve as physician consultants for their respective regions.

7.2 By November 30, 1975 hold the first of a series of conferences between the Regional EMS Physician-Consultants and the Chairman of GEMSAC.

7.3 By November 30, 1975 conduct the first of the series of Regional EMS Council Organizational Meetings with the Physician Consultants in attendance.

8.0 By January 31, 1976 provide for physician direction of essential clinical aspects of State and regional EMS systems development relating to critical care patient categories.

Milestones:

8.1 By November 31, 1975 provide for the establishment of a Statewide Physician Advisory Committee to assist the Hospital Emergency Facilities Task Force of the GEMSAC in addressing the State's critical care needs for the following patient categories: trauma, spinal cord injuries, heart attack and stroke, high-risk infant and pregnancies, nuclear radiation disaster, poisonings, chemical dependency including drug abuse and alcoholism, psychiatric emergencies, and burns.

8.2 By December 15, 1975 conduct first meeting of the State Physician's Advisory Committee with the Chairman and Vice-Chairman of the Governor's EMS Advisory Council and the Hospital Emergency Facilities Task Force.

8.3 By January 31, 1976 establish criteria for the State's critical care needs, utilizing the recommendations of the Physician's Advisory Committee.

Manpower.

9.0 By March 31, 1976 develop a mechanism for determining the number of EMS personnel (by category) required to provide basic life support programs on a 24-hour, 7 day a week basis within the service areas of the State.

Milestones:

9.1 By October 31, 1975 develop criteria for measuring manpower requirements.

9.2 By December 31, 1975 apply criteria to existing manpower levels.

9.3 By January 31, 1976 modify criteria as required.

9.4 By March 31, 1976 produce planning document for determining manpower requirements.

10.0 To continue statewide support of EMT-A, ERT, dispatcher, physician, nurse, and first responder training program (ongoing objective, discussed under Training Component).

11.0 To encourage utilization of veterans of the Armed Forces with medical training and experience in State and Regional EMS Programs (ongoing).

Milestones:

11.1 By January 31, 1976 in cooperation with the MEDIHC Program of the ISHD, update the survey of veterans employed by EMS providers throughout the State.

11.2 Through the Public Information and Education Task Force, acquaint the public with the value of utilization of veterans with medically related experience in EMS positions.

12.0 By March 31, 1976 ensure that at least one hospital in each EMS Region of the State has 24-hour emergency departemnt physician coverage.

Milestones:

12.1 By January 15, 1976 identify those EMS regions in the State not possessing at least one hospital with 24-hour physician coverage.

12.2 By January 31, 1976 for those regions not possessing at least one hospital with 24-hour emergency coverage, identify facilities potentially capable of providing this function.

12.3 By February 29, 1976 meet with those Regions to encourage planning efforts to secure 24-hour physician coverage in those hospitals identified as having this capability.

12.4 By March 31, 1976 review progress made in upgrading the above hospitals to provide 24-hour physician coverage.

Training.

13.0 By June 30, 1976 develop a Training Component Model which will meet the State projected EMS manpower needs.

Milestones:

13.1 By February 29, 1976 inventory existing training programs.

13.2 By February 28, 1976 determine adequacy of existing training programs for meeting manpower needs.

13.3 By March 31, 1976 identify training programs which must be established for meeting manpower needs.

13.4 By May 30, 1976 identify institutions cpapble of providing required training programs.

13.5 By June 30, 1976 establish contracts with above institutions to provide required training programs.

14.0 To continue statewide coordinative functions for existing EMT-A, ERT, dispatcher, and first responder training programs (ongoing).

Milestones:

14.1 By October 31, 1976 establish a part-time staff of twelve persons to coordinate at the local level all EMS Training Programs that meet State criteria.

14.2 By March 31, 1976 establish four test teams, one in each quarter of the State, to evaluate the practical portion of the EMT-A training program.

14.3 By March 31, 1976 develop a committee to validate and revise the present tests used for Emergency Medical Service training programs.

15.0 To continue statewide support of Basic EMT-A, ERT, dispatcher, and first responder training programs (ongoing).

Milestones:

15.1 By September 30, 1976 train 1000 EMT-A ambulance personnel utilizing the Basic EMT-A Training Course through the Area Colleges.

15.2 By September 30, 1976 train 500 emergency rescue personnel utilizing the Basic Rescue Technician courses through the Area Colleges.

15.3 By June 30, 1976 develop and adopt an Emergency Medical Dispatcher Training Course.

15.4 By December 31, 1976 identify and train 10 Emergency Dispatchers through the respective Area Colleges in order to properly staff the two EMS Communication Centers currently being developed for the Central Iowa and Hoover Health Planning Areas.

15.5 By January 1, 1977 make the dispatcher course available statewide.

15.6 By September 30, 1976 through the Area Coordinators conduct 16 courses in the Equipment Orientation and Crash Simulation Program for ambulance personnel receiving new ambulances and/or equipment.

15.7 By September 30, 1976 train at least 1000 law enforcement officers in Crash Injury Management through the law enforcement academies and the Area Colleges.

15.8 By September 30, 1976 train at least 500 fire fighters in Crash Injury Management through the Area Colleges.

15.9 By September 30, 1976 conduct a total of 14 workshops for area coordinators (3), rescue training instructors (3), rescue program technical committee (2), course training coordinators (1), ambulance supervisors (1), and regional training workshops (4).

15.10 By June 30, 1976 develop an advanced EMT-A course, acceptable to the medical profession, which will train selected EMT-A's to administer drugs and IV's, defibrillate, and intubate patients when EMT-A's are in direct communication with a physician.

16.0 By June 30, 1976 coordinate statewide emergency physician and nurse, and advanced EMT-A continuing education programs.

Milestones:

16.1 By August 15, 1975 contract with University of Creighton for the development and presentation of short courses and seminars for emergency department personnel and advanced EMT-A's in western Iowa.

16.2 By September 30, 1975 work with the University of Iowa in developing a program for the presentation of short courses and seminars for emergency department personnel and advanced EMT-A's in Eastern and Central Iowa.

16.3 By October 31, 1975 establish subcommittees of the GEMSAC's Personnel and Training Task Force for study of continuing education requirements for emergency department personnel and advanced EMT-A's.

16.4 By February 28, 1976 identify additional training programs which must be established for meeting emergency department and advanced EMT-A needs.

16.5 By May 31, 1976 identify educational institutions capable of providing required training programs.

16.6 Establish contracts with the above institutions for required training programs by June 30, 1976 for Fiscal Year 1977.

Communications.

17.0 By June 30, 1976 establish a mechanism for completing implementation of the State EMS Communications Plan.

Milestones:

17.1 By November 30, 1975 determine criteria for establishing priorities for implementation of regional communication systems in accordance with the State EMS Communications Plan.

17.2 By December 31, 1975 on the basis of established criteria, assign priorities for completion of the State EMS Communications System.

17.3 By March 30, 1976 develop a policy and procedures guide for use by regional EMS Councils.

17.4 By April 30, 1976 review the policy and procedures guide planning document with EMS Development Group.

17.5 By May 30, 1976 obtain approval of Policy and Procedures Guide by GEMSAC.

17.6 By June 30, 1976 distribute the Policy and Procedures Guide to regional EMS Councils.

17.7 By June 30, 1976 assist regional EMS Councils with identifying implementing agencies and funding sources.

17.8 By June 30, 1976 provide planning assistance for two other regions on a second priority basis and prepare them for implementation.

18.0 By October 31, 1977 coordinate the placement of the first two regional C-MED's in operation.

Milestones:

18.1 By October 31, 1975 provide grants-in-aid as are available to the Central Iowa and Hoover Health Planning Areas for implementation of area communication systems in accordance with the State EMS Communications Plan.

18.2 By October 31, 1975 complete systems testing for Phase I of the Hoover Area Communications Project.

18.3 By March 31, 1976 provide technical assistance through completion of systems testing for Phase II of the Hoover Project.

18.4 By May 1, 1976 provide technical assistance through completion of systems testing for Phase I of the Central Iowa Communications Project.

(Long-range objectives - methodologies to be developed in annual revisions of the Plan.)

19.0 By January 1, 1977 have Regional EMS Communications Plans completed by the Regional EMS Councils.

20.0 By April 30, 1978 have the first four regional C-MED's fully operational.

21.0 By June 30, 1982 all regional C-MED's shall be in full operation in accordance with the State EMS Communications Plan.

Transportation.

22.0 By March 31, 1976 develop a mechanism for determining proper placement, distribution, and number of adequate ground, air, and water transportation vehicles in such a manner as to ensure maximum response times of ten minutes for all calls in urban areas, and 20 minutes time for all calls in rural areas.

Milestones:

22.1 By October 30, 1975 develop standards and criteria for determining proper placement, and number of transportation vehicles.

22.2 By November 30, 1975 develop distribution plan in accordance with established criteria.

22.3 By December 31, 1975 present distribution plan to Development Group for review and comment.

22.4 By January 31, 1976 obtain approval of distribution plan by GEMSAC.

22.5 By February 29, 1976 acquaint regional EMS Councils with distribution plan.

Hospital Facilities.

23.0 By December 31, 1975 facilitate continual review, revision, and implementation of the categorization process.

Milestones:

23.1 By November 30, 1975 update statewide categorization study.

23.2 By December 31, 1975 identify mechanism for ongoing implementation of the categorization process.

24.0 By March 31, 1976 develop and distribute to the Regional EMS Councils a

Health Facilities Standards and Distribution Planning Guide to be used as a planning mechanism for determining proper distribution of categorized emergency medical service facilities which collectively provide total patient care requirements and which will place all persons within 60 minutes of a categorized hospital after the dispatch of an ambulance.

Milestones:

24.1 By December 31, 1975 develop standards and distribution planning guide.

24.2 By January 31, 1976 obtain approval of the Health Facilities Standards and Distribution Planning Guide by the Governor's EMS Advisory Council.

24.3 By March 31, 1976 distribute the guide to the regional EMS Councils.

25.0 By June 30, 1976 establish the regional EMS Councils as the identified emergency facility planning bodies in each region of the State.

Milestones:

25.1 By January 31, 1976 assist each region with establishing a hospital emergency facility advisory committee as part of its EMS Council.

25.2 By June 30, 1976 each regional EMS Council shall have completed an emergency department facilities services distribution plan which shall identify the categories, numbers, and locations of hospital emergency departments necessary to meet the needs of the region.

26.0 By June 30, 1976 establish a mechanism for ensuring interfacility coordination formalized by written agreements within and contiguous to each EMS Region of the State.

Critical Care Units.

27.0 By June 30, 1976 assess critical care capacity existing in the State by patient category.

Milestones:

27.1 By November 30, 1975 develop survey instrument for identification of institution and programs that have critical care capacity.

27.2 By November 30, 1975 identify organization to survey and categorize critical care units according to patient category.

27.3 By January 31, 1976 establish criteria for critical care units by patient category.

27.4 By March 31, 1976 complete a survey of those institutions capable of assuming lead responsibilities for critical care capacities by specific patient categories.

27.5 By June 30, 1976 make survey results available to regional EMS planning councils.

28.0 By June 30, 1976 develop standards for specialized ICU vehicles and equipment utilized in transportation of critically ill or injured patients.

Milestones:

28.1 By March 31, 1976 identify types of specialized vehicles required.

28.2 By June 30, 1976 develop personnel standards for each type of unit.

28.3 By June 30, 1976 develop vehicle and equipment standards for each type of unit.

29.0 By June 30, 1976 establish a mechanism for the creation of mutual aid agreements to ensure that critical care services are provided across geographical and political boundaries.

Public Safety Agencies.

30.0 To continue to integrate public safety agencies in the total EMS system (ongoing).

Milestones:

30.1 Continue to encourage public safety participation on EMS Advisory Councils and related Task Forces.

30.2 Encourage participation of public safety agencies in areawide disaster planning and response.

31.0 By December 31, 1975 develop coordinative procedures for utilization of public safety agencies in Standard EMS and Disaster Operating Procedures.

Milestones:

31.1 By November 30, 1975 identify public safety agencies at the state level according to area of interest, availability of personnel, equipment and resources.

31.2 By December 31, 1975 establish agreements with public safety agencies at the state level to integrate EMS and civil defense plans with each region.

Consumer Participation.

32.0 By January 31, 1976 develop mechanisms for encouraging consumer participation in formulation of EMS policy at state, regional, and local levels.

Milestones:

32.1 By November 30, 1975 determine adequacy of existing consumer representation on state and areawide or regional councils.

32.2 By December 31, 1975 provide a mechanism for encouraging greater consumer representation on EMS Councils.

33.0 By December 31, 1975 develop ongoing educational program to educate both EMS consumers and providers as to the need for their involvement in the development of local and regional EMS systems.

Milestones:

33.1 By October 31, 1975 meet with the Public Information and Education Task Force to draft the components for such a program.

33.2 By November 30, 1975 meet with the Health Education Section of the State Health Department to discuss methods for disseminating information and materials regarding involvement in EMS to consumers and providers.

33.3 By December 31, 1975 implement proposed program.

Accessibility to Care.

34.0 By June 30, 1976 develop procedures for monitoring EMS Systems within the State to ensure that services are provided without prior inquiry as to ability to pay.

Milestones:

34.1 By January 31, 1976 develop a survey instrument to determine if EMS services are provided without prior inquiry as to ability to pay.

34.2 By March 31, 1976 identify an organization to survey at random consumers and providers alike to determine if EMS services are provided without prior inquiry as to ability to pay.

34.3 By June 30, 1976 conduct initial survey determining accessibility of necessary emergency care without prior inquiry as to the ability to pay.

Transfer of Patients.

35.0 By March 31, 1976 develop mechanisms and guidelines for coordinating transfer of patients in such a manner as to ensure continuity of care in facilitating the maximum recovery of the patient.

Milestones:

35.1 By December 31, 1975 develop standards for transfer of emergent patients in the EMS System.

35.2 By January 31, 1976 identify facilities within Iowa and in adjacent states which provide rehabilitative or follow-up care.

35.3 By January 31, 1976 determine number and extent of existing transfer arrangements with a view toward assurance of continuity of care.

35.4 By March 31, 1976 develop procedures for facilitating such agreements.

Standardized Patient Record-Keeping.

36.0 By June 30. 1976 develop and implement standardized reporting form models to facilitate evaluation of patient care from entry into the EMS system until discharge.

Milestones:

36.1 By December 31, 1975 develop hospital emergency report form model in cooperation with Iowa Hospital Association sponsored EMS data systems project.

36.2 By December 31, 1975 develop report forms for dispatch and ambulance service.

36.3 By December 31, 1975 distribute the proposed forms to input groups for review and comment.

36.4 By March 15, 1976 finalize form format.

36.5 By June 30, 1976 print and distribute final fo-m format to regional EMS Councils for pilot application in their areas.

(Long-range objectives - methodologies to be developed in annual revisions of the Plan.)

37.0 By June 30, 1977 implement standardized reporting forms statewide.

38.0 By June 30, 1977 coordinate the establishment of a centralized EMS data collection and processing system.

Public Information and Education.

39.0 By December 31, 1975 coordinate a statewide program for dissemination of EMS information to the citizens of Iowa.

Milestones:

39.1 By October 31, 1975 determine specific EMS "publics" including hospitals, government officials, ambulance services, and consumers; create messages, methods, and materials to reach these groups.

39.2 By December 31, 1975 implement an outreach campaign introducing the EMS systems development concept through a series of regional meetings throughout the State.

39.3 By December 31, 1975 implement a program through the mass media designed to increase the general awareness of the public concerning access to EMS systems and their utilization.

40.0 By June 30, 1976 establish guidelines for the development of local EMS education programs.

Milestones:

40.1 By April 30, 1976 develop recommended guidelines and criteria to cover the entire spectrum of EMS information and education which local EMS Councils can adapt to meet their specific needs.

40.2 By June 30, 1976 prepare an annotated bibliography and resource list of books, films, and educational materials for use at the local level.

Evaluation.

41.0 By March 31, 1976 develop standardized evaluation techniques for application at state and regional levels.

Milestones:

41.1 By January 31, 1976 develop criteria for evaluation of EMS programs.

41.2 By February 29, 1976 identify evaluators who would be capable of performing ongoing evaluations of state and regional EMS programs.

41.3 By March 31, 1976 obtain the services of such an evaluator to evaluate the State EMS Program.

Disaster Linkages.

42.0 By April 30, 1976 develop procedures for inclusion of EMS System Disaster activities within State and Regional Civil Defense Programs.

Milestones:

42.1 By November 30, 1975 identify organizations throughout the State responsible for disaster planning coordination.

42.2 By December 31, 1975 review emergency disaster plans at state level for compatability and completeness with regard to EMS Program.

42.3 By February 29, 1976 coordinate development of disaster linkages in EMS regions of the State through interface of EMS and regional disaster plan.

42.4 By April 30, 1976 develop agreements with other states linking disaster and EMS planning functions.

43.0 By June 30, 1976 coordinate agreements between contiguous regions relative to the provisions of emergency medical services in times of disaster. (For methodology see Description for Mutual Aids.)

Mutual Aid.

44.0 By June 30, 1976 develop mechanisms for establishing mutual aid linkages with contiguous areas for EMS system components.

Milestones:

44.1 By November 30, 1975 study factors having adverse effects upon provision of mutual aid agreement.

44.2 By December 31, 1975 identify areas where mutual aids are needed.

44.3 By February 29, 1976 develop procedures for ensuring that agreements are written, signed by authorized individuals, reviewed, and revised if necessary annually.

44.4 By June 30, 1976 implement comprehensive system of mutual aid agreements by category in all regions of the State.

Legislation.

45.0 By February 29, 1976 facilitate passage of acceptable EMS legislation providing for the licensing of ambulance services and the certifying of ambulance personnel.

Milestones:

45.1 By September 30, 1975 develop regional information and education program for presentation at regional meetings throughout the State concerning the need for ambulance standards and trained personnel.

45.2 By December 31, 1970 conduct six to eight regional meetings throughout State, acquainting consumers and providers alike with the need for such legislation.

45.3 By February 28, 1976 conduct a series of briefings for legislators regarding results of the public meetings.

46.0 By February 29, 1976 facilitate revision of the Medical Practice Act, Code of Iowa, to authorize trained EMT-A's to intubate, defibrillate, and administer drugs and IV's under a physician's supervision.

Milestones:

46.1 By December 31, 1975 meet with the Iowa State Medical Society and the Iowa State Department of Health to gain the support of those bodies for the proposed legislation.

46.2 By February 29, 1976 brief key legislators concerning the proposed legislation.

47.0 By June 30, 1976 revise Iowa State rules relative to hospital licensing in order to allow hospitals to discontinue maintenance of an emergency department if not provided for in Regional EMS Facilities Utilization Plans and the Categorization of Hospital Facilities Report of the Governor's EMS Advisory Council.

Milestones:

47.1 By November 30, 1975 meet with Health Facilities Division to discuss incorporation of the proposed change in departmental rules.

47.2 By December 31, 1975 meet with the Iowa State Board of Health to obtain its approval for the suggested change.

47.3 By February 29, 1976 hold public hearings relative to the proposed change.

47.4 By June 30, 1976 adopt proposed change in Health Department rules.

Resources required for the accomplishment of the above objectives are outlined in Sections VII and VIII (Program Resources and Commitment Summaries). Staff primarily responsible for program implementation will be provided by the Iowa State Department of Health's Section of Emergency Medical Services. The Planning Unit of the Section of Emergency Medical Services will be responsible for planning and development activities. The Training Unit will implement all activities concerned with coordination of the State EMS Training Program. The Administrative Services Unit will be responsible for project monitoring and grants management functions. Supporting services to the Section will be provided by the Iowa State Department of Health's Section of Health Education, the Fiscal Division and the Personnel Office.

The Communications Division of the Department of General Service will be responsible for providing technical assistance in the implementation of the communications component of the Plan. The Iowa Office of Planning and Programming through the Highway Safety Program will provide administrative review functions for those EMS components having an impact on reduction of accidental deaths and injuries resulting from highway accidents. The Iowa State Office of Comprehensive Health Planning will provide technical assistance in integrating emergency medical service programming activities with other health planning activities at the state level.

Contractual personnel engaged on behalf of implementation activities are outlined in the Program Resource Summary Program. Such personnel will be used primarily in implementation of the Statewide Emergency Medical Service Training Program. In addition, technical consultants will be used on behalf of the communications component and survey teams will be engaged to conduct research outlined in the work program. The Governor's Emergency Medical Services Advisory Council and its Task Forces will furnish provider and consumer input during all phases of program implementation. The EMS Development Group will supply local and regional input for program implementation activities. Input from regional and areawide EMS Councils will also be obtained during program implementation for all system components.

Materials to be utilized during implementation consist primarily of office supplies, duplicating materials, and survey instruments, also information and training packets.

Projected monies for program implementation are summarized in the Program Resources and Commitment Summaries.

Time for completion of program activities was determined as the estimated number of compensated man-days required to complete a given activity. Dates for initiation and completion of program activities are provided in the Program Commitment Summary. Implementation dates have been correlated with the availability of funds through October 31, 1976. Implementation of those activities scheduled for completion subsequent to that date are subject to the availability of continued funding.

