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REPORT OF A STUDY OF INUIT HEALTH AND HEALTH SERVICES IN THE KEEWATIN ZONE OF THE NORTHWEST TERRITORIES 1980

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TABLE OF CONTENTS

LIST OF FIGURES

Page

LIST OF TABLES

FINDINGS AND RECOMMENDATIONS

The existing system of fixed nursing stations, visiting doctors, and air evacuation of patients in case of need, provides a level of health care within the Keewatin -- measured in units of service -- that is comparable to that enjoyed by most Canadians.

The health of the Keewatin Inuit has improved vastly over the past two decades, measured by declining infant mortality and by the reduced prevalence of communicable disease. It still appears to be below general Canadian levels, though this can be stated only as a probability rather than with certainty because the population denominator is so small that statistical rates are quite unreliable.

It is not possible to demonstrate that the deaths which occurred in the Keewatin since 1977 could have been "prevented" (i.e. postponed) by more, different, or differently organized medical services.

The level of service provided in the Hamlets is not available in temporary camps or to travellers on the land. It is doubtful that equivalent service could ever be made available outside the settled communities, nor is it available outside settled communities in other parts of Canada.

Our specific recommendations (and the Chapters from which they arose) are as follows:

Recommendations (Chapter 1):

1. Despite the desire in some quarters for transport vehicles for nursing stations,

it is not recommended that such vehicles be provided to stations other than Coral Harbour because the workloads, the distances, and the difficulties of maintenance do not justify the expense.

2. For travellers on the land, simple prudence dictates that routes of travel and estimated arrival times be communicated in advance. Two-way radio communication would be a distinct help in the case of an emergency.

3. For individuals going to temporary camps, it is advisable that their health status be checked in advance by the nursing stations, that individuals on drug therapy take adequate supplies with them, and that basic first aid kits, and instruction in their use, be provided. Two-way radios of a power sufficient to reach the nearest settled community should be taken along. Individuals in the community should be responsible for the provision of these radios, not the Medical Services Branch.

Recommendations (Chapter 3):

1. We do not consider the provision of 24-hour duty nursing at the nursing stations to be either medically necessary or economically feasible.

2. We recommend that every effort be made to man the telephones at the nursing stations during the early evening hours.

3. We recommend that the nursing stations consult local health committees and other community organizations to determine the most satisfactory scheduling of clinic hours.

4. We do not believe that the goal of one physician for every community of one thousand population is appropriate. We recommend that physicians be located only in communities with a hospital where x-ray, laboratory, and other support services will be available to make maximum use of their special skills.

5. The Northern Health Unit of the University of Manitoba medical school, and in particular the members stationed at Churchill, should consult the individual communities in order to determine the optimum type and frequency of medical visits. Every effort should be made to implement the planned servicing of communities, particularly in the case of visiting dentists and dental therapists.

6. The increasing population of the Keewatin and the designation of Rankin Inlet as a regional administrative centre by the Government of the Northwest Territories, make this community the appropriate site for a hospital of about 30 beds to serve the Keewatin communities. This hospital should eventually provide the range of physician services and in-patient treatment presently available in Churchill. Before this can be done, we are of the opinion that the following conditions should be met:

a) there should be scheduled air services based in Rankin Inlet to serve the Keewatin communities and there should be a scheduled air link between Rankin Inlet and Winnipeg.

b) the Rankin Inlet airport should be improved. The improvements should include ground control radar and a terminal building with entrance flush with the ground or with a ramp as well as stairs, suitable for the reception of medical evacuees as well as other passengers.

c) there should be provision in or immediately adjacent to the hospital building of offices for the Medical Services Branch zone headquarters staff and for public health nurses.

d) the advisory board for the hospital should include representation of all the Keewatin communities in proportion to their population.

e) the linkage with the Northern Medical Unit of the University of Manitoba should be maintained.

f) a transient centre should be built as part of or immediately adjacent to the hospital, part to be used for the accomodation of ambulatory patients and family members and part to be used for the chronically ill and others in need of bed care at a level of care lower than that provided by the acute treatment hospital.

g) the procedures for phasing out the Churchill Health Centre and phasing in a Rankin Inlet hospital should be negotiated inter alia with representatives of the Town of Churchill and the Province of Manitoba.

We should like to note that no hospital of 30-odd beds can provide a full range of medical and surgical services, and referral to Winnipeg will still be necessary as in the case of the Churchill Health Centre.

Recommendations (Chapter 7):

1. The orientation of the nurses should be improved. Given the high turnover of nurses, each station should maintain a local briefing book in which the salient

characteristics of the community and any significant local cultural, health, or interpersonal-relations characteristics are recorded for the benefit of newly-arrived personnel.

2. Community Health Boards should be established in each locality (see Recommendation 1, Chapter 8) and should in addition be responsible for

a) orienting the nurse to the community

b) informing the community of the background and rôle of the nurses

c) receiving complaints about the service rendered by the health care personnel

d) mediating any disputes that may arise.

3. Arrangements for medical evacuees are adequate in principle but we recommend that great care be taken to ensure that the stipulated arrangements are carried out in practice -- for example, ensuring that evacuees to Winnipeg are met on arrival.

4. Transient accommodation in Winnipeg should be improved. There are two acceptable alternatives:

a) Mrs. Penner should be given assistance to expand her present house or buy a new one.

b) a transient centre should be established for all Inuit patients.

Recommendations (Chapter 8):

1. We are of the opinion that the most effective mechanism for the coordination and management of local health services is a Community Health Board with explicit responsibilities and a budget to carry them out. We recommend that one be established in each community and that they absorb the functions of the present health committees. Each Board should be concerned with all the major health-related agencies in a community; its functions should be worked out in detail by means of consultation among all the agencies involved, but they could be normally expected to include responsibility for environmental sanitation, health promotion, health education and either a consultative or management rôle in the operation of the nursing station. We are not in a position to recommend the method of selection of board members, but wish to emphasize that they should be truly representative of the communities served.

2. We recommend the use of the Inukshuk television project for purposes of health education, especially adult health education.

3. The Hudson's Bay Company, the Cooperatives and other merchants in the communities should all participate in community programmes to improve nutrition.

4. Appropriate housing and community sanitation contribute to the health status of the inhabitants of the Keewatin, and we recommend that the Government of the Northwest Territories replace the poorer, older housing and improve sanitary facilities where appropriate.

Recommendations (Chapter 9):

1. We recommend that a training programme for Inuit health personnel be instituted. The population of the Keewatin is too small to sustain such a programme by itself and we recommend that only one facility train all Inuit. The decision as to the exact location should be a political one decided upon, largely, by representative Inuit groups who, once the decision has been made, should also encourage people from all parts of the Nunavut to attend.

2. In our view a necessary precondition of a successful training programme, so far as the residents of the Keewatin are concerned, is the establishment of the proposed high school in Rankin Inlet, with specific provision for training at an acceptable level in the natural sciences.

3. Another condition for a successful training programme is the periodic review of salaries in the health professions to ensure comparability with rates for alternative employment in non-health fields in the N.W.T.

4. In view of the pressing need for dental therapists, the training programme should emphasize the training of this type of health professional as a first priority along with nursing personnel. The longer-range goal of the programme should be training Inuit to the highest possible levels in as wide a range of the health professions as is practicable.

Recommendation (Chapter 10):

1. We recommend that, in view of the detrimental effects of uncertainty, every effort be made to resolve speedily the issue of when and to whom responsibility for health services is to be transferred.

INTRODUCTION

The Inuit population of the Keewatin, which for centuries had lived on the land in small groups of families, had by 1960 largely concentrated in seven settlements -- Repulse Bay, Coral Harbour, Whale Cove, Chesterfield Inlet, Rankin Inlet and Eskimo Point on the West Coast of Hudson's Bay, and Baker Lake, inland from Chesterfield Inlet. In addition, the community of Sanikiluaq in the Belcher Islands was counted as part of the Keewatin Zone for purposes of health administration. The estimated population of these communities is given in Table 1. Public schools and nursing stations were built in the settlements, and local self-government came when they were given Hamlet status by the Government of the Northwest Territories. The Anik satellites, launched in the 1970's, improved telephone communications between settlements and with other parts of Canada, and provided a "window on the world" through television.(1)

In the context of generally increased awareness, political participation, and rising expectations, questions began to be raised about the health care system based on fixed nursing stations and flying doctors that had grown up in the 1960's and 1970's. Interested individuals and community groups petitioned for improvements, including doctors in the larger communities, and for a hospital in Baker Lake or Rankin Inlet. The Inuit Tapirisat of Canada made contact with the Department of National Health and Welfare, Medical Services Branch, in November and December 1979, and it was agreed that in the first instance a study would be made of health services in the Keewatin which could possibly be repeated later for other parts of the North. The terms of reference included the availability and accessibility of health services, comparability with national standards, scope of service, quality of care,

TABLE 1

Estimated Population of the Keewatin, 1979

Community	Medical Services Branch Estimate	Government of NWT Projection From 1978 Base
Baker Lake	1,017	1,034
Chesterfield Inlet	281	301
Coral Harbour	414	424
Eskimo Point	980	983
Rankin Inlet	956	1,003
Repulse Bay	328	301
Whale Cove	203	206
Subtotal (NWT Keewatin Region)	4,179	4,252
Sanikiluaq	334	335
TOTAL (MSB Keewatin Zone)	4,513	4,587

Source: MSB data from Report on Health Conditions in the North West Territories 1979.

GNWT data from Population: Methodological Report (1979)

quality of health, utilization of resources, patient and professional responsibility and interpersonal relationships, the relationship of health care to other community structures, and the feasibility of training Inuit health professionals. Chapters 1-9 cover these topics in the same order.

The original terms of reference also included a review of the program objectives of the Medical Services Branch Zone and the degree to which they fulfill Booz Allen Hamilton and Medical Services Branch Regional objectives. The original Booz Allen Hamilton report is twelve years old (dated 1969), related to Indians only (no mention of Inuit), and was limited to the Middle North (provincial boundary) and does not cover the NWT in general or the Keewatin in particular. Its recommendations, therefore, are not relevant to the present study.(2)

The Medical Services Branch Keewatin Zone and Northwest Territories Regional objectives have in the past been formal statements for internal administrative purposes and usually do not provide an explicit numerical criterion. Some of the objectives (such as a physician in every community of 1,000 population in the Regional 1979/80 statement) are open to serious question. The Zone and Regional objectives are to be subjected to extensive Branch review for purposes of planning and evaluation in the near future and are therefore excluded from the present study.

Professor A.P. Ruderman of Dalhousie University (health administration) and Professor G.R. Weller of Lakehead University (political science) were designated to conduct the study. It was stipulated that field visits be made to observe the Keewatin under summer and winter conditions, and that a report be made to the Minister of National Health and Welfare, the Minister of Health of the Northwest Territories, and the President of the Inuit Tapirisat of Canada in April 1981.

Visits were made to Repulse Bay, Coral Harbour, Rankin Inlet, Eskimo Point, and Baker Lake in August 1980, and to Sanikiluaq in December. Particularly poor flying conditions prevented planned visits to Whale Cove and Chesterfield Inlet in December. Visits were also made to Churchill, Manitoba where a meeting was held with the Board of the Churchill Health Centre and both the Health Centre and Transient Centre were observed; to Yellowknife for discussions with personnel of the Medical Services Branch Regional Office and the NWT Department of Health, and to Winnipeg for meetings with the Northern Health Unit of the University of Manitoba Medical School and with Mrs. Gloria Penner, proprietor of a boarding house used by the majority of Inuit patients in Winnipeg. The collection of information in the Keewatin communities was based on discussions with Hamlet staff and councils, with Health Committees where these existed, and with other community leaders as well as nurses, schoolteachers, Hudson's Bay and Cooperative store managers, and other interested individuals. A small number of homes were visited, and contact was also made with the "man in the street" through phone-in radio shows and by inviting the general public to hamlet council meetings. Health statistics of the Medical Services Branch were checked, wherever possible, against the records of individual nursing stations. Additional data were supplied by the Churchill Health Centre, the Northern Health Unit in Winnipeg, and the NWT Department of Health. Briefs were requested from interested parties who could not meet in person with the investigators, and are included in the bibliography. While detained by bad weather in Rankin Inlet, the investigators also had the opportunity to meet with the council of the Keewatin Inuit Association, including the secretary managers of the Hamlets of Whale Cove and Chesterfield Inlet. Information was also supplied by NWT officials stationed in Rankin Inlet. The investigators also met with Hon. Peter Ittinuar, MP (Keewatin), Hon. Willy Adams, Senator (Keewatin) and Hon. Rod Murphy, MP (Churchill).

Finally, the Canadian Air Transport Committee provided information on their August 1980 study of the Keewatin and on subsequent license application hearings for air service in the Keewatin.

