LEGISLATIVE ASSEMBLY OF THE NORTHWEST TERRITORIES

8TH ASSEMBLY, 59TH SESSION

TABLED DOCUMENT NO. 2-59

TABLED ON May 17, 1976

Tabled Document 2-59
Tabled May 17, 1976

REPORT

on

HEALTH CONDITIONS

in the

NORTHWEST TERRITORIES

1975

Chief Medical and Health Officer
Government of the Northwest Territories

I N D E X

REPORT ON HEALTH CONDITIONS IN THE NORTHWEST TERRITORIES - 1975

VITAL STATISTICS

POPULATION:

As 1975 is the tenth year since health services to the Northwest Territories were brought under a single administration by the former Northern Region it seems appropriate to review along the course of this report the changes that have occurred either for better or worse in the health picture over that period.

It is not the intention to claim responsibility for all improvements nor yet to accept all responsibility where changes have occurred for the worse, but rather to bring attention to such changes where they have occurred and to draw such conclusions as may be drawn.

Undoubtedly we have come a long way in ten years. Equally undoubtedly we still have far to go, and the way is far from smooth.

Because health conditions vary according to population group within the Northwest Territories, it has always been the custom to record all statistics according to the three major ethnic groupings. Equivalent health services are available to all groups, but culture and climatological differences make for differences in the success of those services in providing positive health.

The end of the year population served consists of:

	Indians	Eskimos	Others	Total
Number	7,678	14,303	16,867	38,848
Percentage	19.76%	36.81%	43.43%	100.00%

In 1965 the equivalent figures were:

	Indians	Eskimos	Others	Total
Number	6,076	9,382	10,537	25,995
Percentage	23.4%	36.1%	40.5%	100.00%

The last group includes all but the two primary native peoples and is largely composed of White immigrants from the South. Whilst the population totals for the two native groups are felt to be reasonably accurate, the last, or "Other" group, having a large transient component may only be within a couple of thousand of the true figure, most probably on the low side of actuality, since records of immigration and emigration are not available. The effect of a low

estimate in any population group is to introduce an error in the denominator in statistical calculations which has the effect of artificially raising those various rates which are calculated on the basis of a total population. Since most rates are indicators of undesirable situations (death rates, disease rates, etc.), the result is to paint the picture a little worse than it really is.

However some rates, such as Maternal Mortality and Infant Mortality are calculated on a different (and accurately countable) denominator, and such rates are a true indicator of the health picture.

When one considers the other phenomenon of morbidity (not mortality) that of under-reporting in the Provinces, it is obvious that many of the rates that are calculated in this report are in no way comparable with the equivalent rates in the Provinces. Such comparison is not only disheartening, it is utterly useless and valid comparisons cannot be drawn, except in those rates which (1) use a true denominator (e.g., per 1000 livebirths) and (2) report obligatory notifications (e.g., Maternal deaths, Infant deaths, stillbirths, etc.).

However, because reporting in the Northwest Territories is reliable and constant in mode of display, it is possible to obtain useful information from a comparison of one year's Northwest Territories figures with one or more previous years figures. This is the purpose of our statistical report - to show how the Northwest Territories is doing with reference to itself.

The change in the Eskimo population from 9,382 in 1965 to 14,303 in 1975 gives a net increase of 4,921, more than a 50% increase. This increase must be almost entirely the result of natural increase, i.e., births minus deaths, since immigration of Eskimo must be a very low figure. Emigration by Eskimo from the Northwest Territories on the other hand is not so negligible a factor and in the face of this a maintained average annual increment of 5% is noteworthy, and probably one of the highest in the world.

The net increase in the Indian population is 1,602 on a 1965 year end figure of 6,076; a little over 25% giving an average annual

increment of slightly less than half the Eskimo rate.

The changes in the "Other" population group are due more to net immigration than to high reproduction rates and nothing is to be gained by discussing this group further.

The relative proportions of native Eskimo have remained almost constant over a ten year span, whilst the Indian proportion has dropped 3% and the non-natives have increased by the same amount.

LIVEBIRTHS:

The live birth rates per 1000 population were:

Indian	Eskimo	Others	All Groups
26.0	32.4	32.4	31.2

to be compared with the corresponding figures in 1965 of:

37.5	59.8	41.0	46.8

There has been an obvious slight rebound from the exceptionally low rates of 1974 bringing the rates back close to 1973 experience. In all groups there is a notable drop from the high rate of 10 years ago reflecting an increasing acceptance of the concepts of family planning.

SEX RATIO OF BIRTHS:

	1975	1974	1973	1972	1965
Indians	850	1282	1097	1175	1030
Eskimos	877	1371	1223	1017	1270
Others	970	931	1140	992	1188

This labile proportion is a result of chance. The four year average for male births per 1000 female births is:

Indian	1101
Eskimo	1122
Others	1008
All Groups	1077

It can be seen that when a large enough sample is taken the result is similar to the national average, the last available figure for which was 1061 in 1973.

BIRTH WEIGHTS:

Average birth weights for the three groups were as follows:

	INDIANS		ESKIMOS		OTHERS	
	Male	Female	Male	Female	Male	Female
1972	7.27 (3.30)	6.99 (3.18)	7.12 (3.24)	6.88 (3.13)	7.66 (3.48)	7.22 (3.28)
1973	7.11 (3.23)	6.81 (3.10)	7.00 (3.18)	6.81 (3.10)	7.45 (3.39)	7.51 (3.41)
1974	6.66 (3.03)	6.41 (2.91)	6.80 (3.09)	6.42 (2.92)	7.25 (3.30)	7.03 (3.20)
1975	6.62 (3.01)	6.67 (3.03)	7.11 (3.23)	6.88 (3.13)	7.60 (3.45)	7.04 (3.20)

Figures for 1965 are unavailable. In keeping with the trend to metric record keeping, the birth weights are given this year in both pounds and, in brackets, in kilos.

LOW BIRTH WEIGHT INFANTS:

The rate of low birth weight infants per 100 live births was:

	INDIANS	ESKIMOS	OTHERS	ALL GROUPS	CANADA 1971
1973	12.43	10.96	4.37	8.16	
1974	8.9	8.58	4.98	7.01	6.8
1975	13.1	5.4	3.8	6.0	
Average	11.47	8.3	4.38		

There is little commentary that can be made. Individual statistical groups are too small to be of significance though the three year average of 11.47 for the Indian group could indicate either a tendency to maternal malnutrition, or, and perhaps more probably, an ethnic tendency to smaller birthweight infants which, viewed against a White norm, gives artifically abnormal figures.

MULTIPLE BIRTHS:

Indians 6 Eskimos 2 Others 4

It is of interest to note the occurrence of three sets of twins in the Indian section after two consecutive zero scores.

STILLBIRTHS:

1975	Indians	5	Eskimos	4	Others	7
1965	Indians	2	Eskimos	8	Others	4

The rather startling figure of 5 Indian stillbirths following three years of zero or (in 1973) very low stillbirth rates in this population group can only be attributed to chance and the smallness of the samples. It is felt that there is no particular significance to be attributed but the figure does contribute substantially to the high perinatal mortality observed in this ethnic group. (See Page 12)

HOSPITALIZED BIRTHS:

The proportions of births occurring in hospital or nursing station were:

Indians 98.9 Eskimos 97.8 Others 99.0

This ratio is approximately the same as in 1974 but a significant change from the 80% of 1965 (and 65% in 1963).

MATERNAL AGE:

	INDIANS	ESKIMOS	OTHERS	CANADA (1973)
Under 20	28.28%	22.48%	12.96%	12.02%
20 - 24	29.29%	30.56%	35.74%	33.65%
25 - 29	18.68%	25.10%	37.96%	34.34%
30 - 34	14.64%	11.79%	9.62%	13.92%
35 - 39	7.07%	6.11%	2.77%	4.68%
40 - 44	1.01%	2.83%	0.74%	1.17%
45 +	0.50%	0.43%	0.00%	0.73%
Not Stated	0.50%	0.65%	0.18%	0.12%

The above table shows a shift in pattern amongst the Eskimo toward the White or "Other" pattern with the prime reproductive years being between 20 and 29 years, whilst in the Indian the prime years are below 25 years. This indicates perhaps an earlier onset of sexual activity among this group and a pattern which last year characterized both native groups.

Corresponding figures for 1965 show only 4.3% of Indian births to mothers less than 20 years of age compared with 14.7% in the Eskimo group and 10.6% in the "Others". In all groups these percentages will have been increased by the tendency to smaller families with less children being born to older mothers - and therefore the greater percentages occurring in the younger age groups.

Probably it also represents a change in lifestyle with a decreased parental emphasis on morality and premarital sexual expression.

BIRTH ORDER:

The percentage distribution of live births by birth order and ethnic group is:

	INDIAN	ESKIMO	OTHER
1st Child	29.29	29.03	45.55
2nd & 3rd Child	34.84	31.44	47.22
4th & Subsequent	35.85	39.51	7.22

These figures clearly reflect the larger family size of the native groups, a fact which is not clearly indicated by a study of birth rates alone. The implied tendency is for a temporary immigration of young non-native families with a short but high reproductive history whilst in the Territories, followed by re-emigration after a short sojourn.

BIRTHS OUTSIDE THE TERRITORIES:

The 1975 rate rebounded to 14.63% matching the 1973 rate of 14.4% and exceeding markedly the 1974 rate of 11.18%. The reason for such changes are not known. No comparable figure is available for 1965.

DEATHS:

Numbers of deaths and percentages occurring in different age groups are shown in the accompanying table. The percentages are remarkably similar to the 1974 distribution. Again we would draw attention to the sustained low level of deaths in the 1 - 4 year age group which we like to think is in some way connected with the intensive infant and preschool preventive programmes carried on in all settlements.

TABLE I

NORTHWEST TERRITORIES

Vital Statistics - 1975

	INDIANS 1975 Pop. - 7,678 (7,605)				ESKIMOS 1975 Pop. - 14,303 (14,117)				OTHERS 1975 Pop. - 16,867 (16,626)				ALL GROUPS 1975 Pop. - 38,848 (38,348)				ALL CANADA
	1975		1974	1973	1975		1974	1973	1975		1974	1973	1975		1974	1973	1973
	No.	Rate	Rate	Rate	No.	Rate	Rate	Rate	No.	Rate	Rate	Rate	No.	Rate	Rate	Rate	Rate
Livebirths (a)	198	26.0	23.6	26.0	458	32.4	28.4	32.8	540	32.4	29.3	34.2	1196	31.2	27.8	32.0	15.5
Illegitimate Live Births (b)	107	54.0	49.4	45.6	168	36.6	29.0	30.2	114	21.1	20.3	16.2	389	32.5	28.4	26.3	-
Livebirths born in Hosps, and N/S (c)	196	98.9	97.8	96.9	448	97.8	98.9	97.3	535	99.0	99.0	99.6	1179	98.5	98.0	98.3	99.8
Low Birth Weight Infants (d)	26	13.1	8.9	12.4	25	5.4	8.6	10.9	21	3.8	5.0	4.3	72	6.0	7.0	8.1	-
Stillbirths (e)	5	25.2	0	5.1	4	8.7	20.2	15.6	7	12.9	12.4	7.2	16	13.3	13.2	10.1	10.6
Perinatal Deaths (f)	13	64.0	16.8	25.9	9	19.4	49.5	26.8	10	18.2	24.6	12.7	32	26.4	33.2	20.2	17.6
Neonatal Deaths (0-28 days) (g)	8	40.4	16.8	20.7	8	17.4	40.4	13.4	5	9.2	12.4	5.4	21	17.5	23.7	10.9	10.8
Post Neonatal Deaths (29-365 days) (h)	5	25.2	28.1	10.3	14	30.5	30.3	31.3	2	3.7	6.2	7.2	21	17.5	18.9	16.8	4.8
Infant Deaths (under 1 year) (i)	13	65.6	44.9	31.0	22	48.0	70.7	44.7	7	12.9	18.7	12.7	42	35.1	42.6	27.7	15.5
Total Deaths (Crude Death Rate) (j)	53	6.9	6.2	5.9	87	6.1	6.7	6.1	57	3.4	4.5	5.8	197	5.1	5.7	5.9	7.4
Deaths in Hosps. and N/S (k)	33	62.2	65.9	71.4	46	52.8	48.9	57.1	26	45.6	58.6	47.3	105	53.2	56.0	55.7	-
Natural Increase (l)	145	19.0	17.4	20.1	371	26.2	21.6	26.6	483	29.0	24.7	28.4	999	26.0	22.3	26.1	8.1
Maternal Deaths (m)	0	0	0	0	1	21.8	25.5	0	0	0	0	0	1	8.3	9.5	0	1.1

(a) rate per 1,000 population
(b) rate per 100 live births
(c) rate per 100 live births
(d) rate per 100 live births
(e) rate per 1,000 live births
(f) stillbirths plus deaths 0-7 days per 1,000 total births (live births & stillbirths)
(g) deaths 0-28 days per 1,000 live births
(h) deaths 29-365 days per 1,000 live births
(i) deaths under 1 year per 1,000 live births
(j) crude death rate - deaths per 1,000 population
(k) rate per 100 deaths
(l) rate per 1,000 population
(m) rate per 10,000 live births

( ) Figures in brackets are "mid-year" pop.

