LEGISLATIVE ASSEMBLY OF THE NORTHWEST TERRITORIES

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AMBULANCE SERVICES IN THE NORTHWEST TERRITORIES

Preliminary Report of the
Air and Ground Ambulance Policy Advisory Committee

Presented to the Minister of Health
January, 1985.

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Northwest Territories Health

January 18, 1985.

DEPUTY MINISTER OF HEALTH

Air and Ground Ambulance Policy Advisory Committee

On behalf of the members of the Air and Ground Ambulance Policy Advisory Committee, I am pleased to submit to you the committee's preliminary report. The document describes the current state of ambulance services in the Northwest Territories, and contains a series of recommendations which, if implemented, should bring about significant improvements in ambulance services in all N.W.T. communities.

Since August of 1984, the members of the committee have devoted considerable time to this project, and have succeeded in fulfilling their terms of reference.

With respect to standards for ground ambulance vehicles, equipment and air ambulance services, a sub-committee has been formed to develop such standards in detail. Their recommendations will be incorporated into the final report.

The committee members consider it essential that input into this planning process be received from a wider audience prior to the preparation of a final report. Therefore, the Minister's approval is requested for the distribution of this preliminary report to concerned persons and organizations in the N.W.T., including municipal councils, professional organizations and interest groups. Their responses will be considered in completing the final report.

Michael Pontus,
Assistant Deputy Minister,
Chairman,
Air and Ground Ambulance Policy Advisory Committee.

Attachment

RECOGNITION

The members of the Air and Ground Ambulance Policy Advisory Committee recognize the commitment and dedication of the many people who for years have provided vital tansportation and emergency health care services to persons in need in the N.W.T. They include various municipal ambulance services and crews, Cominco Limited in Pine Point, the R.C.M.P., the St. John Ambulance, Health and Welfare field personnel, Government of the N.W.T. field personnel, private air carriers, hospital staff, physicians and numerous volunteers across the north.

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EXECUTIVE SUMMARY

In April of 1984, the Minister of Health appointed the Air and Ground Ambulance Policy Advisory Committee and instructed the members to examine current ambulance services in the N.W.T. The committee was to advise the Department of Health regarding the development of legislation, regulations, and other aspects of policy pertaining to air and ground ambulance services. This report summarizes the findings and recommendations of the committee.

Examination of Current Services

An examination of current services was carried out largely by means of surveys of municipalities, Regional Offices of the Territorial Government, Health and Welfare regional and field personnel. For comparative purposes, aspects of ambulance services in the ten provinces and the Yukon Territory were also studied.

Ground ambulance services with dedicated ambulance vehicles are operated in these communities: Frobisher Bay, Fort Smith, Hay River, Pine Point, Fort Simpson, Rae-Edzo, Yellowknife and Inuvik. In other communities in the N.W.T. patients are transported by a variety of ad hoc means such as taxis, R.C.M.P. vehicles, muncipal vehicles, G.N.W.T. vehicles, Health and Welfare vehicles, volunteers, relatives, and so on.

People requiring transportation by air for medical reasons are transported by private air carriers. Depending on the patient's circumstances, medical travel costs are paid by one of the following: the patient's employer, Health and Welfare Canada, Government of the Northwest Territories (Medical Transportation Program) or other agents as the case may be.

The analysis of current services revealed the following inadequacies:

1. It has not been made clear who is responsible for ensuring the provision of ambulance services in the N.W.T.

2. There is no legislation or legislative authority for the establishment and provision of ambulance services.

3. No uniform standards for ambulance services have been established, including standards for ambulance attendant training levels.

4. Ambulance services are not monitored or inspected by any authority other than the operators themselves.

5. Adequate formal procedures for coverage of the N.W.T. highway system have never been developed.

6. The level of service in most localities is low with respect to ground ambulance services. In many settlements the service is provided by anyone who happens to have a vehicle available at the time of need.

7. Ground ambulance services in many localities are largely dependent on volunteers who eventually move away, thus creating a lack of continuity in service.

8. There are no uniform funding mechanisms in place for ground ambulance services.

9. Coordination among the various components of the emergency health services network is inadequate.

10. There is a need for an improved communications system between the various components of the emergency health services network.

11. Uniform information reporting procedures are not in place for ambulance services in the N.W.T.

12. Liability insurance coverage is an important concern of the operators of ground ambulance services.

The committee's recommendations are intended to redress these deficiencies.

New Directions for Emergency Health Services

The committee formulated thirty-three recommendations for improving emergency health services (ambulance services in particular). The recommendations are based on the six general principles described below. The recommendations corresponding to each of the six principles are indicated. Numbers in brackets indicate the page location of each recommendation in the body of the report.

1. Recognition of an Emergency Health Services Network

It is essential to recognize that ambulance services are one component of a broader emergency health services network. Ambulance services should not be examined and altered in isolation from other emergency health services. The following recommendations reflect this pinciple:

Recommendation 1 - evaluation of emergency health care resources (20)
Recommendation 2 - planning for improvements in resources (21)

2. Basic levels of Service

There is a need to ensure basic levels of ambulance services in all N.W.T. communities. The following recommendations reflect this principle:

Recommendation 5 - three levels of standards for ground ambulance services (23)
Recommendation 9 - promotion of volunteerism (27)
Recommendation 12 - availability of vehicles in Level III communities (31)
Recommendation 15 - emergency response teams in Level I communities (33)
Recommendation 24 - policies and procedures for highway coverage (38)
Recommendation 25 - provision of coverage for highway system (39)
Recommendation 30 and 31 - improved communications system (43)
Recommendation 32 - ambulance dispatching for highways (45)

3. Uniform Standards

Within each of the three levels applicable to ground ambulance services, there is a need for uniform standards with respect to ambulance attendant training requirements, ambulance vehicles and equipment. There is also a need for uniform standards applicable to air ambulance services.

The following recommendations are based on this principle:

4. A Mix of Ambulance Service Providers

It is the committee's view that progress can be realized without altering the current mix of air and ground service providers. Any provider able to meet the standards should be permitted to operate an ambulance service. This principle is reflected in the following recommendations:

5. Adequate Financial Resources

Any acceptance of the foregoing principles and their associated recommendations will necessitate the provision of adequate financial resources by the Government of the Northwest Territories in order that basic levels of services with uniform standards can be achieved throughout the N.W.T. Notwithstanding the responsibility of the Territorial Government, financial input should continue from territorial, federal and private insurance agencies. The following recommendations are based on the principle of adequate financial resources:

Recommendation 18 - cost-sharing with the federal government (35)
Recommendation 19 - program funding for ground ambulance services (36)
Recommendation 20 - user fees to be part of funding structure (37)
Recommendation 21 - capital costs funded by Department of Health (37)
Recommendation 22 - training costs funded by Department of Education (37)
Recommendation 23 - common accounting and reporting system (38)

6. Ambulance Services: A Territorial Government Responsibility

As reflected in most of the recommendations, the committee views ambulance services (both ground and air) as being a responsibility of the Territorial Government. The committee considers it essential that the Territorial Government recognize ambulance services as a health matter, and therefore, within the jurisdiction of the G.N.W.T The acceptance of this principle must come first and foremost. This principle is most clearly evident in the following recommendations:

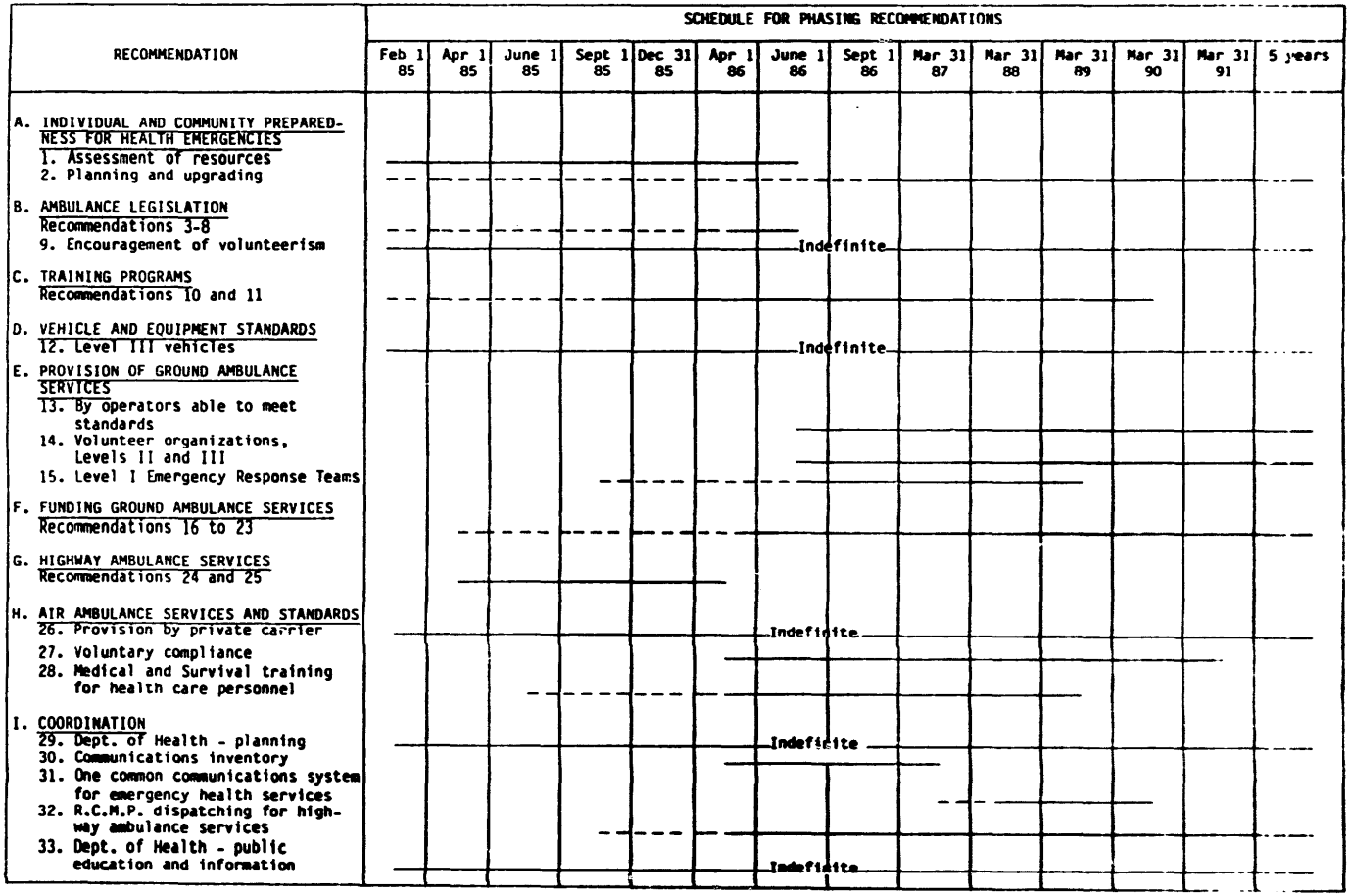
Recommendation 3 - enactment of legislation (21)
Recommendation 4 - content of legislation (22)
Recommendation 29 - planning for emergency health services (42)
Recommendation 33 - public information and education (45)

Phasing of Recommendations

A recommended schedule for phasing in the recommendations of the committee is depicted in the accompanying chart. The schedule outlines a five-year phase-in period.

The committee members consider that each of the thirty-three recommendations is an important building block in the development of an ambulance services policy for the N.W.T. Nevertheless, priorities among the recommendations must be recognized. The enactment of legislation must occur first (Recommendations 3 and 4), thereby setting the stage for all subsequent program innovations.

CHART A. PHASING OF RECOMMENDATIONS



Dotted lines indicate periods of planning, development.
Solid lines indicate periods of implementation.

Second priority must be given to the development of rational funding mechanisms (Recommendations 16 to 23) in order that the standards set in legislation can be achieved.

Cost of Recommendations

The potential costs of implementing the committee's recommendations are summarized in the accompanying table. The figures represent the gross costs of operating ground ambulance services based on the recommendations in this report, and are expressed in 1984 constant dollars.

The figures do not account for current costs or for potential revenues from third parties and from user fees. The costs itemized in the table would be shared by the Department of Health and Health and Welfare Canada (Recommendation 18).

The two schemes described in the table differ with respect to the staffing costs for ambulance services in the larger communities (Level I), with Scheme 1 generating the lower cost.

In effect the two schemes describe a range of possible staffing profiles and costs. The committee considered such a range necessary so that the characteristics and circumstances unique to each Level I community can be taken into account in the planning of ambulance services. For example, in the smaller Level I communities, a staff complement of six full-time attendants (Scheme 2) would be difficult to justify due to the probability of relatively few calls per year. On the other hand, in the intermediate size Level I communities, a staff complement of only one full-time attendant (Scheme 1) may not be adequate.

It is highly likely that the ideal situation may lie somewhere between Schemes 1 and 2, once the unique circumstances of each community have been considered.

Conclusion

The members of the committee consider that the principles and recommendations offered here represent an important first step in the improvement of emergency health services in the N.W.T. Furthermore, the recommendations should be achievable within the suggested time frame.

TABLE 4. COST OF RECOMMENDATIONS

I. Scheme 1

Under Scheme 1, the staffing of the ambulance service in Yellowknife would include six full-time attendants. In each of the other seven Level I communities, the staffing would include one full-time attendant and a corps of volunteers.

	FISCAL YEAR				
COST ITEMS	**1986/87**	**1987/88**	**1988/89**	**1989/90**	**1990/91**
CAPITAL					
Vehicles and Equipment					
Level I	149,000	137,000	132,500	51,500	6,500
Level II	84,000	85,600	87,200	109,800	111,800
Level III	15,000	16,500	18,000	19,500	23,500
Total	248,000	239,100	237,700	180,800	141,800
Storage Facilities					
Level II	120,000	120,000	120,000	120,000	120,000
Training Programs					
Computer Equipment	20,000	-	-	-	-
TOTAL	**388,000**	**359,000**	**357,700**	**300,800**	**261,800**
OPERATING COSTS					
Level I	1,055,565	1,055,565	1,055,565	1,055,565	1,055,565
Level II	170,400	340,800	511,200	724,200	937,200
Level III	45,000	90,000	135,000	180,000	232,500
TOTAL	**1,270,965**	**1,486,365**	**1,701,765**	**1,959,765**	**2,225,265**
TRAINING COSTS					
Personnel	110,000	110,000	110,000	90,000	90,000
Course materials and Tuition	9,400	10,700	10,700	7,600	8,200
Travel	18,000	18,000	18,000	15,000	15,000
Other	17,000	17,000	17,000	10,500	10,500
TOTAL	**154,400**	**155,700**	**155,700**	**123,100**	**123,700**
EMERGENCY RESPONSE TEAMS					
Training Costs	6,600	6,600	9,900	-	-
TOTAL	**6,600**	**6,600**	**9,900**	-	-
CENTRAL ADMINISTRATION (G.N.W.T.)	**134,500**	**134,500**	**134,500**	**134,500**	**134,500**
TOTALS	**1,954,465**	**2,142,165**	**2,359,565**	**2,518,165**	**2,745,265**

TABLE 4. Continued.

II. Scheme 2

Under Scheme 2, the staffing of ambulance services in all eight Level I communities would include six full-time attendants.

	FISCAL YEAR				
COST ITEMS	**1986/87**	**1987/88**	**1988/89**	**1989/90**	**1990/91**
CAPITAL					
Vehicles and Equipment					
Level I	149,000	137,000	132,500	51,500	6,500
Level II	84,000	85,600	87,200	109,800	111,800
Level III	15,000	16,500	18,000	19,500	23,500
Total	248,000	239,100	237,700	180,800	141,800
Storage Facilities					
Level II	120,000	120,000	120,000	120,000	120,000
Training Programs					
Computer Equipment	20,000	-	-	-	-
TOTAL	**388,000**	**359,000**	**357,700**	**300,800**	**261,800**
OPERATING COSTS					
Level I	2,318,400	2,318,400	2,318,400	2,318,400	2,318,400
Level II	170,400	340,800	511,200	724,200	937,200
Level III	45,000	90,000	135,000	180,000	232,500
TOTAL	**2,533,800**	**2,749,200**	**2,964,600**	**3,222,600**	**3,488,100**
TRAINING COSTS					
Personnel	110,000	110,000	110,000	90,000	90,000
Course materials and Tuition	9,400	10,700	10,700	7,600	8,200
Travel	18,000	18,000	18,000	15,000	15,000
Other	17,000	17,000	17,000	10,500	10,500
TOTAL	**154,400**	**155,700**	**155,700**	**123,100**	**123,700**
EMERGENCY RESPONSE TEAMS					
Training Costs	6,600	6,600	9,900	-	-
TOTAL	**6,600**	**6,600**	**9,900**	-	-
CENTRAL ADMINISTRATION (G.N.W.T.)	**134,500**	**134,500**	**134,500**	**134,500**	**134,500**
TOTALS	**3,217,300**	**3,405,000**	**3,622,400**	**3,781,000**	**4,008,100**

I. INTRODUCTION

A. Formation of the Committee

The need for a comprehensive ambulance services policy for the Northwest Territories has become apparent for a number of reasons. In recent years municipalities providing ambulance services have expressed concern over the absence of legislative authority and adequate funding for the provision of the service. The expansion and increased usage of the N.W.T. highway system, and the lack of formal arrangements for highway ambulance services have further highlighted the need for a comprehensive policy.

In November of 1983, the Executive Director of the Northwest Territories Association of Municipalities wrote to the Commissioner of the Northwest Territories summarizing the concerns of the Association's members, and asked that action be taken on the matter of ambulance services policy.[1] The Commissioner then requested that the Departments of Health and Local Government "work together to investigate the establishment of an ambulance services policy for the N.W.T."[2]

[1] Letter from Anita Perry, Executive Director, Northwest Territories Association of Municipalities to Commissioner John Parker, November 9, 1983.

[2] Letter from Commissioner John Parker to Anita Perry, Executive Director, Northwest Territories Association of Municipalities, November 14, 1983.

Subsequent to the Commissioner's request, the Minister of Health appointed the Air and Ground Ambulance Policy Advisory Committee, in April, 1984. The committee was instructed to advise the Department of Health on the development of legislation, regulations and policy with respect to the transportation of medical patients.

Briefly stated, the duties of the committee were to review existing services, legislation, funding mec[illegible] and other aspects of ambulance services in the Northwest Territories and other jurisdictions in Canada, to identify current deficiencies with respect to ambulance services in the N.W.T., and to formulate recommendations for improving existing services. The complete terms of reference are contained in Appendix 1.

In interpreting the terms of reference, the committee members did not consider their role to be the design in detail of ambulance services for the Northwest Territories. Rather, the committee's role was viewed as the formulation of general recommendations to guide the Department of Health in the development of ambulance services policy.

B. Method of Operation

The committee met on twelve occasions between June 22, 1984 and January 11, 1985. The members conducted their work in two phases as outlined in the terms of reference (Appendix 1). The first phase consisted of a review of current services and their deficiencies as well as a review of other jurisdictions. Much of the information on current services in the N.W.T. was acquired by surveying municipalities, Regional offices of the Government of the Northwest Territories, and Health and Welfare field personnel.

Because uniform reporting procedures are not in place for ambulance services in the N.W.T., reliable data describing current ambulance utilization and the costs of current services could not be obtained. The first phase was completed by August, 1984.

The second phase of the committee's work consisted of the formulation of recommendations for improving ambulance services in the N.W.T. The recommendations apply to all aspects of ambulance services such as legislation, standards, provision and coordination of services, funding mechanisms and so on. At one meeting during this phase, the committee invited as a guest speaker Mr. W.J. Tudge from the Alberta Department of Hospitals and Medical Care. Mr. Tudge came to the committee with a wealth of experience in the analysis and development of emergency health services and his presentation was highly informative.

