

LEGISLATIVE ASSEMBLY OF THE
NORTHWEST TERRITORIES
7TH COUNCIL, 49TH SESSION

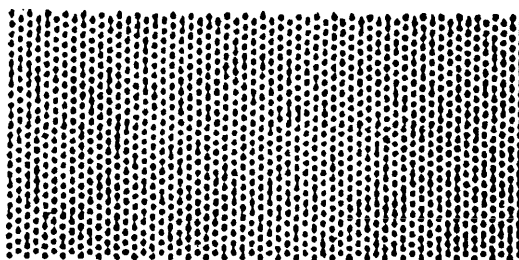
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REPORT
on
HEALTH CONDITIONS
in the
NORTHWEST TERRITORIES
1972



Chief Medical and Health Officer
Government of the Northwest Territories

REPORT
on
HEALTH CONDITIONS
in the
NORTHWEST TERRITORIES
1972

Northern Health Service
1973

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REPORT ON HEALTH CONDITIONS IN THE NORTHWEST TERRITORIES - 1972

VITAL STATISTICS

POPULATION:

The population of the Northwest Territories is estimated as follows:

	<u>Indians</u>	<u>Eskimos</u>	<u>Others</u>	<u>Total</u>
Number	7251	13267	15523	36041
Percentage	20.11%	36.81%	43.0%	100.00%

This estimate is based on the 1971 census figures with additions for the recorded natural increases since then. Immigration and emigration has not been taken into account, and therefore, the figures could be slightly low for all groups.

LIVE BIRTHS:

The live birth rates per 1,000 population were:

Indians 29.09 Eskimos 31.12 Others 31.9 All Groups 32.54

The rates for Indians have dropped 5 points, for Eskimos 3 points and for the others 3 points. The birth rate for Canada as a whole is 17.4 (1970).

SEX RATIO OF BIRTHS:

The ratio of male births per 1,000 female births was:

	<u>1972</u>	<u>1971</u>	<u>1970</u>	<u>1969</u>
Indians	1175	959	1163	1032
Eskimos	1017	969	1207	1067
Others	991.96	1197	1233	1058

The overall ratio for N.W.T. was 1061.

The national rate for 1970 was 1060.

The four year average for male births per 1,000 female births was:

Indian	1082
Eskimo	1045
Others	1120

BIRTH WEIGHTS:

Average birth weights for live births were as follows:

	<u>INDIANS</u>		<u>ESKIMOS</u>		<u>OTHERS</u>	
	<u>Males</u>	<u>Females</u>	<u>Males</u>	<u>Females</u>	<u>Males</u>	<u>Females</u>
1969	7.18 lbs.	7.02 lbs.	7.23 lbs.	6.68 lbs.	7.41 lbs.	7.51 lbs.
1970	7.13 lbs.	7.01 lbs.	7.17 lbs.	6.84 lbs.	7.69 lbs.	7.15 lbs.
1971	7.06 lbs.	6.92 lbs.	7.11 lbs.	6.81 lbs.	7.56 lbs.	7.13 lbs.
1972	7.27 lbs.	6.99 lbs.	7.12 lbs.	6.88 lbs.	7.66 lbs.	7.22 lbs.

LOW BIRTH WEIGHT INFANTS:

Low birth weight infants are defined as those weighing less than 5.5 pounds or 2500 grams. The gestational age was not taken into account due to obvious inaccuracies in recording on the birth certificates.

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

	<u>INDIANS</u>	<u>ESKIMOS</u>	<u>OTHERS</u>	<u>ALL GROUPS</u>	<u>ALL CANADA</u>
1970	11.1	12.9	8.5	10.9	8.7
1971	10.87	11.77	6.10	9.28	
1972	9.5	12.01	7.66	9.80	

There is no significant change in the number of low birth weight infants over the past three years.

MULTIPLE BIRTHS:

The ethnic distribution of twin births was:

Indians - 0 Eskimos - 7 Others - 10

STILL BIRTHS:

Indians - 0 Eskimos - 10 Others - 4

A total of 14 still births shows a reduction of 1 from the total for 1972.

HOSPITALIZED BIRTHS:

99.14% of live births occurred in a hospital or nursing station.

This is the highest percentage ever. The ethnic distribution was:

Indians - 99.52% Eskimos - 98.04% Others - 100%

MATERNAL AGE

The percentage distribution of live births by age of mother and ethnic groups, N.W.T., 1972:

	INDIANS	ESKIMOS	OTHERS	CANADA
Under 20	18.48	22.53	14.51	11.84
20-24	27.96	27.89	37.70	35.40
25-29	21.32	19.95	32.45	29.85
30-34	17.06	12.87	10.68	14.06
35-39	9.47	8.36	4.23	6.58
40-44	5.21	5.15	0.20	1.93
45-49	0	1.76	0.20	0.15
N.S.		1.50		0.16

BIRTH ORDER:

The fertility patterns of older women in the Indian and Eskimo groups is reflected in the high proportion of 4th and later children.

Percentage distribution of live births by birth order and ethnic group, N.W.T., 1972:

	INDIANS	ESKIMOS	OTHERS	CANADA
1st child	20.85	25.32	42.13	39.94
2&3rd child	33.64	27.68	44.95	43.16
4th & later	45.49	46.99	12.9	16.89

TABLE 1
NORTHWEST TERRITORIES
Vital Statistics - 1972

	INDIANS 1972 Pop. - 7,251				ESKIMOS 1972 Pop. - 13,267				OTHERS 1972 Pop. - 15,523				ALL GROUPS 1972 Pop. - 36,041				ALL CANADA
	1972 No.	1972 Rate	1971 Rate	1970 Rate	1972 No.	1972 Rate	1971 Rate	1970 Rate	1972 No.	1972 Rate	1971 Rate	1970 Rate	1972 No.	1972 Rate	1971 Rate	1970 Rate	1970 Rate
Livebirths (a)	211	29.09	34.09	41.2	466	35.12	38.31	40.8	496	31.9	34.06	32.1	1173	32.54	35.65	40.1	17.4
Illegitimate Live Births (b)	88	41.70	38.07	35.2	116	24.8	17.16	16.9	81	16.33	18.30	13.2	285	24.29	21.63	19.3	9.6
Livebirths born in Hosps, and N/S (c)	210	99.52	98.7	99.7	457	98.04	95.80	92.4	81	100.0	99.80	99.6	1163	99.14	97.19	96.4	99.6
Low Birth Rate Infants (d)	21	9.95	10.87	11.1	56	12.01	11.77	12.9	38	7.66	6.10	8.5	115	9.80	9.29	10.9	7.1
Stillbirths (e)	-	-	8.36	11.4	10	21.45	17.96	17.4	4	8.06	7.82	10.2	14	11.93	12.02	13.8	9.9
Perinatal Deaths (f)	2	9.47	24.89	37.9	20	41.15	45.09	40.1	10	20.0	9.76	21.8	32	26.95	26.92	33.2	21.8
Neonatal Deaths (0-28 days) (g)	4	18.95	25.10	26.6	11	23.6	33.93	26.2	7	14.11	1.96	13.1	22	18.75	19.23	21.6	13.5
Post Neonatal Deaths (29-365 days) (h)	6	28.43	54.39	26.6	23	49.35	63.87	78.4	6	12.09	7.87	8.6	35	29.83	39.26	43.1	5.3
Infant Deaths (under 1 year) (i)	10	47.39	79.49	53.1	34	72.96	97.80	105.0	13	26.20	19.68	21.7	57	48.59	58.49	64.7	18.8
Total Deaths (Crude Death Rate) (j)	49	6.75	8.70	7.18	118	8.89	11.24	11.1	81	5.21	5.96	4.6	248	6.88	8.48	7.46	7.3
Deaths in Hosps. and N/S (k)	32	65.30	54.34	62.3	67	56.77	64.10	62.3	50	61.72	60.93	59.1	149	60.08	61.23	61.5	68.2
Natural Increase (l)	162	22.34	25.39	34.3	348	26.23	27.07	38.2	415	26.73	28.09	27.5	925	25.66	27.17	32.7	10.0
Maternal Deaths (m)	1	47.3	-	-	1	21.4	-	17.4	-	-	-	-	2	17.0	-	7.7	2.0