CHAPTER 1

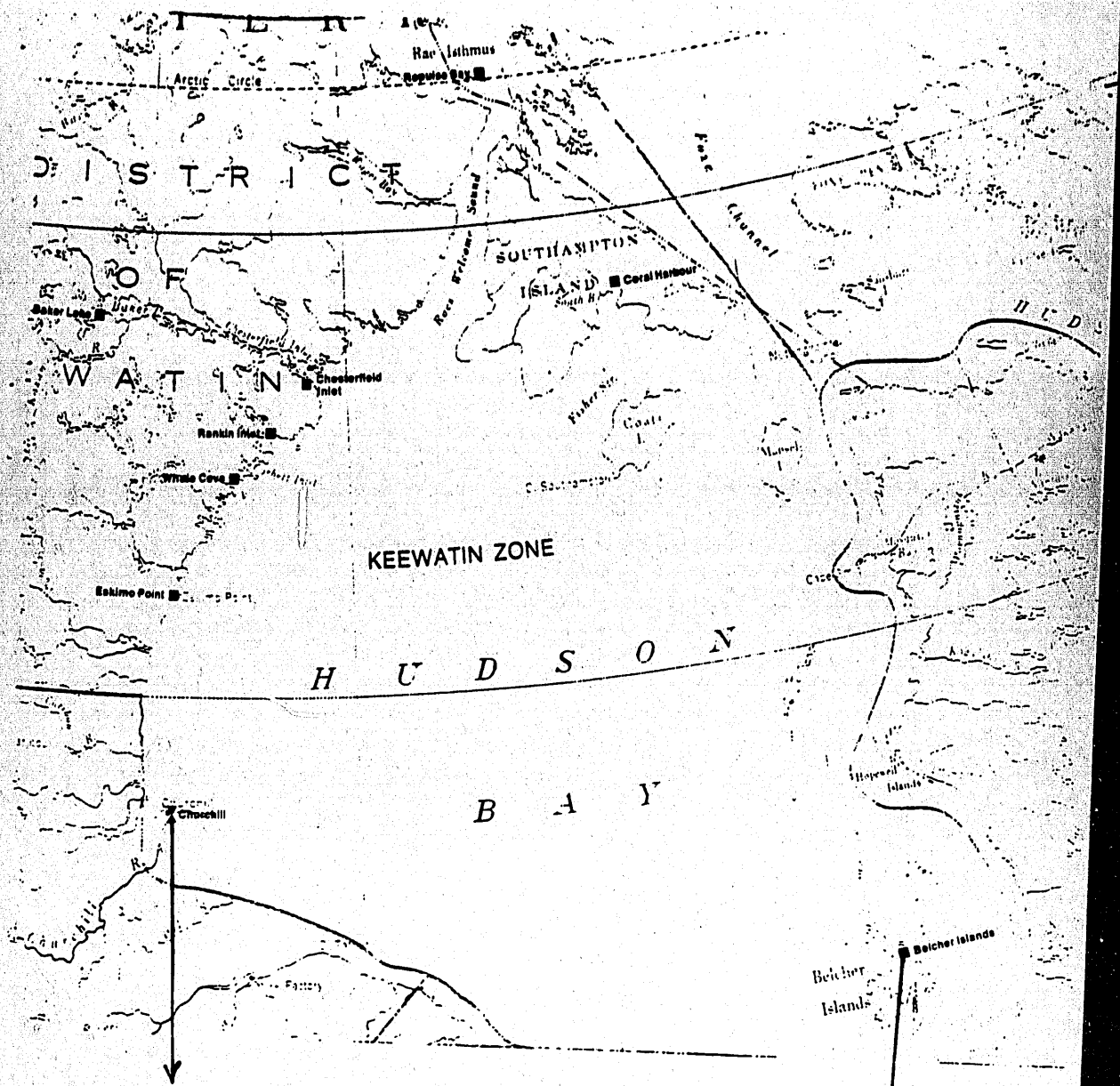
Availability and Accessibility

The residents of the Keewatin have three levels of care available to them. These are nursing stations in each of the communities, regional hospitals in Churchill and Moose Factory and then more sophisticated treatment facilities in southern institutions. The accessibility of these facilities becomes, of course, increasingly difficult with increased distance. The geography and the scattered and low density of population of the region means that the distances involved are very great. Moreover weather conditions can be harsh and variable also adversely affecting accessibility.

Since Sanikiluaq is included in the Medical Services Branch Keewatin zone, there are two referral patterns in the Keewatin as illustrated in Figure 1. The first affects only Sanikiluaq and goes from the nursing station in that community to the federal zone hospital in Moose Factory and from there to Kingston or Toronto. The second affects all the other communities and goes from their nursing stations to the Churchill Health Centre in Manitoba and from there to Winnipeg.

The nursing stations are equipped with examining rooms, basic diagnostic equipment, including x-ray and basic laboratory, medical supplies and drugs, and one to three cribs and one to four beds depending on the size of the community served. It should be emphasized that the facilities are designed for out-patient care and uncomplicated childbirth, that the beds are intended principally for use in emergencies, waiting for evacuation, and short-term observation of patients, and that the nursing station is not a hospital. Some nursing stations also have a dental

Figure 1
Keewatin health services, 1980.



Nursing stations refer patients to Churchill Health Centre (33-bed community hospital) in Manitoba. Churchill refers patients to Health Sciences Centre in Winnipeg.

Sanikiluaq nursing station (Belcher Is.) refers patients to federal hospital at

chair and treatment area, while in other communities the dental facilities are located outside the nursing station for lack of space. Each of the nursing stations was usually staffed with two or three qualified nurses. Many of these had special qualifications in midwifery, outpost nursing, and public health. The minimum Inuit support staff consisted of a handyman and clerk/interpreter, and some nursing stations had a dental therapist, a Community Health Representative, or a Certified Nursing Aide. Turnover of expatriate personnel was high (120% in 1979) and Inuit staff also had a high turnover because of the small number of trained individuals and the attractive salaries in alternative employment.

The Churchill Health Centre is a small hospital located just below the NWT border in Manitoba, within one to two hours' flying time by turboprop aircraft from the different settlements (slower in piston-driven planes, faster in jets). Sanikiluaq in the Belcher Islands, which is considered part of the Keewatin Zone for medical services administration, uses Moose Factory as a basic referral hospital because of the proximity (40 minutes' flying time) of the latter. The Churchill hospital is used for most of the childbirth not handled at the nursing stations, for more elaborate diagnostic procedures, and for some medical and surgical treatment. The Northern Health Unit of the University of Manitoba Medical School maintains a staff of five general practitioners under contract at the Churchill Health Centre. The 33 bed Hospital also has a nursing and technical staff of seventeen.

Patients requiring more complex diagnostic or treatment procedures and major surgery than can be provided in Churchill are referred from Churchill to the University of Manitoba Health Sciences Centre in Winnipeg (about 1.75 hours' flight by jet from Churchill). Some patients bypass Churchill and are sent directly from the nursing stations to Winnipeg when medically indicated -- usually in emergencies.

Access to nursing stations within settlements is by foot, by wheeled vehicle in summer, and by skidoo or similar conveyance in winter. The Coral Harbour nursing station has a four-wheel drive station wagon that can be used as an ambulance, while most communities rely on local taxis or other private means of transport. Nurses in some stations did not desire a four-wheel vehicle for fear that they would be under pressure to use it for general taxi purposes. A large number of people mentioned during our interviews that each nursing station should have, essentially, an ambulance service and the appropriate vehicles. While the transportation of patients within the communities may cause some problems on occasion, especially in bad weather, the frequency of problems did not seem to us to justify such an expense.

Individuals in outpost camps and travellers on the land must find their way to a settlement in order to receive the level of medical care that a nursing station can offer, although kits for emergency self-help and instructions in their use are available. When an outpost camp is within range of a settlement, using the radio equipment provided by the N.W.T. Wildlife Service, the nursing station is in a position to provide advice, prepare to receive patients, or help locate means of transport. In other cases, the nursing stations is not aware of the need for help until the patient or a messenger arrives. UHF hand-held transceivers have been used successfully over line-of-sight distances by travellers in some parts of the North and could usefully be employed in the Keewatin for short trips.

Communications between the nursing stations and hospitals in Churchill and Winnipeg have improved vastly since satellite telephone service arrived in the late 1970's. Communications within settlements by local telephone are simple and reliable. Communication with outpost camps and travellers on the land is often impossible except by messenger when appropriate radio equipment is not available.

The nursing stations respond to telephone calls around the clock, even when nurses are not on duty, and nurses can be reached whenever they are at a location with a telephone (school, hamlet office, homes within settlements on the telephone line) but there are some occasions when a nurse in a one-nurse station cannot be reached because she is on the land, attending a patient not on the telephone line, or absent on escort duty in cases of emergency when there is no one else to accompany a patient.

Review of Present Air Service

A review of the present scheduled air service relative to arrangements for transportation and evacuation of patients seems pointless in view of the rearrangement of Calm Air and Northwest Territorial passenger service which is in process at the time of writing. Each community in the Keewatin has a graded gravel air strip, but none is equipped with ground control radar and, although radio identification beacons are all operative, ground-to-air voice communication is reputed to have been out of commission in Whale Cove since December 1979. Since taking over from Transair, Calm Air endeavoured to maintain a scheduled service with a single Hawker-Siddeley 748 until late 1980 and numerous complaints about the frequency and regularity of scheduled service were heard. Late in 1980, more frequent scheduled service began, with Twin Otter aircraft based on Rankin Inlet supplementing the Hawker-Siddeley 748. Patients are frequently evacuated by charter aircraft at high cost, although there are times when it is difficult to obtain a charter plane and others when no plane can land in a given community because of weather conditions.

Air evacuations in the fiscal year 1979-80 are summarized in Table 2.

The per cent going by charter was lowest in the Belcher Islands, which (Sanikiluaq) was served by another company, Austin Airways, with five daily scheduled flights per week. Within the Calm Air sector, the lowest charter rate was Eskimo Point, which also had the most frequent scheduled service to Churchill.

Of the 1294 patients evacuated by air in 1979-80, 218 (17%) were by charter. Of the total cost of $370,953, $261,686 (54%) represented the cost of charters. The average cost per evacuation was $102 per scheduled flight and $1200 per charter. Five hundred and seventy-nine patients were escorted by a nurse or doctor, with no additional cost per charter but requiring additional fares on scheduled aircraft.

Except for the nursing stations in the communities, accessibility is maintained only at the high cost of scheduled or charter air transport. Physicians must be flown in for their periodic visits. Patients must be flown out. Most of the time weather delays are relatively short (perhaps one or two days during a storm) but occasionally there are periods when a community is cut off for weeks by bad weather. If a medical emergency were to arise during such a period, it is unlikely that anything could be done to get the patient out of the community. From time to time, the weather is so severe that planes cannot even land at Churchill with its concrete runways and ground-control radar.

Given the weather conditions of the Keewatin and the present state of air transport technology, health care outside the settlements is surprisingly accessible much of the time. Transport of patients within communities may involve some personal hardship and inconvenience in bad weather, but is seldom impossible.

Every few years there are cases where an individual on the ice or on the land dies because it is impossible to reach a source of medical care. It is doubtful that this situation can be remedied, and weather and poor communication must simply be counted as hazards of Arctic travel.

The only real improvement in accessibility to medical services would occur if a hospital were to be constructed in Rankin Inlet. This would significantly reduce the evacuation distances from the communities to the regional hospital. It would also significantly reduce the distances to be travelled by visiting physicians based in the new hospital. This is very clearly illustrated in Table 3 and Figures 2 and 3. There should be a significant reduction in travel costs associated with the new route pattern. On the basis of the number of medical evacuations from each community in 1979-80, the total passenger-miles to a hospital in Rankin Inlet would be 45.5% of the passenger-miles to Churchill, with a potential saving of about $400,000 at 1979-80 rates. This, of course, assumes the upgrading of landing facilities at Rankin Inlet, the establishment of a direct link between Rankin Inlet and Winnipeg, and the concentration of regional air services and routes around Rankin Inlet. Such a pattern seems to be developing without a hospital being located in Rankin Inlet so the process would probably be speeded up if one were built. Calm Air now has a twin Otter based in Rankin Inlet, and another company has proposed a scheduled flight from Rankin Inlet to Churchill to Winnipeg on days when Churchill is not served by Pacific Western. Northwest Territorial Airlines already operates an Electra service return from Yellowknife to Frobisher Bay via Rankin Inlet and is contemplating a daily Electra flight from Yellowknife to Winnipeg via Churchill and Rankin Inlet.

TABLE 2

Air Evacuations of Keewatin Patients, Fiscal Year 1979-80

Community	Number of Evacuations	Evacuation Per Thousand Population	Per cent by Charter
Baker Lake	155	164	17%
Belcher Islands (Sanikiluaq)	68	209	7
Chesterfield Inlet	80	301	25
Coral Harbour	120	323	23
Eskimo Point	231	232	8
Rankin Inlet	256	257	14
Repulse Bay	86	243	31
Whale Cove	76	411	29

Source: Medical Services Branch records

Figure 2.