N.B. To bring statistics into line with national compilations, rates (a) (j) and (l) have been calculated this year on the mid year calculated populations. In previous reports the end of year population has been used as a basis for calculation. Result is to elevate (slightly) calculated rates!

TABLE II

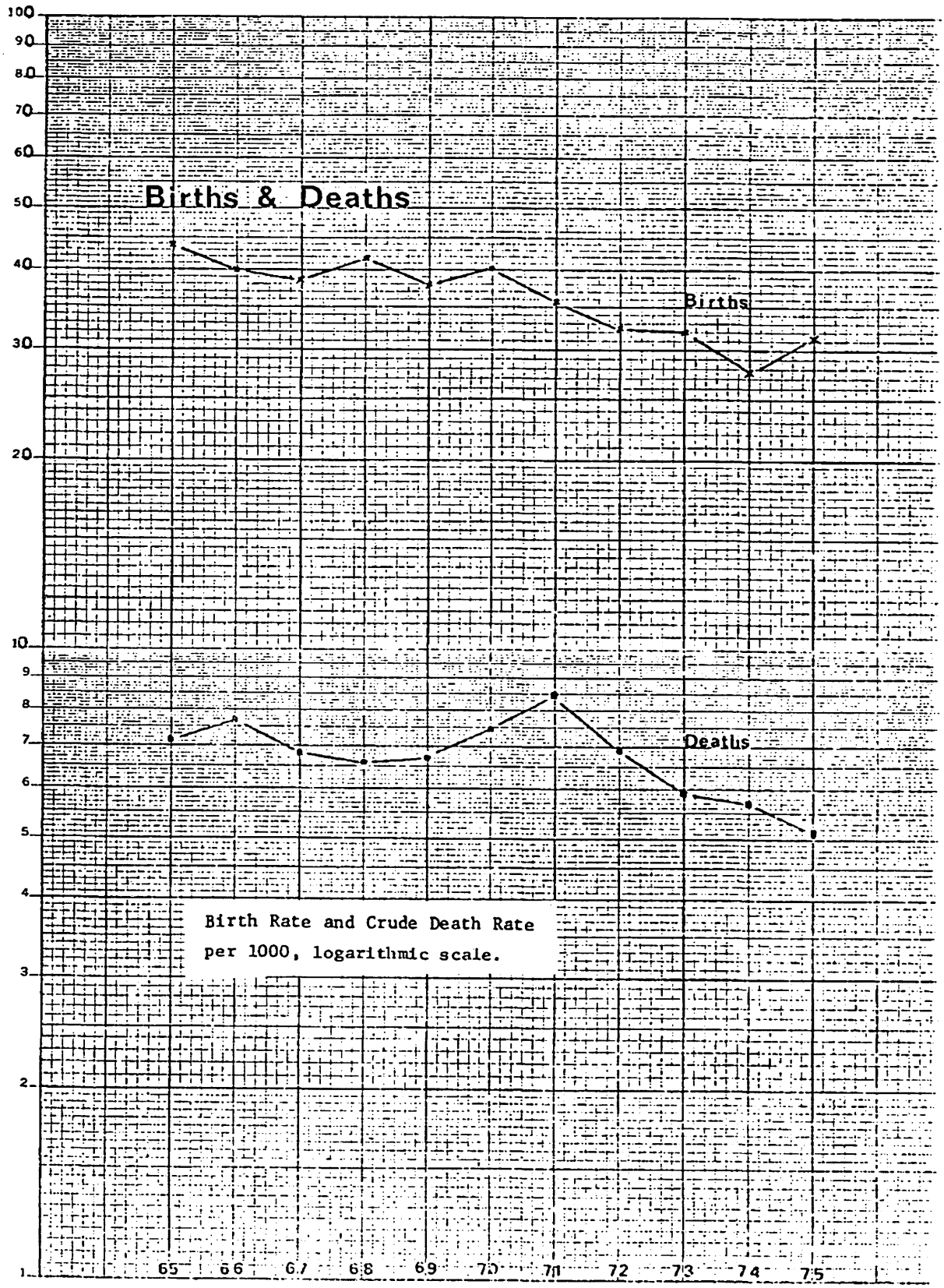
NORTHWEST TERRITORIES - 1975

Vital Statistics in Zones

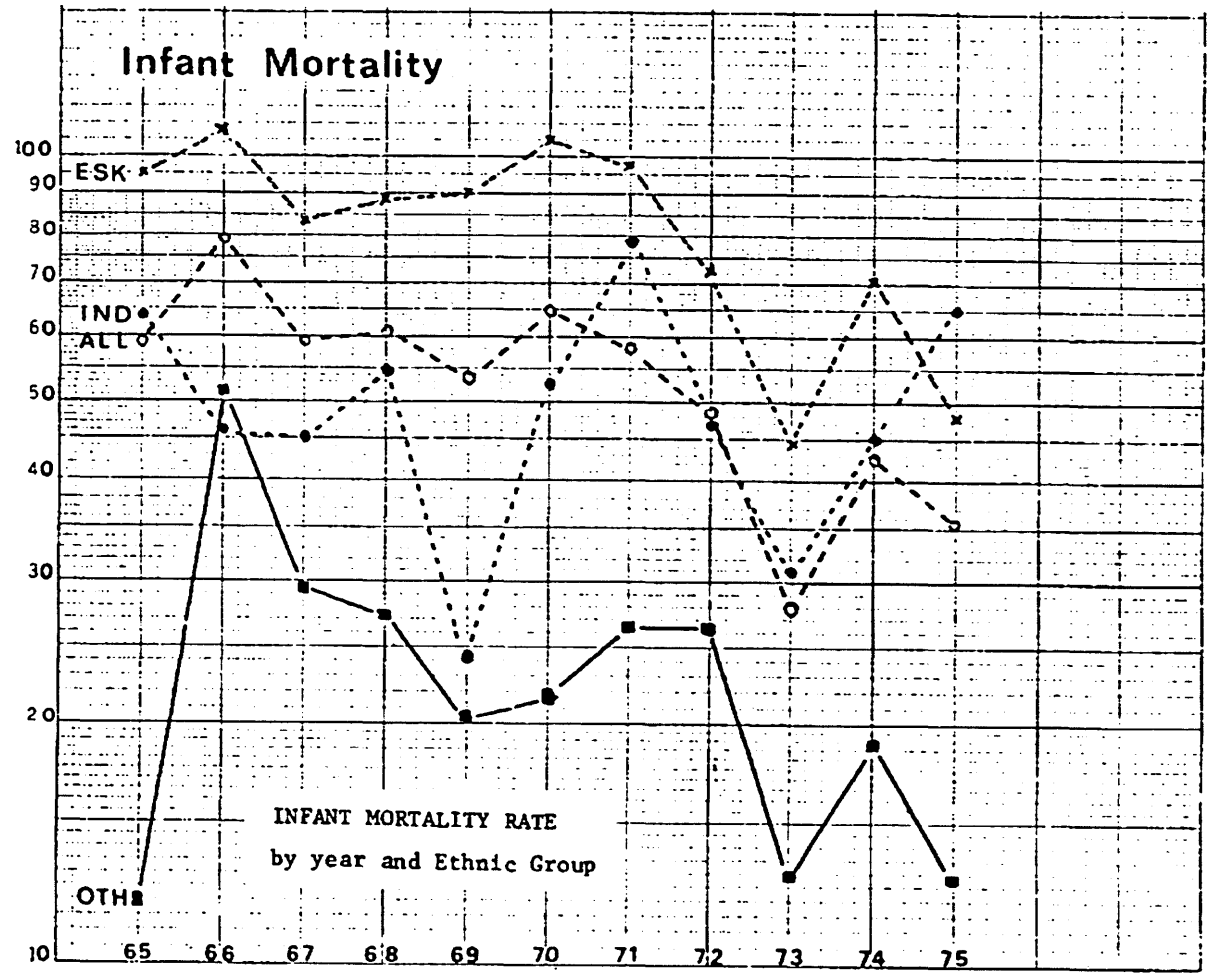
	Mackenzie Zone						Inuvik Zone						Keewatin Zone				Baffin Zone			
	Indians		Eskimos		Others		Indians		Eskimos		Others		Eskimos		Others		Eskimos		Others	
	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate
*	5285		2648		13104		2321		2130		1981		3624		421		5715		1119	
Livebirths (a)	150	28.3	78	29.4	379	28.9	48	20.5	48	22.5	119	60.0	119	32.7	15	35.6	213	37.2	27	24.1
Illegitimate Livebirths (b)	84	56.0	33	42.3	78	20.5	23	47.9	31	64.5	29	24.3	23	19.3	3	20.0	81	38.0	4	14.8
Births in Hosps. or N/S (c)	148	98.6	78	100	375	98.9	48	100	48	100	118	99.1	119	100	15	100	203	95.3	27	100
Low Birth Weight Infants (d)	20	13.3	1	1.2	15	3.9	6	12.4	0	0	5	4.2	6	5.0	1	6.6	18	8.5	0	0
Maternal Deaths (e)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	46.9	0	0
Stillbirths (f)	5	33.3	2	25.6	6	15.8	0	0	1	20.8	0	0	1	8.4	0	0	0	0	1	37.0
Perinatal Deaths (g)	9	58.0	2	25.0	7	20.7	4	83.3	1	20.4	2	16.8	2	16.6	0	0	4	18.7	1	35.7
Neonatal Deaths (h)	4	26.6	0	0	2	52.7	4	83.3	0	0	3	25.2	2	16.8	0	0	6	28.1	0	0
Post Neonatal Deaths (i)	4	26.6	1	12.8	1	2.6	1	20.8	0	0	1	8.4	3	25.2	0	0	10	46.9	0	0
Infant Deaths (j)	8	53.3	1	12.8	3	7.9	5	104.1	0	0	4	33.6	5	42.0	0	0	16	75.1	0	0
Total Deaths (k)	38	7.1	17	6.4	49	3.7	15	6.4	3	1.4	6	3.0	24	6.6	2	4.7	43	7.5	0	0
Deaths in Hosps. or N/S (l)	24	63.1	5	29.4	20	40.8	9	60.0	2	66.6	5	83.3	12	50.0	1	50.0	25	58.1	0	0
Natural Increase (m)	112	21.1	61	23.0	330	25.1	33	14.2	45	21.1	113	57.0	95	26.1	13	30.8	170	29.7	27	24.1

(a) rate per 1,000 population
(b) rate per 100 live births
(c) rate per 100 live births
(d) birth weight 2500 grams and below per 100 live births
(e) rate per 10,000 live births
(f) rate per 1,000 live births
(g) stillbirths plus deaths 0-7 days per 1,000 total births (live births and still births)
(h) deaths 0-28 days per 1,000 live births
(i) deaths 29-365 days per 1,000 live births
(j) deaths under 1 year per 1,000 live births
(k) crude death rate - deaths per 1,000 population
(l) rate per 100 deaths
(m) rate per 1,000 population

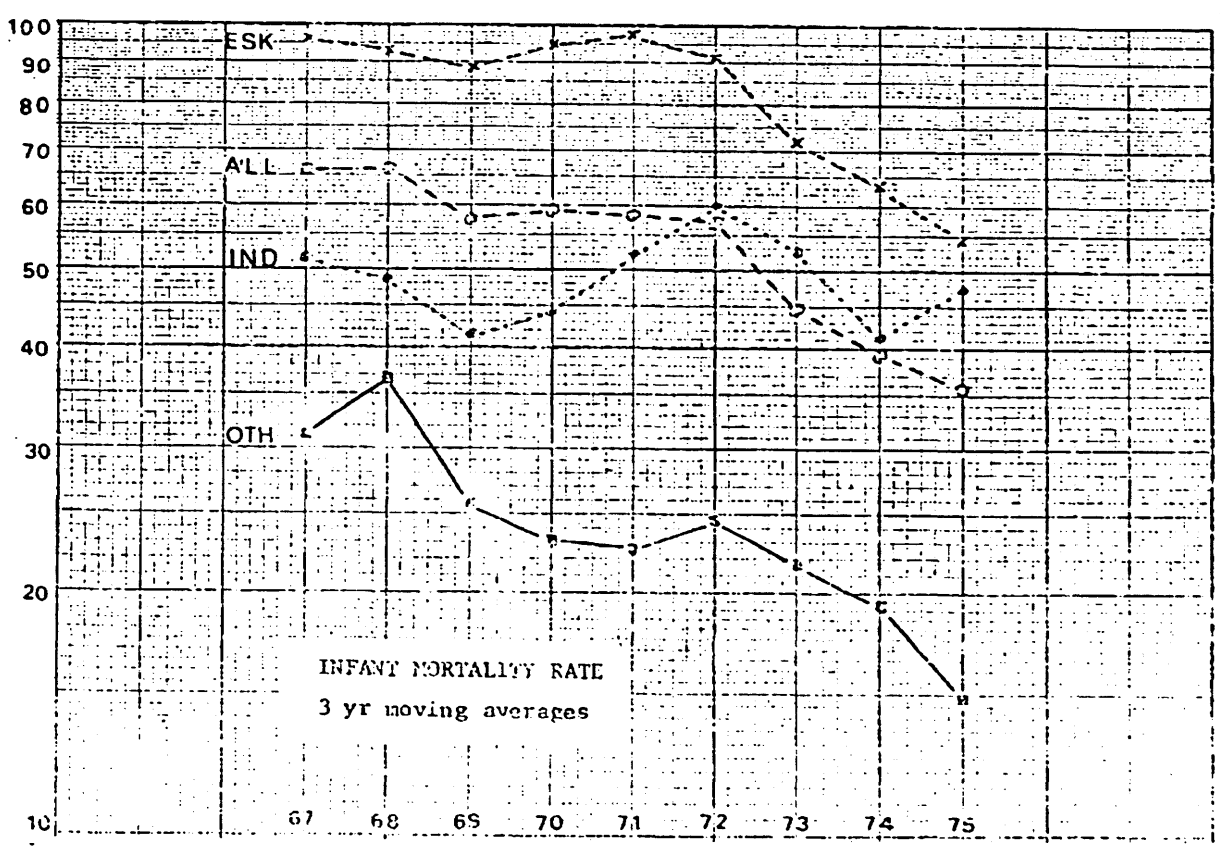
* Mid year population figures



Birth Rate and Crude Death Rate per 1000, logarithmic scale.



