LEG. FINANCE - BILLS 1977 - 1978 835

HB 896 cont., thru CSHB 896

835

Personal Services	
Training Coordinator, SR 18	
$2156/mo x 12 = $25,872	
FICA 1562 Benefits 4463	
Health Insurance 986	$ 32,883
Clerk Typist III	
$1092/mo x 12 = $13,104	
FICA 793 Benefits 2260	
Health Insurance 986	17,143
6% inflation factor	3,001
Total Personal Services	$ 53,027
Travel	
Travel to 20 locations to administer exam at an average cost of $260 per trip. Average includes air fare to bush communities and mileage to areas around Anchorage as well as three days per diem.	
20 trips x $260 x 6% inflation	$ 5,512
Contractual	
Communication: phone, postage etc.	
100/mo x 12 mo	$ 1,200
Printing and Advertising: forms & notices	1,500
Rent 140/mo x 12	1,820
6% inflation factor	271
Total Contractual	$ 4,791
Commodities	
General Office consumables $50/mo	600
Equipment	
Desk, secretarial	$ 362
Chair, secretarial	85
File cabinet w/lock	213
Typewriter	792
Chair, executive	85
Desk, executive	350
Bookcase	75
Total Equipment	$ 2,232

TPS 4/20/74

THE LEGISLATURE OF THE STATE OF ALASKA
TENTH LEGISLATURE

FISCAL NOTE

I. REQUEST
Bill/Resolution No. HB 896
Title "An Act relating to emergency medical services."
Requested by _____ Date _____

HB 896

II. FISCAL DETAIL
Agency Affected Commerce & Economic Development
Program Category Affected Public Protection
Budget Request Unit(s) Affected Division of Insurance

EXPENDITURES (Thousands of Dollars) None.

	FY 77	FY 78	FY 79	FY 80	FY 81	FY 82
100 PERSONAL SERVICES						
200 TRAVEL						
300 CONTRACTUAL						
400 COMMODITIES						
500 EQUIPMENT						
600 LAND & STRUCTURES						
700 GRANTS, CLAIMS, ETC.						
TOTAL	None.					

FUNDING (Thousands of Dollars) None.

GENERAL FUND						
FEDERAL FUNDS						
OTHER (Specify)						

POSITIONS None.

FULL TIME						
PART TIME						
TEMPORARY						

III. ANALYSIS (See Fiscal Note Preparation Instructions, Section III)

NO FISCAL IMPACT.

IV. DATE 4/6/78 PREPARED BY Richard L. Block, Director
AGENCY Division of Insurance
PHONE 465-2515

Original: Legislative Finance
cc: Budget and Management
Prime Sponsor (First Legislator Named)

33-001 (Rev. 10/76)

THE LEGISLATURE OF THE STATE OF ALASKA
TENTH LEGISLATURE

FISCAL NOTE

I. REQUEST
Bill/Resolution No. HB 896
Title An Act relating to emergency medical services
Requested by Health and Social Services Date 4/12/78

HB 896

II. FISCAL DETAIL
Agency Affected Commerce and Economic Development
Program Category Affected Public Protection
Budget Request Unit(s) Affected Regulation and Licensing of Professions

EXPENDITURES (Thousands of Dollars)

	FY 77	FY 78	FY 79	FY 80	FY 81	FY 82
100 PERSONAL SERVICES			18.6	19.7	20.9	22.1
200 TRAVEL			0	0	0	0
300 CONTRACTUAL			2.6	2.7	2.9	3.1
400 COMMODITIES			.2	.2	.2	.2
500 EQUIPMENT			1.5	0	0	0
600 LAND & STRUCTURES			0			
700 GRANTS, CLAIMS, ETC.			0			
TOTAL			22.9	22.6	24.0	25.4

FUNDING (Thousands of Dollars)

GENERAL FUND			22.9	22.6	24.0	25.4
FEDERAL FUNDS						
OTHER (Specify)						

POSITIONS

FULL TIME			1/12	1/12	1/12	1/12
PART TIME						
TEMPORARY						

III. ANALYSIS (See Fiscal Note Preparation Instructions, Section III)
This analysis assumes the responsibility for personnel certification will be delegated to Commerce by the Legislature. If it is not, no fiscal impact is expected. Travel funding is not requested as it is further assumed Health and Social Services will fund hearings and facilities inspections. Inflation is computed at 6% per year and the effective date is presumed to be July 1, 1978. Health and Social Services has estimated certifiable personnel at 850. Twelve man months funding is requested based on this estimate. A detailed analysis of expenditures is attached.

IV. DATE 4/12/78 PREPARED BY Sharon Andrew SHARON ANDREW
AGENCY OCCUPATIONAL LICENSING
PHONE 465-2535

Original: Legislative Finance
cc: Budget and Management
Prime Sponsor (First Legislator Named)

33-001 (Rev. 10/76)

PERSONAL SERVICES

Occupational Licensing Examiner I, R-10	14,328
Benefits = 2,472; FICA = 867; Health Insurance = 986	4,325
	18,653

CONTRACTUAL

Communications: Postage, phones, tolls, etc.	1,040
Printing and advertising: Forms and notices	1,500
	2,540

COMMODITIES

Office and Library Supplies: General office consumables	200

EQUIPMENT

Desk - secretarial with typing extension	362
Chair - secretarial	85
Utility table	95
File cabinet - five drawer legal with lock	213
IBM Selectric Typewriter	792
	1,547

HB 896
4/12/78

THE LEGISLATURE OF THE STATE OF ALASKA
TENTH LEGISLATURE

FISCAL NOTE

I. REQUEST
Bill/Resolution No. HB 896
Title An Act relating to Emergency Medical Services
Requested by House HESS Committee Date 4/1078

HB 896

II. FISCAL DETAIL
Agency Affected Health and Social Services
Program Category Affected Health
Budget Request Unit(s) Affected Certification and Licensing

EXPENDITURES (Thousands of Dollars)

	FY 78	FY 79	FY 80	FY 81	FY 82	FY 83
100 PERSONAL SERVICES			34.8	36.8	39.1	41.4
200 TRAVEL			5.3	5.6	5.9	6.2
300 CONTRACTUAL						
400 COMMODITIES						
500 EQUIPMENT			.4	-0-	-0-	-0-
600 LAND & STRUCTURES						
700 GRANTS, CLAIMS, ETC.						
TOTAL			40.5	42.4	45.0	47.6

FUNDING (Thousands of Dollars)

GENERAL FUND			40.5	42.4	45.0	47.6
FEDERAL FUNDS						
OTHER (Specify)						

POSITIONS

FULL TIME			1/12	1/ 2	1/12	1/12
PART TIME						
TEMPORARY						

III. ANALYSIS (See Fiscal Note Preparation Instructions, Section III)

This analysis assumes the responsiblity for certification of ambulance services will be delegated to the Certification and Licensing Section, Division of Public Health. It is presumed that this function will begin July 1, 1979 following development of regulations by the Emergency Medical Services Section and the State Emergency Medical Services Advisory Council. Travel to inspect 40-45 ambulance services will be combined with inspections of other health facilities in the area for more efficient use of manpower and funds. Therefore projected travel amounts are only half as costs will be pro-rated among other funding sources within the Certification and Licensing BRU. A detailed analysis of expenditures is attached.

IV. DATE 1/12/78 PREPARED BY Thomas D. Scott
AGENCY Public Health, EMS
PHONE 465-3027

Original: Legislative Finance
cc: Budget and Management
Prime Sponsor (First Legislator Named)

33-001 (Rev. 12/77)

Health Facilities Surveyor R-18 2156 x 12 mos x 6% inflation = 27,424 Benefits = 4730 FICA = 1659 Health Ins. = 986	$34,799
Travel to inspect 40-45 ambulance services will necessitate 15 trips to areas throughout the state at an average cost of $700 per trip, including air fare, auto rental and per diem. 15 x $700 x 50%	5,250
Executive desk	300
Chair	85

SB 896

Southeast Region Emergency Medical Services Council

BOX 270
SITKA, ALASKA 99835

TELEPHONE 747-8005
747-6370

Representative Steve Cowper, Chairman
House Finance Committee
Pouch V
Juneau, Alaska 99801
May 3, 1978

Dear Representative Cowper:

At a Board meeting held on April 29th, the Southeast Region Emergency Medical Services Council carefully reviewed HB 897, appropriating funds to Health and Social Services for emergency medical services; CSHB 896, concerning EMS regulations; and SB 535, authorizing exercise of emergency medical services by municipalities outside the city limits.

At their direction, I am writing to express the Board's unanimous support of SB 535 and HB 897. Additionally, they unanimously agreed to support CSHB 896, but recommend that section 18.08.080 (c) in its present form is too restrictive and should be revised to read:

> "No registered nurse or licensed practical nurse who escorts a patient may be liable for civil damages...." deleting the phrase "in an aircraft not equipped as an ambulance".

The Southeast Region Emergency Medical Services Council agrees that all three bills will, if enacted, serve to overcome present difficulties in the EMS field and thereby urges you to vote for their passage.

Yours truly,

Laurel Parker

Laurel Parker
Executive Director

LP:ms

Southeast Region Emergency Medical Services Council

BOX 2170
SITKA, ALASKA 99835

TELEPHONE 747-8005
747-6370

BOARD OF DIRECTORS

CHAIRMAN
Mr. Charles A. Smith, Director
Highway Safety Planning Agency
Department of Public Safety
Pouch N
Juneau, Alaska 99811

VICE CHAIRMAN
Lt. Michael Korhonen, Commander
Public Safety Academy
Box 119
Sitka, Alaska 99835

Mr. Henry Benson
SEARHC
Box 373
Sitka, Alaska 99835

Dan Crum
Skagway Fire Department
Skagway, Alaska 99840

Douglas C. Boddy, Chief
Juneau Fire Department
155 South Seward Street
Juneau, Alaska 99801

David Lewis (CAP)
Box 457
Sitka, Alaska 99835

Martin Fredrickson, Chief
Sitka Fire Department
Box 79
Sitka, Alaska 99835

Dr. George H. Longenbaugh (Medical Director)
Moore Clinic
Box 377
Sitka, Alaska 99835

Kaaren Kubley, PHN
Box 130
Craig, Alaska 99921

Judy McMillen, RN
Sitka Community Hospital
Box 500
Sitka, Alaska 99835

Capt. David Irons
USCG Air Station
Box 4-457
Mt. Edgecumbe, Alaska 99835

Glenn Potter
Ketchikan Fire Department
319 Main Street
Ketchikan, Alaska 99901

Richard Jackson, EMT
Haines Fire Department
General Delivery
Haines, Alaska 99827

Alexis Rippe, RN
Bartlett Memorial Hospital
Box 3-3000
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Sharon Jones, RN
Dir. Nursing Service
Ketchikan General Hospital
3100 Tongass Ave.
Ketchikan, Alaska 99901

Dr. Harriet Schirmer
Wrangell General Hospital
Box 80
Wrangell, Alaska 99929

Dr. Jeffrey S. Harris
Alaska Native Health Service Clinic
Bartlett Memorial Hospital
Box 3-3000
Juneau, Alaska 99801

Dr. Joseph Shields
338 Main Street
Ketchikan, Alaska 99901

Southeast Region Emergency Medical Services Council

BOX 2170
SITKA, ALASKA 99835

TELEPHONE 747-8005
747-6370

BOARD OF DIRECTORS

Ken Thynes
Petersburg Fire Department
Box 765
Petersburg, Alaska 99833

Dan Wickman
Wrangell Fire Department
Box 894
Wrangell, Alaska 99929

Dr. Donald Funk
Mt. Edgecumbe Service Unit
Alaska Native Health Service
Box 4-557
Mt. Edgecumbe, Alaska 99835

Dr. Thomas Wood
Petersburg General Hospital
Box 589
Petersburg, Alaska 99833

Ted Larsen
Alaska Loggers Association
Box 1050
Sitka, Alaska 99835

HB 896

HFC

northern alaska health resources association, inc.

April 18, 1978

Rep. Steve Cowper
Pouch V, MS 3100
Juneau, AK 99811

Dear Rep. Cowper:

The Legislative Committee of Northern Alaska Health Resources Association met this week to review several bills of interest to the Association. Our Board has asked that we express our comments to you regarding the Emergency Medical Services Legislation.

House Bill 896 appears to omit a broad spectrum of bush providers in Section 18.08.086. It is the feeling of the Committee that the legislation should consider all bush providers, particularly community health aides and itinerant public health nurses, who potentially will give emergency medical services. Further, the bill should spell out what immunity providers will have prior to obtaining EMS training and receiving certification into this Act.

House Bill 897 should spell out the distribution and the expected resulting products of the $500,000 to be appropriated for EMS. It's the feeling of the committee that too frequently appropriations such as this are made for the support of the State office and the benefits do not reach the people.

We appreciate your attention to these bills. The need for emergency training and accident and safety education programs is of high priority in our planning and plan implementation.

Sincerely,

Judy Jannuck

for Patricia L. Rogers, R.N.
Chairperson, Legislative Committee

cc: Commissioner, Health & Social Services
Office of Emergency Medical Services

529 5th avenue, suite 8 fairbanks, alaska 99701 telephone (907) 456-2553

Amendments to House Bill 896 proposed by the Department of Health and Social Services.

Sec. 18.08.082. ISSUANCE OF CERTIFICATES. The department shall prescribe by regulation a course of training or other requirements prerequisite to the issuance of certificates which provide for the following:

(1) certifies that a person meets the training and other requirements as an emergency medical technician;

(2) authorizes an emergency medical technician certified under this chapter to provide under the written or oral direction of a physician those advanced life support services enumerated on the certificate;

(3) certifies that a person, organization, or government agency which provides an emergency medical service meets the minimum operating standards prescribed by the department; and

(4) authorizes an emergency medical service certified under this chapter to provide under the written or oral direction of a physician those advanced life support services enumerated on the certificate.

2. Page 1, lines 24 to 28 are deleted and replaced with the following:

Sec. 18.08.082. CERTIFICATE REQUIRED. (a) No person may represent himself, nor may an agency or business represent an agent or employee of that agency or business as an emergency medical technician certified by the State of Alaska unless the person represented is certified as an emergency medical technician under sec. 82 of this chapter.

(b) No person, organization, or government agency may represent itself as an emergency medical service or ambulance service certified by the State of Alaska unless the person, organization, or government agency is certified as an emergency medical service under sec. 82 of this chapter.

(c) No person may provide, offer, or advertise to provide advanced life support services outside a hospital unless authorized under sec. 82 of this chapter or other chapters of these statutes.

(d) No person, organization, or government agency which provides, offers, or advertises to provide an emergency medical service may provide advanced life support services unless authorized under sec. 82 of this chapter.

3. Page 2, line 7 is amended to read:

"section does not preclude liability for civil damages <u>which is</u> the proximate"

4. Page 2, line 27 is amended to read:

"(3) the physician has secured a prior <u>written</u> agreement from the"

5. Page 3, lines 7 to 13 are deleted and replaced with the following:

(7) "advanced life support services" means emergency care techniques provided under the written or oral orders of a physician which include, but are not limited to, cardiac defibrillation, administration of antiarrythmic agents, intravenous therapy, administration of specific medications and drugs and solutions, intramuscular therapy, or use of adjunctive ventilation devices;

6. Page 3, line 18 is amended to read:

"(9) "emergency medical care" means the services utilized"

7. Page 3, line 21 is amended to read:

"psychological illness or injury;"

8. Page 3, line 22. Add the following:

(10) "emergency medical service" means the provision of emergency medical care and transportation of the sick and injured. For the purposes of this chapter organized ski patrols and search and rescue teams are not included under the definition;

(11) "emergency medical technician" means a person trained in emergency medical care and certified in accordance with the regulations prescribed under sec. 80 of this chapter.