Airline miles in the Keewatin: Distances from Churchill

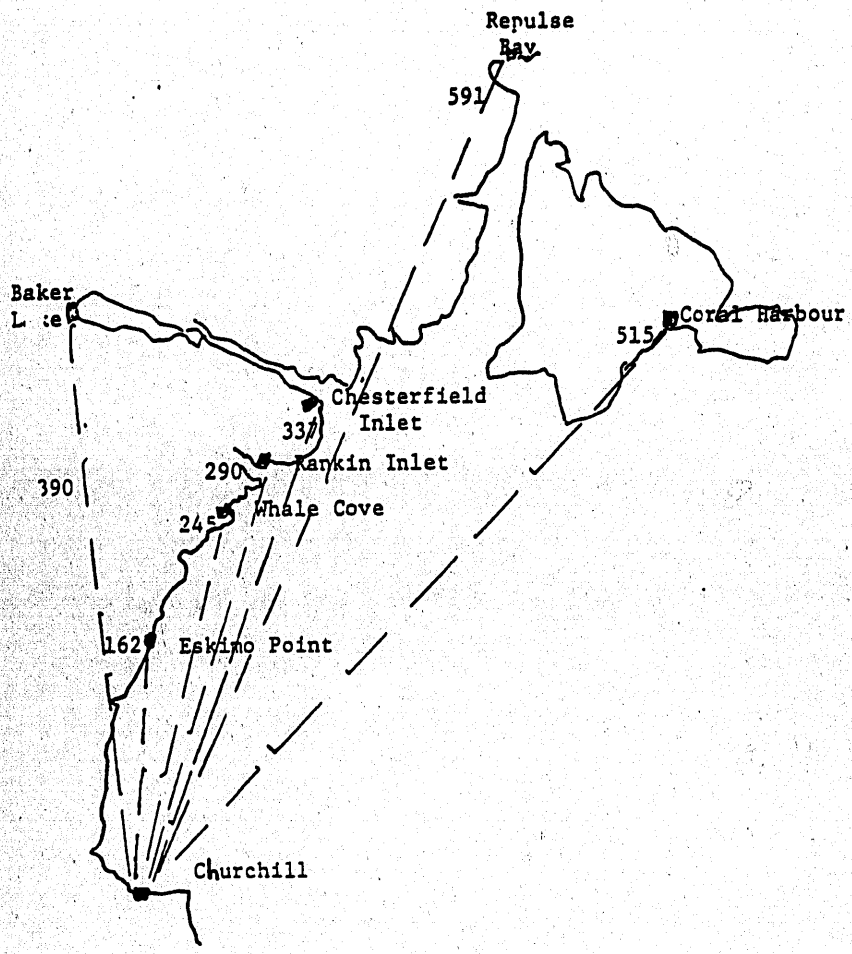


TABLE 3

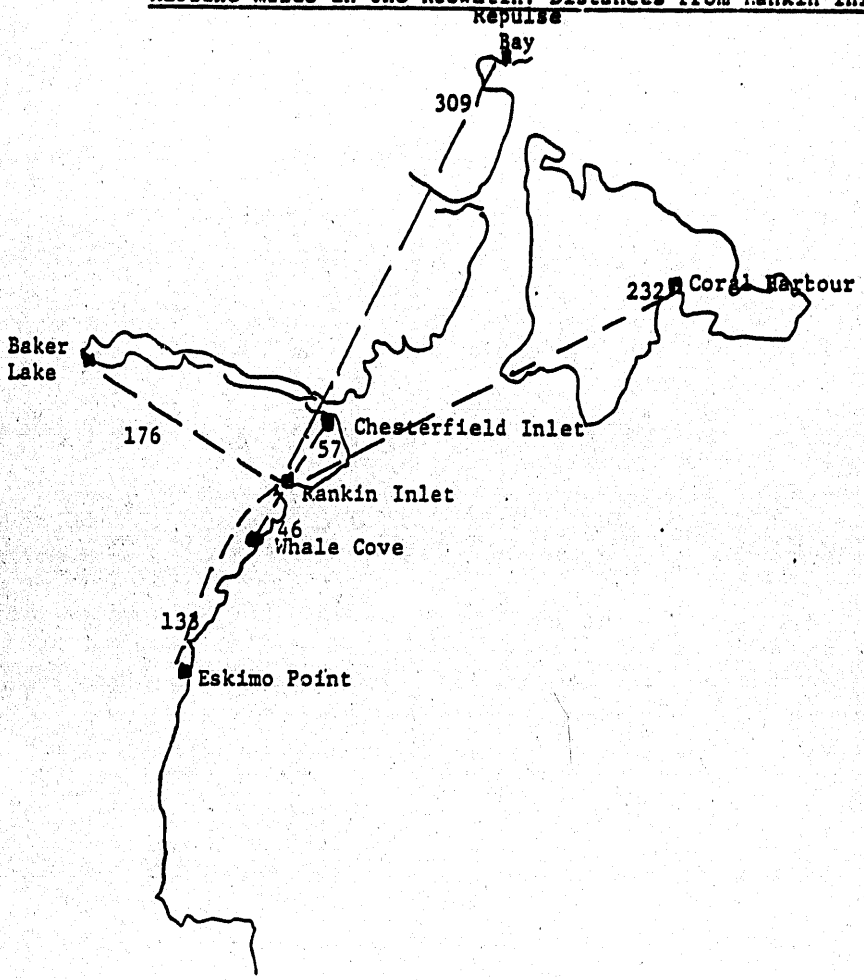
Comparative Air Distances

(statute miles)

	To Rankin Inlet	To Churchill
Repulse Bay	309	591
Coral Harbour	232	515
Chesterfield Inlet	57	337
Baker Lake	176	390
Whale Cove	46	245
Eskimo Point	133	162

Figure 3.

Airline miles in the Keewatin: Distances from Rankin Inlet



CHAPTER 2

Comparability with National Standards

No country has what can truly be termed a national standard for health care in the sense of an objectively-determined level of service that is considered optimal, although most countries, like Canada, indulge occasionally in international comparisons and compare individual situations with the country-wide average.

Provision of health care in the Keewatin can be compared with that available in roughly similar circumstances and under roughly similar conditions, because the exact circumstances and conditions are not found elsewhere.

The Keewatin has a small population (under 4,600 in 1979 by any estimate), grouped mainly in seven settlements, of which the three largest have about 1,000 population.(3) The population is more than 85% Inuit. The population is extremely young - NWT government estimates as of 31 December 1978 showed 15% under the age of 5, 31% under 10, 45% under 15, and 56% under 20 -- and this is radically different from the Canadian age structure in general. Geographically, the zone is mid-arctic, with most settlements slightly south of the Arctic Circle. Economically, the Keewatin is mainly treeless, without major developed mineral resources, and the economy can be described as low-income and semi-subsistence, with part-time wages, hunting and trapping, and welfare the main sources of cash income. Some individuals earn higher money incomes from full-time employment in local government, and there are a few art, craft, and mercantile undertakings.

An exact match for "circumstances" and "characteristics" is hard to find. When compared with other areas of the Northwest Territories, the closest (but not an exact) match might be the Baffin District or the Inuvik District. Except for diffirent referral hospitals, and different medical schools as the source of specialist services, health care is much the same -- relying on local nursing stations and air evacuation. For the referral pattern throughout the Northwest Territories see Figure 4.

Communities in Baffin and Inuvik are able to count on more frequent and regular air services, though hearings about air service in the Keewatin were pending at the time of writing and the level of service that gave rise to recent complaints may prove to be remediable. In the sense that settlements have physically accessible nursing stations, with hospital and referral services available by air when medical need is established, the Keewatin is no different from the remainder of the Northwest Territories.

If it is desired to compare with the "best provision of care available in Canada" the smaller cities with large medical schools and teaching hospitals (Kingston, Ontario; Halifax, Nova Scotia; Saskatoon, Saskatchewan and Sherbrooke, Québec) have the greatest concentration of doctors and nurses per thousand population. On the other hand, farmers and inhabitants of communities under 2,000 population, particularly in the northern portions of many Canadian provinces and the costal areas of the Atlantic provinces, have less direct access to local health care if their community is without a doctor because no nursing stations are provided. They have the advantage of direct road access to centers of health care, however, although travel may require several hours of driving at the patient's expense as well

as the cost of room and board where the patient seeking ambulatory care cannot drive home the same day because of distance or weather.

The provision of health care comparable to the Canadian average makes "moral sense" since health care is considered a right of every Canadian. It is, indeed, the general objective of northern health policy to provide people in the north with health care as close as possible to the level prevailing in the south. While the elements of geography and sparse population distribution in the north clearly impose practical problems, the existing level would appear to approximate that available elsewhere in the country.

National medicare statistics show an average of 8.3 physician services per head of population in 1978-79. On the basis of sample data made available privately, 8.3 billed services is estimated to correspond roughly to 6 visits to the doctor.(4) In the Keewatin, excluding the Belcher Islands, general practitioners in 1979 saw about 2,600 patients in seven settlements with a population a bit under 4,500*. It is estimated that specialist consultants saw an additional 800 patients, for a total of about 3,400. In addition, it is estimated that the nurses saw at least 17,108 patients during the year. For a population of 4,500, this comes to 0.76 physician visits and 3.8 nurse visits for a grand total of on site service of 4.6 visits per capita, not counting referrals out to Churchill and Winnipeg. In Churchill, specialists from Winnipeg performed 173 surgical procedures and saw 749 patients. Churchill medical staff performed 308 surgical procedures and attended 557 cases from the NWT (almost all from Keewatin) as in-patients, amounting to approximately 4,000 bed-days of care (Southern experience would be that one item of physician service at the least is billed per bed-day). With a few patients from the Keewatin seen as out-patients in

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* Population estimates vary (see table 1). Using 4,200 in the denominator, the per-capita service rates would be about 0.3 higher overall.

Churchill, this adds up to 6,000 visits or 1.3 per capita. In addition, there were 117 evacuations to Winnipeg that on the same basis would amount to additional 0.3 visits per-capita. The grand total, therefore, both on-site in the settlements and provided in Churchill and Winnipeg to patients evacuated from the Keewatin for purposes of medical care, comes to 6.1 visits per capita compared with the Canadian average of 8.3 services, corresponding to about 6 visits.

In this calculation, it is considered that a visit to a nurse in the settlements is equivalent to a visit to a general practitioner in southern Canada. The nursing stations do, in fact, conduct a general medical service for the communities where they are located. While physicians have somewhat more and different training from nurses, it is commonly accepted that some 85 per cent of the patients seen in the the office of the typical general practitioner do not require his special diagnostic skills.(5) Some 20 per cent of the patients who come to the nursing stations were referred to a physician either during a periodic visit to the settlements or in Churchill or Winnipeg, the converse being that 80 per cent of patients seen were handled completely by the nurses, with the others being attended by physicians with higher diagnostic skills.

When it comes to in-patients, total bed-days of care for the Keewatin in Churchill, in Winnipeg, and in the nursing stations add up to less than 1.5 bed-days per capita, compared to somewhat more than 2 bed-days in Southern Canada. This is largely explained by the fact that hospitalizing a patient from the Keewatin involves expense, air travel, and removal to an alien setting far from home, so that there is a tendency to treat more cases on an out-patient basis than would hold true in the south. Whether the lower use of hospital beds and the higher use of out-

patient treatment amounts to better or worse care is an open question. Hospitals in the south in some areas have been criticised for admitting patients who could have been treated satisfactorily as out-patients. A recent British study appears to demonstrate that some classes of heart attack victims do better at home than in intensive or coronary care units. (6) There is no simple conclusion to be drawn.

If a significant difference can be identified between the Keewatin and southern Canada, it relates to the distinction between want and need. In the absence of resident physicians and a hospital within the area, it is obvious that individuals who may want to see a doctor will not have that want satisfied if a doctor is not in the community on the day in question or if the nurse decides that the case does not need the attention of a doctor who is visiting and the doctor's time is fully occupied with patients who have been referred by the nurse on a need basis. For hospitalization, the need to evacuate a patient is established by the nurse, by a visiting doctor, or by the nurse in telephone consultation with a doctor in Churchill or Winnipeg. It should be noted that in all parts of Canada (and in most countries of the world) a screening agent (usually the examining physician) decides whether a patient should be admitted to hospital, and not all patients who go to a hospital to seek care are in fact admitted, even in Montreal or Toronto.

While medical and nursing care approach national standards, despite the difficulties of sparse population, great distances, and hostile climate, the same cannot be said of dental care and chronic care. Visits by professional dentists are limited, and in some periods the Churchill Health Centre has been unable to recruit dentists for that purpose at all. When they do travel, their productivity per day is far lower than that of doctors or nurses because, while the other personnel are mainly

concerned with diagnosis and ordering treatment, the dentists must spend considerable time working on the teeth of the individual if any restorative work is to be undertaken. Even pulling teeth takes time. Routine cleaning and filling of teeth can be done competently by dental therapist graduates of the Fort Smith course, but this course only graduates 10 per year, of whom not all remain in the NWT, and most Keewatin communities do not presently have a dental therapist even when there is money for the purpose in the Medical Services budget and a vacant house available in the community.

Apart from the old and inadequate facility for the retarded in Chesterfield Inlet, there are no chronic care facilities in the Keewatin. Both dental services and chronic care facilities are further discussed in the following chapter.

CHAPTER 3

Scope of Service

A great many of the complaints heard during our inquiry concerned the scope of service provided to Keewatin residents. The most frequently heard complaints concerned the lack of 24 hour duty nursing at the nursing stations, the lack of doctors resident in the Keewatin communities, the frequency of general practitioner, specialist, and dentist visits, the lack of a hospital within the region and, finally, the total lack of chronic care facilities in the Keewatin.

A consistent complaint from residents of the Keewatin was that twenty-four hour duty nursing was unavailable at the nursing stations. People frequently commented that sickness does not choose when to strike. When fully staffed, the Keewatin has a complement of 20 nurses (1 per 225 inhabitants), with the distribution varying from 1 nurse in communities of 200-300 population (Whale Cove, Repulse Bay, Chesterfield Inlet), 2 nurses in Coral Harbour and Sanikiluaq, and 3 nurses in Baker Lake and Eskimo Point, to 4 nurses in Rankin Inlet. Turnover is high, and in 1979, 24 nurses terminated employment and 24 new ones were hired. Since the authorized staffing was 20 nurses, the turnover rate was 120% compared with 93% for the Northwest Territories as a whole. The larger nursing stations are seldom up to full authorized strength despite the assignment of one "float nurse" to fill short-term vacancies as they occur. With the pressure of demand for direct medical care from sick people and worried well people in communities, the first activity to be sacrificed when a station is under strength is public health (home visiting and health education in particular).

Given the high turnover rate and the limited budget, it would seem unlikely that the number of nurses could be tripled in order to provide 24 hour duty service at all the nursing stations. In addition to salaries, such an expansion would also require expanded living quarters. More importantly, given the incidence and types of morbidity in the communities, such an expansion of service is not medically necessary. The desire for 24-hour duty nursing at the nursing stations seemed to us to be unreasonable and to reflect a misunderstanding of the rôle and capabilities of the curative health care system. We feel that local health committees or other responsible local groups should emphasize the need for patient responsibility in assisting the nurses to utilize their time most efficiently by reporting sickness early so that it can be treated so far as possible during regular clinic hours and leave the nurses time to perform their many other important functions. A partial solution might be to let local health committees have a rôle in deciding upon the best hours for sick clinics. We were told in the communities that most of the relatively few calls for nursing help outside regular hours occur between 6:00 and 10:00 p.m. so that it might be possible in the three and four-nurse stations to have one nurse on duty in the evening. An alternative solution might be to provide supplementary funds from the hamlet budgets, or charge supplementary fees, that would make it possible to pay nurses overtime for additional duty hours if the communities so desired.

There is a strong desire on the part of all residents of the Keewatin, Inuit and non-Inuit, to have doctors permanently located at least in Baker Lake, Rankin Inlet, and Eskimo Point, each of which has a population of about one thousand. The Minister of Health has been petitioned on this matter(7) and it was specified as an objective by the NWT Regional Office of the Medical Services Branch in 1979. The President of the Inuit Tapirisat of Canada has made a call for such servicing(8) and it was constantly mentioned during the course of the inquiry. The opinions most

frequently mentioned were that a doctor could diagnose more accurately and perform a greater range of functions than a nurse. In addition, it was thought that the Keewatin was being discriminated against because there was no resident doctor for a population of 4,500 whereas the doctor/patient ratio in Canada generally was roughly 1:600.

We do not believe that the goal of a resident physician for each community of one thousand is appropriate. The main point is not the size of the town but the desirability of unsupported medical practice in communities without hospital facilities. The absence of support from hospital staff and facilities may well limit the activities of a doctor to little more than those now undertaken by the nurses. The attractiveness of an isolated duty station may not appeal to many physicians, nor would the absence of a high school for his or her children. The desirability of a physician might appear different if (1) it were possible to keep nursing stations up to full strength and (2) if there were a hospital in Rankin Inlet. The NWT government decision in late 1980 to provide a physician for Rankin Inlet appears, under present circumstances, to be premature.