This preliminary report summarizes the committee's findings and recommendations to date. In part C of Section I, the committee has included their definition of the term "ambulance". The place of ambulance services in the broader context of emergency health services is described in part D of Section I. The first phase of the committee's work, the analysis of current services, is summarized in Section II and in Appendices 2 to 5. The recommendations of the committee are contained in Section III of the report. Possible time frames for implementation, and the potential costs of the recommendations are described in Section IV.

Prior to the preparation of their final report the members hope to circulate the preliminary report to interested organizations and individuals in the N.W.T. in order to invite input from a wider audience.

C. Definition of Ambulance

In order to define more precisely the scope of the study, the committee developed a definition of the term "ambulance":

> An ambulance is a conveyance used or intended to be used and which is equipped for the purpose of transporting a person who is sick, injured, incapacitated or otherwise in need of immediate medical care and requires transportation.

This definition encompasses all "conveyances", including methods of ground, air and water transportation.

D. Ambulance Services: One Component of Emergency Health Services

It is essential to acknowledge that ambulance services comprise only one component in the continuum of emergency health services. This continuum begins at the moment when a person first experiences a health emergency until that person is under care in the facility that is best suited to meet his or her emergency health care needs, and the emergency is passed. High quality emergency health care is possible only when all stages in the continuum, including ambulance services, are of an acceptable quality, and coordination of the various stages is achieved.

Although the committee's terms of reference were restricted to the study of ambulance services, several general recommendations are made later in this report which acknowledge the importance of other components in the emergency health services network.

II. ANALYSIS OF CURRENT SERVICES

A. Individual and Community Capabilities for Emergency Health Care

One component of the emergency health services network which precedes the ambulance component is the concept of individual and family preparedness for health emergencies. The concept of individual responsibility in the prevention of health emergencies and in dealing with such emergencies when they occur cannot be overemphasized. Ideally, everyone should be familiar with basic first aid procedures and should know who to contact in order to gain access to more sophisticated emergency health care in the community. Information on the levels of individual and family preparedness for health emergencies is lacking, and a study of this kind would have been beyond the terms of reference and the resources of this committee. However, in Section III, the committee has recommended measures to redress this lack of information.

Ambulance services fall within the broader concept of community capabilities for the provision of emergency health

care. This concept encompasses the availability and organization of resources at the community level which make possible the provision of more advanced emergency care to those in need. These resources include: ambulance services within the community; health care facilities, equipment, supplies and personnel; methods of communication with other communities; and a means of moving patients to communities with more sophisticated treatment resources. A comprehensive analysis of all the resources available in each community was beyond the terms of reference and the resources of the committee, which confined its work to the study of ambulance services. However, in section III the committee has recommended measures which would improve the current knowledge of community capabilities for emergency health care.

B. Current Ambulance Services

1. Introduction

By means of questionnaires, the members of the committee collected information on existing ambulance services in the N.W.T., including information about ambulance personnel, material and financial resources, and the organization and administration of services. Ambulance services in the N.W.T. consist of three components: ground, highway and air ambulance services.

2. Ground Ambulance Services

a) Communities With Ambulance Services

There are eight communities in the Northwest Territories with ground ambulance services: Frobisher Bay, Fort Smith, Hay River, Pine Point, Fort Simpson, Yellowknife, Edzo and Inuvik (refer to Appendix 2 - Communities with Ground Ambulance Services). In five of these communities the ambulances are owned and operated by the municipality, usually out of the local firehall (Frobisher Bay, Fort Smith, Hay River, Fort Simpson and Yellowknife). In Pine Point the ambulance is owned and operated by Pine Point Mines (Cominco). Health and Welfare Canada owns and operates the Edzo ambulance. The St. John Ambulance operates the ambulance in Inuvik.

Staffing patterns are variable; however, one common characteristic in most communities is the participating of volunteers in the provision of ambulance services. In Yellowknife and Fort Smith, fire department staff also work as ambulance drivers and attendants. In Pine Point, employees of Pine Point Mines staff the ambulance.

The levels of staff training are also variable. Training does not exceed St. John Ambulance Advanced First Aid and Cardiopulmonary Resuscitation (CPR) in any of the communities. In most of the eight communities ambulance attendants are trained only to the level of Standard First Aid and CPR.

There is no uniformity with respect to standards for ambulance vehicles and equipment in the Northwest Territories. In Frobisher Bay and Inuvik, Ontario standards are the benchmark. In Fort Smith, Hay River and Pine Point the ambulances have been described as meeting "basic standards"; however, these are not defined. Information on vehicles and equipment standards for the ambulances in Edzo and Fort Simpson is not available. In Yellowknife, ambulance vehicles and equipment are said to meet those of "emergency response units in the provinces".

The lack of uniformity with respect to standards for staff training, vehicles and equipment is largely attributable to the absence of legislation in the Northwest Territories governing the provision of ambulance services. This void affects other aspects of ambulance services including funding mechanisms.

No systematic method for funding ambulance services has been developed yet in the N.W.T. As Appendix 2 illustrates, there are as many methods of funding as there are communities providing the service. The communities are often left to fend for themselves in providing sufficient resources.

With respect to the coordination of services, the most significant shortcoming has been the absence of system-wide planning and development initiatives for emergency health services. Until now, the Territorial Government has not acknowledged any responsibility for this function.

b) Communities Without Ambulance Services

Most communities in the N.W.T. do not have dedicated ambulance services (see Appendix 3). Patients are transported by a variety of ad hoc means including vehicles of the municipal, territorial and federal governments, the R.C.M.P., volunteers, relatives and by taxis. In many cases, the cost of the service is absorbed by the organizations or individuals providing the service. The quality of patient transportation services in these communities is less than desirable in spite of the many well-meaning and dedicated people involved. Once again this is largely attributable to the absence of ambulance legislation and system-wide planning and development of emergency health services, functions which should be the responsibility of the Territorial Government.

3. **Highway Ambulance Services**

Ambulance services are provided on Territorial highways as follows:

a) The ambulance from Yellowknife responds to calls on Highway 4 and on Highway 3 halfway to Rae.

b) The ambulance in Edzo responds to calls on Highway 3 from half way to Yellowknife to Fort Providence.

c) The Hay River ambulance provides coverage on Highway 2 as far as the N.W.T. - Alberta border, on Highway 1 as far as the Mackenzie River crossing, and on Highway 5 to the junction with Highway 6.

d) The Fort Smith ambulance covers Highway 6 from Fort Smith to the junction of Highways 5 and 6.

e) The ambulance from Pine Point Mine provides coverage on Highway 6 from the junction with Highway 5 to Fort Resolution.

f) The ambulance from Fort Simpson provides coverage on parts of Highway 1 and Highway 7 (the Liard Highway).

g) The Dempster Highway is covered from the Yukon Border to Arctic Red River by the nursing station in Fort McPherson. The nursing station responds to calls from the local R.C.M.P. detachment who are usually the first to arrive at the scene of an accident. The ambulance in Inuvik only covers the town limits. Thus, ambulance coverage on the Dempster Highway from Arctic Red River to Inuvik is poor.

h) Fixed wing or rotary aircraft are called to the scene of an accident as required.

No formal policies or procedures have ever been developed regarding ambulance coverage, either by road or by air, for N.W.T. highways. Municipalities with ambu-

lances have been reluctant to guarantee such services for several reasons. First of all, the municipal councils believe highway ambulance coverage is the responsibility of the Territorial Government. Secondly, when an ambulance is responding to a highway call it is unavailable for service in the community. Finally the municipalities, by providing highway coverage, believe they are subsidizing the Territorial Government.

Those municipalities on the highway that currently provide ambulance services were asked how highway ambulance services could be shared between the municipalities assuming the appropriate authority and adequate funding were provided by the G.N.W.T. Responses to the question were variable. Four communities expressed an unwillingness to be involved in providing highway ambulance services at all, stating that the Territorial Government should bear this responsibility. Three communities indicated that they would be willing to negotiate with the Territorial Government with respect to ambulance coverage on the highways.

Table I summarizes data on highway accidents in the N.W.T. from 1982 to 1984. During a period of approximately thirty months, 129 injury accidents occurred, of which ten involved fatalities. Ambulance vehicles responded to only 29 percent of these accidents. Aircraft responded in only two known instances. The data illustrate the need for formal arrangements for the provision of ambulance services on N.W.T. highways. This will be especially the case should usage of the highways increase in the future.

TABLE 1. ROAD ACCIDENTS IN THE N.W.T., 1982 - 1984

Community Closest to Accident	Accidents Fatal	Injury	Total	Average Distance from Community (km)	Method of Transport
Fort Smith	1	-	1	10	Ambulance
Pine Point	1	18	19	25	6 Ambulance 9 Private vehicles 4 unknown
Fort Resolution	-	3	3	10	3 Ambulance
Hay River	4	15	19	50-56	4 Ambulance 15 unknown
Fort Providence	-	15	15	57	5 Police vehicles 2 Ambulance 7 Private vehicles 1 unknown
Fort Simpson	-	9	9	31	1 Helicopter 3 Ambulance 5 Private vehicles
Fort Rae	3	24	27	50	6 Ambulance 21 Private vehicle
Yellowknife	-	21	21	27	9 Ambulance 5 Private Vehicle 7 unknown
Fort Liard	-	5	5	21	3 Private vehicle 1 Police vehicle 1 Police aircraft to Fort Nelson
Inuvik	1	7	8	21	2 Ambulance 6 Private Vehicle
Fort MacPherson	-	2	2	10	2 Nursing Station vehicle

TABLE 1. ROAD ACCIDENTS IN THE N.W.T., 1982-1984.

Notes to Table 1:

1. The data describes only accidents in which there were injuries (both fatal and non-fatal).

2. For an accident in which there were both fatalities and non-fatal injuries, the accident would only be counted in the fatal column.

3. The numbers describe the numbers of accidents, not fatalities and injuries.

4. Injuries include even very minor injuries.

5. The distances from communities are averages.

6. The data covers approximately 30 months.

7. Total accidents:

Non-fatal	119
Fatal	10
Total	129

8. Average distance from community = 31 km.

9. Percent of times vehicles used for transport:

Ambulance	29%
Private vehicle	43%
Police vehicle	5%
Nursing station vehicle	1%
Helicopter	1%
Police Aircraft	1%
Unknown	21%

Data supplied by the Royal Canadian Mounted Police.

4. Air Ambulance Services

Persons requiring transportation by air for medical reasons are transported by private air carriers, the most prominent being Northwest Territorial Airways, Nordair, First Air, Bradley Air Services, Kenn Borek Air, Adlair, Calm Air, Keewatin Air, P.W.A., Aklak Air and Ptarmigan Air (see Appendix 4). Depending on the patient's circumstances, the airfare for the patient as well as any medical and non-medical escorts is paid by one of the following: the patient's employer, Health and Welfare Canada, the Government of the Northwest Territories (Medical Transportation Program) or other agents as the case may be (eg. Workers' Compensation Board).

None of the aircraft used for medical evacuations in the N.W.T. have ambulance equipment on board, with the exception of some craft which have electrical outlets for incubators. Otherwise, equipment and supplies, usually in the form of standard portable medical evacuation kits are supplied by the institutions from which the patients are being evacuated (nursing stations and hospitals). Care on board the aircraft is provided by nurses from the institutions from which the patients are being evacuated, and occasionally by physicians.

Emergency medical evacuations are usually ordered by Health and Welfare nursing staff in the nursing stations, or by physicians or nurses in hospitals. Health and Welfare staff are issued guidelines for this purpose[3].

Several problems have been identified with respect to air ambulance services:

a) Many of the aircraft used for medical evacuations are cramped, and are poorly heated in winter.

b) The requirement for medivac personnel to provide the necessary equipment is not perceived to be a problem. However, the need for more electrical outlets for electrical equipment has been identified.

c) The survival training for medivac personnel is inadequate.

d) Very few medivac personnel have received medical training specific to medical evacuations by air.

[3]Health and Welfare Canada. Interim Guidelines for Air Travel and Patient Evacuation.

C. Weaknesses in Current Services

Based on their analysis of current ambulance services in the Northwest Territories, the members of the committee have identified the following inadequacies:

1. It has not been made clear who is responsible for ensuring the provision of ambulance services in the N.W.T.

2. There is no legislation or legislative authority for the establishment and provision of ambulance services.

3. No uniform standards for ambulance services have been established.

4. Ambulance services are not monitored or inspected by any authority other than the operators themselves.

5. Adequate formal procedures for coverage of the N.W.T. highway system have never been developed.

6. The level of service in most localities is low with respect to ground ambulance services. In many settlements the service is provided by anyone who happens to have a vehicle available at the time of need.

7. Ground ambulance services in many localities are largely dependent on volunteers who eventually move away, thus creating a lack of continuity in service.

8. There are no uniform funding mechanisms in place for ground ambulance services.

9. Coordination among the various components of the emergency health services network is inadequate.

10. There is a need for an improved communications system between the various components of the emergency health services network.

11. Uniform information reporting procedures are not in place for ambulance services in the N.W.T.

12. Liability insurance coverage is an important concern of the operators of ground ambulance services.

The committee has developed a comprehensive set of recommendations intended to address these weaknesses. In developing their recommendations, the committee often gave consideration to the characteristics of ambulance services in other jurisdictions in Canada.

D. Ambulance Services in Other Jurisdictions

Included in the terms of reference of the committee was an instruction to examine ambulance services in other jurisdictions in Canada. This examination was completed during the first phase of the committee's work and the results are summarized in Appendix 5 - Ambulance Services in Other Jurisdictions. This information served as one source of ideas as the members of the committee developed their recommendations.

III. NEW DIRECTIONS FOR EMERGENCY HEALTH SERVICES

A. Introduction

The weaknesses in current services summarized in part II C indicate the need for major changes to most aspects of ambulance services in the Northwest Territories. These weaknesses cannot be attributed to those who have been providing the services over the years. On the contrary, if the list on page 12 is examined carefully a common theme appears, that being the absence of a central leadership role. That role should be assumed by the Government of the Northwest Territories.

Ambulance services constitute a part of the health care system, and as such are the responsibility of the Territorial Government. This is in keeping with similar interpretations and practices in all other jurisdictions in Canada except the province of Alberta, where the province has delegated much of its responsibility for ambulance services to the municipalities.

Using the interpretation above as a beginning point, the committee has formulated a series of recommendations which, if implemented, should result in significant improvements in emergency health services in the Northwest Territories.

The recommendations are based on the following six principles:

1. Ambulance services are one component of a broader emergency health services network.

2. All N.W.T. communities should have access to basic ambulance services.

3. Uniform standards should apply to ambulance services in the N.W.T.

4. The current mix of community, volunteer and privately operated ambulance services should be maintained.

5. Adequate financial resources should be provided such that basic levels of services with uniform standards can be achieved throughout the N.W.T.

6. Ambulance services are a health matter, and therefore are the responsibility of the Government of the Northwest Territories.

In the scenario described by the recommendations, the Government of the Northwest Territories would assume responsibility for the planning, regulation, funding and coordination of emergency health services, including ambulance services.

Their terms of reference limited the committee to an examination of ambulance services. Nevertheless, committee members are of the view that ambulance services should not be studied and altered in isolation from other aspects of emergency health care. Therefore, the first two recommendations recognize the existence of an emergency health care system and the requirement to examine and upgrade as necessary all components of the system.

B. Individual and Community Preparedness for Health Emergencies

As discussed in part I D, it is essential to recognize ambulance services as only one of the components of an emergency health care network. Improvements in ambulance services should not be made without giving consideration to other components of the network. Just as important are individual and family preparedness for health emergencies, and the broader concept of community capabilities for providing emergency health care (which includes ambulance services). Current knowledge regarding these components of the network is lacking. Therefore, the committee proposes the following recommendations:

RECOMMENDATION 1

THAT THE DEPARTMENT OF HEALTH AND HEALTH AND WELFARE CANADA EXAMINE THE EMERGENCY HEALTH CARE RESOURCES, INCLUDING INDIVIDUAL AND FAMILY PREPAREDNESS FOR HEALTH EMERGENCIES, CURRENTLY AVAILABLE IN N.W.T. COMMUNITIES, AND THAT A RISK RATING BE DEVELOPED FOR EACH COMMUNITY.

Certainly the two levels of government have a responsibility to ensure that emergency health care resources are adequate. However, individuals and families also bear an important responsibility, especially with respect to preventing health emergencies and coping with them when they occur. Consequently, there is an onus on individuals to become familiar with simple preventive measures and basic first aid.

RECOMMENDATION 2

THAT HEALTH CARE PLANNING BY THE FEDERAL AND TERRITORIAL GOVERNMENTS INCLUDE SPECIFIC ATTENTION TO UPGRADING EMERGENCY HEALTH CARE RESOURCES AS NECESSARY BASED ON THE RISK RATINGS REFERRED TO IN RECOMMENDATION 1.

C. Ambulance Legislation

Any major changes initiated by the Territorial Government with respect to ambulance services should be based in legislation clearly stating government policy concerning roles and responsibilities, standards, funding, planning and coordination of ambulance services. Accordingly, the committee makes the following recommendatations:

RECOMMENDATION 3

THAT THE GOVERNMENT OF THE NORTHWEST TERRITORIES ENACT AMBULANCE LEGISLATION CONSISTING OF:

1. A new section to be added to the Public Health Act; and

2. Ambulance Regulations;

RECOMMENDATION 4

THAT THE FOLLOWING PRINCIPLES BE INCORPORATED INTO NEW AMBULANCE LEGISLATION:

1. powers, functions and duties of the Government of the Northwest Territories with respect to ambulance services;

2. a) a section enabling the Government of the N.W.T. to enter into agreements with municipalities or other agents regarding the provision of ground ambulance services, including services to the territorial highway system;

   b) a section to the effect that anyone who can meet the standards can operate an ambulance service, including municipalities, volunteer organizations and private operators.

3. powers of the G.N.W.T. to make regulations pertaining to:

   a) ground ambulance services standards;
   b) air ambulance services standards;
   c) methods for funding ground ambulance services;
   d) measures to coordinate the provision of air and ground ambulance services;
   e) licensure of ambulance operators;

f) information reporting requirements for air and ground ambulance operators;
g) insurance requirements;
h) a section enabling the G.N.W.T. to enter into agreements with air carriers for the provision of emergency air ambulance services;
i) any other regulations that would contribute to the safe, effective and efficient operations of ambulance services in the N.W.T.

Subsequent sections of this report elaborate on most of these principles.

D. Ground Ambulance Services

The weaknesses in current services most severely affect ground ambulance services in the N.W.T. The following recommendations, if implemented, would significantly improve services to N.W.T. residents.

1. Three Levels of Standards

RECOMMENDATION 5

THAT THE DEPARTMENT OF HEALTH ESTABLISH THREE LEVELS OF STANDARDS FOR GROUND AMBULANCE SERVICES.

Because the population of the N.W.T. is small and is distributed among numerous small and widely dispersed communities, one high level of standards for all communities would be too costly. Therefore, different levels of standards are required. Three levels of

standards (Levels I, II and III with Level I being the highest standard) are applicable to the N.W.T. In this scheme there would be three levels for all categories of standards, including vehicles, equipment and staff.

The distribution of N.W.T. communities among the three levels is illustrated in Appendix 6. According to this scheme, there are eight (8) communities in Level I, twenty-two (22) in Level II and thirty-one (31) in Level III.

The criteria used for placing communities in the three levels are outlined below:

The criteria are flexible, especially with respect to the populations of communities. This flexibility permits placement of communities in the three levels based on a consideration of the potential need for ambulance services as well as the sizes of the communities and the availability of health care resources.

Level I Criteria

a) The community has a population of approximately 1000 or more; and

b) The community has a hospital for treating and stabilizing patients in emergencies. There are hospital personnel who could serve on an emergency response team.

Or:

c) The community is in a strategic location on the highway system such that a Level I ambulance service could provide highway coverage. This criterion could qualify a community as being Level I even though it may not fully qualify under the other two criteria.

Level II Criteria:

a) The community has a population of between 500 and 1500; and

b) There is a nursing station or health centre/clinic in the community.

Level III Criteria:

a) The community has a population of approximately 500 or under.

b) Health services consist of a nursing station, health station, lay dispenser, or there are no formal services.