(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 and 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

TABLE 11

NORTHWEST TERRITORIES - 1972

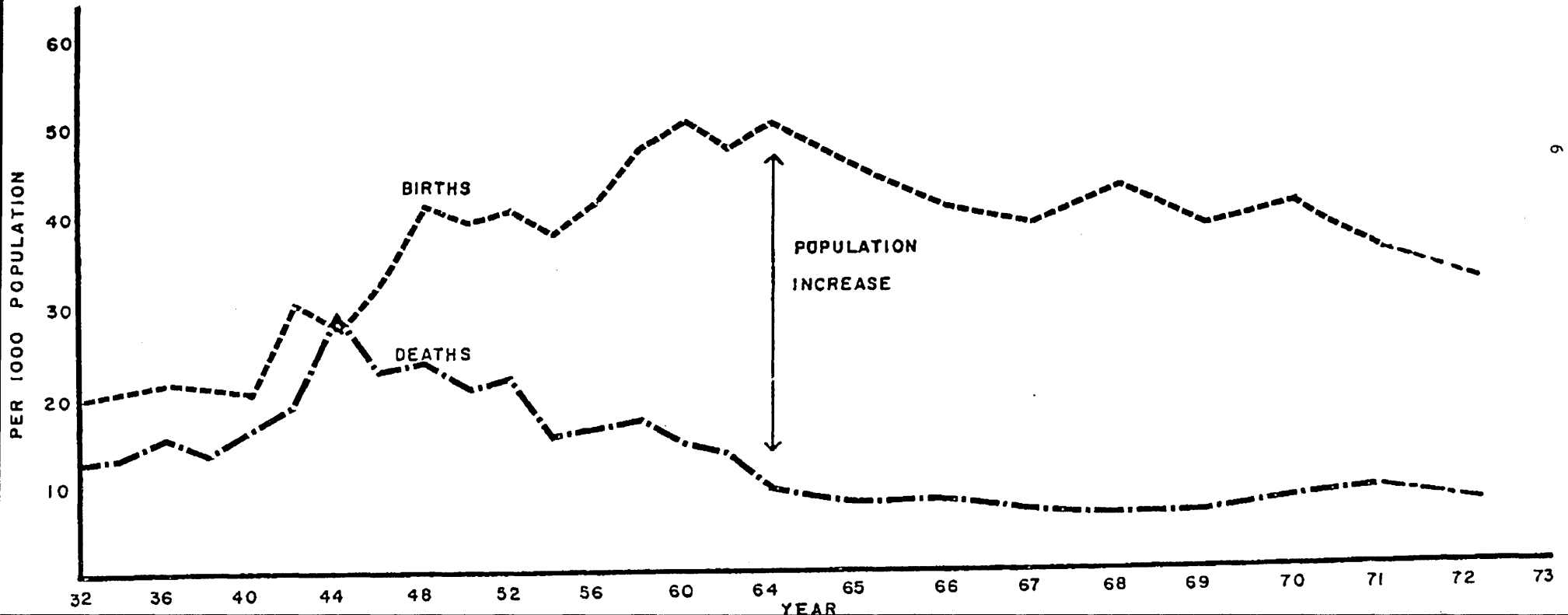
Vital Statistics in Zones

	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
	5018		2521		2242		2233		2046		1750		3429		393		5369		1040	
Livebirths (a)	162	32.28	108	42.84	354	28.91	49	21.94	54	26.39	92	52.5	125	36.4	16	40.7	190	35.38	34	32.69
Illegitimate Livebirths (b)	65	40.12	24	22.22	62	17.51	23	46.93	27	50.00	17	18.47	16	12.8	-	-	49	25.78	2	5.88
Births in Hosps. or N/S (c)	161	99.38	106	98.14	354	100.0	49	100.0	52	96.2	92	100.0	123	98.4	16	100.0	176	92.63	34	100.0
Low Birth Weight Infants (d)	14	8.64	9	8.33	26	7.34	7	14.28	9	16.16	9	9.78	16	12.80	-	-	22	12.29	3	8.82
Maternal Deaths (e)	1	61.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	52.6	-	-
Stillbirths (f)	-	-	3	27.77	4	11.29	-	-	-	-	-	-	-	-	-	-	7	3.68	-	-
Perinatal Deaths (g)	2	12.34	6	55.5	6	16.94	-	-	2	37.03	4	43.47	1	8.0	-	-	11	57.89	-	-
Neonatal Deaths (h)	3	18.51	3	27.77	3	8.47	1	20.4	2	37.03	4	43.47	2	16.0	-	-	4	21.05	-	-
Post Neonatal Deaths (i)	3	18.51	8	74.07	4	11.29	3	61.22	1	18.51	2	21.73	8	64.0	-	-	6	31.57	-	-
Infant Deaths (j)	6	37.03	11	101.85	7	19.77	4	81.63	3	55.5	6	65.21	10	80.0	-	-	10	52.63	-	-
Total Deaths (k)	38	7.57	28	11.10	64	5.22	11	4.92	16	7.82	12	6.85	27	7.82	1	2.54	47	8.75	4	5.84
Deaths in Hosps. or N/S (l)	26	68.42	8	28.57	38	59.37	6	54.54	6	37.5	9	75.0	24	88.88	1	100	29	61.70	1	25.0
Natural Increase (m)	124	24.71	80	31.73	290	23.68	38	17.01	38	18.57	80	45.71	98	28.57	15	38.16	143	26.63	30	28.84

- (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)

