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STANTON YELLOWKNIFE HOSPITAL PROPOSAL

Briefing Requested  
by Legislative Assembly  
of the Northwest Territories

March, 1980  
Department of Health

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## BACKGROUND

Since the time the Government of the N.W.T. became involved in Health Care a very fundamental goal has been striven for:

The provision of the highest quality of care most economically and reasonably capable of being provided in the N.W.T.

To this end there has evolved a system that would have:

- A) Nursing Stations in small communities - with resident nurses and visiting physicians.
- B) Area hospitals in larger communities with doctors and appropriate staff, including facilities for chronic care. (Ft. Smith (1979) Cambridge (198X) Keewatin (198X).
- C) Regional centres in larger centres of communication and traffic flow (Frobisher Bay, Inuvik, Hay River (1976).
- D) A regional referral centre to serve a larger catchment area (Inuvik & Ft. Smith Region 33,000 of the G.N.W.T.'s 46,000 residents) Yellowknife 198X.
- E) Referrals to major facilities in South. Major hospitals in Edmonton for the Inuvik and Ft. Smith Region; Major hospitals in Winnipeg for the Keewatin Region; Major hospitals in Montreal for the Baffin Region; to provide the most sophisticated level of care.

The Government of the N.W.T. has and continues to cost share in the construction and operating costs of all the nursing stations and hospitals run by Health & Welfare Canada in the N.W.T. For example the G.N.W.T. paid approximately \$1,600,000 of the cost of renovations to the hospital in Frobisher Bay (1977-79).

This cost sharing arrangement means that Health & Welfare Canada pays the largest share in some communities and the G.N.W.T. in others for example.

Community	% Health & Welfare Canada	% G.N.W.T.	% Total
Cambridge Bay	86	14	100
Rankin Inlet	76.2	23.8	100
Frobisher Bay	59.6	40.6	100
Yellowknife	25	75	100
Inuvik	45.3	54.7	100

The cost of building a facility in Yellowknife, it can be seen will not seriously impact on G.N.W.T. funds available to build facilities in Cambridge Bay or the Keewatin.

The evaluation of a rational and integrated system of medical and hospital care delivery has taken significant steps with the completion of the Ft. Smith Health Centre and the setting in place of legislation permitting local Boards of Management.

Not all levels of care can or should be provided in the N.W.T. The extremely sophisticated types of care require a very broad population base to justify their existence.

There are still significant steps that can be taken toward the goal of provision of care in the N.W.T. Two of these are the completion of the system and the training of people of the north to run the system and provide the care.

It means that money presently spent in the south on the health care of residents; can for the most part, be spent in the north creating jobs and sustaining the economy and the tax base.

It means a higher level of medical services in the community and support for the general practitioner as well.

It means that a patient base is present to support the establishment of training programs in the Health disciplines for the people of the N.W.T.

In order to have residents receive their care in the north, facilities and manpower must be made available.

Stanton is viewed as providing an important link in the development of an integrated system for the Fort Smith/Inuvik regions. Smaller facilities have been constructed at Ft. Smith and Hay River and funds have been proposed for a more indepth review of Cambridge Bay.

It is important to recognize that what is proposed is a level of care that will not alter the roles of hospitals in communities such as Inuvik but rather complement them in providing for care they are presently referring out of their community.

In 1978/79, the costs of care and transportation for residents of the Inuvik and Fort Smith regions in Alberta and outside of Yellowknife or Inuvik was -

	Albta.	Referrals in N.N.T.	Total
Hospital - acute	1,837,566	0	1,837,566
- chronic	97,969	109,500	207,469
Transportation -	1,014,578	245,000	1,268,578
Medical Care -	507,000	0	507,000
Total	3,457,113	363,500	3,820,613

#### PRESENT FACILITIES AND SERVICES

1. The present facility was designed with multi-bed wards and small nursing units. No facilities were provided for isolation. As a result, when consideration is given to infectious cases, to obstetrics and gynecology, to surgery, to pediatrics, to severely ill patients, an occupancy of 65 to 70 percent is really a maximum safe occupancy for a hospital this size.
2. The present facility does not provide space for the provision of urgently required services such as: inpatient acute care services for mentally disturbed and/or psychiatric patients; or inpatient care services for T.B. patients.

3. In the present facility there is a severe lack of space for diagnostic and treatment services, such as: laboratory, radiology, physiotherapy, occupational therapy, ambulatory and emergency care, to the extent that program development is impeded.
4. Chronic Care services are not available at this time in Yellowknife. As a result patients must be sent to Fort Smith. This is not an acceptable service as it is difficult and financially restrictive for relatives and friends to visit the chronically ill.