THE LEGISLATURE OF THE STATE OF ALASKA
TENTH LEGISLATURE

FISCAL NOTE

I. REQUEST
Bill/Resolution No. CSHB 256
Title Relating to raw fish tax
Requested by Annette Smith, House C & RA ext. 3870 Date 5/11/78

II. FISCAL DETAIL
Agency Affected Revenue
Program Category Affected Development
Budget Request Unit(s) Affected Shared taxes

EXPENDITURES (Thousands of Dollars)

	FY 78	FY 79	FY 80	FY 81	FY 82	FY 83
100 PERSONAL SERVICES						
200 TRAVEL						
300 CONTRACTUAL						
400 COMMODITIES						
500 EQUIPMENT						
600 LAND & STRUCTURES	*336.0	*336.0	*336.0	*336.0	*336.0	*336.0
700 GRANTS, CLAIMS, ETC.						
TOTAL						

*Raw Fish Tax revenue varies with harvest each year. The amount of sharing will vary accordingly.

FUNDING (Thousands of Dollars)

GENERAL FUND		336.0)	(336.0)	(336.0)	(336.0)	(336.0)
FEDERAL FUNDS						
OTHER (Specify)						

POSITIONS

FULL TIME						
PART TIME						
TEMPORARY						

III. ANALYSIS (See Fiscal Note Preparation Instructions, Section III)

The assumption is that CSHB 256 will be ammended with the result that AS43.75.135 is abolished, that AS43.75.130 is changed by deleting the first class city restriction thereby broadening the section to include second class cities and by increasing payments from 10 to 20 percent. The effect of the ammendment would be that each borough will be paid 20 percent of the Fish Tax Revenue collected in that borough and that each city (First or Second class) will be paid 20 percent of the Fish tax revenue collected in that city.

Boroughs received 489.9 from Fish Tax Revenues in FY 77. Sharing to Boroughs would have been 640.0, an increase of 150.0, if the ammendment were applied to FY 77. First class cities received 529.7 from Fish Tax Revenues in FY 77. Second class cities were not eligible for sharing in FY 77. Sharing to First and Second class cities would have been 715.6, an increase of 185.9, if the ammendment were

IV. DATE May 15, 1978 PREPARED BY [signature]
AGENCY Department of Revenue
PHONE 465-2313

Original: Legislative Finance
cc: Budget and Management
Prime Sponsor (First Legislator Named)

33-001 (Rev. 12/77)

using these increase the effect upon the general fund would be a decrease of 336.0 in FY 79.

There is no additional cost in administering the Bill.

RECORDS CERTIFICATION

I, the undersigned, an employee of the State of Alaska, do hereby certify that the microfilm images on this microform are accurate reproductions of the original records of the State of Alaska as accumulated during the regular course of business, and that it is the established policy and practice of this State to microfilm its records and to dispose of the original records after microfilm reproductions have been made.

James O. Smith
Signature of Camera Operator

2/23/90
Date

02-519 (REV 8/78)

COMMITTEE REPORT

SENATE

5/23/78

FURTHER: NONE

Date: m June 3, 1978

Mr. President:

The Committee on FINANCE has had CSHB 896 (fin) emergency medical services

under consideration and (a majority of the committee) (the committee reports it back as follows)

( ) recommends it do pass ( ) recommends it do not pass

( ) recommends it do pass with attached amendment(s)

( ) recommends it be replaced with CS for _____

and _____ ( ) new title ( ) same title

( ) AND attaches a Letter of Intent ( ) New Fiscal Note

( ) reports it back without recommendation

( ) and recommends it be referred to the _____ Committee

MEMBERS SIGNING DO PASS:

_____

_____

_____

_____

_____

_____

_____

_____

OTHER RECOMMENDATIONS:

_____

_____

_____

_____

_____

_____

_____

_____

_____
Chairman

S 60 (rev. 6/77)

CS FOR HOUSE BILL NO. 896

"An Act relating to emergency medical services."

CS for House Bill 896 would give the Department of Health and Social Services the responsibility to:

1. Establish a uniform standard for emergency medical technicians in the State of Alaska and convey the recognition by the State as meeting that standard through a certification process. At the present time EMT training is conducted by over a dozen institutions, half following one standard and half another standard.

2. Establish uniform standards of advanced life support training and require that in order to practice those skills one must be certified by the State. While most basic EMT courses are based upon a standard 81-hour national curriculum, there is no standard for teaching advanced life support techniques, nor is there a standard establishing who may provide these techniques and under what circumstances. Advanced life support skills are those normally provided by physicians and paramedics. It is the glamour area of emergency care which can easily be abused by non qualified personnel with no way of preventing this abuse under present law.

3. Establish minimum standards for the staffing, ambulance design, equipping, and operation of an ambulance service and provide a certificate to those services that meet the standards. Currently the majority of ambulances are adequate. Certification would be voluntary except for those that wish to provide advanced life support services. Air ambulance services would be included.

In addition CSHB 896 would:

1. Provide an incentive for ambulance services and other organizations that use emergency medical technicians to use certified EMT's providing immunity from civil liability for damages to those so certified and their employers.

2. Provide an incentive for physicians in small hospitals to transfer critical patients to better equipped hospitals without the fear of being held liable if the patient deteriorates during the transfer. This is especially

important in Alaska where most hospitals are not capable of definitive care for the critically ill or injured. Long transport times, unstable patients and the current medical legal atmosphere all tend to encourage the conservative treatment approach of doing all that can be done at the local level. However, the critically ill or injured patient needs aggressive care, the kind provided by major hospitals and medical centers. Modern inter-hospital transfer techniques can usually provide a level of life support similar to that provided by the small hospital. Hence, the benefits of transfer more often outweigh the risks involved.

3. Provide immunity from liability for civil damages for nurses who escort critically injured patients in an aircraft that is not equipped as an ambulance.

It is not the intent of the bill to require those individuals or groups that provide first aid to be certified, unless they provide advanced life support services. Nor will other health care providers licensed, certified, or covered by other Alaska Statutes be required to be certified.

All regulations established by the Department under this legislation would be in concurrence with the Department of Public Safety. The regulations will be based upon realistic standards developed by the State Emergency Medical Services Advisory Council. It is not the intent of the Bill to limit the provision of quality services but to provide an incentive to improve services.

The Department of Health and Social Services Supports the CS for House Bill 896.

Recommended by: _____

Robert I. Fraser, M.D., Director Date
Division of Public Health

Approved By: _____

Helen D. Beirne, Commissioner Date
Department of Health & Social Services

CSHB 896 (fin) - OVERVIEW

"An Act relating to emergency medical services."

CSHB 896 (fin) would give the Department of Health and Social Services the responsibility to:

1. Establish a uniform standard for emergency medical technicians in the State of Alaska and convey the recognition by the State as meeting that standard through a certification process. At the present time EMT training is conducted by over a dozen institutions, half following one standard and half another standard.

2. Establish uniform standards of advanced life support training and require that in order to practice those skills one must be certified by the State. While most basic EMT courses are based upon a standard 81-hour national curriculum, there is no standard for teaching advanced life support techniques, nor is there a standard establishing who may provide these techniques and under what circumstances. Advanced life support skills are those normally provided by physicians and paramedics. It is the glamour area of emergency care which can easily be abused by non-qualified personnel with no way of preventing this abuse under present law.

3. Establish minimum standards for the staffing, ambulance design, equipping, and operation of an ambulance service and provide a certificate to those services that meet the standards. Currently the majority of ambulances are adequate. Certification would be voluntary except for those that wish to provide advanced life support services. Air ambulance services would be included.

In addition CSHB 896 (fin) would:

1. Provide an incentive for ambulance services and other organizations that use emergency medical technicians to use certified EMT's providing immunity from civil liability for damages to those so certified and their employers.

2. Provide an incentive for physicians in small hospitals to transfer critical patients to better equipped hospitals without the fear of being held liable if the patient deteriorates during the transfer. This is especially important in Alaska where most hospitals are not capable of definitive care for the critically ill or injured. Long transport times, unstable patients and the current medical legal atmoshpere all tend to encourage the conservative treatment approach of doing all that can be done at the local level. However, the critically ill or injured patient needs aggressive care, the kind provided by major hospitals and medical centers. Modern inter-hospital transfer techniques can usually provide a level of life support similar to that provided by the small hospital. Hence, the benefits of transfer more often outweigh the risks involved.

3. Provide immunity from liability for civil damages for nurses who escort critically injured patients in an aircraft that is not equipped as an ambulance.

It is not the intent of the bill to require those individuals or groups that provide first aid to be certified, unless they provide advanced life support services. Nor will other health care providers licensed, certified, or covered by other Alaska Statutes be required to be certified.

Alaska State Legislature

House of Representatives

Office of the Speaker

Official Business

Pouch V
State Capitol
Juneau, Alaska 99811

MEMORANDUM

TO: Senator John Sackett, Chairman
Senate Finance Committee

FROM: Hugh Malone

DATE: May 23, 1978

I would be grateful for the chance to testify on HB 896 and 897, currently in Senate Finance.

The legislation deals with a statewide emergency medical services system which I feel is of great importance to the state.

Thank you.

STATE OF ALASKA

JAY S. HAMMOND, Governor

DEPT. OF HEALTH AND SOCIAL SERVICES

DIVISION OF PUBLIC HEALTH
EMERGENCY MEDICAL SERVICES SECTION

POUCH H-05C
JUNEAU, ALASKA 99811

May 4, 1978

Honorable Hugh Malone
Speaker of the House
Pouch V
Juneau, Alaska 99811

Dear Mr. Malone:

Enclosed is the fiscal note requested for CSHB 896. This fiscal note replaces all previous notes for both HB 896 and the Committee Substitute.

If we can be of any further assistances please don't hesitate to call 465-3027.

Sincerely,

Thomas D. Scott

Thomas D. Scott
Coordinator

cc: Legislative Finance
Budget & Management

FISCAL NOTE

I. REQUEST

Bill/Resolution No. HB 896

Title An Act relating to emergency medical services

Requested by Representative Hugh Malone Date 5/2/78

II. FISCAL DETAIL

Agency Affected Health & Social Services

Program Category Affected Health

Budget Request Unit(s) Affected Emergency Medical Services, Certification & Licensing

EXPENDITURES (Thousands of Dollars)

	FY 78	FY 79	FY 80	FY 81	FY 82	FY 83
100 PERSONAL SERVICES			87.8	93.0	98.7	104.5
200 TRAVEL			10.9	11.5	12.2	12.9
300 CONTRACTUAL			4.8	5.1	5.4	5.7
400 COMMODITIES			.6	.6	.7	.7
500 EQUIPMENT			2.6	-0-	-0-	
600 LAND & STRUCTURES						
700 GRANTS, CLAIMS, ETC.						
TOTAL			106.7	110.2	117.0	123.8

FUNDING (Thousands of Dollars)

GENERAL FUND			106.7	110.2	117.0	123.8
FEDERAL FUNDS						
OTHER (Specify)						

POSITIONS

FULL TIME			3/36	3/36	3/36	3/36
PART TIME						
TEMPORARY						

III. ANALYSIS (See Fiscal Note Preparation Instructions, Section III)

This analysis assumes the responsibility for certification of emergency medical technicians (EMT) will be delegated to the Emergency Medical Services Section, Division of Public Health. No fiscal impact is expected in FY79 as the current staff of the section will assume responsibility for the drafting and promulgation of regulations and procedures in conjunction with the State EMS Advisory Council.

It is anticipated that there will be 850 certifiable personnel. Based on high turnover of volunteer EMT's and projected expansion of ambulance services, it is further anticipated that approximately 20 EMT courses will be required annually. Certification should occur upon completion of the course. The fiscal note therefore provides for a training co-ordinator position and travel beginning in FY80 to administer the certification exam (both written and practical) throughout the state

IV. DATE 5/2/78 PREPARED BY [signature]

AGENCY Emergency Medical Services - Public Health

PHONE 465-3027

Original: Legislative Finance

cc: Budget and Management

Prime Sponsor (First Legislator Named)

33-001 (Rev. 12/77)

in coordination with courses being conducted. The coordinator will also evaluate course content and instructors in terms of the minimum training standards to be established in the regulations. A clerk typist position will be necessary for clerical support and maintaining certification records. The position will be located in Anchorage, which is the location of the statewide EMT training program being conducted on an itinerant basis through a grant to the Southern Region EMS Council. It's central location also reduces travel costs.

It is further assumed that the responsibility for certification of ambulance services will be delegated to the Certification and Licensing Section, Division of Public Health. This function will also begin July 1, 1979 following development of regulations. Travel to inspect 40-45 ambulance services will be combined with inspections of other health facilities in the area for more efficient use of manpower and funds. Therefore projected travel amounts are only half as costs will be pro-rated among other funding sources within the Certification and Licensing BRU.

A detailed analysis of expenditures is attached. Inflation is computed at 6% per year beginning July 1, 1979.

Emergency Medical Services BRU

Personal Services

Training Coordinator, SR 18 $2156/mo x 12 = $25,872 FICA 1562 Benefits 4463 Health Insurance 986	$ 32,883
Clerk Typist III $1092/mo x 12 = $13,104 FICA 793 Benefits 2260 Health Insurance 986	17,143
6% inflation factor	3,001
Total Personal Services	$ 53,027

Travel

Travel to 20 locations to administer exam at an average cost of $260 per trip. Average includes air fare to bush communities and mileage to areas around Anchorage as well as three days per diem. 20 trips x $260 x 6% inflation	$ 5,512

Contractual

Communication: phone, postage etc. 100/mo x 12 mo	$ 1,200
Printing and Advertising: forms & notices	1,500
Rent 140/mo x 12	1,820
6% inflation factor	271
Total Contractual	$ 4,791

Commodities

General Office consumables $50/mo	600

Equipment

Desk, secretarial	$ 362
Chair, secretarial	85
File cabinet w/lock	213
Typewriter	792
Chair, executive	85
Desk, executive	350
Bookcase	75
Total Equipment	$ 2,232

TPS 4/20/7

Certification & Licensing BRU

Health Facilities Surveyor R-18 2156 x 12 mos x 6% inflation = 27,424 Benefits = 4730 FICA = 1659 Health Ins. = 986	$34,799
Travel to inspect 40-45 ambulance services will necessitate 15 trips to areas throughout the state at an average cost of $700 per trip, including air fare, auto rental and per diem. 15 x $700 x 50%	5,250
Executive desk	300
Chair	85

EMERGENCY MEDICAL SERVICES
PROGRAM OVERVIEW

January 1978

The State EMS program receives all of its grant funds from Region X, DHEW under the authority of PL 93-154 the EMS Systems Act of 1973. This Act provides funds for the development of Emergency Medical Services Systems on a regional basis. The purpose is to upgrade and organize the delivery of these services into a preplanned system that insures that the victim of an accident or serious illness receives the care most appropriate to his problem in the quickest possible manner. The elements of the system include the following:

1. Insure that an ambulance can be easily summoned in need. The primary focus here is to develop a 911 emergency phone number in every community in the State for the dispatch of all public safety elements.

2. Insure that once a call is received an ambulance can be quickly dispatched, and that provisions have been made for backup service if the primary unit is on a call. This is usually accomplished by means of a regional dispatch center and signed mutual aid agreements among operators.

3. Under medical direction insure that the victim's condition is stabilized at the scene and maintained during transport. This is accomplished by training all ambulance personnel to the Emergency Medical Technician (EMT) level and insuring that their vehicle is adequately equipped with medical supplies, rescue equipment, and 2-way voice communications with a hospital. In the rural communities the EMT is being given advanced training in how to start intravenous (IV) fluids for the control of shock due to blood loss. In these cases direct radio contact with a physician for medical control is the ideal. In larger communities the EMT-Paramedic is the preferred training level because they can treat heart attack victims with electric shock and controlled drugs.