It is likely that the location of solo physicians in even the larger communities would be of relatively marginal benefit even if it were possible to attract them. As noted earlier, it is commonly accepted that some 85% of the patients seen in the office of a typical general practitioner do not require his special diagnostic skills and in the Keewatin the nurses refer about 20% of the patients either to a visiting doctor or to doctors in Churchill. In any event a lone, unsupported doctor in such small isolated communities would be underutilized and this may lead such doctors to take on some of the work assigned to the nurses, thereby creating personnel problems. There was no really clear-cut case in recent years of an emergency where

only the intervention of a doctor would have made a significant difference. While it is true that there are no doctors resident in the Northwest Territories Keewatin Region there are five located in Churchill in the Medical Services Branch Keewatin Zone. The doctor-population ratio is really not zero to four thousand, but 1:900, which is closer to the Canadian average when it is recalled that the Canadian ratio includes numbers of non-practising and part-time physicians.

The fundamental problem seems to be that the Keewatin residents, like people in the rest of Canada, feel that the only "good" health care must come from a doctor and that they should have quick and easy access to that level of care. In short, they may want to see a doctor but, as with people elsewhere in Canada, it is not so certain that they medically need to. It is unfortunate that the "Churchill doctors" are not seen as "Keewatin doctors" and this may be a good reason, even if a non-medical reason, to locate them further north -- but only if they are supported by hospital facilities equivalent to those in Churchill.

Recent Ministers of Health have been petitioned(9) concerning the frequency of doctor, dentist, and specialist visits to the Keewatin communities, and we heard a large number of complaints on this point. General practitioners from Churchill visit the communities on a regular, scheduled basis (though the regularity applies more to the schedule than to the actual visits owing to weather and transportation difficulties) and specialists from Winnipeg also visit the communities as well as the Churchill Health Centre. The estimated number of community visits in 1979 is given in Table 4, and specialist visits to the Churchill Health Centre are shown in Table 5.

In no community was it possible to provide more than one general practitioner visit per month, except for Rankin Inlet (1.2 visits per month). Visits by medical

TABLE 4

Physician Visits to Keewatin Communities, 1979

SETTLEMENT	GENERAL PRACTITIONERS Number of Visits	GENERAL PRACTITIONERS Number of Days	MEDICAL SPECIALISTS Number of Visits	MEDICAL SPECIALISTS Number of Days	DENTISTS Number of Visits	DENTISTS Number of Days
Rankin Inlet	14*	48	10	31	3	10
Baker Lake	12	39	6	23	-	-
Eskimo Point	10	42	4	12	2	32
Coral Harbour	7*	24	6	6	-	-
Chesterfield Inlet	8	17	6	8	1	6
Whale Cove	7**	18	7	9	1	14
Repulse Bay	5***	14	4	5	2	4

* 2 extra trips - stranded by weather.
** 1 trip cancelled owing to weather.
*** 2 trips cancelled owing to weather; 1 trip cancelled because of small workload.

Source: Records of Churchill Health Centre

TABLE 5

Winnipeg Medical Consultant Visits to Churchill Health Centre

1979

SPECIALTY	NUMBER OF VISITS	NWT PATIENTS SEEN
Orthopedics	6	81
Ear, Nose, Throat	5	85
Obstetrics and Gynecology	5	46
General Surgery	4	45
Cardiology	2	32
Ophthalmology	2	4
Internal Medicine	2	4
Pediatrics	2	4
Respiratory	1	4
Phyciatry	1	1
Urology	1	12
Radiology	9	Not Known

Source: Records of Churchill Health Centre

specialist from Winnipeg were less frequent. Most physician care was given in Churchill and Winnipeg. In the case of childbirth, the general rule is for the first child, and fifth and subsequent children, as well as any other high risk pregnancies, to be evacuated to Churchill (exceptionally, to Winnipeg), and for the remainder of the children to be delivered at the nursing stations. The result has been zero maternal mortality for a number of years, though some perinatal mortality (up to 7 days) and neonatal mortality (up to 28 days) has continued. From 28 days to 1 year of age (the post-neonatal period) only 1 death in the Keewatin was registered in 1979, and this, which occurred in Rankin Inlet, was attributable to a congenital heart defect.

There is certainly room for improvement in the frequency and the type of health professionals visiting the communities, especially with regard to visits by certain specialists and dentists. There are great difficulties in transportation in relation to such visits which are created by isolation, weather, and the size of the communities. It is clear that if visits largely originated from a point within the Keewatin the travel distances, the costs, and some of the related difficulties would be reduced. There is, however, the problem of getting certain professionals to make such visits at all and some professional organizations, such as the Canadian Dental Association, do not offer much help in this regard.

Another frequently heard complaint during the inquiry was that there was no hospital in the N.W.T. Keewatin Region. Both the ITC(10) and the Government of the Northwest Territories(11) have gone on record as desiring a hospital in the Keewatin, preferably in Rankin Inlet. The construction of such a facility has also been recommended by the Central and Eastern Arctic Health Services Study of the

Government of the Northwest Territories.(12) The need for and feasibility of establishing such an institution relates to a number of circumstances, including locational, economic, administrative, and political elements.

In terms of location, Rankin Inlet has significant advantages in travel time for much of the Keewatin. Although a hospital in Rankin Inlet would have significantly shorter evacuation routes and be a far more central point for physician visits than Churchill, the paved runways and ground control radar at the Churchill airport are an advantage which may well prove conclusive until the airplane landing facilities at Rankin Inlet are improved. The other transportation factor is the availability of scheduled commercial flights. These, which are much cheaper than charter flights, are currently provided by Calm Air from Churchill, and there is as yet no scheduled service from Rankin Inlet to Winnipeg. As was noted in Chapter 1, there are indications that air service from Rankin Inlet is improving and, in any event, the construction of a hospital in Rankin Inlet would probably precipitate changes.

There are a number of economic arguments that would support a decision to locate a hospital in Rankin Inlet. One of these is the economic benefit that would result for the Keewatin. A hospital in the Keewatin would create a number of temporary and permanent jobs and the incomes generated would have a multiplier effect on the local economy. Another economic factor derives from the GNWT estimates that in 1979 92% of the in-patient care of Keewatin residents and 19% of all out-patient visits took place in Manitoba. This, the GNWT estimates, involved the spending of $1.47 million, excluding transportation costs, outside the NWT.(13) This money, therefore, has little or no effect on the territorial economy. If a hospital were located in the Keewatin a considerable proportion of this sum would be retained within the NWT. In addition, the shorter travel distances to Rankin Inlet would save money.

Administrative logic also favours the location of a hospital in Rankin Inlet. The present Medical Services Branch zone headquarters as well as the primary hospital are located in a jurisdiction other than that which they primarily serve. This means that not only are the administrators of the zone physically removed from the area they administer, but they are also physically distant from the GNWT officials with whom they should logically interact, for the GNWT has decided to make Rankin Inlet its regional headquarters. Moreover, despite genuine good will and interest in Inuit Affairs, the Churchill residents (now a small minority of the users of the hospital) predominate on the hospital board. If the hospital were located in the Keewatin, it would seem reasonable to expect that the equivalent of the present board would more adequately represent the vast majority of users. Keewatin residents would, therefore, be more likely to believe the facility served their needs. Such a hospital, it should be noted, is suggested as a community and not a federal institution. If responsibility for health services is eventually transferred to either the GNWT or a Nunavut authority, they would both find the present administrative situation inconvenient if not intolerable. It might be of relatively minor significance, but it is worthy of note that the Keewatin is the only region of the NWT that does not have a hospital within its boundaries. One implication of this is that it might impede progress toward an integrated system of regional hospitals under the full control of either a GNWT or a Nunavut health service.

In terms of Patient acceptability Rankin Inlet, although the Keewatin hamlet with the greatest white influence, is still a predominantly Inuit community and, therefore, not as alien as Churchill appears to be for many Inuit. Moreover, many of the patients from other communities have relatives or friends in Rankin Inlet. This would be a great help in the area of inter-personal relations and might also ease the lodging problems that would no doubt arise periodically with the transient centre

that would have to be attached to the hospital. In addition, the problems of language would be less, and the availability of interpreters better, than is the case in Churchill.

A further point is that the location of a hospital in Rankin Inlet, if the proposed high school is built in the same community, may well inspire high school students to seek careers in health care. Not only would they be able to see the type of work involved and the range of careers offered, but they could aspire to work after qualifying in their home region and not in what they clearly regard as an alien one, namely northern Manitoba.

Another argument in favour of locating a hospital in Rankin Inlet is political. Nearly all groups and individuals in the Keewatin strongly favour the construction of a hospital in the region. The GNWT clearly favours this and has lobbied for it on many occasions. The ITC and KIA also strongly favour it as do the vast majority of hamlet councils, health committees, and individuals. In an area of emerging political consciousness the construction of such a facility within the region would be an important symbol of concern whereas the continued use of another facility that is essentially a drain on the Keewatin economy and is located in another political jurisdiction will undoubtedly be a continual source of, at the very least, irritation.

It should be noted that while most of the groups and individuals in all the communities visited favoured the construction of a hospital in the Keewatin, there was considerable disagreement concerning the community in which the hospital should be built. If a hospital is constructed, Rankin Inlet is the logical location because it is the administrative centre of the region and has the best air links, although this would not necessarily please the inhabitants of Baker Lake.

Churchill, at the time the hospital (health centre) was planned, had a projected population of 5,000 - 6,000 providing, together with the population of the Keewatin, a "market area" of close to 9,000 population and amply justifying the construction of a hospital with 31 beds which could not be justified by the 1980 population (below 1,000) of Churchill alone. With the decline in population of Churchill, the Keewatin Zone has become the source of more than 75% of the in-patients of the health centre. Indeed, without patients from the Keewatin the institution would probably have to close its doors. Earlier complaints about accommodation outside of the hospital led to the opening in 1980 of a new transient centre for patients from the Keewatin, and efforts have been made to provide country food (caribou and char) in addition to interpretation services for patients with no knowledge of English.

While the closing of the Churchill hospital and transient centre, that would probably result from the construction of a hospital in the Keewatin, would not affect the federal or N.W.T. governments directly, it would mean the loss of the existing investment by the Province of Manitoba, and would require that province to provide additional funds for medical services to the local population and for other activities such as the outreach programme for the local community. Additional provincial financing would be required to the extent that part of the income from services to Keewatin patients goes to support local activities at present.

The Churchill health centre in 1980 employed 17 registered nurses and other skilled staff (licensed nursing aides, building maintenance personnel, x-ray and laboratory technicians) and such personnel would have to be attracted to the Keewatin to staff a new hospital. The high calibre of medical staff in Churchill is assured through their affiliation with the Northern Medical Unit of the University of

Manitoba School of Medicine. Since it is unlikely that the Northwest Territories will have a university or a faculty of medicine in the forseeable future, some similar arrangement for linkage with the University of Manitoba would be needed.

There would appear to be no insuperable technical obstacles to the replacement of Churchill by Rankin Inlet as a health facilities centre for the Keewatin, but political and administrative difficulties would have to be solved, capital funds would have to be obtained, airport and scheduled flight improvement is a sine qua non, and those concerned must be prepared to be patient because, even after all arrangements are made, it usually takes at least three years from the drawing board to the finished hospital, and with the short construction season in Rankin Inlet it might well take longer both to build and equip the institution. Despite the problems involved we are, however, of the opinion that these are outweighed by the advantages and that a hospital, similar in facilities and staffing to the Churchill Health Centre should be constructed in Rankin Inlet once the necessary preconditions can be met.

A major gap in the scope of medical services available in the Keewatin is in the area of chronic care facilities. At present, all that exists is a facility in Chesterfield Inlet -- the Ste-Thérèse de l'enfant Jésus hospital for retarded women and children. The hospital is located in an old building of inadequate quality. There are no facilities for the very old or for retarded adult males. This lack is increasingly becoming a problem as Inuit social attitudes change under the impact of southern cultural patterns. No longer are families so ready, or indeed so able, to care for the aged or retarded. Moreover, while the nursing stations can provide some form of home care the manpower situation makes it difficult. In Coral Harbour and again in Baker Lake we were made aware of cases where an individual seemed to be caught in a shuffle between the Selkirk, Manitoba, mental hospital, his home

community and family, and the Churchill Health Centre, because no really suitable place existed for him. In Baker Lake we were made aware of a community idea to set up a refuge hostel(14) which, while not really intended for the type of person just mentioned, did bring to our attention the lack of chronic care facilities, and the lack of such facilities was also emphasized by Hamlet council members in Eskimo Point.

It is preferable that chronic care be provided as close to a person's home community as possible. We recommend, therefore, that a chronic care facility be attached to a new hospital in Rankin Inlet. We also recommend that up-to-date custodial homes be established for the aged and for retarded children in the Keewatin. These facilities need not necessarily be located in the same community as the hospital. In fact, given the dispersed nature of the Keewatin population, it would be preferable to have custodial care facilities dispersed.

We noted with interest that the state of dental health and dental services did not give rise to a great many complaints despite the disastrous situation. Poor dental health is not life-threatening and therefore seemed to be regarded as being less serious than other conditions even when teenagers were being sent to Churchill to have nearly all their teeth extracted. It is significant that good dental health in general is far less dependent upon treatment services than upon prevention in the form of good nutrition and personal dental hygiene.

We are of the opinion that a concerted effort should be made to improve dental health and increase awareness of the dental health problem. An attempt should be made to increase the number of dental therapists in the Keewatin as well

as the number and frequency of dentists' visits. Perhaps even more importantly there should be improved health education in this regard, especially among adults, and further attempts to improve nutritional standards. It is encouraging in this general area to see that the Bay is carrying out an extensive nutritional programme and that the Inukshuk television project will be used as a vehicle for general health education.

CHAPTER 4

Quality of Care

There has been much debate in Canada, as in other countries, about the definition and measurement of "quality of health care", but no explicit formula exists. Hospitals can be evaluated in part by standard ratios such as beds per thousand population, nurses per bed, square feet per bed, etc., and a variety of scoring devices have been proposed at different times to evaluate the care provided by physicians and nurses. The various rating methods, both for hospitals and for personnel, involve the application of more or less arbitrary formulas designed for average circumstances and least applicable in the special circumstances of the Keewatin where the number of persons who might live in a single block of apartments in a major city are distributed in seven communities (eight including Sanikiluaq) over distances of hundreds of miles.

Another less arbitrary but equally approximate measure of health care is to measure the relationship between the care provided and the outcome for the patient. In doing this, it is necessary to compare changes in care with changes in outcome because the comparison of levels at a single point in time has no analytic significance.

