

EXECUTIVE SUMMARY  
MEDICAL ISSUES OF THE ALASKA NATURAL GAS TRANSPORTATION SYSTEM

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The objective of studying, in depth, the question of the medical concerns of the Alaska Natural Gas Transportation System is 1) to find the most efficient and cost effective means of providing medical care in the pipeline camps 2) to effectively use all available resources, already set up and ready for use, and 3) to insure, through the development of the most efficient and effective plan possible, that a system will be devised that will require very little new input to continue to run smoothly.

The only project comparable to ANGTS in Alaska is the Trans Alaska Pipeline System (TAPS). Because of their similarities, it is possible to dispense with preliminary planning and by using the TAPS Medical Service System as a basis save time and money by improving on a basically workable program.

With a operable plan available, ANGTS medical planners need only work toward improving the already existing system. By addressing five primary problem areas the program can be improved to protect and benefit the employer and the employees.

The basic points of the TAPS plan are as follows:

1. Two physician assistants (PA) in each camp medical facility with X-ray, laboratory, pharmacy, and basic life support equipment.
2. Medevacs in a three class priority system with a PA required to travel with all emergency evacuations.
3. A proposed employee assistance program (EAP) to deal with alcohol and drug abuse and employee problems. (This was never fully implemented by the company.)
4. Limited coordination with a few communities along the pipeline route.
5. Pre-employment physicals and hypothermia orientation for all employees.
6. Three doctors on staff.
7. A medical records system. (It was not correlated until after the completion of the pipeline, there was also, only limited access).
8. Employees medical insurance.

Due to the similarities of the projects and the special requirements of construction in the Alaskan environment, this plan has proven workable and can be applied very easily to the ANGTS project. Five possible ways to improve medical services for the construction of the gasline are as follows:

- 1. Timely and effective prior planning.
2. Integrated planning with local health representatives.
3. The establishment of a working EAP program. (EAP programs have been shown to cut down on worker time away from the job).
4. Improvement of the basic medical plan, to include;
  - A. Paramedics on medical evacuations.
  - B. Coordination with local ambulance services.
  - C. A staff doctor in the hospital emergency room.
5. Microfiche or computerize the medical records system for more efficient use and access.

Prior planning is the key to accomplishing these improvements, and to any system that will function in anything but a crisis management form. Many problems may also be solved by coordination with the local health representatives. The local agencies have been extremely enthusiastic about accommodating the health problems that will occur as a result of the construction of the gasline. They insist on prior coordination to insure that there will be available means to handle the impacts that will occur. These same organizations wish to see the EAP program properly implemented, this time before construction begins. They suggest it be accommodated through existing agencies, with the assistance of the gasline company.

By improving both the medical services plan and the records keeping system the

employees general health will improve and company costs will be cut. In addition, lawsuits can be more easily avoided.

Finally, the enclosed material (including nineteen specific recommendations) is designed to be kept in mind by planners and to be considered at an early date to insure that the best possible program is developed in order to aid in a timely, cost effective construction phase. This will benefit the company, its' employees and the consumers of the eventual product as well.

#### SPECIFIC REFERENCES OF INTEREST

1. ALYESKA MEDICAL PROCEDURES MANUAL. Alyeska Pipeline Company.
2. WHAT HAPPENED TO FAIRBANKS? THE EFFECTS OF THE TRANS-ALASKA OIL PIPELINE ON THE COMMUNITY OF FAIRBANKS, ALASKA. By Mim Dixon. 1978.

#### ENCLOSURES

1. Paper- MEDICAL CONCERNS OF THE ALASKA NATURAL GAS TRANSPORTATION SYSTEM.  
Prepared by Christy Baker. August, 1982.
2. HEALTH RELATED TESTIMONY FROM THE FEDERAL ENERGY REGULATORY COMMISSIONS HEARINGS.  
Prepared by Christy Baker. June, 1982.
3. Specific recommendations for the ANGTS medical plan.
4. Graphs of impacts and capacities of the area medical system.