4. Insure that the local medical facilities are adequately equipped and staffed with personnel trained to further stabilize the patient and when necessary, transfer to the most appropriate critical care facility be it to a hospital, another institution in the state, or outside the state. This is achieved by categorizing facilities according to their ability to handle different types and severities of injuries, i.e. Homer Hospital can care for the moderately burned patient, and the burn center at Harborview Hospital in Seattle is the nearest facility to take care of major burns. The facilities are identified and a list of protocols are in place so that, hypothetically, a patient with a major burn in Homer would be treated according to burn care procedures developed by specialists and then transferred directly to Seattle (because the Anchorage hospital can only care for moderate burns). This hypothetical protocol would be accepted previously by each of the physicians involved as the best procedure to follow.

5. Insure proper rehabilitation facilities are available to return the severely injured patient to his full functioning capacity as soon as possible.

In support of the EMS system certain other functions are necessary. These include:

1. Ongoing basic training programs to insure an adequate supply of personnel, as well as refresher training programs to maintain high quality service delivery. Refresher and Continuing Education programs are especially important in Alaska. This is because our widely scattered population does not have enough serious accidents in any one locality for the providers to maintain high levels of skill. All of our providers, physicians, nurses and emergency medical technicians, need formal continuing education in the care of the critically ill and injured.

2. Public Information and Education programs are needed for two purposes. The first is to insure that people know how to call for help in the area where they live or are traveling. The second purpose is to provide information about what people can do for themselves and others when they are in need, e.g. first aid courses.

3. An important element in support is a good record-keeping and evaluation system. The systems approach requires that each element of the system is continually being evaluated as to its effectiveness in order to suggest areas for improvement. An example is evaluating EMT performance by analyzing ambulance run reports. EMT's are trained to follow certain protocols for certain types of injuries. By checking their performance areas of need for refresher training can be more easily identified. A computerized system that does this has been in operation for several years in western Pennsylvania with great success and low cost.

4. Finally, coordination efforts of the various state (Public Safety, Disaster Office, Community and Regional Affairs, Education, National Guard) and federal (Park Service, BLM, Coast Guard, Military branches, Indian Health Service) agencies that are directly involved in EMS activities in Alaska is vitally important to efficient utilization of resources.

The EMS Systems Act provides seed money to the states and regions on an incremental basis. The phases are:

(1) Feasibility studies and planning, 1 year (1202)
(2) Establishment and initial operation, 2 years (1203)
(3) Expansion and Improvement, 2 years (1204)

A 1976 amendment provides another year of planning money which can be used between 1203 and 1204.

The attached informational brochure from DHEW further explains the federal program.

The history of the State's involvement with this program can best be summarized with the following outline:

1971 EMS planner established in Office of Comprehensive Planning

Apr. 1974 Department of Health and Social Services applied for 1202 grant for planning;
AFN applied for 1202 grant for planning;
Mauneluk Association applied for 1204 grant for Search and Rescue.
All were not accepted based on lack of comprehensiveness. However, DHEW offered assistance for future grant application development.

Jan. 1975 Dr. David Boyd, National Director of EMS, and several other nationally recognized speakers attended meeting in Anchorage with interested groups.

Apr. 1975 Department of Health & Social Services submitted a 1203 grant. Tanana Chiefs Conference submitted a 1203 grant for Interior Region. Region X suggested that the applications be combined with State acting as lead agency for regional programs. Thus, funds for state office and EMT training were made available.

Jul. 1975 Department of Health & Social Services received grant ($450,000) to establish state office, statewide EMT training, provide implementation grant (first year 1203) to Tanana Chiefs Conference ($220,000), and provide salaries and travel for EMS coordinators in the other 7 EMS regions.

Nov. 1975 Legislative Budget and Audit approved revised program, and contracts were let. With three positions, Office of Planning & Research was charged with administering programs.

Jan. 1976 Charles Ramage was hired as Associate Coordinator. State submitted grant request for second year funding of Tanana Chiefs Conference Interior program, and first year funding of 1203 programs in six other regions. Ad hoc Advisory Council met.

Jul. 1976 State received a grant of $725,000 which provided funds for State office, EMT training, Tanana Chiefs Conference, and regional coordinator. Funds for the additional 1203 programs were not available due to the failure of Congress to extend the 1973 law. Charles Ramage became Coordinator,

Peggy Zufelt Associate Coordinator, Thomas Scott Health Planner - a full staff for the first time.

Aug. 1976 Congress passed $1.35 million appropriation for FY77 to Alaska Area Native Health Service for EMS implementation in the native health corporation regions.

Nov. 1976 Tanana Chiefs Conference turned Interior program back to State.

Jan. 1977 Using AANHS EMS money, corporations covered half of the coordinators' salaries in six regions. Northern Region Office, Divison of Public Health began administering Interior program for an interim period.

Apr. 1977 State submitted grant application for first year 1203 grants for seven regions and 1202 grant for Advanced Life Support planning for the Interior region.
Charles Ramage resigned as Coordinator. Thomas Scott appointed Acting Coordinator. Lynne Quist hired as Health Planner - temporary status.

May 1977 Legislature passed HB407 establishing the Department as the state agency responsible for developing emergency medical services in the state and establishing an eleven member advisory council consisting of seven providers and four consumers.

Jun. 1977 Program transferred from Office of Planning and Research to Division of Public Health

Jul. 1977 State was awarded $698,000 to support state office, EMT training and first year 1203 grants for Southeast ($175,000) and Mauneluk Association ($68,000). The Interior program was extented one year in order to complete implementation of Basic Life Support using unexpended funds from FY77.

Aug. 1977 Dr. William Mills of Anchorage accepted position of EMS Medical Director.

Nov. 1977 State EMS Symposium drew over 150 participants. Mrs. Hammond announced Governor's appointments to new Advisory Council. Symposium provided stronger direction to program.

Accomplishments

- Active EMS Councils in every community in the State
- Full time EMS programs in each of the eight EMS regions with only four currently receiving support from the Department.

- 90% of all ambulance personnel are trained to at least the basic Emergency Medical Technician level. Three years ago it was less than 30%.

- A need for greater emphasis on emergency care skills has been recognized for the Community Health Aides. Thus, their training and equipment have been improved substantially.

- MAT-SU Borough has adopted Borough-wide ambulance powers, established new services at Talkeetna and Willow, purchased new vehicles, and has increased cooperation with services in Anchorage.

- Kenai Borough is considering following same direction as MAT-SU.

- An advanced EMT course aimed at the rural EMT has been developed and is in use statewide. This course teaches the administration of IV fluid therapy for control of shock.

- A substantial video tape library has been established by the Alaska Hospital Research and Education Foundation of continuing education materials in emergency and critical care medicine for circulation among all hospitals in the state.

- An Artic First Aid Film strip and accompanying printed materials have been developed. This resulted from the need to develope a first aid training medium that Alaska Natives can relate to. American Red Cross materials are based on verbal learning skills whereas Alaska Natives are more visually oriented.

- EMS subsidized the Alaska Emergency Department Nurses Association for their last two annual clinical symposia.

- EMS assisted the U of A school of Nursing in its successful efforts to develop and have funded a 40 hour emergency care course that will be taught in almost every rural hospital in the State.

- EMS has started the installation of an areawide communications system for the Interior road system. When completed all ambulances, including military vehicles, on the Interior Region highway system will have two way voice communication with Fairbanks Memorial Hospital.

- We are jointly funding with the Criminal Justice Planning Agency through the Governor's Office of Telecommunications a Communication Consultant who is developing a statewide Public Safety Communications Plan that will be area specific.

Problem Areas

The EMS program must address the total system from the moment a person perceives himself or is perceived by another to be in need of EMS to the point where he no longer requires services. Many actors and actions must transpire, especially in the case of a critically injured person. Two problems stem from this total systems approach.

(a) The sheer magnitude of the program requires very careful understanding of the problems and the solutions, and requires individuals who can relate to volunteer EMT's as well as to physicians.

(b) The vast majority of people think EMS is pre-hospital and that the only thing needed is the upgrading of training and equipment. The total systems concept and the team approach is difficult to understand, especially because traditionally there has been little if any communication or involvement between pre-hospital providers and in-hospital providers. Another problem is communication between rural physicians and specialists in the major centers regarding appropriate care for the critically injured.

The Alaska Native Health Service received a supplemental appropriation for FY 77 of $1.35 million and for FY78 of $2.0 million. These funds are for EMS only and are distributed in whole to each of the health corporations. Funds are used to support the regional programs in the region that we do not fund. One corporation, Maniluk dovetails the funds into a coordinated effort. However, in three of the regions, little cooperation exists. A problem has developed wherein the native cooperations often feel that they are not receiving a fair share of the "State's" money.

The EMS program is a medical care program. In other states it has been successful only where there was extensive physician leadership and involvement. During the first two years of this program physician involvement was next to nothing. So far this year we are beginning to gain support. Thanks to Dr. Fraser, three major regions have medical directors. However, much more active physician involvement is necessary to give the program a sound medical base.

When the program was initiated the State was divided into eight regions (see map). The eight region structure has proven to be less than effective in developing "total" EMS Systems. The Bush Areas send all critically injured patients to Anchorage for definitive treatment. We are now considering reducing the eight regions to three to conform to the HSA boundaries.

Finally, there is a lack of data for planning and evaluation. The EMS program is one federal program that realizes the importance of systematically evaluating how the system is functioning as well as planning the expenditure of funds based on demonstrated need. The development of a coordinated patient record keeping system is one of the mandated 15 components that has received little more than lip service. Planning is hampered by this lack of data.

Prospects

Up to this point the program has been one of haphazardly throwing grant applications together each year so that the feds can give us money, regardless of the quality of the application. The applications have really been the best that could be produced at the time by the people involved, with definite improvements in quality in each subsequest application. However, there has been little real planning and no long range planning.

This year we are developing a large range policy plan that lays out a funding strategy through FY 84 and estabishes status and systems goals for each region in the state. A draft has been developed and will be presented to the State EMS Advisory Council at their meeting of January 20-21, 1978 for their comments. It will then be circulated widely throughout the State for further comment, be reworked accordingly and then presented to the Council for final recommendations. We hope to be able to maintain the plan as a dynamic tool that will be reviewed and updated on an annual basis to provide the basis for EMS Systems development in the future.

Another major effort will be renewed cooperation between those state and federal agencies that have EMS responsibilities, especially the AANHS and the State Department of Public Safety. Both of these agencies spend funds on EMS systems development in the State.

We hope to have in place a Critical Care Committee of physicians specialists in the area of Burns, Trauma, Cardiac, Poison, High Risk Infants, Pychiatric, and Spinal Cord Injuries. The Committee will develop treatment and triage protocols for the critically injured. These will be used by providers at the various levels of care as guides for the stabilization and treatment of the patients.

Emergency Medical Services Systems Development: A National Initiative

DAVID R. BOYD

P III - LEGISLATION

Abstract—The passage of the Emergency Medical Services Systems (EMSS) Act of 1973 by Congress has provided the mechanism and funds for communities to develop regional EMS delivery systems across the Nation. With the passage of the EMSS Act, the Congress mandated that emergency medical care programs funded with Federal dollars must address, plan, and implement a "systems approach" for the provision of emergency response and medical care. In the EMSS Act, some fifteen component requirements have been identified to assist system planners, coordinators, and operators in their attempts to establish comprehensive, areawide and regional EMS programs. These components are: manpower, training, communications, transportation, facilities critical care units, public safety agencies, consumer participation, accessibility to care, transfer agreements, standard medical record keeping, consumer information and education, evaluation, disaster linkage, and mutual aid agreements. Development of a national program, its projects, and progress, is the basis of this report.

INTRODUCTION

CONSIDERABLE improvements are now being made in the delivery of emergency medical care, with major advances the result of the development of a "systems approach" and the integration of standardized vehicles, communications and medical equipment, training programs, emergency facilities, and critical care unit capabilities. Advances in on-site care by physician agents (Emergency Medical Technicians-Ambulance and Paramedics) in radio telecommunications with medical professionals have been shown to be effective in improving patient care for a wide variety of emergency, critically ill, and injured patient categories, especially those suffering from acute myocardial infarction and major trauma. Pioneering programs [1] in Miami, FL (Nagel); Nassau County, NY (Lambrew); Charlottesville, VA (Crampton); Seattle, WA (Cobb); and Illinois (Boyd) have illustrated the necessary systems design, treatment protocols, technical adaptations, facilities orientation, and organizational structure that are required for successful program development.

It is now quite apparent that significant improvements in emergency and critical care of all types of emergency patients can be realized if a sound integration of all of the essential components of an EMS system are logically structured and directed towards delivering ideal care to "real" *patients in need*. Heretofore, some debate has existed as to which component, or subsystem, is the most important. However, current consensus is that only a comprehensive EMS program, logically planned and staged, will develop and mature so that all patients in need will receive the most appropriate care in the prehospital, hospital, interhospital, critical care, and rehabilitative phases. An EMS system must then develop a sound sequence of comprehensive program activities on a regional basis if the needs of all potentially emergent patients are to be properly anticipated and receive adequate response.

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THE EMERGENCY MEDICAL SERVICES SYSTEMS ACT OF 1973

The passage of the Emergency Medical Services Systems (EMSS) Act of 1973 (P.L. 93-154) by Congress [2] has provided the mechanism and funds for communities to develop regional emergency medical services delivery systems across the nation. With the passage of the EMSS Act, the Congress mandated that the emergency medical care programs funded with Federal dollars must address, plan, and implement a "systems approach" for the provision of emergency response and medical care. In the EMSS Act, some fifteen component requirements have been identified to assist system planners, coordinators, and operators in their attempts to establish comprehensive, areawide and regional EMS programs. These components are listed below.

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

The Division of Emergency Medical Services (DEMS), Department of Health, Education, and Welfare (HEW), the established Federal lead agency, has developed Program Guidelines in which under chapter III, [3] "Special Program Guidance," the clinical significance of the systems approach in developing an EMS system is described. While an EMS system must respond to all declared emergency calls within its appropriate geographic region (including the nonemergency

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80 percent, the truly emergent 15 percent, and the critical cases–5 percent), there has been a special identification of those well identified critical patient groups which demand a competent system for survival. It is to the survival of these critical patients (trauma, burns, acute cardiac, high risk and premature infants, poisonings, psychiatric, drug, and alcohol overdose) that a "system" conceptualization and initial system efforts must be directed in order to insure the development of a sound, medically competent,and comprehensive EMS system.

EMERGENCY MEDICAL CARE ISSUES

The central theme and intent of the EMSS Act is to develop systems of emergency medical care that would significantly decrease current death and disability rates. The goal of the national EMS program is to initiate regional planning and integration of the fifteen mandatory components so as to provide the essential and appropriate EMS emergency and critical care services for all emergency patients.

The current EMS patient problem is compounded by the 65 million citizens who enter the system each year. At least 80 percent of these patients cannot be considered "true medical emergencies." Another 15 percent are real emergencies which require urgent care (i.e., minor trauma, infectious diseases, and other acute general medical and surgical problems). The remaining 5 percent are the critically ill and injured patients. This last group was not salvageable only a few years ago, but today, these lives can be saved if initial, definitive, and rehabilitative care is given in time and the patient is moved through the regional system and provided essential medical care.

Specific planning of regional EMS response to these particular critical care categories assumes that in time all critical medical emergencies will receive better care, and will benefit from sound regional EMS systems planning and operations.

Likewise, certain local occupational and/or recreational hazards must also be addressed with a goal toward prevention. These special target patient groups provide each regional system with an opportunity to develop evaluation criteria for systems performance and patient outcomes (distribution and survival).