With the completion of the Fort Smith Health Centre, there will only be sufficient chronic care beds in that new facility for local residents.

Twenty (20) beds are included in the Yellowknife Project for an extended/chronic care service.

5. A number of medical specialists have been recruited by the Stanton Yellowknife Hospital in an attempt to develop more comprehensive services locally and for the residents of the N.W.T. This policy is fully supported by the Government of the N.W.T. At present there is no office or clinical space available in the hospital for such services.

Without adequate clinical and office space, it will be difficult to recruit, or to retain, specialists in Yellowknife. The national trend for referral hospitals is to provide clinical and office space for heads of departments and specialists in the hospital. The experience in the past is that it is difficult to obtain regular services, with continuity, unless the specialists reside and practice in the Northwest Territories.

6. The present facility does not have space and facilities for developing training programs for health service personnel.

There is a need to provide education programs in order to prepare Northerners to participate in the delivery of health services. There are specific capital funds available through the Health Resources Fund to assist with the capital expenditures for this purpose. The funds will not be available later than December 31, 1980.

7. Additional space is required in order to expand and develop such cost-effective services as: home care, nutrition counselling services, and public health services.
8. Although during 1976/77, 37% of the patients treated were from outside Yellowknife, the hospital does not have hostel facilities available. The proportion of patients from outside Yellowknife will increase with the development of expanded programs and services. The purpose of a small hostel unit is to allow for pre-admission diagnostic work and to provide post-discharge accommodation for individuals from outside Yellowknife.

#### REPATRIATION OF PATIENTS

1. During 1978/79, it was necessary for the Government of the N.W.T., to purchase 14,077 inpatient days, 2,063 outpatient days, 398 newborn days, and 278 boarder days of hospital care from Alberta hospitals, at a cost of over \$1,837,566 for residents of the Inuvik and Fort Smith Regions.

2. In 1977/78, an analysis was done by an independent physician of the diagnosis of 2,696 residents of the Fort Smith and Inuvik Regions who received inpatient (A/C and NB) and outpatient services in four of the major hospitals in Alberta. The results indicated that if more adequate facilities and services had been available in the N.W.T., only 11.5% of the total 2,696 inpatient and outpatient cases reviewed would have required referrals to Southern Centres for specialty services such as neurology, neurosurgery, etc.

Therefore, if adequate facilities were available in Yellowknife, the majority of the residents of the Western Arctic could receive the required medical and hospital services in the N.W.T.

3. The lack of adequate facilities and services in the N.W.T. results in large expenditures for travel. During 1978/79 a total of approximately \$1,268,223 was spent on medical travel for residents of the Inuvik and Fort Smith Regions. (This amount does not include the medical travel covered by fringe benefits or by company policies).

#### CAPACITY

The capacity for the facility was based on the population served, the utilization rates and the type of care already in existence. Bed calculations were produced for 1981 and 1988 using 80% occupancy as a reasonable operating rate with the capacity of peaking to 100%.

The capacity of 115 acute care beds and 20 chronic care beds has been arrived at after reviews done by the Department of Health, Doctor Graham Clarkson, and the Medical Services Branch, Health and Welfare Canada.

#### EXPANSION PROPOSAL

1. Acute Care Inpatient Services

An increase of 43 beds, to a total of 115 adult and children acute care beds.

2. Extended/Chronic Care Inpatient Services.  
A 20 bed extended/chronic care service.
3. Expanded Ambulatory Care Services (Emergency and Outpatient Services).

4. Special Clinic Services

- Ophthalmology
- E.N.T.
- Speech and Hearing
- Orthopedics
- Obstetrics and Gynecology
- Pediatrics
- Internal Medicine
- Psychiatry and Mental Health
- Visiting Specialists

5. Expanded Diagnostic and Treatment Services

- Laboratory
- Radiology
- Physiotherapy
- Occupational Therapy

6. Regional Consulting Services
  - Physiotherapy
  - Occupational Therapy
  - Nutrition and Dietetics
  - Laboratory
  - X-ray
  - Speech and Hearing
  - Ophthalmology
  - Psychiatry
7. Expanded Home Care Program.
8. Public Health Offices, Medical Services, Health and Welfare Canada.
9. Ambulatory Care Residence - 10 bed Hostel Unit.
10. Training Programs for Health Care Personnel.

ALTERNATIVE TO THE PROPOSED EXPANSION PROGRAM

Not to expand the Stanton Yellowknife Hospital and to continue the present practice of purchasing hospital and medical services in Southern Canada.