(In the three year moving average each point on the graph represents the average of the previous three years. Its effect is to widen the population data base (three-fold) and to reduce wild swings which characterise rates derived from small numbers. It enables one to identify more clearly long term trends.)



	INDIANS		ESKIMOS		OTHERS		ALL GROUPS	
Age Group	No.	%	No.	%	No.	%	No.	%
0 - 7 days	8	15.09	5	5.74	3	5.26	16	8.12
8 -28 days	-	-	3	3.44	2	3.50	5	2.53
29 -36 days	5	9.43	14	16.09	2	3.50	21	10.65
1 - 4 years	-	-	5	5.74	1	1.75	6	3.04
5 - 9 "	2	3.77	3	3.44	-	-	5	2.53
10 -14 "	-	-	4	4.59	-	-	4	2.03
15 -19 "	5	9.43	2	2.29	2	3.50	9	4.56
20 -29 "	-	-	7	8.04	9	15.78	16	8.12
30 -39 "	3	5.66	4	4.59	5	8.77	12	6.09
40 -49 "	4	7.54	4	4.59	14	24.56	22	11.16
50 -59 "	3	5.66	16	18.39	5	8.77	24	12.18
60+ "	23	43.39	20	22.98	14	24.56	57	28.93
TOTAL	53		87		57		197	

CRUDE DEATH RATE:

The further drop in the crude death rate to 5.1 (as compared with 7.4 for all Canada) is a misleading statistic resulting from a skewed population curve with an abnormal proportion in the young and young adult age groups. It may be fairly compared, however, with the rate of 7.2 in 1965 (and 11.1 in 1963) when the population wassimilarly skewed towards a greater proportion in the younger age groups.

Perhaps most significant is the fall in the crude death rate of the Eskimo (the most stable population group) from 11.1 in 1965 (and 17.4 in 1963) to 6.1 in 1975.

PLACE OF DEATH:

53.2% of all deaths occurred in hospital or nursing station with the ethnic distribution as follows:

Indian 62.2% Eskimo 52.8% Others 45.6%

The corresponding overall figure for 1965 was 37.2% with the ethnic breakdown being unrecorded.

MATERNAL DEATHS:

A single maternal death was recorded from Baffin Zone, being an Eskimo mother from Port Burwell.

PERINATAL MORTALITY: (0 -7 days plus stillbirths)

There has been a slight downturn in overall perinatal mortality from 1974, giving a figure of 26.4 which would have been markedly improved but for an extremely high rate in the Indian group. Of a total of 13 deaths in this group, 5 were a result of stillbirth, seven due to prematurity and the last a result of congenital malformation. At least half of this group was thus inevitable.

In 1965 the recorded Perinatal Mortality was given as 21.6 but this did not include stillbirths as in 1975, and the true equivalent rate for 1965 was 33.8. These figures indicate that this parameter is somewhat less susceptible than most to medical endeavour.

NEONATAL MORTALITY: (0-28 days)

The reduction of the 1975 rate by a fairly significant amount to 17.5 (from 23.7) would again have been even better but for the exceptionally high Indian newborn mortality from prematurity. Even so we still need to go far to reach the record low of 10.9 in 1973. The comparable figure for 1965 was 25.4.

POST NEONATAL MORTALITY: (29 - 365 days)

A slight fall (to 17.5) was recorded from the 1974 level almost to the record low established in 1973. Most deaths in this category are contributed by the Eskimo group and undoubtedly are the result of the extremely rigorous climate (both within the houses by virtue of excessive heat and without). The comparable overall figure in 1965 was approximately double the 1975 rates at 35.1, the Eskimo rate having fallen from 53.5 to 30.5.

INFANT DEATHS: (under 1 year)

Total infant mortality is down in 1975 to 35.1 from 42.6 in 1974 and 59.5 in 1965.

In the same period the Eskimo rate fell to 48.0 in 1975 from 70.7 in 1974 and 95.4 in 1965 (The rate in 1963 two years before the establishment of the Northern Health Region was 157).

NATURAL INCREASE:

There has been an increase in the rate of natural increase attributable to the increased birth rate in 1975 in all three population groups coupled with a lower death rate.

Compared with 1965, however, there has been a reduction by a substantial margin in all groups with the net rate having fallen for all groups from 41.7 to 26.0.

CAUSES OF DEATH:

The most common causes of death are listed in the attached table in order of frequency:

	No. of Deaths	Percentage of Total Deaths
Accidents, Injuries and Violence	54	27.41
Cardiovascular Disease	32	16.23
Malignant Neoplasms	27	13.70
Pneumonia	26	13.19
Diseases of Infancy	24	12.18
Diseases of Central Nervous System	11	5.58
Gastrointestinal Disease	6	3.04
Senility, Unknown and Other Causes	5	2.53

Save for an interchange in position between Diseases of Infancy and Pneumonia the order of frequency is exactly the same as in 1974 and with little change in relative frequency save a slight but welcome drop in the deaths from accidents and violence.

It is interesting to compare the relative frequencies recorded in 1965 when Pneumonia had pride of place followed by Accidents, In-

juries and Violence, and then cardiovascular disease. Malignant neoplasms were at that time bottom of a list of six with a recorded frequency of only 7.4% of the total.

This is representative of an increasing proportion of the population surviving to reach older age.

MALIGNANT NEOPLASMS (CANCERS) BY SITE, ETHNIC GROUP AND SEX

	INDIANS		ESKIMOS		OTHERS		
	Male	Female	Male	Female	Male	Female	Total
Lung	-	-	3	2	1	-	6
Gastro Intestinal	1	3	1	2	-	2	9
Prostate	-	-	-	-	-	-	-
Skin	-	-	-	-	-	-	-
Cervix (Uterine)	-	1	-	1	-	1	3
Parotid	-	-	-	-	-	-	-
Skeletal	1	-	-	-	-	-	1
Reticulo-Endothelial	1	-	-	-	-	-	1
Kidney	-	1	-	-	-	-	1
Generalized	-	-	1	1	1	-	3
Other	-	-	-	1	-	2	3
TOTAL	3	5	5	7	2	5	27

DEATHS FROM ACCIDENTS, INJURIES, VIOLENCE, N.W.T. 1975

	INDIAN	ESKIMO	OTHER	TOTAL
Exposure	1	2	-	3
Drowning	1	2	2	5
Inhalation of Gastric Contents	-	-	-	-
Asphyxia	2	2	2	6
Suicide	-	3	4	7
Burns	-	3	1	4
Aircraft Crashes	-	-	2	2
Motor Vehicle Accidents	-	1	5	6
Poison (excludes alcohol)	-	-	3	3
Gunshot wounds (accidental)	1	1	1	3
Homicide	2	3	-	5
Alcohol Poisoning	-	2	-	2
Others (falls, crushing)	2	3	2	7
Crib deaths	-	-	1	1
TOTAL	9	22	23	54

TABLE III

Causes of Death by Ethnic Group and Selected Age Groups 1975

Number of Deaths

	GRAND TOTAL	INDIANS									ESKIMOS									OTHERS								
		Infants		Pre Sch	School		Young Adult	Adult	Eld	TOTAL	Infants		Pre Sch	School		Young Adult	Adult	Eld	TOTAL	Infants		Pre Sch	School		Young Adult	Adult	Eld	TOTAL
		0-28 days	29-365	1-4 yrs	5-9 yrs	10-14 yrs	15-34 yrs	35-64 yrs	65+ yrs		0-28 days	29-365	1-4 yrs	5-9 yrs	10-14 yrs	15-34 yrs	34-65 yrs	65+ yrs		0-28 days	29-365	1-4 yrs	5-9 yrs	10-14 yrs	15-34 yrs	34-64 yrs	65+ yrs	
Injuries & Accidents (BE 47-50)	54	-	1	-	1	-	5	2	-	9	1	2	3	2	1	7	5	1	22	-	1	-	-	-	14	7	1	23
Diseases of Infancy & Malformations (B41-44)	24	8	1	-	-	-	-	-	-	9	6	2	1	-	-	-	-	-	9	5	1	-	-	-	-	-	-	6
Cardiovascular Diseases (B24-29)	32	-	-	-	-	-	-	1	2	3	-	-	-	-	1	1	8	7	17	-	-	-	-	-	-	7	5	12
Pneumonia (B31)	26	-	2	-	-	-	-	2	6	10	-	4	1	1	-	-	4	4	14	-	-	-	-	-	-	2	-	2
Malignant Neoplasms (B18)	27	-	-	-	-	-	-	5	2	7	-	2	-	-	-	1	5	4	12	-	-	-	-	-	-	5	3	8
Senility, Unknown & Other Diseases (B45-46)	5	-	-	-	-	-	-	-	3	3	-	-	-	-	1	-	-	1	2	-	-	-	-	-	-	-	-	-
Diseases of the Nervous System (B22-23)	11	-	1	-	-	-	1	2	2	6	-	1	-	-	-	-	1	1	3	-	-	-	-	-	-	-	2	2
Gastrointestinal Diseases (B33-36)	6	-	-	-	1	-	-	-	3	4	-	2	-	-	-	-	-	-	2	-	-	-	-	-	-	-	-	-
Other Respiratory Diseases (B30 & 32)	5	-	-	-	-	-	-	-	1	1	-	1	-	-	-	-	-	1	2	-	-	-	-	-	-	1	1	2
Infective & Parasitic Diseases (B3-17)	2	-	-	-	-	-	-	-	-	-	-	1	-	-	1	-	-	-	2	-	-	-	-	-	-	-	-	-
Cirrhosis of Liver & Hyperplasis of Prostate (B37-39)	2	-	-	-	-	-	-	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	1
Benign Neoplasms	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	1
Others	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	195	8	5	-	2	-	6	12	20	53	7	15	5	3	4	9	23	19	85	5	2	1	-	-	14	23	12	57

MATERNAL AND CHILD HEALTH

Prenatal clinics and classes were held regularly in all the larger communities and some of the smaller settlements. In other settlements where the demand at any particular time was insufficient to merit the holding of formal classes, prenatal counselling has been given on an individual basis at the time of the regular prenatal examinations.

We have continued the policy that sees all primigravidae (first pregnancies) and grand multiparae (fifth or subsequent infants) evacuated to a hospital for delivery as are all complicated pregnancies or anticipated complications. Provided no complications ensued at the birth of the first infant and if all else is well, second, third and fourth babies are delivered in the nursing stations.

The prenatal group is one special group covered by the vitamin and mineral supplement programme visibly special in that this group has always been given supplements and not just since the advent of the Nutrition Canada report.

Family planning counselling is available at all Medical Services facilities and such counselling is interwoven with all antenatal, post partum, post natal and well baby nurse-patient encounters. Birth control materials and devices are available without cost to all who are unable to pay.

Pap smears for the early detection of cancer of the cervix are encouraged regularly on all women over 35 years of age.

INFANT AND PRESCHOOL HEALTH:

(1) Perinatal and Infant Morbidity and Mortality Study.

This three year long study is in the winding up phase. Every infant born in the Northwest Territories in one calendar year has been followed up in detail throughout its first year of life, every detail of its antenatal, social, medical and nutritional history recorded and all the material information gained has been fed into a computer, from which health related statistics may be drawn and correlated. As mentioned elsewhere one of the early facts to be confirmed in this study is a positive association between a history of breast-feeding and a reduction in subsequent serious illness during the first year of life.

(2) Special Care Register

This register is in effect a local programme operating in every nursing station to identify and follow all infants with real or potential handicaps or health problems and to ensure their follow-up.

NURSING COVERAGE:

As in previous years nurse staffing was fairly stable for most of the year with the exception of an acute shortage during the summer months.

In the 1974 annual report the figures reflecting the turnover rate in nursing positions included transfers to other positions as well as actual terminations of employment. While it is realized that the turnover rate in positions is an important factor in continuity of care, henceforth, for the purpose of this report, only actual terminations will be used in the calculations.

*** ZONE	NUMBER OF POSITIONS	VACANCIES DEC.31/75	TERMINATED IN 1975	HIRED 1975	% OF TURNOVER
Baffin - field	31	-	12	11	36%
Frobisher Bay Hospital	16	-	7 (10)*	10 (7)*	44%
Inuvik - field	23	1	12	12	52%
Inuvik Hospital	29	-	16 (7)**	23 (9)**	55%
Keewatin	18	-	8	12	44%
Mackenzie	52	-	22 (15)	23 (16)	42%
TOTALS	169	1	77 (32)	91 (32)	46% Average

( ) Numbers in brackets indicate term appointments.