EMS SYSTEMS DEVELOPMENT

Each regional emergency medical service plan must include a description of the general and specific protocols for the emergent and nonemergent patients in its delivery system. It must also include a detailed explanation of care and triage patterns for critical groups by identifying the patient treatment needs as well as the involvement of the systems operational components (vehicles, telecommunications, manpower, facilities). These care patterns will depend upon the clinical patient demands, the sophistication of the transportation capability, the level of care during transportation, the communications coordination, the delivery to a categorized general hospital or designated critical care facility, and the migration into the rehabilitation phase. These patient care programs must be established with appropriate backup relationships by written arrangements among the various provider elements in order to insure a sound and competent regional EMS system.

When an individual becomes seriously ill or injured it is manifested in a specific way. Patients have accidents. They have heart attacks. They are burned. They have problems at birth. They are poisoned with alcohol, drugs, or other toxicants. They have emotional disturbances resulting in varying degrees of psychiatric instability. The planners of EMS systems must consider the general patient population and these easily identifiable and significant critical patient groups that exist within the geographic regional area. An indepth knowledge of the demography, epidemiology, and clinical requirements associated with these critical patient groups is mandatory to effective EMS planning and operations.

In many circumstances the initial patient access, response, and transportation considerations are general in nature until the severity of the patient's (diagnostic-specific) problem becomes clarified. As soon as this clarification develops, a rather specific patient treatment and triage plan must be activated to include the prehospital, hospital, interhospital phases, as well as the specialty care unit and later the specific rehabilitation services necessary for each illness and injury.

It is now a fairly well accepted position across the country that initial and definitive medical care for each of the target patient groups can be improved, and most of these patients can be salvaged by an effective EMS system. The design of an EMS system will need to include certain organizational and operational changes. There must also be additional adaptations of treatment in the prehospital, hospital, and interhospital phases with proper modification of existing and new technology that will enable paraprofessional, and professionals to successfully manage and treat all emergent problems at the scene and during movement through the system whether they occur in urban, metropolitan, rural, or wilderness areas [4].

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

BASIC LIFE SUPPORT SYSTEM

A BLS system includes all of the fifteen components. However, certain ones are more critical, at least early on. BLS services can be effectively provided by the integration of nationally accepted minimal standards for ambulance personnel (e.g., Emergency Medical Technician-Ambulance, EMT-A [5], ambulances of the Department of Transportation (DOT) specification [6], two-way voice medical communications (VHF or UHF band) [7], and standard equipment as recommended by the American College of Surgeons [8]). Effective placement of these vehicles, staffed by two EMT-A's, can provide emergency medical care with patient stabilization, airway clearance, hemorrhage control, shock management with MAST trousers [9], initial wound care, and fracture stabilization. Under medical control (physician directed), specific noninter-

ventive treatment in which the EMT-A's have been previously trained can be applied. The transportation subsystem must be developed in the context of a sound hospital/critical care unit categorization program. The categorization of the facilities [10], [11] (hospital emergency department, critical care unit, and rehabilitation center) [12] is a major aspect of any program and is critical in the initial development of a BLS system. It gives identification and direction to all mobile, communications, transportation, and manpower elements at even the basic level, and makes possible the sound conceptualization of a delivery system for all emergency patients, while also providing a standard for clinical impact and EMS process evaluation. Most communities have begun their EMS systems in this manner, causing a considerable increase in public awareness of the need for improved EMS.

ADVANCED LIFE SUPPORT SYSTEM

Most urban communities, and now even [13] some rural regions, have progressed to an ALS system. This involved a much more sophisticated level of EMS systems planning and operations with highly skilled field personnel, EMT-Paramedics, trained to successfully identify and aggressively treat life-threatening emergencies (shock, cardiorespiratory failure, and cardiac dysrhythmias) at the scene and enroute to the hospital. At the ALS level, mobile units are equipped with appropriate intravenous fluids, drugs, and usually with some form of bioelectrical communications (telemetry). This enables paramedics with proper physician backup to perform expert diagnosis, treatment, and triage of critical patients. The need for a sound categorization of facilities during the BLS period is quite obvious due to the requirements for a medical communications control facility, and standardized treatment and regionwide triage protocols that ensure a progressive and continued enhancement of critical care for patients from the field to initial care facilities and on to the definitive advanced care facility, as is appropriate for each individual case and locale.

The components of an ALS system are as outlined here. ALS is the more sophisticated and logical progression of BLS, in which extensively trained EMT-Paramedics can provide true resuscitation (CPR) and specific interventive measures (e.g., endotracheal or esophagogastric intubation), intravenous therapy, specific cardiac dysrhythmia detection, and control with drugs and electrocountershock. These life savings techniques administered by EMT-Paramedics are always undertaken, except in rare circumstances, under the direct control of a physician or physician-surrogate in contact by voice and EKG telemetry. Most urban and many metropolitan communities (over 50 000 population) have initiated these ALS prehospital mobile intensive care unit (MICU) programs and have realized a major impact on the trauma, cardiac, and other critical patients. In many parts of the country, this increased capability of critical care will need to be developed not only in the central metropolitan areas, but also, with a further extension of satellite critical care units, in outlying community hospitals. This restructuring and resource development approach will affect primary and secondary transportation, communications, and EMS manpower, all of which must be upgraded to meet this advanced level of care, particularly in the prehospital and interhospital phases of development. While most of the activity in the ALS system is currently in the metropolitan areas, an appreciation of the need for ALS and critical care services for the rural and outlying areas is now developing. A national goal will be to realize these essential emergency and critical care services for the rural emergency patient at the scene and during the long transportation periods to distant appropriate treatment facilities.

It is these health care aspects that must be stressed in EMS planning and operations with detailed narratives of what the emergency care situation is, how the proposed EMS system will respond to an emergency patient in a certain locale, and how the patient will be evaluated, treated, and transported to an appropriate hospital or critical care unit.

REGIONALIZATION OF EMERGENCY MEDICAL SERVICES

A regional EMS system is one that is geographically described by existing natural patient care flow patterns. It must be large enough in size and population to provide definitive care services to the majority of general emergency and critical patients. Where highly sophisticated medical resources are not available within the region, arrangements must be made for obtaining these patient care services in an adjoining region. Various counties and cities will need to be grouped together. Therefore, the region will tend to be much larger than previously considered by independent local governmental operations. Identifying the regional EMS delivery area, with its critical patient origin and distribution patterns, is the essential issue in defining regional boundaries.

The regional EMS operational and organizing unit must attempt to pull together the EMS services within the entire medical-geographic area. The planning and evaluation process must be based upon sound clinical considerations with state, local, and interjurisdictional relationships being maintained. In these EMS regions the provider elements within the appropriate geographical area will need to work together to solve mutual problems. An EMS Council should be developed with advisory input into these regional EMS programs and encouraged to maintain contact with other local, regional, and state health and public safety authorities. The EMS region must be contiguous with the adjoining regions. Regional planners must recognize that population in the fringe areas of a region may need to develop dual plans and allow for intercommunications with adjoining regional EMS plans and operations. A coordination mechanism also must be developed between intrastate and interstate regions.

The EMS system must be integrated through an appropriate regional organization so that the total EMS resources can be effectively utilized to meet the needs of the geographical area. The financial resources of the region must be sufficient and mobilized to develop and sustain the EMS system operation. The EMS system must be interfaced with the total health care delivery system for the region. The EMS system resources must be linked to local disaster organizations in order to respond to sporadic high intensity needs of a natural disaster within the regional service area and adjoining service areas.

EMERGENCY MEDICAL SERVICES SYSTEM COMPONENTS

The EMSS Act of 1973 requires that plans developed and systems established, expanded, and improved with funds under this Act, address the following components.

1) Manpower–An adequate number of health professionals, allied health professionals, and other health personnel, including ambulance personnel, with appropriate training and experience.

This means sufficient numbers of all types of personnel to provide EMS on a 24-h a day basis, 7 days a week, within the service area of the system.

The EMS system must emphasize recruitment of veterans of the Armed Forces with military training and experience in health care fields and of appropriate public safety personnel in such areas. The major manpower elements to be considered are as follows:

- First Responders–fire, police, and other public safety elements;
- Communicators–EMS/Resources Dispatcher;
- Emergency Medical Technician–Ambulance (EMT-A);
- Emergency Medical Technician–Paramedic (EMT-Paramedic);
- Registered Nurses–Emergency Department;
- Registered Nurses–Critical Care Units;
- Physician–Emergency;
- Physician–Specialty (medical, surgical, pediatric, psychiatry);
- EMS Systems Medical Director;
- EMS Systems Administrator;
- EMS Systems Coordinators.

2) Training–The provision of appropriate training (including clinical training) and continuing education programs which a) are coordinated with other programs in the system's service area which provide similar training and education and b) emphasize recruitment and necessary training of veterans of the Armed Forces with military training and experience in health care fields, and of appropriate public safety personnel including: police, firemen, lifeguards, park rangers, and other public employees charged with maintaining the public safety.

3) Communications–Provisions for linking the personnel, facilities, and equipment of the system by a central communications system so that requests for emergency health care services will be handled by a communications facility which a) utilizes emergency telephonic screening, b) utilizes or will utilize the universal emergency telephone number 911, and c) will have direct communication connections and interconnections with the personnel, facilities, and equipment of the system and with other appropriate emergency medical services systems.

The EMS communications system should include a command and control center which is responsible for establishing those communications channels and allocating those public resources essential to the most effective and efficient EMS management of the immediate problem. The center should have the necessary equipment and facilities to permit immediate interchange of information essential for the system's resource management and control. The essentials of such a command and control center are that a) all requests for system response are directed to the center; b) all system response is directed from the center; and c) all system liaison with other public safety and emergency response systems is coordinated from the center.

The EMS communications system must address access, allocation of resources, management (central dispatch), and medical control for BLS and ALS.

In most states a physician must assume legal responsibility for all care rendered in an emergency at the scene of an incident and enroute to the hospital. Such supervision may take one of several forms depending upon resources available and the configuration of the system in a particular area. In most states, BLS measures are considered to represent emergency first aid and do not require strict medical supervision although a physician remains responsible for the training and actions of nurses and emergency medical technicians rendering such care. When ALS is required, physician supervision becomes mandatory. In most systems, medical supervision is provided through the availability of voice communications between a physician and emergency medical technician in the field. The communications may rely solely on a telephonic link from the scene of the incident to the physician, but usually involves radio communications or a combination of radio and telephone linkages between the EMT in the field and the physician. Although it is generally agreed that medical supervision may best be given by a physician located in a hospital, it is often not practical to do so, especially in rural areas where frequency of utilization of the emergency rescue service is low, and inhospital physicians on a 24-h a day basis are not available. In such areas, the EMT must be patched to the physician, via dedicated phone lines, in the major hospital within the region.

In most urban areas, medical supervision is provided through a central base hospital resource. It is emphasized here that it is quite impractical in terms of available frequencies and from the standpoint of expense to have every hospital in an urban area providing medical supervision to ambulances bringing patients to each of these hospitals. Most importantly, personnel at each of the receiving hospitals cannot be expected to be familiar with the radio equipment and communications procedure with resultant communications failures. Furthermore, where multiple users are sharing a frequency, information may become interchanged which may lead to errors in diagnosis and treatment. Therefore, for urban areas it is imperative that medical supervision be regionalized and confined to one base hospital communications center as appropriate to the needs of the area.

Telemetry of biological signals, primarily of the electrocardiogram (EKG) has been found to be a useful adjunct to voice communications especially in the treatment of the acute cardiac emergency. The absolute need for telemetry of the EKG will vary from system to system, again, depending upon the level of training of available rescue personnel and the frequency of exposure of such personnel to the need to monitor the EKG. In programs which use volunteer rescue personnel, telemetry becomes a more important adjunct than in programs

utilizing highly trained full time EMT's with a high frequency of exposure.

Treatment protocols for each major emergency are an important aspect of medical supervision. They provide a basis for the training of all EMT's and afford the opportunity for standardization of training programs on a regional basis, establish a medical legal standard of care for the patient with an emergent problem and, through a standardized approach to the patient, facilitate cooperation between rescue personnel in approaching a given problem and allow for meaningful evaluation of training efforts and patient outcome. Such protocols can be simple or complex as required by the patient type and will be influenced by such factors as the level of training of available rescue personnel and the length of transport time to the nearest appropriate medical facility. These treatment protocols must be approved by a consensus of area physicians, based on available national standards and implemented on a regional basis.

The supervising medical resource facility must be responsible for notification of the other receiving associate hospital so that it will be aware of the problem and what has already been done in order to expeditiously assume responsibility for the care of the patient immediately upon arrival. Furthermore, this communications resource facility should be responsible for decisions that relate to transportation triage of a patient to a special care unit in accordance with previously developed patient transfer guidelines and agreements. It should have the capability of hospital-to-hospital communications for the purpose of determining Emergency Department capability and bed availability information which is necessary in effective coordination of patient disposition. There must of course be a linkage between this regional resource facility and the responsible unit for dispatching all emergency vehicles.

The communications element should include the following.

Access providing public interface system to emergency resource system:
- 911.
- Alternative single access number.

Resource management function:
- Central Dispatch.
- Coordination of EMS and other public services.

Medical Control:
- Medical communications to hospital for triage, diagnosis, and treatment.

Hospital to Mobile Unit:
- Basic voice.
- Basic voice/advanced biomedical telemetry.

Hospital to Hospital Unit:
- Basic voice
- Relayed biomedical telemetry.

4) Transportation—This component shall include an adequate number of necessary ground, air, and water vehicles and other transportation facilities properly equipped to meet the transportation and EMS characteristics of the system area. Such vehicles and facilities must meet appropriate standards relating to locations, design, performance, and equipment; and the operators and other personnel for such vehicles and facilities must meet appropriate training and experience requirements.

The elements of transportation should include the following.

Ground—Basic Life Support Elements:
- Ambulance vehicles meeting DOT/GSA specifications and including equipment recommended by the American College of Surgeons, HEW/DOT.
- Radio communications providing two-way voice for vehicle control and for medical control and consultation.
- At least two EMT-A's on each ambulance.
- Locations permitting (for 95 percent of all calls) a maximum of a 10 min response time in metropolitan areas.
- Locations permitting (for 95 percent of all calls) a maximum of a 30 min response time in rural areas.

Ground—Advanced Life Support Elements:
- All elements of a ground Basic Life Support component, plus personnel trained to the EMS-Paramedic level must address specific clinical items in medical service plan.
- Extra communications to provide advanced biomedical telemetry.
- Extra equipment for critical care procedures.

Air:
- Helicopters
  —Primary response—unique use depending on geographic constraints.
  —Secondary response, 30–150 mi transport radius.
- Fixed Wing
  —Greater response for 150 mi transport radius.
- Water
  —Special geographical considerations.
- Snow Mobile
  —Special geographical considerations.

5) Facilities—This component shall include an adequate number of easily accessible emergency medical service facilities which are collectively capable of providing service on a continous (24 h a day, 7 days a week) basis, which have appropriate standards relating to capacity, location, personnel, and equipment, and which are coordinated with other health care facilities of the system.

Categorization of the emergency capabilities of hospitals is an [14] established EMS systems concept [15]. Since the mid-1960's there has been considerable discussion about the need for the categorization of the general and specialty hospital emergency care capabilities on a regionalized basis. Medical professionals and organizations and interested health agencies have recognized and supported the need for adoption and implementation of EMS facility categorization. Unfortunately, little positive action has taken place in many states at the regional and local levels to implement programs that integrate the principles of established national categorization guidelines and that assess the individual hospitals' general and special care resources and potentials to effect sound regional EMS system development.

The concept of categorization of all emergency care facilities originates from the realization that emergency patients have varying magnitudes of injury and illness and that all hospitals have varying capabilities with which to provide adequate initial and/or definitive care. It is also realized that a categorization program must address the needs of all emergency medical patients and, therefore, deal with the growing numbers of nonemergent (primary care), truly emergent, and critically ill and injured patients. Effective categorization must involve all of the emergency receiving facilities and ascertain both the general (HORIZONTAL) and specialty (VERTICAL) care capability for all emergency patients. Categorization efforts should utilize the principles of established National Guidelines and in addition develop statewide criteria for implementation on a regional basis (CIRCULAR).