If this alternative is chosen, funds spent on travel to hospitals outside the N.W.T., or on purchasing hospital and medical care outside the N.W.T., will continue to increase in total amount, contributing nothing to the health care capabilities or economy within the N.W.T.

Furthermore, the present facility is inadequate to provide services currently required of it. Therefore, it must be recognized that renovations and repairs will be required to upgrade the facility to meet current local needs.

It must be clearly understood that with the alternative to our recommended program, there is still a requirement for expansion in order to correct serious space deficiencies for the ongoing services, and there is also a requirement for repairs and replacement. Therefore, the only real alternative to our recommendation also would require a capital expenditure.

COST-BENEFIT ANALYSIS

Costs

<u>Capital</u>	(000's)
Capital Construction Costs (Architects Estimate - present Functional Program & New Site)	\$21,425
Renovations to old facility (Architects Estimate)	<u>3,627</u>
TOTAL COST	\$25,052
Less Health & Welfare Canada Share (25%)	<u>(6,263)</u>
	\$18,789
Less Health Resources Fund Grant (if project is approved and grant amount spent)	<u>(462)</u>
TOTAL CAPITAL COST TO G.N.W.T.	<u>\$18,327</u>



Cost Benefit Analysis - continued

<u>Operating &amp; Maintenance</u>	<u>Incremental Costs</u> (000's)
Acute/Chronic/Hostel/Specialist	<u>\$2,080</u>
<b>TOTAL COSTS</b>	<b>\$2,080</b>

If a new facility is not constructed, there will still be a large expenditure required to keep the existing facility operational.

Benefits

1. Employment factor to Yellowknife and N.W.T. approximately 74 positions and \$1,520,000 of Salaries and Benefits stimulus to Yellowknife and the tax base of the N.W.T.
2. Training programs for N.W.T. residents in health disciplines.
3. Provision of care closer to home community of N.W.T. resident, therefore, fewer problems of social dislocation - family can visit.
4. Specialists on site will improve overall health knowledge of Western Arctic residents and be of greater support to local general practitioners and nurses in nursing stations.
5. Savings per annum in Medical Transportation (000's)  
(see Appendix B) \$ 760

Inuvik/Fort Smith Regions

	Actual 1978/79 \$	Proposal			5 Change 1 - 4 (000's)
	1	2	3	4	
Referrals	(000's)	Alt. cost Continuing (000's)	Cost to Provide Ser. in N.W.T. (000's)	Total Costs in Proposal 2 + 3 (000's)	
*Transportation	1,268	254	254	508	760
**Hospital Care (Alberta) Acute	1,838	360	2,080		
Chronic	<u>207</u>	<u>0</u>	<u>0</u>	<u>2,440</u>	
	2,045	360	2,080	2,440	(399)
***Medical Care	<u>507</u>	<u>102</u>	<u>255</u>	<u>357</u>	<u>150</u>
	3,820	716	2,589	3,305	511

\* This figure (1978/79) does not include costs paid by private employers and other agencies (W.C.B.) for medical transportation to Edmonton, therefore savings could be much greater.

\*\* This includes repatriation of chronic patients, hiring of specialists and new staff and operating costs for 115 acute, 20 chronic and 10 hostel.

\*\*\*This figure is lower since specialists will be on salary at the hospital and the cost of their salary is built into hospital costs of \$2,030.

REPORTS SUPPORTING THE STANTON YELLOWKNIFE HOSPITAL EXPANSION

A. BACKGROUND

In 1975, the Government of the Northwest Territories commissioned a private consulting firm to assess the present and future health program and facility requirements of the Mackenzie Area. A number of the recommendations of the Mackenzie River Area Health Services Study<sup>1</sup> related to the Stanton Yellowknife Hospital, including one for the development of the hospital to a regional health centre.

In May, 1978, the then Department of Health and Social Services prepared a Treasury Board Submission for an expansion of the Stanton Yellowknife Hospital to 150 beds (120 acute care and 30 chronic care beds).<sup>2</sup> The Submission reflects a concurrence with many of the recommendations of the Mackenzie River Area study, in particular that for the need to attract and retain medical specialists in Yellowknife so that the hospital can function as a regional health centre.

The Department of National Health and Welfare commissioned Doctor Graham Clarkson, a private consultant, to review the proposal put forward by the Government of the N.W.T. for further expansion of the Stanton Yellowknife Hospital. The Clarkson Report, released in October, 1978, supported a number of recommendations which had previously been made, many of which were already, or are in the process of, being implemented. However, Clarkson's estimate of 106 required beds (98 acute care and 8 chronic care beds) differs significantly from that of the Treasury Board Submission.