* These term appointments include those for Baffin field and Frobisher Bay Hospital

** These term appointments include those for Inuvik field and Inuvik General Hospital

% Nurse Staff Turnover - figures refer to permanent employees only and do not include term appointments.

*** Figures in this table are not comparable to those similarly recorded for 1974, due to a change in the method of recording the statistics.

One additional nurse position, the Mental Health Nurse, in the Yellowknife Health Centre, was established this year.

Educational leave for studies at the university level was granted to eight nurses including 4 in bachelor's degree programs, 2 for diplomas in public health nursing, 1 in outpost nursing and 1 master's program in health care planning and administration. In addition, the Northwest Territories Professional Training Program sponsored three non-federal nurses for university programs. Northwest Territories Region also sponsored 14 nurses for the Clinical Training for Nurses Courses making the total number of nurses trained in this specialty 60, of whom 29 remain in the Northwest Territories.

Of the 168 nurses employed at year's end, 31 had a bachelor's degree in nursing, 13 had public health nursing certificates, 47 had midwifery, or advanced obstetrics training, 29 had C.T.N. course and 2 had psychiatric nursing post-graduate training.

PHYSICIAN SERVICES:

The rather stable picture of physician services that had developed by the end of 1974 continued with but minor interruption throughout 1975 and the very severe problems that were experienced in physician staffing in 1974 were not repeated.

The pattern of practice whereby about one third of the Northwest Territories' population residing in Hay River and Yellowknife are served by private practitioners and the remaining two thirds by federally employed physicians was slightly amended by the setting up in private practice of a single physician in Inuvik, who moved there from Yellowknife.

Toward the end of 1975 general practice service in the Keewatin Zone, which had been provided by a federally employed physician located in Rankin Inlet, was changed to service by contracted physicians employed by the University of Manitoba Northern Health Unit, rotating out of Churchill. This change was occasioned by the departure after a two year unbroken spell of service of the Zone physician for a year of paediatric specialist training.

Resident specialist services in the Northwest Territories include specialist surgeons in Yellowknife, Hay River, Inuvik and Frobisher

Bay, an obstetric-gynecology specialist in private practice in Yellowknife and a specialist in ophthalmology in the federal service, also located in Yellowknife, but serving the entire Mackenzie Zone with the aid of an ophthalmic technician. There is also a private physician specialising in ophthalmology in Fort Smith.

For the rest of the settlements specialist services are provided by contract services with the universities of Manitoba, Alberta, McGill and, for psychiatric services in Baffin Zone only, the Clark Institute of the University of Toronto.

By such services paediatricians are taken into most settlements twice a year, whilst ophthalmological and otolaryngological service is provided as a rule once a year. Other specialist visits are determined by need. Primarily visits by specialists are intended to reinforce the competence of the station nurse and teaching is the main purpose of the visit. However, all specialist see referred patients on request, both within their own specialty and, at times, without.

PUBLIC SERVICE HEALTH:

1975 saw no change in the application of this Treasury Board programme to the Northwest Territories. There was a small increase in the number of requests for periodic medical examinations for employees in hazardous occupations but otherwise the programme remained geared to the pre-employment assessment of Federal and Territorial employees prior to posting to remote northern locations. If anything the total federal programme switched its emphasis somewhat closer to the Territorial pattern by elimination of some of the relatively costly counseling and health unit services.

TREATMENT SERVICES:

There were no significant changes to the pattern of provision of health care through the nursing stations. The station at Port Burwell was, however, staffed by public request following an unfortunate but probably unavoidable maternal death in this recently unmanned station. The population of Port Burwell is in fact too small to merit a full

time nurse who is considerably under-employed, but problems of communication make intermittent visits difficult and chancy in the extreme. For the time being it is proposed to keep a nurse in this station as long as we can manage to retain staff.

There was a noticeable increase in usage of inpatient facilities in the nursing stations in all Zones but Keewatin, who experienced a fall off. Admissions in the various Zones were as follows:

	ADMISSIONS	PATIENT DAYS
Baffin Zone	548	993
Inuvik Zone	238	353
Keewatin Zone	252	437
Mackenzie Zone	900	2966
Regional Total	1938	4749

These figures are a little less than double the equivalent totals in 1974. Similar figures for 1965 are unfortunately not available for comparison purposes. Probably there were many more admissions since air evacuation was not so readily available.

ENVIRONMENTAL HEALTH SERVICES:

There is a growing acceptance of the concept that treatment services as provided by Medical Services are approaching the point beyond which it is neither politically nor financially good sense to proceed.

This is not to say that the health of the inhabitants of the Northwest Territories is incapable of improvement or that sickness cannot be further reduced. Both are possible and both are obviously needed but the way to reach such goals is not only by the endless increase in treatment facilities.

The prime factors leading to positive health and the absence of much disease in the more highly developed parts of the world are fourfold. Good housing, adequate pure water, sufficient and nutritionally adequate food and efficient waste disposal methods spell the difference between the physically and medically well to do and the have-nots.

Responsibility for monitoring of housing, water supplies, waste disposal and the food supplies is the task of the Environmental Health Officer. For far too long in the Northwest Territories the Environmental Health Officer's importance has been sold short and his task made difficult by his having to deal mostly with various departments of government who have been severally or collectively responsible for the continuance of a multitude of demonstrated deficiencies on the environmental scene.

Water is in chronically short supply in many communities. Schools have been built to a pattern demanding ready water availability where such was not the case. Communities have been fostered or have been allowed to grow where drainage and waste disposal is impossible.

Migration has been allowed to occur into communities already overcrowded and without hope of catching up to the housing demand.

To these basic and possibly remediable problems have been added those caused by individual indifference to garbage and hazard-strewn surroundings, by the demands of financial "economy" in food marketing and by the severe and unpredictable effects of the rigorous climate.

All those factors conspire to make the job of the Environmental Health Officer one of extreme difficulty and great frustration. Coupled with these difficulties have been problems of a staff complement inadequate even to hope to achieve reasonable coverage so that the environmental picture has been little removed from one of despair.

In 1975 we began to campaign actively for an improvement in staffing together with an increased emphasis on the part to be played by the Environmental Health Officer.

It is estimated that to provide adequate service in all communities and to supervise all work camps, mines and industries, a total staff of about 10 Environmental Health Officers would be required in the Northwest Territories. On this figure we have set our sights in the hope that in the not too distant future the Arctic environment may contribute to health and render some of the present treatment services

obsolete.

During 1975 we maintained Environmental Health Officer coverage in Mackenzie Zone throughout the year, though for a time with only a single staff member. In mid year an Environmental Health Officer was stationed full time in Hay River to cover the Hay River-Fort Smith-Fort Simpson area plus neighbouring settlements. The loss of one staff member in Yellowknife reduced the staff there to one by mid-year and up to the end of the year we had been unable to recruit a replacement.

Keewatin has had full coverage throughout the year and most settlements have been visited at least twice during the year.

Inuvik had only part time coverage and at the end of the year was without an Environmental Health Officer.

In Baffin the Environmental Health Officer resigned in mid year but we were able to recruit a replacement in the Fall.

REGIONAL ENGINEER:

In the Fall of 1975 an appointment was made to the position of Regional Public Health Engineer.

The appointee, Mr. Jack Grainge, is well known in the North-west Territories and has a world-wide reputation for his pioneer work in sanitary engineering in cold climate conditions.

Although Northwest Territories Region has been able to call on Mr. Grainge's services from time to time since his transfer to Environment Canada in 1971, his full time availability will be of great value to the Northwest Territories, not least in his advisory capacity to the Environmental Health Officers on matters pertaining to sanitary engineering.

Amongst other activities, Mr. Grainge has been engaged in a revision of the Sanitation Handbook for Isolated Regions which is being updated prior to reissue.

NORTHWEST TERRITORIES WATER BOARD:

Medical Services representation on the Water Board is in the first instance by Dr. W. H. Frost of Ottawa. Regional representation

on the technical committee is by Mr. J. Grainge and at the local level in Yellowknife the Environmental Health Officer provides technical assistance.

FACILITIES

BAFFIN ZONE:

It was necessary to abandon expansion plans for the Frobisher Bay General Hospital as tender results grossly exceeded estimates and budgets. However, steps were taken to provide some relief of the crowded operation. A larger and better quality stores was leased, the hospital was reroofed and the mechanical ventilation system is presently being modified. Numerous minor and inexpensive renovations have been initiated which will increase utilization of present space and assist in improving techniques.

Pangnirtung: A residence consisting of two prefabricated sections was delivered and installed to accommodate the dental therapist assigned to the community. The new nursing station erected in 1974-75 was finalized and it should be noted that in addition to providing excellent accommodation for health care, it performed with distinction during the catastrophic wind storm on January 24, 1976, suffering only negligible damage and by virtue of its emergency power plant provided heated and lighted shelter for a large number of people whose homes were destroyed or rendered uninhabitable.

Cape Dorset: A residence identical to the Pangnirtung unit was also delivered and installed for use of dental therapist.

Igloolik: A new nursing station has been completed and is now being placed in service. This site constructed building was erected in approximately five months of on site operation. It is a three nurse station and besides five adult and three pediatric beds, it encompasses diagnostic, treatment, dental and public health services. A full range of mechanical services are included in the building with considerable back up capabilities including an emergency power plant.

Clyde River: Replacement boilers and associated mechanical modifications were completed at this location. An emergency power plant is being fitted out for 1976 delivery and installation.

Broughton Island: The boilers were replaced, minor mechanical renovations were effected and an automatic stand-by diesel power plant was

installed for added service and stability of this nursing station.

Hall Beach: Emergency power service has been provided by installing a diesel electric set in the nursing station.

INUVIK ZONE:

Inuvik Hospital continued to require considerable attention, major works were implemented to restore the aging mechanical services, the addition and renovations commenced in previous years was finalized. The Inuvik nurses' residence was internally modernized and partially refurnished.

KEEWATIN ZONE:

Eskimo Point: A "double wide" prefabricated residence was delivered and installed to provide accommodation for personnel commencing the dental therapy program.

Rankin Inlet: This community received a residence for the dental therapy program identical to Eskimo Point.

Repulse Bay: A self contained emergency power plant was purchased for installation in the summer of 1976.

Chesterfield Inlet: While it was not possible to complete the planned prefabricated nursing station, it is now under construction in a Calgary factory with completion anticipated March 15th with delivery and installation to follow in the summer.

MACKENZIE ZONE:

Spence Bay: An addition was completed on the nursing station adding areas for public health, dental and administration and installing a diesel electric emergency power plant.

Lac la Martre: A prefabricated building has been constructed in Calgary and is enroute to site for installation before April 1st. This will provide accommodation for full or part time residence for a nurse and contains diagnostic, teaching and treatment facilities.

Snowdrift: A sewage treatment plant was installed for trial and study and emergency power generation service is being incorporated.

Fort Liard: A diesel powered emergency electric plant has been installed and placed in standby service.

Fort Rae: A clinic building is scheduled for completion in March 1976 at a Calgary prefabrication plant for delivery and service during the 1976 construction season.

In addition to the above, support was provided to the Strathcona Sound project in respect to medical facilities.

SCHOOL HEALTH PROGRAMS

This is one part of Medical Services programme which it is felt could be reduced further without significantly adverse effect on community health. The mandatory preschool examination by a physician was discontinued in 1974 and this pattern was continued throughout 1975 without problem. Medically speaking the school years are healthy years, and provided known deficiencies continue to be followed up, and the immunization levels maintained, a continued nursing presence in each school is often a needless luxury, diverting nursing time from more valuable activities.

Routine teacher-nurse contact must, of course, be fully maintained and referral services will also always be available.

DENTAL SERVICES

Following the unstable picture of dental staffing noted in 1974, a much more satisfactory situation prevailed throughout 1975 and we have been able to attract and retain seven staff dentists who have given good service in the field and, equally important, have been willing to accept the principle of restorative dentistry being performed by the increasing number of dental nurse therapists.

The contribution of this latter group to the dental health picture has been significant in 1975 and a full report provided by the Director of the School of Dental Therapy follows this section. This is a major success story and one of which Medical Services and the Department of Education can be jointly and justly proud.

Work by the "orthodox" dental service has provided service to 14,739 patients who altogether received 8,216 restorations, 7,542 extractions and 4,834 dental treatments, such as fluoride applications, gingival treatments, etc..

882 dentures were provided.

DENTAL THERAPISTS:

The School in Fort Smith began operation in September of 1972. There were eight graduates in the first class of 1974, and nine in the class of 1975. Graduates are now working in the communities of Pangnirtung, Pond Inlet, Eskimo Point, Baker Lake, Spence Bay, Cambridge Bay, Fort Smith, Fort Simpson (2 therapists), Tuktoyaktuk, and Fort McPherson. Of the remaining three of the seventeen graduates, one has enrolled in a pre-dental university programme and the other two temporarily left the service but have reapplied for employment. They are presently living in Yellowknife.

Based on a cultural breakdown, two of the fourteen working therapists are Eskimo, two are Indian, and the remainder non-native.

PLACEMENT:

Many therapists serve more than one community (Appendix #1). The two-man clinic in Fort Simpson supplies Liard, Wrigley, Nahanni and Jean Marie River. One therapist supplies Fort Smith and Fort Resolution, another Cambridge Bay and Gjoa Haven, and Spence Bay and Pelly Bay are grouped together. The therapists in Baker Lake and Eskimo Point make trips to other various settlements in the Keewatin Zone, and Pond Inlet and Arctic Bay may be served together. The other larger communities, such as Pangnirtung, Tuktoyaktuk and Fort McPherson are large enough to require the full-time services of a therapist, although even from these communities, satellite clinics may be established.