With the small number of total population and deaths in the Keewatin, year-to-year variations in the statistics may result from exogenous variables of a more or less random nature. For examples, of the 33 deaths appearing in nursing station records in the Keewatin in 1977, 4 of them (12 per cent) occurred when four people died from burns and smoke inhalation in a single fire in Rankin Inlet. Of the

4 deaths that occurred in Whale Cove in 1979, 3 of them (75%) had no relation at all to medical care -- a father and daughter were lost in the bay in bad weather, and an older person died when a Honda went through the ice and the rider was unable to escape. Cases such as these are not included in the official statistics in the absence of a death certificate from the competent authorities, which complicates the interpretation of the data even further. Half the decline in total deaths from 33 in 1977 to 19 in 1978 can be explained by four fire and two drowning victims in 1977 and two other deaths (at ages 77 and 83 respectively) might well have occurred in 1976 or 1978 as in 1977. Deaths that occurred in the last week of December or the first week of January might well have figured in the previous or the following year's statistics except for random chance. In contrast, such events would hardly be noticed in Canada as a whole, where 167,498 deaths were registered in 1977 and 167,189 in 1978 (both yielding a death rate of 7.2 per thousand population).

Over a long number of years, some trends can be established reliably even for small populations. For example, the tuberculosis death rate for the NWT as a whole reached zero in 1969 and has remained at that level, although the disease was wide-spread 10 years earlier. This fortunate result can be attributed to an active tuberculosis control programme, with intensive case finding and administration of effective modern drugs over a number of years. The earlier prevalence of tuberculosis can influence deaths from other causes today, however, and it is likely that some of the deaths from "chronic obstructive lung disease" in middle-aged and older persons can be attributed to the scars left in their lungs by tuberculosis in the past. Other factors not related to health care arise from personal lifestyle choices. Cigarette smoking is still widespread, and certainly affects deaths from lung cancer and from other lung conditions. The four deaths from the fire in Rankin Inlet in 1977 have been attributed to alcohol abuse.

Deaths, of course, are not the only measure of health status although statistics of morbidity (sickness) are far less reliable than statistics of mortality. With deaths from tuberculosis at zero for more than 10 years, the level of cases not resulting in death is extremely low, and in some communities no individuals are presently under treatment for this disease. A general review of reported cases of infectious disease (based, naturally, on persons who sought treatment and whose diseases were therefore recorded) shows high but eratically fluctuating levels of influenza-like illness and of unspecified gastroenteritis persisting in the Keewatin. Gonorrhea, while common, appears to be declining somewhat from year to year (263 confirmed and suspected cases in 1977, 217 in 1978, and 165 in 1979) and prevalence in the Keewatin is lower than in the Baffin and Inuvik Zones. For diseases subject to specific laboratory confirmation, there were no cases of infectious hepatitis in 1978 (the latest year available), 1 case of serum hepatitis, 5 cases of all forms of meningitis, and 2 cases of new or reactivated (probably reactivated) tuberculosis. Of the germs causing digestive disturbances, salmonella were identified in 2 cases and shigella in 49. In the absence of laboratory facilities these pathogens might have gone unobserved, with the patients included in "unspecified gastroenteritis."

A low or declining prevalence of communicable disease may have little to do with the quality of medical care. It is more likely that a decline in the case fatality rate for specific diseases represents medical intervention of appropriate quality, yet even here other factors can intervene. Deaths from gastro-intestinal disease in small children are a case in point. Some patients will recover spontaneously with no care at all. In the majority of cases that do require care, for example in the case of diarrhea which, if untreated, would lead to death from loss of body fluids (dehydration), emergency measures such as rehydration with fluids administered intravenously may spell the difference between life and death, but as

much depends on the parents' recognition of symptoms and seeking treatment in time as on what the doctor or nurse can do after the child is brought in. If the child is brought in too late, the "best care" may not help.

Since the small number of deaths in the Keewatin cannot yield significant rates, they are reviewed individually in Table 5 below for 1977, 1978, 1979 and the first six months of 1980, as found in the records of the nursing stations.

Rankin Inlet, while not the largest community, had the greatest number of suicides and accidental deaths, and this may be correlated with the fact that it has the highest percentage of non-Inuit population, and for that reason alcohol is more freely available than elsewhere in the Keewatin. Suicide, drowning, and fire are not "diseases" that can be treated, although it might be argued that the health education function of the nursing stations might aid in prevention.

In general, a review of the deaths that took place in the Keewatin in the last 3 1/2 years does not reveal any clear-cut cases where more or differently-organized medical care would have made a decisive difference.

It is probably true that at least some heart attack victims in Canadian cities with large hospitals have their lives "saved" by receiving intensive specialized care within minutes of the attack. Epidemiological studies, however, have shown that in many of these cases death has only been deferred for a few weeks or months. In some forms of meningitis, extremely prompt treatment may be decisive, and in at least some of these the disease may not come to the attention of the nurses sufficiently early to be treated successfully. It should be understood that in many

TABLE 6

Review of Deaths in the Keewatin, 1977 - June 1980

BAKER LAKE

Year	Age at Death	Cause and Comments*
1977	0	Placental insufficiency (i.e. problem with the mother)
	0	Premature
	76	Cancer
	68	Chronic Obstructive Lung Disease
1978	70	Heart Attack
1979	0	Premature
	1 month	Respiratory Infection
	2	Cerebral Edema (meningitis?) & dehydration
	8	Cerebral Edema (meningitis?)
1980	52	Report gives only "natural causes"
	85	Gangrene - septic shock

* Throughout this table, which is based on nursing station reports, causes of death are given in the original terminology of each nurse. The classification of "premature" and "stillborn" is particularly shaky.

Year	Age at Death	Cause and Comments
REPULSE BAY		
1977	0	Premature
1978	-	No deaths reported
1979	0	Stillborn
	0	Defective at birth
	0	Premature
1980	-	No deaths reported
SANIKILUAQ		
1977	49	Stroke
	50	Heart failure and pneumonia
	66	Pulmonary embolism, heart failure, pneumonia
	74	Heart failure and pneumonia
1978	47	Pneumonia, dehydration, malnutrition (out on ice, sick 4? weeks).
	62	Heart failure, chronic lung disease, pancreatitis
	68	Stroke and pneumonia (out on ice, camping)
	57	Cancer
1979	-	No deaths reported
1980	0	Placental disfunction
	3	Bowel obstruction and pneumonia
	69	Chronic obstructive lung disease

Year	Age at Death	Cause and Comments
CHESTERFIELD INLET		
1977	20	Rheumatic heart, surgical valve replacement failed, bacterial endocarditis.
	38	Intestinal bleeding, bowel obstruction
1978	54	Congestive heart failure
1979	68	Heart disease
1980	0	Stillborn
WHALE COVE		
1977	77	Pneumonia and heart failure
1978	0	Premature
	0	Premature
1979	0	Premature
	9	Lost in the bay in bad weather
	39	Lost in the bay in bad weather
	0	Stillbirth
	69	Honda went through the ice, rider unable to escape
CORAL HARBOUR		
1977	11	Strangulation
	41	Deep vein thrombosis, chest infection, heart involvement
	66	Chronic obstructive lung disease and heart failure
1978	41	Congestive heart failure, respiratory failure

CORAL HARBOUR (CONT'D) Year	Age at Death	Cause and Comments
1979	-	No deaths reported
1980	30	Suicide with gun
ESKIMO POINT		
1977	8 months	Suffocation? meningitis?
	16	Meningitis
	59	Cancer
	66	Pulmonary embolism, heart failure
	83	Heart and breathing stopped (natural causes)
1978	0	Premature
	60	Pneumonia
	70	Heart attack; chronic obstructive lung disease
1979	54	Cancer
	66	Lung cancer
	76	Respiratory Arrest
	78	Natural causes
1980	55	Cancer
RANKIN INLET		
1977	0	Stillborn
	0	Stillborn
	11	Drowning
	12	Drowning

RANKIN INLET (CONT'D)

Year	Age at Death	Cause and Comments
1977	1	Burns and smoke inhalation (fire)
	4	Burns and smoke inhalation (fire)
	28	Burns and smoke inhalation (fire)
	34	Burns and smoke inhalation (fire)
	23	Kidney transplant failed
	25	Suicide with gun
	61	Cancer
	63	Heart attack
	69	Chronic obstructive lung disease and heart failure
	71	Cancer
1978	0	Premature
	0	Premature
	3	Pneumonia
	16	Suicide by strangulation
	24	Gunshot wounds (accidental)
	58	Suicide with gun
1979	0	Stillborn
	0	Premature
	7 months	Congenital heart defect
	21	Exposure
1980	0	Premature
	12 days	Sudden infant death syndrome

respects medicine is as much an art as a science, and that the judgment of equally qualified nurses or doctors will sometimes differ with respect to the same patient. It is easier to tell who was right or wrong after the fact, particularly when there has been an autopsy, but it is impossible to make the right decision in all cases before the fact.

Prematurity resulting in death close to the time of birth may sometimes be helped by appropriate prenatal care and the presence of big-hospital pediatric facilities. Hospitals do not exist in the Keewatin and mothers often resist being evacuated to have their children delivered in hospital in Churchill or Winnipeg. Others fail to comply with the nurses' instructions or do not bring their pregnancy to the nurses' attention sufficiently early, so in any case the responsibility is shared between the providers and the users of medical care.

CHAPTER 5

Quality of Health of Keewatin Residents

It is clear that mortality and morbidity in the Keewatin are still higher than in southern Canada despite important advances in recent decades. The total population is, however, too small for the calculation of statistically significant disease and death rates. Moreover, measuring the quality of health, like measuring the quality of care, is subject to considerable debate. The choice of indicators is difficult.

The quality of health is often measured with the same indicators used to infer the quality of care. General mortality has been discussed above in Chapter 4. Infant mortality is considered by some to be a more sensitive indicator. Data for the Keewatin are not available for the 1940's, but in 1955 infant mortality (deaths in the first year of life per thousand live births) was estimated at 250 (one child in four), at a time when the Canada average was about 30. The figure for Canada fell to 12-13 in the late 1970's while the Keewatin average in 1976-78 was 31 -- equivalent to Canada 20 years earlier. Infant mortality rates are based on extremely small numbers in the Keewatin -- 2 deaths in 1976, 2 in 1977, and 7 in 1978.

The interpretation of both sickness and death statistics is made more difficult by the skewed population distribution. The gonorrhea rate, for example, uses as denominator a population in which at least one-third are below the age of sexual activity. The recorded cases of stomach complaints may relate to children whose parents take them to the nursing stations, while an adult with the same complaint may not feel sufficiently distressed to seek medical care so that the case will never be brought to the attention of the nurses and recorded.

One is also left with the subjective impression (subjective because the small numbers are not susceptible of statistical analysis) that stillbirths and premature births are fairly common. In part, this is because the number of children born per thousand population is more than twice the Canadian average. Some part may also be attributable to the early age of many first-time mothers.

Comparisons with the rest of Canada are very difficult to make because, while death rates for the whole country are reliable and the large numbers make statistical analysis meaningful, the recording of non-fatal diseases at the nursing stations in the Keewatin "captures" a far higher proportion of cases than can be done in the south, where many physicians make no communicable disease reports at all, nursing stations like those in the north do not exist, and the ready availability of drugstores makes self-medication far more common.

In fact, general death rates in the Keewatin (2.2 per thousand in 1979) are well below the Canadian average of 7.2 but this figure is meaningless because the Keewatin has a far younger population.

A final possible comparison is one of the pattern of causes of death. A high proportion of deaths from communicable disease would indicate avoidable deaths and an inadequate health service. Such, indeed, is often encountered in poor tropical countries. In the Keewatin as elsewhere in Canada, however, most people die of accidents, heart disease, cancer, and stroke, rather than of communicable disease. Perhaps the one main difference from the south is in the number of deaths of middle-aged and older persons attributable to pneumonia and other respiratory conditions. This may in part be attributable to the colder weather as well as to heavy cigarette use and past tuberculosis, and indeed most of the pneumonia deaths occurred in midwinter.

In the case of non-fatal conditions, there are a number of problems. Ear and respiratory diseases are common, particularly among children. Indeed, a number of nurses felt that their preparation for work in the north should include more instruction in the diagnosis of such conditions. Diarrhea is also common, and can lead to death if left untreated until severe dehydration occurs. Venereal disease is still widespread.

One area where the quality of health is clearly below that of the rest of the Canadian population is dental health. The combination of a diet too rich in "junk food" like candy and sweet biscuits, and the lack of appropriate dental care in many communities, combines to exacerbate the problem. Occasional dentists have attempted to compute the classic DMF (decayed, missing, filled) index of dental health, but comprehensive figures are not available. The subjective impression of most visitors, as of the resident nurses and of visiting doctors and dentists, is that that the quality of dental care is abysmally low.

Even in the absence of satisfactory statistical indicators for small populations, however, one can infer something about health status from the population picture. In a community with 300 population, where 100 are pre-school children and another 100 are of school age, it would appear that the chances of surviving infancy are very good indeed. The Keewatin is going through a demographic phase in which, owing to health services and improved housing and nutrition, most of the children that are born survive to adulthood, while the high birth rate that would have led to a stable population in an earlier era now leads to an explosive increase. The same phenomenon has been observed in developing countries around the world.

CHAPTER 6

Utilization of Resources

The resources available for health care in the Keewatin in 1979 are summarized in Table 7. The beds in the nursing stations are mainly for emergencies, for holding patients until they can be evacuated, and for those deliveries that can safely be made outside of hospital. The low per cent occupancy, therefore, cannot be compared with hospital statistics, and the typical length of stay in bed was about 1.5 days -- longer in the case of childbirth and less for other conditions. Despite the provision of a "float nurse" whose function is to replace other nurses when they are on leave or otherwise away from the nursing stations, it has not been possible in practice to maintain the nursing stations fully staffed because of recruitment problems and high turnover. As noted earlier, the turnover rate in 1979 was 120 per cent. Two of the authorized positions for nurses were unfilled at the end of 1980. In some cases, in order to provide a nurse it was necessary to hire individuals with R.N. qualifications but without the advanced outpost nursing or public health training that were desired. Some of these nurses were sent on education leave to improve their qualifications, and while at school they represent a cost to the employer but do not provide any service to the public. This can be viewed as an investment in future care of improved quality, but the yield on the investment depends on the number of years the nurse spends in the Keewatin after completing training.