RECOMMENDATIONS FOR MEDICAL CONCERNS  
ON THE  
ALASKA NATURAL GAS TRANSPORTATION SYSTEM

PLANNING AND COORDINATION

1. Early planning and coordination with local facilities. A certain amount of lead time is needed to obtain licenses for facilities, pharmacies, and to deal with the proposed X-ray certification requirements of the state. Time is especially necessary for coordination with local community representatives. With the proper assistance, local health agencies can be helped to provide serviced from already existing facilities for gasline needs. This will save costs for the company since these facilities will not have to be begun from the beginning.
2. Coordinate with local representatives to provide medical services to pipeline personnel and their dependents under a mutual aid agreement.
3. Contract with local ambulance services in Fairbanks for transport of medical evacuations from the airport.
4. Provide assistance to local ambulance services to help them cope with impacts from pipeline personnel and dependent emergencies above and beyond their normal loads.

EMPLOYEE ASSISTANCE PROGRAM

5. Set up an Employee Assistane Program (EAP) for for alcohol, drug abuse, and family problems to save costly time away from work.
6. Have a psychologist on staff as part of the EAP system for consultation purposes and to train camp counselors and PAs to recognize and help to treat employee problems. (The psychologist should be someone aware of the special northern Alaskan problems and also able to deal with native problems.)
7. Counselors should be chosen who are aware of the problems of the Alaskan enviornment and who have dealt with problems of isolated communities and native needs. (It is possible that native organizations could be of assistance in locating such persons, for example the Tanana Chiefs Conference.)
8. Look to private organizations who provide EAP programs for assistance in in setting up the system. Cooperate with the State to help boost already existing agencies to levels (with added manpower and equipment) where they can assist with EAP related problems and use their experience to become the primary referral organ of the program.