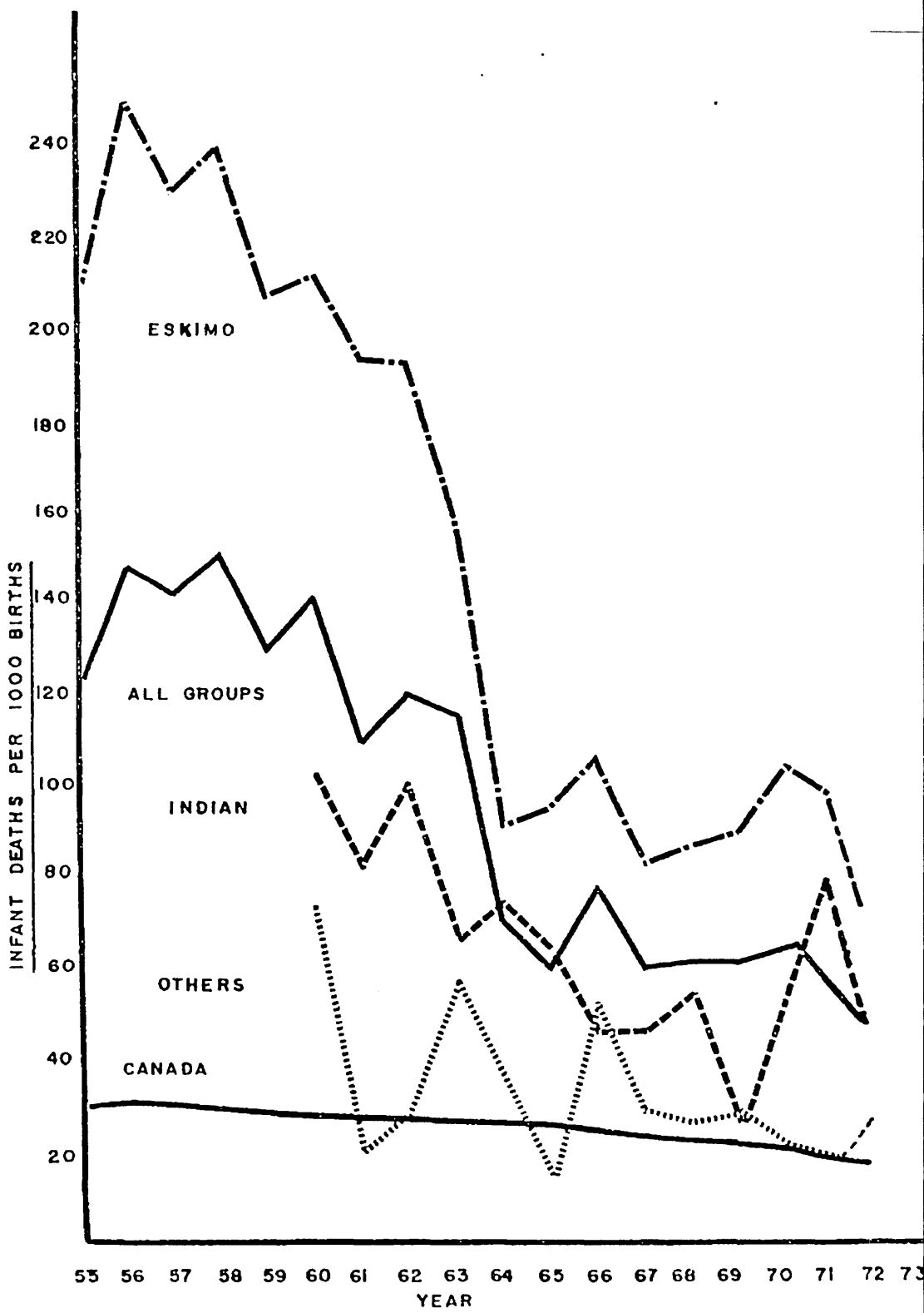
- (h) deaths 0-28 days per 1,000 live births
 (i) deaths 29-365 days per 1,000 live births
 (j) deaths under 1 year per 1,000 live births
 (k) crude death rate - deaths per 1,000 population
 (l) rate per 100 deaths
 (m) rate per 1,000 population

GRAPH 1
VITAL STATISTICS N.W.T.



GRAPH 2
INFANT MORTALITY RATE

N.W. T.



BIRTHS OUTSIDE THE TERRITORIES:

11.33% of all births occurred in hospitals outside of the N.W.T. 51 of these were to non-native mothers. As in previous years the majority of the native group were from the Keewatin Zone, as Churchill Hospital is the referral centre for this region.

DEATHS:

Tables I and II give details of the various death rates according to ethnic groups and zones and include comparisons with the previous two years.

CRUDE DEATH RATE:

The overall crude death rate, ie. the total deaths per 1000 population has fallen slightly to 6.88 from 8.48 in 1971. The decrease is evident as a reduction in the deaths of all groups spread over all age specific groups. Proportionally the fall is greatest amongst the infants under one year, which reflects an improvement in infant care.

Age Group	Indians		Eskimos		Others		All Groups	
	No.	%	No.	%	No.	%	No.	%
0 - 7 days	2	4.08	10	8.47	6	7.40	18	7.25
8 - 28 days	2	4.08	1	0.84	1	1.23	4	1.61
29 - 365 days	6	12.24	23	19.49	6	7.40	35	14.11
1 - 4 years	4	8.16	8	6.77	1	1.23	13	5.24
5 - 9 years	1	2.00	7	5.93	2	2.46	10	4.03
10 - 14 years	-	-	4	3.38	-	-	4	1.61
15 - 19 years	2	4.08	6	5.08	2	2.46	10	4.03
20 - 29 years	3	6.12	7	5.93	14	17.28	24	9.67
30 - 39 years	2	4.08	6	5.08	6	7.40	14	5.64
40 - 49 years	3	6.12	14	11.86	5	6.17	22	8.87
50 - 59 years	1	2.00	8	6.77	13	16.04	22	8.87
60+	23	46.93	24	20.33	25	30.86	72	29.03
TOTAL	49		118		81		248	

PLACE OF DEATH:

60% of all deaths occurred in either a hospital or nursing station. The ethnic distribution is as follows:

Indians - 65.3% Eskimos - 56.77% Others - 61.72%

MATERNAL DEATHS:

There were two maternal deaths during 1972, one Indian and one Eskimo.

PERINATAL DEATHS (0-7 days plus stillbirths)

This rate decreased for both the native groups, falling 15 points for Indians and 3 points for Eskimos. It increased 10 points for "others".

NEONATAL MORTALITY (0-28 days)

The neonatal mortality rate decreased by 6 points for Indians, 10 points for Eskimos, but increased 12 points for "others".

POST NEONATAL MORTALITY (20-365 days)

From the 1971 level, the Indian rate has fallen by 25 points, the Eskimo rate fell 14 points, while the "other" rate rose by 4 points. The improvement in the ratio for the native groups lowers the N.W.T. rate in relation to that for Canada. However, at 29.8, it still reflects unfavourably with the Canadian rate of 5.3 being almost 6 times the national average.

INFANT DEATHS (under 1 year)

The N.W.T. infant mortality rate dropped by 10 points from the previous year, but at 48.5 compared with the national average for Canada of 18.8 it is still two and onehalf times as high as for Canada as a whole.

NATURAL INCREASE:

The natural increase was reduced for all three groups. However, it still, at 25.66, obstinately remains at two and one half times the national rate of 10.1.