The dental care situation is little short of disastrous. While dentists continued to visit the Keewatin communities for periods of 1 or 2 weeks annually, only Baker Lake had a therapist in residence. The dental therapist in Rankin Inlet left for employment in the Yukon and was not replaced during the period of the study.

During this period, the Churchill Health Centre itself did not have a full-time dentist in residence. The principal reason for problems in dental staffing is that many dentists can make more money in communities in the south with more agreeable climate and less difficult working conditions, and it is necessary to search for the rare individuals who will accept service in the Keewatin or in Churchill as an interesting professional challenge.

While the nurses saw 17,108 patients in the nursing stations in 1979, it is difficult to analyze this in efficiency or cost effectiveness terms because the nurses' functions also included administrative duties, health education and other public health activities in the school and in the community, as well as helping the doctors during their visits, and it is not possible to make an accurate breakdown of the time spent on the different activities. Since the nurses were not present all year (annual vacation, escorting patients, study leave, etc.) the patient care activity corresponded to roughly 1,000 patient care visits per nurse per year. If a typical year of work corresponds to 2,000 hours and the nurses spent half their time in other activities, this would come to one patient per hour, which is less than one-fourth of the output found in private medical practice in the south where physicians see 4 to 8 patients per hour of work.

This "low productivity" is not anyone's fault in particular, but depends on the size of the community served. In the countries where statistics are available for physicians paid on a capitation basis (in the past, principally Denmark, the Netherlands, and the United Kingdom) the health authorities in these admittedly densely-populated countries concluded that 2,000 to 2,500 patients could receive adequate service from a single general practitioner. In Canada, 1 general practitioner per 1,500 population has been recommended. Since even the larger

TABLE 7

Health Care Resources in the Keewatin, 1980

Community	Beds/ Cribs	Nurses	Community Health Representative	Dental Therapist	Bed days used (excl. newborns	% Occupancy
Baker Lake	3/2	3	-	1	48	4.4%
Chesterfield Inlet	1/1	1	-	-	12	3.3%
Coral Harbour	2/1	2	-	-	24	3.3%
Eskimo Point	4/2	3	1	-	44	3.0%
Rankin Inlet	4/3	4	1	-	72	4.9%
Repulse Bay	1/1	1	1	-	26	7.1%
Sanikiluaq	2/1	2	1	-	15	2.1%
Whale Cove	1/1	1	1	-	26	7.1%

Source: Medical Services Branch records.

Keewatin communities are just about of 1,000 population (Baker Lake, Eskimo Point, Rankin Inlet) it is clear that any provider of out-patient (i.e., non-hospital) medical care will tend to be under-utilized. This results in higher cost per unit of care actually given but the additional cost can be viewed as an "insurance premium" for having health care personnel in the community when they are needed.

The statistical average for Canada of a little less than 600 people per doctor should not be confused with the 2,000-patient rule of thumb. Some Canadian doctors do not practice medicine at all, being employed in administration, in insurance companies, in non-clinical departments of medical schools, etc. Almost half are specialists, many of whom only see patients on referral from general practitioners. A community of 1,000 people can not be expected to keep any individual fully employed for 2,000 hours in the year in the direct provision of primary patient care. In smaller communities, still lower productivity must be expected.

While personnel may be under-utilized from the point of view of the medical care they could provide to larger populations, the number of services used per person is similar to that in the remainder of Canada. As noted earlier, there were 4.6 doctor or nurse visits per capita provided in the Keewatin communities (6.1 when visits of Keewatin residents to doctors in Churchill and Winnipeg are included) compared to a Canadian average of 8.3 services which corresponds to approximately 6 visits.

The cost of providing service in an area as remote as the Keewatin is high. The figures for the fiscal year 1979-80 are shown in Table 8.

For an estimated population of 4,500 the total expenditure of $4,922,778. comes to $1,094. per capita, compared with a Canadian average (excluding the Yukon and NWT) of $588. in the same year.(15) This figure is probably an under-estimate of total cost, since certain expenditures which, in the minds of patients and their families, are associated with health services (e.g., return tickets from Winnipeg) are paid for out of welfare funds of the NWT government rather than the budget of the Medical Services Branch.

The two cost elements that make for this high figure in the Keewatin are travel -- which is shown above as a separate item -- and underutilization, which cannot be calculated exactly as a budget line. As an example of underutilization, general practitioners from Churchill spent 202 days on 63 trips to Keewatin communities in 1979, and saw 2200 patients, or an average of 11 per day. Assuming that, with other duties such as instructing nurses, these doctors had only 6 hours per day available for patient service, the average is still less than 2 patients per hour, or less than half what one would expect from even a leisurely practice in southern Canada. Since the doctors were paid a salary rather than a fee per unit of service, seeing half as many patients doubles the cost per patient seen. The same problem arises with specialist visits from Winnipeg to Churchill. While there was better utilization of doctors' time in some specialties, a pediatrician visited Churchill twice in 1979 to see a total of only 10 patients, or an average of 5 per trip, yet this involved, in addition to time spent in Churchill, the loss of a half-day for travel from Winnipeg to Churchill, the return journey, and the air fare.

Despite the high cost and the underutilization of personnel, it is still possible to say that the services were cost-effective in terms of their objective. Comparisons with southern Canada are pointless because of differences in the distribution of both

TABLE 8

Health Service Costs in the Keewatin, Fiscal Year 1979-80

Keewatin Zone, Medical Services Branch (cost of administration, public service travel, salaries and subsistence of nurses, supplies, etc.)	$1,124,098
MSB payments for travel of patients, visiting doctors	719,497
MSB payment to University of Manitoba for doctors	246,037
NWT payment to Manitoba medicare for doctors	139,754
NWT payment to hospitals	713,766
Deduct billings outside for nursing station services	(20,374)
Estimated total net health care expenditure for the Keewatin	4,922,778

Source: Medical Services Branch financial records.

population and resources, but it could be said that the high cost was needed since the objective was to provide a remote and scattered population with services that elsewhere would not be justifiable in economic terms.

In the 1969 report of the federal task force on hospital beds and facilities, the minimum population unit considered was 5,000 to 6,000 people. It was recommended recommended that "the only occasion for considering a hospital of less than 75 to 100 acute beds is where travel time to a community hospital exceeds one and one-half hours; a small hospital might then be considered for an area with 5,000 - 6,000 population, which might be expected to attract a minimum of two and preferably three physicians. Such a facility would be expected to send out a significant proportion of its cases to a larger centre, which could leave a local need of about 30 beds."(16) This recommendation can serve to define the size and rôle of the Churchill Health Centre. The total population of the Keewatin (including non-Inuit) plus the population of Churchill was between 5,000 and 6,000 in 1980. The University of Manitoba provides a normal full-time complement of five salaried physicians (not two or three) for the express purpose of serving the Keewatin communities, where 202 doctor-days were in fact provided by this group in 1979. This exceeds the task force recommendation because of the special situation of the Keewatin and helps explain the higher cost.

CHAPTER 7

Patient and Professional Responsibility and Interpersonal Relations

In the course of the study it became evident that the relationship between patients and professionals in the communities of the Keewatin left something to be desired on both sides, and improvement in this area would undoubtedly make for more efficient and effective health care. The main issues seemed to stem from linguistic problems, cultural problems, and difficulties associated with transportation and accommodation arrangements for medical evacuees.

Linguistic Problems

One major barrier to effective communication is that of language. None of the doctors or nurses visiting or stationed in the Keewatin has more than a smattering of Inuktitut, and many older patients and pre-school children have little or no knowledge of English. In the nursing stations locally-recuited interpreters are used, and they often learn some basic health care procedures as well. Although an effort is made to have interpreters on call at all times, there are instances where an interpreter is not available. In such cases, family members and friends try to help. In addition to the purely linguistic problem, there is the problem of cultural untranslatability. English words may be rendered into Inuktitut yet have different meaning for patients than for health care personnel. In addition, the quality of interpretation is variable and the level of general education of the interpreters is low. In the course of the study, it occasionally occurred at public meetings that the interpreters could not grasp a complex idea being expressed by the study staff and therefore were unable to express it in Inuktitut.

The problem is exacerbated in Churchill, where at present only one (exceptionally skilled) interpreter is available, and is a serious problem in Winnipeg where, if the only interpreter is not available, family and friends are seldom there to help and very few other Inuit live in the community.

Cultural Problems

The traditional behaviour patterns of the Keewatin may contribute to a special sort of culture shock in medical care. Medicine is by its nature normative and prescriptive. Physicians are accustomed to giving orders and nurses are accustomed to enforcing compliance. The average Canadian, when ill, submits to a certain amount of well-intentioned and, on occasion, good-humoured (or not so good-humoured) bullying because it may be said to represent the kind of treatment his culture has conditioned him to accept. Some Inuit, being accustomed to a different set of interpersonal relations, take affront at what they term "lack of consideration", under circumstances that resemble the way health personnel treat patients all over Canada. On the other hand it would seem that not all white personnel take enough care to adjust to the pattern of Inuit interpersonal relations. Understanding and patience are clearly needed from both groups.

A great variety of problems were brought to our attention which sometimes had linguistic or cultural roots and sometimes arose from purely personal characterictics. Some individuals resented the didactic tone in which nurses gave instructions. Jokes and attempts at humour were commonly misinterpreted; this occurs in both directions. Parents commonly mentioned that they resented the classic "give the child a couple of aspirins and let me know in the morning" even in cases where there were perfectly valid technical reasons for the suggestion. Patients in the south as well often fail to understand these technical reasons and resent the same instruction.

Many Inuit did not seem to realise fully that individuals and communities must share responsibility for total health with the official services. Many of the present generation may well have been induced to take a passive role by the pervasive paternalism of government in earlier years. Individual responsibility may cover such areas as personal and home cleanliness, compliance with instructions about medication, going to the nursing station early in pregnancy, taking sick children to the nursing station early in the course of the illness, and in general participating actively and responsibly in health care. While there has been some effort to encourage community responsibility, particularly in the field of environmental sanitation, through the formation of health committees, the results (as we shall observe in Chapter 8) have been variable.

It would seem logical to expect that cultural and linguistic problems could be solved by staffing health services in the Keewatin with Inuit. There are, indeed, considerable benefits to be derived from this approach and it is recommended in Chapter 9. It should not be expected, however, that all interpersonal problems would evaporate, as the difficulties encountered by Inuit nursing assistants who have practiced or are practising in the north illustrate. They have been known to complain that the community preferred white nurses and did not respect their professional knowledge, that family members exerted pressure for special favours and, less commonly, that they were not respected by white nurses. Another problem is that advanced study necessarily leads to a degree of acculturation so that qualified individuals may, on returning from training, find themselves uncomfortable with the community life that they knew and enjoyed as children.

A more immediate way of improving interpersonal relations would be to improve the orientation of the nurses. There are three aspects to the orientation that would

be necessary. First, an introduction to Inuit culture in general and specifically how this culture affects perceptions of health matters. Second, an introduction to the particular community to which the nurse is going. In this area, the community itself might participate by contributing information for a local briefing handbook. Third, an introduction to the special types of medical procedures and interpersonal problems that are likely to arise. Given the high turnover rate of nursing personnel we recognize that this kind of orientation could not be very lengthy but even if it simply consisted of pamphlets handed to the nurses on leaving for a community or a briefing book maintained in the local nursing station, it might help matters.

Another small and immediate way of improving interpersonal relations might be to produce a pamphlet or hold meetings that would inform the members of the community of the background, training, and responsibilities of the nurse, and of how a nurse differs from a physician. We raise this point because there seemed to be confusion on the part of many members of the communities on these subjects. In addition, it would be a good idea if each community designated specific individuals to help a new nurse to adjust to the community and to introduce her to people. In fact it might be a good idea for each settlement to include in the responsibilities of a Community Health Board (which might be separate from or might take over the functions of the existing Health Committees) (a) orienting the nurse to the community; (b) receiving complaints about the service rendered by the nursing personnel; and (c) mediating any disputes that might arise from personal misunderstandings.

Transportation and Accommodation

A very large number of the problems raised during our interviews, open line radio shows, and meetings in the Keewatin related to interpersonal relations in the

areas of transportation and accommodation of medical evacuees. We were given numerous examples of individuals who were not given full instructions on what to do, who were not escorted properly, or who were not met in Churchill or Winnipeg and did not know what to do on arrival and had difficulty finding their own way because of an inability to speak English. It is our view that the arrangements for evacuees are adequate in principle, but that on occasion things that should be done are not, or misunderstandings arise. We can only recommend that great care be taken with these arrangements as problems of this nature can be extremely worrisome for those involved.

Individuals presented many complaints about transient accommodation in Churchill, but it became clear after a while that these related not to the present transient centre, but largely to the one some distance outside town that had been used in earlier years. Although occasional problems will no doubt continue to occur both in terms of interpersonal relations and overcrowding when large numbers of people come down all at once, the present Churchill transient facility seemed to us to be well-located, well-run, and adequately equipped. The biggest problem was the availability of interpretation services. There is no easy solution to this problem because few Inuit wish to live in Churchill on a long-term basis. This is one of the reasons a hospital facility might better be located in the Keewatin.

There were also a very large number of complaints about lodging arrangements in Winnipeg. We heard all manner of accounts of individuals being boarded with alcoholics, religious zealots, and other people regarded as unsavoury, as well as in boarding houses regarded as sub-standard. There were particularly hard feelings about being boarded with Indian families, and even some complaints about Indian personnel in Churchill. Older people, in particular, felt that Indians were hostile to Inuit and

felt that some health personnel did not recognize this state of affairs and forced the two groups to associate with each other. Criticism of the Fort Smith training facility, incidentally, also included the point that this was an Indian community.

At the same time we heard nothing but praise for one house, operated by Mrs. Gloria Penner, where most Inuit patients stay. The problems that occur in Winnipeg would largely be solved if Mrs. Penner could expand her operation to accommodate all Inuit. Mrs. Penner is apparently willing to do this but needs financial help to enable her to expand her present house or buy a new one. We think she should be given financial assistance. If arrangements cannot be made with Mrs. Penner, we are of the opinion that a transient centre should be established in Winnipeg for all Inuit patients. Such a centre would eliminate the problem of occasional unsavoury boarding facilities and would mean that both patients and taxi drivers would know where to go. Interpreter services would not be such a problem, and social interaction with other Inuit might relieve the unease of those visiting Winnipeg for the first time.