2. Staff Training Standards

RECOMMENDATION 6

THAT AMBULANCE OPERATORS IN LEVEL I COMMUNITIES BE REQUIRED TO HAVE AT LEAST ONE EMT-A (EMERGENCY MEDICAL TECHNICIAN-AMBULANCE) ON THE AMBULANCE STAFF. THAT OTHER STAFF AND VOLUNTEERS, OTHER THAN DRIVERS, BE

REQUIRED TO HAVE TRAINING TO THE LEVEL OF ADVANCED FIRST AID, CARDIOPULMONARY RESUSCITATION AND CASUALTY CARE CERTIFICATION. THAT DRIVERS BE REQUIRED TO HAVE TRAINING TO THE LEVEL OF STANDARD FIRST AID AND CARDIOPULMONARY RESUSCITATION CERTIFICATION.

EMT-A training is available through the Southern Alberta Institute of Technology. The possibility of providing this training in the N.W.T. should be investigated (see Recommendation 10). Training in Advanced First Aid, C.P.R. and casualty care is available through the St. John Ambulance (see part 3 below). If resources permit, training should begin as soon as possible, and preferably by September 1985.

Although the above standard is recommended for Level I communities, the communities of Yellowknife, Hay River, Fort Smith and Inuvik should have one EMT-A attendant on each call. The funding process should encourage this level of staffing for these communities.

RECOMMENDATION 7

THAT THERE BE ONE PERSON WITH TRAINING TO THE EMT-A (EMERGENCY MEDICAL TECHNICIAN-AMBULANCE) LEVEL IN EACH LEVEL II COMMUNITY TO COORDINATE AND PROVIDE ONGOING TRAINING FOR MAINTAINING VOLUNTEER PROFICIENCY LEVELS. THAT IN LEVEL II COMMUNITIES THERE BE AT LEAST ONE PERSON WITH ADVANCED FIRST AID AND CARDIOPULMONARY RESUSCITATION CERTIFICATION ON ALL CALLS. THAT ALL OTHER ATTENDANTS BE REQUIRED TO HAVE STANDARD FIRST AID AND CARDIOPULMONARY RESUSCITATION CERTIFICATION.

RECOMMENDATION 8

THAT IN LEVEL III COMMUNITIES ALL AMBULANCE ATTENDANTS BE REQUIRED TO HAVE A MINIMUM OF STANDARD FIRST AID AND CARDIOPULMONARY RESUSCITATION CERTIFICATION. THAT FOR THOSE COMMUNITIES WITHOUT THE FULL-TIME SERVICES OF A HEALTH PROFESSIOINAL, THERE BE AT LEAST ONE PERSON WITH CERTIFICATION IN ADVANCED FIRST AID AND CARIOPULMONARY RESUSCITATION.

Although the above standard is recommended as a minimum for Level III communities, it would be advantageous to have at least one person with certification in Advanced First Aid and C.P.R. in each community. This person could provide ongoing training to maintain volunteer proficiency levels, and act as a lead person for the volunteers.

RECOMMENDATION 9

THAT THE GOVERNMENT OF THE NORTHWEST TERRITORIES ACTIVELY ENCOURAGE AND PROMOTE VOLUNTEERISM IN THE PROVISION OF AMBULANCE SERVICES IN ALL COMMUNITIES IN THE N.W.T.

Throughout the Northwest Territories the provision of medical transportation is heavily dependant on the participation and goodwill of volunteers., Volunteerism must continue, and be further encouraged, in order to ensure the provision of services of acceptable quality in all communities, but especially in Level II and III communities.

3. Training Programs

RECOMMENDATION 10

THAT THE DEPARTMENTS OF HEALTH AND EDUCATION COOPERATE IN THE ESTABLISHMENT OF AN EMT-A TRAINING PROGRAM FOR LEVEL I AND LEVEL II COMMUNITIES.

The Emergency Medical Technician-Ambulance training program is available from the Southern Alberta Institute of Technology (SAIT) in Calgary. It is a computer managed learning program which can be taught at learning centres in other communities by means of computer terminals linked to the main computer at SAIT. Recommendation 10 would require the Departments of Health and Education to make arrangements for the establishment of a learning centre in one or more Level I communities in the N.W.T. The curriculum is described in Appendix 7. The cost of the training program should be absorbed by the Department of Education (Recommendation 23).

Alternatively, the Department of Education could investigate the possibility of establishing a separate educational program for EMT-A ambulance attendants, using the SAIT program as a model. The N.W.T. program could be delivered through Thebacha College and the Arctic College.

RECOMMENDATION 11

THAT THE DEPARTMENTS OF HEALTH AND EDUCATION MAKE ARRANGEMENTS FOR THE PROVISION OF TRAINING IN ADVANCED

AND STANDARD FIRST AID, C.P.R. AND CASUALTY CARE BY THE ST. JOHN AMBULANCE FOR AMBULANCE ATTENDANTS IN ALL COMMUNITIES IN THE N.W.T.

Recommendation 11 would require the two government departments to make arrangements with the St. John Ambulance to provide ambulance attendant training in Standard and Advanced First Aid, C.P.R. and Casualty Care in all N.W.T. communities. Once again, the cost of these training programs should be paid by the Department of Education (Recommendation 23). These programs should be accessible to nurses employed in Medical Services Branch nursing stations and hospitals.

4. Vehicle and Equipment Standards

A sub-committee has been appointed to develop detailed standards for ambulance vehicles and equipment in Level I, II and III communities. The sub-committee has been given guidelines to use in developing the standards (Appendices 8 and 9). The guidelines describe three levels of standards as summarized below. The sub-committee will be seeking input from the medical and nursing professions and from ambulance operators as necessary.

a) Vehicle Standards.

Level I: Level I communities should have ambulance vehicles designed and constructed to meet principles similar to those in other jurisdictions in Canada.

Level II: Ambulance vehicles in Level II communities need only partially meet the standards applicable to Level I. Level II vehicles should be intended primarily for reasonably comfortable transportation of patients.

Level III: Dedicated ambulance vehicles should not be required in Level III communities. However, formal arrangements should be made with organizations and individuals in these communities such that their vehicles can be used to transport patients when needed. Vehicles should be selected which provide adequate space and comfort for this purpose.

b) Equipment Standards

Level I: A complete list of ambulance equipment should be available in Level I ambulance vehicles (i.e. similar to the list in Appendix 9).

Level II: Ambulance equipment in Level II communities need only be a partial list of the equipment carried in Level I ambulances (see Appendix 9).

Level III: A small list of Ambulance equipment should be supplied for Level III communities. This equipment would be portable and would only be loaded in the vehicle as needed (see Appendix 9).

RECOMMENDATION 12

WITH RESPECT TO LEVEL III COMMUNITIES, THAT THE DEPARTMENT OF HEALTH ENCOURAGE THE VARIOUS FEDERAL AND TERRITORIAL GOVERNMENT DEPARTMENTS, MUNICIPAL COUNCILS AND THE R.C.M.P. TO PLACE VEHICLES IN THESE COMMUNITIES WHICH CAN SERVE AS AMBULANCE VEHICLES AS THE NEED ARISES.

The recommended standards and guidelines for ambulance personnel, vehicles and equipment in Levels I, II and III are summarized in Table 2.

5. The Providers of Ambulance Services

RECOMMENDATION 13

THAT AMBULANCE OPERATORS WHO ARE ABLE TO MEET THE STANDARDS SPECIFIED BY THE GOVERNMENT OF THE NORTHWEST TERRITORIES BE PERMITTED TO PROVIDE GROUND AMBULANCE SERVICES.

As described in part II of this report, Ambulance services are currently provided in Level I communities by the municipalities, Health and Welfare Canada, Pine Point

TABLE 2. RECOMMENDED STANDARDS FOR GROUND AMBULANCE SERVICES

CATEGORY	LEVEL I	LEVEL II	LEVEL III
STAFF TRAINING	One Emergency Medical Technician-Ambulance on staff. Other staff and volunteers, except drivers, to have certification in Advanced First Aid C.P.R. and Casualty Care. Drivers to have certification in Standard First Aid and C.P.R.	One Emergency Medical Technician-Ambulance in the community to coordinate training of volunteers. One person with certification in Advanced First Aid and C.P.R. on all calls. Other attendants to have certification in Standard First Aid and C.P.R.	All ambulance attendants to have certification in Standard First Aid and C.P.R. One person with Advanced First Aid and C.P.R. certification in communities that do not have full-time services of a health professional.
VEHICLES	Dedicated vehicles to meet standards similar to those in other jurisdictions in Canada. Details to be recommended by a standards sub-committee.	Dedicated vehicles to partially meet Level I vehicle standards. Details to be recommended by a standards sub-committee.	Dedicated vehicles not required. Availability of designated vehicles with stretcher capacity in Level III communities.
EQUIPMENT	Complete list of equipment meeting standards similar to those in other jurisdictions in Canada. Details to be recommended by standards sub-committee.	Partial list of equipment to be derived from Level I list. Details to be recommended by standards sub-committee.	Small list of equipment to be derived from Level I and II lists. Placed in vehicle as needed. Details to be recommended by standards sub-committee.

Mine (in Pine Point) and the St., John Ambulance (in Inuvik), as the case may be. It is preferable that this mix of privately and publicly owned ambulance services be encouraged to continue in Level I communities. The recommendation should also apply to services in Level II and III communities.

RECOMMENDATION 14

THAT THE DEPARTMENTS OF HEALTH AND EDUCATION, IN COOPERATION WITH THE ST. JOHN AMBULANCE, PROMOTE THE DEVELOPMENT OF VOLUNTEER ORGANIZATIONS IN LEVEL II AND LEVEL III COMMUNITIES WHICH WOULD BE RESPONSIBLE FOR PROVIDING AMBULANCE SERVICES IN THESE COMMUNITIES.

Volunteerism should be an essential component of ambulance services in N.W.T. communities. The creation of volunteer organizations to provide ground ambulance services would promote continuity of service in the communities. This recommendation is not intended to eliminate the option of privately-owned ambulance services. Rather, it is intended to ensure that the service will be provided in all communities.

RECOMMENDATION 15

THAT THE DEPARTMENT OF HEALTH ENCOURAGE THE FORMATION OF EMERGENCY RESPONSE TEAMS IN LEVEL I COMMUNITIES.

Emergency Response teams would be composed of regular ambulance personnel augmented by physicians or by

hospital nursing staff with special training in emergency care. The physician and nurse members of the teams would be able to perform certain functions that EMT-A ambulance attendants are not qualified to perform. These emergency response teams would respond to ambulance calls of a serious nature for which EMT-A attendants would not have the necessary expertise or authority to deal with alone. In addition, members of emergency response teams could serve as medical escorts on emergency medical evacuations by air, in cases where their particular expertise would be required.

6. Funding Ground Ambulance Services

As described in part II, no uniform funding arrangements exist for ground ambulance services in the Northwest Territories. The eight communities with ambulance services have had to fund their services by whatever means available. Consequently, the amounts and mechanisms for funding are widely variable and inequitable. If improved services based on uniform territory-wide standards for Levels I, II and II are to be achieved, rational funding mechanisms must be created which are uniform and equitable. Moreover, in keeping with the interpretation that ambulance services are a Territorial Government responsibility, municipalities should no longer have to bear the burden of the cost of ambulance services.

RECOMMENDATION 16

THAT THE GOVERNMENT OF THE NORTHWEST TERRITORIES ASSUME RESPONSIBILITY FOR FUNDING GROUND AMBULANCE SERVICES IN THE NORTHWEST TERRITORIES.

RECOMMENDATION 17

THAT FINANCIAL INPUT FROM FEDERAL, TERRITORIAL AND PRIVATE INSURANCE AGENCIES CONTINUE AS A SOURCE OF FUNDING FOR GROUND AMBULANCE SERVICES.

Many residents of the N.W.T. qualify for benefits under private health insurance plans through their place of employment. These plans often include reimbursement for ambulance fees. Similar benefits are available through the Workers' Compensation Boards. These sources of funds should continue.

Notwithstanding Recommendation 16, the committee recognizes that the Federal Government, by virtue of its Indian Health Policy, bears the responsibility for the health care costs of native people in the N.W.T. Therefore, while the responsibility for ground ambulance services rests with the Territorial Government, the Federal Government should share the cost of the services.

RECOMMENDATION 18

THAT ALL COSTS OF GROUND AMBULANCE SERVICES BE SHARED BY THE TERRITORIAL AND FEDERAL GOVERNMENTS BASED ON THEIR RESPECTIVE RESPONSIBILITIES FOR THE HEALTH CARE OF N.W.T. RESIDENTS.

The costs of providing ambulance services include the following: (a) capital costs (vehicles, equipment, storage facilities, upgrading of facilities for the provision of emergency care, and any capital costs related to training); (b) operating costs; (c) training costs; and (d) central administrative costs (Territorial and Federal Governments).

The possible sources of funds include the Territorial and Federal Governments, user fees, and private and corporate donations. There are several methods for financing operating costs:

(a) program financing based on operating budgets;
(b) per capita grants to operators; and
(c) per trip payments to operators.

With respect to the above costs, and the sources and methods of funding, the committee proposes the following recommendations:

RECOMMENDATION 19

THAT OPERATING COSTS FOR GROUND AMBULANCE SERVICES BE FINANCED BY MEANS OF PROGRAM FUNDING BASED ON ANNUAL BUDGET SUBMISSIONS TO THE DEPARTMENT OF HEALTH.

It is the view of the committee that program funding represents the most equitable and efficient means of financing the operating costs for ground ambulance services.

RECOMMENDATION 20

THAT WHERE FEASIBLE, USER FEES BE MAINTAINED AS A SOURCE OF OPERATING REVENUE, AND THAT THE TERRITORIAL GOVERNMENT ESTABLISH THE AMOUNT OF SUCH USER FEES FOR PERSONS WHO DO NOT HAVE COVERAGE FROM SEPARATE FEDERAL, TERRITORIAL OR PRIVATE INSURANCE AGENCIES.

User fees have value as a deterrent to the abuse of ambulance services and should be an integral part of the financing structure. It may be necessary to consider different rates for the three levels of communities.

RECOMMENDATION 21

THAT THE CAPITAL COSTS OF GROUND AMBULANCE SERVICES BE FINANCED BY THE DEPARTMENT OF HEALTH, SUBJECT TO RECOMMENDATION 18.

Various methods of financing capital costs should be investigated. One option would be the provision of start-up capital funding followed by funding in subsequent years based on depreciation. Alternatively, the Government of the Nortnwest Territories could purchase all vehicles and equipment and lease them to the ambulance operators.

RECOMMENDATION 22

THAT ALL CAPITAL AND OPERATING COSTS RELATED TO THE TRAINING OF AMBULANCE ATTENDANTS, INCLUDING PAID STAFF AND VOLUNTEERS, BE THE RESPONSIBILITY OF THE DEPARTMENT OF EDUCATION, SUBJECT TO RECOMMENDATION 18.

RECOMMENDATION 23

THAT A COMMON ACCOUNTING AND REPORTING SYSTEM BE ESTABLISHED FOR AMBULANCE OPERATORS, WITH FINANCIAL AND STATISTICAL DATA BEING REPORTED REGULARLY TO THE DEPARTMENT OF HEALTH.

The committee is of the view that if the above recommendations pertaining to the funding of ambulance services are implemented significant progress can be made in achieving improved ground ambulance services in the N.W.T.

E. Highway Ambulance Services

The Northwest Territories has long isolated stretches of highway for which no formal policies or procedures have ever been developed regarding ambulance coverage, either by road or by air. The committee considers this a major weakness in current ambulance services.

RECOMMENDATION 24

THAT THE DEPARTMENT OF HEALTH ESTABLISH POLICIES AND PROCEDURES FOR AMBULANCE SERVICE COVERAGE OF THE ENTIRE N.W.T. HIGHWAY SYSTEM, INCLUDING WINTER ROADS.

The implementation of Recommendation 24 would require the development of zones of coverage by ground and air ambulance services. To define zones of ground ambulance coverage, specific criteria would have to be established, such as turn-around time (summer and winter), general

road conditions, the level of ambulance service available (I or II), the condition of the patient, and so on.

Air ambulance coverage would be necessary in areas outside ground ambulance zones, and inside ground ambulance zones when circumstances warrant (e.g. critically injured patients).

Ideally, ground ambulance services would be provided on the highway system by ambulance operators from communities located on the highways. However, as described in Part II B3, some of the municipalities that would be affected by such policies and procedures have legitimate concerns which would make them reluctant to provide highway coverage. The Department of Health will have to acknowledge these concerns when establishing highway coverage.

RECOMMENDATION 25

THAT THE DEPARTMENT OF HEALTH NEGOTIATE WITH MUNICIPALITIES AND AMBULANCE OPERATORS REGARDING THE PROVISION OF GROUND AMBULANCE SERVICES ON THE N.W.T. HIGHWAY SYSTEM.

F. Air Ambulance Services

1. Provision of Air Ambulance Services

Currently, air ambulance services are provided almost entirely by private air carriers, as described in Part II B4. This practice should continue.

RECOMMENDATION 26

THAT AIR AMBULANCE SERVICES IN THE N.W.T. CONTINUE TO BE PROVIDED PRIMARILY BY PRIVATE AIR CARRIERS AS IS CURRENTLY THE CASE.

2. Air Ambulance Standards

The committee is of the view that uniform standards are necessary for air ambulance services. To this end, the sub-committee described on page 29 has been assigned the additional task of developing air ambulance standards for the N.W.T.

Some of the matters the sub-committee will be considering are:

(a) the desirable characteristics of the aircraft used for emergency evacuations;

(b) the equipment requirements for aircraft (medical and survival equipment);

(c) the equipment and supply requirements for portable medical evacuation kits carried on board by health care personnel;

(d) any special training requirements for flight crews and medivac personnel;

(e) communication needs for medivacs (e.g. aircraft-to-hospital communication); and

(f) any other matters considered relevant to air ambulance standards.

RECOMMENDATION 27

THAT ANY AIR AMBULANCE STANDARDS WHICH WOULD DIRECTLY AFFECT THE AIR CARRIERS BE IMPLEMENTED BY MEANS OF VOLUNTARY COMPLIANCE ON THE PART OF THE AIR CARRIERS.

The committee is of the view that to implement air ambulance standards by means of compulsory measures would be inappropriate at this point in time. The success of the voluntary compliance referred to in Recommendation 29 should be evaluated after five years. If the voluntary approach is found to be inadequate, then standards should be established in the ambulance legislation.

RECOMMENDATION 28

THAT HEALTH CARE PERSONNEL REQUIRED TO SERVE AS MEDICAL ESCORTS ON AIR MEDICAL EVACUATIONS BE GIVEN ADEQUATE TRAINING IN SURVIVAL SKILLS AND IN THE ACUTE CARE SKILLS NEEDED FOR MEDICAL EVACUATIONS.

There is concern regarding the amount of training provided to medivac personnel in survival skills and acute care skills such as intravenous therapy and cardiac monitoring.

G. Coordination of Emergency Health Services

To an extent, the preceding recommendations contain an element of coordination, either implicitly or explicitly. This is so because part of the general intent of all the recommendations is to achieve harmonious and integrated functioning of all components of the emergency health services network. Nevertheless, the committee has identified some specific aspects of coordination. The recommendations in this section propose that the responsibility for certain coordination functions be assumed by the Government of the Northwest Territories.

1. Planning

RECOMMENDATION 29

THAT THE DEPARTMENT OF HEALTH BE RESPONSIBILE FOR SYSTEM-WIDE PLANNING FOR EMERGENCY HEALTH SERVICES, WITH INPUT FROM AMBULANCE OPERATORS, HOSPITALS, PRIVATE AIR CARRIERS, HEALTH CARE PROFESSIONALS, HEALTH AND WELFARE CANADA AND OTHER ORGANIZATIONS AND INDIVIDUALS AS NECESSARY.