VI. PROGRAM IMPLEMENTATION SCHEDULE

MILESTONE ACTION #	OBJECTIVE (△) MILESTONE (X) ACTION STEP (x)	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	FY '77	FY '78	FY '79	FY '80
					FIS	CAL	YE	AR	19	76							
	PROGRAM MANAGEMENT																
1.0	By January 31, 1976 conduct a review relative to the functions of the Iowa State Department of Health, Section of Emergency Medical Services, as the lead agency for all EMS activities.	—	—	—	—	—	△										
1.1	By October 31, 1975 determine the areas of deficiencies (if any) existing relative to the provision of technical and coordinative assistance by the State Department of Health to regional EMS programs.	—	—	—	X												
1.2	By November 15, 1975 analyze program needs of the Section according to areas of deficiencies.				—	X											
1.3	By November 30, 1975 develop a draft of comprehensive program needs, identifying potential sources of funding for presentation to the Commissioner of Public Health.					X											
1.4	By December 22, 1975 submit the draft of program needs to the Governor's EMS Advisory Council for review and comment.						X										
1.5	By January 31, 1976 present a final draft of program needs to the Commissioner of Public Health.							X									
2.0	By June 30, 1976 facilitate the provision of adequate staff to the Iowa State Department of Health, Section of Emergency Medical Services to fulfill its role as the lead agency for all State EMS activities.	—	—	—	—	—	—	—	—	—	—	—	△				
2.1	By November 1975 identify staff needs for the Iowa State Department of Health, Section of Emergency Medical Services to fulfill its role as the lead agency for all State EMS activities.	—	—	—	—	X											
2.2	By November 30, 1975 prepare a proposal for funding program staff to be submitted as a supplemental State appropriations request for fiscal year 1977.					X											
2.3	By March 31, 1976 prepare and submit federal funding proposals for supplemental staff support to adequately meet the needs of the State in the development and maintenance of the State EMS Program.								—	X							
2.4	Recruit and train new State EMS staff personnel according to funding made available through State and federal appropriations. (Ongoing.)	—	—	—	—	—	—	—	—	—	—	—	X	- - -	- - -	X	
3.0	By June 30, 1976 establish specific State Health Department services relative to grants management functions for State and regional EMS programs.	—	—	—	—	—	—	—	—	—	—	△					

VI. PROGRAM IMPLEMENTATION SCHEDULE

MILESTONE ACTION #	OBJECTIVE (△) MILESTONE (X) ACTION STEP (x)				FIS	CAL	YE	AR	19	76				FY	FY	FY	FY
		JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	'77	'78	'79	'80
3.1	By January 31, 1976 identify funding resources available to each EMS region.	—	—	—	—	—	—	X									
3.2	By January 31, 1976 distribute grant application materials.							X									
3.3	By February 29, 1976 receive grant application material from EMS Regions.								X								
3.4	By March 31, 1976 assign priorities for funding and submit statewide grant applications to DHEW and DOT respectively for funding consideration during FY 1977									X							
3.5	By April 15, 1976 conduct conferences with Health Department fiscal staff regarding staffing needs to provide grants management functions.										X						
3.6	By June 30, 1976 sign contracts for fiscal year 1977 EMS projects.										—	—	X				
4.0	Establish specific State Health Department services relative to components required of Comprehensive Emergency Medical Services Systems. (Ongoing--see specific objectives and methodologies for individual components.)	—	—	—	—	—	—	—	—	—	—	—	△	- - -	- - -	- - -	- - -
5.0	To develop and implement standards required for comprehensive emergency medical service systems components in accordance with timetables approved by the Governor's EMS Advisory Council (ongoing).	—	—	—	—	—	—	—	—	—	—	—	△	- - -	- - -	- - -	- - -
	REGIONALIZATION																
6.0	By June 30, 1976 establish viable EMS regions for the State of Iowa.	—	—	—	—	—	—	—	—	—	—	—	△				
6.1	By August 21, 1975 delineate geographical boundaries for the establishment of EMS regions for the State of Iowa.	—	X														
1.1	By July 7, 1975 complete demographic studies pertaining to patient flow.	x															
1.2	By July 25, 1975 conduct conferences with input groups relative to proposed geographical boundaries for EMS regions.	x															
1.3	By July 31, 1975 develop and refine alternative proposals for EMS regions.	x															
1.4	By August 21, 1975 select most feasible alternative.	—	x														
6.2	By January 31, 1976 establish viable EMS Councils in designated EMS regions.		—	—	—	—	—	X									
2.1	By August 15, 1975 meet with EMS Development Group to inform members of regionalization format and to obtain participation and assistance in implementing the regionalization concept.		x														

VI. PROGRAM IMPLEMENTATION SCHEDULE

MILESTONE ACTION #	OBJECTIVE (Δ) MILESTONE (X) ACTION STEP (x)				FIS	CAL	YE	AR	19	76				FY	FY	FY	FY
		JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	'77	'78	'79	'80
2.2	By September 30, 1975 make final boundary adjustments and inform public of designated EMS regions.			x													
2.3	By October 31, 1975 meet with respective areawide EMS Councils to review regionalization format and select representatives to attend organizational meetings for respective EMS regions.				x												
2.4	By November 30, 1975 conduct organizational meeting for respective EMS regions in order to establish guidelines for organization, including requirements for physician input, and elect temporary chairman.					x											
2.5	By December 31, 1975 conduct second series of organizational meetings in order to establish guidelines for structure, appoint operating procedures and bylaws committee, and appoint nominating committee.						x										
2.6	By January 31, 1976 conduct third series of organizational meetings in order to elect officers, establish task forces, and approve bylaws establishing formal EMS Council structure.							x									
6.3	By January 31, 1976 establish policy and procedures guidelines for regional implementation of EMS programs.							X									
6.4	By March 31, 1976 assist EMS regions in identifying and making application for EMS program funding, utilizing federal funds available under the EMS Act of 1973 and the State Highway Safety Program for 1977 fiscal year funding cycle.									X							
6.5	By June 30, 1976 each EMS Planning Region shall have completed a regional EMS plan.												X				
	PHYSICIAN AND OTHER PROFESSIONAL INPUT																
7.0	By November 30, 1975 identify and establish physician consultants for emergency medical service programs in each EMS region of the State.				—	Δ											
7.1	By October 31, 1975 identify physicians in each of the EMS regions to serve as physician consultant for their respective regions.				X												
7.2	By November 30, 1975 hold the first of a series of conferences between the Regional EMS Physician's Consultant and the Chairman of GEMSAC.					X											
7.3	By November 30, 1975 conduct the first of the series of Regional EMS Council Organizational Meetings with the Physician Consultant in attendance.					X											
8.0	By January 31, 1976 provide for physician direction of essential clinical aspects of State and regional EMS systems development relating to critical care patient categories.				—	—	—	Δ									

VI. PROGRAM IMPLEMENTATION SCHEDULE

MILESTONE					FIS	CAL	YE	AR	19	76				FY	FY	FY	FY
ACTION #	OBJECTIVE (△) MILESTONE (X) ACTION STEP (x)	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	'77	'78	'79	'80
8.1	By November 30, 1975 provide for the establishment of a Statewide Physician Advisory Committee to assist the Hospital Emergency Facilities Task Force of the GEMSAC in addressing the State's critical care needs for the following patient categories: trauma, spinal cord injuries, heart attack and stroke, high-risk infant and pregnancies, nuclear radiation disaster, poisonings, chemical dependency including drug abuse and alcoholism, psychiatric emergencies, and burns.				—	—X											
8.2	By December 15, 1975 conduct first meeting of the State Physician's Advisory Committee with the Chairman and Vice-Chairman of the GEMSAC and the Hospital Emergency Facilities Task Force.						X										
8.3	By January 31, 1976 establish criteria for the State's critical care needs, utilizing the recommendations of the Physician's Advisory Committee.						—	—X									
	MANPOWER																
9.0	By March 31, 1976 develop a mechanism for determining the number of EMS personnel (by category) required to provide basic life support programs on a 24-hour, 7 day-a-week basis within the service areas of the State.				—	—	—	—	—	△							
9.1	By October 31, 1975 develop criteria for measuring manpower requirements				X												
9.2	By December 31, 1975 apply criteria to existing manpower levels.					—	—X										
9.3	By January 31, 1976 modify criteria as required.							X									
9.4	By March 31, 1976 produce planning document for determining manpower requirements.								—	—X							
10.0	To continue statewide support of EMT-A, ERT, dispatcher, physician, nurse, and first responder training program (ongoing objective--discussed under Training Component).	—	—	—	—	—	—	—	—	—	—	—	△	---	---	---	--→
11.0	To encourage utilization of veterans of the Armed Forces with medical training and experience in State and regional EMS programs. (Ongoing.)	—	—	—	—	—	—	—	—	—	—	—	△	---	---	---	--→
11.1	By January 31, 1976 in cooperation with the MEDIHC program of the Iowa State Health Department, update the survey of veterans employed by EMS providers throughout the State.				—	—	—	—X									
11.2	Through the Public Information & Education Task Force acquaint the public with the value of utilization of veterans with medically related experience in EMS positions.	—	—	—	—	—	—	—	—	—	—	—	△	---	---	---	--→

VI. PROGRAM IMPLEMENTATION SCHEDULE

MILESTONE ACTION #	OBJECTIVE (△) MILESTONE (X) ACTION STEP (x)	JUL	AUG	SEP	FISCAL OCT	NOV	YEAR DEC	JAN	1976 FEB	MAR	APR	MAY	JUN	FY '77	FY '78	FY '79	FY '80
12.0	By March 31, 1976 ensure that at least one hospital in each EMS region of the State has 24-hour emergency department physician coverage.							—	—	△							
12.1	By January 15, 1976 identify those EMS regions in the State not possessing at least one hospital with 24-hour physician coverage.							X									
12.2	By January 31, 1976 for those regions not possessing at least one hospital with 24-hour emergency coverage, identify facilities potentially capable of providing this function.							X									
12.3	By February 29, 1976 meet with those regions to encourage planning efforts to secure 24-hour physician coverage in those hospitals identified as having this capability.								X								
12.4	By March 31, 1976 review progress made in upgrading the above hospitals to provide 24-hour physician coverage.								—	X							
	TRAINING																
13.0	By June 30, 1976 develop a Training Component Model which will meet the State projected EMS manpower needs.							—	—	—	—	—	△				
13.1	By February 29, 1976 inventory existing training programs.							—	X								
13.2	By February 29, 1976 determine adequacy of existing training programs for meeting manpower needs.								X								
13.3	By March 31, 1976 identify training programs which must be established for meeting manpower needs.									X							
13.4	By May 31, 1976 identify institutions capable of providing required training programs.										—	X					
13.5	By June 30, 1976 establish contracts with above institutions to provide required training programs.	—	—	—	—	—	—	—	—	—	—	—	X				
14.0	To continue statewide coordinative functions for existing EMT-A, ERT, Dispatcher, and first responder training programs (ongoing).	—	—	—	—	—	—	—	—	—	—	—	△	- - -	- - -	- - -	- - -
14.1	By October 31, 1976 establish a part-time staff of 12 persons to coordinate at the local level all EMS training programs that meet state criteria.	—	—	—	X												

VI. PROGRAM IMPLEMENTATION SCHEDULE

MILESTONE ACTION #	OBJECTIVE (Δ) MILESTONE (X) ACTION STEP (x)	JUL	AUG	SEP	FISCAL YEAR 1976 OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	FY '77	FY '78	FY '79	FY '80
14.2	By March 31, 1976 establish four test teams, one in each quarter of the State, to evaluate the practical portion of the EMT-A training program.									X							
14.3	By March 31, 1976 develop a committee to validate and revise the present tests used for Emergency Medical Service training programs.									X							
15.0	To continue statewide support of Basic EMT-A, ERT, Dispatcher, and First Responder training programs (ongoing).												Δ				→
15.1	By September 30, 1976 train 1000 EMT-A ambulance personnel utilizing the basic EMT-A training course through the area colleges.																
15.2	By September 30, 1976 train 500 emergency rescue personnel utilizing the Basic Rescue Technician courses through the area colleges.																
15.3	By June 30, 1976 develop and adopt an Emergency Medical Dispatcher Training Course.												X				
15.4	By December 31, 1976 identify and train 10 Emergency Dispatchers through the respective area colleges in order to properly staff the two EMS Communication Centers currently being developed for the Central Iowa and Hoover Health Planning Areas.													X			
15.5	By January 1, 1977 make the Dispatcher Course available statewide.													X			
15.6	By September 30, 1976 through the Area Coordinators conduct 16 courses in the Equipment Orientation and Crash Simulation Program for ambulance personnel receiving new ambulances and/or equipment.													X			
15.7	By September 30, 1976 train at least 1000 law enforcement officers in Crash Injury Management through the law enforcement academies and area colleges.													X			
15.8	By September 30, 1976 train at least 500 fire fighters in Crash Injury Management through the area colleges.													X			
15.9	By September 30, 1976 conduct a total of 14 workshops for area coordinators (3), rescue training instructors (3), rescue program technical committee (2), course training coordinators (1), ambulance supervisors (1), and regional training workshops (4).													X			
15.10	By June 30, 1976 develop an advanced EMT-A course, acceptable to the medical profession, which will train selected EMT-A's to administer drugs and IV's, de-																

VI. PROGRAM IMPLEMENTATION SCHEDULE

MILESTONE ACTION #	OBJECTIVE (△) MILESTONE (X) ACTION STEP (x)	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	FY '77	FY '78	FY '79	FY '80
					FIS	CAL	YE	AR	19	76							
15.10 (cont.)	fibrillate, and intubate patients when EMT-A's are in direct communication with a physician.							—	—	—	—	—	X				
16.0	By June 30, 1976 coordinate statewide emergency physician, nurse, and advanced EMT-A continuing education programs.	—	—	—	—	—	—	—	—	—	—	—	△				
16.1	By August 15, 1975 contract with Creighton University for the development and presentation of short courses and seminars for emergency department personnel and advanced EMT-A's in western Iowa.	X															
16.2	By September 30, 1975 work with the University of Iowa in developing a program for the presentation of short courses and seminars for emergency department personnel and advanced EMT-A's in eastern and central Iowa.	—	—	X													
16.3	By October 31, 1975 establish a subcommittee of the GEMSAC's Personnel and Training Task Force for study of continuing education requirements for emergency department personnel and advanced EMT-A's.			—	X												
16.4	By February 29, 1976 identify additional training programs which must be estab- established for meeting emergency department and advanced EMT-A needs.				—	—	—	—	X								
16.5	By May 31, 1976 identify educational institutions capable of providing required training programs.									—	—	X					
16.6	Establish contracts with the above institutions for required training programs by June 30, 1976 for Fiscal Year 1977.												X				
	COMMUNICATION																
17.0	By June 30, 1976 establish a mechanism for completing implementation of the State EMS Communications Plan.	—	—	—	—	—	—	—	—	—	—	—	△				
17.1	By November 30, 1975 determine criteria for establishing priorities for imple- mentation of Regional Communication Systems in accordance with the State EMS Communications Plan				—	X											
17.2	By December 31, 1975 on the basis of established criteria, assign priorities for completion of the State EMS Communications System.						X										
17.3	By March 30, 1976 develop a policy and procedures guide for use by regional EMS Councils.				—	—	—	—	—	X							

VI. PROGRAM IMPLEMENTATION SCHEDULE

MILESTONE ACTION #	OBJECTIVE (△) MILESTONE (X) ACTION STEP (x)	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	FY '77	FY '78	FY '79	FY '80
					FISCAL YEAR 1976												
17.4	By April 30, 1976 review planning document with EMS Development Group.										X						
17.5	By May 31, 1976 obtain approval of Policy and Procedure Guide by GEMSAC.											X					
17.6	By June 30, 1976 distribute Policy and Procedures Guide to regional EMS Councils												X				
17.7	By June 30, 1976 assist regional EMS Councils with identifying implementing agencies and funding sources.							—	—	—	—	—	X				
17.8	By June 30, 1976 provide planning assistance for two regions on a second priority basis and prepare them for implementation.							—	—	—	—	—	X				
18.0	By October 31, 1976 coordinate the placement of the first two regional C-MED's in operation.	—	—	—	—	—	—	—	—	—	—	—	—	△			
18.1	By October 31, 1975 provide grants-in-aid as are available to the Central Iowa and Hoover Health Planning Areas for implementation of area communication systems in accordance with the State EMS Communications Plan.	—	—	—	X												
18.2	By October 31, 1975 complete systems testing for Phase I of the Hoover Communications Project.	—	—	—	X												
18.3	By March 31, 1976 provide technical assistance through completion of systems testing for Phase II of the Hoover Project.	—	—	—	—	—	—	—	—	X							
18.4	By May 1, 1976 provide technical assistance through completion of systems testing for Phase I for the Central Iowa Communications Project.	—	—	—	—	—	—	—	—	—	—	X					
													—	x			
19.0	By January 1, 1977 have regional EMS Communications Plans completed by the Regional EMS Councils.	—	—	—	—	—	—	—	—	—	—	—	—	△			
20.0	By April 30, 1978 have the first four regional C-MED's fully operational.	—	—	—	—	—	—	—	—	—	—	—	—	—	△		
21.0	By June 30, 1982 all regional C-MED's shall be in full operation in accordance with the State EMS Communications Plan	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	TRANSPORTATION																

VI. PROGRAM IMPLEMENTATION SCHEDULE

MILESTONE ACTION #	OBJECTIVE (△) MILESTONE (X) ACTION STEP (x)	JUL	AUG	SEP	FIS OCT	CAL NOV	YE DEC	AR JAN	19 FEB	76 MAR	APR	MAY	JUN	FY '77	FY '78	FY '79	FY '80
22.0	By March 31, 1976 develop a mechanism for determining proper placement, distribution, and number of adequate ground, air, and water transportation vehicles in such a manner as to ensure maximum response times of ten minutes for all calls in urban areas, and 20 minutes time for all calls in rural areas.				—	—	—	—	—	△							
22.1	By October 31, 1975 develop standards and criteria for determining proper placement and number of transportation vehicles.				X												
22.2	By November 30, 1975 develop distribution plan in accordance with established criteria.					X											
22.3	By December 31, 1975 present distribution plan to Development Group for review and comment.						X										
22.4	By January 31, 1976 obtain approval of distribution plan by GEMSAC.							X									
22.5	By February 29, 1976 acquaint regional EMS Councils with distribution plan.								X								
	HOSPITAL EMERGENCY FACILITIES																
23.0	By December 31, 1975 facilitate continual review, revision, and implementation of the categorization process.				—	—	△										
23.1	By November 30, 1975 update statewide categorization study.				—	X											
23.2	By December 31, 1975 identify mechanism for ongoing implementation of the categorization process.						X										
24.0	By March 31, 1976 develop and distribute to the Regional EMS Councils a Health Facilities Standards and Distribution Planning Guide to be used as a planning mechanism for determining proper distribution of categorized emergency medical service facilities which collectively provide total patient care requirements and which will place all persons within 60 minutes of a categorized hospital after the dispatch of an ambulance.				—	—	—	—	—	△							
24.1	By December 31, 1975 develop standards and distribution planning guide.				—	—	X										
24.2	By January 31, 1976 obtain approval of the Health Facilities Standards and Distribution Planning Guide by the GEMSAC.							X									
24.3	By March 31, 1976 distribute the guide to the regional EMS Councils.									X							

VI. PROGRAM IMPLEMENTATION SCHEDULE

MILESTONE ACTION #	OBJECTIVE (Δ) MILESTONE (X) ACTION STEP (x)	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	FY '77	FY '78	FY '79	FY '80
					FISCAL YEAR 1976												
25.0	By June 30, 1976 establish the regional EMS Councils as the identified emergency facility planning bodies in each region of the State.							—	—	—	—	—	Δ				
25.1	By January 31, 1976 assist each region with establishing a hospital emergency facility advisory committee as part of its EMS Council.							X									
25.2	By June 30, 1976 each regional EMS Council shall have completed an Emergency Department Facilities Services Distribution Plan which shall identify the categories, numbers and locations of hospital emergency departments necessary to meet the needs of the region.								—	—	—	—	X				
26.0	By June 30, 1976 establish a mechanism for ensuring interfacility coordination formalized by written agreements within and contiguous to each EMS Region of the State.				—	—	—	—	—	—	—	—	Δ				
	CRITICAL CARE UNITS																
27.0	By June 30, 1976 assess critical care capacity existing in the State by patient category.				—	—	—	—	—	—	—	—	Δ				
27.1	By November 30, 1975 develop survey instrument for identification of institutions and programs that have critical care capacity.				—	X											
27.2	By November 30, 1975 identify organization to survey and categorize critical care units according to patient category.				—	X											
27.3	By January 31, 1976 establish criteria for critical care units by patient category.				—	—	—	X									
27.4	By March 31, 1976 complete a survey of those institutions capable of assuming lead responsibilities for critical care capacities by specific patient categories.							—	—	X							
27.5	By June 30, 1976 make survey results available to regional EMS planning councils.										—	—	X				
28.0	By June 30, 1976 develop standards for specialized ICU vehicles and equipment utilized in transportation of critically ill or injured patients.							- - -	- - -	- - -	- - -	- - -	Δ				
28.1	By March 31, 1976 identify types of specialized vehicles required.							- - -	- - -	X							
28.2	By June 30, 1976 develop personnel standards for each type of unit.										- - -	- - -	X				
28.3	By June 30, 1976 develop vehicle and equipment standards for each type of unit.										- - -	- - -	X				

VI. PROGRAM IMPLEMENTATION SCHEDULE

MILESTONE ACTION #	OBJECTIVE (△) MILESTONE (X) ACTION STEP (x)				FISCAL YEAR 1976											
		JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	FY '77	FY '78	FY '79	FY '80
29.0	By June 30, 1976 establish a mechanism for the creation of mutual aid agreements to ensure that critical care services are provided across geographical and political boundaries.										—	—	△				
	PUBLIC SAFETY																
30.0	To continue to integrate public safety agencies in the total EMS system (ongoing).	—	—	—	—	—	—	—	—	—	—	—	△	- -	- -	- -	△
30.1	Continue to encourage public safety participation on EMS Advisory Councils and related Task Forces.	—	—	—	—	—	—	—	—	—	—	—	X	- -	- -	- -	X
30.2	Encourage participation of public safety agencies in areawide disaster planning and response.	—	—	—	—	—	—	—	—	—	—	—	X	- -	- -	- -	X
31.0	By December 31, 1975 develop coordinative procedures for utilization of public safety agencies in Standard EMS and Disaster Operating Procedures.				—	—	△										
31.1	By November 30, 1975 identify public safety agencies at the state level according to area of interest, availability of personnel, equipment and resources.					X											
31.2	By December 31, 1975 establish agreements with public safety agencies at the state level to integrate EMS and civil defense plans within each region.					—	X										
	CONSUMER PARTICIPATION																
32.0	By January 31, 1976 develop mechanisms for encouraging consumer participation in formulation of EMS policy at state, regional, and local levels.					—	—	△									
32.1	By November 30, 1975 determine adequacy of existing consumer representation on state and areawide or regional councils.					X											
32.2	By December 31, 1975 provide a mechanism for encouraging greater consumer representation on EMS Councils.					—	X										
33.0	By December 31, 1975 develop ongoing educational program to educate both EMS consumers and providers as to the need for their involvement in the development of local and regional EMS systems.				—	—	△										
33.1	By October 31, 1975 meet with the Public Information and Education Task Force to draft the components for such a program.				X												