CHAPTER 8

Relationship of Health Care to Other Community Structures

No health care system is able to perform an effective job in isolation from other community structures. Health care, as normally organized in the provincial systems of southern Canada, emphasizes curative medicine. Even where the responsibilities of health system personnel include significant preventive and promotional activity, as is the case with the Federal employees serving the Keewatin, this responsibility is shared with other agencies such as local governments and educational authorities. Moreover, health is as much related to levels of living, housing standards, and the sanitary conditions of the environment as it is to the standard of medical care services. Thus housing authorities and welfare agencies are also of significance in maintaining health levels in any population.

Our general impression of the relationship between health care services and other community structures in the Keewatin was that there is very little coordination. While instances of useful cooperation between two agencies at the grassroots level are fairly common, such as between individual nurses and individual school teachers or social workers, there is no mechanism for continuous coordination of the work of all the health related agencies.

The health-related activities of Hamlet councils in the Keewatin mainly relate to environmental sanitation matters such as water delivery and garbage disposal. The delivery of water is usually accomplished by tank truck from local water sources which, if generally acceptable, are not always of the highest quality. It is not,

however, possible to say how or to what extent this may affect health or be responsible for some portion of the high levels of unspecified gastroenteritis. Our impression was, however, that it was not a major problem.

Since the climate prevents the use of conventional flush toilets or pit privies, most of the houses in the Keewatin depend on the 'honey bucket' system for excreta disposal. This, combined with variable efficiency in garbage collection and disposal by hamlet authorities, may also affect the health status of the population of the communities. Even if the installation of piped systems might improve matters, they are not only very expensive and difficult to install but they would also reduce the number of jobs at the disposal of the hamlet authorities. For these reasons some hamlets have rejected the idea of replacing the existing system. The health implications of trucked water and the honey bucket system are that they place reliance on efficient hamlet services and good personal health care habits on the part of all residents.

The degree of health education performed by the schools and the relationship of the nursing stations to the schools was variable in the Keewatin. Emphasis on health education varied greatly by school and among individual teachers within schools. The Department of Education of the Northwest Territories does put out a syllabus for health education in the schools which is adequate but not obligatory, and the degree to which it is followed is left to the discretion of the individual schools and teachers. The nurses try to visit the schools regularly, as does the dental therapist in Baker Lake, and most children receive basic information on nutrition, dental, and general health care. The degree to which children utilize this information is partly a function of how much parental reinforcement is received, and this would appear to be lacking in many Keewatin households.

Facilities for adult education in the Keewatin are very limited. There are adult education programmes only in Rankin Inlet and Baker Lake, and little emphasis is placed on health-related matters. There is a home management program, but only one person is responsible for this for the whole of the Keewatin. Consequently, parents tend not to get the basic health information their children receive in school so they do not always reinforce what the children are told. Perhaps the most visible result is the very high consumption by children of candy and pop condoned, even apparently promoted, by some parents. A consequence of this is, of course, the deplorable state of dental health observed in the Keewatin, though recent community initiatives in nutrition with the active help of the Hudson's Bay Company and other mercantile establishments are a step in the right direction.

The Keewatin Zone of the Medical Services Branch employs one professional health educator who is based in Churchill, Manitoba. Given the present state of affairs this person obviously has an uphill task in organizing an effective and coordinated operation. We were particularly pleased to learn that the health educator was planning to use the Inukshuk television project as a tool of health education in the Keewatin. We are of the opinion that this project could be an invaluable aid in, especially, adult health education, and we encourage its operators to fully utilize its potential in this regard.

The Hudson's Bay, Cooperative, and the other local stores, including the candy counters attached to some local hotels, are community structures which have an impact on the health of the Keewatin hamlets via their effect on nutrition. The Bay, in particular, responded to local initiatives by establishing a position of nutritionist in 1979. In cooperation with the Medical Services Branch and with community groups, a programme of shelf labels, posters, and good-food stickers has

since been developed specifically for Inuit communities. Of particular note is the fact that the original initiative of local Community Health Representatives has resulted in the involvement of a number of structures (the hamlet council, health committees, nursing station, etc.) in the programme to ensure mutual support and the provision of consistent messages. The Bay and its nutritionist are to be commended for their effort and we hope these efforts will be extended to all Hamlets in the Keewatin with the active support of all community structures. While this is, in a sense, a general nutritional and educational problem, we cannot help wondering if the disastrous state of dental health among Keewatin residents might not be improved if the Hamlet councils treated candy and pop in much the same way as they frequently do alcohol. A significant improvement in nutritional standards would undoubtedly be as important for dental health as an increase in the availability of dental therapists and dentists.

It has often been demonstrated that poor housing can adversely affect health. While the housing in the Keewatin communities is not the very best, it is doubtful that it is a severe health hazard. Much of the housing is, however, small, relatively crowded, and not of the highest quality or of appropriate design, especially in the case of the older houses. The GNWT should, therefore, be encouraged to ensure the upgrading or replacement of the poorer housing as quickly as possible.

The relationship between the Medical Services Branch nurses and the social workers employed by the GNWT seemed very variable. Where relations were poor this stemmed as much from differing philosophical approaches to the whole concept of what social work consisted of as from the specifics of individual cases. In a number of instances information appears not to have been transmitted between social workers and nurses but it is difficult to determine whether this resulted from the

fact that they worked for different governments with their regional headquarters located in different communities, from personal differences, or from mere oversight. A number of complaints were heard about patients discharged from the mental hospital in Selkirk, Manitoba who returned to the Keewatin without the discharge papers and other information needed for follow-up being transmitted to the local nursing stations.

The relationship between the health system and the Hamlet health committees, where they existed, also seemed to be very variable. In some instances the nurses felt health committees were not very useful or were a nuisance. Many of the members of the health committees were doubtful of the value of their contribution as the committees were presently constituted. There appeared to be confusion or lack of clarity concerning their basic purpose, and irritation at their lack of authority and monetary resources. The range of activities carried out by the committees varied widely from one Hamlet to another, with some being quite active while others just showed the occasional film on smoking, water safety, or other such topics.

In order both to promote effective communication between the various community structures that impinge upon health and to promote a sense of local responsibility, we are of the opinion that the role of local health committees should be considerably upgraded to that of Boards of Health. In the first instance, it is essential that the health boards have a clear rôle. Moreover, we feel that this rôle should primarily be that of coordinating what might be termed preventive health services, although other activities relating to the nursing station should also be included. In order that this rôle be efficiently pursued, we think the health boards should have discretionary control over a budget sufficient for them to carry out their

responsibilities. We have already indicated that only marginal improvement in the health status of Keewatin residents is likely to result from a relocation of hospital facilities to Rankin Inlet, increased numbers of doctors, or other changes on the curative side of medical care. The greatest room for improvement exists on the preventive and promotional side and this is an area where local initiative and concern is of prime importance because the formal curative health care system is not designed to cope alone with these problems.

CHAPTER 9

Training Programme for Inuit Health Personnel

The widespread use of Inuit health personnel of all kinds (including nurses, dental therapists, doctors, dentists, and administrators) within the Keewatin would have a variety of beneficial effects. Most importantly it would remove the element of paternalism, both perceived and real, that now exists in the delivery of services and which, though at present unavoidable, is often resented by Keewatin residents. In addition, it would largely remove communications barriers of both a cultural and linguistic kind. Moreover, the utilization of Inuit personnel would probably considerably reduce the rate of staff turnover and lead to greater continuity of service.

At present Inuit personnel are employed largely as clerk interpreters, dental therapists, or nursing assistants. While there are a few Inuit nurses, none is currently employed in the Keewatin. With the scanty opportunities for high school education limiting the number of candidates for post-secondary training, the short-term prospects for even a moderate supply of Inuit health personnel at the level of nursing assistants and dental therapists is poor, and the likelihood of being able to provide many fully qualified Inuit nurses, let alone dentists and doctors, is remote. While the efforts that are currently being made are laudable, there is great room for improvement. As an example, the training programme at Fort Smith has graduated 8-10 dental therapists a year since it began in 1974, but only three Inuit have graduated and only two of these are currently working -- one of them in the Keewatin while the other left the Keewatin for the Yukon. It must, however, be emphasized that while the opportunity for training should exist, its results depend on

a school system that educates people to the point where they are able to avail themselves of the opportunity, and on a willingness, indeed a determination, on the part of the Inuit community to seek such training.

One of the major factors detracting from the feasibility of a training school for Inuit health personnel in the Northwest Territories is the very small number of individuals in the Keewatin who graduate from high school. Only half a dozen people have completed grade 12 in the past two years. Part of the reason for this is that there is no high school in the Keewatin. Students have to leave not only their home community but the Keewatin region to obtain a high school education. Most Keewatin students go to Frobisher Bay. A distressingly large number of the students dislike living in Frobisher Bay and leave for home before graduating. It would seem to us, therefore, that a prerequisite for any training programme is the establishment of a high school in the Keewatin. We are informed that there are plans to establish a high school in Rankin Inlet by 1983, and we encourage the Government of the Northwest Territories to construct it with all speed. Once the school is established students should be encouraged to attend. This encouragement should come from a combination of community attitudes and the incentive of knowing a student could, upon graduating, enter a training programme and then a lucrative and satisfying career in health care. The technical difficulties of establishing appropriate laboratory facilities for training in the natural sciences, and of recruiting and keeping teachers for these subjects, must be solved if the high school graduates are to be equipped for subsequent training as health workers.

We emphasize the necessity of developing a pool of high school graduates because it was a marked concern of Keewatin residents that Inuit nurses and other health care personnel should be trained to the same level as those personnel already

serving in the Keewatin. We constantly heard comments that second rate, sub-standard or "special" programmes were not desired. There was little discernable support for the idea of using third-world models of sub-professional health care personnel.

Even if a substantial pool of high school graduates were produced, the problem would remain of attracting sufficient entrants to the health field. One aspect of this problem is that Inuit high school graduates can at present command much higher incomes in occupations outside the field of health care. The pay of the health occupations is simply not competitive with others, even with some that do not require high school graduation. It would be necessary, therefore, to match these other salary levels on a continuous basis. Another aspect of the problem of attracting sufficient entrants to a training programme is the location, Frobisher Bay, suggested in our terms of reference. While Frobisher Bay was, presumably, mentioned because it already had a high school, a hospital, and some established training facilities, it was clearly not favoured by Keewatin residents as the best location. This leads us to believe that if a facility were located in Frobisher Bay few Keewatin high school graduates would be attracted to it. On the other hand, locating such a facility in Rankin Inlet, if a high school and a hospital were established there, might have a similar effect on students from other regions. We feel that no more than one facility is required for the whole of Nunavut for both academic and economic reasons. The facility could reasonably be located in any one of the communities with a hospital. The specific location should be a political choice decided upon, largely, by representative Inuit groups who, once the decision has been taken, should also be responsible for encouraging people from all parts of Nunavut to attend.

It should be noted at this juncture that we are of the opinion that a training facility for Inuit health personnel, located somewhere in Nunavut, though not necessarily in Frobisher Bay, would be more likely to attract Inuit entrants than would training facilities in places such as Fort Smith, although it is difficult to say to what degree. Such a facility would also, in our opinion, be more likely to attract entrants if the programmes were devised such that most of the instruction and field work could be offered in Nunavut by visiting staff and only short visits to the south would be needed. It would also be of value if the qualifications acquired were demonstrably equal in value to those obtained in the south. Perhaps this could be achieved by having a formal link with a southern institution.

A further problem that must also be considered is the retention of expensively-trained graduates in the northern health care system. Although the phenomenon has not been thoroughly studied it is evident that there is a great deal of "job hopping" among the educated younger Inuit. The problem is simply that there are at present so few highly qualified Inuit that there is great competition for them among employers, such individuals can get almost any job they like, and people do seem to keep getting lured away from one job to another. This problem can only be solved by attempting to increase the number of highly qualified Inuit and by ensuring that the health professions are rewarded competitively. In the present circumstances this would require a great deal of cooperation between the territorial and federal authorities as well as some changes in the classification of posts at both levels of government.

A further note of caution should also be struck. Although the development of a pool of Inuit health personnel is very important and should eventually have the beneficial effects mentioned at the beginning of this chapter, it might also create

new and different problems. Many Inuit may not at first believe that Inuit health care personnel are equally well qualified and may prefer having white personnel. Difficult situations may arise when Inuit and white personnel work alongside each other. Family members may exert unfair pressure for special consideration. This last point was indeed mentioned as a problem by some of the Inuit health care personnel already working in the Keewatin. Finally factional disputes and rivalries among the Inuit do exist, and cannot be eliminated by providing professional education to a few.

We are of the opinion that vigorous efforts should be made to establish a training programme for Inuit health care personnel somewhere in Nunavut despite all the problems that are likely to be faced. The potential benefits far outweigh the real and potential problems and costs. Personnel of all types are needed but we are of the opinion that, given the deplorable state of dental health in the Keewatin, a first priority should be placed upon increasing the number of Inuit dental therapists. Residual hostility of even some of the younger Inuit to an Indian environment should be taken into account to the extent that it actively discourages individuals from attending training programs where Indian students predominate.

CHAPTER 10

Intergovernmental Relations

Any discussion of the problems related to the delivery of health care services in the Keewatin has to take account of the fact that a large number of political jurisdictions are involved and that they have differing perceptions of the problems and of the possible solutions. The federal government is involved via the Medical Services Branch of the Department of National Health and Welfare. This branch is, at present, responsible for health care delivery in the Keewatin. The Department of Indian and Northern Affairs is the other federal agency with major concerns in the area. The government of Manitoba is involved because of its interest in the Churchill Health Centre which serves not only as the zone hospital for the Keewatin but also as a community hospital for part of northern Manitoba. The Local Government District of Churchill is concerned about the future of the Churchill Health Centre because it generates directly and indirectly a large proportion of local employment. The Government of the Northwest Territories has long wanted to assume full responsibility for the delivery of health services, and discussions have taken place with the federal government on this point. The Inuit Tapirisat of Canada has presented the federal government with the Nunavut proposal which might lead to the division of the Northwest Territories, and Nunavut would represent a new political unit concerned with the delivery of health services in the Keewatin.