As part of this planning process, the Department of Health could conduct periodic reviews of emergency health services in the N.W.T. in order to identify and solve significant deficiencies in the system.

2. Communications

The facility for rapid and direct communication between the various components of the emergency health care system can greatly enhance system performance. Consolidated information is lacking with respect to communications capabilities as they affect emergency health services in the N.W.T. Therefore the committee makes the following recommendation:

RECOMMENDATION 30

THAT THE GOVERNMENT OF THE NORTHWEST TERRITORIES PREPARE A COMPREHENSIVE INVENTORY OF COMMUNICATIONS CAPABILITIES IN THE N.W.T. AS THEY RELATE TO EMERGENCY HEALTH CARE, SUCH INFORMATION TO BE SHARED WITH INTERESTED ORGANIZATIONS WHERE APPROPRIATE.

In keeping with the desirability of rapid and direct communication between the various components of the emergency health care network, the committee makes the following recommendation:

RECOMMENDATION 31

THAT ONE COMMON COMMUNICATION SYSTEM BE SET IN PLACE MAKING POSSIBLE DIRECT COMMUNICATION BETWEEN ALL COMPONENTS OF THE EMERGENCY HEALTH SERVICES NETWORK.

The Standing Group on Communications has made recommendations with respect to the communications needs of the

federal and territorial governments.[4] The implementation of their recommendations could have an impact on emergency health services communications. If a common communication system for emergency health services is to be established (Recommendation 33), this should be done in consultation with the Standing Group on Communications.

3. Dispatching

In the committee's view there is no need to change substantially the current arrangements for dispatching ambulances in Level I communities. With respect to ground ambulance services, regionalized dispatching should not be necessary. Dispatching should continue to be centred in each community where there is an ambulance service.

Air ambulance services should continue to be dispatched by Health and Welfare field personnel and by hospitals as necessary.

On the highway system where it may sometimes be difficult for dispatchers to determine which ambulance service should respond, the responsibility for the dispatching decision should rest with a third party. Accordingly, the committee makes the following recommendation:

[4] Task Force (Standing Group on Communications). Needs Analysis: Federal Government and G.N.W.T. Radio Communications. Submitted to the Advisory Committee on Northern Development (N.W.T.), May, 1983.

RECOMMENDATION 32

THAT THE DEPARTMENT OF HEALTH OPEN DISCUSSIONS WITH THE R.C.M.P. REGARDING THE POSSIBLE ASSIGNMENT OF AMBULANCE DISPATCHING DECISIONS TO THE R.C.M.P. WITH RESPECT TO HIGHWAY AMBULANCE COVERAGE.

The R.C.M.P. are usually the first to arrive at the scene of an accident, aside from passing motorists. They can determine the location of the accident and call the nearest ambulance service if necessary.

4. Public Information

An important aspect of the coordination function is to ensure that members of the public be informed regarding the availability of emergency health services and the means for gaining access to these services. A related issue is the matter of public education in emergency health care, an important component of which should be prevention of health emergencies. The committee offers the following recommendation:

RECOMMENDATION 33

THAT THE DEPARTMENT OF HEALTH COORDINATE THE PREPARATION AND DISSEMINATION OF INFORMATION AND PUBLIC EDUCATION PROGRAMS REGARDING EMERGENCY HEALTH SERVICES IN THE N.W.T. THE PUBLIC EDUCATION COMPONENT SHOULD PLACE A STRONG EMPHASIS ON THE PREVENTION OF HEALTH EMERGENCIES.

IV. IMPLEMENTATION OF RECOMMENDATIONS

A. Phasing of Recommendations

A proposed schedule for implementing the recommendations in this report is presented in Table 3 (phasing of Recommendations) and in Chart A. The schedule outlines a five-year phase-in period, with new standards and funding arrangements beginning to come into effect on April 1, 1986. Level I standards would be phased in over three years, while standards and services for Level II and III communities would be phased in over five years for ground ambulance services.

According to the proposed schedule, air ambulance standards would be phased in over a five-year period by means of voluntary compliance.

B. Potential Cost of Implementing Recommendations

The potential costs of implementing all the committee's recommendations over a five-year period beginning in 1986/87 are summarized in Table 4. The figures are in constant 1984 dollars and represent the gross costs of operating ground ambulance services based on the recommendations in this report.

Table 4 has two parts designated as Scheme 1 and Scheme 2. The two schemes differ with respect to the operating costs for Level I ambulance services, with the costs

TABLE 3. PHASING OF RECOMMENDATIONS

RECOMMENDATION	IMPLEMENTATION TIME FRAME
A. INDIVIDUAL AND COMMUNITY PREPAREDNESS FOR HEALTH EMERGENCIES.	
1. Assessment of emergency health care resources.	By June 1, 1986.
2. Development plan for upgrading.	Develop plan by September 1, 1986. Five to ten year implementation depending on costs.
B. AMBULANCE LEGISLATION	
3. Enactment of legislation.	By spring, 1986 for ordinance. Enactment of regulations depending on phasing of other recommendations (eg. standards, funding).
4. Content of legislation.	See above.
C. GROUND AMBULANCE SERVICES STANDARDS.	
5. Establish three levels of standards.	By spring, 1986. Incorporate into regulations for ambulance services.
6. Level I staffing standards.	Establish standard by spring 1986 (in legislation). Phase in over three years.
7. Level II staffing standards.	Establish standard by spring 1986 (in legislation). Phase in over five years.
8. Level III staffing standards.	Establish standard by spring 1986 (in legislation). Phase in over five years.
9. Encouragement of volunteerism.	No specific timeframe. Indefinite.

TABLE 3. PHASING OF RECOMMENDATIONS

RECOMMENDATION	IMPLEMENTATION TIME FRAME
D. TRAINING PROGRAMS	
10. Establishment of EMT-A training programs for Level I communities.	Programs in place by June 1986.
11. Provision of First Aid training in Level II and III communities.	Infrastructure in place by June 1986. Begin training September, 1986.
E. VEHICLE AND EQUIPMENT STANDARDS	
Vehicles and Equipment.	Level I - phase in over three years.
Equipment for Level III communities.	Level II - phase in over five years.
	Level III - phase in over five years.
12. Vehicles for Level III communities.	Indefinite time frame.
F. PROVISION OF GROUND AMBULANCE SERVICES	
13. Operators able to meet standards.	Operators to meet standards within phase-in periods indicated above.
14. Promotion of volunteer organizations in Level II and III communities.	Organizations in place as necessary over a five year period.
15. Emergency Response Teams in Level I communities.	Phase in over three years.
G. FUNDING GROUND AMBULANCE SERVICES	
16. G.N.W.T. assume funding responsibility.	Target date for beginning funding - April 1, 1986.

TABLE 3. PHASING OF RECOMMENDATIONS

RECOMMENDATION	IMPLEMENTATION TIME FRAME
17. Cost-sharing by federal and territorial governments.	Develop cost-sharing formula by April 1, 1986.
18. Program funding for operating costs.	Design funding methods by June 1, 1985. Negotiate budgets with operators by December 1, 1985.
19. User fees maintained.	Establish rate by April, 1986.
20. Other sources of third party payments.	Time frame not applicable.
21. Financing of capital.	Initial Capital Funding Level I - phase in over three years. Level II - phase in over five years. Level III - phase in over five years. Subsequent Capital Funding Develop funding mechanism by April 1, 1987.
22. Capital and operating costs for training programs. (Department of Education).	Funding available in 1985/86 fiscal year for establishment and operation of programs.
23. Accounting and information system for ground ambulance operators.	System to be developed to coincide with beginning of funding (April 1, 1986).
H. HIGHWAY AMBULANCE SERVICES	
24. Development of policies and procedures for highway ambulance coverage.	By September, 1985.
25. Negotiate with ambulance operators for highway coverage.	By April 1, 1986.

TABLE 3. PHASING OF RECOMMENDATIONS

RECOMMENDATION	IMPLEMENTATION TIME FRAME
I. AIR AMBULANCE SERVICES AND STANDARDS.	
26. Provision of private air carriers.	Time frame not applicable.
27. Voluntary implementation of standards.	Five year period for implementation.
28. Medical and survival training for health care personnel.	Phase in over three years. Training programs to begin by April 1, 1986.
J. PLANNING	
29. Department of Health responsible for emergency health services planning.	Indefinite.
K. COMMUNICATIONS	
30. Inventory of communications capabilities.	Complete by March 31, 1987.
31. One common communications system for emergency health services.	By March 31, 1990.
L. DISPATCHING	
32. Dispensing by R.C.M.P. for highway ambulance services.	Formal arrangements in place by April 1, 1986.
M. PUBLIC INFORMATION	
33. Department of Health to coordinate public education and information programs on emergency health issues.	Indefinite.

CHART A. PHASING OF RECOMMENDATIONS

RECOMMENDATION	SCHEDULE FOR PHASING RECOMMENDATIONS													
	Feb 1 85	Apr 1 85	June 1 85	Sept 1 85	Dec 31 85	Apr 1 86	June 1 86	Sept 1 86	Mar 31 87	Mar 31 88	Mar 31 89	Mar 31 90	Mar 31 91	5 years
A. INDIVIDUAL AND COMMUNITY PREPAREDNESS FOR HEALTH EMERGENCIES														
1. Assessment of resources	———	———	———	———	———	———	———							
2. Planning and upgrading	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
B. AMBULANCE LEGISLATION														
Recommendations 3-8	- - -	- - -	- - -	- - -	- - -	- - -	———							
9. Encouragement of volunteerism	———	———	———	———	———	———	———	Indefinite	———	———	———	———	———	———
C. TRAINING PROGRAMS														
Recommendations 10 and 11	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -		
D. VEHICLE AND EQUIPMENT STANDARDS														
12. Level III vehicles	———	———	———	———	———	———	———	Indefinite	———	———	———	———	———	———
E. PROVISION OF GROUND AMBULANCE SERVICES														
13. By operators able to meet standards							———	———	———	———	———	———	———	———
14. Volunteer organizations, Levels II and III							———	———	———	———	———	———	———	———
15. Level I Emergency Response Teams				- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -			
F. FUNDING GROUND AMBULANCE SERVICES														
Recommendations 16 to 23		- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
G. HIGHWAY AMBULANCE SERVICES														
Recommendations 24 and 25		———	———	———	———	———								
H. AIR AMBULANCE SERVICES AND STANDARDS														
26. Provision by private carrier	———	———	———	———	———	———	———	Indefinite	———	———	———	———	———	———
27. Voluntary compliance						———	———	———	———	———	———	———	———	
28. Medical and Survival training for health care personnel			- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -			
I. COORDINATION														
29. Dept. of Health - planning	———	———	———	———	———	———	———	Indefinite	———	———	———	———	———	———
30. Communications inventory						———	———	———						
31. One common communications system for emergency health services									- - -	- - -	- - -	- - -		
32. R.C.M.P. dispatching for highway ambulance services				- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
33. Dept. of Health - public education and information	———	———	———	———	———	———	———	Indefinite	———	———	———	———	———	———

Dotted lines indicate periods of planning, development.
Solid lines indicate periods of implementation.

TABLE 4. COST OF RECOMMENDATIONS

I. Scheme 1

Under Scheme 1, the staffing of the ambulance service in Yellowknife would include six full-time attendants. In each of the other seven Level I communities, the staffing would include one full-time attendant and a corps of volunteers.

	FISCAL YEAR				
COST ITEMS	**1986/87**	**1987/88**	**1988/89**	**1989/90**	**1990/91**
CAPITAL					
Vehicles and Equipment					
Level I	149,000	137,000	132,500	51,500	6,500
Level II	84,000	85,600	87,200	109,800	111,800
Level III	15,000	16,500	18,000	19,500	23,500
Total	248,000	239,100	237,700	180,800	141,800
Storage Facilities					
Level II	120,000	120,000	120,000	120,000	120,000
Training Programs					
Computer Equipment	20,000	-	-	-	-
TOTAL	**388,000**	**359,000**	**357,700**	**300,800**	**261,800**
OPERATING COSTS					
Level I	1,055,565	1,055,565	1,055,565	1,055,565	1,055,565
Level II	170,400	340,800	511,200	724,200	937,200
Level III	45,000	90,000	135,000	180,000	232,500
TOTAL	**1,270,965**	**1,486,365**	**1,701,765**	**1,959,765**	**2,225,265**
TRAINING COSTS					
Personnel	110,000	110,000	110,000	90,000	90,000
Course materials and Tuition	9,400	10,700	10,700	7,600	8,200
Travel	18,000	18,000	18,000	15,000	15,000
Other	17,000	17,000	17,000	10,500	10,500
TOTAL	**154,400**	**155,700**	**155,700**	**123,100**	**123,700**
EMERGENCY RESPONSE TEAMS					
Training Costs	6,600	6,600	9,900	-	-
TOTAL	**6,600**	**6,600**	**9,900**	-	-
CENTRAL ADMINISTRATION (G.N.W.T.)	**134,500**	**134,500**	**134,500**	**134,500**	**134,500**
TOTALS	**1,954,465**	**2,142,165**	**2,359,565**	**2,518,165**	**2,745,265**

TABLE 4. Continued.

II. Scheme 2

Under Scheme 2, the staffing of ambulance services in all eight Level I communities would include six full-time attendants.

	FISCAL YEAR				
COST ITEMS	**1986/87**	**1987/88**	**1988/89**	**1989/90**	**1990/91**
CAPITAL					
Vehicles and Equipment					
Level I	149,000	137,000	132,500	51,500	6,500
Level II	84,000	85,600	87,200	109,800	111,800
Level III	15,000	16,500	18,000	19,500	23,500
Total	248,000	239,100	237,700	180,800	141,800
Storage Facilities					
Level II	120,000	120,000	120,000	120,000	120,000
Training Programs					
Computer Equipment	20,000	-	-	-	-
TOTAL	**388,000**	**359,000**	**357,700**	**300,800**	**261,800**
OPERATING COSTS					
Level I	2,318,400	2,318,400	2,318,400	2,318,400	2,318,400
Level II	170,400	340,800	511,200	724,200	937,200
Level III	45,000	90,000	135,000	180,000	232,500
TOTAL	**2,533,800**	**2,749,200**	**2,964,600**	**3,222,600**	**3,488,100**
TRAINING COSTS					
Personnel	110,000	110,000	110,000	90,000	90,000
Course materials and Tuition	9,400	10,700	10,700	7,600	8,200
Travel	18,000	18,000	18,000	15,000	15,000
Other	17,000	17,000	17,000	10,500	10,500
TOTAL	**154,400**	**155,700**	**155,700**	**123,100**	**123,700**
EMERGENCY RESPONSE TEAMS					
Training Costs	6,600	6,600	9,900	-	-
TOTAL	**6,600**	**6,600**	**9,900**	-	-
CENTRAL ADMINISTRATION (G.N.W.T.)	**134,500**	**134,500**	**134,500**	**134,500**	**134,500**
TOTALS	**3,217,300**	**3,405,000**	**3,622,400**	**3,781,000**	**4,008,100**

under Scheme 1 being lower by $1,262,835 per year. Under Scheme 1 the staffing of the ambulance service in Yellowknife would be comprised of six full-time attendants and a staff of volunteers. In each of the other seven Level I communities, the staffing would include one full-time attendant and a corps of volunteers.

Under Scheme 2, the staffing of the ambulance services in all eight Level I communities would include six full-time attendants.

In effect the two schemes describe a range of possible staffing profiles and costs. The committee considered such a range necessary so that the characteristics and circumstances unique to each Level I community can be taken into account in the planning of ambulance services.

For example, in the smaller Level I communities, a staff complement of six full-time attendants (Scheme 2) would be difficult to justify due to the probability of relatively few calls per year. On the other hand, in the intermediate size Level I communities, a staff complement of only one full-time attendant (Scheme 1) may not be adequate.

It is highly likely that the ideal situation may lie somewhere between Schemes 1 and 2, once the unique circumstances of each community have been considered.

The figures in Table 4 do not reflect the net increase in the annual costs of services which would result if the recommendations were to be implemented. The net increase would actually be less than the amounts shown in Table 4 because of the costs currently being incurred by ambulance operators.

Accurate cost figures for all current ambulance services in the N.W.T. are not available due to the absence of uniform information reporting procedures. However, amounts are available for the City of Yellowknife ambulance service. The budgeted operating cost for the ambulance service in 1984 was approximately $225,000.

The figures also do not take into account potential revenues. Significant sources of revenue would be federal, territorial and private insurance companies (Recommendation 17) and user fees (Recommendation 20). It was not possible to make projections of potential revenues due to insufficient data.

Finally, if Recommendation 18 is implemented as part of the funding scheme, a substantial portion of all the costs summarized in Table 4 will be borne by Health and Welfare Canada.

C. Priority Recommendations

It is somewhat difficult to establish clear priorities among the thirty-three recommendations, each of which is an essential building block in the establishment of an ambulance services policy and program for the N.W.T.

Nevertheless, it is clear that in order of events, the enactment of ambulance legislation (ordinance and regulations) must occur first (Recommendations 3 and 4). New legislation would signify the acceptance by the Territorial Government of the responsibility for ambulance services, and would set the stage for all subsequent program innovations.

Second priority must be given to the establishment of rational funding mechanisms based on Recommendations 16 to 23 in order that the standards set in legislation can be achieved.

D. Conclusion

Clearly much careful thought and planning will be necessary before major progressive changes can be made affecting emergency health services. The members of the committee consider the principles and recommendations in this report as representing the first major step in realizing such progress. The report offers practical solutions to outstanding issues, while setting the stage for the continuing development of emergency health services in the N.W.T.

APPENDIX 1

TERMS OF REFERENCE

TERMS OF REFERENCE
AIR AND GROUND AMBULANCE POLICY
ADVISORY COMMITTEE

Authority:

This committee is established by the Minister of Health.

Purpose:

The purpose of this committee is to advise the Department of Health on the development of Legislation, Regulations and Policy with respect to Air and General Transportation of Medical Patients to and from the place of treatment.

Duties:

- To compile and document the existing systems, including equipment, staff and payment authorities.
- To review existing GNWT and provincial legislation.
- To review existing provincial programs.
- To recommend principles to be drafted into legislation in the N.W.T. with respect to Patient Transportation.
- To recommend methods of coordinating and streamlining existing services.
- To recommend methods of rationalizing payment systems.
- To put forward a scheme of implementation for any recommendations advanced.
- To present a preliminary report to the Minister and a final written report.

Timeframe:

- To report to the Minister of Health through the Department as soon as the committee feels that it has completed its task or within six months from the date appointed unless extensions are finally given.

Funding:

- No funding is currently available to the committee though, should the Minister be able to identify funds for a consultant, they will be provided by the Department of Health.
- Secretarial services will be provided by the Department of Health.

Membership:

- The following organizations and departments will be invited to have a representative:

N.W.T. Association of Municipalites
St. John Ambulance
Health and Welfare Canada
Department of Local Government
Department of Health - GNWT (Chairperson)

Approved
Minister of Health

AMBULANCE SERVICES
N.W.T.
POLICY DEVELOPMENT

PHASE 1

Present services and their deficiences, if any.
- Vehicles and equipment.
- Staff and education.
- Availability of service.
- Legislation/Authority/Standards/Licensing.
- Provision of or payment of services.
- Various systems (air and ground) and their interface.

Review of other jurisdictions.

PHASE II

Recommendations:

1. Legislation.
2. Standards (Personnel, Equipment).
3. Provision of services and coordination.
4. Payment Responsibility.
5. Phasing of recommendation and identification of costs.

PHASE III

Executive Council Submission.

PHASE IV

Implementation of Executive Council Decision.

PHASE V

Monitoring and Evaluation.