VI. PROGRAM IMPLEMENTATION SCHEDULE

MILESTONE ACTION #	OBJECTIVE (Δ) MILESTONE (X) ACTION STEP (x)	JUL	AUG	SEP	FIS OCT	CAL NOV	YE DEC	AR JAN	19 FEB	76 MAR	APR	MAY	JUN	FY '77	FY '78	FY '79	FY '80
33.2	By November 30, 1975 meet with the Health Education Section of the State Health Department to discuss methods for disseminating information and materials regarding involvement in EMS to consumers and providers.					X											
33.3	By December 31, 1975 implement proposed program.					—	—X										
	ACCESSIBILITY TO CARE																
34.0	By June 30, 1976 develop procedures for monitoring EMS Systems within the State to ensure that services are provided without prior inquiry as to ability to pay.										—	—	—Δ				
34.1	By January 31, 1976 develop a survey instrument to determine if EMS services are provided without prior inquiry as to ability to pay.							X									
34.2	By March 31, 1976 identify an organization to survey at random consumers and providers alike to determine if EMS services are provided without prior inquiry into ability to pay.									X							
34.3	By June 30, 1976 conduct initial survey determining accessibility of necessary emergency care without prior inquiry as to the ability to pay.											—	—X				
	TRANSFER OF PATIENTS																
35.0	By March 31, 1976 develop mechanisms and guidelines for coordinating transfer of patients in such a manner as to ensure continuity of care in facilitating the maximum recovery of the patient.					—	—	—	—	—Δ							
35.1	By December 31, 1975 develop standards for transfer of emergent patients in the EMS System.					—	—X										
35.2	By January 31, 1976 identify facilities within Iowa and in adjacent states which provide rehabilitative or follow-up care.							X									
35.3	By January 31, 1976 determine number and extent of existing transfer arrangements with a view toward assurance of continuity of care.							X									
35.4	By March 31, 1976 develop procedures for facilitating such agreements.								—	—X							
	STANDARDIZED RECORD-KEEPING																
36.0	By June 30, 1976 develop and implement standardized reporting form models to facilitate evaluation of patient care from entry into the EMS system until discharge.				—	—	—	—	—	—	—	—	—Δ				

VI. PROGRAM IMPLEMENTATION SCHEDULE

MILESTONE ACTION #	OBJECTIVE (△) MILESTONE (X) ACTION STEP (x)	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	FY '77	FY '78	FY '79	FY '80
					FISCAL YEAR 1976												
36.1	By December 31, 1975 develop hospital emergency report form model in cooperation with Iowa Hospital Association sponsored EMS data systems project.				—	—	X										
36.2	By December 31, 1975 develop report forms for dispatch and ambulance service.				—	—	X										
36.3	By January 31, 1976 distribute the proposed forms to input groups for review and comment.							X									
36.4	By March 15, 1976 finalize form formats.								—	X							
36.5	By June 30, 1976 print and distribute final form format to regional EMS Councils for pilot application in their areas.										—	—	X				
37.0	By June 30, 1977 implement standardized reporting forms statewide.													△			
38.0	By June 30, 1977 coordinate the establishment of a centralized EMS data collection and processing system.													△			
	PUBLIC INFORMATION AND EDUCATION																
39.0	By December 31, 1975 coordinate a statewide program for dissemination of EMS information to the citizens of Iowa.	—	—	—	—	—	△										
39.1	By October 31, 1975 determine specific EMS "publics" including hospitals, government officials, ambulance services, and consumers; create messages, methods, and materials to reach these groups.	—	—	—	X												
39.2	By December 31, 1975 implement an outreach campaign introducing the EMS systems development concept through a series of regional meetings throughout the State.				—	—	X										
39.3	By December 31, 1975 implement a program through the mass media designed to increase the general awareness of the public concerning access to EMS systems and their utilization.			—	—	—	X										
40.0	By June 30, 1976 establish guidelines for the development of local EMS education programs.										—	—	△				
40.1	By April 30, 1976 develop recommended guidelines and criteria to cover the entire spectrum of EMS information and education which local EMS Councils can adapt to meet their specific needs.									—	X						
40.2	By June 30, 1976 prepare an annotated bibliography and resource list of books, films, and educational materials for use at the local level.											—	X				

VI. PROGRAM IMPLEMENTATION SCHEDULE

MILESTONE ACTION #	OBJECTIVE (△) MILESTONE (X) ACTION STEP (x)				FIS	CAL	YE	AR	19	76				FY	FY	FY	FY
		JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	'77	'78	'79	'80
	EVALUATION																
41.0	By March 31, 1976 develop standardized evaluation techniques for application at state and regional levels.				—	—	—	—	—	△							
41.1	By January 31, 1976 develop criteria for evaluation of EMS programs.				—	—	—	X									
41.2	By February 29, 1976 identify evaluators who would be capable of performing on-going evaluations of state and regional EMS programs.								X								
41.3	By March 31, 1976 obtain the services of such an evaluator to evaluate the state EMS program.									X							
	DISASTER LINKAGES																
42.0	By April 30, 1976 develop procedures for inclusion of EMS System Disaster Activities Within State and Regional Civil Defense Programs.				—	—	—	—	—	—	△						
42.1	By November 30, 1975 identify organizations throughout the State responsible for disaster planning coordination.				—	X											
42.2	By December 31, 1975 review emergency disaster plans at state level for compatibility and completeness.				—	—	X										
42.3	By February 29, 1976 coordinate development of disaster linkages in EMS regions of the State through interface of EMS and regional disaster plan.						—	—	X								
42.4	By April 30, 1976 develop agreements with other states linking disaster and EMS planning functions.									—	X						
43.0	By June 30, 1976 coordinate agreements between contiguous regions relative to the provisions of emergency medical services in times of disaster. (For methodology see Description for Mutual Aids.)											—	△				
	MUTUAL AIDS																
44.0	By June 30, 1976 develop mechanisms for establishing mutual aid linkages with contiguous areas for EMS system components.				—	—	—	—	—	—	—	—	△				
44.1	By November 30, 1975 study factors having adverse effects upon provision of mutual aid agreement.				—	X											

VI. PROGRAM IMPLEMENTATION SCHEDULE

MILESTONE ACTION #	OBJECTIVE (△) MILESTONE (X) ACTION STEP (x)	JUL	AUG	SEP	OCT (FISCAL YEAR 1976)	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	FY '77	FY '78	FY '79	FY '80
44.2	By December 31, 1975 identify areas where mutual aids are needed.						X										
44.3	By February 29, 1976 develop procedures for ensuring that agreements are written, signed by authorized individuals, reviewed, & revised if necessary annually.							—	X								
44.4	By June 30, 1976 implement comprehensive system of mutual aid agreements by category in all regions of the State.									—	—	—	X				
	LEGISLATION																
45.0	By February 29, 1976 facilitate passage of acceptable EMS legislation providing for the licensing of ambulance services and the certifying of ambulance personnel.	—	—	—	—	—	—	—	△								
45.1	By September 30, 1975 develop information and education program for presentation at regional meetings throughout the State concerning the need for ambulance standards and trained personnel.	—	—	X													
45.2	By December 31, 1975 conduct six to eight regional meetings throughout the State, acquainting consumers and providers alike with the need for such legislation.				—	—	X										
45.3	By February 29, 1976 conduct a series of briefings for legislators regarding results of the public meetings.							—	X								
46.0	By February 29, 1976 facilitate revision of the Medical Practice Act, Code of Iowa, to authorize trained EMT-A's to intubate, defibrillate, and administer drugs and IV's under a physician's supervision.					—	—	—	△								
46.1	By December 31, 1975 meet with the Iowa State Medical Society & the Iowa State Board of Health to gain the support of those bodies for the proposed legislation.					—	X										
46.2	By February 29, 1976 brief key legislators concerning the proposed legislation.							—	X								
47.0	By June 30, 1976 revise Iowa State Department rules relative to hospital licensing in order to allow hospitals to discontinue maintenance of emergency departments if not provided for in Regional EMS Facilities Utilization Plans and the Categorization of Hospital Facilities Report of the GEMSAC.						—	—	—	—	—	—	△				
47.1	By November 30, 1975 meet with Health Facilities Division to discuss incorporation of the proposed change in departmental rules.					X											
47.2	By December 31, 1975 meet with the Iowa State Board of Health to obtain its approval for the suggested change.						X										

VI. PROGRAM IMPLEMENTATION SCHEDULE

MILESTONE ACTION #	OBJECTIVE (△) MILESTONE (X) ACTION STEP (x)	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	FY '77	FY '78	FY '79	FY '80
					FISCAL YEAR 1976												
47.3	By February 29, 1976 hold public hearings relative to the proposed change.							——	—X								
47.4	By June 30, 1976 adopt proposed change in Health Department rules.									——	——	——	—X				

VII. PROGRAM RESOURCE SUMMARY

A. MANPOWER

1. State of Iowa

   a. Office of the Governor - Administrative Assistant to Governor

   b. Iowa State Department of Health

      i. Commissioner of Public Health
      ii. Chief of the Division of Community Health
      iii. Director of the Section of Emergency Medical Services
      iv. Staff - Section of Emergency Medical Services

         a) Administrative Assistant for Program Management
         b) Training Coordinator
         c) Administrative Assistant for Training
         d) Health Planner II
         e) Health Planner I
         f) Clerical Staff - 3

      v. Section of Health Education
      vi. Fiscal Division
      vii. Personnel Office

   c. Iowa State Department of General Services
      Division of Communications

      i. Communications Project Engineer
      ii. Electronic Engineering Technician
      iii. Secretary
      iv. Technical Consultant

   d. Office of Planning and Programming

      i. Assistant Director - Highway Safety Program
      ii. Health Planner II - Office of Comprehensive Health Planning

2. Governor's EMS Advisory Council

   a. State EMS Planner

   b. Secretary

3. Contractual Personnel (ISDH)

   a. 12 Regional Coordinators - Statewide EMS Training Program

   b. Physician Coordinator and Staff - Continuing Education Training Program for Emergency Department Personnel - Creighton University

   c. Program Director and Staff - Emergency Medical Service Training Program for Emergency Department Personnel - University of Iowa College of Medicine

4. Fifteen Area Community Colleges

   a. Adult Education Directors

   b. Health Occupations Coordinators

   c. EMT-A Course Coordinators

   d. Physician Instructors

   e. Nurse Instructors

   f. EMT-A Instructors

5. Volunteers *

   a. Governor's EMS Advisory Council and its Task Forces

   b. EMS Development Group

   c. Physician's Advisory Group (to be established)

   d. Physician Consultants (to be established)

B. MATERIALS

1. Office Supplies

   a. Xerox

   b. Survey Instruments

   c. Information and Education Packets

2. Equipment

   a. Communications Systems Testing Equipment - $7,500

C. MONIES

1. U.S. Department of Transportation (Highway Safety Program) - $407,300 July 1, 1975--September 30, 1976 (15 months)

2. Iowa State Department of Health 314-d Funds Comprehensive Health Planning Act (Public Law 89-749) $6458 July 1, 1975--June 30, 1976 (12 months)

3. IRMP Planning Grant $11,129 July 1, 1975--October 31, 1975 (4 months)

4. DHEW Planning Grant $43,275 July 1, 1975--June 30, 1976 (12 months)

5. DHEW Training Grant $162,584 October 1, 1975--September 30, 1976 **

D. TIME

(See Program Commitment Summary)

* Volunteers represent organizations listed in Section IV A-2 as well as the public at-large.

** Pending approval of continuation application.

VIII. PROGRAM COMMITMENT SUMMARY

COMPONENT PROGRAM MANAGEMENT		IMPLEMENTATION DATES			PROJECTED MAN DAYS	PROJECTED EXPENDITURES
OBJECTIVES/SELECT ACTIVITIES		Start	End	RESPONSIBLE AGENT(S)	(STAFF)	(ALL FUNDS)
1.0	Conduct review relative to functions of Iowa State Health Department as lead agency for all State EMS Activities. 1.1 Determine areas of deficiencies. 1.2 Determine Program Needs. 1.3 Draft Program Needs Statement. 1.4 Submit Needs Statement to Governor's EMS Advisory Council. 1.5 Submit report to the Commissioner of Public Health.	7/1/75	1/1/76	a) ISHD 1)Chief-Div. of Community Health 2)Administrative Staff-Section of EMS b) State EMS Planner and Secretary	11	$ 660
2.0	Facilitate the provision of adequate staff for ISHD to fulfill its role as lead agency for all State EMS Activities. 2.1 Identify staff needs. 2.2 Develop funding proposal--State appropriations. 2.3 Develop funding proposals--Federal Grant Programs. 2.4 Recruit and train staff.	7/1/75	6/30/76	a) ISHD 1)Commissioner of Public Health 2)Chief-Div. of Community Health 3)Administrative Staff-Section EMS b) Governor's EMS Advisory Council 1) State EMS Planner and Secretary	42	2,520
3.0	Establish State Health Services relative to Dept. Grants Management functions for State and Regional EMS Programs.	7/1/75	6/30/76	a) ISHD	15	900
	3.1 Identify funding resources. 3.2 Distribute grant applications. 3.3 Receive grant materials from EMS Regions. 3.4 Assign priorities for funding. 3.5 Conduct conferences with Health Dept. Fiscal Staff. 3.6 Sign contracts for Fiscal Year 1977.	3/15/76	3/31/76	b) Project Review & Program Evaluation Task Force--GEMSAC		
4.0	Establish specific ISHD services for EMS system components.	Ongoing		See individual components	See individual components	See individual components
5.0	Develop and implement standards.	Ongoing		a) ISHD--EMS Administrative & Planning staff b) GEMSAC and its Task Forces	"	"
COMPONENT REGIONALIZATION						
6.0	Establish viable EMS Regions.	7/1/75	6/30/76	a) ISHD-Section EMS Planning Unit b) Medical Consultants c) GEMSAC and Task Forces d) EMS Development Group e) Regional EMS Advisory Councils	235	14,100
	6.1 Delineate geographical boundaries. 1.1 Complete demographic studies.			a) ISHD-Section EMS Planning Unit		

VIII. PROGRAM COMMITMENT SUMMARY

COMPONENT REGIONALIZATION OBJECTIVES/SELECT ACTIVITIES		IMPLEMENTATION DATES Start	End	RESPONSIBLE AGENT(S)	PROJECTED MAN DAYS (STAFF)	PROJECTED EXPENDITURES (ALL FUNDS)
	1.2 Confer with input groups.			a, b, c, d, e		$
	1.3 Refine alternative proposals.			a, c		
	1.4 Select most feasible proposal.			c		
	6.2 Establish viable EMS Councils.					
	2.1 Obtain assistance of EMS Development Group.			a		
	2.2 Make final boundary adjustment & inform public of designated EMS Regions.			a, c		
	2.3 Meet with existing areawide EMS Councils to review regionalization format.			a, d		
	2.4 Conduct series of organizational meetings for new EMS Regions.			a, d		
	2.5 Conduct second series of organizational meetings.			a, d		
	2.6 Conduct third series of organizational meetings.			a, d		
	6.3 Establish policies & procedures guidelines for regional implementation of EMS programs.			a		
	6.4 Assist EMS Regions in applying for EMS program funding.			a		
	6.5 Each EMS planning region completes regional EMS plan.			e		
COMPONENT PROFESSIONAL INPUT						
7.0	Identify and establish physician consultants in each EMS.	10/1/75	11/30/75	a) ISHD-EMS Section Planning Unit Staff b) Chairman, GEMSAC	5	300
	7.1 Identify lead physicians in each EMS Region.			a		
	7.2 Conduct initial meeting with Physician Consultants.			a, b		
	7.3 Conduct 1st organizational meeting of new EMS Regional Councils with consultants in attendance.			a		
8.0	Provide for physician direction of essential critical care clinical aspects of State and Regional EMS Systems.	10/1/75	1/31/76	a) ISHD-EMS Section Planning Unit b) Chairman & Vice-Chairman, GEMSAC c) Iowa State Medical Society & specially related associations d) Hospital Facilities Task Force-GEMSAC	10	600
	8.1 Establish statewide physician advisory committee to Hospital Emergency Facilities Task Force to recommend criteria for critical care patient categories.			a, c		
	8.2 Conduct initial meeting with physician advisory group			a, b, d		
	8.3 Establish criteria for State's critical care needs.			d		
COMPONENT MANPOWER						
9.0	Develop mechanism for determining number of EMS personnel by category required to provide basic life support programs throughout the State.	10/1/75	3/31/76	a) ISHD-EMS Section Planning Unit & Training Unit b) GEMSAC-Personnel & Training Task Force	30	1,800

VIII. PROGRAM COMMITMENT SUMMARY

COMPONENT MANPOWER OBJECTIVES/SELECT ACTIVITIES	IMPLEMENTATION DATES Start	 End	RESPONSIBLE AGENT(S)	PROJECTED MAN DAYS (STAFF)	PROJECTED EXPENDITURES (ALL FUNDS)
9.1 Develop criteria for measuring manpower requirements.			a		$
9.2 Apply criteria to existing manpower levels.			a		
9.3 Modify criteria.			a		
9.4 Produce planning document for determining manpower requirements.			a, b		
10.0 Continue statewide support of EMT-A, ERT, Dispatcher, Physician, Nurse & 1st Responder Training Program.	Ongoing		a) ISHD-EMS Training Unit b) Community Colleges	See Training component	Ditto
11.0 Encourage utilization of veterans employed in EMS with medical training & experience in state & regional EMS programs.	Ongoing		a) ISHD b) Public Information & Education Task Force c) MEDIHC Coordinator d) ISHD-Health Education Section	15	900
11.1 Update survey of number of veterans employed in EMS programs.			a, c		
11.2 Acquaint the public with value of utilization of veterans with medical experience in EMS positions.			b, c, d		
12.0 Ensure at least one hospital in each EMS Region with 24-hour emergency room physician coverage.	1/1/76	3/31/76	a) ISHD-Planning Unit b) Hospital Emergency Facilities Task F. c) Regional EMS Advisory Councils d) Iowa Hospital Association	10	600
12.1 Identify those regions not possessing at least one hospital with 24-hour coverage.			a		
12.2 For those regions identify facilities potentially capable of providing this function.			a, b, d		
12.3 Meet with those regions to encourage planning efforts to secure such coverage.			a, c		
12.4 By December 31, review progress made in upgrading hospitals potentially capable of providing 24-hour physician coverage.			a, b, c		
COMPONENT TRAINING					
13.0 Develop training component model to satisfy State projected EMS manpower needs.	1/1/76	6/30/76	a) ISHD-Planning & Training Units b) Personnel & Training Task Force	25	1,500
13.1 Inventory existing training programs.			a		
13.2 Determine adequacy of existing training programs.			a, b		
13.3 Identify needed training programs.			a, b		
13.4 Identify educational institutions capable of providing required training programs.			a		

VIII. PROGRAM COMMITMENT SUMMARY

COMPONENT TRAINING OBJECTIVES/SELECT ACTIVITIES		IMPLEMENTATION DATES Start	End	RESPONSIBLE AGENT(S)	PROJECTED MAN DAYS (STAFF)	PROJECTED EXPENDITURES (ALL FUNDS)
	13.5 Establish contracts with above institutions to provide required training programs.			a		$
14.0	Continue statewide coordinative functions for existing EMT-A, ERT, Dispatcher, & First Responder Training Programs.	Ongoing		a) ISHD-Administrative staff & training b) Personnel & Training Task Force & Subcommittees c) Area Coordinators d) Practical Evaluation Teams e) Test Evaluation Teams	410	32,500
	14.1 Establish part-time field staff to coordinate EMS training program.	7/1/75	10/3/75	a, c		
	14.2 Establish test teams in each quarter of State to evaluate practical portion of EMT-A training program.	1/1/76	3/31/76	a, d		
	14.3 Develop test validation committee.	1/1/76	3/31/76	a, b, c		
15.0	Continue statewide support of basic EMT-A, ERT, Dispatcher, & First Responder Training Programs.	Ongoing		a) ISHD-EMS Administration & Training Units b) Personnel & Training Task Force & Subcommittees c) Area Coordinators d) Law Enforcement Academies e) Area Colleges	835	171,566*
	15.1 Train 1000 EMT-A ambulance personnel.	7/1/75	9/30/76	e		
	15.2 Train 500 emergency rescue personnel.	7/1/75	9/30/76	e		
	15.3 Develop & adopt Emergency Medical Dispatcher Training Course.	1/1/76	6/30/76	a, b		
	15.4 Train 10 Emergency Dispatchers.	9/1/76	12/31/76	e		
	15.5 Make Dispatcher Course available statewide.		1/1/77	a, b		
	15.6 Conduct 16 courses in equipment orientation & crash simulation program.	7/1/75	9/30/76	a		
	15.7 Train 1000 law enforcement officers in crash injury.	7/1/75	9/30/76	d		
	15.8 Train 500 fire fighters in crash injury management.	7/1/75	9/30/76	e		
	15.9 Conduct 14 training-instructor workshops.	7/1/75	9/30/76	a, c		
	15.10 Develop advanced EMT-A course.	1/1/76	6/30/76	a, b		
16.0	Coordinate statewide emergency physician, nurse, and advanced EMT-A continuing education programs.	11/1/75	6/30/76	a) ISHD-EMS Administrative, Planning & b) Univ. of Creighton School of Medicine c) Univ. of Iowa School of Medicine d) Personnel & Training Task Force & related Subcommittees	207	160,000

* Includes projected expenditures for contracted activities

VIII. PROGRAM COMMITMENT SUMMARY

COMPONENT TRAINING OBJECTIVES/SELECT ACTIVITIES		IMPLEMENTATION DATES Start	 End	RESPONSIBLE AGENT(S)	PROJECTED MAN DAYS (STAFF)	PROJECTED EXPENDITURES (ALL FUNDS)
	16.1 Contract with U. of Creighton re continuing education for western Ia. emergency dept. & advanced EMT-A personnel.			a, b		$
	16.2 With U. of Ia. develop similar program in eastern & central Iowa.			a, c		
	16.3 Establish subcommittees of Personnel & Training Task Force for study of continuing education requirements for emergency department personnel & advanced EMT-A's.			a, d		
	16.4 Identify additional training programs which must be established for meeting emergency dept. & advanced EMT-A needs.			a, d		
	16.5 Identify educational institutions capable of providing such programs.			a, d		
	16.6 Establish contracts for such programs.			a		
COMPONENT COMMUNICATIONS						
17.0	Establish a mechanism for completing implementation of State EMS Communications Plan.	7/1/75	6/30/76	a) ISHD-EMS Planning Unit b) Communications Task Force-GEMSAC c) EMS Development Group d) Regional EMS Councils	65	3,900
	17.1 Determine criteria for establishing implemental priorities.			a, b		
	17.2 On basis of established criteria, assign priorities for completion of State EMS Communications System.			a, b		
	17.3 Develop Policies & Procedures Guide for use by Regional EMS Councils.			a		
	17.4 Review Policies and Procedures Guide.			a		
	17.5 Obtain approval of Policies & Procedures Guide by GEMSAC.			a		
	17.6 Review Policies & Procedures Guide with EMS Development Group.			a		
	17.7 Assist Regional EMS Councils with identifying implementing agencies and funding sources.			a, b, Dept. of General Services Communications Division		
	17.8 By July 1, 1976 provide planning assistance for other areas on a priority basis.			a		
18.0	Coordinate the placement of the first two regional C-MED's in operation.	7/1/75	10/31/76	a) ISHD-EMS Section b) Ia State Dept. of General Services-Communications Division c) Communications Task Force-GEMSAC d) Regional EMS Councils	1035	205,600*
	* Includes projected expenditures for contracted activities					