CAUSE OF DEATH:

The major causes of death are listed below:

	<u>No. of Deaths</u>	<u>Percentage of Total Deaths</u>
Injuries, Accidents, Violence	75	30.24
Disease of Infancy, Prematurity and Malformations	21	8.40
Cardiovascular diseases	36	14.51
Pneumonia	37	14.92
Malignant Neoplasms	34	13.70
Senility, unknown and other diseases	10	4.03
Diseases of the Central Nervous System (Cerebral accidents, Non-Meningococcal Meningitis)	12	4.83
Gastrointestinal diseases (gastro- enteritis, ulcer of stomach and duodenum)	8	3.23

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

	Indians		Eskimos		Others		Total
	Male	Female	Male	Female	Male	Female	
Lung	-	-	3	2	5		10
Gastro-Intestinal	1	2	-	-	4	1	8
Prostate	1	-	-	-	-	-	1
Skin	-	-	1	-	-	-	1
Cervix Uterine	-	-	-	1	-	1	2
Parotid	-	-	1	-	-	-	1
Skeletal	-	-	-	-	-	1	1
Reticulo-Endothelial	-	-	-	2	-	1	3
Kidney	-	-	-	-	1	-	1
Generalized	-	-	1	1	-	3	5
Other				1			1
TOTAL	2	2	6	7	10	7	34

The number of deaths from injuries, accidents or violence increased only slightly from 1971. This category constitutes the greater proportion of deaths. Alcohol continues to contribute to the violent and accidental deaths.

In 1972 there has been a significant decrease in deaths due to prematurity and malformations. There have been more deaths due to pneumonia and malignant neoplasms.

DEATHS FROM ACCIDENTS, INJURIES, VIOLENCE, N.W.T. 1972

	<u>Indian</u>	<u>Eskimo</u>	<u>Other</u>	<u>Total</u>
Exposure	-	3	-	3
Drowning	2	5	8	15
Inhalation of gastric contents	1	-	2	3
Asphyxia	-	9	-	9
Suicide	1	4	3	8
Burns	1	4	1	6
Aircraft crashes (N.W.T. residents only)	-	-	3	3
Motor vehicle accidents	-	-	7	7
Poison (exclude alcohol)	-	-	2	2
Gunshot wounds (accidental)	1	2	-	3
Homicide	-	2	-	2
Alcohol poisoning	-	2	1	3
Others (falls, crushing)	3	-	2	5
Crib deaths	2	4	-	6
TOTAL	11	35	29	75

TABLE III

NORTHWEST TERRITORIES

Causes of Death by Ethnic Group and Selected Age Groups 1972

Number of Deaths

CAUSES OF DEATH	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+	0-28 days	29-365	1-4 yrs	5-9 yrs	10-14 yrs	15-34 yrs		35-64 yrs	65+	0-28 days	29-365	1-4 yrs	5-9 yrs	10-14 yrs		15-34 yrs	35-64 yrs	65+
Injuries & Accidents (BE 47-50)	75	1	2	-	-	-	4	1	3	11	-	6	3	6	4	12	3	1	35	-	1	1	2	-	17	7	1	29
Diseases of Infancy & Malformations (B41-44)	21	1	-	2	-	-	-	-	-	3	9	3	-	-	-	-	-	-	12	5	1	-	-	-	-	-	-	6
Cardiovascular Diseases (B24-29)	36	-	1	-	-	-	-	1	8	10	-	-	1	-	-	-	5	4	10	-	-	-	-	-	2	5	9	16
Pneumonia (B31)	37	2	3	1	-	-	-	1	6	13	2	11	1	1	-	-	3	3	21	-	-	-	-	-	-	1	-	3
Malignant Neoplasms (B18)	34	-	-	-	-	-	-	4	-	4	-	-	1	-	-	1	10	1	13	-	-	-	-	-	-	14	3	17
Senility, Unknown & Other Diseases (B45-46)	10	-	-	-	-	-	1	-	2	3	-	-	1	-	-	-	2	1	4	-	-	-	-	-	-	1	2	3
Diseases of the Nervous System (B22-23)	12	-	1	-	-	-	-	-	1	2	-	-	-	-	-	2	1	4	7	1	-	-	-	-	-	2	-	3
Gastrointestinal Diseases (B33-36)	8	-	-	-	-	-	-	-	-	-	-	2	-	-	-	1	3	-	6	-	2	-	-	-	-	-	-	2
Other Respiratory Diseases (B30 & 32)	5	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	3	1	5	-	-	-	-	-	-	-	-	-
Infective & Parasitic Diseases (B3-17)	1	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-
Cirrhosis of Liver & Hyperplasia of Prostate (B37-39)	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	-	-	-	-	-	-	1	-	1
Benign Neoplasms	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	1	-	-	-	-	-	-	-	-	-
Others	6	-	-	1	-	-	1	-	1	3	-	-	-	-	-	1	-	2	1	-	1	-	-	-	-	-	-	1

MATERNAL AND CHILD HEALTH

Programs in this area have been reviewed, modified and expanded in a continued effort to reduce infant morbidity and mortality.

1. "At Risk" registers have been extended to include many vulnerable infants. Unfortunately confusion regarding criteria for the register exists. In 1973 utilization of "At Risk" registers will be reviewed.
2. The Perinatal and Infant Morbidity and Mortality Committee have commenced a study of all births of the Northwest Territories' residents occurring in 1973. In 1972 the method for collecting data on the prenatal period, the birth and the health for the first year of life was established. It is hoped that analysis of this data will identify factors contributing to our high infant morbidity and mortality rate so that preventive and corrective action can be taken.
3. The special infant health project at Eskimo Point which augments traditional public health services has been introduced in all Keewatin settlements except the Belcher Islands. Statistics collected in June 1972 at Eskimo Point have little value in themselves as the population is too small. However, the morbidity rate is lower during the project than prior to its introduction. Attempts to institute effective programs in other settlements depend on utilization of lay workers.
4. Family Planning counselling continues to be part of maternal health care. All facilities have birth control supplies. The Northwest Territories' Family Planning Association conducted, in June 1972, a seminar with representatives from across the Northwest Territories attending. Northern Health Services has co-operated with the Northwest Territories' Family Planning Association in all its endeavors and assisted at training sessions for counsellors.
5. Well Baby Clinics continue to be held regularly at all units for counselling on nutrition, baby care and immunization. Infants under a year old receive protection from the following diseases: tuberculosis, diphtheria, whooping cough, polio, tetanus and red measles. During their preschool years they receive a booster dose of protection for diphtheria, whooping cough, polio and tetanus. In addition, they receive immunization against smallpox and German measles.

NURSING COVERAGE

During 1972, we continue to meet crises in maintaining adequate nursing coverage. The accompanying table reflects the high turnover of nursing staff in the North.

It is not expected that nurses will remain in their post for years, however, in some Zones, turnover has been excessive. There is an insufficient number of qualified nurses interested in working in the North to facilitate easy recruitment.

Zone	Number of Position	Vacancies Dec.31/72	Terminated in 1972	Hired 1972	% of Turnover
Baffin Field	32	9	10	8	25%
Frobisher Bay Hospital	16	3	15	16	100%
Inuvik Field	21	2	9	10	49%
Inuvik Hosp.	28	3	15	16	57%
Keewatin	15	3	6	6	40%
Mackenzie	34	6	10	9	26%

New nursing positions were created at Inuvik Health Centre, Fort Rae Health Centre, Pangnirtung and Norman Wells.

The clinical training courses for nurses at 5 universities began in 1972. A total of 18 nurses on Northern Region's staff attended. These nurses were all located in the Northwest Territories. This represents about 25% of those positions which can utilize this type of clinical training. These courses emphasize diagnosis and treatment. More emphasis needs to be placed on upgrading public health knowledge, especially as the one year diploma course in public health is being phased out of university programs.