Doctor David Martin, Regional Director, Medical Services, N.W.T. Region, was asked to review the Treasury Board Submission and the Clarkson Report and to comment on the discrepancy in the estimated bed requirements. In December, 1979, Doctor Martin stated his opinion that the Clarkson Report underestimates, and the Treasury Board Submission overestimates, the bed requirements. He suggested that 135 beds (115 acute care and 20 chronic care beds) are required.

B. AREAS OF AGREEMENT BETWEEN THE REPORTS

With respect to the Stanton Yellowknife Hospital, the Mackenzie River Area Study and the Clarkson Report both support:

1. The development of the Stanton Yellowknife Hospital as a regional referral health centre.
2. The recruitment of additional medical specialists to provide a consulting service out of Yellowknife.
3. The development of the Stanton Yellowknife Hospital laboratory to a referral laboratory.
4. The need for a hostel service.

The Treasury Board Submission recognizes that the Stanton Yellowknife Hospital must recruit medical specialists if comprehensive health services are to be provided in the Territories. However, it also notes that without adequate clinical and office space it will be difficult to recruit and/or retain specialists in Yellowknife.

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1. Mackenzie River Area Health Services Study, commissioned by the Government of the N.W.T., tabled in Council June 9, 1975.
  2. Treasury Board Submission: Stanton Yellowknife Hospital, Department of Health and Social Services, Government of the N.W.T., May 9, 1978.
  3. J. Graham Clarkson, An Assessment of Hospital Services in Yellowknife Including Observations on Health Services in the N.W.T., Edmonton, Alberta, October, 1978.

Clarkson observed that the constraints in the building design of the Stanton Yellowknife Hospital have resulted in problems of space deficiency, particularly in the diagnostic and treatment areas such as the radiology, laboratory, physiotherapy and ambulatory/emergency departments; he contends that it is impractical to expand these areas. Based on the serious constraints of the present site, the configuration of the present buildings and the need to provide for further expansion of the Stanton Yellowknife Hospital in the long term, Clarkson recommends that a new site be acquired for the development of hospital facilities.

C. PRESENT STATUS OF EXPANSION PROPOSAL

The estimation of future bed requirements necessitates that many assumptions be made regarding factors such as changes in physician referral patterns and population growth. It is, therefore, very difficult to predict the exact number of required beds and different sources can be expected to have differing opinions as to the required number. For this reason, the Department of Health is willing to accept Doctor Martin's recommendation for 135 beds - provided that provisions are made in the plans for future expansion. The Department of Health agrees with Doctor Clarkson that in order to allow for expansion over the long term, a new site should be selected for the hospital.

UTILIZATION OF HOSPITAL SERVICES IN ALBERTA BY NWT REGION (WESTERN ARCTIC) - 1978/79

REGION	INPATIENT (ADULT & CHILD)			NEWBORN			OUTPATIENT		BOARDER		
	Separations	Days of Stay	THIS Claims	Separations	Days of Stay	THIS Claims	Visits	THIS Claims	Separations	Days of Stay	THIS CI
FORT SMITH	851	9,359	1,193,668.00	35	264	4,993.00	1,693	35,629.70	118	223	9,378.00
INUVIK	311	4,718	581,859.00	15	134	2,683.00	370	7,680.00	27	55	1,676.00
TOTAL	1,162	14,077	1,775,527.00	50	398	7,676.00	2,063	43,309.70	145	278	11,054.00

Chronic Care - (Clients outside N.W.T. or outside of Yellowknife or Inuvik)  
1978/79

<u># of clients</u>	<u>Cost</u>
15	\$207,469

Medical Transportation SavingsIntroductionVolume of People Travelling to Edmonton For Specialist  
Medical Care Services and/or Hospital Treatment

It is very difficult to accurately reflect the savings on medical transportation costs due to the utilization of Stanton Yellowknife as a referral centre. The reason for the difficulty in accurately projecting the costs is that there are a variety of parties accepting the responsibility for covering these transportation costs.

Parties which will pay for their medical transportation costs include:

- (i) Medical Services Branch, Health and Welfare Canada - Treaty Indian and Outgoing Inuit costs.
- (ii) Social Services, G.N.W.T. - Returning Inuit, Indigent Travel Program.
- (iii) Dept. of Personnel, G.N.W.T. - Costs for G.N.W.T. employees excluding teachers.
- (iv) Dept. of Education - G.N.W.T. - Costs for teachers.
- (v) Federal Government Departments - Costs for their employees (Includes D.I.A.N.D., D.N.D., R.C.M.P.)
- (vi) Municipal Governments - Costs for their employees.
- (vii) Private Companies - Costs provided in some cases as an employee benefit.