APPENDIX 2

COMMUNITIES WITH AMBULANCE SERVICES

APPENDIX 2
COMMUNITIES WITH AMBULANCES

COMMUNITY	VEHICLES AND STANDARDS	OPERATOR-LOCATION-DISPATCH	STAFF AND TRAINING	FUNDING SOURCES
Baffin Region				
Frobisher Bay	1979 ambulance vehicle Ontario standards	Operated by municipality out of firehall; dispatched by hospital	20 volunteers with First Aid and C.P.R. training plus 6 hours of practice per month	Government (for native patients). User (non-native patients. Charge per trip: $100. in community, $150. to airport)
Fort Smith Region				
Fort Smith	One ambulance, basic standards	Operated by municipality out of firehall; dispatched by hospital	One paid staff (Fire Chief), 10 volunteers, all with Standard First Aid and C.P.R.	Municipality - 5% Government - 55% Users - 40%
Hay River	Two ambulances, basic standards	Operated by municipality out of firehall; dispatched by hospital	17 volunteers with First Aid and C.P.R. and some hospital instruction	Annual cost estimated at $12,400. Federal and Territorial Governments only sources of funds - per trip payments
Pine Point	One Ford Econoline ambulance, basic standards	Operated by Pine Point Mines (Cominco) from the mine. Dispatched by nurse at health centre	Mine staff. Information on training not available	Service is provided by the mine free of charge
Fort Simpson	One ambulance vehicle; no information available on standards	Operated by municipality out of hospital	Volunteers, hospital employees. Standard First Aid training.	Information not available

APPENDIX 2 (Continued)

COMMUNITY	VEHICLES AND STANDARDS	OPERATOR-LOCATION-DISPATCH	STAFF AND TRAINING	FUNDING SOURCES
Rae Edzo	One ambulance vehicle; no information available on standards	Health and Welfare Canada operates vehicle from Edzo Cottage Hospital; dispatched by Nurse-in Charge	Information not available on staffing. Training level - St. John Ambulance First Aid	Funded by Health and Welfare Canada (100%)
Yellowknife	1973 GMC van, 1984 GMC van. Standards-emergency response units in provinces	Operated by municipality out of firehall, dispatched by senior officer on duty	10 full-time paid staff with advanced First Aid and C.P.R. 10 Volunteers with Standard First Aid and C.P.R.	Municipality - 72% Users - 28% (includes governments)
Inuvik Region				
Inuvik	Two ambulances, Ontario standards	Operated by St. John Ambulance out of municipal garage. Dispatched by hospital.	Approximately 15 volunteers with Standard and Advanced First Aid and CPR.	St. John Ambulance

APPENDIX 3

COMMUNITIES WITHOUT AMBULANCE SERVICES

APPENDIX 3

COMMUNITIES WITHOUT AMBULANCE SERVICES

COMMUNITY	PROVIDERS OF MEDICAL TRANSPORTATION SERVICES
Baffin Region	
Arctic Bay	Local taxis
Broughton Island	Hamlet vehicles and staff
Cape Dorset	24 hour service provided by Alain Carrier under contract with Hamlet
Clyde River	Anyone with a vehicle available, and R.C.M.P.
Hall Beach	Hamlet vehicle (24 hours)
Igloolik	Hamlet vehicle; others on voluntary basis
Lake Harbour	Hamlet vehicle; others on voluntary basis
Pangnirtung	Peyton Enterprises under contract with Hamlet
Pond Inlet	Taxi service
Sanikiluaq	Hamlet; others on voluntary basis
Grise Fiord	DPW truck or fire truck
Resolute Bay	Nursing station (truck) new taxi service
Fort Smith Region	
Fort Liard Fort Providence Fort Resolution Fort Wrigley Snowdrift Tungsten Lac La Martre Rae Lakes	Hamlets, nursing stations, GNWT, taxis, volunteers, relatives of patients, whoever is available

Inuvik Region

Aklavik	Nursing Station; volunteers
Tukoyaktuk	R.C.M.P.; nursing stations
Other communities	Nursing stations; volunteers; government trucks, etc.

Keewatin Region

Baker Lake Coral Harbour Chesterfield Inlet Eskimo Point Rankin Inlet Repulse Bay Whale Cove	Hamlets, freighting companies, nursing stations, GNWT, taxi service, volunteers. Basically, whoever is available.

Kitikmeot Region

Cambridge Bay	Nursing Station vehicle, taxi
Coppermine	Nursing Station; hamlet truck
Gjoa Haven	Hamlet van
Pelly Bay	Hamlet pickup truck
Spence Bay	Taxi service; R.C.M.P.
Holman Island	Taxi service

APPENDIX 4

AIR AMBULANCE SERVICES IN THE N.W.T.

APPENDIX 4
AIR AMBULANCE SERVICES
IN THE N.W.T.

ZONE	MOST COMMON CARRIERS AND AIRCRAFT	CARRIERS TO TERTIARY CARE CENTRES	EQUIPMENT SUPPLY	MEDICAL ESCORTS	AVAILABILITY OF AIRCRAFT
BAFFIN	First Air provides most medivac services (Hawker Siddley 748 usually). Kenn Borek Air serves Grise Fiord and Resolute Bay.	Nordair (Boeing 737) to Montreal; almost all medivacs to Montreal are scheduled flights.	Supplied by nursing stations or by hospital in Frobisher Bay. Standard medivac kits. Planes not equipped except with incubator plug-ins.	Nurses from hospital in Frobisher Bay or from stations. Physicians occasionally.	No dedicated aircraft. Carriers will cancel other commitments in favour of medical evacuations. Delays rare.
INUVIK	Kenn Borek Air (Kingair and Queenair craft) and Aklak Air (Navaho Chieftains) do most emergency work. Inuvik Coastal Airways sometimes used for Sachs Harbour (Turbo Commander) due to speed.	PWA scheduled flights to Edmonton used for some emergencies. Inuvik Coastal Airways (Commander). Brooker Wheaton (Lear jet from Edmonton) for neonatal patients.	Supplied by hospital in Inuvik or by nursing stations (standard evacuation kit), Inuvik Coastal Airways craft pressurized for high altitudes; has oxygen equipment. Carriers have incubator plug-ins.	Nurses from hospital in Inuvik; nurses from Stations occasionally.	No dedicated aircraft. Carriers will cancel other commitments in favour of medivacs. Delays rare - due to weather, or time needed to get equipment on planes.
KEEWATIN	Calm Air (Kingair craft) based in Churchill. Keewatin Air (Twin Otter) based in Rankin Inlet. May use First Air (Twin Otter based in Hall Beach) for Repulse Bay and Coral Harbour occasionally.	Calm Air (Kingair to Winnipeg. PWA when scheduled flights can fill the need. Manitoba Government Air (Citation jet, Chieftain) occasionally.	Provided by nursing stations (standard kits and drugs). Some supplied by hospital in Churchill Stations have transport incubators. Carriers have plug-ins.	From provincial hospital in Churchill, some from stations occasionally.	No dedicated aircraft. But carriers will cancel other commitment in favour of medivacs. Delays are rare, and are usually caused by poor weather.
MACKENZIE	North Mackenzie - Adlair (kingair craft) based in Cambridge Bay.	PWA to Edmonton (scheduled flights). Charters Ptarmigan, Latham, Adlair, Brooker Wheaton (Lear jet specially equipped for neo-natal medivacs). Northwest Territorial Airways (scheduled flights)	Planes not equipped (except Brooker Wheaton). Equipment and supplies taken on board by Medical Services staff.	Medical Services Personnel	No dedicated aircraft. Carriers cancel other commitments in favour of medivacs. Delays rare. Planes almost always available.

The information in Appendix 4 was compiled by means of telephone interviews with Zone Nursing Officers in the four Zone of the Medical Services Branch, N.W.T. Region.

APPENDIX 5

AMBULANCE SERVICES IN OTHER JURISDICTIONS

Because ambulance services are a health matter, they are a provincial responsibility under the constitution. Consequently, the variations from one jurisdiction to the next are numerous. In the accompanying chart, the ambulance program in each jurisdiction is described under the general headings of: Provincial Administrative Authority, Legislation, Legislated Standards, Operators, Funding, Liability Insurance and Other Information. Information on ambulance services in Quebec is not available at this time.

Despite the obvious differences between jurisdictions, there are certain common elements which are worth noting.

PROVINCIAL ADMINISTRATIVE AUTHORITY

In most provinces and in the Yukon, the provincial administrative authority (the body responsible for overseeing ambulance services in general) is a provincial government department (Nfld, N.S., N.B., Que., Ont., Sask., Alta., Yukon). The exceptions are P.E.I. (the Hospital Services Commission), Manitoba (the Health Services Commission) and British Columbia (the Emergency Health Services Commission).

In three of the provinces there is some division of responsibility at the provincial level. In Newfoundland, while the Department of Health has funding and ambulance staff training responsibilities, the Board of Commissioners of Public Utilities is responsible for administering the ambulance legislation. Nova Scotia has an Ambulance Advisory Board. In Saskatchewan ambulance staff training is the responsibility of the Department of Continuing Education. The Justice Institute of British Columbia carries a similar responsibility in that province.

LEGISLATION

Of the eleven jurisdictions described in the table (N.W.T. is not included), two do not have ambulance legislation. In Nova Scotia

an Order-in-Council gives responsibility for ambulance services to the provincial Department of Health. The Yukon has no ambulance legislation.

In the other nine jurisdictions, there is considerable variation. Four provinces incorporate ambulance legislation into their Public Health Acts and regulations (P.E.I., Manitoba, Saskatchewan and Quebec). Saskatchewan has three other acts which affect the organization and funding of ambulance services.

Only two provinces (Ontario and New Brunswick) have separate ambulance acts and regulations. British Columbia has an Emergency Health Act; however, it only serves to establish the Emergency Health Services Commission while granting to it extensive regularoty powers not requiring legislated regulations.

In Newfoundland, ambulance legislation is contained in the Motor Carrier Act and Regulations. In Alberta, the very limited ambulance legislation is contained in the Highway Traffic Act and Regulations (minimal standards) and in the Municipal Act (measures enabling municipalities to establish and fund ambulance services).

LEGISLATED STANDARDS

Six of the provinces (Newfoundland, P.E.I., New Brunswick, Ontario, Manitoba and Saskatchewan) have detailed regulations ~~concerning~~ standards for vehicles and equipment. Of these six all except Newfoundland have minimum standards concerning the training of staff, and licensure of operators and staff.

In Nova Scotia, the standards for ambulance services are listed in detail in the annual agreement between the government and the Ambulance Operators Association. They include standards for vehicles, equipment and supplies. There are minimal standards for staff training.

Standards in British Columbia are established by the Emergency Health Services Commission covering all aspects of ambulance

services (vehicles, equipment, supplies, staff training and licensure of operators and staff). Only the staff training and licensure standards are set in legislation. All other standards are set by the Commission itself.

In the Yukon, standards are established internally by the government and are not contained in legislation. Details of the standards are not available.

In Alberta, there are minimal standards contained in the Regulations to the Highway Traffic Act. The province has delegated the responsibility for establishing standards to the municipalities which may pass by-laws governing ambulance services in their jurisdictions. Consequently, standards vary widely across the province. The Alberta Ambulance Operators Association has established its own standards for its members.

In most provinces standards for staff training are, for the most part, exceeded. All governments, with the exception of Alberta, encourage better training and provide funding for that purpose. In Alberta, some municipalities do this.

OPERATORS

The reader should refer to the table for details on who operates ambulance services. In most jurisdictions services are provided by a mixture of volunteer agencies, private commercial operators, hospitals and municipalities. In Ontario, the Ministry of Health provides services in some areas, as does the Emergency Health Services Commission in B.C. In the Yukon, the Territorial Government is the main provider of services. Saskatchewan is somewhat unique with its Ambulance District Boards, which may either operate the services themselves or contract out to private or volunteer operators.

FUNDING

The funding arrangements for ambulance services exhibit more variation across the jurisdictions than any other characteristic. There are generally three categories of funding: capital, operating, and training. Funding for training has been summarized under LEGISLATED STANDARDS. Some provinces provide explicit capital funding (Newfoundland, P.E.I., New Brunswick). In Nova Scotia capital funding is built into the rate structure. For several provinces this information is not yet available.

In the case of operating funds, revenue generally comes from two sources:

1. Provincial Goverment (flat rate per trip and/or kilometer charge; or per capita grants);
2. user fees (flat rate per trip and/or kilometer charge).

User fees are ubiquitous. Alberta is the only province which does not provide direct operating funding, except in limited circumstances (see table).

The various funding arrangements have evolved over time, and continue to evolve, according to the realities and requirements in each jurisdiction. This is in contrast to service standards, for which Ontario standards seem to be the benchmark for other provinces.

AIR AMBULANCE PROGRAMS

Six provinces have special air ambulance programs: Newfoundland, Ontario, Manitoba, Saskatchewan, Alberta and British Columbia. In Newfoundland and Manitoba private commercial carriers provide the services while the provincial authorities administer the programs. In the four other provinces, government owned aircraft are used whenever possible.

In P.E.I. air ambulance services are provided by the Armed Forces. In Nova Scotia the provincial Natural Resources Department provides the service on an ad hoc basis. Details are not available for Quebec, New Brunswick and the Yukon.

SOURCES

1. Information from the provinces compiled and kindly provided by the City of Yellowknife.
2. Health and Welfare Canada - Additional Provincial Benefits: Information Exchange. (current to February 1984)
3. Information on Alberta Ambulance Services obtained from Department of Hospitals and Medical Care by phone.

	NEWFOUNDLAND	NOVA SCOTIA	P.E.I.	NEW BRUNSWICK
PROVINCIAL ADMINISTRATIVE AUTHORITY	a. Legislation and regulations-Board of Commissioners of Public Utilities b. Subsidies - Dept. of Health c. Training - Dept. of Health	Dept. of Health and Ambulance Advisory Board	Hospital Services Commission Standards & Administrative Division	Department of Health, Insured Services Division
LEGISLATION	The Motor Carrier Act and Regulations	Order-in-Council (no legislation)	Public Health Act and Regulations	Department of Health, Insured Services Division
LEGISLATED STANDARDS	a. Vehicles - dimensions, capacity, furnishings, mech-fitness, sanitation, etc. b. Equipment - extensive list non-med, med equipment and supplies c. Staff - no standards in legislation about level of training d. Licensure - no special license required for operators	Contained in annual contract between government and Ambulance Operators Assn. Standards apply to vehicles, equipment, accessories. Staff - minimal standards	a. Vehicles - capacity, construction, mech fitness, etc. b. Equipment-extensive list of equipment and supplies c. Staff - minimum of Emergency Medical Training Certificate (80-120 hrs) d. Licensure - required for both operators and staff	a. Vehicles - capacity, construction, mech. fitness, etc. b. Equipment - extensive list of equipment and supplies. c. Staff - N.B. Ambulance Course I and II (58 hrs) d. Licensure - required for both operators and staff

	NEWFOUNDLAND	NOVA SCOTIA	P.E.I.	NEW BRUNSWICK
OPERATORS	Urban - hospitals Rural - private commercial operators, community councils, service clubs, volunteers Air ambulance - private carrier under government contract	Hospitals (2), private commercial operators.	Members of Ambulance Operators Association of P.E.I. under formal agreement with province	Hospitals, municipalities, St. John Ambulance, private commercial operators, industrial ambulances
FUNDING	Capital (Dept. of Health Grants) a. Private operators -$1800 per year per ambulance b. Volunteer - 75% of replacement cost Operating a. Dept. of Health subsidies: 77¢/mi first 50 mi 66¢/mi over 50 mi b. User fees: under 50 mi, $20; over 50 mi, $30	Capital None provided by province Operating a. Dept of Health Subsidies: basic rate plus charge per km. b. User fees: $30 less than 160 km; $50 more than 160 km.	Capital Annual prov. grant per ambulance ($4590 in 1983/84) Operating (1983) a. Dept Health subsidy $53 per trip and $1.10 per mi. b. User fee - $40 per trip Training Province pays up to $10,000 to operators for staff train	Capital Vehicle, equipment grants by province Operating Local taxation, user charges (may vary), other local arrangements Other Training program, communication system paid by province
LIABILITY INSURANCE	min. $250,000 required	$1 million recommended by province	min $300,000 required	min $300,000 required
OTHER INFORMATION	Air Emergency Ambulance Program for emergency transport of patients, equipment physicians. User fee $50	1. Province divided into 59 service areas. Operators cannot operate outside service area except in certain circumstances 2. Special radio communication network in place	1. Air ambulance services provided free by Armed Forces	

	QUEBEC	ONTARIO	MANITOBA	SASKATCHEWAN
PROVINCIAL ADMINISTRATIVE AUTHORITY	Ministry of Social Affairs	Ministry of Health, Emergency Health Services Division, Ambulance Services Branch	Manitoba Health Services Commission	a. Licensing and standards - Dept. of Health b. Funding - Dept. of Health c. EMT Training - Dept of Continuing Education
LEGISLATION	Public Health Protection Act	Ambulance Act and Regulations	Public Health Act and Regulations	Urban Municipality Act Rural Municipality Act Public Health Act Ambulance Regulations Municipal Road Ambulance Services Grant Regulation
LEGISLATED STANDARDS	N.A.	a. Vehicles - construction, dimensions, mech. fitness etc b. Equipment - extensive list of equipment and supplies c. Staff - Emergency Medical Care Assistant Certificate d. Licensure - required of operators and staff	a. Vehicles - construction, dimensions, mech. fitness etc b. Equipment - extensive life of equipment, supplies c. Staff - St. John Ambulance - First Aid Certificate d. Licensure - required of operators and staff	a. Vehicles - construction, dimensions, mech. fitness etc. b. Equipment - extensive list of equipment, supplies c. Staff - Emergency Medical Technician Certificate d. Licensure - required of operators, not staff

	QUEBEC	ONTARIO	MANITOBA	SASKATCHEWAN
OPERATORS	N.A.	Hospitals, municipalities, volunters, Ministry of Health private commercial services	Hospitals, fire departments municipalities, private commercial operators	Ambulance District Boards (105) estab. under Municipality Acts either operate services (45) or contract out to private operators, hospitals or volunteer services.
FUNDING	N.A.	Capital Information not available Operating a. All services funded by Ministry b. User fees - $20 for medically necessary trip $40 and $1 per km over 40 km if not medically necessary	Capital Information not available Operating a. Dept. Health per capita grants to municipalities which then pay operators under contract b. User fees - $15 to $75 plus km charge from 65¢ to $1.10 per km	Capital Information unavailable Operating a. Provincial per capita grants to municipalities which give money to ambulance district boards b. User fees - max $45 per trip and 34¢/km
LIABILITY INSURANCE	N.A.	Min $1,000,000 required Ministry services insured for $2,000,000	min $300,000 required	No defined minimum $1.5 million is typical
OTHER INFORMATION	N.A.	Ministry operates 5 air ambulances. Details of service not yet available. User fees same as for ground ambulance	Manitoba has Northern Patient Transportation Program similar to GNWT Medical Travel Program. No user fees. Air, rail, bus companies utilized.	Air Ambulance Program serves patients in emergencies in rural areas. User fee - $140 per trip. Operated by Dept. of Health

	ALBERTA	BRITISH COLUMBIA	YUKON
PROVINCIAL ADMINISTRATIVE AUTHORITY	Dept. of Hospitals and Medical Care, Emergency Services Division.	Emergency Health Services Commission (reports to Minister of Health.)	Dept. of Municipal and Community Affairs, Protective Services Branch.
LEGISLATION	Highway Traffic Act and Regulations. Municipal Act.	Health Emergency Act The Commission may make rules and regulations governing its procedures.	No legislation
LEGISLATED STANDARDS	Minimal in provincial legislation. Municipalities, under authority of Municipal Act, may set standards applicable to their jurisdictions, regarding vehicles, equipment & staffing. Some do this some do not. Standards vary widely, Alberta Ambulance Operators Association sets standards for members.	Vehicles and equipment -standards set by Commission: Information not available. Staff-Industrial First Aid Certificate required, Staff can be licenced for 3 different EMA levels. Licensure-attendants and operators must be licenced.	Standards set internally, not in legislation.
OPERATORS	Volunteer societies Private commercial operators. Municipalities (fire departments, hospital-based.)	Fire departments, Ambulance societies or the Commission itself.	Yukon Ambulance Service operated by government of Yukon. Privately owned ambulance at two mines.