We have proposed future clinics for Rankin, Cape Dorset, Coppermine, Fort Good Hope, Igloolik, Coral Harbour, Aklavik, Clyde River, Fort Franklin, Cambridge Bay (2nd therapist), and Arctic Bay.

We have a tentative total objective of from 22 - 25 therapists in the Northwest Territories Region. These plans exclude large centres, such as, Yellowknife, Frobisher Bay, Inuvik, and areas such as Fort Providence and Hay River where private practitioners are located.

MANYEAR EQUIVALENTS FOR DENTAL THERAPISTS IN 1975 AND WORK SUMMARY

Not all eleven therapists have been working fulltime during 1975 in the Northwest Territories Region. There was a total of 6.8 dental therapist manyears for 1975 and they completed the following procedures. (Appendix 2)

Examinations		2107	
X-rays (primarily Ft. Simpson)		484	
Restorations:	1 surface	2973	
	2 surface	1849	
	3 surface	610	
	Multi surface	146	
	Miscellaneous	215	(pin restorations, steel crowns, pulpotomy treatments)
Extraction of primary teeth		910	
Extraction of permanent teeth		1301	
Prophylaxis and Fluoride		1453	
Miscellaneous *		757 hours	(prosthetics, assisting, missed appointments)
Teaching *		223 hours	

*(i.e., represents ½ manyear)

PREVENTIVE PROGRAMME

This has been a prime objective for 1975-76. All students graduating in 1976 will have a preventive kit issued. (Appendix 3)

Up to 20% of the therapists' time may be spent in the classroom and in preventive and public health-orientated activites. This programme is developing well and depending on the personality of the therapists, some communities have a more active preventive programme than others.

D.M.F. scores, which is an index of the existing dental condition in a community, have been sampled in some settlements. More accurate indices should be completed in 1976.

There are certain teaching aids which are used to support the preventive programme and this teaching kit (Appendix 4) will include the following:

- slide programme and script, demonstration toothbrush and denture, flannel board and posters, nutritional aids, toothbrush racks, chairside instruction booklet.

These items will be supported by a programme of fluoride applications and a system for documenting the preventive health index. Students will be given a format to help them determine how they should conduct preventive programmes in various communities and for different age levels.

WORK PRODUCTIVITY INDEX

Using the feed back mechanism of work accomplished by the dental therapists, the School of Dental Therapy is able to develop a productivity index. This is a point system used for dentists based on a value of one unit of work every 15 minutes. Therefore, in a 7-hour day, a dentist working with an assistant in appropriate facilities, would produce 28 units of work. We expect our therapists working without an assistant in restricted situations to produce about half of this score. The 1975 indices have been worked out for the therapists, and the average work index was 13.5 units per day. However, this is a gross figure, based on the total time worked in 1975 which includes vacation and absenteeism by both therapists and patients. When the work indices

are worked out on a sampling of normal working days, the mean was 16.1 units per day. These figures are compatible with our objective of 14 units per day by a therapist to compare with 28 units of work expected from a dentist working with an assistant.

THE DENTAL THERAPY PROGRAMME IN THE FIELD

Dental manpower varies in the four Zones of the Northwest Territories Region. The School of Dental Therapy, as a Regional programme, spreads across all Zones and represents a consistent approach to delivering dental service by dental therapists. The school is to ensure that the professional work carried out by dental therapists is properly done. Zone dentists may assist in this supervision on behalf of the School of Dental Therapy, if they wish. The administrative responsibilities for the dental therapist as an employee of the Federal Government are carried out within the Zone.

PRESENT TRAINING PROGRAMME

For the first time, the graduating class of 1976 will include students who will be returning to work in the provinces for Medical Services. They will be confined to working in areas that come under the jurisdiction of the Federal Government, such as, Indian Reserves. Four of the nine graduating students of 1976 are native students who have been sponsored by Indian Affairs and will return to work in the provinces of British Columbia and Alberta. Two other students in that class have been sponsored by the Yukon Territory and the remaining three students are non-native northern students sponsored by the Northwest Territorial Government.

There are 13 students enrolled in the first year of the programme. However, three of these students have been put on a special three-year programme and will not graduate until 1978. Of these thirteen students, three are Indian, two from the South, one from the Yukon, and there is one Eskimo student. The remaining eight non-native students represent three sponsored from the Territories, and five non-northern students who are self supporting.

SUMMARY OF THE IMPACT OF THE DENTAL THERAPIST PROGRAMME

The dental therapist programme, through its graduate therapists as well as its undergraduate field training course, is operating in the field and is in a position to deliver service and collate records. We have reached about half of our objective of 25 to 30 graduates in the Northwest Territories. Considering the anticipated changeover of personnel, it will be some time before the total objective is reached and even then the School will still function to maintain field personnel and also train dental therapists for other parts of Canada. It has been very heartening to realize that the graduates in the field have been totally accepted by the communities. There have been problems in the establishment of these clinics centering around accommodation and acceptance into the "system" of a new health worker. However, the prime objective is to deliver dental care to northern residents and because the dental therapist programme has been totally accepted by the people who receive treatment, our existence is more than justified and we are confident that the administrative growing pains will subside.

The basic concepts of this programme are standardization of procedures and methods, control of the professional work therapists perform, and the portable nature of the clinics. Providing these principles are maintained, then the total concept will be established as a successful programme of coordinating the delivery of dental service, by dental therapists, to people who previously had limited access to this aspect of health.

APPENDIX #1

1. PRESENT MANNED CLINICS, N.W.T.

Location	Satellites to Serve	Facility		Staff Therapist			
		Clinic	Residence	Name	Grad.Yr.	Sex	Culture*
Tuktoyaktuk	-	Nursing Station	N.W.T. House	Ball	1975	F	SW
Fort Simpson	Fort Liard Fort Wrigley	Nursing Station	Private	Baban	1975	M	O
	Nahanni Jean Marie R.	Nursing Station	Private	Graves	1975	M	NW
Fort Smith	Fort Resolution	School	Private	McDonald	1974	M	NW
Cambridge Bay	Gjoa Haven	Nursing Station	Fed. Housing	Sanderson	1974	F	I
Spence Bay	Pelly Bay	Nursing Station	Fed. Housing	Roe	1975	F	SW
Baker Lake	Assist Rankin Cl.	Nursing Station	Private	Martee	1974	M	E
Eskimo Point	Assist Rankin Cl.	Nursing Station	Fed. House	Tupik	1975	F	E
Pond Inlet	Grise Fiord	School	Fed. House	Schwartz	1975	F	SW
Pangnirtung	-	School	Fed. House	Cleall	1975	M	SW
Ft. McPherson**	-			Koe	1974	F	I

Total Clinics 11

* Culture: I - Indian, Metis
E - Eskimo
NW - Northern White
SW - Southern White
O - Other

** To be established?

2. UNMANNED CLINICS, N.W.T.

Location	Satellites	Facility		No. of Therapists
		Clinic	Residence	
Rankin	(share coastal communities)		Gov. House	1
Cape Dorset	-		Gov. House	1
			Total	2

3. PROPOSED FUTURE CLINICS

(Ultimate goals for settlement areas in order of priority)

Coppermine	Holman	Nursing Station		1
Fort Good Hope	Norman Wells			1
Igloolik	Hall Beach	Nursing Station	Fed. House (old Nurs. Station)	1
Coral Harbour	Repulse Bay			1
Aklavik	-			1
Clyde R.	Broughton I.			1
Ft. Franklin	Fort Norman			1
Cambridge (2nd)			Fed. House	1
Arctic Bay	Resolute Bay			1
			Total	9
			Proposed Grand Total	22

Total Objective

The total objective for the Northwest Territories will be approximately 22 singly manned dental units.

APPENDIX #2

FIELD REPORT - RESUME FOR 1975 - NORTHWEST TERRITORIES

LOCATION	Exams: Compl.	Recall	# of X-rays	Restorations: 1 Sur.	2 Sur.	3 Sur.	Mult.	pin	pulp.	crn.	Surgery: Dec.	Perm.	Prophy.	Fluoride	Misc.	Teaching Hrs.	Pre
Aklavik	14			35	15	2	6				39	54	4	2	22 Hr		
Baker Lake	108	85		370	154	49	6	22	3		73	153	13	10	42½ "		29½
Cambridge Bay	231	75	39	328	249	93	10	5	3	5	167	168	294	246	80 "		8
Coppermine	32			63	35	6	1			1	29	12	17	17	6 "		
Coral Harbour	160			90	50	14		5			33	29			2½ "		
Eskimo Point	62	3		66	45	11	2	1	1		65	68	3		7 "		
Ft. Good Hope	4			4	11	5					1	6			43 "		
Ft. Liard	83			46	40	10	8	1		2	11	15	10	6	25 "		2¼
Ft. Resolution	27	24	3	12	10	2	2				1	12	10	1	13 "		2
Ft. Simpson	144	84	344	625	480	129	36	52		5	85	112	267	173	123 "		32
J. B. T. School Fort Smith	219	32	89	268	134	43	20	13	1	3	27	51	75	45	69¼ "		50
Ft. Wrigley	17	1	4	60	39	10		11			2	8		26	36½ "		
Gjoa Haven		4		17	14	8	1				18	24			23 "		
Holman Island	1	80		6	31	20					32	42	1		1 "		
Inuvik	8	26	5	77	76	19	9			1	29	44	17	7	37 "		5
Pangnirtung	177			138	101	34	20	6	2	4	124	182	13	3	108 "		46
Paulatuk		9		55	36	4					17	13	3	2	9 "		12
Pond Inlet				280	147	83	7	10	9	3	33	36	36	5	20 "		13
Rankin Inlet	146			57	35	11	9	16	1		43	139	1		25 "		2
Spence Bay	156			34	29	13	3	5	3	1	43	60	103		7 "		5
Tuktoyaktuk	28	67		292	118	44	6	18	2		38	73	34	9	57 "		16
TOTALS:	1617	400	484	2923	1849	610	146	165	25	25	910	1301	901	552	756.5 "		222.75

THE OBJECTIVES FOR OUR PREVENTIVE DENTISTRY PROGRAMME

Graduating students this year will have a complete training kit. Previous kits will be updated. These kits will enable therapists to develop oral hygiene programmes in their settlement locations following the standard design developed at Fort Smith. Classroom discussions will cover a range of dental subjects depending on the age level of students. Epidemiological data gathered by the therapist can be taken from the new proposed Medical Services Case History Charts.

The armamentarium being developed at the School for this programme is as follows:

1. Public Speaking - All students have been given a course in public speaking and received teaching experience in schools both in Fort Smith and in the satellite communities.

2. Demonstration toothbrush and Denture - These oversized models of a toothbrush and human dentition are used in classroom demonstrations as well as at the chairside to describe proper toothbrushing techniques. These have been issued to students and graduates.

3. Slide programme - A series of slides have been designed to assist students in making classroom presentations. There will also be an accompanying script. These slides will include not only those produced at the School but also clinical pictures taken in various locations. These slides have recently been received by mail in Fort Smith and will be forwarded to all therapists in the near future.

4. Flannel board (story board) - Each graduate is issued a large flannel board and numerous onlays to be used in depicting a dental story of young children. These flannel boards have been made by the students themselves during the second year of the programme.

5. Posters - Dental orientated posters will be produced at the same time the flannel graphs are made. Many therapists are already using posters produced on location.

6. Fluoride applications - The topical application of fluoride is a routine procedure at the School. School children in settlements where a dental therapist is located have received a prophylaxis and fluoride treatments.

7. Nutritional aids - This approach has not been enucleated from the overall programme. But hopefully, finances permitting, with the assistance of the nutritionist from Edmonton, additional teaching aids in diet and nutrition will be used by dental therapists.

8. Toothbrush racks - We are making local arrangements to have wooden toothbrush racks made and hung in each classroom providing the teachers are in agreement. So far, this plan has been widely accepted. We began this technique last year in the field clinic in Tuktoyaktuk. Teachers agree that toothbrushes are frequently lost at home. The toothbrushing regimen becomes part of their health education requirement at school. We have designed a simple inexpensive rack and in many cases they will be made in the workshops at school.

9. Video tape - We have facilities available at Fort Smith to make video tapes. Only the purchase of the tape is necessary. The first two tapes scheduled for production are a child's visit for dental treatment, and toothbrushing and oral hygiene techniques. These tapes would be made at the

the School and distributed on request to therapists in the field.

10. Dental Charts - Our objective has been to develop a dental chart from which data can easily be retrieved in order to measure the effect of our preventive programmes. Unfortunately these charts have still not been approved by Headquarters and it may be some time before this aspect of the preventive programme can be completed. However D - M - F rates can be worked out (which in itself is of considerable value) but a sophisticated evaluation will be delayed until the new M. S. Charts are available.

11. Chairside Instruction Booklet - This is being developed to assist in chairside instructions about dentistry. Similar commercially available booklets are expensive and inappropriate for us. Our booklet will be modest but the chairside approach will also involve the utilization of empty food stuff packages illustrating "good" and "bad" food in terms of cariogenic capabilities.