VIII. PROGRAM COMMITMENT SUMMARY

COMPONENT COMMUNICATIONS — OBJECTIVES/SELECT ACTIVITIES		IMPLEMENTATION DATES Start	End	RESPONSIBLE AGENT(S)	PROJECTED MAN DAYS (STAFF)	PROJECTED EXPENDITURES (ALL FUNDS)
						$
	18.1 Provide grants-in-aid as are available for implementation.			a		
	18.2 Complete systems testing for Phase I of the Hoover Area Communications Project.			b		
	18.3 Complete systems testing for Phase II of the Hoover Area Communications Project.			b		
	18.4 Complete systems testing for Phase I of the Central Iowa Project.			b		
19.0	Have Regional EMS Communications Plans completed by the Regional EMS Councils.	1/1/76	1/1/77	Regional EMS Councils	To be determined	To be determined
20.0	Have the first four regional C-MED's fully operational.	7/1/75	4/30/78	Same as 18.0	"	"
21.0	Have all regional C-MED's in full operation in accordance.	7/1/75	6/30/82	Same as 18.0	"	"
COMPONENT TRANSPORTATION						
22.0	Develop mechanism for determining proper placement, distribution and number of transportation vehicles.	10/1/75	2/29/76	a) ISHD-EMS Section Planning Unit b) Ambulance Task Force-GEMSAC c) EMS Development Group d) Regional EMS Councils	40	2,400
	22.1 Develop standards & criteria for determining proper placement & number of transportation vehicles.			a, b		
	22.2 Develop distribution plan in accordance with established criteria.			a		
	22.3 Present distribution plan to Development Group for review and comment.			a		
	22.4 Obtain approval of distribution plan by GEMSAC.			a, b		
	22.5 Acquaint regional EMS Councils with distribution plan.			a, c		
23.0	Facilitate continual review, revision, and implementation of categorization process.	10/1/75	12/31/75	a) ISHD-EMS Planning Unit b) ISHD-Health Facilities Division c) Hosp. Emer. Facilities Task Force	15	900
	23.1 Update categorization study.			a, c		
	23.2 Identify ongoing implementation process.			a, b, c		
COMPONENT HOSPITAL FACILITIES					15	900

VIII. PROGRAM COMMITMENT SUMMARY

COMPONENT HOSPITAL FACILITIES

OBJECTIVES/SELECT ACTIVITIES		IMPLEMENTATION DATES Start	End	RESPONSIBLE AGENT(S)	PROJECTED MAN DAYS (STAFF)	PROJECTED EXPENDITURES (ALL FUNDS)
24.0	Develop & distribute Health Facilities Standards and Distribution Planning Guide.	10/1/75	3/31/76	a) ISHD Health Facilities Division b) ISHD-EMS Planning Unit c) Hosp. Emer. Fac. Task Force	15	$ 900
	24.1 Develop standards and distribution planning guide.			a, b, c		
	24.2 Obtain approval of guide from GEMSAC.			a, b		
	24.3 Distribute guide to Regional EMS Councils.			a		
25.0	Establish Regional EMS Councils as the identified emergency facility planning bodies in each region of the State.	10/1/75	12/31/75	a) ISHD-EMS Planning Unit b) Hosp. Emer. Facilities Task Force c) EMS Regional Councils	15	900
	25.1 Assist each region with establishing a Hospital Emergency Facility Advisory Committee as part of its EMS Council.			a, b		
	25.2 Completion of Regional Emergency Department Facilities Services Distribution Plan.			c		
26.0	Establish mutual aid coordination mechanism.	10/1/75	6/30/76	ISHD-EMS Section	15	900
COMPONENT CRITICAL CARE UNITS						
27.0	Assess critical care capacity in State by patient category.	10/1/75	6/30/76	a) ISHD-EMS Section Planning Unit b) Hosp. Emer. Fac. Task Force c) Physician Advisory Committee d) Survey Team e) Consultants	60	3,600
	27.1 Develop survey instrument.			a		
	27.2 Identify surveying organization.			a, b		
	27.3 Establish criteria for critical care units by patient category.			a, b, c		
	27.4 Complete survey.			d		
	27.5 Make survey results available to Regional EMS Councils.			a		
28.0	Develop standards for specialized ICU vehicles & equipment.	1/1/76	6/30/76	a) ISHD-EMS Section Planning Unit b) Hosp. Emer. Fac. Task Force c) Personnel & Training Task Force d) Ambulance Serv. Org. & Op. Task Force	30	1,800
	28.1 Identify types of specialized vehicles required.			a, b, d		
	28.2 Develop personnel standards for each type of unit.			a, c		
	28.3 Develop vehicle & equipment standards for each type of unit.			d		
29.0	Establish mechanisms for creating mutual aid agreements for creating critical care services.	4/1/76	6/30/76	a) ISHD-EMS Planning Unit b) Hosp. Emer. Fac. Task Force	10	600

VIII. PROGRAM COMMITMENT SUMMARY

COMPONENT PUBLIC SAFETY OBJECTIVES/SELECT ACTIVITIES		IMPLEMENTATION DATES Start	 End	RESPONSIBLE AGENT(S)	PROJECTED MAN DAYS (STAFF)	PROJECTED EXPENDITURES (ALL FUNDS)
30.0	Continue to integrate Public Safety Agencies in total EMS System.	Ongoing		a) ISHD-Section of EMS b) State Department of Public Safety	15	$ 900
	30.1 Encourage participation of Public Safety officials on EMS Advisory Councils & related Task Forces.			a		
	30.2 Encourage participation of Public Safety Agencies in areawide disaster planning & response.			a, b		
31.0	By December 15, 1975 develop coordinative procedures for utilization of Public Safety Agencies in standard EMS & disaster operating procedures.	10/1/75	12/31/75	a) ISHD-Section of EMS b) State Dept. of Public Safety	10	600
	31.1 Identify Public Safety Agencies at the state level with which to coordinate EMS activities.			a		
	31.2 Establish agreements with Public Safety Agencies at the state level to integrate EMS & civil defense plans.			a, b		
COMPONENT CONSUMER PARTICIPATION						
32.0	Develop mechanism for encouraging consumer participation in formulation of EMS policy.	11/1/75	1/31/76	a) ISHD-EMS Planning Unit b) Public Information & Education Task Force-GEMSAC	10	600
	32.1 Determine adequacy of existing consumer representation.			a		
	32.2 Provide mechanism for encouraging greater consumer representation.			a, b		
33.0	Develop ongoing educational program to educate both EMS consumers and providers as to need for involvement in development of EMS systems.	10/1/75	12/31/75	a) ISHD-EMS Planning Unit b) ISHD-Health Education Section c) Public Info & Ed. Task Force-GEMSAC	30	1,800
	33.1 Meet with Public Information & Education Task Force to draft program components.			a, c		
	33.2 Meet with ISHD Health Education Section to discuss methods of dissemination.			a, b		
	33.3 Implement proposed program.			a, c		
COMPONENT ACCESSIBILITY TO CARE						
34.0	Develop procedures for monitoring EMS systems to ensure services are provided without inquiry as to ability to pay.	4/1/76	6/31/76	a) ISHD-EMS Planning Unit b) Public Info & Ed. Task Force-GEMSAC c) Medical consultants d) Survey teams	15	900
	34.1 Develop survey instrument.			a, b, c		

VIII. PROGRAM COMMITMENT SUMMARY

COMPONENT ACCESSIBILITY TO CARE OBJECTIVES/SELECT ACTIVITIES	IMPLEMENTATION DATES Start	End	RESPONSIBLE AGENT(S)	PROJECTED MAN DAYS (STAFF)	PROJECTED EXPENDITURES (ALL FUNDS)
34.2 Identify organization to survey.			a, b		$
34.3 Conduct initial survey.			d		
COMPONENT TRANSFER OF PATIENTS					
35.0 Develop mechanisms and guidelines for coordinating patient transfer.	11/1/75	3/31/76	a) ISHD-EMS Planning Unit b) Hosp. Emer. Facilities Task Force c) Communications Task Force d) Ambulance Task Force e) Personnel & Training Task Force	10	600
35.1 Develop standards for patient transfer.			a, b, c, d, e		
35.2 Identify facilities providing rehabilitative or follow-up care.			b		
35.3 Determine number, extent, and adequacy of existing transfer arrangements.			a		
35.4 Develop procedures for facilitating such agreements.			a, b		
COMPONENT STANDARDIZED RECORD-KEEPING					
36.0 Develop & implement standardized reporting form models to facilitate evaluation of EMS patient care.	10/1/75	6/30/76	a) ISHD-EMS Planning Unit b) Iowa Hospital Association c) Ambulance Task Force d) Communications Task Force e) Hosp. Emer. Facilities Task Force f) EMS Development Group g) Medical consultants	30	1,800
36.1 Develop Hospital Emergency Report form model.			a, b, e, f, g		
36.2 Develop Dispatch & Ambulance Report form.			a, c		
36.3 Distribute proposed forms to input groups for review & comment.			a		
36.4 Finalize form format.			a, b, c, d, e, f, g		
36.5 Distribute final form format.			a		
37.0 Implement standardized reporting forms statewide.	7/1/76	6/30/77	a) ISHD-Section of EMS	To be determined	To be determined
38.0 Coordinate establishment of centralized EMS data collection and processing system.	7/1/76	6/30/77	a) ISHD-Section of EMS	"	"
COMPONENT PUBLIC INFORMATION AND EDUCATION					
39.0 Coordinate program for dissemination of EMS information.	7/1/75	12/31/75	a) ISHD, EMS, Planning Staff b) Public Info & Educ. Task Force c) Health Education Section-ISHD	20	1,200

VIII. PROGRAM COMMITMENT SUMMARY

OBJECTIVES/SELECT ACTIVITIES	IMPLEMENTATION DATES Start	End	RESPONSIBLE AGENT(S)	PROJECTED MAN DAYS (STAFF)	PROJECTED EXPENDITURES (ALL FUNDS)
COMPONENT PUBLIC INFORMATION AND EDUCATION					$
39.1 Determine specific EMS Publics statewide.			a, b		
39.2 Implement statewide outreach campaign.			a, b, c		
39.3 Implement statewide mass media program.			a, c		
40.0 Establish guidelines for the development of local EMS education programs.	3/1/76	6/30/76	a) ISHD-EMS Section Planning Staff b) Public Info & Educ. Task Force c) Health Education Section-ISHD	20	1,200
40.1 Develop recommended guidelines & criteria to cover entire spectrum of EMS information & education.			a, b, c		
40.2 Prepare annotated bibliography & resource list of books, films, & educational materials for use at local levels.			a, c		
COMPONENT INDEPENDENT REVIEW AND EVALUATION					
41.0 Develop standardized evaluation techniques.	10/1/75	3/31/76	a) ISHD-EMS Section Planning Unit b) Project Review & Program Evaluation Task Force c) Consultants	60	7,200
41.1 Develop criteria for evaluation of EMS programs.			a		
41.2 Identify potential evaluators.			a, b		
41.3 Obtain the services of an evaluator for the State EMS Program.			a		
COMPONENT DISASTER LINKAGES					
42.0 Develop procedures for inclusion of EMS system disaster activities within State & Regional Civil Defense Programs.	10/1/75	4/30/76	a) ISHD-EMS Planning Unit b) Ambulance Task Force-GEMSAC c) Communications Task Force-GEMSAC	10	600
42.1 Identify organizations responsible for disaster planning coordination.			a		
42.2 Review emergency disaster plans at state level.			a, b, c		
42.3 Coordinate development of disaster linkages through interface of EMS & regional disaster plan.			a		
42.4 Develop agreements with other states linking disaster and EMS planning functions.			a		
43.0 Coordinate agreements between contiguous regions relative to provisions of emergency medical services in times of disaster.	5/1/76	6/30/76	a) ISHD-EMS Planning Unit	See Mutual Aids	See Mutual Aids
COMPONENT MUTUAL AIDS					

VIII. PROGRAM COMMITMENT SUMMARY

COMPONENT MUTUAL AIDS OBJECTIVES/SELECT ACTIVITIES	IMPLEMENTATION DATES Start	 End	RESPONSIBLE AGENT(S)	PROJECTED MAN DAYS (STAFF)	PROJECTED EXPENDITURES (ALL FUNDS)
44.0 Develop mechanisms for establishing mutual aid linkages with contiguous areas for EMS system. Components (ongoing).	10/1/75	6/30/76	a) ISHD-EMS Planning Unit	15	$ 900
44.1 Study factors having adverse effects upon provision of mutual aid agreements.			a		
44.2 Identify areas where mutual aids are needed.			a		
44.3 Develop procedures for ensuring mutual aid agreement review.			a		
44.4 Implement comprehensive system of mutual aid agreements by category in all regions of the State.			a		
COMPONENT LEGISLATION					
45.0 Facilitate passage of acceptable EMS legislation providing for licensing of ambulance service and certifying of ambulance personnel.	7/1/75	2/29/76	a) ISHD-EMS Planning Unit b) Public Info & Educ. Task Force c) Ambulance Legislation Committee d) EMS Development Group e) Ia. Public Health Association	30	1,800
45.1 Develop regional information & education program.			a, b, c		
45.2 Conduct regional meeting throughout State.			a, b, c, d, e		
45.3 Conduct series of briefings for legislators.			a, b		
46.0 Facilitate revision of Medical Practice Act to provide for advanced EMT-A functions.	11/1/75	2/29/76	a) ISHD-EMS Planning Unit b) Personnel & Training Task Force	10	600
46.1 Meet with Iowa State Medical Society & Iowa State Board of Health to gain support for proposed legislation.			a, b		
46.2 Brief key legislators concerning proposed legislation.			a		
47.0 Revise ISHD rules relative to hospital certification pertaining to licensure requirements of hospital emergency departments.	11/1/75	6/30/76	a) ISHD-Health Facilities Division b) ISHD-EMS Planning Unit c) Iowa State Board of Health	10	600
47.1 Meet with Health Facilities Division to discuss incorporation of changes in department rules.			a, b		
47.2 Meet with Iowa State Board of Health to obtain approval for suggested change.			a, b		
47.3 Hold public hearings relative to proposed change.			a, b, c		
47.4 Adopt proposed changes in Health Department rules.			c		
			TOTAL PROJECTED MAN DAYS	3445	
			TOTAL PROJECTED EXPENDITURES		$630,746

X. BUDGET SCHEDULE -- FISCAL YEAR 1976 (15 MONTHS - JULY 1, 1975 to SEPTEMBER 30, 1976)

	STATE HIGHWAY SAFETY PROGRAM	ISHD (314.d FUNDS)	IRMP (PLANNING GRANT)	DHEW (PLANNING GRANT)	DHEW ** (TRAINING GRANT)	TOTAL
SALARY & EMPLOYEE BENEFITS	$129,150	$6,458	$ 9,329	$32,692	$ 13,280	$190,909
TRAVEL & SUBSISTENCE	12,050	---	800	4,800	1,704	19,354
EQUIPMENT	132,500	---	---	740	---	133,240
SUPPLIES	13,200	---	400	1,000	---	14,600
OTHER: PRINTING	---	---	---	1,200	---	1,200
CONTRACTUAL SERVICES	120,400	---	600	900	147,600	269,500
TOTAL DIRECT COSTS	407,300	6,458	11,129	41,332	162,584	628,803
INDIRECT COSTS	---	---	---	1,943	---	1,943
TOTAL COSTS	$407,300	$6,458	$11,129	$43,275	$162,584	$630,746

NOTE: Figures do not include supplemental State or Federal allocations which may be made available during the 15 month period.

** Pending Approval of Continuation Application.

X. EVALUATION

As stated in Section IV, the primary goal of the State EMS Program is to provide coordination and technical assistance for its identified geographical EMS regions in planning and implementation of EMS systems that provide definitive treatment of the emergent and critical EMS patient from his initial entry to his eventual discharge. The general goals and objectives outlined for each component represent desired end products attained. Specific objectives are in essence sub-goals defined in measurable terms to allow qualitative or quantitative assessment of program progress in accomplishment of general goals. Overall program evaluation will thus consist of a determination of the degree to which specific objectives have been accomplished within the time frames indicated.

Accomplishment of specific objectives will be measured by the degree to which milestones and action steps have been completed. Procedures for evaluation of specific components must be developed prior to establishment of ongoing evaluation mechanisms. A specific program objective is the development of standardized evaluation techniques for application at state and regional levels. Criteria must be developed for evaluation of EMS programs. Baseline data must be collected and analyzed in order to form an empirical basis for recommendations as to desired changes and to secure a clear picture of the present EMS system before intervention so that changes in performance attributable to intervention may be measured. Successful attainment of objectives listed under the evaluation component will essentially result in the creation of a mechanism for evaluation of the effect of the EMS system on patient outcome.

Sequential task evaluation of program progress in achieving desired goals for the initial year of plan implementation will consist essentially of observing whether the planned activity was undertaken within the time frame indicated. The development of sequential task evaluation mechanisms for determining the effect of the system on patient outcome will be more difficult and will involve collection and analysis of existing emergency medical service resource data, patient needs data, utilization data, and outcome measures.

An initial task in the creation of an evaluative process for determining the effects of an EMS system on patient outcome is the creation of a data framework. Concurrent with the establishment of regional EMS systems, mechanisms must be established to collect and analyze inventory and performance data. An initial function will be the collection and processing of resource data collected at the regional and local level. Performance data will next be collected and analyzed, permitting the development of a needs analysis and subsequent program intervention. Data requirements for the evaluation of system resources utilization factors, and patient outcome include the following:

1. Hospital Resource Measures (Source - Categorization Studies)
2. Ambulance Resource Measures (Source - State and Regional Surveys)
3. Patient Needs Data (Sources - Emergency department medical records, ambulance records, death certificates, accident reports, dispatch reports)
4. Ambulance Utilization Measures
5. Hospital Emergency Facility Utilization Measures
6. Outcome Measures (Percent of patients who survive; disability days per patient; percent of cases in which patient died at scene on arrival of ambulance, on scene after arrival of ambulance, en route to hospital, and after hospital arrival).

Establishment of data systems as indicated above will permit identification of local deficiencies in regional and local EMS systems. On the basis of identified deficiencies, the Comprehensive State EMS Plan will be updated to include specific program actions. Priorities will be assigned for each of the indicated programs and funding mechanisms explored.

Ongoing program evaluative functions will consist of techniques for measurement of the effects of system intervention. Intervention activities consist of ongoing operational functions for the various system components including training of ambulance attendants, installation of communications equipment between ambulances and receiving hospitals, the introduction of a central dispatch system, the upgrading of ambulance and hospital resources, categorization strategies to reroute certain patients, and public information campaigns. The assumption of intervention is that program activities improve resources which improve utilization which in turn improves outcomes. Ongoing evaluation in essence may involve comparisons before, during, and after intervention. It may also involve comparison between changes in the project area and changes in a comparable control area.[3]

The establishment of data collection plans will be a function of both State and regional EMS programs and will involve both program evaluation mechanisms and evaluation of the effects of the system on patient outcome. Experimental studies are presently being conducted in the Hoover and Central Iowa areas whereby the effects of C-MED systems will be evaluated through programmed before and during intervention studies. The Rand Corporation has been engaged to perform this study in the case of the Central Iowa Project.

The State EMS Program will be utilizing survey mechanisms in assessing attitudinal, behavioral, demographic, and resource information on which to evaluate program objectives or to characterize population characteristics. The Iowa Hospital Association is currently conducting a pilot data collection system for evaluation of patient utilization data for select hospital emergency departments.

Two fundamental methods of analysis will be employed. Both at the state and regional level analyses of existing resources utilization, and patient outcome will be made from survey results, official reports, or performance records. In the case of the Central Iowa study conducted by the Rand Corporation, the magnitude of the change resulting from introduction of the C-MED concept will present an opportunity for analysis within an experimental design setting. For the purpose of this Plan, however, the primary method of analysis in evaluating achievement of program objectives will be a determination of the degree to which milestones and action steps were completed within the time frames indicated.

Financial constraints could adversely affect the accomplishment of program objectives as could a lag in the recruitment of program staff. The acceptance or reluctance of groups and individuals to commit themselves to the program as it addresses EMS regions concomitant with the emergence of new health planning structures being formulated in accordance with Public Law 93-641 could also have an influence on program progress.

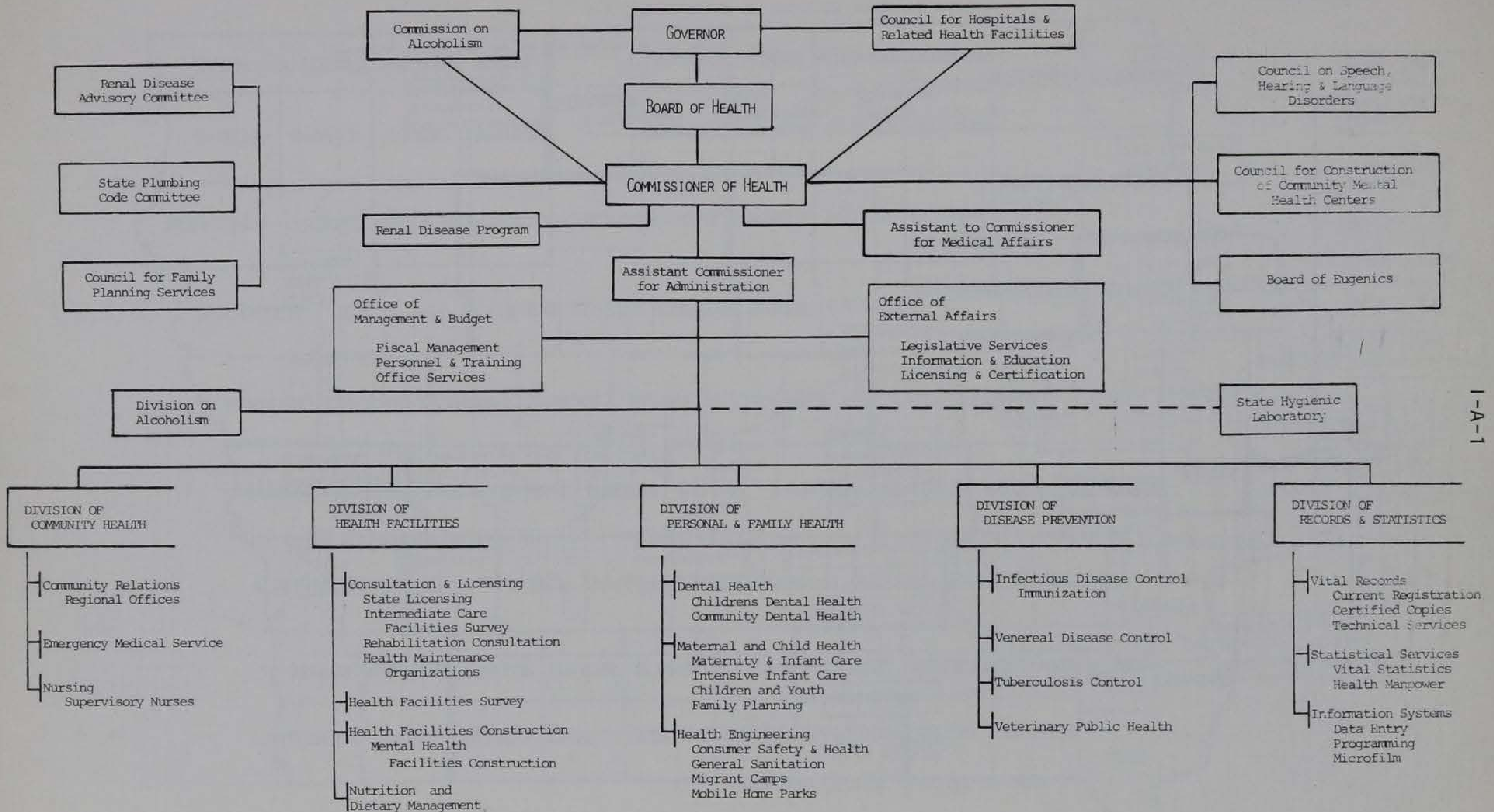
Experimental designs previously mentioned as existing in the State will be carefully studied in order to assess initial attempts at such evaluation.