Categorization has relevance in urban, suburban, rural, and wilderness areas. The categorization concept will have additional significant effects on the utilization of EMS manpower and other EMS resources by eliminating duplication, providing additional data and information for improving EMS systems development, and should help check the spiraling costs of improved medical care. The basic purpose of categorization is to identify the readiness and capability of each hospital within a region to receive, diagnose, and treat all emergency patients, especially those with serious or critical injuries or illnesses, in an adequate and expeditious manner. Ambulance personnel, law enforcement and public safety officers, and the public must be knowledgeable of the designations of the hospitals within the region in order for the system to operate effectively and selectively utilize the appropriate hospital to which critically ill or injured patients are to be transported for treatment.

Elements for facilities consideration include the following.

- Regional categorization with accepted state or national criteria with at least one Category II hospital providing 24 h physician coverage in the emergency department in each EMS region.
- Regional EMS advisory groups to plan and carry out the categorization plan. These groups should include hospital administrators, physicians, nurses, other providers, and health system planners.
- Regional plans for mutual agreement of categories, use of critical care units, systems linkages (transfer agreements), and resource sharing.

6) Critical Care Units–This component requires providing access (including appropriate transportation) to specialized critical medical care units. These units should be in the number and variety necessary to meet the demands of the service area. If there were no such capabilities in the EMS region, then the system must provide access to such capabilities in neighboring regions.

Specialized critical medical care units should include trauma intensive care centers/units, burn centers/units, spinal cord centers, poison control and alcohol detoxification centers, coronary care units, high risk infant units, drug overdose and psychiatric centers, and others as appropriate.

A twofold issue here is the availability of critical care service units within the EMS region or in neighboring regions. Specialty care services should provide an adequate number of beds in the region or access to critical care units in neighboring areas. An operational plan for utilization of critical care units should be developed, including trained personnel, equipment and transportation, triage and interhospital treatment protocols. The EMS system should include the development of professional advisory groups (trauma, burn, cardiac, etc.) to work with EMS programs to insure that these critical services are being appropriately utilized and interrelate across political boundaries.

7) Public Safety Agencies–Provisions must be made for effective utilization of appropriate personnel, facilities, and equipment of each public safety agency in the area.

"Effective utilization" means the integration of public safety agencies into standard EMS and disaster operating procedures of the regional system. It also includes the shared use of personnel and equipment, such as helicopters and rescue boats, appropriate for medical emergencies.

Public Safety agency personnel are most frequently the first responders to an emergency patient. The EMS system must therefore work with these agencies to ensure the use of special equipment, proper training of staff, linked communications, and the development of cooperative operating procedures.

8) Consumer Participation–The EMS system must make provisions in its system management that persons residing in the area and having no professional training or experience may participate in the policy making for the system.

While there is no federally required percentage of consumer participation in EMS planning or advisory organizations, reasonable consumer representation should be provided. One approach would be to involve the committee of the advisory council of the local planning Agency which has consumer representation.

9) Accessibility to Care–The EMS system must provide necessary emergency services to all patients without prior inquiry as to the ability of the patient to pay.

The EMS system must not require evidence of the ability to pay prior to care for the services of ambulance, hospital, or critical care units. The system should provide the means to monitor for restrictive measures that may eliminate any person or group of people from equal quality of services within the region.

10) Transfer of Patients–The EMS system shall provide for transfer of patients to facilities which offer definitive follow-up care and rehabilitation as is necessary to effect the maximum recovery of the patient.

The transfer agreement is necessary to facilitate communication and cooperation of key professional providers (physicians) within the system. Actual letters that describe the transfer requirements for the critical target patients are essential contracts of regional EMS development. They not only open the radial lines of communications between the physician in the outlying area with a patient problem beyond his capability to the center physician with the necessary resources, but they also will establish the manner and mechanism by which

critical patients will be initially treated and retransported through the system. Only through this transfer agreement method will physicians at varying care capability levels come together and decide mutually on treatment, triage, educational, and evaluation protocols.

In urban areas, areawide prehospital treatment and triage protocols will have to be established by councils of key professional providers for the various specialty patient groups. These programs will necessarily "bypass" the nearest hospital as special critical cases are identified.

11) Standardized Patient Recordkeeping—Each EMS regional system shall provide for a standardized patient recordkeeping system which covers the treatment of the patient from initial entry into the system through his discharge from it, and shall be consistent with patient records used in follow-up care and rehabilitation of the patient [17].

The minimal patient records necessary for the EMS system are the dispatcher records, the ambulance records, the emergency department, and critical care records. In order to fulfill requirements of evaluation and reports to Congress, certain information must be available to be derived from these records.

- Patient identification information: the records must be designed so that the dispatcher record, ambulance record, and emergency department record on each patient can be compared for evaluation and management purposes.
- Patient access information: How did the patient access the system (arrive at emergency department)?
- Timing of ambulance services: response time, time at scene, and travel time to hospital.
- Patient condition: at scene, upon arrival in emergency department, and critical care unit.
- Patient treatment: at scene, during transport, in hospital.
- Patient diagnostic and treatment services: at emergency department, in hospital, and critical care unit.
- Disposition of patient: discharged, referred for outpatient care, referred to another hospital, admitted, died.
- Condition of patient: at discharge from emergency department, in hospital, and critical care unit.

12) Public Information and Education—The EMS system shall provide programs of public education and information for all people in the area so they know about the system, how to access it, how to use it properly, and how to pay for it. Successful systems operation depends not only upon the organizers, but also the participants. Continued support, particularly in the arena of competition for dollars, requires community commitment. To secure that commitment, the EMS system must keep its public informed. Programs should stress the general dissemination of information regarding appropriate methods of medical self-help and first-aid and the availability of CPR training programs, and other preventive oriented resources.

13) Independent Review and Evaluation—Each EMS system must provide for a) periodic, comprehensive, and independent review and evaluation of the extent and quality of the emergency health care services provided in the system's service area and b) submission to the Secretary of the reports of each such review and evaluation.

It is intended that such review and evaluation be periodic and comprehensive so that changes in emergency health care can be determined. The evaluation should be conducted by a qualified organization other than the grantee project personnel.

There is no intention to require sophisticated and expensive research oriented evaluation from funds granted under Sections 1203 and 1204. What is required is that persons not associated with the project conduct a review and evaluation of the extent and quality of the services provided. As a minimum the reviewer should have available:

- a description of the EMS resources, capability and performance measures at the start of the period being evaluated;
- a description of the interventions brought about during the period to include both clinical and EMS components;
- a description of the EMS resources, capability, and performance measures of the period being evaluated;
- clinical output or impact evaluations of death and disability should include the clinical patient target groups.

14) Disaster Linkage—The EMS system must have a plan to assure that the system will be capable of providing emergency medical services in the system's service area during mass casualties, natural disasters, or national emergencies.

The EMS system is not the regional health disaster organization. It is the emergency medical program that will work with other agencies during a disaster to provide emergency medical care. The EMS system must have links to the local, regional, and state disaster plans, and participate in exercises to test disaster plans at least biannually.

15) Mutual Aid Agreements—Each EMS system must provide for the establishment of appropriate arrangements with EMS systems or similar entities serving neighboring areas for the provision of emergency medical services on a reciprocal basis where access to such services would be more appropriate and effective in terms of the services available, time, and distance.

Arrangement among EMS regional systems and similar entities serving neighboring areas must be written agreements, signed by individuals authorized to act for the respective parties with respect to such agreements, and reviewed and reevaluated at least once a year. Such agreements should cover the exchange of service coverage, communication linkages, licensure and certification, and reimbursement.

EMS SYSTEMS MANAGEMENT

National experience with public and private funds has demonstrated that a few strategic factors are paramount to successful operations and management of an EMS system effort. The following elements must be addressed in order to develop and maintain an integrated total EMS system.

- Action Plan for EMSS Area—A comprehensive and detailed and progressive plan must be created for establishment, operation, and expansion of the EMS system.

- Lead Agency—A lead agency must be identified as the responsible operations unit for the EMS system including grants management control and operations coordination of the involved community and regional organizations and resources.
- Financial Support—Appropriate means of financial support for initial and continued EMS operations must be considered. Such financial support may be derived from various Federal programs, state and local funds, general revenue sharing funds, third party payments, and direct payments from patients.

The intent of the EMSS Act is to fund EMS projects on a multigovernmental and multicommunity basis. At the present time there are a few regions in the country where an "ideal" appropriate regional health authority exists. Such an organization or special health consortium must be developed usually with reliance on the established state health office (or major Metropolitan Health Agency) with its established management and regulatory capability for successful program initiation and support.

EMS LEGISLATION

The Emergency Medical Services Systems Act of 1973 called for "a study to determine the legal barriers to effective delivery of medical care under emergency conditions," [18]. The report of the Committee on Interstate and Foreign Commerce of the House of Representatives (H.R. Rep. No. 601, 93rd Cong., 1st Sess. 19 (1973)) stated that "legal barriers include situations where existing state laws prevent appropriate emergency services as well as situations where the absence of needed legislation fails to encourage and require such services." The report described some of the legal barriers which were included in testimony before the Committee, including: restrictive licensing laws, absence of laws requiring ambulance personnel to have adequate training, absence of laws requiring adequate design and equipment for ambulances, and inadequacies of state "Good Smaritan" laws.

The study revealed that the absence of enabling legislation at the state level rather than the presence of specific legislation provisions which preclude delivery of service, represent the major "legal barriers" to the development of regional systems of emergency medical care. Because of this, state legislatures should enact comprehensive laws to create and control the many components of the areawide emergency medical services system. State legislation should address the following areas:

- Definition of an areawide EMS system.
- Creation of a state governmental unit to plan, develop, and coordinate EMS activities in the state, emphasizing areawide systems with intersystem cooperation and including interstate cooperation.
- Ambulance services, including licensing of ambulances and ambulance services; standards for vehicle design, equipment for medical care and for communication; and personnel.
- Personnel, including definition of categories of personnel involved in EMS, training, and certification requirements, and explicit definitions of which services the various categories are authorized to perform under specific circumstances.
- Emergency medical facilities, including a requirement for participation in areawide systems and a requirement for systemwide categorization of hospitals by the level of care they can provide.
- "Good Samaritan" legislation.
- Responsibility for providing care, including responsibility of the general public, health professionals, ambulance services, and hospital emergency facilities.
- Financial responsibility for care, defining who is responsible for paying for care provided.

National program efforts will focus on how to assist state legislatures in implementing such legislation that will encourage the development of regional EMS systems. The EMS system will be enhanced and placed on more solid foundations by the enactment of adequate EMS legislation by state legislatures.

EMS SYSTEM EVALUATION

At this time it is impossible to determine how many lives are being saved and the amount that disability is being reduced because of EMS systems. To date, evaluation of the emergency medical care programs have been geared toward the survey approach, resources documentation, and data on subsystems (e.g., transportation, training, etc.). Essential data must be obtained to evaluate the clinical effectiveness of regional EMS systems. There must be developed new methodologies for "tracking" and evaluating emergency medical care for specific patient groups, e.g., trauma, burns, etc., within the system. These analyses will allow programmatic decisions as to the appropriateness of utilization of facilities, personnel, equipment, clinical treatment, and cost effectiveness.

The following should be the basic ingredients for the development of an evaluation strategy. It is appreciated that at present the "state of the art" of systems evaluation is rather primitive across the country. This is consistent with the relative development stage of most EMS systems at this time. As EMS projects grapple with the multiple components and organizational changes, they must also comprehend the basic precepts of evaluation methodology [19].

The following are basic to an evaluation strategy.

a) Development of a descriptive narrative of the organization's operational components, and "clinical systems" design and implementation. A key evaluation task for each program will be that of the narrative description of the relative systems changes implemented and perceived as the EMS system develops. This essential evaluation component cannot be overlooked and is essential for subsequent steps b), c), and d), described below.

b) Structural analysis and resource development. In this area one must describe some of the key implementation aspects (radio-installed, ambulances placed, etc.) that are well identified phonemena of an EMS program. These will be necessary in the area of organization and management, at least the six clinical tracer and impact groups, and at least one parameter for each of the fifteen components.

This inventory assessment will describe these key structural phenomena and provide some guidance as to the quality of

each parameter, (implementation of 911, dispatch, categorization). Much of this data will include resources data for program information sources. Of these parameters within each of these areas some will be of state or national significance.

c) EMS activities or processes. Those structural components now implemented (e.g., communications, 911 dispatchers, ambulances, trauma units, etc.) all have activity levels which can be counted using operations data; for instance, counting trauma victims admitted to a specialized designated trauma unit, or the numbers of calls via the 911 access number. With this approach even during the initial years, a program will be capable of monitoring the very basic process elements of the system and will be able in future years to develop ratios, indices, and correlations among or between systems components.

Rates of utilization and appropriate clinical and cost benefit data can subsequently be developed. Section c) will also have some parameters of national significance but more importantly this data will be most useful to the actual operation, management, and development for each system.

Again, this type of basic information is necessary and relates to section d).

d) Patient outcome and program impact. In this section, critical clinical questions must be enunciated in the evaluation strategy, and the evolution from simple to complex evaluation approaches will parallel each system's growth and maturity. There are at least four types of impact evaluation essential to documentation of a comprehensive and successful system.

1. Compliance studies. As the program narratives are developed (section a), resources developed (section b), and activity levels counted (section c), the effect of these on critical patient groups will be seen. The care of a patient at the scene, transport to a facility following a described program narrative (e.g., critical major trauma, sent to a trauma center) can be counted at the center and with surveys for similar patients in nondesignated facilities will give patient "fit" or compliance to a prior "care system" set. The first such patient and all subsequent patients "test" the system in this tracer method.

In the initial years of most programs, this simple analysis is possible and will relate to patient "systems" compliance and later outcome effectiveness.

2. Death and disability impact can be measured by national norms, peer judgments, or using newly developed indices or morbidity.

Interest here will obviously be along the lines of hard data (e.g., lives, deaths), and these can only be attributed to the system's effectiveness if in fact the patient was responded to and "processed" appropriately through the system according to established protocols.

3. As EMS systems mature, studies of death and disability on regional bases will be possible and necessary to show that these changes in death risk for a certain emergency are operative throughout the entire geographic region. So far only two such papers have appeared in the literature.

4. And finally, the evaluation of treatment effects, therapy alternatives, program options, phases of implementation, and other experimental studies, will be possible in regional programs as the EMS of maturity and sophistication progresses, sound BLS and ALS systems.

This very basic but progressive evaluation strategy will provide a graduated experience in evaluations methodology for newly developing EMS programs.

Peer review has achieved great national importance among physicians in the United States in the past several years, consequent upon Federal legislation mandating PSRO and hospital quality assurance programs. Emergency medical care also requires peer review, not only from the standpoint of physician performance but also with nursing and EMT-A and EMT-Paramedic personnel. Professional and paraprofessional alike should critique the delivery of their specialized services within the system on a regular basis. Likewise, emergency room personnel have a responsibility to review overall performance of their colleagues, in order to upgrade care, identify deficiencies in training or equipment, and to rectify any errors which inevitably will creep into the EMS system.

DEVELOPMENT OF REGIONAL EMS SYSTEMS

During the first two years of the Program, 235 of the 300 state designated EMS Regions have received funding under the Emergency Medical Services Systems Act of 1973. One hundred and ten of these regions, serving a population of 77 000 000 are in some phase of operational development: 83 are developing a BLS capability under Section 1203, and 27 are developing an ALS capability under Section 1204. In addition, 125 regions covering a population of 87 500 000 have prepared plans for the development of regional systems under Section 1202.

A year-by-year summary of activity follows.