12. Preventive Kit and Teaching Manual - This kit will include most items previously discussed.

13. Microscope - If possible a microscope may be used in the classroom to demonstrate living plaque organisms.

14. Spot Commercials - We will endeavour to produce these 60 second spot commercials on oral hygiene for Northern Television Service.

15. "Preventive" Room at School of Dental Therapy

If additional space becomes available at the School of Dental Therapy, a preventive room should be designed to teach and emphasize this phase of dentistry to students and patients. (Film shots, slides, microscope, etc.).

16. Eskimo Animation - A new group of Eskimo animators in Cape Dorset should be contacted in an attempt to produce animated cartoons concerning teeth.

NOTIFIABLE DISEASES

The perils of prophesy were clearly pointed up in the 1975 experience of infectious hepatitis. Although as had been forecast, incidence of this disease was down to almost one-third of the 1974 levels, a resurgence in several of the previously almost unaffected settlements in the Keewatin continued to put the total incidence in that Zone higher than the already high 1974 levels.

In Baffin the incidence fell to about 1% of the previous year's experience.

Much more alarming has been the tremendous increase in bacillary dysentery, which together with unspecified gastroenteritis affected about 1100 (2½%) of the total Northwest Territories population.

These bacterial intestinal infections have occurred in a series of epidemics of greater or lesser severity but generally low mortality in many of the smaller settlements with inadequate water supplies.

The pattern of each epidemic was studied and in no case could spread of the disease be ascribed to contamination of the water supply. The problems are rather a low availability of water with consequent low water usage for purposes of personal hygiene and a resultant spread of faecal contaminants on a person to person (hand to hand) basis.

Such experience must regrettably be considered inevitable where peoples of somewhat primitive habit of sanitation and personal hygiene are brought to live in close inter-family proximity.

One of the more disturbing features of such epidemics is the likely response of the organisms to antibiotic treatment. Experience throughout the world has shown that the use of antibiotics often worsens the situation by promoting the development of antibiotic resistant strains. This acquired resistance to antibiotics can then be passed from one variety of bacterium to another and cause secondarily induced resistance in other disease organisms more dangerous to health.

Accordingly we must advise Nursing Stations to avoid the issue of antibiotics to all but the seriously ill - in this type of disease - to avoid creating a greater health risk to the community.

The opportunities that arise for misinterpretation of this essential advice by the communities affected need no elaboration.

Streptococcal disease, especially in the Northern Mackenzie district, has remained a severe problem (again fortunately attended by low or zero mortality), which we seem powerless to control by available therapeutic methods.

Undoubtedly tne upper respiratory infections, both bacterial and viral, are on the increase. This increase is occurring synchronously with changes in the style of native housing towards the southern pattern.

One is driven to conclude that there is a cause and effect relationship. What are the possible causes? In the past we have pointed to over-crowding as a highly significant factor in disease transmission, and undoubtedly it plays a part, yet the more over-crowding is reduced the worse the situation appears to become.

Perhaps of greater significance today is the noticeable over-heating in the larger houses in which, because of the considerable room air content humidity is reduced to extremely low levels, low enough to compromise severely the respiratory epithelium, to reduce secretion and ciliary activity (already damaged by tobacco) and to interfere with local cellular immune mechanisms.

To combat such effects inside air humidity should be raised and a number of suggestions can be made towards achieving such a goal.

The tendency towards ever larger houses should be quelled.

The use of large windows, which even when tightly sealed give rise to heat loss and a feeling of chill by radiation loss, should be discouraged.

Moisture loss by condensation on cold windows should be reduced by making standard the use of triple glazing and smaller windows.

Heat loss through inadequate insulation and poorly insulated, badly fitting doors, should be rectified in both new and old buildings.

People should be encouraged to set house thermostats in the range of 20^{o} - 22^{o} C rather than 25^{o} - 30^{o} C frequently encountered.

When all these criteria are met and not before, the possibility of artificial humidification should be considered.

It is believed that only by measures such as these can the current tendency to more and more respiratory ill health be countered.

Measles incidence showed little change from 1974. There may be some problem with measles vaccine since many of the reported cases were in reportedly measles vaccinated children. This is not unique to the North and a reassessment of measles vaccination is under consideration.

Influenza-like diseases, which are the viral component of the upper respiratory diseases discussed in general terms above, seem to show a continual increase from year to year. Where serological investigations were carried out the disease was found to be not true influenza which can be identified in the laboratory, but some other non-identifiable virus disease, none the less uncomfortable for the want of a name.

It is believed that morbidity from such infections together with middle ear disease and bacterial throat, and bronchial infections might be lessened by attention to the living environment.

Six cases of Diphtheria occurred in a single family who had avoided immunization in the past. This is always disturbing in that Diphtheria is an unnecessary disease with currently available immunization methods.

There was an increase in the observed incidence of whooping cough which paralleled a similar increase in most of the provinces. The possibility of this being directly attributable to a falling off in levels of immunization cannot be discounted. This is particularly likely to occur in young transient families who make up a significant part of the non-native population of the Northwest Territories. Attempts through the Public Service pre-employment medical programme to ensure that unimmunized children do not come into the Territories have so far not proven enforceable.

Finally, Rubella, again in parallel with the Provinces, has shown an upturn in incidence. This is a disease of importance only to non-immune women in the first three months of pregnancy. Immunization against it tends to be patchy but is probably at least as high in the Northwest Territories as anywhere else in Canada.

MAJOR NOTIFIABLE DISEASES (NON V.D.) REPORTED 1975 N.W.T.

DISEASE	YEAR	INUVIK	MACKENZIE	KEEWATIN	BAFFIN	TOTAL N.W.T.
Hepatitis, Infections (A)	1975	2	23	155	4	184
	1974	10	43	142	370	565
	1973	97	50	0	288	435
Hepatitis, Serum (B)	1975	1	6	0	0	7
	1974	2	1	1	0	4
	1973	0	3	0	0	3
Typhoid Fever	1975	0	0	0	0	0
	1974	1	0	0	0	1
	1973	0	0	0	1	1
Bacillary Dysentery	1975	50	53	248	99	450
	1974	54	39	0	4	97
	1973	7	41	0	1	49
Gastro-enteritis (unspecified)	1975	125	94	34	410	663
	1974	15	54	99	14	182
	1973	14	4	24	32	74
Meningococcal Meningitis	1975	0	1	1	0	2
	1974	0	5	3	0	8
	1973	0	7	0	1	8
Salmonellosis	1975	2	15	2	2	21
	1974	0	28	0	0	28
	1973	0	8	0	0	8
Streptococcal Sore Throat & Scarlatina	1975	87	671	67	194	1019
	1974	37	618	83	172	910
	1973	26	242	64	115	447
Sore Throat (Unspecified)	1975	10	286	580	298	1174
	1974	0	0	214	68	282
	1973	0	0	71	0	71
Measles	1975	23	52	6	57	138
	1974	50	49	9	11	119
	1973	45	311	116	8	480
Rubella	1975	34	54	2	13	103
	1974	14	15	4	25	58
	1973	8	13	8	7	36
Influenza-like Infections	1975	155+	1169+	652	821+	2797+
	1974	39	490	920	760	2209
	1973	66	78	577	419	1140
Diphtheria	1975	6	0	0	0	6
	1974	0	2	0	0	2
	1973	0	6	0	0	6
Botulism	1975	0	0	0	3	3
	1974	0	0	0	3	3
	1973	0	2	0	0	2
Whooping Cough (Figures in parenthesis = Pertussis-like Syndrome)	1975	7	5	0	3 (26)	15 (26
	1974	1	3	0	0	4
	1973	0	7	0	0	7

VENEREAL DISEASE

The one bright spot in the Venereal Disease picture is the complete absence throughout 1975 of Syphilis in either its acute or latent form.

When it is considered that the total annual number of serological tests for syphilis performed in inhabitants of the Northwest Territories, derived from gonorrhoea patients, antenatal patients and specific requests from clinics and hospitals must be well over 6,000, i.e., close to 25 - 30% of the sexually active population, the significance of the zero experience is more apparent.

Apart from that Gonorrhoea incidence resumed its dismal upward trend.

The recent discovery that Eskimo rates in the Northwest Territories are even now only one-third of the equivalent rates in Greenland gave little solace. Previously one was given to thinking that current rates were so high they could hardly get worse. This is evidently not the case. They could be very much worse and in the absence of the development of a sense of personal responsibility for health they may well become so, especially in the face of increasing industrialization and increasing amounts of transient labour.

The problem is not unique in the Northwest Territories. It is merely more obvious in that our figures reflect a true disease incidence rather than just the small notified minority of cases. In the provinces it is estimated that only 1 in 10 of all treated cases of gonorrhoea reach national statistics.

If we compare the 1975 incidence with that of 1965 there has been rather more than a doubling of disease rates. Distribution of cases is not significantly different with Inuvik heading the list in both years.

The only communities recording a reduced incidence of significant proportions are Hay River and Fort Resolution, the incidence in the first having dropped to one-third and in the second to one-quarter of 1965 figures. This may represent an increasingly stable population

pattern in Hay River especially or it may indicate a more "Provincial" pattern of disease reporting.

Gonorrhoea (confirmed cases) showed an increase of 13% while the number of "unconfirmed" cases remained about the same. The total of patients reported as treated (confirmed and unconfirmed) showed an increase of 8%. It is difficult to make an analysis of trends for gonorrhoea due to the prolonged mail strike when an unknown number of cases were not reported, and a large number of cases could not be confirmed by laboratory reports as specimens were not being sent to the various laboratories.

Inuvik Zone continues to cause most concern relating to the incidence of gonorrhoea. If Inuvik Zone is compared with Mackenzie Zone it will be noted that Mackenzie had a 15% higher incidence, however, if the "rate" per 100,000 of population is calculated it will be seen that the Inuvik rate is approximately 9600 per 100,000 of Inuvik Zone residents, whereas Mackenzie is approximately 3700 per 100,000 of Mackenzie Zone residents.

During 1975 most of the five private clinics in Yellowknife sent gonorrhoea lab specimens to the Stanton Yellowknife Hospital laboratory. This laboratory has had to have several reminders to send copies of lab reports to this office. We are now in the unfortunate position of not being able to ascertain how many cases are NOT being reported if some of the clinics are not reporting adequately, and we do not know how many specimens for suspect gonorrhoea are being processed. When physicians were using the Alberta Provincial Lab we could guarantee the receipt of copies of all gonorrhoea lab work from that Laboratory.

Despite the continued rise in incidence, the number of Gonorrhoea contacts being sought, found and treated, improved as follows:

N.W.T. 1975 = 75% of contacts located and treated
1974 = 73% of contacts located and treated
1973 = 61% of contacts located and treated
1972 = 61% of contacts located and treated

Venereal Disease Incidence 1975

Gonorrhoea cases have been divided statistically into two groups:

1) Confirmed - includes micro-positive and clinically accepted cases, with some exceptions for clinical cases in the towns of Yellowknife, Inuvik, Frobisher Bay and Fort Smith. Clinical cases which are not also micro positive are not counted for this group if the lab work has been done in the local hospital laboratory. On occasions when the above four towns use a distant Provincial Laboratory, Clinical cases WILL be COUNTED as in any other unit in the Northwest Territories.
2) Unconfirmed - includes all suspect gonorrhoea cases not included in (1).

Micro-positive and Clinical diagnosis cases were reported weekly to Statistics Canada. Unconfirmed cases were NOT reported to Statistics Canada although it is believed that a fair portion of these suspect but otherwise unconfirmed cases were positive for gonorrhoea.

Change in Incidence of Gonorrhoea

1973	1974	1975		1975 change from 1974
2384 Confirmed	1999 Confirmed	2270 Confirmed	=	Increase 13%
885 Unconfirmed	1352 Unconfirmed	1363 Unconfirmed	=	Increase less than 1%
3269	3351	3633		

Changes in Incidence of Gonorrhoea by Zone (Confirmed)

	1973	1974	1975	1975 change from 1974
Inuvik	728	640	792	Increase 23%
Mackenzie	969	855	918	Increase 7%
Keewatin	160	86	135	Increase 56%
Baffin	527	418	425	Increase 1%

Changes in Incidence of Gonorrhoea by Zone (Unconfirmed)

	1973	1974	1975	1975 change from 1974
Inuvik	185	309	309	No change
Mackenzie	411	675	702	Increase 4%
Keewatin	78	51	56	Increase 10%
Baffin	211	317	296	Decrease 6%

GONORRHOEA (CONFIRMED CASES)

ETHNIC GROUP	Total By Sex		AGE GROUPS							Age Not Stated
			0-9	10-14	15-19	20-24	25-39	40-59	60+	
	M	F								
Indians	442	331	6	14	189	232	255	72	5	
% of Indians			.7	1.8	24.4	30	32.9	9.3	.6	
Eskimos	456	407	5	16	205	252	312	67	6	
% of Eskimos			.5	1.8	23.7	29.2	36.1	7.7	.6	
Others	508	126		6	88	214	261	59	2	4
% of Others				.9	13.88	33.7	41.1	9.3	.3	.6
Total Cases 2270	1406	864	11	36	482	698	828	198	13	4
% of Total	61.9	38.1	.4	1.5	21.2	30.7	36.4	8.7	.57	.17

Micro-positive and Clinical cases by sex-age distribution in the three ethnic groups. Unconfirmed cases not included.