The Department of Health has the 1978/79 statistics on the hospital and medical care services provided to residents of the Western Arctic in the province of Alberta. The volumes are large and it would be misleading to quantify the medical transportation costs on these figures. The following schedules attempt to reconcile the medical transportation savings if Stanton Yellowknife was used as a referral centre and with the medical specialist services available in Yellowknife.

Western Arctic - Schedule #1  
Medical Transportation Savings  
With Stanton Yellowknife as Referral Centre

	Medical Specialists -Procedures	Hospital -Seperations	Total
Western Arctic - 1978/79 Volumes in Alberta	7,516	3,275	10,791
Reduction - 20% of Services Still to be Provided out of Province with Expanded Facility	1,503	655	2,158
	<u>6,013</u>	<u>2,620</u>	<u>8,633</u>
Reduction Due to Average of 1.5 Procedures on Each Medical Specialist Claim. Reduction in Hospital due to Outpatient Seperations. Could be on Out- patient Status more Than Once on Same Trip.	2,004	1,310	3,314
	4,009	1,310	5,319
Reduction Due to Services Provided When Person is on Holidays or Pays on his own or After he Leaves N.W.T. (3 Month Carryover Period)	2,009	110	2,119
	<u>2,000</u>	<u>1,200</u>	<u>3,200</u>

SAVINGS CALCULATIONWestern Arctic

3,200 N.W.T. Residents Return Airfare  
Yellowknife at Current Rate of \$235.00  
3,200 X \$235.00 = \$752,000

Western Arctic - Schedule #2  
Medical Transportation Savings  
With Stanton Yellowknife as Referral Centre  
Expenditure By Government Departments - 1978/79

	<u>Inuvik</u>	<u>Fort Smith</u>	<u>H.Q.</u>	<u>Total</u>
Medical Services, Health & Welfare Canada	\$215,404	\$412,731	-	\$628,135
R.C.M.P.			31,576	31,576
Government of the North- west Territories				
- Social Services	35,700	95,500	35,800	167,000
- Health	-	-	133,498	133,498
- Personnel	21,614	103,734	122,187	247,535
- Education	10,316	50,163	-	60,479
	<u>\$67,630</u>	<u>\$249,397</u>	<u>\$291,485</u>	<u>\$608,512</u>
<b>Total Expenditure</b>				<b>\$1,268,223</b>
Reduction For Expenditures Which Involve Trans. Within N.W.T. - 25% of (1,268,223 - Special Services in Alberta (253,645)				253,645
Reduction For Specialist Services Still to be Provided in Alberta - 20% of \$1,268,223				253,645
Transportation to Alberta				\$1,014,578
Savings				<u>\$ 760,933</u>

Western Arctic - Schedule #3  
Medical Transportation Savings  
With Stanton Yellowknife as Referral Centre  
Summary

Savings Per Schedule #1	<u>\$ 752,000</u>
Savings Per Schedule #2	<u>\$ 761,000</u>

These figures reflect actual expenditures and actual separations but there is no system available to tie in the two factors. It is a fair statement on the basis of how we have qualified the above schedules to project a savings of \$ 750,000 per year.

	<u>Population</u>	<u>Trips</u>	<u>%</u>	<u>Savings at Constant \$235.00 Return Trip</u>
1978/79	33,881	3,200	9.44	\$ 752,000
1984	39,335	* 3,713	9.44	\$ 872,500
1988	43,242	* 4,082	9.44	\$ 959,300

\* Calculated at 1978/79 %



Appendix C

Medical Care Services

	1978/79	
	\$	%
<b>N.W.T. Doctors</b>		
Private Practice	1,458,000	47.0
*Federal	<u>813,000</u>	<u>26.2</u>
Sub Total	<u>2,271,000</u>	<u>73.2</u>
<u>Alberta</u>	<u>507,000</u>	<u>16.3</u>
Manitoba	165,000	5.3
B.C.	36,000	1.2
Quebec	47,000	1.5
Ontario	40,000	1.3
Saskatchewan	15,000	.5
Yukon	8,000	.3
Other	<u>13,000</u>	<u>.4</u>
Sub Total	<u>831,000</u>	<u>26.8</u>
TOTAL	<u>3,102,000</u>	<u>100.0</u>
Total Number Claims Paid	191,259	
Average Payment per Claim Paid		16.21