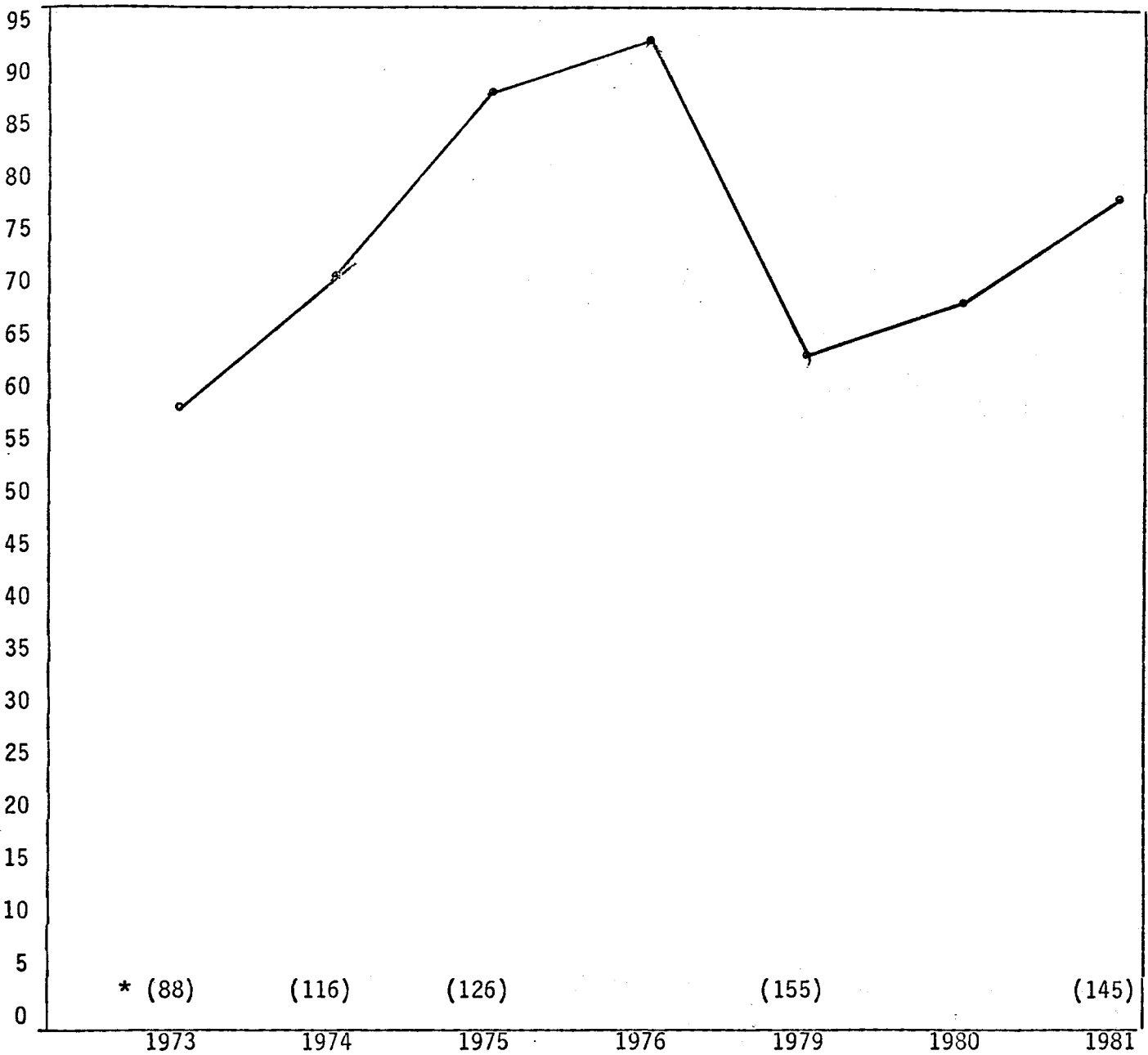
## MEDICAL PROGRAM

9. Have air transport training for all medical personnel along with necessary hypothermic and other cold weather training.
10. Have life-support equipment for each medical facility in case of transport delays. This would include at least a two bed capacity.
11. Have a small extremity X-ray machine and basic lab equipment in camp medical facilities.
12. Have approximately three paramedics stationed in Fairbanks to travel with medevacs to allow the PAs to remain in camp and to provide the best possible emergency transport care.
13. Contract for rooms at a residential care facility, such as Carage North, for non-critical care recovery.
14. Have at least three doctors on staff as PA collaboratives.
15. Have one doctor available to see emergency-room pipeline patients, as a company representative.
16. Have insurance to cover medical expenses of pipeline employees.
17. Insurance should also cover mental health and alcohol and drug abuse problems. There should also be provisions for dependents and off-duty hours. (This will help lessen monetary impacts on local facilities.)
18. There should be a separate channel for medical communications.

## MEDICAL RECORDS SYSTEM

19. Microfiche or computerize records. Ensure accessibility to the department of Public Health and doctors in charge of patients. (Possibly have Public Health person to work with NWA medical personnel to collect data and to monitor the health system.)