	ALBERTA	BRITISH COLUMBIA	YUKON
FUNDING	Provincial funding limited to interhospital transfers air ambulance service, senior, people on welfare. Most funding by municipalities (some do not provide any.) Much variation in methods of funding for both capital and operating funds.	Operators funded by Commission which is in turn funded by government. User fees-$25 for first 40 km.; 26¢ per km over 40 km. to max. of $162 total.	Y.A.S. funded by government (operating and capital.) User fees-$10 per call + 35¢ ml. over 15 miles.
LIABILITY INSURANCE	No uniformity	Not available	Coverage of $1 million.
OTHER INFORMATION	1. While ambulances are a health matter, in Alberta the provincial government has delegated virtually all its responsibility to municipalities, resulting in wide variation between municipalities. 2. An act, regulations programs and proceedures developed, not yet adopted by government. 3. Prov. gov't does administer an air ambulance program.	The Commission operates an Air Ambulance service for medical emergencies. Government aircraft when available; otherwise commercial carriers or armed forces	

APPENDIX 6

N.W.T. COMMUNITIES AND GROUND AMBULANCE STANDARDS

N.W.T. COMMUNITIES AND GROUND AMBULANCE STANDARDS

Community by Region	Municipal Status and Population	Highway Location	Health Facilities	Level of Ambulance Standards		
				Level I	Level II	Level III
BAFFIN						
Probisher Bay	Town 2333	not applicable	Hospital/Health Centre	x		
Pangnirtung	Hamlet 1022	"	Nursing Station		x	
Cape Dorset	Hamlet 784	"	"		x	
Igloolik	Hamlet 746	"	"		x	
Pond Inlet	Hamlet 705	"	"		x	
Clyde River	Hamlet 443	"	"			x
Broughton Is.	Hamlet 378	"	"			x
Arctic Bay	Hamlet 375	road to Nanisivk	"		x	
Hall Beach	Hamlet 349	not applicable	"			x
Nanisivik	Unorg. 261	road to Arctic Bay	"		x	
Lake Harbour	Hamlet 252	not applicable	"			x
Resolute	Settlement 168	"	"			x
Grise Fiord	Settlement 106	"	"			x
INUVIK						
Inuvik	Town 3147	Dempster	Hospital	x		
Tuktoyaktuk	Hamlet 772	winter road	Nursing Station		x	
Aklavik	Hamlet 721	winter road	"		x	
Fort McPherson	Settlement 632	Dempster	"		x	
Fort Franklin	Hamlet 521	winter road	"		x	
Fort Good Hope	Settlement 463	not applicable	"		x	
Norman Wells	Hamlet 420	" "	"		x	
Fort Norman	Hamlet 286	winter road	"			x
Paulatuk	Settlement 181	not applicable	Health Station			x
Arctic Red River	" 120	Dempster	"			x
Sachs Harbour	Settlement 101	Not applicable	Nursing Station			x
Colville Lake	Unorg. 57	" "	Health Station			x

COMMUNITIES AND GROUND AMBULANCE STANDARDS

Community by Region	Municipal Status and Population	Highway Location	Health Facilities	Level of Ambulance Standards Level 1	Level II	Level III
KEEWATIN						
Rankin Inlet	Hamlet 1207	not applicable	Nursing Station		x	
Eskimo Point	" 1022	"	"		x	
Baker Lake	" 954	"	"		x	
Coral Harbour	" 429	"	"		x	
Sanikiluaq	" 383	"	"			x
Repulse Bay	" 352	"	"			x
Chesterfield Inlet	" 249	"	"			x
Whale Cove	" 188	"	"			x
KITIKMEOT						
Cambridge Bay	Hamlet 815	not applicable	Nursing Station		x	
Coppermine	" 809	"	"		x	
Gjoa Haven	" 523	"	"		x	
Spence Bay	" 431	"	"			x
Holman Is.	" 300	"	"			x
Pelly Bay	" 257	"	"			x
Bay Chimo						x
FORT SMITH						
Yellowknife	City 9483	Highway 3 + 4	Hospital/Health Centre	x		
Hay River	Town 2863	Highway 2 + 5	"	x		
Fort Smith	Town 2298	Highway 5	"	x		
Pine Point	Town 1861	Highway 6	Health Centre	x		
Rae Edzo	Hamlet 1387	Highway 3	Hospital/Health Centre	x		
Fort Simpson	Village 980	Highway 1 + 7	Hospital/Health Centre	x		
Fort Providence	Settlement 605	Highway 3	Nursing Station		x	

N.W.T. COMMUNITIES AND GROUND AMBULANCE STANDARDS

Community by Region	Municipal Status and Population		Highway Location	Health Facilities	Level of Ambulance Standards		
					Level 1	Level 11	Level 111
FORT SMITH continued							
Fort Resolution	Settlement	480	Highway 6	Nursing Station		x	
Fort Liard	"	405	Highway 7	"		x	
Tungsten	Unorg.	320	Yukon # 10	Health Clinic			x
Hay River Reserve	Reserve	298	Highway 5	Hay River Health Centre			
Lac La Martre	Settlement	268	winter road	Health Station			x
Snowdrift	Settlement	253	not applicable	Nursing Station			x
Rae Lakes	Settlement	200	not applicable	Nursing Station			x
Detah	Unorg.	143	road	Health Station			x
Fort Wrigley	Settlement	137	not applicable	Nursing Station			x
Nahanni Butte	Unorg.	85	not applicable	Health Station			x
Snare Lake	Settlement	69	not applicable	Lay Dispenser			x
Jean Marie River	Unorg.	69	winter road	Lay Dispenser			x
Trout Lake	Unorg.	59	not applicable	Lay Dispenser			x
Enterprise	Unorg.	45	Highways 1,2 + 3	None			x
Kakisa	Unorg.	36	not applicable	Lay Dispenser			x

Level 1 - 8 communities
Level 11 - 22 communities
Level 111 - 31 communities

APPENDIX 7

EMERGENCY MEDICAL TECHNICIAN - AMBULANCE:

TRAINING PROGRAM AT THE

SOUTHERN ALBERTA INSTITUTE OF TECHNOLOGY

Southern Alberta
Institute of Technology
1301 - 16 Avenue Northwest
Calgary, Alberta, Canada T2M 0L4

INFORMATION RE: EMT-AMBULANCE PROGRAM

Thank you for your interest in the EMT-Ambulance Program. I am enclosing some information concerning the program and course content.

At this time the program is available primarily to those people who are providing an emergency service in Alberta - that is ambulance, fire or police. In certain communities where space in a learning centre is available, other students can be accepted following an approved priority list. Specific information concerning this can be obtained from this office.

The location of EMT-Ambulance Learning Centres for the September 1984 to June 1985 school year will be as follows:

Beaverlodge	Jasper
Calgary (SAIT)	Lethbridge
Claresholm	Red Deer
Edmonton	Slave Lake
High Level	Vegreville

If you qualify to take the program - that is if you are employed by one of the Emergency Services - Fire - Police - Ambulance - please write for an application form.

Yours sincerely,

Jan Williams

Jan Williams
Co-ordinator
EMT-Ambulance Program

/gj

Emergency Medical Technician - Ambulance Program

EMT-Ambulance Office Phone: 284-8693

The EMT-Ambulance Program provides upgrading for emergency personnel involved in providing ambulance care in Alberta. The ambulance attendant is likely the patient's first contact with the medical community and the care that he/she provides is critical to the patient and often determines the patient's length of stay in the hospital and degree of recovery.

Course Content

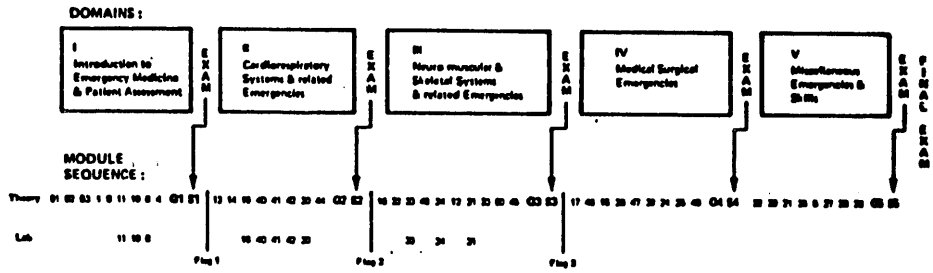
The course covers all aspects of pre-hospital emergency care. The student will learn basic Anatomy, Physiology and disease processes. He will learn to identify medical problems and the correct intervention for each patient. He will become familiar with the use of equipment found on an ambulance. He will learn how to safely transport the patient to a medical facility where definitive care can be given. The program also includes modules on medical/legal aspects of care and emergency driving.

There are two subjects in the program. The theory portion is a "computer managed learning" subject. The computer issues exams, marks the exams and keeps records of each student's progress.

The "lab" subject is the practical component of the program. Here the student must learn to perform certain skills such as the management of spinal injuries and the use of resuscitation equipment.

The following course map will list the topics and their sequence in the EMT-Ambulance Program:

EMT - AMBULANCE COURSE MAP



THEORY MODULES

1. Medical Terminology
4. Reports & Records
5. Behavioral Patterns
6. Lifting Techniques & Transportation
9. Anatomical Planes, Selons, Directions
10. Diagnostic Signs
11. Patient Assessment
12. Nervous System
13. Circulatory System
14. Respiratory System
15. Cardio-Pulmonary Resuscitation
16. Skeletal System
17. Gastrointestinal System
18. Genitourinary System
20. Burns
21. Hyper-Hypo Thermia
22. Muscular System
23. Special Senses
24. Childbirth
25. I.V. Fluids
26. Communication
27. Rescue & Extrication
28. Emergency Driving
30. Shock
31. Head & Spinal Injuries
32. Pediatric Emergencies
33. Fractures & Dislocations
34. Dressings & Bandaging
35. Medical Emergencies
36. Poisons & Drug Overdose
38. Reproductive System
40. Artificial Ventilation
41. Resuscitation Equipment
42. Oxygen Administration
44. Heart Attack
45. Stroke
46. Diabetes Mellitus
47. Unconscious States
48. Bleeding & Soft Tissue Injuries
49. Chest & Abdominal Injuries
50. Facial Injuries
51. Introduction to EMS
52. Legal Aspects to Emergency Care
53. Ethics

LAB MODULES

6. Lifting Techniques
10. Assessment of Vital Signs
11. Patient Assessment
15. C.P.R.
30. M.A.S.T.
31. Management of Spinal Injuries
33. Splinting
34. Dressings & Bandaging
40. Artificial Ventilation
41. Airway & Suction Devices
42. Oxygen Administration

The Program Delivery Mode

The EMT-Ambulance Program is offered by SAIT in several communities throughout the province. Since this is a computer managed learning program, each learning centre is complete with a computer terminal which is directly linked to the main computer at SAIT. Students study on their own at home or in the centre, using the reference material and video tapes provided in the Learning Centre.

Regular visits are made to each outreach learning centre by a SAIT Instructor. During these visits students are encouraged to attend a short workshop. Students will also be given the opportunity to ask questions and receive personalized instruction if they choose.

The EMT-Ambulance Program is a competency based program. This means that each student can proceed through the program at his own rate within reason. As soon as he has mastered one topic he then moves to the next topic. However, each student must complete the program within one year.

Locations

The outreach learning centres are located in various communities throughout the province. Each centre remains in place for one academic year - from September until June. There are no centres during July or August.

In addition to the outreach centres, there will be two permanent centres, one in Edmonton and one in Calgary. These centres are also operational from September until June each year.

Pre-requisites

Students must be 18 years of age and be employed with a municipal ambulance service. This employment can be full time, part time or volunteer, as long as the student actually provides patient care.

Costs

The cost of the course is $100.00. The required textbooks will be approximately $60.00.

Further information and applications can be obtained from:

EMT-Ambulance Program
Southern Alberta Institute of Technology
1301 - 16th Avenue N.W.
Calgary, Alberta
T2M OL4

EMERGENCY MEDICAL TECHNICIAN-AMBULANCE

Department Head N.J. Senn 284-8481

Program Coordinator – J. Williams 284-8693

EDUCATIONAL PREREQUISITES

This program is available to those people who are presently involved with providing emergency ambulance care in Alberta. The EMT-Ambulance Program is not designed as a pre-employment training course. There are no specific educational requirements for this course.

LENGTH OF PROGRAM

This is an individualized program and the student is allowed to progress at his/her own rate. Most students complete the course in about four and one half months if they are studying part time. Full time students complete the course in eight weeks. There is a maximum time limit of one year from the registration date.

FEES AND EXPENSES (1983)

The cost of the program is $93.00 (subject to change) which includes registration fee, module study guide and use of all equipment including the computer. Text books cost approximately $50.00.

The Program

The EMT-Ambulance Program provides upgrading for emergency personnel involved in providing ambulance care in Alberta. The ambulance attendant is likely the patient's first contact with the medical community and the care that he/she provides is critical to the patient and often determines the patient's length of stay in the hospital and degree of recovery.

COURSE CONTENT

This program covers all aspects of pre hospital emergency care right from the time the call is received, including driving skills to use in responding to the call, patient assessment and care, professional communication with the hospital staff and the required procedure for charting and recording. The student will learn basic Anatomy and Physiology and will learn the proper emergency care for a variety of medical emergencies.

In addition to a theory portion of the course, there is also a practical component. This section is in the form of labs which cover such skills as patient assessment, CPR and use of resuscitation equipment.

THE PROGRAM DELIVERY MODULE

The EMT-Ambulance Program is offered by SAIT in several communities throughout the province. Since this is a computer managed learning program, each learning center is complete with a computer terminal which is directly linked to the main computer at SAIT. Students study on their own at home or in the center, using the reference material and video tapes provided in the Learning Center.

When the student feels he/she fully understands a module he/she asks for an exam from the computer.

The computer issues students' exams, marks the exam and gives instant feedback to the student identifying his problem areas.

Regular visits are made to each Outreach Learning Center by a SAIT Instructor. During these visits, students can arrange personalized instruction and evaluation.

Although the student can work independently, they are not isolated from an Instructor. A SAIT Instructor can be contacted by computer or by telephone.

The province has been divided into 10 regions and every attempt has been made to maintain a Learning Center in each region. In this way students can gain access to a Learning Center without extensive travel. These centers remain in the any given community for a period of one academic year (September until June). In addition to these ten Outreach Learning Centers there are permanent centers located in Calgary and Edmonton.

COURSE CONTENT

The following areas are covered within the course:

THEORY MODULES

- Introduction to Emergency Medical Services
- Legal Aspects to Emergency Care
- Ethics
- Medical Terminology
- Anatomical Planes, Surfaces, Directions
- Patient Assessment
- Diagnostic Signs
- Lifting Techniques & Transportation
- Reports & Records
- Circulatory System
- Respiratory System
- Cardio-Pulmonary Resuscitation
- Artificial Ventilation
- Resuscitation Equipment
- Oxygen Administration
- Shock
- Heart Attack
- Skeleton System
- Muscular System
- Fractures & Dislocations
- Bleeding & Soft Tissue Injuries
- Dressings & Bandaging
- Nervous System
- Head & Spinal Injuries
- Special Senses
- Facial Injuries
- Stroke
- Gastrointestinal System
- Diabetes Mellitus
- Genitourinary System
- Poison & Drug Overdose
- Unconscious States
- Reproductive System
- Childbirth
- Medical Emergencies
- Chest & Abdominal Injuries
- Pediatric Emergencies
- Burns
- Hyper-Hypo Thermia
- I.V. Fluids
- Behavioral Patterns
- Rescue & Extrication
- Emergency Driving
- Communication

LAB MODULES

- Patient Assessment
- Assessment of Vital Signs
- Lifting Techniques
- C.P.R.
- Artificial Ventilation
- Airway & Suction Device
- Oxygen Administration
- M.A.S.T.
- Splinting
- Dressing & Bandaging
- Management of Spinal Injuries

APPENDIX 8

GUIDELINES FOR AMBULANCE VEHICLES

I. LEVEL I VEHICLES

II. LEVEL II VEHICLES

III. LEVEL III VEHICLES

AMBULANCE DESIGN AND CONSTRUCTION - LEVEL I

1. The minimum external dimensions of a standard ambulance shall be:

   (a) wheel base 125 inches (312.50 centimetres);
   (b) tracking width of the front wheels 68 inches (170.00 centimetres).

2. The minimum external dimensions for an ambulance having a four-wheel drive capability shall be:

   (a) wheel base 127 inches (317.50 centimetres);
   (b) tracking width of the front wheels 66 inches (165.00 centimetres);

3. The internal dimensions of the patient compartment of an ambulance shall provide:

   (a) a minimum of 58 inches (132.50 centimetres) between floor and ceiling;
   (b) for the placement and transport of two stretcher patients;
   (c) for the placement and transport of at least one sitting patient when only one stretcher is in use;
   (d) for seating in the patient compartment for at least one attendant with one such attendant's seat at the head of the principal or main stretcher patient;
   (e) readily accessible and sanitary storage space for medical equipment.

4. The internal dimensions of an ambulance shall provide for:

   (a) a solid full width partition between the patient compartment and driver's area, extending upward to sliding windows of transparent safety glass or equivalent, which conforms to the standards for glazing materials of vehicles prescribed in the regulations under the Motor Vehicle Safety Act (Canada), opening to allow verbal communication between the driver and attendant; and

   (b) easy loading of stretcher patients by means of a door or doors at the rear of the vehicle, and easy loading of ambulatory patients by means of a door or doors on the right side.

5. Any door opening into or out of the patient compartment shall be designed and equipped to permit such door to be opened from the inside of the vehicle, and such opening mechanism shall:

   (a) contain instructions for the opening thereof on or adjacent thereto; and
   (b) be designed to prevent inadvertent opening.

6. A lap-type safety seat belt conforming to the standards prescribed in the regulations under the Motor Vehicle Safety Act (Canada) shall be provided for each seating position in the vehicle, and such belt locking mechanism and mounting device shall be properly maintained and in good working order.

7. Every ambulance shall provide:

(a) adequate comfort and safety for patients being transported with the chassis so sprung as to provide maximum riding comfort in the patient compartment:

(b) adequate temperature regulation and ventilation;

(c) interior lighting adequate for the care of patients;

(d) a rear flood light designed and attached to light the area immediately to the rear of the ambulance automatically upon opening of the rear door or doors; and

(e) such storage for ambulance equipment as to prevent or minimize projections and sharp edges, and to keep such equipment readily available for use.

8. Every ambulance shall be provided with:

(a) a rotating light (one only) red and white in colour, consisting of not less than three sealed beam units, two of which shall be red mounted on the roof and visible from the front and rear for at least 150.00 metres, and where the light consists of four sealed beam units, the units shall be so arranged as to alternately display colours of red and white light;

(b) an audio warning devide which shall automatically produce alternate high and low horn tones, but no other audible warning sound;

(c) a public address system;

(d) four intermittently flashing lights, mounted on the roof, one on each corner of the vehicle, the two at the front shall simultaneously produce red light only to the front of the vehicle and the two at the rear shall

(d) continued

simultaneously produce red light only to the rear of the vehicle; and

(e) one intermittently flashing red light, mounted laterally centered on the hood of the vehicle and so arranged as to project a beam of red light through the rear of a passenger vehicle preceding the ambulance.

9. The controls for the signals and devices in section 8 shall be readily accessible to the driver and operate by whim while seated in the driving position.

10. Every ambulance shall display the word "Ambulance" in block letters of red retro-reflective material at least 7 inches (17.50 centimetres) in height, with the lines making up the letter at least 1 inch (2.5 centimetres) in thickness on the rear of the vehicle, and where applicable relative to the design of the vehicle, on the front thereof.

AMBULANCE DESIGN AND CONSTRUCTION - LEVEL II

1. The internal dimensions of the patient compartment of an ambulance shall provide:

   (a) for the placement and transport of two stretcher patients;
   (b) for the placement and transport of at least one sitting patient when only one stretcher is in use;
   (c) for seating in the patient compartment for at least one attendant with one such attendant's seat at the head of the principal or main stretcher patient;
   (d) readily accessible and sanitary storage space for medical equipment.