---

3 Proposed evaluation procedures taken from an article by Geoffrey Gibson, *Guidelines for research and evaluation of emergency medical services*, Health Service Reports, Vol. 89, No. 2, March-April 1974, pp. 99-111.

I-A ORGANIZATIONAL CHART

IOWA STATE DEPARTMENT OF HEALTH



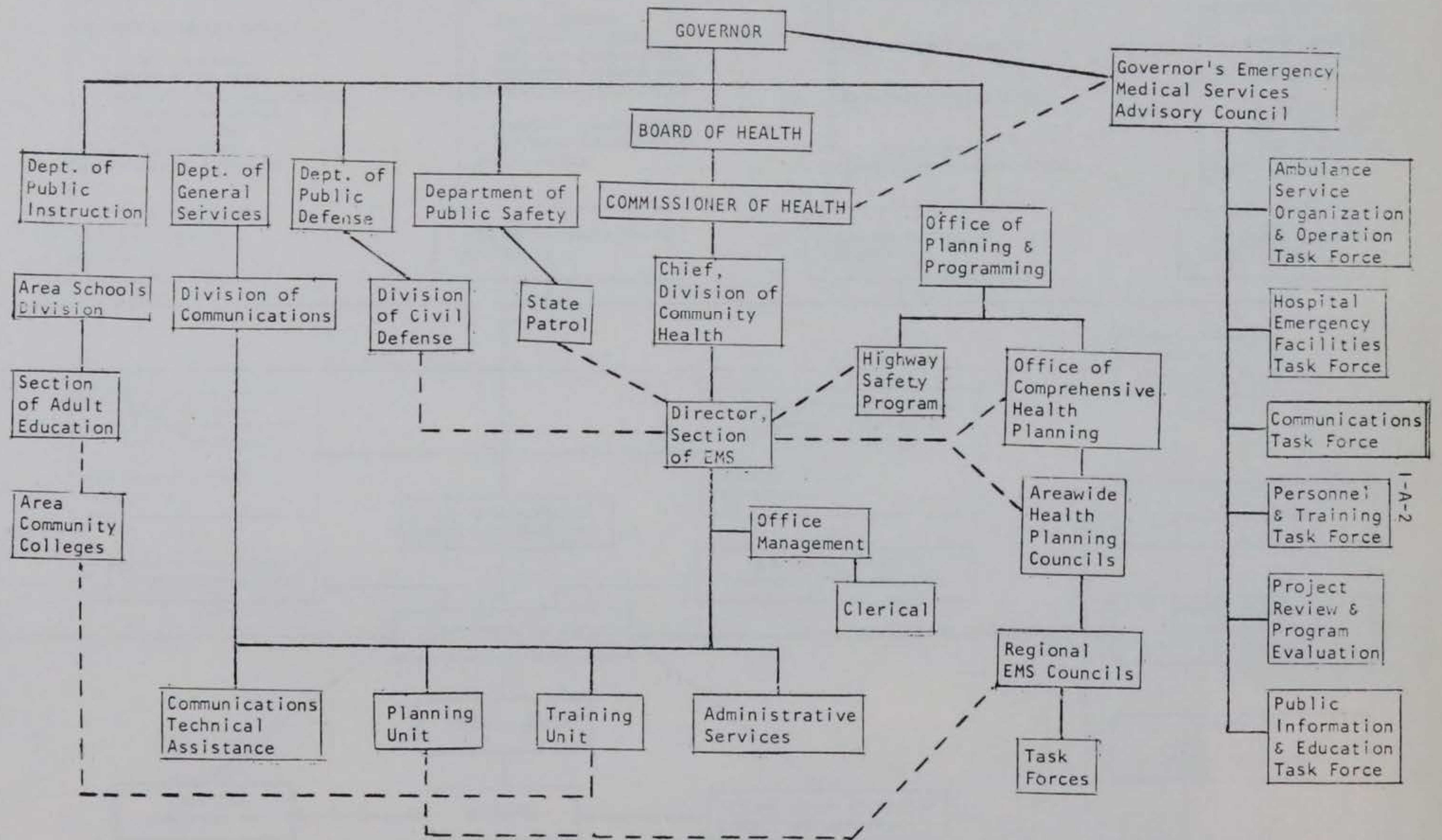
APPROVED
1 September, 1975

Norman L. Pawlewski

Norman L. Pawlewski,
Commissioner of Public Health

EMERGENCY MEDICAL SERVICES ---IOWA

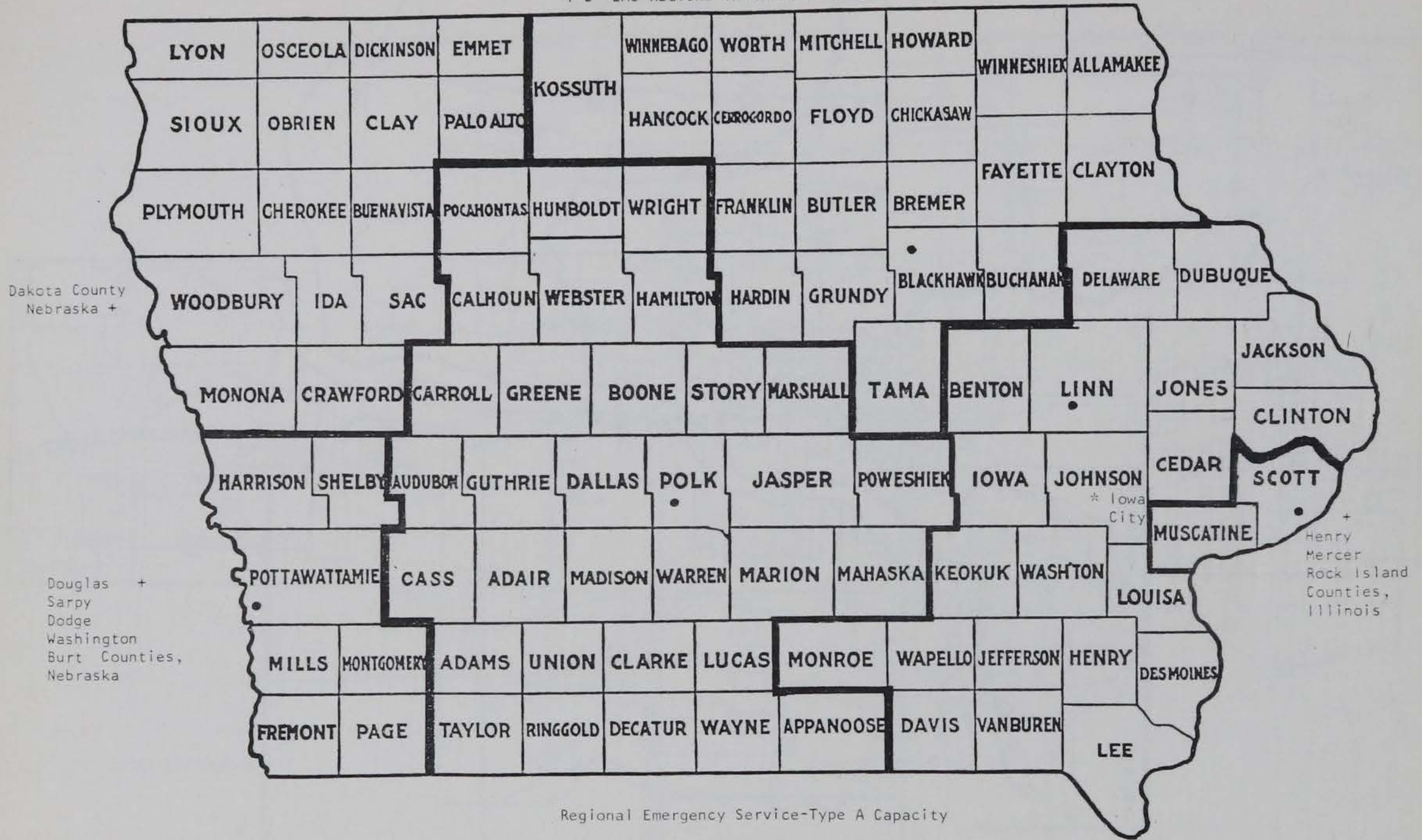
AS OF 10/1/75



——— LINE AUTHORITY

- - - - - - COORDINATIVE FUNCTIONS

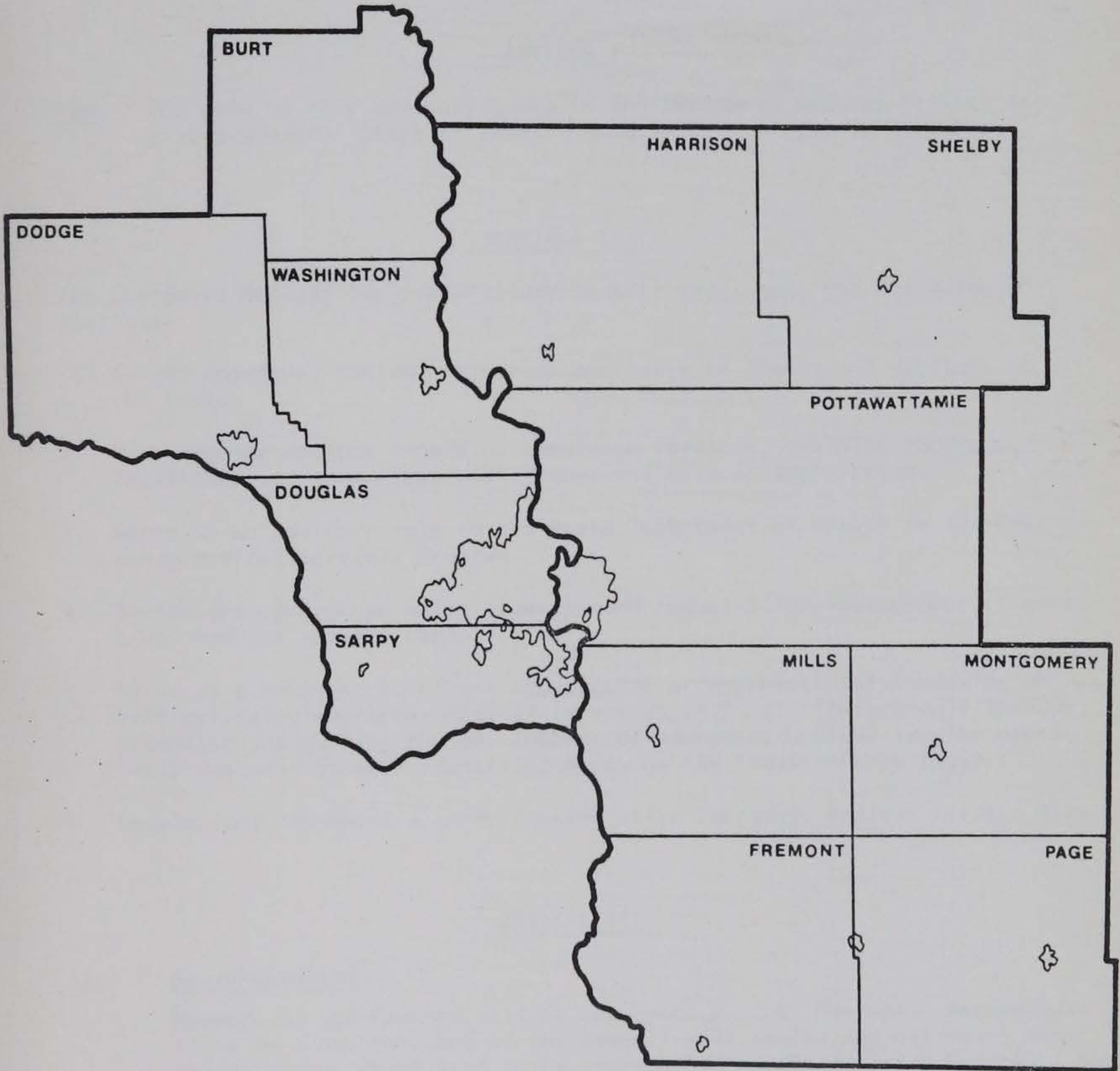
I-B EMS REGIONS IN STATE OF IOWA



Regional Emergency Service-Type A Capacity

ILLOWA EMS REGION

MIDLANDS EMS REGION



EMERGENCY MEDICAL SERVICE ADVISORY COUNCIL

STATE OF IOWA

ORGANIZATION AND PROCEDURE

ARTICLE I

Name - The name of this advisory group is the Emergency Medical Service Advisory Council--State of Iowa.

ARTICLE II

The Emergency Medical Service Advisory Council shall have the following objectives:

1. Survey emergency medical resources available to Iowans and visitors to the State.

2. Make recommendations regarding ambulance services, training programs, facilities and communications systems and related legislation.

3. Serve in an advisory role to the State Department of Health in its Emergency Medical Services Program.

4. Review and comment on major federal fund requests for improvement of emergency medical service capabilities.

5. Serve as a catalyst to effect cooperative arrangements for improving and best utilizing emergency medical resources in Iowa. (This should include promoting and guiding the development of emergency medical service projects designed to meet identified needs on the local or area level.)

6. Develop and implement a comprehensive State Emergency Medical Service Plan.

ARTICLE III

Item 1 Representation

Members of the Council will be appointed by the Governor. Recommendations by a subcommittee of the Council will review and determine appropriate groups which need to be represented on the Advisory Council. Subcommittee recommendations will be reviewed and approved by the Council and then recommendations will be submitted to the Governor.

Item 2 Size of Council

The size of the Emergency Medical Service Advisory Council for the State of Iowa shall be fifteen (15) members.

Item 3 Terms of Members

Members will be appointed for three-year terms. The terms will be staggered so that each year the terms of five (5) members expire.

Item 4 Alternate Members

The appointed members of the Council, may in their absence, designate alternate members to attend Council meetings.

Such designation shall be made in writing to the Council Chairman for any meeting an alternate attends. The alternate so designated shall be eligible to vote on actions considered by the Council.

ARTICLE IV

Meetings

Item 1 Regular Meetings

The Emergency Medical Service Advisory Council shall meet quarterly and at other times as necessary.

Item 2 Annual Meeting

The first meeting of each year shall be the Annual Meeting.

Item 3 Special Meetings

Special meetings of the Council may be called by the Chairman or at the request of one-third (1/3) of the Council membership.

Item 4 Notice of Meetings

Notice of regular meetings shall be mailed to each member of the Council at least two weeks (14 days) prior to the meetings. Notice of special meetings shall be the same except that one week (7 days) notice is required.

Item 5 Quorum

Quorum for the Emergency Medical Services Advisory Council meetings shall be two-thirds (2/3) of the appointed members or their designated alternate.

Item 6 Voting at Regular or Special Meetings

A simple majority of votes entitled to be cast on a matter by the appointed members present shall be necessary for adoption.

Item 7 Voting Between Meetings

Mail, telephone or telegraphic action on a matter shall be permitted. Concurrence of two-thirds (2/3) of the appointed members is required. Such action must be ratified at the next regular meeting of the Council.

Item 8 Meeting Minutes

Council meeting minutes will be mailed to all Advisory Council members within three weeks after the meeting.

ARTICLE V

Officers

Item 1 Officers

Officers of the Emergency Medical Services Advisory Council shall be a Chairman and Vice-Chairman. These officers shall be Council members and shall be elected by a majority of the members present. The Vice-Chairman shall automatically succeed to the position of Chairman at the time of the next election of officers.

Item 2 Time of Election

The election of officers shall be held at the Annual Meeting.

Item 3 Term of Office

Term of office shall be for one year or until a successor shall have been elected and qualified. Officers may succeed themselves for two terms.

Item 4 Vacancies

Vacancies in office may be filled by a majority vote of members present at any regular meeting of the Council. Officers so elected shall serve until the next Annual Meeting.

Item 5 Chairman

The Chairman shall preside at all meetings of the Council. He shall appoint the Committee and Task Force Chairmen.

Item 6 Vice-Chairman

In the absence of the Chairman, or his inability to act, the Vice-Chairman shall perform the duties of the Chairman. When so acting he shall have all the powers of and be subject to all restrictions upon the Chairman. The Vice-Chairman shall also perform such other duties as may be assigned to him by the Chairman.

ARTICLE VI

Task Forces

Item 1 Original Task Forces

The following Task Forces shall be established to study matters within their designated fields including the conduct of special studies referred to them by the Council and to report their findings, together with such recommendations as may emerge from their studies:

1. Ambulance Service Organization and Operation

2. Emergency Medical Service Communications

3. Emergency Personnel and Training

4. Hospital Emergency Facilities

Item 2 New Task Forces

New Task Forces can be appointed when deemed advisable.

Item 3 Appointments of Task Force Members

1. The Chairman of each Task Force shall be appointed by the Council Chairman and shall be selected from the Council membership.

2. There shall be no fixed limit on the size of any Task Force. Size shall be determined by the Task Force Chairman, in consultation with the Council Chairman, based on the Task Force's prospective undertakings and requirements in specialized knowledge. The size of the Task Force may be changed from time to time to reflect changing needs.

3. The selection and appointment of the Council members to the Task Forces shall be made by the Chairman of the Council after consultation with the Chairman of the Task Force.

4. The Chairman of the Task Force, after consultation with the Chairman of the Council, shall make the appointment of non-Council members to the Task Forces and to their sub-groups.

5. The Chairman of the Task Force shall appoint sub-groups and designate their Chairmen as necessary.

Item 4 Guidelines for Task Force Organization

1. Each Task Force is authorized to have a Vice-Chairman who need not be a member of the Council.

2. The Task Force may form such sub-groups as required. Sub-group members need not be members of the Council or Task Force.

3. Specialists concerned with emergency medical services may be asked to serve as consultants to the Task Forces and their sub-groups, and to provide staff services.

ARTICLE VII

Areawide Emergency Medical Service Councils

Item 1 The Council shall encourage the formation of Areawide Emergency Medical Service Councils or Committees in each Areawide Comprehensive Health Planning Agency.

Item 2 The Council shall coordinate its activities with those of the Areawide Councils both through seeking input from the Areawide Councils and through notifying them of plans, actions and activities of the State Emergency Medical Services Advisory Council.

ARTICLE VIII

Parliamentary Authority

The Emergency Medical Services Advisory Council shall conduct business according to *Robert's Rules of Order (Revised)*, except where they are in conflict with these Procedure Rules as adopted or amended.

ARTICLE IX

Amendments

These Procedural Rules may be amended, altered, or repealed and new procedural rules may be adopted by a two-thirds (2/3) majority of members present at any Council meeting provided two weeks (14 days) written notice of the proposed change(s) is given to the membership.

ADOPTED 21 June 1973

EMERGENCY MEDICAL SERVICES DEVELOPMENT GROUP

STATE OF IOWA

ORGANIZATION AND PROCEDURE

ARTICLE I

NAME

The name of this development group is the Emergency Medical Services Development Group--State of Iowa.

ARTICLE II

PURPOSE AND OBJECTIVES

The general purpose of the Emergency Medical Services Development Group is to facilitate the planning, implementation, and expansion of comprehensive EMS systems within the State of Iowa through the exchange of information and ideas among the members of the group, and liaison with the areawide planning councils, OCHP, Governor's EMS Advisory Council, State Department of Health, and other concerned or related organizations and individuals.

Objectives:

1. Establish a viable working relationship with the Governor's EMS Advisory Council and Council Task Forces.

2. Provide an exchange of information, ideas, and input between the EMS Advisory Council, the Task Forces, and the areawide EMS planning councils.

3. Provide an open forum for the discussion of ideas and information between Development Group members.

4. Promote the development of compatible areawide EMS plans to facilitate the interface between various areawide EMS systems.

ARTICLE III

MEMBERSHIP

1. Members of the Emergency Medical Services Development Group will be appointed by their respective areawide health planning council. Each areawide planning council will delegate one representative and one alternate who will serve for one term or until withdrawn by resolution of the areawide health planning council.

2. Each member of the Development Group shall be entitled to one vote, to be cast either by the representative or the alternate, on actions considered by the group.

ARTICLE IV

MEETINGS

1. The Emergency Medical Services Development Group shall meet regularly as may be deemed necessary by the Chairperson.

2. Special meetings of the Emergency Medical Services Development Group may be called upon the request of one-third (1/3) of the membership.

3. Notice of regular meetings shall be mailed to each member of the Emergency Medical Services Development Group at least two weekw (14 days) prior to the meeting. Notice of special meetings shall be made a minimum of one week (7 days) prior to the meeting.

4. The first meeting of each calendar year shall be considered the Annual Meeting of the Emergency Medical Services Development Group.

5. A quorum of the Emergency Medical Services Development Group will consist of a majority of the membership and will be sufficient to pass motions and transact business, except where these Procedural Rules shall otherwise provide.

6. Group action via mail, telephone, or telegraph shall be permitted. Concurrence of two-thirds (2/3) of the appointed members is required. Such action must be ratified at the next regular meeting.

7. Minutes of the Emergency Medical Services Development Group shall be public record, shall be mailed to each member two weeks (14 days) prior to regular meetings, and shall be provided to the Governor's Emergency Medical Services Advisory Council.

ARTICLE V

OFFICERS

1. Officers of the Emergency Medical Services Development Group shall be Chairperson, Vice-Chairperson, and Secretary. Officers shall be elected for a one-year term at the Annual Meeting.

2. Vacancies in office may be filled by a majority vote of members present at any regular meeting. Officers so elected shall serve until the next Annual Meeting.