The disease rate of confirmed and clinical cases among the various groups was:

Indians - 10,038 per 100,000 (of Indians)

Eskimos - 6,058 per 100,000 (of Eskimos)

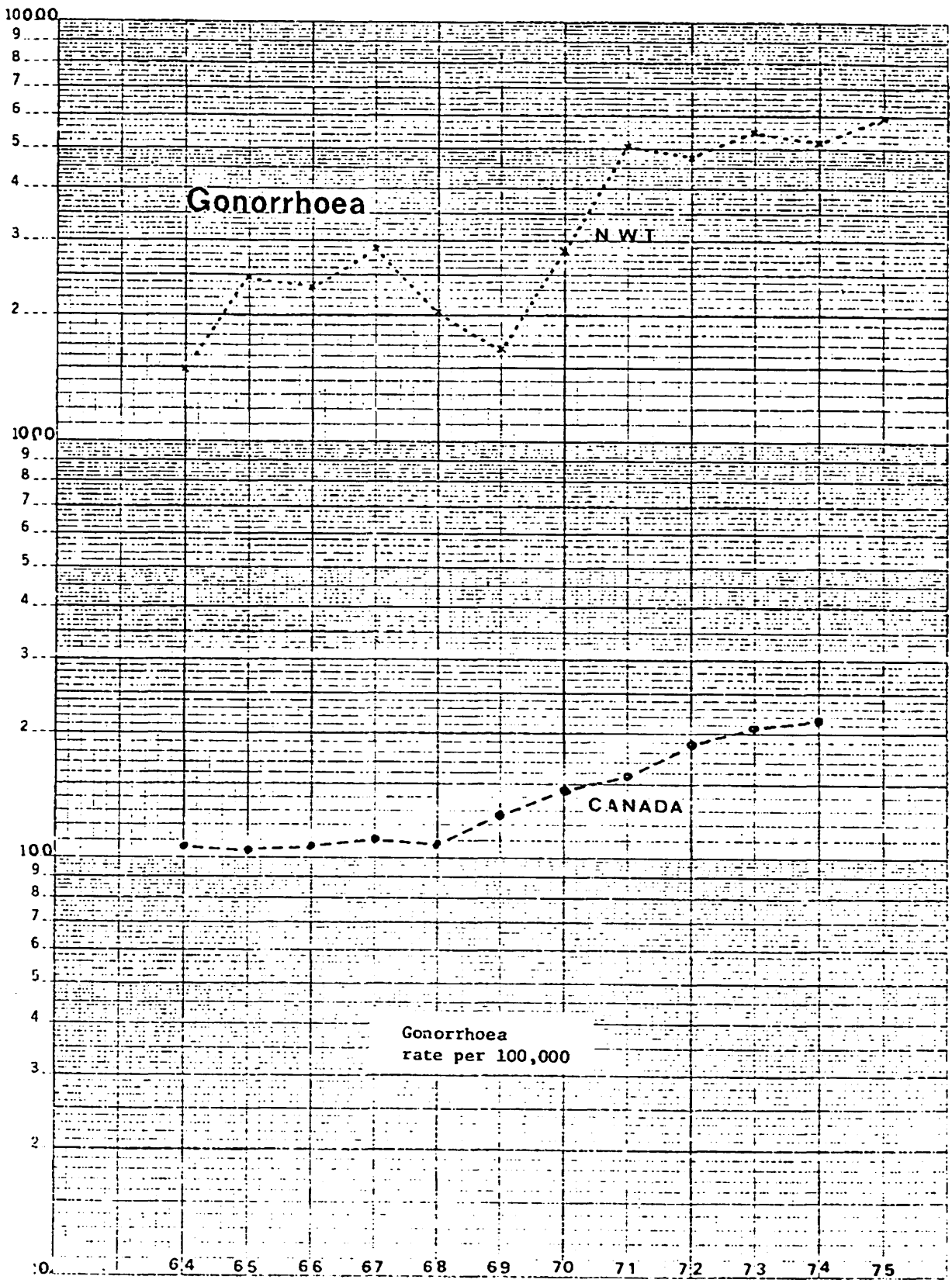
Others - 3,829 per 100,000 (of Others)

All groups - 5,896 per 100,000

GONORRHOEA EPIDEMIOLOGY - 1975

ZONE	No. of Gonorrhea Cases Treated During Year	No. of Sources & Contacts Reported to be in Zone or Outside	No. of Sources & Contacts Located & Treated	No. of Sources & Contacts From previous months Treated	No. of Sources & Contacts Reported as Unknown
INUVIK ZONE	792 (309)	1502	816	238	36
MACKENZIE ZONE	918 (702)	2145	1372	361	62
KEEWATIN ZONE	135 (56)	279	185	18	5
BAFFIN ZONE	425 (296)	936	550	149	18
OUTSIDE		76	25	7	
TOTALS	2270 (1363)	4938	2948	773	121

Figures in parenthesis - unconfirmed cases.


Gonorrhoea
N.W.T.
CANADA
Gonorrhoea
rate per 100,000
10000
9
8
7
6
5
4
3
2
1000
9
8
7
6
5
4
3
2
100
9
8
7
6
5
4
3
2
0
64
65
66
67
68
69
70
71
72
73
74
75

TUBERCULOSIS SURVEILLANCE

A total of 54 cases of new and reactivated cases of active tuberculosis were detected in 1975 out of a mid-year population of 38,348. Of these, 14 were Treaty Indians, 32 Eskimos and eight (8) were non-treaty or white status patients. It appears the total number of active cases fluctuate around a mean of approximately 60 cases annually over the past four years, with very small increases in total population in each aforementioned racial group. (The comparable figure in 1965 was 124 which itself was about one third of the number in 1963).

Despite an increase in the total number of diagnostic measures, which is indeed very striking as compared with previous years, this has not produced more active cases of tuberculosis.

The intensity of the tuberculosis surveillance and the fact that the total number of 1,140 individuals on antituberculosis drugs has remained almost unchanged at this level over the past three years is no doubt a contributing factor to the levelling out of the total number of active cases.

High risk individuals on preventive antituberculosis drugs runs to almost 16% of the total population in some communities, thereby preventing active disease in these individuals and also interfering in the transmission of the tubercle bacillus in these communities.

The intensity of the surveillance is also reflected in the fact that almost 50% of our active pulmonary tuberculosis cases are detected during the minimal or early stages of the disease. However, there is still need for continued surveillance as reflected in the high rates of active tuberculosis among Eskimos and Treaty Indians. 32 cases of active tuberculosis in Eskimos out of a population of 14,117 equals a rate of 226 per 100,000 and in Treaty Indians 14 active cases out of a population of 7,605 gives a rate of 184 per 100,000. These rates are 9 to 12 times the national average of approximately 20 per 100,000.

As both native groups also contain large numbers of individuals with previous sanatorium treatment, which was perhaps inadequate by comparison with modern day standards, and also individuals with

radiological evidence of untreated previous pulmonary tuberculosis, the use of adequately supervised chemoprophylaxis will have to be continued in order to prevent the recurrence of active tuberculosis among these groups. The domiciliary supervision of drug intake and the follow-up of the individuals on antituberculosis drugs requires further improvement by strengthening the method of supervision at the nursing station level. Defaulting rates still appear considerable.

The recorded number of 96 recent converters is probably inaccurate, by a factor of 50% or more, for a variety of reasons; mainly

(1) Errors in previous recording, or record recall, resulting in the reporting of tuberculin conversion when a previous positive reaction has been known.

(2) Tuberculin conversion due to BCG vaccination being recorded without concurrent explanation.

(3) Errors in performance or reading of the test.

(4) Change to a stronger tuberculin antigen, due to cessation of manufacture by the former supplier.

Such errors, though few in total number, do adversely affect the picture and indicate a transmission rate greater than actuality.

The computer recall system is functioning well as a persistent reminder to nursing station staff (where changes tend to defeat continuity of service) of the current tuberculosis status and need for individual follow-up at predetermined times.

In general the striking reduction in tuberculosis mortality achieved in recent years (5 deaths in 1965, 0 in 1973, 1974 and 1975) plus the reduced need for prolonged treatment has tended to reduce the impact of tuberculosis in the overall programme. Transmission rates and reactivation rates are, however, still sufficiently high that relaxation of surveillance would be extremely dangerous. Surveillance methods may change in the light of experience but active surveillance must remain at high priority if we are to avoid losing the hard won gains.

TUBERCULOSIS ACTIVITY REPORT

NORTHWEST TERRITORIES - 1975

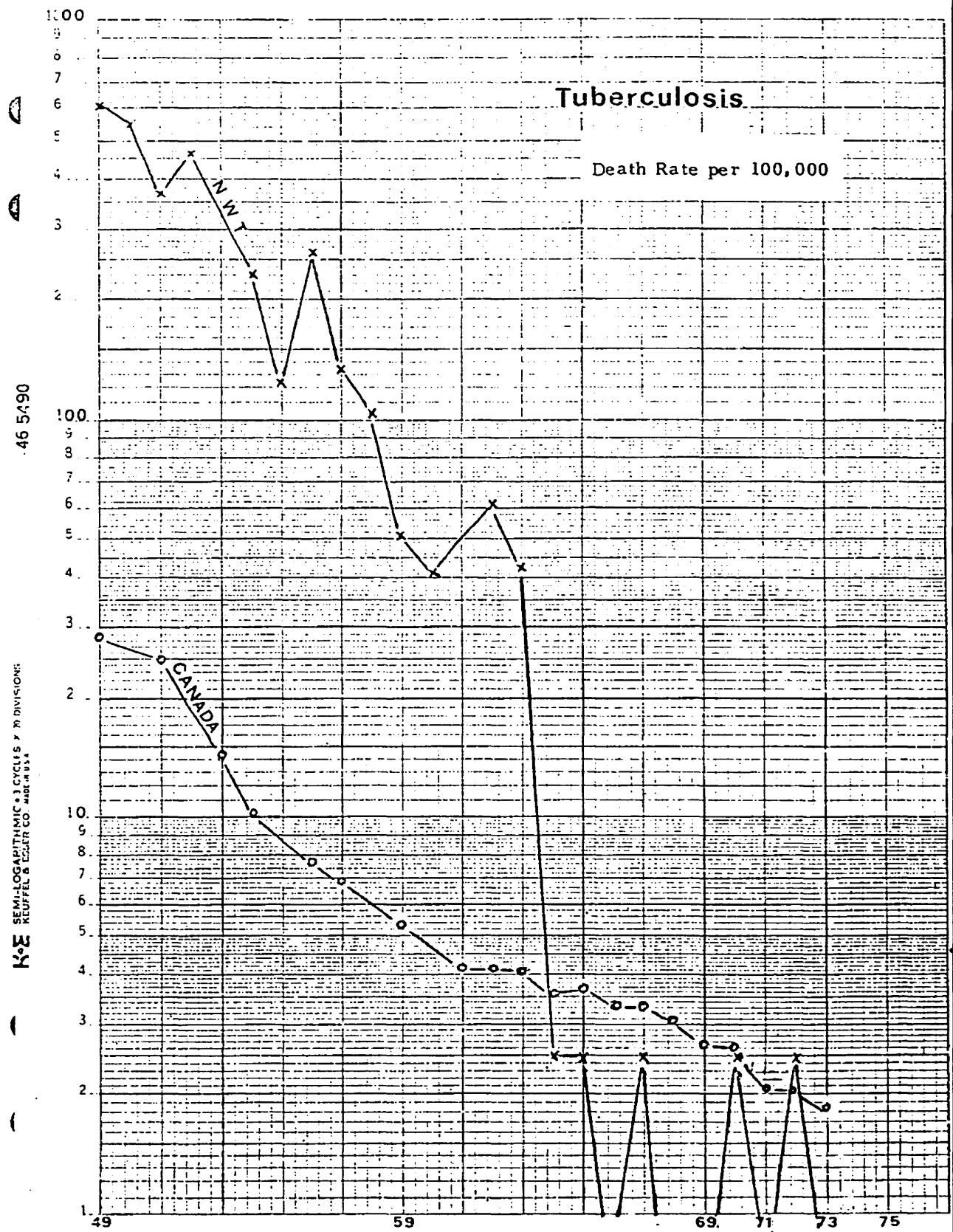
ETHNIC GROUP	INDIANS			ESKIMOS			OTHERS			ALL GROUPS		
YEAR	1975	1974	1973	1975	1974	1973	1975	1974	1973	1975	1974	1973
POPULATION	7,605	7,533	7,402	14,117	13,932	13,630	16,626	16,384	15,978	38,348	37,849	37,010
NEW ACTIVE CASES	12	19	11	28	26	17	8	6	10	48	51	38
INCIDENCE	0.16	0.25	0.15	0.20	0.19	0.12	0.05	0.03	0.16	0.12	0.13	0.10
REACTIVATED CASES	2	5	2	4	10	7	0	0	2	6	15	11
CASES ON HOME CHEMOTHERAPY	272	306	218	634	634	824	234	200	182	1,140	1,140	1,224
TUBERCULIN TESTS										12,117	10,458	9,533
B.C.G.										773	990	567
NO. OF X-RAY SURVEY FILMS										9,702	9,448	9,984
NO. OF REFERRED FILMS										20,111	22,472	11,200
BACTERIOLOGY TESTS										14,774	12,429	6,348

NEW AND RE-ACTIVATED CASES OF TUBERCULOSIS

BY AGE, SEX AND RACIAL ORIGIN

NORTHWEST TERRITORIES - 1975

AGE GROUP	TOTAL			INDIANS			ESKIMOS			OTHERS		
	T	M	F	T	M	F	T	M	F	T	M	F
0 - 4	2	1	1				1		1	1	1	
5 - 9	5	3	2				5	3	2			
10 - 14	2	1	1	1	1		1		1			
15 - 19	2	2		2	2							
20 - 24	2	1	1	1	1					1		1
25 - 29	6	3	3	1		1	4	2	2	1	1	
30 - 49	18	10	8	5	3	2	10	5	5	3	2	1
50 - 69	11	5	6	3	1	2	6	3	3	2	1	1
70 - Over	6	3	3	1	1		5	2	3			
TOTAL	54	29	25	14	9	5	32	15	17	8	5	3


Tuberculosis
Death Rate per 100,000
N.W.T.
CANADA
1000
100
10
1
49
59
69
71
73
75
K&E SEMI-LOGARITHMIC 3 CYCLES X 70 DIVISIONS
KEUFFEL & ESSER CO. MADE IN U.S.A.
46 5490

MENTAL HEALTH

PSYCHIATRIC SERVICES

1974 saw further moves in the direction of providing more on the spot psychiatric services. After many years of vain recruitment, a Psychiatrist was appointed for Mackenzie Zone. The full complement of mental health personnel resident in the Northwest Territories for 1976 is:

Mackenzie Zone	-	Zone Psychiatrist Zone Psychologist Mental Health Nurse - Yellowknife Health Centre
Inuvik Zone	-	Mental Health Nurse Inuvik Health Centre
Baffin Zone	-	The position for Mental Health Nurse in Frobisher Bay has been finalized and will, hopefully, be filled during 1976.