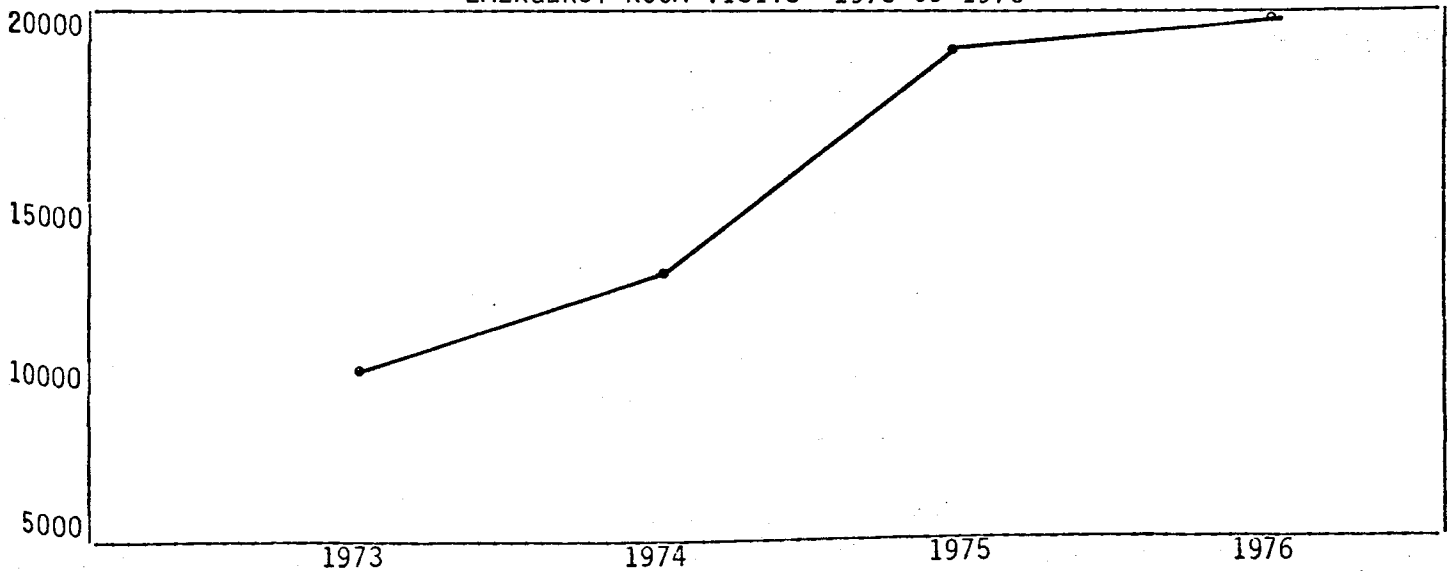
HOSPITAL ACTIVITY  
OCCUPANCY RATES BY NUMBER OF BEDS



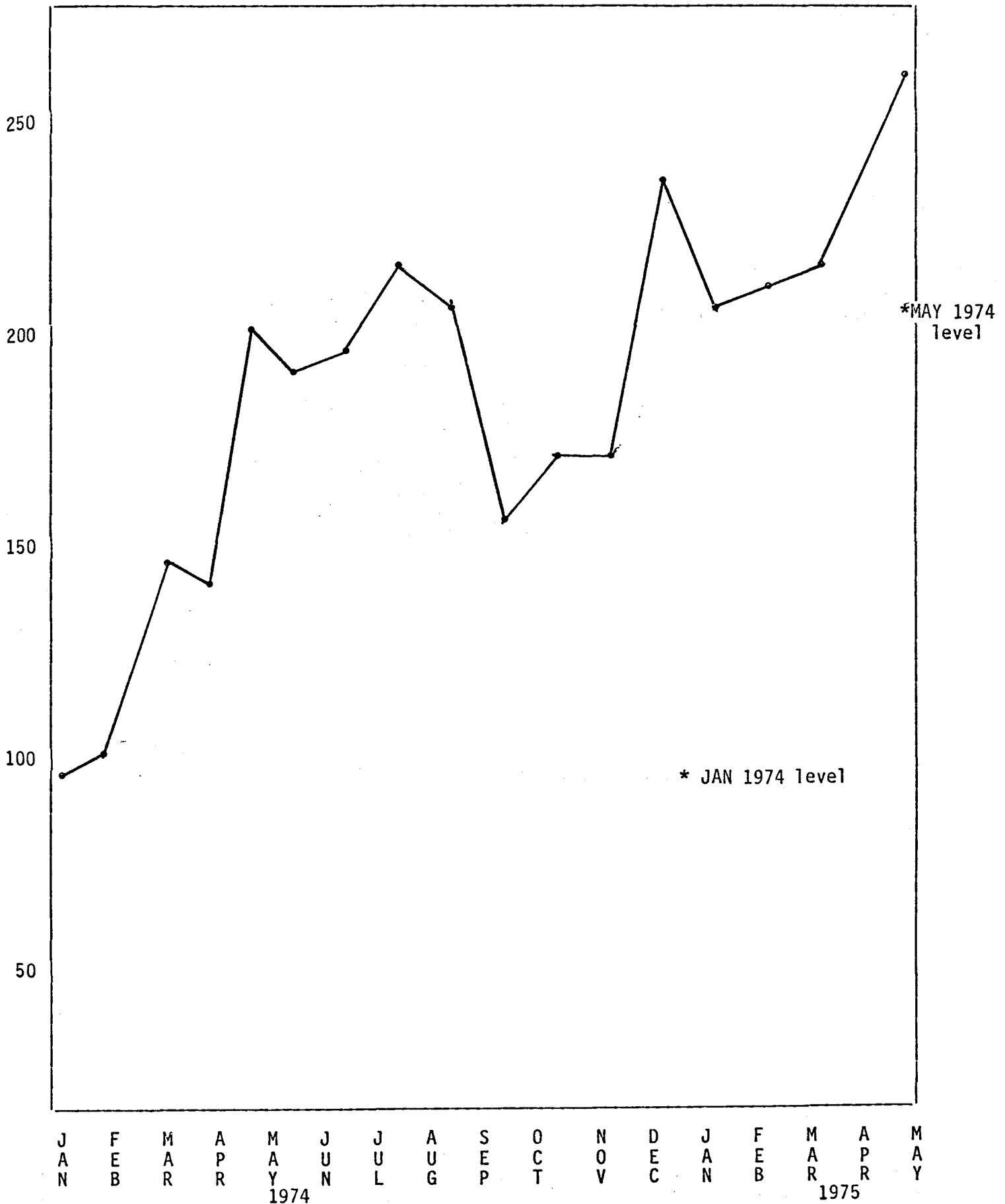
\*Number of beds

From the FMH Certificate of Need

EMERGENCY ROOM VISITS- 1973 to 1976



Ambulance runs, City of Fairbanks Fire Department



SOURCE OF DATA: "WHAT HAPPENED TO FAIRBANKS " BY MIM DIXON



ESTIMATES OF TOTAL PRIMARY CARE PHYSICIANS NEEDED IN ANCHORAGE 1981-2000

	Total Population	Primary Care Physicians needed	Physicians in Practitce
1981	187,761	94	<u>186</u>
1985	231,500	116	
1990	247,700	124	
1995	275,400	124	
2000	318,400	160	

Source: The Anchorage Health Systems Plan 1982-84

ESTIMATE OF THE FAIRBANKS POPULATION TO PHYSICIAN COUNT - 1981

1981 STATE CENCUS FNSB	PHYSICIAN COUNT 1981 FNSB
58,313	75

Source: The Health resource Development Plan for Northern Alaska- 1982

RATIOS-1981 (For Comparison)

		U.S. Ratio 1978
Anchorage	1,009:1	
Fairbanks	778:1	580:1

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INVENTORY OF AVAILABLE MANPOWER