SCHOOL HEALTH:

Most school beginners were given physicals by either the physician or the nurse in 1972. Children in grades six and ten are examined by the nurse and if abnormalities are found, are referred to the doctor. Nurse-Teacher Conferences are held at regular intervals with individual teachers to discuss health, social and behaviour problems of the students. The nurse serves as a resource person for the teachers in subjects relating to health.

The present monthly report will be revised in 1973, resulting hopefully, in more accurate statistics regarding the school health program.

Our Health Educator has worked with the Department of Education of the N.W.T. Government to assist in the formulation of a health curriculum for schools in the N.W.T. During 1973, there has been discussion re incorporating health topics into the course on family life education.

PUBLIC SERVICE HEALTH:

An occupational health program for public servants, Territorial and Federal is in operation. Pre-employment, and special medical examinations are being undertaken on a regular basis. The information is recorded by Health Data Information Services.

TREATMENT SERVICES

OUTPATIENT SERVICES - NURSING STATIONS

All nursing stations operate daily sick clinics in addition to public health services. During sick clinics, a wide variety of conditions are diagnosed and treated. The most frequently seen are skin infections, upper respiratory infections and irritation of the gastro-intestinal tract.

INPATIENT SERVICES:

Admissions to nursing stations are limited to those patients with short term acute illnesses which respond readily to treatment, patients awaiting evacuation to a larger medical centre and deliveries. The following figures represent inpatients in nursing stations in the respective Zones.

Baffin Zone -	455
Keewatin Zone -	615
Inuvik Zone -	403
Mackenzie Zone -	1112

PUBLIC HEALTH SERVICES

The Health Data Bank and Information system which was established in the N.W.T. in 1971 has, so far, not been very effective in providing information concerning health events. Problems apparent so far appear to be no more than "teething troubles" and it is expected that in the near future, the system will provide a most useful vehicle for the assessment of the Health Status of the population and also for the planning and evaluation of programs.

MEDICAL SERVICES

There was some difficulty during 1972 in maintaining a full complement of medical officers in the field. Vacancies which occurred were not always easily filled and on occasions, a series of short term locums had to be employed to achieve medical coverage. Inuvik Hospital and Cambridge Bay Nursing Station required a number of such locums to maintain service. It is recognized that this is far from an ideal pattern of staffing and one which militates against the provision of high quality care.

Departmental physicians continue to "turn over" at faster rate than desirable, the average length of stay in 1972 being 2 years, 4 months. This compares favourably with the previous year. There was a further increment in physicians salaries during the year which it is hoped, may bring about an even greater improvement in recruiting.

The Northern Scholarship Program became operative from the 1st of December. This scheme enables certain categories of health workers, which includes physicians, in designated posts to give two years satisfactory service in the North after which he will be enabled to take one year's education at full pay with no requirement to return to employment with the health service.

There are now 15 private medical practitioners in the N.W.T. an increase of three over 1971. These doctors are located at Yellowknife, Fort Smith, Hay River and Frobisher Bay. As of the 1st of August, two practitioners who had previously been on contract at Frobisher Bay Hospital entered into an agreement to provide medical services as private practitioners; this to be initially on a trial basis. The system will need careful evaluation at the end of a reasonable period before it is regarded as permanently acceptable.

As in previous years, consultant visits by specialists from a number of universities added to the volume and quality of services available. During 1972, negotiations were conducted with two universities to ensure the maintenance of such specialty visits. There is a limit to the duration and frequency of such visits which is largely imposed by the accommodation problem at some of the smaller settlements.

FACILITIES

New facilities were placed in the following centres during the year:

BAFFIN ZONE:

- | | |
|--------------------------------|--|
| Frobisher Bay General Hospital | - extension for new x-ray equipment |
| Resolute Bay | - assembly of prefabricated garage |
| Pangnirtung | - relocation and renovation of trailers for an interim nursing station |
| Clyde River | - take-over and occupancy of nursing station |
| Broughton Island | - take-over and occupancy of nursing station |

INUVIK ZONE:

- | | |
|-------------------------|---|
| Inuvik General Hospital | - completion of plans for expansion |
| Inuvik General Hospital | - fire alarm renovation |
| Public Health Trailer | - relocation |
| Tuktoyaktuk | - completion of renovation contract D.P.W |
| Fort Good Hope | - garage |
| Fort Norman | - sewage up-grade and major repairs |
| Norman Wells | - take-over of nursing station from Imperial Oil Ltd. |

MACKENZIE ZONE:

- | | |
|---------------|--|
| Fort Simpson | - completion of general hospital
- clinic converted to staff quarters |
| Gjoa Haven | - roof repairs |
| Pelly Bay | - relocation, addition and renovation of nursing station |
| Nahanni Butte | - construction of health clinic |
| Spence Bay | - completion of renovations |
| Fort Wrigley | - Major repairs |

DENTAL SERVICES

Dental treatment services were provided at Government clinics situated in Baffin, Keewatin and Inuvik Zones. As in previous years we experienced a high turn-over rate of dental personnel. Seventeen dentists were employed by the Department for varying lengths of time. A dental nurse therapist joined the Department in June to work at Inuvik and at year's end seven dentists remained in our employ, two at Frobisher Bay, two at Churchill, and three at Inuvik. Dental treatment in the Mackenzie Zone was again provided by private dental practitioners resident in Fort Smith, Yellowknife, and Hay River. With the exception of Igloolik all communities in the Northwest Territories received at least one visit by a dentist during the year.

Our records demonstrate that in Baffin, Keewatin and Inuvik zones Departmental dentists received in the neighborhood of 20,000 individual visits from patients. A variety of dental treatment services were provided, but as in former years emphasis was directed to younger patients where need is greatest. More than 7,000 patients received a dental examination. It was found necessary to remove in excess of 9,000 teeth and over 11,000 others were repaired.

The school for training dental nurse therapists is now well established at Fort Smith. Classes started in September with 20 students who enrolled in the two year training program.

This program is the first of its kind in North America and is specifically designed to meet the needs of the Canadian in the North.

The New School comprises a large 30 chair dental clinic, x-ray facilities, administrative offices, library and seminar-teaching rooms.

Applicants should have a grade 12 education. However, candidates who have left school with less than grade 12 education but have demonstrated that they are motivated to this type of career, enjoy working with people, and are dexterous, may be given an opportunity to participate in the program.

At the present time, there are 4 dentists on the staff and after a two year program, it is hoped that 8 to 10 students will graduate.

Dental therapists will function as highly trained and skilled dental operators, responsible to a dentist who will visit the dental clinic on a monthly basis.

DENTAL SERVICES (cont'd)

A major duty of the therapist is to act as a dental health educator concerned with the programs of the prevention and control of dental disease in the communities in which they live.

The concept of the dental therapist should allow residents of the Canadian Arctic and sub-Arctic to receive the benefits of sound dental care in an effective and economical way.

NOTIFIABLE DISEASES

It is gratifying once more to note the low incidence of rubella and rubeola which is due to the effective immunization of susceptible children.

The reported incidence of "influenza" has substantially decreased since 1972. Extreme caution is necessary in attributing any decrease to the program of inoculation which has been carried out. Influenza is difficult to diagnose except in time of epidemic, and many cases of non-specific respiratory tract infections are often counted with influenza statistics.