3. The Chairperson shall preside at all meetings and shall appoint subcommittees and Emergency Medical Services Development Group representatives to other organizations as may be required.

4. In the absence or inability to act of the Chairperson, the Vice-Chairperson shall perform the duties of the Chairperson. When so acting, that person shall have all the power of and be subject to all the restrictions upon the Chairperson. The Vice-Chairperson shall also perform other duties as may be assigned by the Chairperson.

5. The Secretary shall record the minutes of all Emergency Medical Development Group meetings and shall be responsible for the mailing of all minutes and meeting notices. The Secretary shall also perform other duties as may be assigned by the Chairperson.

ARTICLE VI

PARLIAMENTARY AUTHORITY

The Emergency Medical Services Development Group shall conduct business according to *Robert's rules of Order (Revised)*, except where they are in conflict with these Procedure Rules as adopted and amended.

ARTICLE VII

AMENDMENTS

These Procedural Rules may be amended, altered, or repealed and new procedural rules adopted by two-thirds (2/3) majority of the membership present at any Emergency Medical Services Development Group meeting, provided, however, that two weeks' (14 days) written notice of the proposed change(s) has been given to the membership.

ADOPTED 11 December 1974

EXISTING LEGISLATION

from the 1975 IOWA CODE

POWERS AND DUTIES OF SUPERVISORS, §332.3(23)--To purchase, lease, equip, maintain and operate an ambulance or ambulances to provide necessary and sufficient ambulance service or to contract for such vehicles, equipment, maintenance or service.

The board may adopt a schedule of fees to be charged the users of such service, and such fee schedule may include considerations concerning the cost of the service and the user's ability to pay.

If a county shall provide ambulance service, it shall first ascertain what cities and towns in such county also provide ambulance service pursuant to section 368.74. The county shall then coordinate its services with that provided by any such city or town in order to eliminate duplication and to make the ambulance service provided by the county and such cities and towns as economical as possible.

Any third party payor making payment for ambulance service shall make such payment either jointly to the person on whose behalf the payment is made and to the person or organization providing such ambulance service, or directly to the person or organization providing such ambulance service. Page 1645.

COUNTY PUBLIC HOSPITALS, §347.16(13)--Purchase, lease, equip, maintain and operate an ambulance or ambulances to provide necessary and sufficient ambulance service or to contract for such vehicles, equipment, maintenance or service when such ambulance service is not otherwise available. [S13,§§409-d,-k,-o,-q; C24, 27, 31, 35, 39, §5360; C46, 50, 54, 58, 62, 66, 71, §347.14]. Referred to in §145A.12. Page 1697.

AMBULANCE SERVICE - §29A.79 Emergency helicopter ambulance--The adjutant general shall develop a plan within the Iowa national guard for an emergency helicopter ambulance service to transport persons who require emergency medical treatment or require emergency transfer between hospitals and to transport emergency medical supplies, equipment or personnel.

The Iowa national guard shall be requested to provide the emergency helicopter ambulance service from its available manned helicopters when the plan is implemented on order of the governor at the request of the Iowa highway safety patrol, or the administrative heads of the hospitals located in Iowa, unless the Iowa national guard does not have a manned helicopter available or is in active service under the armed forces of the United States.

The adjutant general shall establish policies and procedures to carry out the provisions of this section. The policies and procedures shall provide that the emergency helicopter ambulance service shall be coordinated and supplemental to, and not competitive with conventional ambulance services. In determining whether an emergency exists the policies and procedures shall give reasonable consideration to the risk of death or permanent injury due to delayed treatment resulting from: Remoteness of an area from any hospital, the absence or unavailability of conventional ambulance services, and the distance to be traveled in a transfer between hospitals. [C73,§29A.79]. Page 155.

PARTIES TO ACTIONS - §613.17 Emergency assistance in an accident. Any person, who in good faith renders emergency care or assistance without compensation at the place of an emergency or accident, shall not be liable for any civil damages for acts or omissions unless such acts or omissions constitute recklessness. [C71,§613.17]. Page 3046.

1-E-2 HOUSE FILE 40

PROPOSED LEGISLATION

By DRAKE, LIPSKY, MILLEN, SMALL, DOYLE, O'HALLORAN, DUNTON, CRA
CRAWFORD, HARGRAVE, HIGGINS, HARPER, MONROE, JESSE, AVENSON
PATCHETT, READINGER, NEALSON of Muscatine and GRIFFEE

Passed House, Date_______________ Passed Senate, Date_______________

Vote: Ayes_________ Nays_________ Vote: Ayes_________ Nays_________

Approved_______________________________

A BILL FOR

1 An Act relating to standards for ambulance services, authorizing
2 county boards of supervisors to levy taxes to provide ambu-
3 lance service, and providing penalties for violations.
4 BE IT ENACTED BY THE GENERAL ASSEMBLY OF THE STATE OF IOWA:
5
6
7
8
9 HOUSE FILE 40
10
11 H-3263
12
13
14
15
16
17
18
19
20
21
22
23
24
25

1 Amend House File 40, page 3, by inserting after
2 line 28 the following:
3 "c. Operated by a person for the sole purpose
4 of transporting employees of that person, who are
5 injured or become ill while performing the duties
6 incident to their employment, to a hospital or other
7 appropriate place where treatment is available."

H-3263 FILED
MARCH 11, 1975

BY DOYLE of Woodbury
JUNKER of Woodbury
SCHEELHAASE of Woodbury
FULLERTON of Woodbury

1 Section 1. NEW SECTION. DEFINITIONS. As used in sections
2 one (1) through eighteen (18) of this Act, unless the context
3 otherwise requires:
4 1. "Patient" means an individual who is:
5 a. Sick, injured, wounded or otherwise incapacitated;
6 and
7 b. In need of emergency medical assistance, or whose
8 condition requires treatment or continuous observation, while
9 being transported, by a person with training adequate to
10 enable him to provide emergency medical treatment.
11 2. "Ambulance" means any privately or publicly owned motor
12 vehicle used to transport patients.
13 3. "Rescue vehicle" means any privately or publicly owned
14 motor vehicle, including fire department rescue units, designed
15 and equipped to provide and transport rescue tools and equip-
16 ment, but not used to transport patients except as provided
17 in section two (2), subsection three (3), of this Act.
18 4. "Ambulance service" means the responsible business
19 or public unit that operates one or more ambulances.
20 5. "Attendant" means an individual who is trained and
21 qualified as required by this Act who is responsible for the
22 operation of an ambulance and the care of the patients
23 transported, whether or not he also serves as driver.
24 6. "Apprentice attendant" means an individual in training
25 to become an attendant who, under the rules promulgated pursu-
26 ant to section three (3) of this Act, may assist an attendant.
27 7. "Driver" means an individual who drives an ambulance.
28 8. "Attendant-driver" means an individual who is qualified
29 as an attendant and as a driver.
30 9. "Equipment" means medical, first aid, communications
31 and rescue equipment used by ambulance service personnel to
32 extricate, transport and care for patients.
33 10. "Commissioner" means the commissioner of public health
34 or his designee.
35 11. "Department" means the state department of health.

1 12. "Advisory council" means the emergency medical service
2 advisory council established in this state pursuant to United
3 States Public Law ninety-one dash six hundred five (91-605).
4 Sec. 2. NEW SECTION. AMBULANCE SERVICE LICENSE REQUIRED.
5 1. A person, either as owner, agent or otherwise, shall
6 not furnish, operate, conduct, maintain, advertise, or
7 otherwise engage in or profess to be engaged in the business
8 or service of transporting patients upon the streets and
9 highways of this state unless he holds a currently valid
10 ambulance service license issued pursuant to this Act, and
11 a valid certification for each ambulance operated by the
12 ambulance service.
13 2. An ambulance shall not be operated for transportation
14 of patients, and an individual shall not drive, attend or
15 permit an ambulance to be operated for transportation of
16 patients on the streets and highways of this state unless
17 the ambulance is under the immediate supervision and direction
18 of an individual trained as an attendant, in compliance with
19 the rules promulgated pursuant to section three (3) of this
20 Act.
21 3. A certification shall not be required for an ambulance
22 or rescue vehicle which is:
23 a. Rendering assistance in an emergency when licensed
24 ambulance services are unable to provide the needed service.
25 b. Operated from a location outside the state in order
26 either to transport patients from points outside the state
27 to points within the state, or from points within the state
28 to points outside the state.
29 Sec. 3. NEW SECTION. RULES. The commissioner shall,
30 with the guidance of the advisory council, promulgate in
31 accordance with chapter seventeen A (17A) of the Code and
32 review at least annually rules for ambulance services and
33 ambulances. These rules shall include:
34 1. Specifications for vehicles used as ambulances, which
35 shall be general in nature and application and shall not be

1 so drawn as to require the use of one or an unduly restricted
2 number of particular makes or models of vehicles as ambulance
3 chassis.
4 2. A list of the equipment required to be carried on each
5 ambulance at all times when it is in use or available for
6 dispatch in response to an emergency call.
7 3. The training or competence that is required for atten-
8 dants, drivers and attendant-drivers, and to what extent such
9 training must have been completed or competence acquired
10 before an apprentice attendant may actively assist an atten-
11 dant or attendant-driver.
12 4. Requirements for the method of dispatching, for citi-
13 zens' access to responsible dispatching capability, and for
14 communications capability.
15 5. Requirements for hours of operation and for staffing
16 of ambulances.
17 6. Requirements for minimum amounts of insurance for the
18 purposes specified in section ten (10) of this Act.
19 Sec. 4. NEW SECTION. APPLICATIONS FOR LICENSES. Appli-
20 cations for ambulance service licenses shall be made upon
21 forms prepared or prescribed by the commissioner and shall
22 contain:
23 1. The name, social security number and address of the
24 applicant and of the owner of the ambulance service.
25 2. The trade name, if any, under which the applicant does
26 business or proposes to do business.
27 3. The training and experience of the applicant in the
28 transportation and care of patients.
29 4. A description of the radio communication system, includ-
30 ing the frequencies used and the number of base and mobile
31 units.
32 5. The location and a description of the place from which
33 the ambulance service operates or intends to operate, and
34 the area it serves.
35 6. The names, ages, social security numbers, training

1 and emergency medical service experience of all attendant-
2 drivers and attendants.
3 7. A description of the staffing pattern followed or in-
4 tended to be followed by the ambulance service.
5 8. Evidence satisfactory to the commissioner that the
6 applicant has insurance coverage as required by section ten
7 (10) of this Act.
8 9. Such other information as the commissioner deems neces-
9 sary to determine that the ambulance service is operating
10 or will operate in compliance with this Act.
11 Sec. 5. NEW SECTION. REQUIREMENTS FOR LICENSE. As a
12 condition for obtaining, retaining, and renewing its license,
13 each ambulance service shall:
14 1. Maintain for a minimum of three years written records
15 of each ambulance call received, the time and nature of the
16 call, the pickup and destination points, and other relevant
17 information as may reasonably be required by the rules promul-
18 gated pursuant to section three (3) of this Act, and shall
19 keep such records open to inspection by the commissioner or
20 his designee during usual business hours.
21 2. Maintain the premises from which it operates and main-
22 tain its certified ambulances and its equipment in suitable
23 condition for safe and effective operation. They shall be
24 subject to inspection by the commissioner at any time during
25 usual hours of operation of the ambulance service.
26 3. Promptly report to the commissioner any change in per-
27 sonnel designated in the last preceding license application
28 to serve as attendants, drivers or attendant-drivers, and
29 the commissioner shall review the qualifications of the new
30 personnel to assure compliance with the rules promulgated
31 pursuant to section three (3) of this Act.
32 4. Obtain the approval of the commissioner in advance
33 of the sale, assignment, mortgage or other transfer or
34 encumbrance of its license; the commissioner shall grant
35 approval only when satisfied that there will be compliance

1 with all requirements of this Act and of the rules promulgated
2 pursuant to section three (3) of this Act.
3 5. Continuously maintain the insurance coverage required
4 by section ten (10) of this Act.
5 Sec. 6. NEW SECTION. APPLICATIONS FOR CERTIFICATION.
6 Every application for issuance or renewal of an ambulance
7 service license shall be accompanied by a separate application
8 for certification of each ambulance which the ambulance service
9 operates or intends to operate. An application for
10 certification shall be submitted by a licensed ambulance
11 service when it acquires any additional or replacement
12 ambulance during the period for which it has been licensed.
13 Applications for certification of ambulances shall be made
14 upon forms prepared or prescribed by the commissioner and
15 shall contain:
16 1. A description of the ambulance, including the make,
17 model, year of manufacture, vehicle identification number,
18 current state license number, and the color scheme, insignia,
19 name, monogram, or other distinguishing characteristics to
20 be used to designate the applicant's ambulances.
21 2. Evidence that ambulance has within thirty days prior
22 to the date of application passed a motor vehicle inspection
23 performed in the manner prescribed by section three hundred
24 twenty-one point two hundred thirty-eight (321.238) of the
25 Code.
26 3. A complete inventory of equipment assigned to and
27 carried on the ambulance.
28 4. Such other information as the commissioner deems neces-
29 sary to determine that the ambulance complies with all
30 applicable requirements of this Act, the rules promulgated
31 pursuant to section three (3) of this Act, and the rules of
32 the commissioner of public safety.
33 Sec. 7. NEW SECTION. REQUIREMENTS FOR CERTIFICATION.
34 As a condition of obtaining, retaining, and renewing a certifi-
35 cate for an ambulance, it shall at all times when in use or

1 available to respond to a call:
2 1. Be in suitable condition for the transportation and
3 emergency care of patients, in terms of health, sanitation
4 and safety, and maintained in suitable premises.
5 2. Contain equipment conforming with the requirements
6 of the rules promulgated pursuant to regulations provided
7 for in section three (3) of this Act, which equipment shall
8 be in proper condition for use in the ambulance.
9 3. Be operated, driven and attended by the requisite num-
10 ber of trained personnel required by the rules promulgated
11 pursuant to section three (3) of this Act, each driver having
12 a valid license as prescribed in section three hundred twenty-
13 one point one hundred seventy-four (321.174) of the Code.
14 4. Comply with all applicable laws and local ordinances
15 relating to health, sanitation, and safety.
16 5. Be equipped with lights, sirens, and special markings
17 to designate it as an ambulance, as may be prescribed in
18 regulations promulgated by the commissioner of public safety.
19 Sec. 8. NEW SECTION. NON-EMERGENCY AMBULANCES. The com-
20 missioner may, with the guidance of the advisory council,
21 promulgate in accordance with chapter seventeen A (17A) of
22 the Code and review at least annually rules setting forth
23 conditions upon which a licensed ambulance service, which
24 maintains at each point from which it conducts operations
25 at least one ambulance meeting all requirements of section
26 seven (7) of this Act, may be issued certificates for one
27 or more additional non-emergency ambulances. Such ambulances
28 may be used only for transfer of patients from one point to
29 another on a non-emergency basis. Rules promulgated pur-
30 suant to this section shall state which requirements of section
31 seven (7) of this Act and of the rules promulgated pursuant
32 to section three (3) of this Act will be waived for
33 certification of non-emergency ambulances. Upon receiving
34 satisfactory evidence that a licensed ambulance service has
35 used or permitted the use of a non-emergency ambulance to

1 respond to an emergency call, except under circumstances in
2 which section two (2), subsection three (3), paragraph a,
3 of this Act permits the use of a non-certified vehicle, the
4 commissioner shall immediately act in the manner provided
5 by section thirteen (13) of this Act to revoke all non-
6 emergency ambulance certificates issued to the ambulance
7 service.

8 Sec. 9. NEW SECTION. WHEN LICENSE IS NOT REQUIRED. This
9 Act shall not be construed to require that an ambulance service
10 license be obtained by any person who furnishes transportation
11 to individuals who are sick, injured, wounded or otherwise
12 incapacitated, but who do not need emergency medical assistance
13 nor require treatment or continuous observation, while being
14 transported, by a person with training adequate to enable
15 him to provide emergency medical treatment. However, any
16 person not licensed under this Act who furnishes such trans-
17 portation must, within thirty days after being so requested,
18 provide to the department information which it may reasonably
19 require by rules adopted in accordance with chapter seventeen
20 A (17A) of the Code in order to establish that the unlicensed
21 person is not furnishing any transportation or other services
22 for which a license is required by this Act.

23 Sec. 10. NEW SECTION. LIABILITY INSURANCE AND BOND--PROOF
24 OF SOLVENCY. An ambulance service license or ambulance cer-
25 tificate shall not be issued until the applicant has filed
26 with the commissioner an insurance policy, policies, surety
27 bond, or certificate of insurance, in form to be approved
28 by the commissioner and issued by some company, association,
29 reciprocal or interinsurance exchange or other insurer
30 authorized to do business in this state. The policies or
31 surety bond shall be issued in amounts not less than shall
32 be specified by the commissioner in rules promulgated pursuant
33 to section three (3) of this Act for the following purposes:

34 1. To cover the assured's legal liability as an ambulance
35 service for bodily injury or death resulting therefrom as

1 a result of any one accident or o her cause, in the minimum
2 specified amount for any recovery by one person and subject
3 to that limit for one person, not less than three times such
4 amount for more than one person.

5 2. To cover the assured's legal liability as an ambulance
6 service for damage to or destruction of any property other
7 than that of or in charge of the assured, as a result of any
8 one accident or other cause.

9 3. To cover the assured's legal liability as an ambulance
10 service for loss of or damage to property of passengers as
11 a result of any one accident or any other cause.

12 4. Any ambulance service coming under the provisions of
13 this Act which furnishes satisfactory proofs to the
14 commissioner of its solvency and financial ability to cover
15 the assured's legal liability as provided for in this section
16 and makes payments to persons who may be entitled as a result
17 of that legal liability, or which deposits with the
18 commissioner surety satisfactory to him to guarantee such
19 payments, shall be relieved of the provisions of this section
20 requiring liability insurance, surety bond or certificate
21 of insurance but shall, from time to time, furnish additional
22 satisfactory proof of solvency and financial ability to pay
23 as may be required by the commissioner.

24 Sec. 11. NEW SECTION. INVESTIGATION AND INSPECTION.
25 The commissioner shall within thirty days after receipt of
26 an application for an ambulance service license cause an
27 investigation to be made, which shall include but need not
28 be limited to an inspection of the ambulances, equipment and
29 premises designated in the application. The commissioner
30 shall issue the license if he finds that each ambulance
31 operated or to be operated by the ambulance service is
32 certified or eligible for certification, that the applicant
33 is a responsible and proper person to conduct or work in an
34 ambulance service, and that the ambulance service is operating
35 or will operate in compliance with this Act.

1 The inspection of an ambulance service's ambulances, equip-
2 ment, and premises made by the commissioner or his designee
3 at the time of application for a license, and at such other
4 times as the commissioner may deem necessary, shall be in
5 addition to any other safety or motor vehicle inspection re-
6 quired for ambulances or other motor vehicles by law or ordi-
7 nance.

8 Sec. 12. NEW SECTION. ISSUANCE AND RENEWAL OF LICENSES.
9 1. Each application for issuance or renewal of an ambu-
10 lance service license shall be accompanied by a fee of fifty
11 dollars which shall be paid by the department to the treasurer
12 of state for deposit in the general fund of the state.
13 Licenses and certificates shall be valid for a period of one
14 year from issuance or date of most recent renewal, unless
15 earlier suspended, revoked or terminated, except that a
16 certificate issued to a licensed ambulance service for a new
17 or replacement ambulance less than ninety days before the
18 expiration of the ambulance service's license shall be extended
19 for one year upon renewal of the license. Any change of
20 ownership of a certified ambulance shall terminate the
21 certificate. However, if the new owner is a licensed ambulance
22 service and has applied for a new certificate, the previous
23 certificate shall be deemed valid, if it has not expired,
24 during the pendency of the application for a new certificate.
25 2. It is the responsibility of each licensee to apply
26 for renewal of his ambulance service license and ambulance
27 certificate or certificates not less than forty-five days
28 before their expiration date. If application for renewal
29 has been made, the commissioner may extend a license
30 temporarily if necessary in order to complete an investigation
31 he deems essential to renewal of the license.
32 3. Defacement, removal or obliteration of any official
33 entry made upon a license shall terminate the license.