Fiscal Year 1974

Eighty-five grants covering 126 regions and serving a population of 88 200 000 were awarded in the amount of $17 000 000.

Section of Act	Number of Grants	Number of Regions	Dollar Amount	Population Served
1202	53	90	$ 2 250 000	63 000 000
1203	21	27	10 400 000	18 900 000
1204	11	9	4 350 000	6 300 000
Total	85	126	$ 17 000 000	88 200 000

Fiscal Year 1975

One hundred and sixteen grants, covering 174 regions and serving a population of 121 800 000 were awarded in the amount of $32 242 800.

Section of Act	Number of Grants	Number of Regions	Dollar Amount	Population Served
1202	56	82	$ 4 617 800	57 400 000
1203	49	66	19 500 000	46 200 000
1204	11	26	8 125 000	18 200 000
Total	126	174	$32 242 800	121 800 000

Extensions were also approved during fiscal year 1975 for 18 regions that were awarded grants in fiscal year 1974: 17 under Section 1203 and 1 under Section 1204.

Fiscal Year 1976

Fifty two grants covering 63 regions and serving a population of 44 100 000 were awarded in the amount of $29 115 300.

Section of Act	Number of Grants	Number of Regions	Dollar Amount	Population Served
1203[1]	41	51	$21 836 475	35 700 000
1204	11	12	7 278 825	8 400 000
Total	52	63	$29 115 300	44 100 000

Because of constraints in the current Act, no new regions will be planned or new systems will begin operations during fiscal year 1976.

Training

Section 776 of the Act provided funds for training during fiscal year 1974 only. Under this section, 76 grants and 2 contracts were awarded in the amount of $6 666 869. These awards provided training for 36 350 individuals:

Discipline	Number of Trainees
EMT (Basic and Advanced)	25 000
Emergency Department Nurses	4000
Emergency Department Physicians	1200
EMS Administrators/Coordinators	150
Other	6000
Total	36 350

Under other authorities, the Health Resources Administration continued to fund applications for EMS training during fiscal year 1975. They awarded 9 grants in the amount of $813 191 under Section 772, health professions special grants and contracts, and 39 grants in the amount of $4 432 492 under Section 792, grants to improve the quality of training for allied health professions.

Research

In fiscal year 1974, five grants and 14 contracts were awarded in the amount of $3 311 000 under Section 1205. In fiscal year 1975, 14 grants and four contracts were awarded in the amount of $4 444 474 under Section 1205. These awards supported research in the four major categories described in Section 1205 (a).

Category	Dollar Amount
I. Medical Techniques	$1 022 766
II. Methods	3 557 995
III. Devices	2 181 326
IV. Delivery	822 476
Total	$7 754 474

[1] Funding limited to second year awards under Section 1203, and first and second year awards under Section 1204.

DISCUSSION

The time has come in this country when a strong positive force must coordinate all of the excellent, well developed medical resources and available technology to impact upon and improve patient care services for all emergency patients. The EMS problem was identified in 1966 by the National Research Council in "Accidental Death and Disability: the Neglected Disease of Modern Society," [20] and is now an accepted soluble nationwide medical problem.

The heretofore frequently isolated islands of excellence have often been separated by areas of confusion and fragmentation into single component emergency care efforts. In addition, there are many communities where emergency care is poor because of disarray, even disrepair, in terms of providing a system of emergency care, especially in the rural, the wilderness, and inner city areas. Previous local, state, and Federal initiatives have addressed single components or those parts of a system that seemed to represent the most acute and obvious need at the time. It is now apparent that a system must include all of the 15 components and is no more effective than its weakest links. Further development of one or two of the chosen strong links will not make the chain stronger and will not create a better system of care for the critically ill or injured victim. The "nonsystems" approach has been due to a combination of local ignorance, provincial prerogative, and lack of guidance by the Federal Government. The passage of the EMSS Act of 1973 now provides an opportunity to establish health priorities for emergency medical care at the local, regional, state, and national levels of our society, and to foster the development of a comprehensive and sound EMS systems approach that will affect all communities, especially the rural, the economically depressed, and the medically underserved areas.

ORGANIZATIONAL RESPONSIBILITIES

It is now quite obvious that an EMS system must incorporate a certain well identified and credible organizational unit to coordinate all of the various provider, community, and governmental interests. This unit must be the focal point for ensuring the system's integration from a systems access, a first responder's identification [1], communications coordination, patient transportation (primary and secondary), initial hospital, critical care facilities as well as linkages into rehabilitation. While no individual organization has the responsibility for all of these components, the operations unit must coordinate these many activities of the EMS system and must represent the professionally and publicly supported EMS Services Council for policy development, advice, grievances, and resources utilization.

CRITIQUE OF EMERGENCY AND CRITICAL CARE DELIVERY

It is now well recognized that patients are still being lost unnecessarily because of systems failure, not simply because of neglect of injuries or severity of medical problems. Prior to

current trends in management, many emergency cases were, more or less justifiably, treated conservatively because of the attitude that they were too "sick" to get well. Now that well established techniques of resuscitation and emergency medicine and surgery have been disseminated, an extremely aggressive approach in prehospital and hospital care phases is being shown to salvage lives. This sophisticated, aggressive, and coordinated approach to emergency care is not without significant cost and demands in terms of emergency medical services resources, especially manpower. Only by a consolidation of experience, personnel, vast medical resources, operating rooms, intensive care, X-ray, blood banks, etc., on a regional basis can such a program be developed and supported by the civilian community.

The concept of adequate emergency medical care requires an organizational responsibility which provides sound planning for the prehospital and hospital critical care services; and must engender community and region wide patient triage with well established, practical, and refined medical care plans that involve the care at the scene during transportation, in hospitals, and critical care phases of patient services. The whole aggressive systems approach must be without weaknesses or gaps, and continually needs to be reassessed and evaluated to assure optimal operation.

FEDERAL INVOLVEMENT IN EMS DEVELOPMENT

A large body of representatives from the many interested professional medical and health groups appeared in Washington in 1971, and testified at the Congressional Hearings on the Emergency Medical Services Systems Development Act of 1972, unanimously supporting the critical need for improvement of care of emergency patients. They also indicated that such care should and would be improved by the systems approach. Much of this testimony was given by witnesses from organizations who stated that they were convinced that the following pertains. "An environment now exists in the nation for the development of comprehensive total emergency medical services systems on a regional and statewide basis. The lack of provision for emergency illness, accidental death, and disability can no longer be classified as an insoluble health problem, as medical expertise and technology are available in this country which can easily be applied to this previously neglected situation." The essence of the opinions and precepts stated by those interested in the national EMS problem was that the "neglected disease of modern society" could now be effectively handled by efficient utilization of expert care principles and by organizing and improving, in each community across the nation, the existing and developing EMS resources and care capabilites. It was obvious that Federal direction would be an essential catalyst for a national EMS systems development program.

This organized systems approach to the care of emergency victims has been proven already in some areas. It has also been proven that by such a systems approach, a more effective return on the current and future investments of Federal dollars can be anticipated.

EMS AS A COMPONENT OF THE TOTAL HEALTH CARE DELIVERY SYSTEM

The coordination of established medical services and public safety efforts brings the emergency medical care program to an interface with community service activities heretofore outside the scope of established medical practice. Community involvement by a wide spectrum of the public, private, and governmental entities gives an emergency medical service system a new dimension to health care that has not previously been a major consideration in American medical practice. An additional result of the regional EMS system effort will be the demonstration of how other essential nonemergent health services and programs might be stylized similar to EMS on a geographic and service demand basis. Some experience already suggests that programs such as blood, organ transplantation, and rehabilitation services as well as quality assurance programs might be enhanced by regional systems models.

The national EMS system effort will improve the quality of care for the critically injured and ill citizens across the country. Due to its unique characteristics, emergency medical care provides a rare opportunity for experience in many other phases of health care delivery. It is anticipated that the "ripple effect" in the EMS effort may extend beyond the limits of acute care phases to many functional component areas.

The success of any EMS system is dependent upon the wisdom of its leadership and appropriate integration of resources, operations management, and financial planning into an effective program. The major task of the Division of Emergency Medical Services is to provide current and timely technical assistance and guidance by communicating results of lessons learned from established and ongoing operational EMS projects.

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SB 896

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Southeast Region Emergency Medical Services Council

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TELEPHONE 747.8005
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Representative Steve Cowper, Chairman
House Finance Committee
Pouch V
Juneau, Alaska 99801
May 3, 1978

Dear Representative Cowper:

At a Board meeting held on April 29th, the Southeast Region Emergency Medical Services Council carefully reviewed HB 897, appropriating funds to Health and Social Services for emergency medical services; CSHB 896, concerning EMS regulations; and SB 535, authorizing exercise of emergency medical services by municipalities outside the city limits.

At their direction, I am writing to express the Board's unanimous support of SB 535 and HB 897. Additionally, they unanimously agreed to support CSHB 896, but recommend that section 18.08.080 (c) in its present form is too restrictive and should be revised to read:

> "No registered nurse or licensed practical nurse who escorts a patient may be liable for civil damages...." deleting the phrase "in an aircraft not equipped as an ambulance".

The Southeast Region Emergency Medical Services Council agrees that all three bills will, if enacted, serve to overcome present difficulties in the EMS field and thereby urges you to vote for their passage.

Yours truly,

Laurel Parker

Laurel Parker
Executive Director

LP:ms

SB 896

6

Southeast Region Emergency Medical Services Council

BOX 2170
SITKA, ALASKA 99835

TELEPHONE 747-8005
747-6370

Representative Steve Cowper, Chairman
House Finance Committee
Pouch V
Juneau, Alaska 99801
May 3, 1978

Dear Representative Cowper:

At a Board meeting held on April 29th, the Southeast Region Emergency Medical Services Council carefully reviewed HB 897, appropriating funds to Health and Social Services for emergency medical services; CSHB 896, concerning EMS regulations; and SB 535, authorizing exercise of emergency medical services by municipalities outside the city limits.

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The Southeast Region Emergency Medical Services Council agrees that all three bills will, if enacted, serve to overcome present difficulties in the EMS field and thereby urges you to vote for their passage.

Yours truly,

Laurel Parker

Laurel Parker
Executive Director

LP:ms

HB 896

HOUSE BILL NO. 896

"An Act relating to emergency medical services."

House Bill No. 896 does several things:

(1) Prohibits all persons from rendering emergency medical care unless they have a certificate from the Department of Health and Social Services authorizing them to do so (page 1, lines 24 to 28).

(2) Requires the Department of Health and Social Services to establish procedures for the issuance of certificates authorizing persons to provide emergency medical services and/or operate an ambulance (page 1, lines 16 to 23).

(3) Provides that the Department of Health and Social Services with the concurrence of the Department of Public Safety shall adopt regulations to implement the Certification process (page 1, lines 9 to 14).

(4) Provides immunity from liability for civil damages for persons certified under the Act for good faith acts or omissions while rendering care to persons in life threatening situations. The immunity is also extended to the employer of the certified person (page 1, lines 29 and page 2, lines 1 to 13).

(5) Provide immunity from liability for civil damages to a physician who transfers a patient to a hospital that is better equipped to treat the patient and where a prior transfer agreement has been obtained (page 2, lines 14 to 29).

The Department supports the concept of establishing minimum standards for pre-hospital emergency care personnel, vehicles, and ambulance operators as well as the extension of liability to certified providers, and physicians who transfer patients. However, the Department feels that the language regarding the issuance of permits and requiring certificates is too vague. For example the section under "Certificate Required" could, technically, prohibit the "Good Samaritan" in an extreme case, and a ski patrol member in the very realistic case, from rendering emergency care. The Department believes that the present bill should be amended to provide for only the following:

(1) A mechanism that would give the Department authority to certify medical technicians (EMTs) as having completed an approved training course, and to recertify those who have maintained their skills.

(2) A mechanism whereby the Department can authorize specific emergency medical technicians to perform advanced life support techniques under the written or oral direction of a physician.

(3) A mechanism whereby the Department can certify those organizations who meet minimum operating standards to provide ambulance services.

The suggested amendments are attached.

The intended effects of the bill, if amended as suggested, would be to:

1. Establish a uniform standard for emergency medical technicians in the State of Alaska and convey the recognition by the state as meeting that standard through a certification process. At present time EMT training is carried out by over a dozen institutions with half following one standard and half another.

2. Establish uniform standards of advanced life support training and require that in order to practice those skills one must be certified by the State. While most basic EMT courses are based on a standard 81 hour national curriculum, there is no standard for teaching advanced life support techniques, nor is there a standard establishing who may provide them and under what circumstances. Advanced life support skills are those normally provided by physicians and paramedics. It is the glamor area of emergency care which is currently being abused with no way to control it.

3. Establish minimum standards for the staffing, ambulance design, equipping, and operation of an ambulance service and provide a certificate to those services that meet the standard. Currently a majority of ambulances are adequately equipped; however, others are less than adequate. Certification would be voluntary except for those that wished to provide advanced life support services. Air ambulance services would be included.

4. Provide an incentive for ambulance services and other organizations that use emergency medical technicians to use certified EMTs and provide an incentive for ambulance services to become voluntarily certified by providing immunity from civil liability for damages to those so certified.

5. Provide an incentive for physicians in small hospitals to transfer critical patients to better equipped hospitals without the fear of being held liable if the patient deteriorates during the transfer. This is especially important in Alaska where most of our hospitals are not capable of definitive care for the critically injured.

Long transport times, unstable patients and the current medical-legal atmosphere all tend to encourage the conservative treatment approach of doing all that can be done at the local level. However, the critically injured patient needs aggressive care, the kind that is provided at major hospitals and medical centers. Modern inter-hospital transfer techniques can usually provide a level of life support similar to that provided by the small hospital. Hence, the benefits of transfer outweigh the risks involved.

The Department has no intention of regulating the first aid functions of ski patrols, search and rescue groups or other health care providers licensed, certified, or regulated by Alaska Statutes.

As in the original bill, all regulations established by the Department would be concurred with by the Department of Public Safety. They will be based on realistic standards developed by the State Emergency Medical Services Advisory Council. It is not the intent of the amendments to limit the provisions of quality services but to provide an incentive to improve services.

The Department would, by regulation, delegate the personnel certification process to the Division of Occupational Licensing, Department of Commerce and Economic Development.

Recommended by: _____ 4/5/78
Robert I. Fraser, M.D., Director — Date
Division of Public Health

Approved by: _____ 4/7/78
Helen D. Bering, Commissioner — Date
Department of Health & Social Services

Amendments to House Bill 896 proposed by the Department of Health and Social Services.

Sec. 18.08.082. ISSUANCE OF CERTIFICATES. The department shall prescribe by regulation a course of training or other requirements prerequisite to the issuance of certificates which provide for the following:

(1) certifies that a person meets the training and other requirements as an emergency medical technician;

(2) authorizes an emergency medical technician certified under this chapter to provide under the written or oral direction of a physician those advanced life support services enumerated on the certificate;

(3) certifies that a person, organization, or government agency which provides an emergency medical service meets the minimum operating standards prescribed by the department; and

(4) authorizes an emergency medical service certified under this chapter to provide under the written or oral direction of a physician those advanced life support services enumerated on the certificate.

2. Page 1, lines 24 to 28 are deleted and replaced with the following:

Sec. 18.08.082. CERTIFICATE REQUIRED. (a) No person may represent himself, nor may an agency or business represent an agent or employee of that agency or business as an emergency medical technician certified by the State of Alaska unless the person represented is certified as an emergency medical technician under sec. 82 of this chapter.

(b) No person, organization, or government agency may represent itself as an emergency medical service or ambulance service certified by the State of Alaska unless the person, organization, or government agency is certified as an emergency medical service under sec. 82 of this chapter.

(c) No person may provide, offer, or advertise to provide advanced life support services outside a hospital unless authorized under sec. 82 of this chapter or other chapters of these statutes.