It is pleasing to note that the incidence of reported infectious hepatitis has decreased by 55%. Too much should not be read into this. Infectious hepatitis tends to be a cyclical condition occurring in epidemic form every 7-8 years and 1971 appears to have been a peak year.

While hepatitis is usually associated with poor hygiene, and overcrowding, inadequate sewage disposal and lack of an acceptable water supply also contribute to the condition.

The outbreak of a small family epidemic of typhoid in the fall caused a certain amount of concern. However, all the patients were related or visitors to each others homes, and while it was not possible to discover how the condition first started in the community, all the patients were satisfactorily accounted for in terms of close contact, which mediates the spread of this condition.

Bacillary dysentery is another condition which tends to arise when poor sanitation and water supply are associated with poor hygiene. The occurrence of 93 cases, although a reduction from the previous year, gives no cause for complacency.

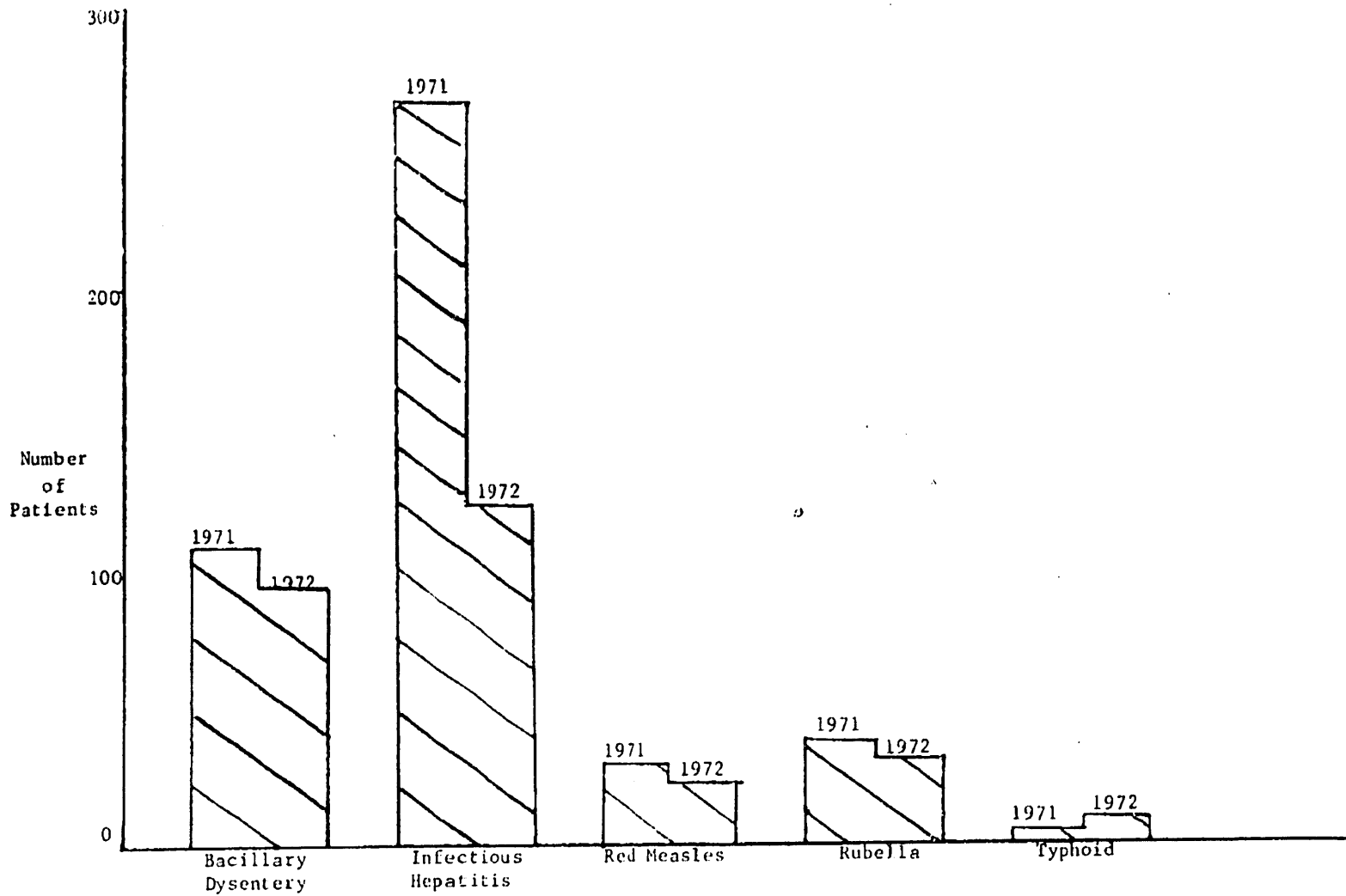
NOTIFIABLE DISEASES

Major notifiable diseases were recorded as follows:

	<u>1971</u>	<u>1972</u>
Typhoid Fever	1	6
Bacillary Dysentery	109	93
Diphtheria	-	1
Meningococcal Infection	3	4
Non-specific meningitis	9	6
Whooping Cough	8	1
Hepatitis, Infectious	268	122
Red Measles	29	22
Rubella	36	30
Influenza	3478	1591

The Zonal distribution of the following infections was:

Disease	Inuvik		Mackenzie		Keewatin		Baffin	
	1972	1971	1972	1971	1972	1971	1972	1971
German Measles (Rubella)	3	12	21	7	1	1	5	16
Red Measles	1	1	14	10	2	7	5	11
Influenza	391	1547	605	1185	396	619	199	127
Hepatitis, Infectious	33	132	87	136	1	NIL	1	10
Bacillary Dysentery	44	36	48	70	-	-	1	3



PRINCIPAL NOTIFIABLE DISEASES 1971 & 1972

VENEREAL DISEASE1. GONORRHOEA

There is an increase in the reported cases of gonorrhoea over 1971, these being 2147 cases notified for 1972 against 1804 for the previous year.

Gonorrhoea is highest in the 20-24 age group where, of the males, almost one in three is reported as having had the disease. It is noteworthy that in the age group 10-14 and 15-19 the rate among females exceeds that of males.

A trial of vaccine against gonorrhoea which was started at Inuvik is in the stages of evaluation. Unfortunately, the results to date are not encouraging.

Because there is some increase of resistance of the organism to penicillin, the dosage recommended has been raised and probenicid is recommended to be given half an hour before the antibiotic. For instances where penicillin is unsuitable or where the organism is resistant to penicillin, the new drug spectinomycin is being recommended as the treatment of choice.

2. SYPHILIS:

There were again 13 cases of confirmed syphilis reported in the N.W.T. in 1972. Apart from one case reported in the Keewatin Zone, all came from the Mackenzie Zone.

GONORRHOEA INCIDENCE:

The incidence of confirmed and clinical cases among the various groups of gonorrhoea was:

Indians	7061 per 100,000 population
Eskimos	5871 per 100,000 population
Others	2821 per 100,000 population
All Groups	4788 per 100,000 population

Confirmed cases are those where swabs or culture or serology as appropriate are shown by the laboratory to be positive. Clinical cases are those where the history and symptoms suggest the diagnosis but laboratory demonstration is lacking. Unconfirmed cases for statistical purposes include females with no reports or negative laboratory reports and a history of exposure, and males with negative laboratory reports and no clinical signs. If unconfirmed cases are added to clinical cases, the "probable" number of gonorrhoea cases is given.