34 Sec. 13. NEW SECTION. SUSPENSION OR REVOCATION OF LICENSES
35 AND CERTIFICATES.

1 1. The commissioner may suspend or revoke an ambulance
2 service license, or cancel an ambulance certificate, for
3 failure of the licensee to maintain compliance with, or for
4 his violation of, the requirements of this Act or of the rules
5 promulgated pursuant to section three (3) of this Act or of
6 any other applicable laws, ordinances or regulations, but
7 only after issuing the licensee a warning that such action
8 is being contemplated and granting the licensee a reasonable
9 time for compliance, as determined by the commissioner.
10 2. Reports of inspections of ambulances, equipment and
11 premises, made by the commissioner or his designee under
12 authority of this Act, shall be prima facie evidence of compli-
13 ance or failure to comply with the requirements of this Act
14 or the rules promulgated pursuant to section three (3) of
15 this Act.
16 3. Upon suspension, revocation or termination of an ambu-
17 lance service license, the ambulance service shall cease all
18 operations immediately, and may resume operations only when
19 it again has a valid license. Cancellation of an ambulance
20 certificate, in the absence of suspension, revocation or
21 termination of the license of the ambulance service which
22 operates the ambulance, shall not require the ambulance service
23 to cease all operations if it has available one or more other
24 certified ambulances.
25 Sec. 14. NEW SECTION. HEARING AND APPEAL PROCEDURE.
26 A licensee under sections one (1) through sixteen (16) of
27 this Act may make a written request for a hearing within
28 thirty days after receiving warning, pursuant to section
29 thirteen (13), subsection one (1), of this Act, that suspen-
30 sion or revocation of his license or certificate is being
31 considered. A licensee who so requests shall be given a hear-
32 ing before an impartial hearing officer designated by the
33 commissioner after reasonable notice of the time and place
34 of the hearing. The licensee may be represented by counsel
35 at the hearing if he desires. The hearing officer shall

1 promptly submit to the commissioner in writing a summary of
2 the evidence presented at the hearing and the commissioner
3 shall, within thirty days after the conclusion of the hearing,
4 issue a written decision which shall include findings relating
5 to the suspension or revocation of the license or cancellation
6 of the certificate. A copy of the decision together with
7 a copy of the hearing officer's written summary shall be
8 promptly transmitted to the affected licensee. A licensee
9 aggrieved by the commissioner's decision may within thirty
10 days after the decision is transmitted to him appeal to the
11 district court of the county in which he resides by serving
12 notice of the appeal upon the commissioner in the manner
13 required for service of original notice in a civil action.
14 The appeal shall be on the record of the hearing before the
15 hearing officer.
16 Sec. 15. NEW SECTION. NECESSARY EMPLOYEES AUTHORIZED.
17 The department may employ, subject to chapter nineteen A (19A)
18 of the Code, such assistants and inspectors as may be necessary
19 to administer and enforce the provisions of this Act.
20 Sec. 16. NEW SECTION. PENALTIES FOR VIOLATIONS. Any
21 person violating or failing to comply with any provision of
22 this Act or of the rules promulgated pursuant to section three
23 (3) of this Act shall be guilty of a misdemeanor and upon
24 conviction shall be fined an amount not exceeding one hundred
25 dollars or be imprisoned in the county jail for a period not
26 exceeding thirty days. Each day that any violation or failure
27 to comply with this Act continues shall constitute a separate
28 and distinct offense. The court may, in appropriate cases,
29 stay the cumulation of penalties.
30 Sec. 17. NEW SECTION. EXEMPTIONS FOR EXISTING SERVICES.
31 Every ambulance service which is actually engaged in the oper-
32 ation of ambulances on the effective date of this Act and
33 for at least six months previously shall be entitled to an
34 ambulance service license upon compliance with the requirements
35 of section ten (10) of this Act. Every ambulance service

1 so licensed shall have until July 1, 1976 to comply with any
2 rules promulgated pursuant to section three (3), subsection
3 three (3), of this Act relating to training and competence
4 required for attendants, drivers and attendant-drivers. The
5 commissioner shall promulgate rules under section three (3),
6 subsections one (1), two (2), four (4) and five (5), of this
7 Act establishing only such reasonable minimum standards as
8 are essential to protect patients transported in ambulances
9 operated by ambulance services holding licenses issued under
10 this section, it being the intent of this section that no
11 area of the state shall be deprived of ambulance service by
12 the operation of this Act. Any ambulance operated by an
13 ambulance service licensed under this section and which
14 complies with the standards established by the rules
15 promulgated as required by this section shall, upon application
16 for issuance or renewal of a certificate as provided by section
17 six (6) of this Act, be certified for operation during any
18 period prescribed by section twelve (12) of this Act ending
19 not later than June 30, 1984. Nothing in this section shall
20 be construed to grant any exemption from standards established
21 by rules promulgated under this Act with respect to any
22 ambulance service established or any ambulance purchased and
23 placed in service for the first time after the effective date
24 of this Act.
25 Sec. 18. NEW SECTION. AMBULANCE SERVICE FUND. When any
26 county board of supervisors elects to provide ambulance service
27 as authorized by section three hundred thirty-two point three
28 (332.3), subsection twenty-three (23), of the Code, the board
29 shall create an ambulance service fund in which shall be
30 deposited all revenue derived by the county from ambulance
31 service provided by the county or at county expense, and from
32 taxes levied under section twenty-four (24) of this Act.
33 Sec. 19. NEW SECTION. SCHEDULE OF FEES--TERMS OF CONTRACT
34 OR ARRANGEMENT. The board of supervisors may adopt a schedule
35 of fees to be charged users of ambulance service provided

1 by the county or at county expense. If the board contracts
2 for ambulance service to be provided by any person other than
3 a county employee, the contract shall specify whether:
4 1. The county accepts financial responsibility for payment
5 to the person operating the ambulance service for all emer-
6 gency calls, and any other calls to which the ambulance service
7 is authorized to respond at county expense by or pursuant
8 to the terms of its contract with the county, in which case
9 any person making payment for the ambulance service provided,
10 including any third party payor, shall make the payment either
11 jointly to the person on whose behalf the payment is made
12 and to the county or directly to the county; or
13 2. It is the responsibility of the person operating the
14 ambulance service to collect fees due for ambulance service,
15 in which case the county shall be responsible only for the
16 cost of ambulance service provided in response to emergency
17 calls or to any other calls to which the ambulance service
18 is authorized to respond by or pursuant to the terms of its
19 contract with the county, when the service has been provided
20 to:
21 a. Persons who are unable to pay any or all of the cost
22 of the service; or
23 b. Persons who refuse to pay any or all of the cost of
24 the service after reasonable efforts by the person operating
25 the ambulance service to collect the amount owed.
26 Sec. 20. NEW SECTION. DUTY OF COUNTY ATTORNEY. The board
27 of supervisors may direct the county attorney to proceed with
28 the collection of amounts owed for ambulance service provided
29 to any person pursuant to section nineteen (19), subsection
30 one (1) or subsection two (2), paragraph b, of this Act.
31 Sec. 21. NEW SECTION. DUTY OF COUNTY BOARD. When any
32 county board of supervisors elects to provide ambulance ser-
33 vice, the board shall ascertain whether any political subdi-
34 vision within the county currently provides ambulance service
35 and intends to continue doing so after the county ambulance

1 service is established. If not, he board of supervisors
2 shall extend the county ambulance service to the entire area
3 of the county.
4 Sec. 22. NEW SECTION. SERVICE FOR UNPROTECTED AREA.
5 If the board of supervisors finds that any political subdivi-
6 sion within the county is providing ambulance service and
7 intends to continue doing so after the county ambulance ser-
8 vice is established, the portions of the county lying outside
9 the boundaries of any subdivisions which provide ambulance
10 service shall be known for the purposes of sections twenty-
11 two (22) through twenty-four (24) of this Act as the
12 unprotected area of the county. The board shall if possible
13 provide ambulance service to the unprotected area of the
14 county by contracting with one or more political subdivisions
15 within or reasonably near the county which maintains ambulance
16 service for extension of the service to the unprotected area
17 of the county or specified portions of the unprotected area.
18 A contract may provide for alternative or supplemental
19 ambulance service to be provided by the contracting political
20 subdivision at any place in the county when circumstances
21 require.
22 Sec. 23. NEW SECTION. ALTERNATIVE AUTHORITY OF COUNTY
23 BOARD. When a county board of supervisors is unable to reach
24 agreement with any political subdivision for extension of
25 ambulance service maintained by the subdivision to all or
26 any portion of the unprotected area, the county may provide
27 ambulance service for the unprotected area or portion thereof
28 in the same manner as though section twenty-one (21) of this
29 Act were applicable, except that the tax levied shall be
30 levied only on the taxable property in the unprotected area
31 or the portion thereof to which ambulance service is provided
32 pursuant to this section.
33 Sec. 24. NEW SECTION. TAX LEVY. The county board of
34 supervisors of each county which provides ambulance service
35 under sections eighteen (18) through twenty-four (24) of this

1 Act shall annually levy a tax for the ambulance service fund.
2 If the county provides ambulance service under section twenty-
3 one (21) of this Act, the tax shall be levied on all taxable
4 property in the county. If the county provides ambulance
5 service under sections twenty-two (22) or twenty-three (23)
6 of this Act, the tax shall be levied on all taxable property
7 in the unprotected area of the county. The amount of the
8 tax shall not exceed the amount which would be raised by a
9 uniform one mill levy on all taxable property to which the
10 ambulance service fund levy is to be applied under this sec-
11 tion, but the actual millage levies shall be determined as
12 follows:
13 1. Determine the anticipated total cost of ambulance ser-
14 vice, including debt retirement or amortization, to the county
15 for the budget year for which the levy is to be made.
16 2. Compute the per capita cost to the county of ambulance
17 service by dividing the anticipated total cost to the county
18 of ambulance service determined pursuant to subsection one
19 (1) of this section into the total population of:
20 a. The entire county if ambulance service is being pro-
21 vided under section twenty-one (21) of this Act; or
22 b. The unprotected area of the county, if ambulance ser-
23 vice is being provided under sections twenty-two (22) or
24 twenty-three (23) of this Act.
25 3. Separate levies for the ambulance service fund shall
26 be computed for all of the unincorporated territory and for
27 each city in the entire county, or in the unprotected area
28 of the county, whichever is appropriate under the requirements
29 of the first unnumbered paragraph of this section. The levies
30 shall in each case be that amount which, when applied to the
31 assessed value of all taxable property in the area for which
32 the levy is computed, will raise an amount equal to the per
33 capita cost of ambulance service to the county multiplied
34 by the population of the area for which the levy is computed.
35 Sec. 25. Section three hundred thirty-two point three

1 (332.3), Code 1975, is amended by striking subsection twenty-
2 three (23) and inserting in lieu thereof the following:
3 23. To purchase, lease, equip, maintain and operate ambu-
4 lances to provide necessary and sufficient ambulance service,
5 or to contract for ambulance vehicles, equipment, maintenance
6 or service, in the manner provided by sections eighteen (18)
7 through twenty-four (24) of this Act.
8 EXPLANATION
9 Sections 1 through 17 of this bill empower the Commissioner
10 of Public Health and the State Department of Health to estab-
11 lish, and to enforce through licensing of ambulance services
12 and certification of individual ambulances, standards for
13 the training, staffing, equipment and operation of ambulances
14 in Iowa. A hearing and appeal procedure is included for use
15 by ambulance operators who believe the Commissioner is
16 unjustified in any proposed suspension or revocation of an
17 ambulance service license. Section 17 of the bill allows
18 existing ambulance services a period of seven years to make
19 necessary adjustments in order to achieve full compliance
20 with the bill's requirements, so that no area will be suddenly
21 left without ambulance service if existing operations cannot
22 immediately comply with the bill in all respects.
23 Sections 18 through 25 of the bill restate and expand the
24 authority of county boards of supervisors to provide ambulance
25 service within their counties. A procedure is established
26 by which the county board may arrange with cities or other
27 political subdivisions in or near the county to expand exist-
28 ing ambulance service to surrounding areas which have no other
29 ambulance protection. A key feature of the bill is a proce-
30 dure which permits the cost to the county of ambulance service
31 to be apportioned on an equal per capita basis between popu-
32 lous and less populated areas. This feature prevents farm
33 families from being forced to pay many times more per capita
34 than city families for ambulance service, which is usually
35 the result when a single millage levy is spread across the

1 county, since the taxable value of the average farm is far
2 higher than the taxable value of the average family home in
3 a city or town.
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35

PROPOSED

MOBILE INTENSIVE CARE PARAMEDICS

This proposal consists of adding the following to Chapter 148C, Code of Iowa, 1975, Title page 774.

Add item 6. Mobile Intensive Care Paramedics who have been specially trained in emergency care in a training program approved and supervised by the Iowa State Department of Health and who are certified by the Iowa Board of Medical Examiners as qualified to render the services enumerated in this chapter.

Mobile Intensive Care Paramedics

Definitions. For the purpose of this chapter:
C.1

1. "Board" means the Board of Medical Examiners of the State of Iowa.
2. "Department" means the State Department of Health.
3. "Mobile Intensive Care Paramedics" means a person who has been specially trained in emergency care in a training program approved and supervised by the Department and who is certified by the Board as qualified to render the services enumerated in this chapter.

1. Programs for ambulance and rescue squad personnel.

C.2 Any company, partnership, individual or governmental body operating an ambulance service or rescue squad may conduct a program utilizing mobile intensive care paramedics for the delivery of emergency care to the sick and injured at the scene of an emergency and during transport to a hospital, and in the hospital emergency quarters until care responsibility is assumed by the hospital staff.

C.3 Services that may be performed.

Notwithstanding any other provision of law a Mobile Intensive Care Paramedic may do any of the following for which he has been specially trained and for which he has been specifically certified by the Board.

1. Defibrillate an unconscious, pulseless, non-breathing patient.
2. Start an intravenous of 5% glucose and water or of normal saline.
3. Where voice contact is maintained with a physician or certified coronary intensive care nurse, administer or do upon the order of the physician or nurse any of the following provided he is specifically certified to administer said drug or perform said procedure.
   a. Administer parenteral injections of any of the following:
      i. Lidocaine
      ii. Atropine
      iii. Pentazocine
      iv. Any other drug or solution approved by the Board and the Department
   b. Perform gastric suction by intubation
   c. Perform endotracheal intubation or esophageal intubation.

4. Perform other procedures designated and approved by the Board and the Department.

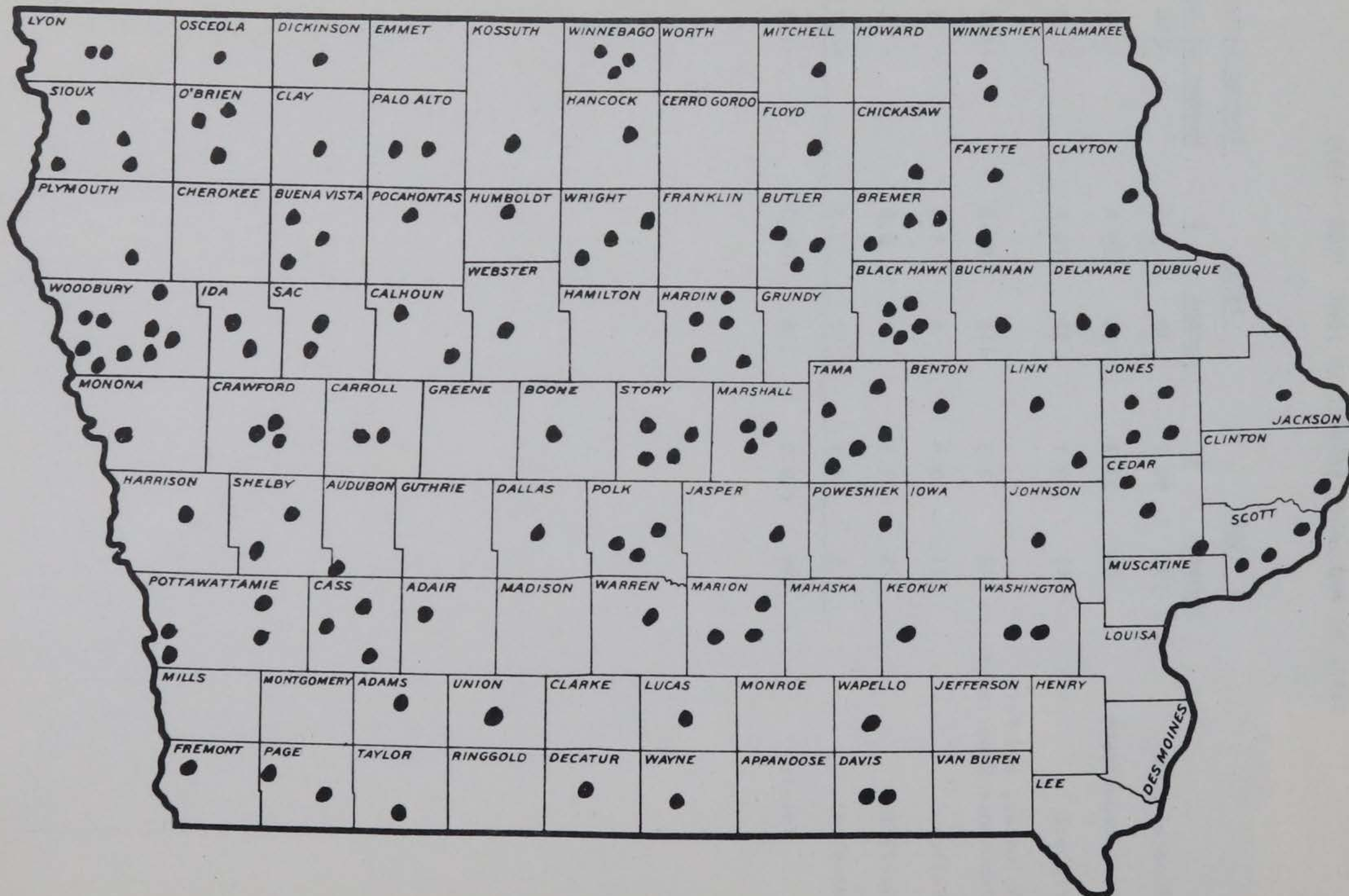
C.4 Immunity from civil liability.

No such physician or nurse, who in good faith gives emergency instructions to such paramedic, nor any such paramedic who renders such emergency treatment as provided for herein, shall be liable for any civil damages resulting from such emergency treatment.

TYPES OF AMBULANCE SERVICE IN IOWA 1968 - 1975

	1968		1975		Change Since 1968
	Number	%	Number	%	Number of Services
Funeral Home	270	60.2	30	9.5	-240
Fire Department	104	23.2	93	29.4	- 11
Private	41	9.1	32	10.1	- 9
Voluntary and Paid Ambulance Department	13	2.9	113	35.8	+100
Police	11	2.4	6	1.9	- 5
Sheriff	5	1.1	0	0.0	- 5
Hospital	5	1.1	42	13.3	+ 37
Totals	449	100.0	316	100.0	-133

DISTRIBUTION OF NEW AMBULANCES PURCHASED THAT MEET MINIMUM DOT REQUIREMENTS



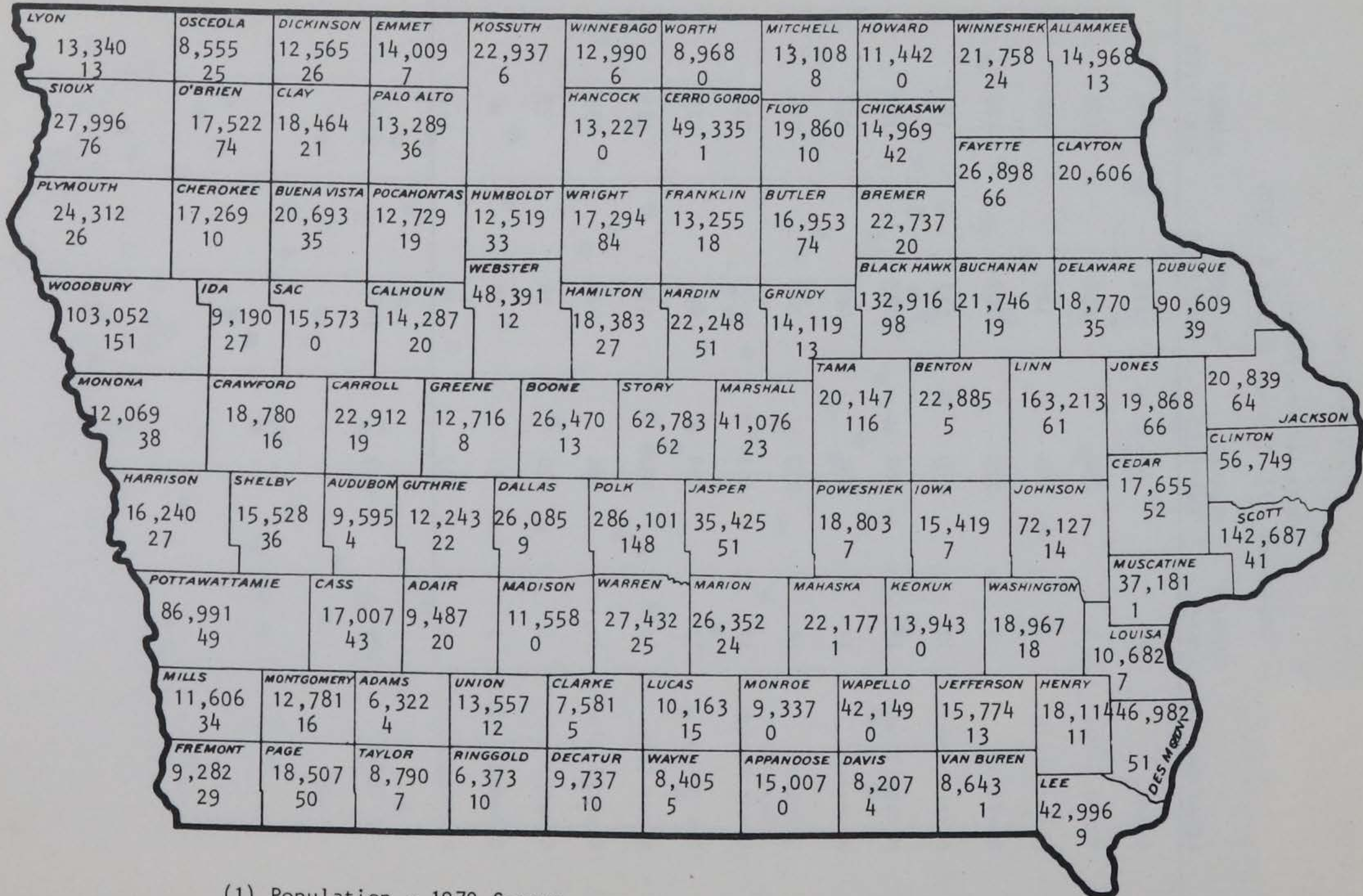
CP-14607

EMT-A TRAINING

Composite of Training
September 1971 through August 9, 1975

AREA SCHOOL	LOCATION	NUMBER CLASSES	NUMBER ENROLLED	NUMBER COMPLETED	NUMBER CERTIFIED	PRESENTLY IN CLASS
Area I	Calmar	14	347	274	246	
Area II	Mason City	9	242	152	170	45
Area III	Estherville	7	156	129	102	
Area IV	Sheldon	9	225	207	186	
Area V	Fort Dodge	12	280	212	185	
Area VI	Marshalltown	13	260	193	160	
Area VII	Waterloo	17	485	408	358	
Area IX	Clinton Davenport	10	277	247	214	
Area X	Cedar Rapids	12	311	255	221	
Area XI	Des Moines	23	594	495	425	
Area XII	Sioux City	19	482	436	363	
Area XIII	Council Bluffs	16	386	220	293	
Area XIV	Creston	5	120	96	77	
Area XV	Ottumwa	3	51	29	36	
Area XVI	Burlington	6	127	115	111	
	TOTAL	175	4343	3468	3147	