DESIGNATION:*	COMMUNITY					
	DOT LAKE	NORTHWAY	TANACROSS	TETLIN	DELTA	TOK
LEVEL	1	1	1	1	2	2
MANPOWER:						
(LEVEL 1):						
CHA	X	X	X	X		
ALT. CHA	X	X	X	X		
EMT 1		2	X			
PUBLIC HEALTH NURSE	I	I	I	I		
BEHAVIORAL HEALTH HEALTH SPECIALIST						
AUDIOLOGIST						
BEHAVIORAL DENTAL	I					
EYE	I		I	I		
PHYSICIAN	I		I			
PHARMACIST	I					
SANITARIAN	I		I	I		
SPECIAL ED. TEACHER		I				
(LEVEL 2):						
MID-LEVEL PRACTITIONER						
PUBLIC HEALTH NURSE					X	X
EMT 1					1/2	19
EMT 2					3	
BEHAVIORAL HEALTH COUNSELOR					13	
SOCIAL WORKER						
HOME HEALTH AID						
HOMEMAKERS AID						
CHA						
OPTOMETRIST						I
DENTIST					X	I
PSYCHOLOGIST					I	I
SPECIAL ED. TEACHER					1	2
RN						1
LPN						
GENERAL PHYSICIAN						I
PHYSICIAN- SPECIALIST						I
PHARMISIST						
COMMUNICATION THERAPIST						
X-RAY TECHNICIAN						
SANITARIAN						I
AUDIOLOGIST						
COMMUNITY OUTREACH						X
PHYSICIAN ASSISTANT						1
LABRATORY TECHNICIAN						
MEDICAL TECHNICIAN						

INVENTORY OF MANPOWER  
(CONT.)