(d) No person, organization, or government agency which provides, offers, or advertises to provide an emergency medical service may provide advanced life support services unless authorized under sec. 82 of this chapter.

3. Page 2, line 7 is amended to read:

"section does not preclude liability for civil damages <u>which is</u> the proximate"

4. Page 2, line 27 is amended to read:

"(3) the physician has secured a prior <u>written</u> agreement from the"

5. Page 3, lines 7 to 13 are deleted and replaced with the following:

(7) "advanced life support services" means emergency care techniques provided under the written or oral orders of a physician which include, but are not limited to, cardiac defibrillation, administration of antiarrythmic agents, intravenous therapy, administration of specific medications and drugs and solutions, intramuscular therapy, or use of adjunctive ventilation devices;

6. Page 3, line 18 is amended to read:

"(9) "emergency medical care" means the services utilized"

7. Page 3, line 21 is amended to read:

"psychological illness or injury;"

8. Page 3, line 22. Add the following:

(10) "emergency medical service" means the provision of emergency medical care and transportation of the sick and injured. For the purposes of this chapter organized ski patrols and search and rescue teams are not included under the definition;

(11) "emergency medical technician" means a person trained in emergency medical care and certified in accordance with the regulations prescribed under sec. 80 of this chapter.

THE LEGISLATURE OF THE STATE OF ALASKA
TENTH LEGISLATURE

FISCAL NOTE

I. REQUEST
Bill/Resolution No. CSHB 896
Title An act relating to emergency medical services
Requested by Representative Hugh Malone Date 4/18/78

II. FISCAL DETAIL
Agency Affected Health & Social Services
Program Category Affected Health
Budget Request Unit(s) Affected Emergency Medical Services

EXPENDITURES (Thousands of Dollars)

	FY 78	FY 79	FY 80	FY 81	FY 82	FY 83
100 PERSONAL SERVICES			53.0	56.2	59.6	63.1
200 TRAVEL			5.6	5.9	6.3	6.7
300 CONTRACTUAL			4.8	5.1	5.4	5.7
400 COMMODITIES			.6	.6	.7	.7
500 EQUIPMENT			2.2	-0-	-0-	-0-
600 LAND & STRUCTURES						
700 GRANTS, CLAIMS, ETC.						
TOTAL			66.2	67.8	72.0	76.2

FUNDING (Thousands of Dollars)

GENERAL FUND			66.2	67.8	72.0	76.2
FEDERAL FUNDS						
OTHER (Specify)						

POSITIONS

FULL TIME			2/24	2/24	2/24	2/24
PART TIME						
TEMPORARY						

III. ANALYSIS (See Fiscal Note Preparation Instructions, Section III)

This analysis assumes the responsibility for certification of emergency medical technicians (EMT) will be delegated to the Emergency Medical Services Section, Division of Public Health. No fiscal impact is expected in FY79 as the current staff of the section will assume responsibility for the drafting and promulgation of regulations and procedures in conjunction with the State EMS Advisory Council.

It is anticipated that there will be 850 certifiable personnel. Based on high turnover of volunteer EMT's and projected expansion of ambulance services, it is further anticipated that approximately 20 EMT courses will be required annually. Certification should occur upon completion of the course. The fiscal note therefore provides for a training coordinator position and travel beginning in FY80 to administer the certification exam (both written and practical) throughout the state

IV. DATE 4/20/78 PREPARED BY Thomas D. Scott
AGENCY Emergency Medical Services
PHONE 465-3027

Original: Legislative Finance
cc: Budget and Management
Prime Sponsor (First Legislator Named)

33-001 (Rev. 12/77)

in coordination with courses being conducted. The coordinator will also evaluate course content and instructors in terms of the minimum training standards to be established in the regulations. A clerk typist position will be necessary for clerical support and maintaining certification records. The position will be located in Anchorage, which is the location of the statewide EMT training program being conducted on an itinerant basis through a grant to the Southern Region EMS Council. It's central location also reduces travel costs.

A detailed analysis of expenditures is attached. Inflation is computed at 6% per year beginning July 1, 1979.

TDS 4/12/79

Personal Services	
Training Coordinator, SR 18 $2156/mo x 12 = $25,872 FICA 1562 Benefits 4463 He th Insurance 986	$ 32,883
Clerk Typist III $1092/mo x 12 = $13,104 FICA 793 Benefits 2260 Health Insurance 986	17,143
6% inflation factor	3,001
Total Personal Services	$ 53,027
Travel	
Travel to 20 locations to administer exam at an average cost of $260 per trip. Average includes air fare to bush communities and mileage to areas around Anchorage as well as three days per diem. 20 trips x $260 x 6% inflation	$ 5,512
Contractual	
Communication: phone, postage etc. 100/mo x 12 mo	$ 1,200
Printing and Advertising: forms & notices	1,500
Rent 140/mo x 12	1,820
6% inflation factor	271
Total Contractual	$ 4,791
Commodities	
General Office consumables $50/mo	600
Equipment	
Desk, secretarial	$ 362
Chair, secretarial	85
File cabinet w/lock	213
Typewriter	792
Chair, executive	85
Desk, executive	350
Bookcase	75
Total Equipment	$ 2,232

TPS 4/16/

THE LEGISLATURE OF THE STATE OF ALASKA
TENTH LEGISLATURE

FISCAL NOTE

I. REQUEST
Bill/Resolution No. HB 896
Title An Act relating to emergency medical services
Requested by Health and Social Services Date 4/12/78

II. FISCAL DETAIL
Agency Affected Commerce and Economic Development
Program Category Affected Public Protection
Budget Request Unit(s) Affected Regulation and Licensing of Professions

EXPENDITURES (Thousands of Dollars)

	FY 77	FY 78	FY 79	FY 80	FY 81	FY 82
100 PERSONAL SERVICES			18.6	19.7	20.9	22.1
200 TRAVEL			0	0	0	0
300 CONTRACTUAL			2.6	2.7	2.9	3.1
400 COMMODITIES			.2	.2	.2	.2
500 EQUIPMENT			1.5	0	0	0
600 LAND & STRUCTURES			0			
700 GRANTS, CLAIMS, ETC.			0			
TOTAL			22.9	22.6	24.0	25.4

FUNDING (Thousands of Dollars)

GENERAL FUND			22.9	22.6	24.0	25.4
FEDERAL FUNDS						
OTHER (Specify)						

POSITIONS

FULL TIME			1/12	1/12	1/12	1/12
PART TIME						
TEMPORARY						

III. ANALYSIS (See Fiscal Note Preparation Instructions, Section III)
This analysis assumes the responsibility for personnel certification will be delegated to Commerce by the Legislature. If it is not, no fiscal impact is expected. Travel funding is not requested as it is further assumed Health and Social Services will fund hearings and facilities inspections. Inflation is computed at 6% per year and the effective date is presumed to be July 1, 1978. Health and Social Services has estimated certifiable personnel at 850. Twelve man months funding is requested based on this estimate. A detailed analysis of expenditures is attached.

IV. DATE 4/12/78 PREPARED BY Sharon Andrew
AGENCY OCCUPATIONAL LICENSING
PHONE 465-2535

Original: Legislative Finance
cc: Budget and Management
Prime Sponsor (First Legislator Named)

PERSONAL SERVICES

Occupational Licensing Examiner I, R-10	14,328
Benefits = 2,472; FICA = 867; Health Insurance = 986	4,325
	18,653

CONTRACTUAL

Communications: Postage, phones, tolls, etc.	1,040
Printing and advertising: Forms and notices	1,500
	2,540

COMMODITIES

Office and Library Supplies: General office consumables	200

EQUIPMENT

Desk - secretarial with typing extension	362
Chair - secretarial	85
Utility table	95
File cabinet - five drawer legal with lock	213
IBM Selectric Typewriter	792
	1,547

HB 8916
4/12/78

THE LEGISLATURE OF THE STATE OF ALASKA
TENTH LEGISLATURE

FISCAL NOTE

I. REQUEST
Bill/Resolution No. HB 896
Title An Act relating to Emergency Medical Services
Requested by House HESS Committee Date 4/10/78

HB 896

II. FISCAL DETAIL
Agency Affected Health and Social Services
Program Category Affected Health
Budget Request Unit(s) Affected Certification and Licensing

EXPENDITURES (Thousands of Dollars)

	FY 78	FY 79	FY 80	FY 81	FY 82	FY 83
100 PERSONAL SERVICES			34.8	36.8	39.1	41.4
200 TRAVEL			5.3	5.6	5.9	6.2
300 CONTRACTUAL						
400 COMMODITIES						
500 EQUIPMENT			.4	-0-	-0-	-0-
600 LAND & STRUCTURES						
700 GRANTS, CLAIMS, ETC.						
TOTAL			40.5	42.4	45.0	47.6

FUNDING (Thousands of Dollars)

GENERAL FUND			40.5	42.4	45.0	47.6
FEDERAL FUNDS						
OTHER (Specify)						

POSITIONS

FULL TIME			1/12	1/12	1/12	1/12
PART TIME						
TEMPORARY						

III. ANALYSIS (See Fiscal Note Preparation Instructions, Section III)

This analysis assumes the responsiblity for certification of ambulance services will be delegated to the Certification and Licensing Section, Division of Public Health. It is presumed that this function will begin July 1, 1979 following development of regulations by the Emergency Medical Services Section and the State Emergency Medical Services Advisory Council. Travel to inspect 40-45 ambulance services will be combined with inspections of other health facilities in the area for more efficient use of manpower and funds. Therefore projected travel amounts are only half as costs will be pro-rated among other funding sources within the Certification and Licensing BRU. A detailed analysis of expenditures is attached.

IV. DATE 4/12/78 PREPARED BY Thomas D. Scott
AGENCY Public Health, HSS
PHONE 465-3027

Original: Legislative Finance
cc: Budget and Management
Prime Sponsor (First Legislator Named)

33-001 (Rev. 12/77)

Health Facilities Surveyor R-18 2156 x 12 mos x 6% inflation = 27,424 Benefits = 4730 FICA = 1659 Health Ins. = 986	$34,799
Travel to inspect 40-45 ambulance services will necessitate 15 trips to areas throughout the state at an average cost of $700 per trip, including air fare, auto rental and per diem. 15 x $700 x 50%	5,250
Executive desk	300
Chair	85

THE LEGISLATURE OF THE STATE OF ALASKA
TENTH LEGISLATURE

FISCAL NOTE

I. REQUEST

Bill/Resolution No. HB 896

Title An Act relating to emergency medical services

Requested by Health and Social Services Date 4/12/78

II. FISCAL DETAIL

Agency Affected Commerce and Economic Development

Program Category Affected Public Protection

Budget Request Unit(s) Affected Regulation and Licensing of Professions

EXPENDITURES (Thousands of Dollars)

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300 CONTRACTUAL			2.6	2.7	2.9	.1
400 COMMODITIES			.2	.2	.2	.2
500 EQUIPMENT			1.5	0	0	0
600 LAND & STRUCTURES			0			
700 GRANTS, CLAIMS, ETC.			0			
TOTAL			22.9	22.6	24.0	25.4

FUNDING (Thousands of Dollars)

GENERAL FUND			22.9	22.6	24.0	25.4
FEDERAL FUNDS						
OTHER (Specify)						

POSITIONS

FULL TIME			1/12	1/12	1/12	1/12
PART TIME						
TEMPORARY						

III. ANALYSIS (See Fiscal Note Preparation Instructions, Section III)

This analysis assumes the responsibility for personnel certification will be delegated to Commerce by the Legislature. If it is not, no fiscal impact is expected. Travel funding is not requested as it is further assumed Health and Social Services will fund hearings and facilities inspections. Inflation is computed at 6% per year and the effective date is presumed to be July 1, 1978. Health and Social Services has estimated certifiable personnel at 850. Twelve man months funding is requested based on this estimate. A detailed analysis of expenditures is attached.

IV. DATE 4/12/78 PREPARED BY SHARON ANDREW

AGENCY OCCUPATIONAL LICENSING

PHONE 465-2535

Original: Legislative Finance
cc: Budget and Management
Prime Sponsor (First Legislator Named)

33-001 (Rev. 10/76)

PERSONAL SERVICES

Occupational Licensing Examiner I, R-10	14,328
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HB 896
Att 4/12/78

THE LEGISLATURE OF THE STATE OF ALASKA
TENTH LEGISLATURE

FISCAL NOTE

I. REQUEST
Bill/Resolution No. HB 896
Title An Act relating to Emergency Medical Services
Requested by House HESS Committee Date 4/10/78

II. FISCAL DETAIL
Agency Affected Health and Social Services
Program Category Affected Health
Budget Request Unit(s) Affected Certification and Licensing

EXPENDITURES (Thousands of Dollars)

	FY 78	FY 79	FY 80	FY 81	FY 82	FY 83
100 PERSONAL SERVICES			34.8	36.8	39.1	41.4
200 TRAVEL			5.3	5.6	5.9	6.2
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600 LAND & STRUCTURES						
700 GRANTS, CLAIMS, ETC.						
TOTAL			40.5	42.4	45.0	47.6

FUNDING (Thousands of Dollars)

GENERAL FUND			40.5	42.4	45.0	47.6
FEDERAL FUNDS						
OTHER (Specify)						

POSITIONS

FULL TIME			1/12	1/12	1/12	1/12
PART TIME						
TEMPORARY						

III. ANALYSIS (See Fiscal Note Preparation Instructions, Section III)

This analysis assumes the responsiblity for certification of ambulance services will be delegated to the Certification and Licensing Section, Division of Public Health. It is presumed that this function will begin July 1, 1979 following development of regulations by the Emergency Medical Services Section and the State Emergency Medical Services Advisory Council. Travel to inspect 40-45 ambulance services will be combined with inspections of other health facilities in the area for more efficient use of manpower and funds. Therefore projected travel amounts are only half as costs will be pro-rated among other funding sources within the Certification and Licensing BRU. A detailed analysis of expenditures is attached.

IV. DATE 4/12/78 PREPARED BY Thomas D. Scott
AGENCY Public Health, EMS
PHONE 465-3027

Original: Legislative Finance
cc: Budget and Management
Prime Sponsor (First Legislator Named)

33-001 (Rev. 12/77)

Health Facilities Surveyor R-18 2156 x 12 mos x 6% inflation = 27,424 Benefits = 4730 FICA = 1659 Health Ins. = 986	$34,799
Travel to inspect 40-45 ambulance services will necessitate 15 trips to areas throughout the state at an average cost of $700 per trip, including air fare, auto rental and per diem. 15 x $700 x 50%	5,250
Executive desk	300
Chair	85

Original sponsor: Health, Education and Social Services Committee

Offered: 5/11/78
Referred: Rules

IN THE HOUSE BY THE FINANCE COMMITTEE

CS FOR HOUSE BILL NO. 896 (Finance)

IN THE LEGISLATURE OF THE STATE OF ALASKA

TENTH LEGISLATURE - SECOND SESSION

A BILL

For an Act entitled: "An Act relating to emergency medical services."

BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF ALASKA:

* Section 1. AS 18.08.080 is repealed and re-enacted to read:

Sec. 18.08.080. REGULATIONS. The department shall adopt, with the concurrence of the Department of Public Safety, regulations establishing standards and procedures for the issuance, renewal, reissuance, revocation, and suspension of certificates required under sec. 82 of this chapter, as well as other regulations necessary to carry out the purposes of this chapter.