2. The internal dimensions of an ambulance shall provide for easy loading of stretcher patients by means of a door or doors at the rear of the vehicle, and easy loading of ambulatory patients by means of a door or doors on the right side.

3. Any door opening into or out of the patient compartment shall be designed and equipped to permit such door to be opened from the inside of the vehicle, and such opening mechanism shall be designed to prevent inadvertent opening.

4. A lap-type safety seat belt conforming to the standards prescribed in the regulations under the Motor Vehicle Safety Act (Canada) shall be provided for each seating position in the vehicle, and such belt locking mechanism and mounting device shall be properly maintained and in good working order.

LEVEL III AMBULANCE VEHICLES

No dedicated ambulance vehicle would be required in Level III communities. Vehicle and transportation arrangements currently used in these communities should be formalized. Ideally, vehicles used for ambulance services should have capacity for transporting patients on stretchers in an enclosed space protected from the elements.

APPENDIX 9

GUIDELINES FOR AMBULANCE EQUIPMENT

LEVEL I

Level I ambulance should contain the essential equipment list recommended by the American College of Surgeons Committee on Trauma (see attached). This list includes the twenty items listed on pages 1 and 2 of the attachment plus the additional equipment listed on page 4 of the attachment. Further equipment requirements for Level I ambulances are listed beginning on page

LEVEL II

Level II ambulance should also contain the essential equipment list attached, with the possible exception of suction apparatus, oropharyngeal airways, sterile obstetrical kit, blood pressure equipment and pneumatic trousers. The additional equipment list (page 4 of the attachment) should not be required - this equipment is primarily for the rescue of highway accident victims. Further equipment requirements for Level II ambulances are listed beginning on page

LEVEL III

The guidelines for Level III vehicles and personnel established earlier by the committee are such that only a limited list of ambulance equipment is necessary. Level III communities would not have dedicated ambulance vehicles. Thus, the equipment should be entirely portable and would be placed on the vehicle being used as an ambulance as necessary. A list of Level III equipment begins on page

LEVEL I - OTHER EQUIPMENT REQUIREMENTS

Accessory Equipment

1. Spare tire and wheel, and tire changing equipment suitable for the vehicle.

2. Portable hand lights, battery operated (2).

3. Fire extinguisher.

4. One stair chair with safety retaining straps of a type for use in ambulances.

Patient Care Equipment

5. Two stretchers:
   (a) the first of which shall be of a wheeled design, adjustable to multi-levels and fully contoured for head and lower limb elevation, having two safety retaining straps; and
   (b) the second of which shall be as prescribed in clause a, or be of an emergency type, approved by the Director, with head elevation, having two safety retaining straps.

6. Two stretcher canvasses, or equivalent, with sleeves for removable carrying handles.

7. One pair of carrying handles to fit the stretcher sleeves referred to in section 3 of this Schedule.

8. Two 4 pound (1.80 kilograms) positioning sand bags.

9. Five blankets.

10. Four sheets, cotton or equivalent.

11. Two sheets, plastic or equivalent.

12. Two pillows - hypoallergenic.

13. Two terry cloth bath towels.

14. Four pillow cases.

15. Two plastic pillow cases.

16. Emesis container.

17. One adjustable, clamp-on type, intravenous pole.

Medical Equipment

18. Portable First Aid Kit.

19. Cervical collar.

20. Tongue depressors.

21. Sterile dressings.

    a) 24 sterile gauze pads, individually wrapped, 10 cm square.
    b) 12 combine pads or equivalent, 30 cm square.
    c) 12 sterile pressure dressings with securing bandages attached.
    d) eyepads.

22. Adhesive tape.

23. Bandage scissors.

24. Large safety pins.

LEVEL III - EQUIPMENT REQUIREMENTS

Accessory Equipment

1. Spare tire and wheel and tire changing equipment suitable for the vehicle.
2. Logging Chain.
3. Shovel.
4. Portable, battery-operated hand lights (2).
5. Fire extinguisher.
6. Radio Equipment.
7. Safety Seat Belts.

Patient Care

8. One emergency type stretcher with head elevation and two safety retaining straps.
9. Two stretcher canvasses with carrying handles.
10. Blankets.
11. Cotton sheets.
12. Pillows
13. Pillow Cases
14. Emesis container.

Medical Equipment

1. Oxygen equipment.

2. Portable First Aid kit.

3. Cervical collar.

4. Tongue depressors.

5. Splints (equivalent to Levels I and II).

6. Bandages (equivalent to Levels I and II).

7. Sterile dressings (equivalent to Levels I and II).

8. Adhesive tape.

9. Bandage scissors.

10. Large safety pins.

11. Portable oxygen equipment.

12. Spine boards (equivalent to Levels I and II).

13. Poison kit.

Essential equipment for ambulances

by the Committee on Trauma, American College of Surgeons

Since the Committee on Trauma first developed this list of essential ambulance equipment in 1961, it has become the most widely accepted standard in the field of emergency ambulance service both in the United States and Canada. The list was revised in 1970, 1975, 1977 and now again in 1981.

Many Fellows of the College had a hand in developing and refining this document. The fourth revision of the listing is the result of dedicated work by the Subcommittee on Prehospital Emergency Services on behalf of the Committee on Trauma. The members of the Subcommittee are: Alan R. Dimick, chairman, Birmingham, AL; Richard H. Clark, Jr., Hattiesburg, MS; Marshall B. Conrad, St. Louis; Joseph C. Darin, Milwaukee; William R. Ghent, Kingston, ON; Kenneth F. Kimball, Kearney, NE; Gerald W. McCullough, Norman, OK; Norman E. McSwain, New Orleans; Frank L. Mitchell, Columbia, MO; Charles A. Rockwood, Jr., San Antonio, TX; William S. Stryker, Los Angeles, and Robert C. Waltz, Euclid, OH.

The symbol that appears at the top of this page is the "Star of Life," adopted by the US Department of Transportation (DOT) to certify that ambulances and emergency personnel meet DOT standards. The official symbol is normally colored blue.

The equipment described in this document is considered by the Committee on Trauma of the American College of Surgeons to be essential if the Emergency Medical Technician—Ambulance (EMT-A) is to provide adequate care for the critically ill and injured at the emergency scene and during transport to medical facilities.

These items are:

1. Portable suction apparatus with wide-bore tubing and rigid pharyngeal suction tip.
2. Hand-operated bag-mask ventilation unit with adult, child, and infant-size masks. Clear masks are preferable. Valves must operate in cold weather, and the unit must be capable of use with oxygen supply.
3. Oropharyngeal airways in adult, child, and infant sizes.
4. Portable oxygen equipment with adequate tubing and semi-open, valveless, transparent masks in adult, child, and infant sizes.
5. Mouth gags, either commercial or made of three tongue blades taped together and padded.
6. Large and small sterile dressings.
7. Soft roller bandages (4″ or 6″).

Reprinted from BULLETIN, AMERICAN COLLEGE OF SURGEONS, June 1981

AMBULANCE EQUIPMENT

Photo courtesy of Chicago Fire Department

8. Roll of aluminum foil large enough to cover a newborn infant.

9. Adhesive tape.

10. Two clean burn sheets (do not have to be sterile).

11. Lower extremity traction splint with limb support slings, padded ankle hitch, and traction strap.

12. Extremity immobilizing devices, eg, inflatable splints or splinting material that immobilize the joint above and below a fracture.

13. Short and long spine boards with accessories. (Does not include the chin strap previously shown.)

14. Triangular bandages with safety pins.

15. Shears capable of cutting clothing or bandages.

16. Sterile obstetrical kit.

17. Poison kit.

18. Blood pressure manometer, cuff, and stethoscope.

19. Compartmentalized pneumatic trousers that compress the lower extremities and abodmen only and do not extend above the xiphoid.

20. Two-way radio allowing direct communication between the EMT and the emergency department of the hospital.

The foregoing is the fourth revision of what was formerly described as a "minimal equipment for ambulances" list which the Committee on Trauma established in 1961 and which, subsequently, became the standard for ambulance services throughout the United States and Canada. Its name was changed in 1970 to "essential equipment for ambulances," thus giving it more meaning and avoiding the suggestion that it represents only the very least equipment with which an operator might equip his vehicle.

Revisions

Revisions to the list include compartmentalized pneumatic trousers that do not extend above the xiphoid with the appropriate inflation equipment. Such trousers allow the EMT-A to manage massive hemorrhage in the abdomen and of the lower extremities, to effectively shunt from 2,000 to 2,500 cc of blood from the area below the diaphragm to the heart, lung, and brain

circuit, and to avoid the use of invasive techniques, which are not legal for most EMT-As. These trousers may well also be the treatment of choice for a fractured pelvis. A real danger exists in the use of this garment by personnel in the emergency department who do not recognize the need for volume replacement prior to removal of the pressure trousers. Sudden and serious shock may result. Inflation of this unit must be based upon the patient's blood pressure response, not upon the pounds of pressure in the pants.

The intravenous fluids and their administration sets were removed from the EMT-A essential equipment list in the third revision because their use requires invasive techniques not normally allowed by the EMT-Ambulance. They are still recommended for use by the EMT-Paramedic and will be mentioned later.

The tourniquet and elastic bandages that were eliminated in the second revision remain eliminated on this list. Thus the technician is forced to improvise a tourniquet, making him think carefully before he uses one. Pressure dressings and pneumatic splints will control all but the most massive hemorrhage.

To lessen the danger of deleterious effects from pressure if improperly applied, elastic bandages were replaced by soft-roller bandages in the third revision.

The technique of blood-pressure monitoring is readily acquired during in-hospital sessions of the basic training program.

Kit contents

The obstetrical kit should contain sterile gloves, scissors, umbilical-cord clamps or tapes, sterile dressings, towels, and plastic bags. Satisfactory disposable units are available. Burn sheets may be used as drapes if necessary.

Consultants knowledgeable in the field of poisoning control recommend that syrup of ipecac and activated charcoal be the contents of the poison kit. For the conscious patient, emptying of the stomach by vomiting is considered the optimum treatment in cases of poisoning, except when poisoning is due to corrosives or petroleum products.

Splints, foil, and sheets

Uncomplicated inflatable splints are satisfactory for fractures at or below the knee and at or below the elbow. The hand and foot must be included, and the splint is to be inflated only by lung pressure. Pressure in the splint must be controlled, especially when it is applied in cold weather and the patient is then transferred to a heated ambulance. The splints must be checked occasionally to be sure that a pinhole leak is not present allowing the splint to deflate during transport of the patient to the hospital.

Aluminum foil is useful as an occlusive and nonadherent dressing.

An effective emergency incubator may be constructed by wrapping a premature infant in foil, leaving its face free.

Ordinary bed sheets—clean, wrapped, and packaged in plastic bags—provide excellent dressings for burns of any magnitude.

Spine boards

The short and long spine boards are essential for safe removal of a variety of injured patients, but particularly those with actual or suspected damage to the spine. Either board is also useful in providing a firm surface on the wheeled stretcher for performance of cardiopulmonary resuscitation. The straps of two-inch belting should be at least nine feet long and equipped with slip-through friction catches. While various kinds of short boards are in use, one similar to that described by Louis C. Kossuth in the September 1966 *Journal of Trauma* works well.

Universal dressing

The Universal dressing unfolds to 10 inches by 18 inches or to 10 inches by 36 inches and affords adequate coverage for any wound. It may be used also as padding for splints. When two dressings are folded together lengthwise, they form an effective cervical collar that may be held in place by safety pins or by wrapping with a soft-roller bandage.

The Universal dressing is available commercially but is easily made locally by cutting bolts of standard "A.B.D." material into 36-inch lengths, folding these from each end to the center three times, and packaging each in a paper bag, the end of which is sealed by stapling. After sterilization, each packaged dressing is placed individually in a plastic bag which also contains a six-inch soft-roller bandage.

Bag-mask unit

The hand-operated bag-mask ventilation unit is superior to the mechanical resuscitator or pulmotor. It is simply constructed and performs adequately, and the operator may make immediate pressure adjustments simply by changing his hand pressure. The unit is also much less costly than the mechanical resuscitator or pulmotor.

The major advantage of the bag-mask unit is that it permits the technician to direct attention to the patient rather than to the apparatus.

For effective pharyngeal suction, a minimum vacuum of 12 inches of mercury (20 inches is optimal) and free air flow of over 30 liters per minute at the delivery tube is required.

Litters and safety and housekeeping equipment are not specified, since it is assumed that these basic items, as well as installed suction and oxygen, will be carried.

AMBULANCE EQUIPMENT

EMT—Paramedic

The identification of a nationally recognized advanced level of EMTs has been designated as EMT-Paramedic. Such persons are specifically trained and licensed in the use of invasive techniques formerly reserved for physicians. This EMT-P will operate under physician direction and supervision. In addition to those items already identified, the EMT-P equipment should include tracheal intubation equipment, I.V. solutions in plastic bags, medication with syringes and needles, a cardioscope and defibrillator, and telemetry equipment.

Additional equipment

Unless a rescue vehicle accompanies an ambulance on every accident call, certain access and extrication equipment should be carried. The time element in life-threatening problems is so critical that, if the technicians must await the arrival of such equipment, lives that could be saved will be lost.

Specifically, these items are:

1. Triangular reflectors or battery-operated flares
2. One wrench, 12 inches, with adjustable open end
3. One screwdriver, 12 inches, with regular blade
4. One screwdriver, 12 inches, Phillips type
5. One hacksaw with 12-inch wire (carbide) blades
6. One pair of pliers, 10-inch vise-grip
7. One 5-pound hammer with 15-inch handle
8. One fire axe butt with 24-inch handle
9. One 24-inch wrecking bar (bar and two preceding items can either be separate or combined as a forcible-entry tool)
10. One crowbar, 51 inches, with pinch point
11. One bolt cutter with 1¼-inch jaw opening
12. One portable power jack and spreader tool
13. One shovel, 49 inches, with pointed blade
14. One double-action tin snip (minimum of 8 inches)
15. Two manila ropes, each 50 feet long and ¾ of an inch in diameter
16. Hard hat
17. Safety goggles

A heavy duty come-along (two ton) is recommended, particularly in areas where it would not otherwise be readily available. In addition to rated cable, ambulance should carry 15-foot rated chain with one grab hook and one running hook.

Additional equipment may be carried as determined by local needs and/or capabilities of personnel.

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Tabled 20/02/85

AMBULANCE SERVICES IN THE NORTHWEST TERRITORIES

PRELIMINARY REPORT OF THE AIR AND GROUND AMBULANCE POLICY ADVISORY COMMITTEE (Summary)

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ᐊᕐᓂᖅ ᑐᖃᓐᓇᖅ ᐱᒋᐊᕐᓂᖅ ᖃᐅᔨᒪᔭᕐᓂᖅ ᓄᓇᒃ ᓄᓇᓕᒃ ᐊᑐᐊᓕᖅᑐᑦ ᓄᓇᓕᒃ

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ᐅᑭᐅᖅᑕᖅ, 1985.

ᖃᓄᐃᓕᒃ 18, 1985

ᐊᓂᓕᕆᓂᖅ ᑐᓴᐅᒪᓂᖅ ᓯᓚᑦ ᑕᓪᓕᖅᑐᑦ ᑐᓴᐅᒪᓂᖅ

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ᑲᑎᒪᓕᐅᖏᑕᐅᓕᕆᓂ

Charles Dent	ᓄᓇᕗᑦ ᑲᑐᓕᖏᑎᑎᕐᓂᑦ ᑲᔪᓇᐃᓕᑦ, ᓄᓇᑦᓱᐊᕐᑎᑦ
Marina Devine	ᐊᑐᐊᒋᓕᑦ ᓄᑦ ᐅᖏᐅᓕᓂᐊᓕᓄ ᔦᑯ ᒪᓕᒪᓐ ᑯᓴᓐ ᓄᓇᑦᓱᐊᕐ ᒪᓕᒪᓐ ᑯᐊᓴᓐᓂ ᑲᔪᓇᐃᓕᑦ, ᓄᓇᑦᓱᐊᕐᑎᑦ
ᐸᓗᓕ Jim Howie	ᐸᓗᓕᓱᐅᔪᖅ ᑲᔪᓇᐃᓕᑦᑎ ᐸᓗᓕᓐ ᑯᑦ ᑲᔪᓇᐃᓕᑦ, ᓄᓇᑦᓱᐊᕐᑎᑦ
ᑦᓐ C David Kinloch	ᓄᓇᕗᑦ ᐊᐃᓐ ᑐᑦᓱᒪᓂᖅᓄᑦ ᐃᓐᓂᐊᑦ ᑐᓂᑎᓕᓐ ᐃᓐᓂᐊᑦ ᑐᓂᑎᓕᓐᓄ ᑯᓴᓐ ᐃᓐᓂᐊᑦ ᑐᓂᑎᓕᓐᓄ ᑯᑦ ᐊᐱᑦ ᓴᑦ ᑐᓂᑎᓕᓐᓄ ᑯᓘᓐ ᑲᔪᓇᐃᓕᑦ, ᓄᓇᑦᓱᐊᕐᑎᑦ
Don Krause	ᐊᖓᔪᖅᑲᒃᑯᔪᖅ St. John Ambulance ᑲᔪᓇᐃᓕᑦ, ᓄᓇᑦᓱᐊᕐᑎᑦ
Elaine Berthelet	ᐊᖓᔪᖅᑲᒃᑯᖅ, ᐃᓐᓂᐊᑦ ᑐᓂᑎᓂᑦ ᒧᑦ ᐱᓕᑎᐊᒍᓕᒃ ᑐᓄ ᒪᓕᒪᓐᓄᑦ ᓄᓇ ᒪᓕᒪᓐ ᑯᓴᓐ ᐃᓐᓂᐊᑦ ᑐᓂᑎᓕᓐᓄ ᑯᑦ ᑲᔪᓇᐃᓕᑦ, ᓄᓇᑦᓱᐊᕐᑎᑦ
Michael Pontus	ᑲᑎᒪᓕᕐᓂᑦ ᐃᓕ ᓱᔪᐅᑕᕐᓚ ᑐᒃ ᓕᐊᑕ ᐃᑲᔪᑦ ᑎᓴᑦ ᐃᓐᓂᐊᑦ ᑐᓂᑎᓕᓐᓄ ᑯᑦ ᓄᓇᑦᓱᐊᕐᑎᑦ ᑲᔪᓇᐃᓕᑦ, ᓄᓇᑦᓱᐊᕐᑎᑦ
Bob Knight	ᑲᑎᒪᓕᕐᓂᑦ ᑎᑎᕆᑦ ᑎᓚᓚ ᐊᑐᐊᒐᓕᑎᓂᑦ ᒧᑦ ᐱᓕᑎᓕ ᐃᓐᓂᐊᑦ ᑐᓂᑎᓕᓐᓄ ᑯᑦ ᓄᓇᑦᓱᐊᕐᑎᑦ ᑲᔪᓇᐃᓕᑦ, ᓄᓇᑦᓱᐊᕐᑎᑦ

ᐊᐅᓚᓀᓪᓕᐊᓂᖅ ᐅᓂᒃ ᑲᓇᐃᖅ

ᐊᐃᐳᑦ 1984-ᖃᓚᐅᓀᓂᒃ ᓂᓗ ᐃᓚᖃᓂᒃ ᑐᓂᔪᐊᓂᖅ ᓯᓚᑦ ᒥᓂᔪᐊᓂᖅ ᑐᓂᔪᐊᓂᖅ ᐃᓚᖃᓂᒃ ᑲᓇᐃᖅ ᑲᑎᒪᔨᖏᑦ ᐅᑭᐅᖅ ᑲᑎᒪᔨᖏᑦ ᐅᑭᐅᖅ ᐊᑐᕐᓂᖅ ᐃᓚᖃᓂᒃ ᑲᓇᐃ

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10. ⊃⊲⊲∩ᵉ ᵃᶜ ⊃⊲∩ᵒᵒᶜ ⊥ᶜ ᐊᵉᵒᶜ⊲ᶜ ⊃⊲∩ᑕᵇᵉ ᶠᶜ ᵃᵒ⊃Δᵉᵃᵉ ∧ᐅᵒᶜ ᵏᵒᶜ ⊲ᑦᐅᵒᶜ ᵏᵒᶜ ⊃
⊃⊲ᵏᐅ⊥ᐅᑕᑎᵇ ᵈᑎᑦᶜ ⊃⊓ᑎᐊᵏᵇᵏ⊃⊲ᶜ ⊥⊂ ᐊᵉᵖᵉᵏᶜ ⊃⊂.