Occurrence of gonorrhoea by "Zone"

	<u>1970</u>	<u>1971</u>	<u>1972</u>
INUVIK	237	354	529
MACKENZIE	627	869	921
KEEWATIN	70	105	97
BARFIN	<u>256</u>	<u>476</u>	<u>600</u>
	1190	1804	2147

Gonorrhoea occurrence by sex and ethnic group 1972 - Confirmed and Unconfirmed

	<u>Indian</u>		<u>Eskimo</u>		<u>Other</u>		<u>Total</u>		<u>Total</u>
	M	F	M	F	M	F	M	F	
N.W.T.	378	282	496	481	437	73	1311	836	2147

Gonorrhoea occurrence (proportional) by ethnic group (confirmed and unconfirmed)

	<u>Indian</u>	<u>Eskimo</u>	<u>Other</u>	<u>Total</u>
N.W.T.	30.74% (23.78% 1971)	45.50% (45.57% 1971)	23.76% (30.65% 1971)	2147

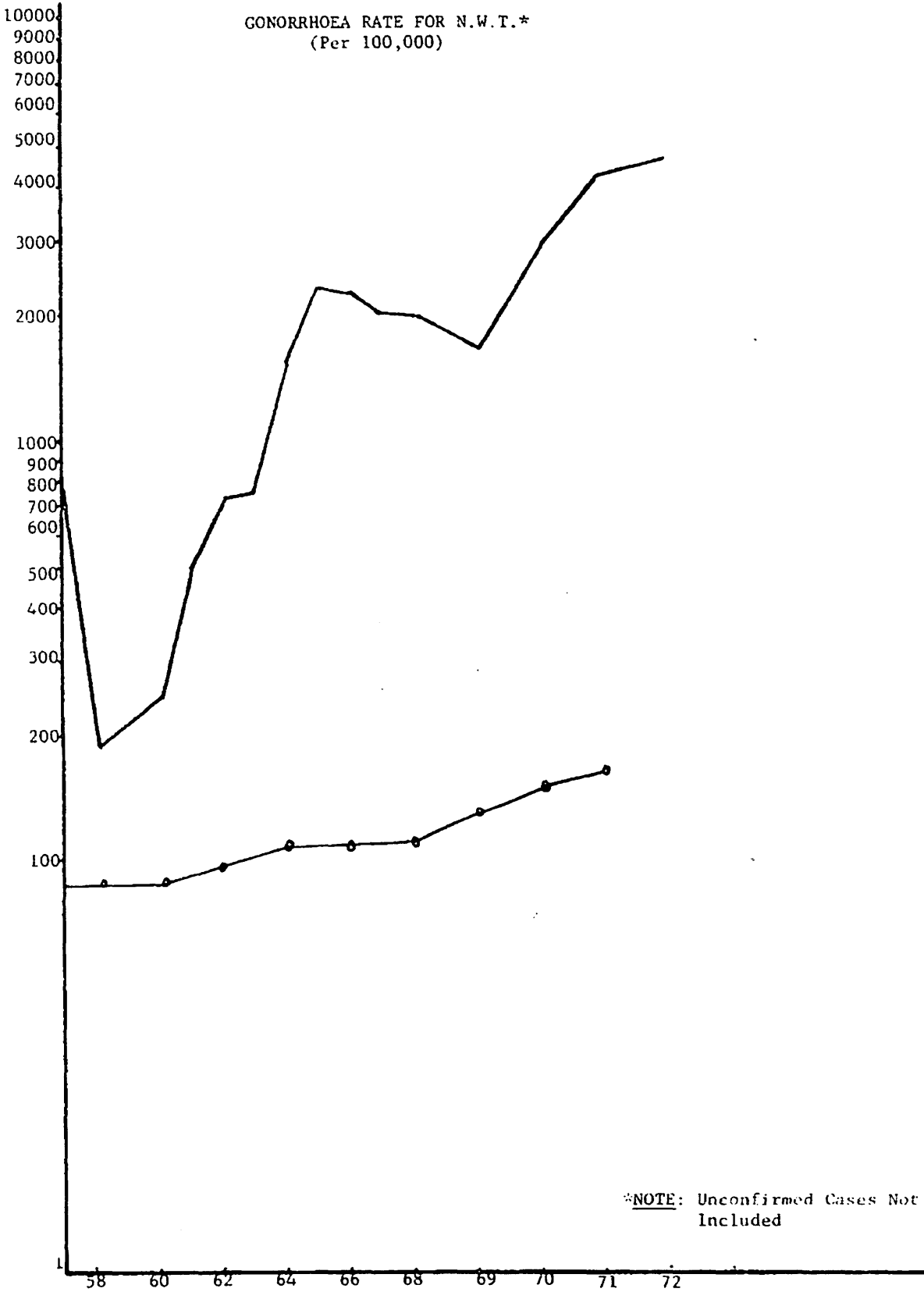
N.W.T. gonorrhoea incidence by sex and age group (all categories) Total

<u>1 - 4</u>		<u>5 - 9</u>		<u>10 - 14</u>		<u>15 - 19</u>		<u>20 - 24</u>		<u>25 - 29</u>		<u>30 - 39</u>		<u>40 - 59</u>		<u>60+</u>		<u>AGE?</u>	
M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
1		7		1	4	182	292	528	264	276	105	209	87	103	48	10	1	5	7
N.W.T. Totals: Males				1314															
N.W.T. Totals: Females				833															
TOTAL				2147															

GONORRHOEA: Confirmed and clinical cases. Unconfirmed cases not included.

Ethnic Group	Total by sex		Age Groups							Age Not Stated
			1-9	10-14	15-19	20-24	25-39	40-59	60+	
Indians	352	160	3	3	114	194	154	36	6	1
%			0.59	0.78	22.27	37.89	30.08	7.03	1.17	0.19
Eskimos	462	314	5	8	172	285	250	46	-	10
%			0.64	1.03	22.16	36.73	32.22	5.93	-	1.29
Others	386	52	-	-	53	165	170	46	1	3
%			-	-	12.10	37.67	38.81	10.50	0.23	0.69
Total 1726	1200	526	8	12	339	644	574	128	7	14
%	69.51	30.49	0.46	0.69	19.64	37.31	33.26	7.42	0.41	0.81

GONORRHOEA RATE FOR N.W.T.*
(Per 100,000)



A graph shown on a logarithmic scale indicates the proportionate rise or fall of incidence, eg. 1:2 and 500:1000 will appear on a logarithmic graph in similar proportions.

TUBERCULOSIS - NORTHWEST TERRITORIES 1972

The tuberculosis case finding activities in the Northwest Territories were carried out with the same intensity, among the native population, as in previous years. The result was a marked reduction in the number of new active cases of tuberculosis being found. Surveillance among the larger caucasian settlements was carried out on a more selective basis due to the low incidence of tuberculosis in this group.