* Sec. 2. AS 18.08 is amended by adding new sections to read:

Sec. 18.08.082. ISSUANCE OF PERMITS. (a) The department shall prescribe by regulation a course of training or other requirements prerequisite to the issuance of certificates which provide for the following:

(1) certifies that a person meets the training and other requirements as an emergency medical technician;

(2) authorizes an emergency medical technician certified under this chapter to provide under the written or oral direction of a physician those advanced life support services enumerated on the certificate;

(3) certifies that a person, organization, or government agency which provides an emergency medical service meets the minimum operating standards prescribed by the department; and

(4) authorizes an emergency medical service certified under

section does not preclude liability for civil damages which is the proximate result of gross negligence or intentional misconduct, nor preclude imposition of liability on a person or public agency which employs, sponsors, or controls the activities of persons certified under sec. 82 of this chapter if the act or omission is a proximate result of a breach of duty to act created under this chapter. For the purposes of this subsection, "gross negligence" means reckless, wilful, or wanton misconduct.

(b) No physician who in good faith arranges for, requests, recommends, or initiates the transfer of a patient from a hospital to another hospital may be liable for civil damages as a result of arranging, requesting, recommending, or initiating the transfer if

(1) in the exercise of that degree of knowledge or skill possessed, or that degree of care ordinarily exercised by physicians practicing the same specialty in the same, or similar communities to that in which the physician is practicing, the physician determines that treatment of the patient's medical condition is beyond the capability of the transferring hospital or the medical community in which the hospital is located;

(2) the physician has confirmed that the receiving facility is more capable of treating the patient; and

(3) the physician has secured a prior agreement from the receiving facility to accept and render the necessary treatment to the patient.

(c) No registered nurse or licensed practical nurse who escorts a patient in a means of conveyance not equipped as an ambulance may be liable for civil damages as a result of an act or omission in administering patient care services, if done in good faith and if the life of the injured or sick person is in danger. This subsection does not

Original sponsor: Health, Education and Social Services Committee

Offered: 5/11/78
Referred: Rules

IN THE HOUSE BY THE FINANCE COMMITTEE

CS FOR HOUSE BILL NO. 896 (Finance)

IN THE LEGISLATURE OF THE STATE OF ALASKA

TENTH LEGISLATURE - SECOND SESSION

A BILL

For an Act entitled: "An Act relating to emergency medical services."

BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF ALASKA:

* Section 1. AS 18.08.080 is repealed and re-enacted to read:

Sec. 18.08.080. REGULATIONS. The department shall adopt, with the concurrence of the Department of Public Safety, regulations establishing standards and procedures for the issuance, renewal, reissuance, revocation, and suspension of certificates required under sec. 82 of this chapter, as well as other regulations necessary to carry out the purposes of this chapter.

* Sec. 2. AS 18.08 is amended by adding new sections to read:

Sec. 18.08.082. ISSUANCE OF PERMITS. (a) The department shall prescribe by regulation a course of training or other requirements prerequisite to the issuance of certificates which provide for the following:

(1) certifies that a person meets the training and other requirements as an emergency medical technician;

(2) authorizes an emergency medical technician certified under this chapter to provide under the written or oral direction of a physician those advanced life support services enumerated on the certificate;

(3) certifies that a person, organization, or government agency which provides an emergency medical service meets the minimum operating standards prescribed by the department; and

(4) authorizes an emergency medical service certified under

this chapter to provide under the written or oral direction of a physician those advanced life support services enumerated on the certificate.

(b) The department shall be the central certifying agency for personnel certified under (a)(1) and (2) of this chapter and under regulations adopted under sec. 80 of this chapter.

Sec. 18.08.084. CERTIFICATE REQUIRED. (a) No person may represent himself, nor may an agency or business represent an agent or employee of that agency or business, as an emergency medical technician certified by the state unless the person represented is certified as an emergency medical technician under sec. 82 of this chapter.

(b) No person, organization, or government agency may represent itself as an emergency medical service or ambulance service certified by the state unless the person, organization, or government agency is certified as an emergency medical service under sec. 82 of this chapter.

(c) No person may provide, offer, or advertise to provide advanced life support services outside a hospital unless authorized by law.

(d) No person, organization, or government agency which provides, offers, or advertises to provide an emergency medical service may provide advanced life support services unless authorized under sec. 82 of this chapter.

Sec. 18.08.086. IMMUNITY FROM LIABILITY. (a) No person certified under sec. 82 of this chapter, or person or public agency which employs, sponsors or controls the activities of persons certified under sec. 82 of this chapter, who administers emergency medical services to an injured or sick person may be liable for civil damages as a result of an act or omission in administering those services, if done in good faith and if the life of the injured or sick person is in danger. This sub-

section does not preclude liability for civil damages which is the proximate result of gross negligence or intentional misconduct, nor preclude imposition of liability on a person or public agency which employs, sponsors, or controls the activities of persons certified under sec. 82 of this chapter if the act or omission is a proximate result of a breach of duty to act created under this chapter. For the purposes of this subsection, "gross negligence" means reckless, wilful, or wanton misconduct.

(b) No physician who in good faith arranges for, requests, recommends, or initiates the transfer of a patient from a hospital to another hospital may be liable for civil damages as a result of arranging, requesting, recommending, or initiating the transfer if

(1) in the exercise of that degree of knowledge or skill possessed, or that degree of care ordinarily exercised by physicians practicing the same specialty in the same, or similar communities to that in which the physician is practicing, the physician determines that treatment of the patient's medical condition is beyond the capability of the transferring hospital or the medical community in which the hospital is located;

(2) the physician has confirmed that the receiving facility is more capable of treating the patient; and

(3) the physician has secured a prior agreement from the receiving facility to accept and render the necessary treatment to the patient.

(c) No registered nurse or licensed practical nurse who escorts a patient in a means of conveyance not equipped as an ambulance may be liable for civil damages as a result of an act or omission in administering patient care services, if done in good faith and if the life of the injured or sick person is in danger. This subsection does not

preclude liability for civil damages which are the result of gross negligence or intentional misconduct.

Sec. 18.08.088. PENALTY. Any person who violates a provision of this chapter is guilty of a misdemeanor and upon conviction is punishable by a fine of not more than $1,000, or by imprisonment for not more than 90 days, or by both. Each violation is a separate offense.

* Sec. 3. AS 18.08.090 is amended by adding new paragraphs to read:

(7) "advanced life support" means emergency care techniques provided under the written or oral orders of a physician which include, but are not limited to, electric cardiac defibrillation, administration of antiarrythmic agents, intravenous therapy, intramuscular therapy, or use of endotracheal intubation devices;

(8) "ambulance" means any publicly or privately owned means of conveyance intended to be used and maintained or operated for the transportation of persons who are sick, injured, wounded, or otherwise helpless;

(9) "emergency medical care" means the services utilized in responding to the perceived individual needs for immediate medical care in order to prevent loss of life or aggravation of physiological or psychological illness or injury;

(10) "emergency medical technician" means a person trained in emergency medical care and certified in accordance with the regulations prescribed under sec. 80 of this chapter;

(11) "emergency medical service" means the provision of emergency medical care and transportation of the sick and injured.

Original sponsor: Health, Education and Social Services Committee

Offered: 4/19/78
Referred: Finance

IN THE HOUSE

BY THE HEALTH, EDUCATION AND SOCIAL SERVICES COMMITTEE

CS FOR HOUSE BILL NO. 896

IN THE LEGISLATURE OF THE STATE OF ALASKA

TENTH LEGISLATURE - SECOND SESSION

A BILL

For an Act entitled: "An Act relating to emergency medical services."

BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF ALASKA:

* Section 1. AS 18.08.080 is repealed and re-enacted to read:

Sec. 18.08.080. REGULATIONS. The department shall adopt, with the concurrence of the Department of Public Safety, regulations establishing standards and procedures for the issuance, renewal, reissuance, revocation, and suspension of certificates required under sec. 82 of this chapter, as well as other regulations necessary to carry out the purposes of this chapter.

* Sec. 2. AS 18.08 is amended by adding new sections to read:

Sec. 18.08.082. ISSUANCE OF PERMITS. (a) The department shall prescribe by regulation a course of training or other requirements prerequisite to the issuance of certificates which provide for the following:

(1) certifies that a person meets the training and other requirements as an emergency medical technician;

(2) authorizes an emergency medical technician certified under this chapter to provide under the written or oral direction of a physician those advanced life support services enumerated on the certificate;

(3) certifies that a person, organization, or government agency which provides an emergency medical service meets the minimum operating standards prescribed by the department; and

(4) authorizes an emergency medical service certified under

this chapter to provide under the written or oral direction of a physician those advanced life support services enumerated on the certificate.

(b) The department shall be the central certifying agency for personnel certified under (a)(1) and (2) of this chapter and under regulations adopted under sec. 80 of this chapter.

Sec. 18.08.084. CERTIFICATE REQUIRED. (a) No person may represent himself, nor may an agency or business represent an agent or employee of that agency or business, as an emergency medical technician certified by the state unless the person represented is certified as an emergency medical technician under sec. 82 of this chapter.

(b) No person, organization, or government agency may represent itself as an emergency medical service or ambulance service certified by the state unless the person, organization, or government agency is certified as an emergency medical service under sec. 82 of this chapter.

(c) No person may provide, offer, or advertise to provide advanced life support services outside a hospital unless authorized by law.

(d) No person, organization, or government agency which provides, offers, or advertises to provide an emergency medical service may provide advanced life support services unless authorized under sec. 82 of this chapter.

Sec. 18.08.086. IMMUNITY FROM LIABILITY. (a) No person certified under sec. 82 of this chapter, or person or public agency which employs, sponsors or controls the activities of persons certified under sec. 82 of this chapter, who administers emergency medical services to an injured or sick person may be liable for civil damages as a result of an act or omission in administering those services, if done in good faith and if the life of the injured or sick person is in danger. This sub-

section does not preclude liability for civil damages which is the proximate result of gross negligence or intentional misconduct, nor preclude imposition of liability on a person or public agency which employs, sponsors, or controls the activities of persons certified under sec. 82 of this chapter if the act or omission is a proximate result of a breach of duty to act created under this chapter. For the purposes of this subsection, "gross negligence" means reckless, wilful, or wanton misconduct.

(b) No physician who in good faith arranges for, requests, recommends, or initiates the transfer of a patient from a hospital to another hospital may be liable for civil damages as a result of arranging, requesting, recommending, or initiating the transfer if

(1) in the exercise of that degree of knowledge or skill possessed, or that degree of care ordinarily exercised by physicians practicing the same specialty in the same, or similar communities to that in which the physician is practicing, the physician determines that treatment of the patient's medical condition is beyond the capability of the transferring hospital or the medical community in which the hospital is located;

(2) the physician has confirmed that the receiving facility is more capable of treating the patient; and

(3) the physician has secured a prior agreement from the receiving facility to accept and render the necessary treatment to the patient.

(c) No registered nurse or licensed practical nurse who escorts a patient in an aircraft not equipped as an ambulance may be liable for civil damages as a result of an act or omission in administering patient care services, if done in good faith and if the life of the injured or sick person is in danger. This subsection does not preclude liability

for civil damages which are the result of gross negligence or intentional misconduct.

Sec. 18.08.088. PENALTY. Any person who violates a provision of this chapter is guilty of a misdemeanor and upon conviction is punishable by a fine of not more than $1,000, or by imprisonment for not more than 90 days, or by both. Each violation is a separate offense.

* Sec. 3. AS 18.08.090 is amended by adding new paragraphs to read:

(7) "advanced life support" means emergency care techniques provided under the written or oral orders of a physician which include, but are not limited to, electric cardiac defibrillation, administration of antiarrythmic agents, intravenous therapy, intramuscular therapy, or use of endotracheal intubation devices;

(8) "ambulance" means any publicly or privately owned means of conveyance intended to be used and maintained or operated for the transportation of persons who are sick, injured, wounded, or otherwise helpless;

(9) "emergency medical care" means the services utilized in responding to the perceived individual needs for immediate medical care in order to prevent loss of life or aggravation of physiological or psychological illness or injury;

(10) "emergency medical technician" means a person trained in emergency medical care and certified in accordance with the regulations prescribed under sec. 80 of this chapter;

(11) "emergency medical service" means the provision of emergency medical care and transportation of the sick and injured.

Introduced: 3/20/78
Referred: Health,Education &
Social Services and Finance

IN THE HOUSE

BY THE HEALTH, EDUCATION AND SOCIAL SERVICES COMMITTEE

HOUSE BILL NO. 896

IN THE LEGISLATURE OF THE STATE OF ALASKA

TENTH LEGISLATURE - SECOND SESSION

A BILL

For an Act entitled: "An Act relating to emergency medical services."

BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF ALASKA:

* Section 1. AS 18.08.080 is repealed and re-enacted to read:

Sec. 18.08.080. REGULATIONS. The department shall adopt, with the concurrence of the Department of Public Safety, regulations establishing standards and procedures for the issuance, renewal, reissuance, revocation, and suspension of certificates required under sec. 82 of this chapter, as well as other regulations necessary to carry out the purposes of this chapter.

* Sec. 2. AS 18.08 is amended by adding new sections to read:

Sec. 18.08.082. ISSUANCE OF PERMITS. The department shall prescribe by regulation a course of training or other requirements prerequisite to issuance of a certificate authorizing a person to provide emergency medical services, including those services involved in advanced life support, or to operate an ambulance, or both. A certificate authorizing a person to provide those emergency medical services which are enumerated on the certificate, or to operate an ambulance, or both, shall be issued upon successful completion of such requirements.

Sec. 18.08.084. CERTIFICATE REQUIRED. No person may provide, offer or advertise to provide emergency medical services, including advanced life support, nor operate, or offer or advertise to operate an ambulance on a regular basis, unless authorized by a certificate issued under sec. 82 of this chapter.

Sec. 18.08.086. IMMUNITY FROM LIABILITY. (a) No person certified

under sec. 82 of this chapter, or person or public agency which employs, sponsors or controls the activities of persons certified under sec. 82 of this chapter, who administers emergency medical services to an injured or sick person may be liable for civil damages as a result of an act or omission in administering those services, if done in good faith and if the life of the injured or sick person is in danger. This subsection does not preclude liability for civil damages the proximate result of gross negligence or intentional misconduct, nor preclude imposition of liability on a person or public agency which employs, sponsors, or controls the activities of persons certified under sec. 82 of this chapter if the act or omission is a proximate result of a breach of duty to act created under this chapter. For the purposes of this subsection, "gross negligence" means reckless, wilful, or wanton misconduct.

(b) No physician who in good faith arranges for, requests, recommends, or initiates the transfer of a patient from a hospital to another hospital may be liable for civil damages as a result of arranging, requesting, recommending, or initiating the transfer if

(1) in the exercise of that degree of knowledge or skill possessed, or that degree of care ordinarily exercised by physicians practicing the same specialty in the same, or similar communities to that in which the physician is practicing, the physician determines that treatment of the patient's medical condition is beyond the capability of the transferring hospital or the medical community in which the hospital is located;

(2) the physician has confirmed that the receiving facility is more capable of treating the patient; and

(3) the physician has secured a prior agreement from the receiving facility to accept and render the necessary treatment to the patient.

Sec. 18.08.088. PENALTY. Any person who violates a provision of this chapter is guilty of a misdemeanor and upon conviction is punishable by a fine of not less than $50 nor more than $100, or by imprisonment for not less than 10 days nor more than 90 days, or by both. Each violation is a separate offense.

* Sec. 3. AS 18.08.090 is amended by adding new paragraphs to read:

(7) "advanced life support" means a level of pre-hospital and inter-hospital emergency care under the written or oral direction of a physician, which includes, but is not limited to, basic life support functions, cardiopulmonary resuscitation (CPR), cardiac monitoring, cardiac defibrillation, administration of antiarrythmic agents, intravenous therapy, administration of specific medications and drugs and solutions, or use of adjunctive ventilation devices;

(8) "ambulance" means any publicly or privately owned means of conveyance intended to be used and maintained or operated for the transportation of persons who are sick, injured, wounded, or otherwise helpless;

(9) "emergency medical services" means the services utilized in responding to the perceived individual needs for immediate medical care in order to prevent loss of life or aggravation of physiological or psychological illness or injury.