COMMUNITY BARROW	
DESIGNATION* LEVEL	3
MANPOWER	
(LEVEL 3)	
ALL LEVEL 2	X
EMT 1	X
EMT 2	X
PUBLIC HEALTH NURSE	2
RN	2
LPN	6
SANITARIAN	I
SPECIAL ED. TEACHER	2
PRIMARY CARE PHYSICIAN	3
PHYSICIAN- SPECIALIST	
HOSPITAL SUPPORT STAFF	
X-RAY TECHNICIAN	
MEDICAL TECHNICIAN	
LABRATORY TECHNICIAN	
DENTIST	2
OPTOMETRIST	
PHARMACIST	
PSYCHOLOGIST	X
SOCIAL WORKER	

Level 1- Highest level of shortage  
 X- Services available  
 I- Itinerant

Source: Compilation of data from the State Health Plan 2.

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INVENTORY OF FACILITIES AND SERVICES

	COMMUNITY					
	DOT LAKE	NORTHWAY	TANACROSS	TETLIN	DELTA	TOK
<b>(LEVEL 1):</b>						
<b>FACILITIES:</b>						
CLINIC SPACE HEALTH CENTER	X	X	X			
<b>SERVICES:</b>						
PRIMARY CARE	X	X	X	X		
PREVENTION	X	X	X	X		
PROMOTION						
LIMITED PHARMACY	X	X	X	X		
HOME HEALTH CARE						
HOMEMAKER	X	X	X	X		
ITINERANT	X	X	X	X		
BASIC LIFE SUPPORT	X	X	X	X		
NUTRITION		X		X		
MOBILE EMERGENCY SERVICES						
ELDERLY SUPPORT				X		
X-RAY		X				
<b>(LEVEL 2):</b>						
<b>FACILITIES:</b>						
HEALTH CENTER						X
PHYSICAL CLINIC					X	X
DENTAL CLINIC					X	
<b>SERVICES:</b>						
ALL SERVICES FOR LEVEL 1						
CONSULTATION TO LEVEL 1						
PROVIDERS						
LIMITED INSTITUTIONALIZATION					X	
DENTAL					I	I
GENERAL PHARMACY					X	X
EDUCATION AND COUNSELING						X
LONG TERM CARE ALTERNATIVES						
NUTRITION						X
SUPPORT AND SUPPLY TO LEVEL 1						
ADVANCED LIFE SUPPORT w/ CARDIAC					X	X
AMBULATORY MEDICAL AND SURGICAL PROCEDURE					X	X
BASIC DIAGNOSTIC CAPABILITIES						
LIMITED X-RAY AND LABRATORY						

Level 1- highest area of need  
I- Itinerant

INVENTORY OF FACILITIES AND SERVICES  
(CONT.)

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COMMUNITY

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BARROW

(LEVEL 3):

FACILITIES:

HOSPITAL	X
ACUTE CARE BEDS	14
LONG TERM CARE BEDS	
CLASS 4 EMERGENCY CARE	X
BASSINETS	
HEALTH CENTER	X
COMMUNITY MENTAL HEALTH CENTER	X
PHYSICIANS CLINIC	
DENTAL CLINIC	X
NURSING HOME	

SERVICES:

ALL SERVICES PROPOSED FOR LEVEL 2	
CONSULTATION TO LEVEL 1 and 2 PROVIDERS	
SHORT STAY INSTITUTIONAL SERVICES	
CHRONIC CARE INSTITUTIONAL SERVICES	
LONG STAY INSTITUTIONAL SERVICES	
PHARMACY SERVICES	X
OPTOMETRIST SERVICES	I
DIAGNOSTIC X-RAY	
COMMUNITY BASED MENTAL HEALTH	X
COMMUNITY BASED DRUG REHABILITATION and TREATMENT	
MOBILE EMS SERVICES	
SHORT TERM SHELTER CARE	
DETOX	
DENTAL	X
CLINICAL LAB w/BLOOD BANK	
ADVANCED LIFE SUPPORT SYSTEM w/ CARDIAC	X
SUPPORT AND SUPPLY FOR LEVEL 2	X
CATASTROPHIC AND DISASTER CAPABILITIES	X
OUTPATIENT MEDICAL AND SURGICAL PROCEDURES	X
INPATIENT MEDICAL AND SURGICAL PROCEDURES	X

INVENTORY OF FACILITIES AND SERVICES  
(CONT.)

COMMUNITY	FAIRBANKS	ANCHORAGE
(LEVEL 4):		
SERVICES:		
ALL PROPOSED SERVICES FOR LEVEL 1, 2, and 3	X	X
CONSULTATION FOR LEVEL 1, 2, and 3	?	?
SPECIALIZED MAJOR MEDICAL SERVICES	X	X
CLASS 2 EMERGENCY CAPABILITIES	X	
CLASS 3 EMERGENCY CAPABILITIES		X
MAJOR DIAGNOSTIC SERVICES	X	X
CLINICAL LABORATORY w/BLOOD BANK	X	X
BASIC REHABILITATION SERVICES	X	X
OPHTHALMIC SERVICES	X	X
UNIFORM HEALTH INFORMATION CENTER		?
COMMUNICATION TO ALL LEVELS	?	?
THERAPEUTIC RADIATION CAPABILITIES		X
PATHOLOGY CAPABILITIES	X	X
AUTOPSY CAPABILITIES	X	X
MENTAL HEALTH INPATIENT CARE	X	X
ALCOHOLISM INPATIENT CARE	?	X
MECHANISM FOR MOBILIZING EMS SERVICES	X	
HEALTH CENTER	X	?
MENTAL HEALTH CENTER	X	?
DETOX	X	?
PHYSICIANS CLINIC	X	X
DENTAL CLINIC	X	X

Source: Compilation of data from the State Health Plan 2.

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## HEALTH RELATED AGENCIES IN FAIRBANKS

Fairbanks Native Associan  
Division of Family and Youth Service  
Tanana Chiefs Conference, Inc.  
Fairbanks Rescue Mission  
Community Mental Helath Center  
American Red Cross  
North Star Council on Aging  
Division of Public Assistance  
Pioneers Home  
Displaced Homemakers  
Social Service Administration  
Fairbanks Rehabilitation Association  
Project Teach  
Alaska State Housing Authority  
Bassett Army Hospital  
Reach to Recovery Program  
LaLeche League  
Fairbanks Counseling  
Hospitality House  
Resource Center for Parents and Adoption Children  
Public Health Nursing Section  
Women in Crisis Counseling Assistance  
Division of Vocational Rehabilitation  
Homakers- Health Aide Services  
Careage North  
Adult learning Center  
Division of public Assistance  
Alaska Crippled Children and Adults  
Handicapped Children's Program  
Alaska Native Health Center  
Foster Grandparents and Senior Companion Program  
Tanana Valley Clinic  
Fairbanks Clinic  
State of Alaska Emergency Medical Services  
Military Assistance for Safty and Traffic (MAST)  
Northern Alaska Health Resources Association  
American Diabetes Association  
Alaskan Center for Independent Living  
Alcoholics Anonymous  
American Cancer Society  
KILA, Inc.  
March of Dimes  
Northern Regional Center for Alcohol and Other Addictions  
Doctor's Medical and Surgical Clinic  
Alaskan Medical and Surgical Clinic  
Ear, Eye, Nose and Throat Clinic  
Fairbanks Family and General Practice  
Fairbanks Internal Medicine  
Fairbanks Psychological Clinic  
OB-GYN Associates  
Pathology Consultants, Inc.  
Alaska State Division of Health and Social Services

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