Distribution of EMT-A's By County Population
State of Iowa
July 1, 1975



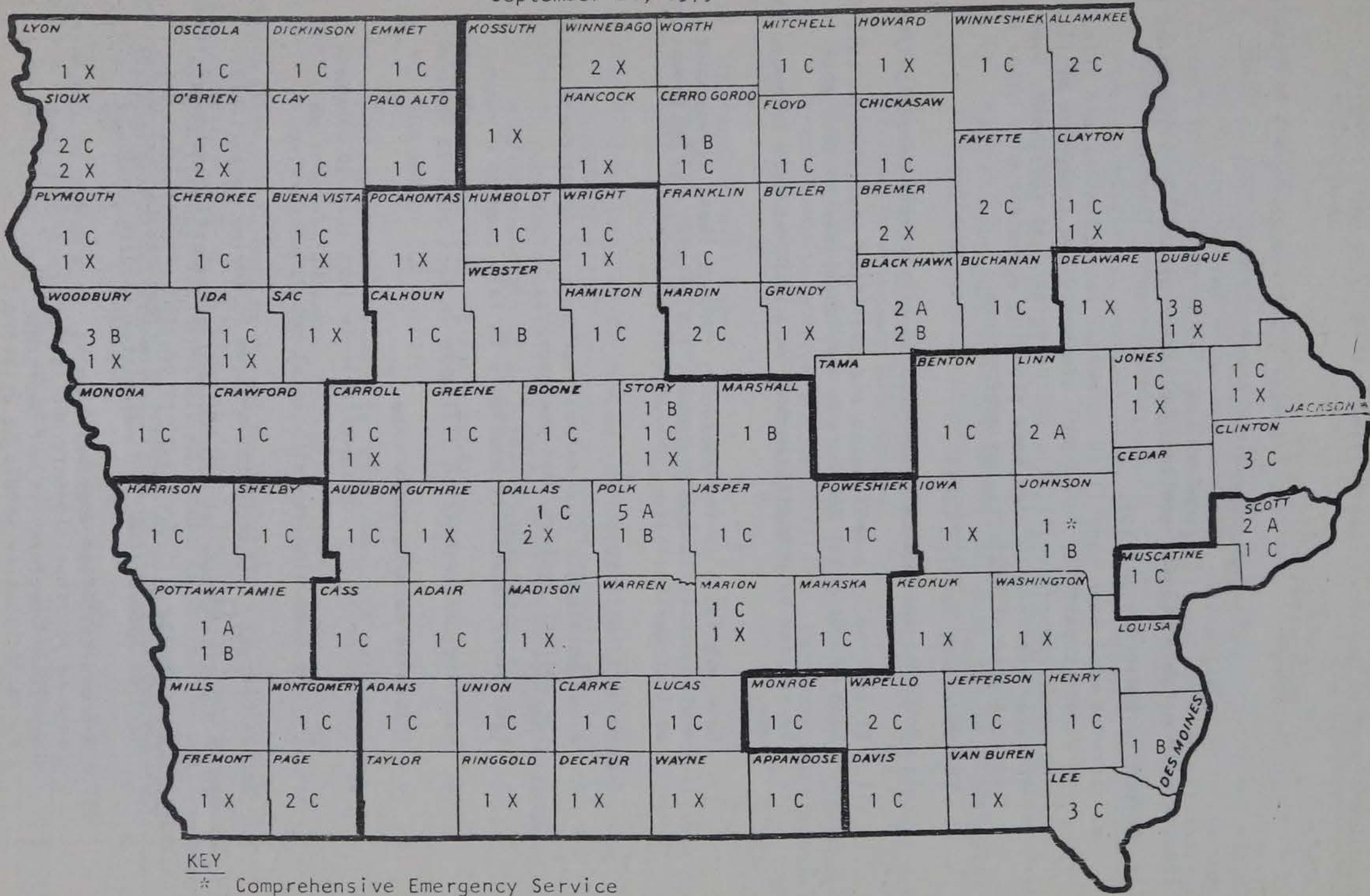
(1) Population - 1970 Census

(2) Number of Trained EMT-A's Per County

IOWA STATE DEPARTMENT OF HEALTH

Emergency Medical Services Section

CATEGORIZED HOSPITALS IN IOWA
September 24, 1975



KEY

- * Comprehensive Emergency Service
- A Regional Emergency Service (Type A)
- B Regional Emergency Service (Type B)
- C Community Emergency Service
- X Immediate Aid Outpatient Service

Number indicates number of hospitals with that type of categorization

Letter indicates type of categorization

The criteria established for the categorization process is illustrated below:

1. Community Emergency Service

   a. Service will have capability to render resuscitative and life support services; capability for prompt diagnosis and treatment of life-threatening conditions--specifically including cardiac arrythmia, shock, and respiratory deficiency; and have standing agreement with other hospital(s) for transfer of patients, as appropriate.

   b. The emergency service will:

      i. Be under the medical direction of an actively participating physician.

      ii. Be staffed by a designated and qualified physician on call from outside the hospital 24 hours a day, available in less than 15 minutes.

      iii. Be staffed by a qualified R.N. or L.P.N. on call in-house 24 hours a day.

      iv. Have available in the emergency room at least airway control equipment, gastric lavage equipment, I.V. fluid, EKG equipment and monitor-defibrillator.

   c. The hospital will have:

      i. Blood obtainable from established bank or local donor (available to the patient in less than one hour).

      ii. Laboratory capability available in less than 30 minutes.

      iii. Radiological technician available in less than 30 minutes.

      iv. Intensive care/coronary care.

      v. Staffed operating room available in less than 30 minutes.

      vi. Two-way communication with local ambulance service.

   d. Active medical staff with the minimum following capabilities:

      i. A practicing general surgeon (not necessarily board-certified).

      ii. A physician able to diagnose and treat cardiac arrythmias and myocardial infarctions, and administer cardiac drugs.

      iii. A board-certified anesthesiologist, or a member of the American College of Anesthesiologists who is not board-certified. (If the abovementioned specialty is not available, then a Certified Registered Nurse Anesthetist should be utilized.)

e. Emergency room staff must receive annual training in cardio-pulmonary resuscitation.

2. Regional Emergency Service - Type A

a. Service will have staff and equipment required to provide the medical and surgical specialties necessary to render resuscitative and life support care to critically injured and seriously ill patients of all ages; plus specialty coverages--available in less than 15 minutes--in internal medicine, general surgery (with thoracic capability), neurosurgery, orthopedics, obstetrics, anesthesiology, and pediatrics.

b. The emergency service will:

i. Be under the medical direction of an actively participating physician.

ii. Have 24-hour duty coverage in the emergency room by a physician with at least two years of experience beyond medical school.

iii. Be staffed at all times by at least one full-time Registered Nurse trained in Emergency Room Nursing.

iv. Have on hand a minimum of: airway control equipment, electrocardiograph, cardiac monitor and defibrillator, cardiovascular-pulmonary equipment and gastric lavage equipment.

c. The hospital will have:

i. 24-hour laboratory coverage; technician in-house or available on call in less than 15 minutes.

ii. A blood bank, as defined by the American Hospital Association (available either in-house or in the community).

iii. 24-hour radiological coverage, including angiographic capability available on call in less than 15 minutes.

iv. Operating room available promptly.

v. ICU and/or CCU facility.

vi. Two-way communication with local ambulance services.

vii. Helicopter landing space.

3. Regional Emergency Service - Type B

a. Service will have staff and equipment required to provide medical and surgical specialties necessary to render resuscitative and life support care to critically injured and seriously ill patients of all ages; plus, available within a reasonable period of time, the same specialty coverages as Type A--less neurosurgery.

b. The emergency service will:

i. Be under the medical direction of an actively participating physician.

ii. Have physician coverage from in-house physicians or specific physicians on call from outside, available in less than 15 minutes.

iii. Be staffed 24 hours a day by at least one full-time R.N. trained specifically in Emergency Room Nursing.

iv. Have on hand at least airway control equipment, EKG equipment, cardiac monitor and defibrillator, CVP equipment and gastric lavage equipment.

c. The hospital will have:

i. 24-hour laboratory coverage; technician in-house or available on call in less than 15 minutes.

ii. A blood bank, as defined by the American Hospital Association (available either in-house or in the community).

iii. 24-hour radiological coverage, including angiographic capability available on call in less than 15 minutes.

iv. Operating room available promptly.

v. ICU and/or CCU facility.

vi. Two-way communication with local ambulance services.

4. Comprehensive Emergency Service

a. Service must be able to deliver complete and advanced medical care for all emergencies.

b. The emergency service will:

i. Be under the medical direction of an actively participating physician.

ii. Be staffed at all times by at least one full-time Registered Nurse trained in Emergency Room Nursing.

iii. Be staffed at all times by an experienced physician at least two years out of medical school.

iv. Have on hand at least airway control and ventilation equipment, cardiac monitor and defibrillator, cardiovascular-pulmonary equipment, intravenous fluids, sterile surgical sets, gastric lavage equipment, drugs and supplies.

c. The hospital will have:

i. In-house coverage 24 hours a day by designated medical specialties that include obstetrics, general surgery, thoracic surgery, neurosurgery, orthopedics, cardiovascular surgery, urology, pediatrics, internal medicine and anesthesiology.

ii. A blood bank, as defined by the American Hospital Association.

iii. 24-hour in-house laboratory coverage.

iv. 24-hour in-house radiological services, including angiographic capability.

v. Operating rooms immediately available for emergency surgery.

vi. Intensive Care Unit/Coronary Care Unit.

vii. Two-way communication with local ambulance service.

viii. Helicopter landing space.

Iowa State Emergency Medical Services Communication Plan copies are available upon request from the address below.

Director, Emergency Medical Services Section
Iowa State Department of Health
Lucas State Office Building
Des Moines, Iowa 50319

RURAL AND URBAN POPULATION
FOR THE STATE OF IOWA
BY AREA

REGION	TOTAL	URBAN*	RURAL
"A" (Northwest)	346,678	85,925	260,753
"B" (Southwest)	170,935	60,348	110,587
"C" (Central)	877,760	255,824	621,936
"D" (Northeast)	515,191	112,881	402,310
"E" (Southeast)	733,948	194,008	539,631
"F" (East Edge)	179,868	98,469	81,399
TOTAL	2,824,376	807,764	2,016,612

* People residing in areas of 50,000 or more

Source: 1970 Census figures

Proposed EMS Regions (as of 10/22/75)

Region "A" - Northwest

Lyon	13,340	13,400*
Osceola	8,555	8,300
Dickinson	12,565	13,200
Emmet	14,009	14,200
Sioux	27,996	28,400
O'Brien	17,522	17,900
Clay	18,464	18,400
Palo Alto	13,289	13,800
Plymouth	24,312	24,700
Cherokee	17,269	17,200
Buena Vista	20,693	21,000
Woodbury	103,052	105,700
Ida	9,190	9,200
Sac	15,573	15,700
Monona	12,069	12,100
Crawford	18,780	19,000

Total Population (1970 Census)= 346,678

Total Population (1973 Estimate)= 352,200

*1973 Estimated population - Current Population Reports - Federal-State Cooperative Program for Population estimates, Series P-26, No. 31 May 1973.

Proposed EMS Regions (as of 10/22/75)

Region "B" - Southwest

Harrison	16,240	17,300
Shelby	15,528	15,800
Pottawat-tamie	86,991	89,000
Mills	11,606	12,300
Montgomery	12,781	13,500
Fremont	9,282	9,600
Page	18,507	18,900

Total Population (1970 Census)= 170,935

Total Population (1973 Estimate)= 176,400

Nebraska Counties:

Douglas	389,455
Sarpy	66,200
Dodge	34, 782
Washington	13,310
Burt	9,247

TOTAL (1970 Census) 11 Counties

512,994 (Nebraska)
170,935 (Iowa)
683,929

Proposed EMS Regions (as of 10/22/75)

Region "C" - Central

Pocahontas	12,729	12,200
Humboldt	12,519	13,000
Wright	17,294	17,200
Calhoun	14,287	14,100
Webster	48,391	48,900
Hamilton	18,383	18,000
Carroll	22,912	23,100
Greene	12,716	12,800
Boone	26,470	27,400
Story	62,783	65,400
Marshall	41,076	43,900
Audubon	9,595	9,200
Guthrie	12,243	12,700
Dallas	26,085	26,400
Polk	286,101	295,100
Jasper	35,425	36,100
Poweshiek	18,803	19,000
Cass	17,007	17,300
Adair	9,487	9,800
Madison	11,558	12,000
Warren	27,432	29,400

Region "C" (cont.)

Marion	26,352	26,600
Mahaska	22,177	22,900
Adams	6,322	6,300
Union	13,557	13,600
Clarke	7,581	8,000
Lucas	10,163	10,600
Taylor	8,790	8,800
Ringgold	6,373	6,500
Decatur	9,737	9,900
Wayne	8,405	8,500
Appanoose	15,007	15,500

Total Population (1970 Census)= 877,760
Total Population (1973 Estimate)= 900,200

Proposed EMS Regions (as of 10/22/75)

Region "D" - Northeast

Kossuth	22,937	23,300
Winnebago	12,990	13,300
Worth	8,968	9,000
Mitchell	13,108	12,900
Howard	11,442	11,100
Winneshiek	21,759	22,000
Allamakee	14,968	15,700
Hancock	13,227	13,400
Cerro Gordo	49,335	50,000
Floyd	19,860	21,300
Chickasaw	14,969	14,800
Fayette	26,898	27,100
Clayton	20,606	21,000
Franklin	13,255	13,000
Butler	16,953	16,900
Bremer	22,737	23,200
Hardin	22,248	22,500
Grundy	14,119	13,900
Blackhawk	132,916	134,400
Buchanan	21,749	21,800
Tama	20,147	20,400

Total Population (1970 Census)=
515,191

Total Population (1973 Estimate)=
521,000

Proposed EMS Regions (as of 10/22/75)

Region "E" - Southeast

Delaware	18,770	18,600
Dubuque	90,609	95,300
Benton	22,885	22,800
Linn	163,213	167,500
Jones	19,868	20,000
Jackson	20,839	21,500
Iowa	15,419	15,500
Johnson	72,127	73,900
Cedar	17,655	17,900
Clinton	56,749	58,100
Keokuk	13,943	14,200
Washington	18,967	19,100
Louisa	10,682	11,000
Monroe	9,357	9,400
Wapello	42,149	42,200
Jefferson	15,774	16,400
Henry	18,114	18,300
Des Moines	46,982	46,300
Davis	8,207	8,400
Van Buren	8,643	8,900
Lee	42,996	43,900

Total Population (1970 Census)=
733,948
Total Population (1973 Estimate)=
749,200

Proposed EMS Regions (as of 10/22/75)

Region "F" - East Edge

Scott	142,687	145,300
Muscatine	37,181	38,000

Total Population (1970 Census)=
179,868
Total Population (1973 Estimate)=
183,300

Illinois Counties

Henry	53,217
Mercer	17,294
Rock Island	166,734

TOTAL (1970 Census)	5 Counties	237,245 (Illinois)
		179,868 (Iowa)
		417,113

STATISTICAL SUMMARY
Personal Injuries-Fatalities Data
1970-1974

	FY 70-74 4 Yr Ave. PI's	%	FY 68-73 Yr Ave Fatalities	%	1973-1974 FY 1974 Personal Injuries	%	1973-1974 FY 1974 Fatalities	%
PRIME COUNTIES								
Polk	4,708		45		4,299		32	
Linn	2,160		36		2,210		40	
Scott	1,826		29		1,770		31	
Pottawattamie	1,224		27		1,085		19	
Woodbury	1,392		19		1,338		22	
Dubuque	1,139		16		1,163		19	
Blackhawk	1,813		27		1,854		17	
Cerro Gordo	653		12		602		5	
Webster	573		11		532		11	
9 County SUB-TOTAL	15,488	46	222	27	14,853	47	196	28
Priority Counties (All) 54 counties out of 99	25,451	76	573	69	24,116	77	463	66
State TOTAL	33,284		829		31,326		705	

SOURCE: Iowa Annual Highway Safety Work Program Fiscal Year 1976

COUNTIES WITH COMBINED (WEIGHTED) FATALITY AND INJURY RATES FOR 1974 HIGHWAY ACCIDENTS EXCEEDING 125% OF STATE AVERAGE FOR THAT YEAR

County Name	Rank	(Weighted) Average (Statewide ≐ 100%)
Osceola	1	185.6
Greene	2	159.8
Buchanan	3	159.3
Lee	4	153.2
Muscatine	5	151.0
Marion	6	146.2
Mahaska	7	144.7
Winnebago	8	141.0
Allamakee	9	137.0
Clay	10	136.7
Jackson	11	136.4
Shelby	12	135.2
Clinton	13	137.6
Black Hawk	14	130.2
Emmet	15	128.6
Plymouth	16	127.7
Wapello	17	126.1
Mitchell	18	125.7
Webster	19	125.4

NUMBER AND PERCENT OF PHYSICIANS IN PRIVATE AND NOT IN PRIVATE PRACTICE
BY SPECIALTY AND GENERAL PRACTICE AND BY AGE GROUPS
Physician Survey - Iowa 1972

	TOTAL	UNDER 30	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70 AND OVER	NOT SPECIFIED
		AGE GROUPS										
ALL PHYSICIANS	2,769	69	228	326	366	370	408	296	253	214	180	59
In Private Practice	2,244	20	112	238	320	328	347	249	218	193	167	52
Not In Private Practice	525	49	116	88	46	42	61	47	35	21	13	7
ALL SPECIALISTS	1,620	52	158	219	228	227	251	173	131	73	74	34
In Private Practice	1,140*	3	47	135	185	187	195	131	103	58	66	30
Not In Private Practice	480**	49	111	84	43	40	56	42	28	15	8	4
GENERAL PRACTITIONERS	1,149	17	70	107	138	143	157	123	122	141	106	25
In Private Practice	1,104***	17	65	103	135	141	152	118	115	135	101	22
Not In Private Practice	45	-	5	4	3	2	5	5	7	6	5	3
						PERCENT DISTRIBUTIONS						
ALL PHYSICIANS	100.0	2.5	8.2	11.8	13.2	13.4	14.7	10.7	9.1	7.7	6.5	2.1
In Private Practice	100.0	0.9	5.0	10.6	14.3	14.6	15.5	11.1	9.7	8.6	7.4	2.3
Not In Private Practice	100.0	9.3	22.1	16.8	8.8	8.0	11.6	8.9	6.7	4.0	2.5	1.3
ALL SPECIALISTS	100.0	3.2	9.8	13.5	14.1	14.0	15.5	10.7	8.1	4.5	4.6	2.1
In Private Practice	100.0	0.3	4.1	11.8	16.2	16.4	17.1	11.5	9.0	5.1	5.8	2.6
Not In Private Practice	100.0	10.2	23.1	17.5	9.0	8.3	11.7	8.8	5.8	3.1	1.7	0.8
GENERAL PRACTITIONERS	100.0	1.5	6.1	9.3	12.0	12.4	13.6	10.8	10.6	12.2	9.2	2.2
In Private Practice	100.0	1.5	5.9	9.3	12.2	12.8	13.8	10.8	10.4	12.2	9.1	2.0
Not In Private Practice	100.0	-	11.1	8.9	6.7	4.4	11.1	11.1	15.6	13.3	11.1	6.7

*Includes 9 Semi-Retired Physicians; **Includes 2 Semi-Retired Physicians; ***Includes 25 Semi-Retired Physicians.

NUMBER OF PHYSICIANS, NUMBER RETIRED, BY COUNTY
Physician Survey - Iowa 1972

CO. NO.	COUNTY	ALL PHYSICIANS	NUMBER RETIRED	CO. NO.	COUNTY	ALL PHYSICIANS	NUMBER RETIRED	CO. NO.	COUNTY	ALL PHYSICIANS	NUMBER RETIRED
	STATE TOTAL	2,904	135								
1.	Adair	5	1	34.	Floyd	15	-	67.	Monona	7	-
	Adams	2	-	35.	Franklin	5	-	68.	Monroe	6	-
3.	Allamakee	8	-	36.	Fremont	6	-	69.	Montgomery	10	-
4.	Appanoose	8	1	37.	Greene	11	1	70.	Muscatine	19	1
5.	Audubon	4	-	38.	Grundy	6	-	71.	O'Brien	13	1
6.	Benton	8	1	39.	Guthrie	8	-	72.	Osceola	5	-
7.	Black Hawk	126	7	40.	Hamilton	15	4	73.	Page	19	-
8.	Boone	17	-	41.	Hancock	8	2	74.	Palo Alto	9	1
9.	Bremer	15	1	42.	Hardin	13	2	75.	Plymouth	12	-
10.	Buchanan	21	2	43.	Harrison	11	1	76.	Pocahontas	7	-
11.	Buena Vista	11	-	44.	Henry	18	-	77.	Polk	440	22
12.	Butler	6	1	45.	Howard	7	1	78.	Pottawattamie	68	3
13.	Calhoun	10	-	46.	Humboldt	7	1	79.	Poweshiek	13	-
14.	Carroll	23	-	47.	Ida	4	-	80.	Ringgold	3	1
15.	Cass	12	-	48.	Iowa	11	1	81.	Sac	11	3
16.	Cedar	7	-	49.	Jackson	15	-	82.	Scott	144	3
17.	Cerro Gordo	80	5	50.	Jasper	23	2	83.	Shelby	8	-
18.	Cherokee	33	1	51.	Jefferson	12	-	84.	Sioux	15	2
19.	Chickasaw	7	-	52.	Johnson	419	5	85.	Story	74	5
20.	Clarke	6	1	53.	Jones	9	-	86.	Tama	9	2
21.	Clay	8	-	54.	Keokuk	7	1	87.	Taylor	7	1
22.	Clayton	12	-	55.	Kossuth	14	3	88.	Union	14	-
23.	Clinton	42	4	56.	Lee	39	2	89.	Van Buren	7	-
24.	Crawford	7	1	57.	Linn	159	6	90.	Wapello	45	5
25.	Dallas	25	2	58.	Louisa	6	-	91.	Warren	10	-
26.	Davis	15	-	59.	Lucas	6	-	92.	Washington	10	-
27.	Decatur	6	-	60.	Lyon	5	1	93.	Wayne	7	-
28.	Delaware	9	2	61.	Madison	7	-	94.	Webster	58	3
29.	Des Moines	49	4	62.	Mahaska	19	-	95.	Winnebago	7	-
30.	Dickinson	13	-	63.	Marion	24	1	96.	Winneshiek	15	1
31.	Dubuque	92	3	64.	Marshall	48	-	97.	Woodbury	118	6
32.	Emmet	13	-	65.	Mills	5	1	98.	Worth	5	1
33.	Fayette	20	2	66.	Mitchell	12	-	99.	Wright	15	-

NUMBER AND AVERAGE AGE OF PHYSICIANS IN PRIVATE PRACTICE BY COUNTY
Physician Survey - Iowa 1972

STATE: Total number of physicians - 2,244
Average age - 52

NUMBER OF IOWA PHYSICIANS BY TYPE OF PRACTICE AND GEOGRAPHIC DIVISION
Physician Survey - Iowa 1972

TYPE OF PRACTICE	GEOGRAPHIC DIVISION			
		COUNTY		
	STATE	JOHNSON	POLK	OTHER COUNTIES
All Iowa Physicians	2,904	419	440	2,045
In Private Practice (Solo, Group, Prof., Corp.)	2,014	54	306	1,654
Unknown	230	8	38	184
Physicians Not In Private Practice	525	352	74	99
a. Employed in Federal Institutions	39	9	18	12
b. Employed in State Institutions	52	6	-	46
c. Employed in University Hospitals	174	169	1	4
d. Administrators, Full-time Researchers, Full-time Teachers	64	39	20	5
e. Industrial, All Others, Residents, PHS	196	129	35	32
Retired	135	5	22	108

Iowa State Emergency Medical Services Basic Emergency Rescue Technician Course copies are available upon request from the address below.

Director, Emergency Medical Services Section
Iowa State Department of Health
Lucas State Office Building
Des Moines, Iowa 50319