The Medical Services Branch has established a series of Zones throughout the Territories and the north of the provinces for health administrative purposes. These zones, quite naturally, have been established over the years with a view to the most logical way to provide health services and for that reason they have not always

followed the logic of political boundaries. One illustration of this is that the Medical Services Branch Regional Office for the Northwest Territories was located in Edmonton, Alberta, until a recent move to Yellowknife. Another illustration is that the Keewatin Zone of the Medical Services Branch is not coterminous with the Keewatin Region of the Government of the Northwest Territories. Sanikiluaq is in the Northwest Territories Baffin Region but the Medical Services Branch Keewatin Zone. In addition, the Medical Services Branch Keewatin Zone Office is in Churchill, Manitoba. The heightened desire for provincial status on the part of the Government of the Northwest Territories and the recent development of the Nunavut proposal have created a rather awkward set of locational and jurisdictional problems.

There are numerous other intergovernmental complexities. Most Zone Directors of the Medical Services Branch in the Northwest Territories are also responsible for Federal zone hospitals, but this is not the case in Churchill because the Health Centre is a community and not a federal institution. This means there are administrative complexities encountered in the Keewatin zone that are not found in the others. These complexities are increased by the fact that the Transient Centre in Churchill is operated by the Government of the Northwest Territories and, while the Medical Services Branch controls evacuations, the Government of the Northwest Territories controls repatriations. Moreover, the responsibility for nursing stations and physician visits in the Keewatin resides with the Medical Services Branch, while the responsibility for preventive and environmental services is shared between the federal and territorial governments.

The position of the Government of the Northwest Territories that it should assume full responsibility for the delivery of all health care services in the N.W.T. is based on the argument that more care can and should be delivered within the

territories. One reason stated is that this would lead to more health care dollars spent on behalf of residents of the Northwest Territories being spent within the Northwest Territories. Another argument is that it would shorten evacuation routes and lead to hospitalization closer to a patient's home community. A further reason is that it would result in more local control through Boards of Health and a health system that, at all levels, would have greater stability because it would be provided by people committed to residing in the North. The mechanism by which the territorial government hopes to achieve its objective in the Keewatin, and throughout the Northwest Territories, is that of a new pattern of referral routes for patients.(17)

The present referral pattern is a three-stage process. The first stage is the nursing station in each of the communities, the second the Churchill Health Centre, and the third facilities in Winnipeg. This is a more or less direct north-south link and it is repeated for the other zones in the territories (see Figure 4). Each set of linkages ends with referral to a University Hospital which provides specialist diagnostic and treatment services not available in the NWT.(18)

The new referral pattern proposed by the Government of the Northwest Territories is a four-stage process. This revised referral pattern would be from the nursing stations in each of the Keewatin communities (the Primary Care level) to a small hospital or 'health centre' in Rankin Inlet (the Secondary Care level), from there to an upgraded Stanton Yellowknife hospital (the Tertiary Care level), and finally to specialized facilities in the south (the Quaternary level). The major referral point in the south would, presumably, be Edmonton because of its proximity to Yellowknife. Documents of the Government of the Northwest Territories do,

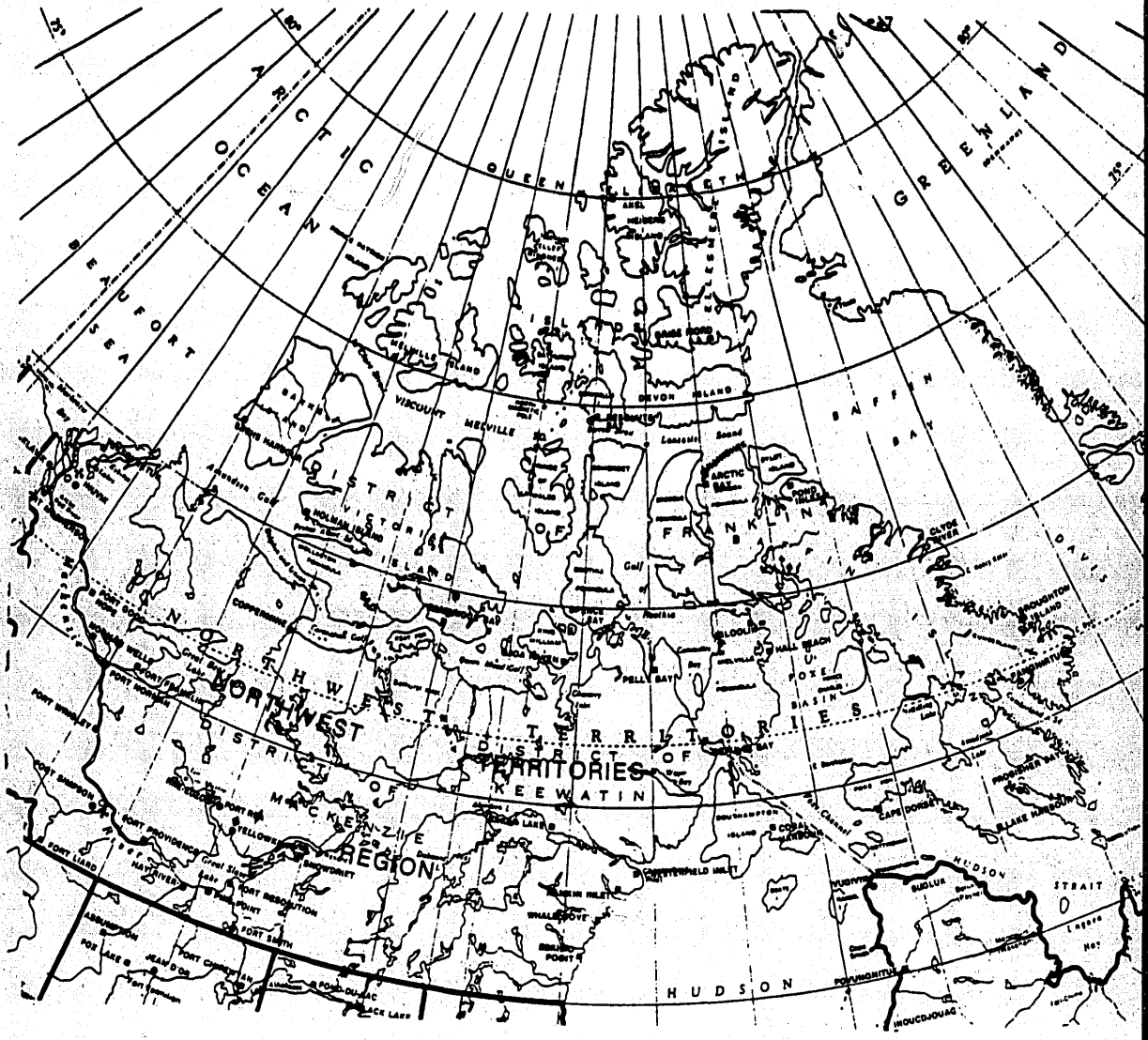
however, mention Montreal, Toronto, and Winnipeg in addition to Edmonton. No mention is made in the documents of the maintenance of the present contractual relationships with University Medical Schools in the south.(19)

It is obvious that the key to the health plan of the Government of the Northest Territories is the establishment of the Stanton Yellowknife hospital as the referral centre for a network of smaller regional hospitals. As one document phrased it "In the N.W.T. system the Stanton Yellowknife hospital could be the Hub of the Wheel".(20). Following the Clarkson Report (21) the expansion of the Stanton Yellowknife hospital has begun. The fourth level of referral is necessary because even the expanded Stanton Hospital would have no more beds (just over 100) than do modest small-city hospitals in the south, and would not be able to offer the range of specialties and services of the major teaching hospitals. Another vital element in the plan is the establishment of a regional hospital in the Keewatin. Such a facility is mentioned in various documents, recommended in the Central and Eastern Arctic Health Services Study(22), and voted for by the Legislative Assembly during the second session of the ninth Assembly. However, as one territorial document states, "facilities in the Keewatin and the High Arctic are covered under the auspices of Medical Services, Health and Welfare Canada. At present, their financial forecasts do not include hospitals in these areas."(23)

The Inuit Tapirisat of Canada has proposed the creation of a new territory called Nunavut(24) and has suggested that health services could be the responsibility of the new government of this territory.(25) One of the objectives of the I.T.C. in proposing such a transfer of responsibilities is to make the health system more responsive to the people it serves -- more responsive than they think it is now when run from Ottawa or likely to be if run from Yellowknife. Although the I.T.C. has

Figure 4.

General medical care referral patterns for the Northwest Territories, 1980



Inuvik Zone	Mackenzie Zone	Keewatin Zone	(Sanikiluaq)	Baffin Zone
↓	↓	↓	↓	↓
Inuvik	Yellowknife	Churchill	Moose Factory	Frobisher Bay
↓	↓	↓	↓	↓
Edmonton	Edmonton	Winnipeg	Ontario cities	Montréal

nowhere detailed the other likely advantages of such a transfer of responsibilities to a Nunavut authority they would, presumably, be similar to the advantages the territorial government thinks it would gain, namely that more health care dollars spent on Nunavut residents would be spent in Nunavut, evacuation routes would be and hospitalization would be closer to a patient's home community. Implicit in the Nunavut proposal is a dislike of the idea of Yellowknife as the 'hub' of evacuations and service delivery. The I.T.C. is, however, clearly in favour of a hospital in the Keewatin, for the President of the I.T.C. has stated "we need to have our own hospital. Rankin Inlet, for example, would be a very good location for it."(26) The I.T.C. documents do not touch on the matter of whether or not the contractual relationship with the medical schools in the south that relate to the proposed Nunavut area should be continued.

As regards the Keewatin, the main point upon which both the territorial government and the I.T.C. agree is the need for a hospital in Rankin Inlet. Rankin Inlet is the regional territorial administrative centre and has the best air links. It is, presumably, where the offices of a Region of Nunavut would be established. It would clearly be of administrative benefit to have the hospital in the Region that supplies most of the patients and where most of the interagency communication is likely to take place. It would also clearly be of economic benefit to Keewatin residents, and would increase the potential for greater Inuit responsibility for the facility than is presently the case with the Churchill Health Centre. The major element on which the Government of the Northwest Territories and the I.T.C. would be likely to disagree is the route of referrals from Rankin Inlet. The Government of the Northwest Territories is obviously thinking in pan-N.W.T. terms when it proposes referral to Yellowknife. Since Yellowknife is outside the proposed Nunavut territory,

the I.T.C. and any Nunavut authority that might be formed are unlikely to think such a route better than the present links with southern locations that provide a far wider range of facilities than those available in Yellowknife.

The federal government, the government of Manitoba, and the local government of Churchill naturally see things from a rather different perspective. The federal government and the government of Manitoba have invested in the existing facility, the Churchill Health Centre, and there is an established working relationship with health care institutions in Winnipeg operating on a north-south referral route. The existing facilities are relatively new and have many useful years remaining, and the relationships with southern institutions are, on the whole, good. From a purely economic point of view, the construction of a hospital in Rankin Inlet would represent a substantial added cost without any addition to the output of the health care system since it would provide care for the same population presently served by the Churchill Health Centre. Moreover, the creation of a new referral pattern, as proposed by the Government of the Northwest Territories, would disrupt the established set of arrangements. The loss of the Keewatin patients to the Churchill Health Centre that would result from the construction of a hospital in Rankin Inlet would leave that facility with excess capacity and the government of Manitoba would have to suffer the costs and inconvenience that the new situation would entail. As far as the town of Churchill is concerned, the loss of the jobs at the Health Centre that are created by Keewatin patients would, especially since these patients constitute over three quarters of those served by the Centre, be an economic disaster and the latest in a series of blows that the community has received in recent years.

It must, however, be remembered that the problems that would be faced by the federal government, the Government of Manitoba, and the town of Churchill would

not be directly created by the territorial government, Inuit institutions, or residents of the Keewatin. They did not create the present institutions or referral routes. Moreover, it should be expected that they dislike being burdened by what for them is an administratively illogical and economically unrewarding set of circumstances created by others. In a sense, nobody is to blame for the existing awkward situation, for changing political, economic, and demographic patterns have meant that what was once a logical cooperative arrangement between the federal government, the government of Manitoba and the town of Churchill is not as viable either politically or economically as was once the case.

The construction of a hospital in Rankin Inlet and the moving of the Medical Services Branch Keewatin Zone Office to the same community makes sense socially, administratively, and economically, as viewed from the perspective of a resident of the Keewatin. It may also make a great deal of sense from an intergovernmental-relations perspective. Although the time frame is uncertain, it appears likely that, at some point in the future, the responsibility for the delivery of health services in the Keewatin will be transferred either to the territorial government or to a Nunavut authority. Since both are so strongly in favour of the construction of a hospital in Rankin Inlet, it seems reasonable to assume they would move rapidly to build one once they had full responsibility for health care delivery. Thus, in view of the rapidly rising costs of construction, and to ease the problems of the new authority, it might be prudent to move earlier rather than later. Unfortunately, another intergovernmental-relations problem is generated by the timing of the construction; if the hospital is built now, the decision cannot be taken by the NWT government without taking into account the views of the federal government, whereas if it is built after a transfer of responsibility the decision could be made by either the territorial government or a Nunavut authority even, though there would probably be a large element of federal financial participation.

The establishment of a new referral route from Rankin Inlet to Yellowknife should not be contemplated at this time. For one thing, a Nunavut government may well not desire such a change. Moreover, we are not convinced that it would be of medical benefit to residents of the Keewatin. While we can sympathize with the desire of the government of the Northwest Territories to deliver more care within the N.W.T., the addition of another level of care to the existing threefold would not provide better care. It would lengthen air travel for referral by adding an east-west leg and, apart from the added inconvenience and cost, would result in patients being hospitalized even farther away from home than is presently the case. Moreover, if the scheme involves the termination of the contractual arrangements with the Northern Medical Unit of the University of Manitoba, a lower level of medical service may result. The link with the Northern Medical Unit is an extremely valuable one and should be maintained if a hospital is built in Rankin Inlet. It would be very difficult for even an upgraded Stanton Yellowknife Hospital to attract a cadre of physicians of the range and calibre of those now serving the Keewatin and to organize the necessary visits to the communities. The shorter, less complicated north-south referral pattern for the Keewatin and the linkage with a university-based medical unit in Winnipeg should, therefore, be retained for the forseeable future.

Finally, it should be pointed out that there is a great deal of uncertainty concerning the political future of health services in the Keewatin. This uncertainty can only have detrimental effects on everyone involved. While the question of a transfer of responsibility for the delivery of health services is outside our terms of reference, we should like to recommend that every effort be made to clarify as soon as possible when and to whom responsibility will be transferred.

FOOTNOTES AND BIBLIOGRAPHY

FOOTNOTES

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