11. ᵃᵒᵉᶜᵖᐊᵈᶜ ⊂ ⊃⊲⊲∩ᵉ ᵃᶜ ⊃ᵏᵇᶜ∩ᶜ⊃⊲ ᐊᵉᵒᶜ⊲ᶜ ⊃⊲∩ᑕᵇᵉ ᶠᶜ ᵏᐅᵖᵏ⊥⊿ᵉᵃᑕᑎᵒᶜ ⊃⊲ᵏᐅ⊥ᵇ ᐊᑎᵒᶜ
ᐅᶜᵉᐊᵓᵉᵒᶜ ᵃᵉᵈᵏᐅᑎᵇ ᶠᶜ ⊃⊲ᵏᐅ⊥ᵇ ᐊᑎᵒᶜ ∧ᵏᵇᵉᵏᶜ ⊥⊂.

12. ⊃⊲⊲∩ᵉ ᵃᵈ⊃⊲∩ᵒᵒᶜ ⊥ᶜ ᐊᵉᵒᶜ⊲ᶜ ⊃⊲∩ᑕᵇᵉ ᵃᵒᵉᶜ ᵍᐊᑦᑎᵇ ᵎᶜ ᵃᵉᶜᵖᵇᵉ ᶠᵈᵎᵇᵉᵏᶜ ᵃᵉᵈᵏᐅ⊥ᵇ ⊃⊲ᵏᐅ⊥ᵇ
ᐊᵉᵒᵖᐅᒪᵉᵏᶜ ⊥⊂.

ᑲᑎᒪᓕᑦᑕ ᐊᑐᕐᓂᖅᓴᖅ ᑕᒪᐃ ᑯᓂᖓ ᐊᑲᐅᓐᖓᖅᑐᑦ ᐊᕐᕌᒍᓐᓇᖅᑐᑦ ᐊᑐᕐᓂᖅᓴᖅᑐᑦ ᑲᑎᒪᓂᖅᑐᑦ ᐊᑐᕐᓂᖅᓴᖅᑐᑦ ᐃᓚᖓᑕᐅᓂᖅᑐᑦ ᐊᑐᕐᓂᖅᓴᖅᑐᑦ ᐅᖃᐅᓯᖅᑐᑦ.

ᓄᓇᕗᑦ ᑐᓴᐅᒪᓂᖅ ᐊᑐᕐᓂᖅᓴᖅᑐᑦ ᐃᓚᖓᑕᐅᓂᖅᑐᑦ ᑭᓇᐅᔭ ᓴᓇᓂ ᑕᑯᓂ

ᒪᓂᖅ ᑯᐊ ᑲᑎᒪᓕᑦᑕ ᐊᑐᕐᓂᖅᓴᖅᑐᑦ ᓴᓇᔨᓂᖅᑐᑦ >ᑦ 33-ᓯᓚᑦᓂ ᐊᑐᕐᓂᖅᓴᖅᑐᑦᓂ ᑐᐊᐃᓐᓇᖅᑐᑦ ᐊᑐᕐᓂᖅᓴᖅᑐᑦ ᐊᐅᓚᑦ ᓴᓇᔨᓂᖅᑐᑦ ᐊᑐᕐᓂᖅᓴᖅᑐᑦ ᐊᑐᕐᓂᖅᓴᖅᑐᑦ ᐊᑐᕐᓂᖅᓴ

ᐊᑐᓵᓱᐅᔨᓴᖅ 6- ᐲᓐᓂᐊᕐᓂᖅ ᑐᓂᓯ ᐊᐃᑉᓯᓂᖅ ᐊᓯᓐᓂᐊᕐᓂᖏᓐᓂᖅ ᓂᓪᓕ ᑕᒪᑦ ᐃᓕᓐᓂᐊᕐᓂᖅ ᐊᐃᑉᓯᓂᑐᐃᓐᓇᖅ ᑭᓇᐅᔭᖅ, ᐊᓯᓐᓂᐊᕐᓂᖏᓐᓂᖅ, **Level I.**
ᐊᑐᓵᓱᐅᔨᓴᖅ 7- ᐲᓐᓂᐊᕐᓂᖅ ᑐᓂᓯ ᐊᐃᑉᓯᓂᖅ ᐊᓯᓐᓂᐊᕐᓂᖏᓐᓂᖅ ᓂᓪᓕ ᑕᒪᑦ ᐃᓕᓐᓂᐊᕐᓂᖅ ᐊᐃᑉᓯᓂᑐᐃᓐᓇᖅ ᑭᓇᐅᔭᖅ, ᐊᓯᓐᓂᐊᕐᓂᖏᓐᓂᒃ, **Level II,**
ᐊᑐᓵᓱᐅᔨᓴᖅ 8- ᐲᓐᓂᐊᕐᓂᖅ ᑐᓂᓯ ᐊᐃᑉᓯᓂᖅ ᐊᓯᓐᓂᐊᕐᓂᖏᓐᓂᖅ ᓂᓪᓕ ᑕᒪᑦ ᐃᓕᓐᓂᐊᕐᓂᖅ ᐊᐃᑉᓯᓂᑐᐃᓐᓇᖅ ᑭᓇᐅᔭᖅ, ᐊᓯᓐᓂᐊᕐᓂᖏᓐᓂᐊᖅᑎᑦᑐᒃ, **Level III.**
ᐊᑐᓵᓱᐅᔨᓴᖅ 10-ᐲᓐᓂᐊᕐᓂᖅ ᑐᓂᓯ ᐊᐃᑉᓯᓂᖅ ᐊᓯᓐᓂᐊᕐᓂᖏᓐᓂᖅ ᓂᓪᓕ ᑕᒪᑦ ᐃᓕᓐᓂᐊᕐᓂᖅ ᐊᐃᑉᓯᓂᑐᐃᓐᓇᖅ ᑭᓇᐅᔭᖅ, **EMT-A-**ᓱᓇᓵᓐᓂᒃ ᑕᑉᓂᓯᓐᓂᖅ.
ᐊᑐᓵᓱᐅᔨᓴᖅ 11-ᑐᐊᐃᓐᓂᒃ ᓴᓐᓂᖅ ᑐᓂᓯ ᐊᐃᑉᓯᓂᖅ ᐊᓯᓐᓂᐊᕐᓂᖏᓐᓂᖅ ᐊᓂᒍᑎᓪᓗᐊᑕᓂᖅ ᓂᓪᓕ ᑕᒪᑦ ᐃᓕᓐᓂᐊᕐᓂᖅ ᐊᐃᑉᓯᓂᑐᐃᓐᓇᖅ ᑭᓇᐅᔭᖅ (**First-Aid-**ᓂᒃ) ᐊᐃᑉᓯᓂᑐᐃᓐᓇᖅ ᑕᑯᓐᓂᒃᑯᑦᑐᖅᓯᒪᔪᓂᖅ ᑕᒪᑦ.
ᐊᑐᓵᓱᐅᔨᓴᖅ 27-ᖃᓚᑕᐅᓐᓂᖅ ᑎᓂ ᐊᐃᑉᓯᓂᑐᐃᓐᓇᖅ ᑕᑯᓐᓂᒃᑯᑦᑐᖅᓯᒪᔪᓂᖅ ᐊᑐᐊᓚᑦᓂᖅ ᓂᓪᓕᒪᓂᖅᓂᖅ ᑭᓇ.
ᐊᑐᓵᓱᐅᔨᓴᖅ 28-ᖃᓚᑕᐅᓐᓂᖅ ᑎᓂ ᐊᐃᑉᓯᓂᑐᐃᓐᓇᖅ ᑕᑯᓐᓂᒃᑯᑦᑐᖅᓯᒪᔪᓂᖅ ᓂᓪᓕ ᐊᓯᓐᓂᐊᕐᓂᖏᓐᓂᖅ ᑐᓂᓯ ᐊᐃᑉᓯᓂᑐᐃᓐᓇᖅ ᑭᓇᐅᔭᖅ.

4. ᐲᓐᓂᐊᕐᓂᖅ ᑐᓂᓯ ᐊᐃᑉᓯᓂᖅ ᐊᓯᓐᓂᐊᕐᓂᖏᓐᓂᖅ ᐊᑎᓕᖅᑐᓂᓯᓂᖅ

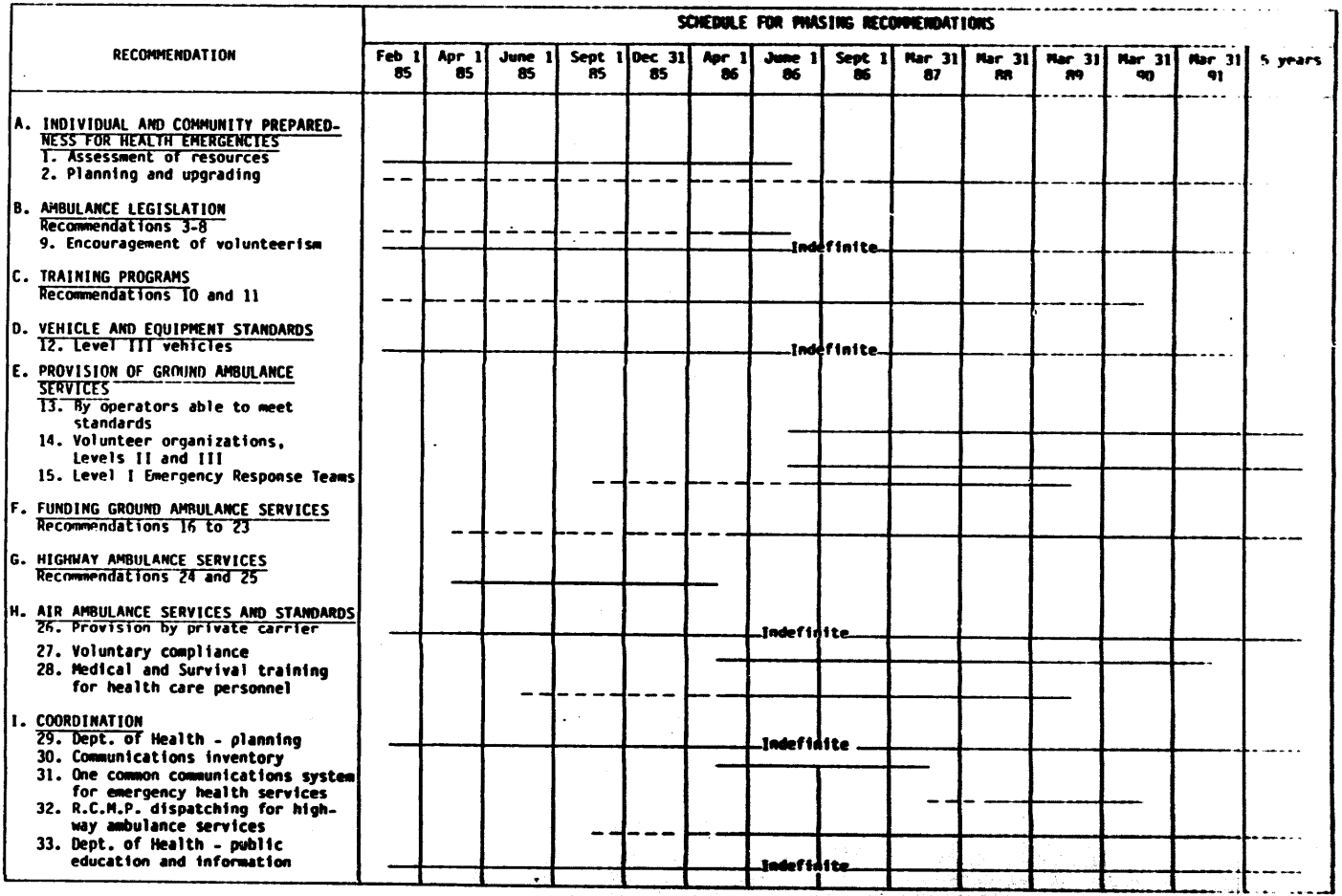
ᑲᑎᒪᔨᑦᑎᓂᒃ ᐃᓱᒪᒍᑦ ᓄᓇᒃ ᑎᓂᓅᖅ ᖃᓚᑕᐅᓐᓂᖅ ᑎᓂᓅᖅ ᐊᐃᑉᓯᓂᖅ ᐊᓯᓐᓂᐊᕐᓂᖏᓐᓂᖅ ᐊᓯᐅᓚᐅᑦᑎᐊᕐᓂᖅ ᑐᓂᓯ ᐊᐃᑉᓯᓂᑐᐃᓐᓇᖅ ᑭᓇᐅᔭᖅ ᑐᓂᓯ ᐊᐃᑉᓯᓂᑐᐃᓐᓇᖅ ᐊᐃᑉᓯᓂᑐᐃᓐᓇᖅ ᐊᓯᓐᓂᐊᕐᓂᖏᓐᓂ

ᐊᖏᓐᓄᑦ ᑕᐅᔨᓴᕆᔨᖅ ᐊᑐᓵᔪᕐᓇᖅ

ᑲᑎᒪᔨᖅ ᐊᖏᓐᓄᑦ ᓂᕆᑎᓪᓗᒍ ᐊᑐᓵᔪᕐᓇᖅ ᑕᑯᓂᖅ ᐊᖏᓐᓄᑦ ᑕᐅᔨᓴᕆᔨᖅ ᐊᑐᓵᔪᕐᓇᖅᓄᑦ ᓄᓇᓕᖕᒥ ᐊᑐᓵᔪᕐᓇᖅ. ᐊᖏᓐᓄᑦ ᑕᐅᔨᓴᕆᔨᖅ ᓂᕆᑎᓪᓗᒍ ᑭᓇᐅᔭᖅ ᑕᑯᓂᖅ ᑐᓴᕐᓂᓕᖅ ᑐᖓᔪᓂᖅ ᑕᐅᔨᓴᕆᔨᖅ.

ᑲᑎᒪᔨᖅ ᐃᓕᓴᕐᓂ ᒪᓕ ᔪᓄ 33-ᓯᓚᑦ ᐊᑐᓵᔪᕐᓇᖅᓄᑦ ᐱᒃᓴᑎᑎᖅᓯᒪᓂ ᐊᖏᓐᓄᑦ ᓄᓇᓕᖕᒥ ᐊᑐᓵᔪᕐᓇᖅ ᐊᑐᕐᓴᐅᒪᑦ ᐊᖏᓐᓄᑦ ᑭᓪᓕᐊᓂᖅᓴᓂᒃ ᓄᓇᕗᑦ. ᑕᐃᒪᐃᓐ ᑲᓇᑕᓂᑦᑎᓐᓄᑦ ᓄᓇᕗᑦ, ᐱᒃᓴᑎᑎᖅᓯᒪᓂ ᐊᑐᓵᔪᕐᓇᖅᓄᑦ ᑲᑎᒪᔨᖅᑐᑦ ᓄᓇᓕᖕᒥ ᐊᑐᓵᔪᕐᓇᖅᓄᑦ ᐱᒃᓴᑎᑎᖅᓯᒪᓂ ᐊᑐᓵᔪᕐᓇᖅᓄᑦ ᐊᑐᕐᓴᐅᒪᑦ ᐊᖏᓐᓄᑦ ᑭᓪᓕᐊᓂᖅᓴᓂᒃ ᓄᓇᕗᑦ. ᑕᐃᒪᐃᓐ ᑲᓇᑕᓂᑦᑎᓐᓄᑦ ᓄᓇᕗᑦ,

CHART A. PHASING OF RECOMMENDATIONS



Dotted lines indicate periods of planning, development.
Solid lines indicate periods of implementation.

COST OF RECOMMENDATIONS

I. Scheme 1

Under Scheme 1, the staffing of the ambulance service in Yellowknife would include six full-time attendants. In each of the other seven Level I communities, the staffing would include one full-time attendant and a corps of volunteers.

	FISCAL YEAR				
COST ITEMS	**1986/87**	**1987/88**	**1988/89**	**1989/90**	**1990/91**
CAPITAL					
Vehicles and Equipment					
Level I	149,000	137,000	132,500	51,500	6,500
Level II	84,000	85,600	87,200	109,800	111,800
Level III	15,000	16,500	18,000	19,500	23,500
Total	248,000	239,100	237,700	180,800	141,800
Storage Facilities					
Level II	120,000	120,000	120,000	120,000	120,000
Training Programs					
Computer Equipment	20,000	-	-	-	-
TOTAL	**388,000**	**359,000**	**357,700**	**300,800**	**261,800**
OPERATING COSTS					
Level I	1,055,565	1,055,565	1,055,565	1,055,565	1,055,565
Level II	170,400	340,800	511,200	724,200	937,200
Level III	45,000	90,000	135,000	180,000	232,500
TOTAL	**1,270,965**	**1,486,365**	**1,701,765**	**1,959,765**	**2,225,265**
TRAINING COSTS					
Personnel	110,000	110,000	110,000	90,000	90,000
Course materials and Tuition	9,400	10,700	10,700	7,600	8,200
Travel	18,000	18,000	18,000	15,000	15,000
Other	17,000	17,000	17,000	10,500	10,500
TOTAL	**154,400**	**155,700**	**155,700**	**123,100**	**123,700**
EMERGENCY RESPONSE TEAMS					
Training Costs	6,600	6,600	9,900	-	-
TOTAL	**6,600**	**6,600**	**9,900**	-	-
CENTRAL ADMINISTRATION (G.N.W.T.)	134,500	134,500	134,500	134,500	134,500
TOTALS	**1,954,465**	**2,142,165**	**2,359,565**	**2,518,165**	**2,745,265**

II. Scheme 2

Under Scheme 2, the staffing of ambulance services in all eight Level I communities would include six full-time attendants.

	FISCAL YEAR				
COST ITEMS	**1986/87**	**1987/88**	**1988/89**	**1989/90**	**1990/91**
CAPITAL					
Vehicles and Equipment					
Level I	149,000	137,000	132,500	51,500	6,500
Level II	84,000	85,600	87,200	109,800	111,800
Level III	15,000	16,500	18,000	19,500	23,500
Total	248,000	239,100	237,700	180,800	141,800
Storage Facilities					
Level II	120,000	120,000	120,000	120,000	120,000
Training Programs					
Computer Equipment	20,000	-	-	-	-
TOTAL	**388,000**	**359,000**	**357,700**	**300,800**	**261,800**
OPERATING COSTS					
Level I	2,318,400	2,318,400	2,318,400	2,318,400	2,318,400
Level II	170,400	340,800	511,200	724,200	937,200
Level III	45,000	90,000	135,000	180,000	232,500
TOTAL	**2,533,800**	**2,749,200**	**2,964,600**	**3,222,600**	**3,488,100**
TRAINING COSTS					
Personnel	110,000	110,000	110,000	90,000	90,000
Course materials and Tuition	9,400	10,700	10,700	7,600	8,200
Travel	18,000	18,000	18,000	15,000	15,000
Other	17,000	17,000	17,000	10,500	10,500
TOTAL	**154,400**	**155,700**	**155,700**	**123,100**	**123,700**
EMERGENCY RESPONSE TEAMS					
Training Costs	6,600	6,600	9,900	-	-
TOTAL	**6,600**	**6,600**	**9,900**	-	-
CENTRAL ADMINISTRATION (G.N.W.T.)	134,500	134,500	134,500	134,500	134,500
TOTALS	**3,217,300**	**3,405,000**	**3,622,400**	**3,781,000**	**4,008,100**