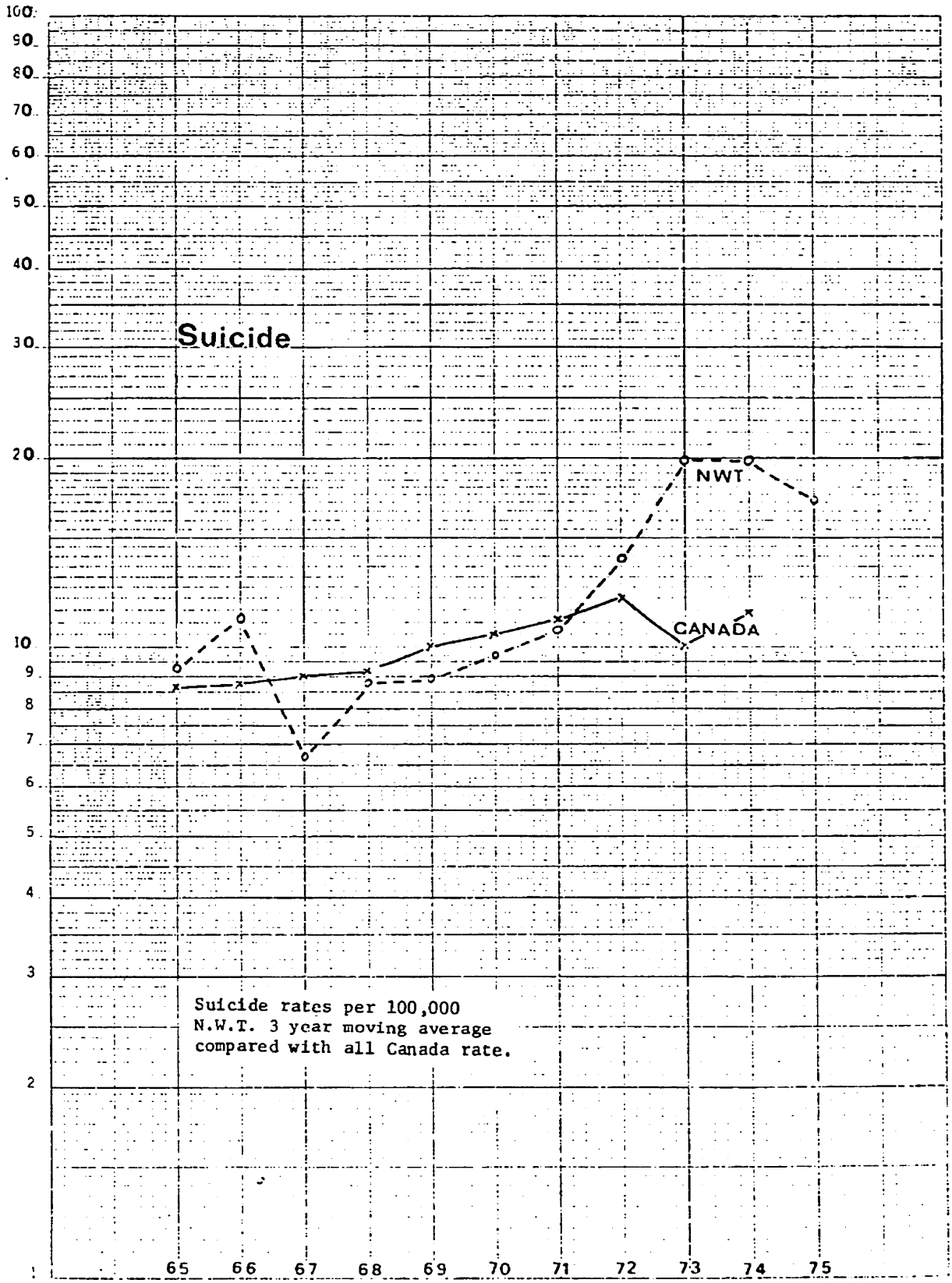
VISITING PSYCHIATRIC SERVICES

With the hiring of a Zone Psychiatrist for Mackenzie Zone there is no further need for visiting consultants in psychiatry from the University of Alberta to travel to that Zone. Settlements in Mackenzie Zone will be covered by the Zone Psychiatrist. As in previous years, the Clarke Institute of Psychiatry in Toronto provides visiting psychiatric services to Baffin Zone and the University of Manitoba provides visiting psychiatric services to the Keewatin Zone. The Regional Mental Health Consultant who is responsible for the overall mental health program has provided clinical consultation to Inuvik Zone. As in previous years, we have been fortunate in maintaining a continuity of service by specific psychiatrists from southern based institutions.

MENTAL HEALTH STATISTICS

Suicides - The total number of suicides in the Northwest Territories in 1975 was 7. As shown by the accompanying graph, the 3-year moving average has dropped due to the relatively low figures for 1974 and 1975. As on previous occasions, the majority of suicides

involved firearms. In 1975 5 out of 7 suicides were from firearms, 1 was from hanging and 1 from an overdose. In 1975 the average age for suicides was 23. Males predominate over females 6 to 1.


Suicide
NWT
CANADA
100
90
80
70
60
50
40
30
20
10
9
8
7
6
5
4
3
2
1
65
66
67
68
69
70
71
72
73
74
75
Suicide rates per 100,000
N.W.T. 3 year moving average
compared with all Canada rate.

HEALTH EDUCATION

To aid all members of field staff in their day to day responsibilities of imparting knowledge of health matters to the general public, Northwest Territories Region has employed one or more full-time health educators, trained especially in the art or science of educational method specifically as applied to health.

As we came into 1975 we had a full-time Regional Health Educator with a part-time assistant located in Edmonton and offering service in Inuvik, Keewatin and Baffin Zones, plus a full-time health educator located in Yellowknife to serve Mackenzie Zone.

During the year the Mackenzie Zone health educator resigned and at the request of the Mackenzie Zone Director, was not replaced. Instead, we have taken on a full-time assistant at Regional level and the Regional staff of two is charged with giving needed service to all four Zones.

At the field level there is a grade of employee known nowadays as the Community Health Representative, the title replacing the former Family Health Aide and Community Health Worker categories, whose duties were inclined toward Personal Health and Community Health respectively. Such a concept, however, was too divisive in a field that did not lend itself to division, for in our small communities both responsibilities were inevitably carried by the same individual.

The Community Health Representative is a locally hired individual with only the basic requirements of responsibility and interest who is given a period of special training in health matters and health education methods.

In some ways the concept follows the "Barefoot Doctor" of the Chinese system, but without the militancy or always, I fear, the concomitant necessary dedication. In Canada there is not the same honor attached to being chosen the Community Health Worker and yet there should be, as it is a job of potentially great importance. Although it was the original intention that such workers be paid by and responsible to the community in which they lived and worked, thus making them

in fact the community's Health Representative, this concept proved unworkable and during 1975 most Community Health Workers were taken onto Public Service Staff. A total of 18 Community Health Workers were employed during 1975.

Three training courses were held at Zone level for the completion of training of Community Health Workers. Especial emphasis was put on the preparation of new and evaluation of previously existing Health Education audiovisual materials. Our field staff of Community Health Workers provided considerable input into the Ottawa based task force on Native Health Education materials who were charged with the responsibility of evaluating currently available audiovisual aids and making recommendations for improvement where such is possible. It seems perhaps almost too obvious to relate that for maximal impact a local and identifiable scene is essential. It matters little to our Inuit mother in Broughton Island that a well groomed W.A.S.P. mother in Toronto believes in immunization to protect her baby's health. The fact that her neighbour has that belief is far more likely to carry a message of conviction. It is on this theme of local applicability that the Health Education Section base their teaching.

In addition to health education of the general population the Health Education Section has the responsibility of dissemination of information to field stations. Two regular publications have been started during 1975. The first, the V.I.P. news is a single sheet covering intradepartmental news items, whilst the second, Northern Health Abstracts is a bi-monthly publication again of single sheet format carrying abstracts of items from the scientific journals in the health field of especial interest or relevance to northern nurses.

NUTRITION

After about eighteen months without a full time nutritionist Medical Services finally were fortunate in being able to hire not only a nutritionist but a nutritionist who had lived and worked in the Northwest Territories for several years and therefore had already a very clear idea of the problems she might be expected to solve.

Since it happened that almost simultaneously a staff member with similar training was employed by the Department of Social Development, we have urged the closest co-operation between these two workers and with the Department of Education to ensure that duplication of effort did not occur and also to ensure that contradictory concepts were not introduced which could be both confusing and self cancelling in effect.

In addition to providing a resource for nutrition teaching materials for all the primary health teachers, the nurses, the community health workers and the school teachers, it is planned to try to develop one or two intensive projects in particular settlements who spontaneously have expressed interest, with the aim of attempting to influence nutritional patterns for the better.

Should this effort be successful we will have a pattern to be followed by other communities. If unsuccessful our loss in time and effort will not have been catastrophic.

The Nutrition Canada survey which was finally released in printed form at the end of 1974 pointed to a number of deficiencies of essential nutrients, vitamins and minerals, especially among the native peoples of the Northwest Territories. In the attempt to lessen such dietary deficiencies Medical Services introduced a programme of supply of vitamin and mineral supplements to the native population. This stop gap measure is far from being a satisfactory answer to the problem, which must be met by an improvement in dietary habits of the population; but at least we hope to lessen the potential for clinical disease resulting from the demonstrated deficiencies. (See also Medical Research)

MEDICAL RESEARCH

For the second year in succession the Northern Medical Research Unit operated with only Dr. Schaefer and a secretary, the parasitologist remaining seconded in an administrative position.

During the year two new projects were undertaken:

1. A preliminary hair-sampling survey of Yellowknife residents with a subsequent clinical survey of those found to be arsenic exposed which was completed during the first six months of the year and final results were published by the end of September.

The indications of the results of all the work were that the arsenic emissions from the gold mines in Yellowknife are not a significant hazard to the inhabitants of the Yellowknife area, either native or non-native. There is however a definable exposure hazard within the Giant mine, which could affect certain categories of worker. Agreement has been reached with the mine management for the regular monitoring of plant and personnel to ensure that adverse health conditions are minimized.

2. A review of skinfold measurements and ponderal indices from more than 1000 Eskimo adults was made from survey data collected by the Director of the Medical Research Unit from 1964 to 1970. This review confirmed the findings of Nutrition Canada on ponderal indices of the Eskimo but the demonstration of very lean skinfold measurement was sufficient to demolish totally the announcement by Nutrition Canada that the Eskimo has a high incidence of obesity. This totally incorrect assessment was arrived at by using an index based on the White races to assess a totally different race. The Eskimo is broadly built and stocky of limb as befits man living in an Arctic climate. The ponderal index which relates weight to height is invalid in men of this build.

Research continued during the year included participation in the Perinatal and Infant Morbidity and Mortality Study which is scheduled for completion by the end of March 1976. Perhaps one of the

more interesting findings of this study is the clear association between breast feeding and a reduced incidence of prolonged illness during infancy. Although this has long been suspected the statistical support that has been obtained is most reassuring and provides solid basis for a continuing campaign for the re-emergence of the breast-feeding of all infants as a primary concern of Medical Services.

Research projects planned during the year include:

(1) A baseline assessment of the physiological and medical status of the inhabitants of Arctic Bay before the going into production of the lead-zinc mine in Strathcona Sound.

(2) A review of the influence of feeding practices and medical treatment practices, especially the use of antibiotics and iron supplement, on the development of intractable diarrhoea of infancy in Baffin Zone.

Finally, the Research Unit reviews all proposals for medical research in the Northwest Territories keeping in the front of the mind the well being of and avoidance of interference with the native people.