There were 68 new and reactivated cases of tuberculosis reported in the calendar year 1972, a decrease of 27% from the previous year. This decrease provides a low rate of 195 per 100,000 which is the lowest in the history of Northern Region.

The case finding services of Northern Region provided 39,522 tuberculosis diagnostic procedures to residents of the Northwest Territories during the past year. These tests included mass chest x-ray examinations (13,313), stationary clinical examinations in departmental and non-departmental hospitals, nursing stations and health units (12,755), tuberculin testing surveys (5,955) and bacteriological tests (7,529). Stationary clinics continue to find the highest number of active tuberculosis cases.

In addition to those activities already mentioned, a program of contact tracing and follow-up of previously diagnosed cases of tuberculosis has taken precedence in the overall program of tuberculosis control.

The continuance of the domiciliary drug program as a preventative measure has played an important role in reducing the incidence of new and reactivated cases and has stopped the spread of tuberculosis in the North. There are currently 1,483 people on antituberculosis preventative drug treatment.

It can be readily seen that the decrease in the number of active cases found is a result of many activities. While the incidence of tuberculosis has descended to an all-time low there continues to be a high ratio of pulmonary tuberculosis cases who are infectious (82%) necessitating continued surveillance in high incidence areas and, at the same time, continuation of our activities to locate new cases in unsuspected areas.

COMMUNITY X-RAY SURVEYS:

The mobile chest x-ray unit examined 13,313 persons during the year 1972. Clinics were conducted at 40 settlements and the results were 15 active cases found. While the chief concern of the mobile chest clinic is to detect tuberculosis, mention must be made of additional benefits that arise through the finding of many significant non-tuberculosis pulmonary conditions that are discovered. Based on the 13,313 persons examined, in addition to the 18 cases of active tuberculosis found, 3,340 previously diagnosed tuberculosis cases were re-examined and diagnosed as inactive. There were also 214 non-tuberculosis abnormalities of the lungs and heart detected. This represents a figure of one abnormality found per 62 x-rays which points out the value of such a service to the community.

BACTERIOLOGICAL TESTS:

Bacteriological tests play a vital role towards the eradication of tuberculosis. A program of routinely obtaining sputums at least once a year from those persons showing radiological scarring and combining sputum surveys with x-ray surveys in high incidence areas has produced 18 active cases of tuberculosis which, on radiological examination, showed no appreciable change from previous films. Positive bacteriological findings were reported in 82% of the active pulmonary tuberculosis cases found in 1972.

TUBERCULIN TESTS:

The tuberculin test is a valuable tool in the control of tuberculosis. The tuberculin test is being used as a diagnostic aid to detect tuberculous infection and to determine the prevalence of tuberculous infection in the community. In addition, it is useful in establishing priorities to carry out related control programs such as x-ray surveys and anti-tuberculosis prophylactic drug programs. The objective of Chronic Disease Control is to tuberculin test annually pre-school and school age children who have a tuberculin reaction of 9-mm or less. As a result, 5,955 tuberculin tests were carried out, of which 28 percent converters were identified and placed on anti-tuberculosis drugs.

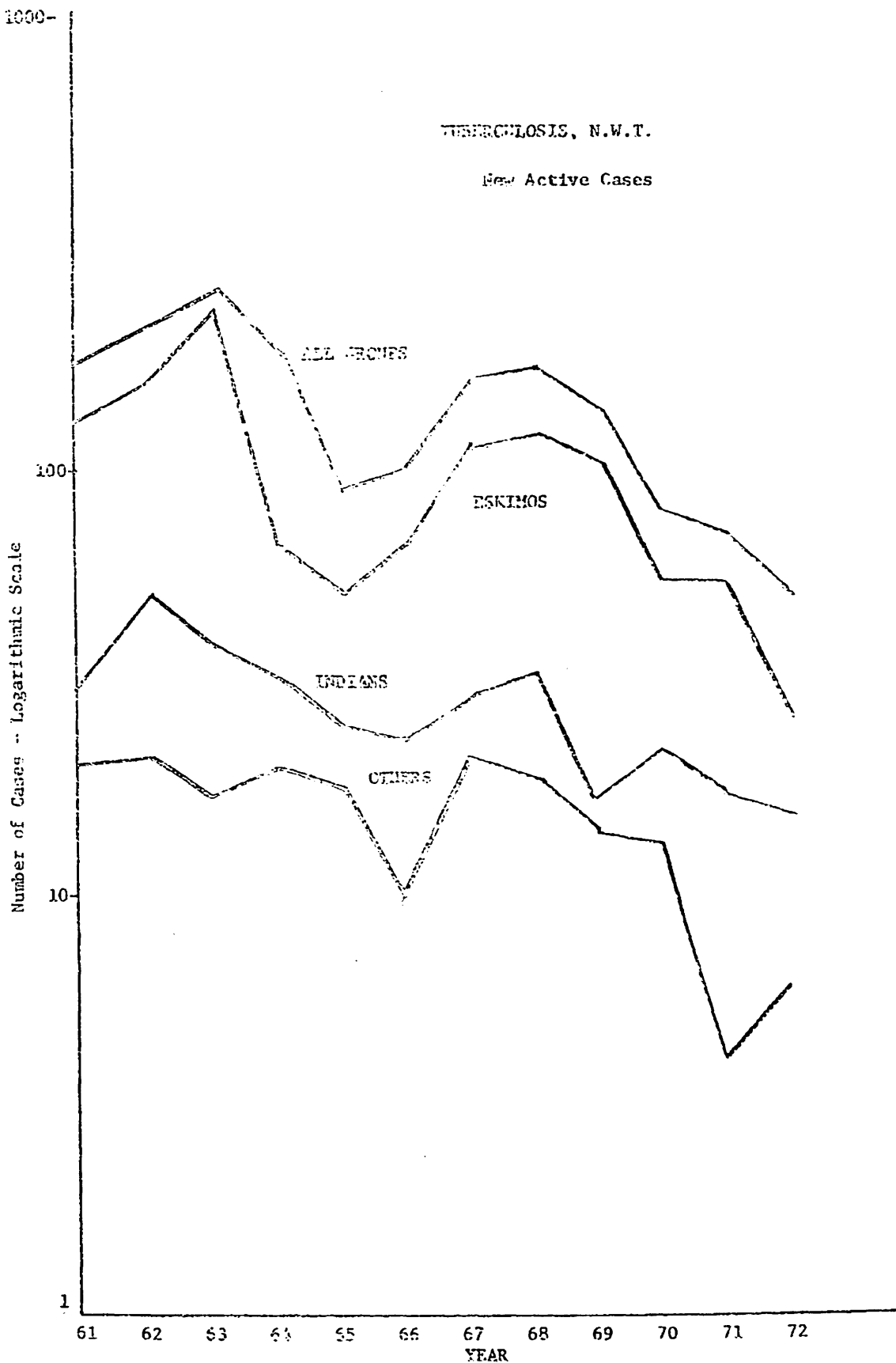
REACTIVATED TUBERCULOSIS CASES:

The reactivation of tuberculosis among the native people of the Northwest Territories remains relatively high. Of the 68 cases in 1972, 20 were reactivations (29%). In review of their records, it is interesting to note that 18 of the 20 reactivation cases had inadequate treatment on the first admission. It is, therefore, logical to assume that if the infected and infectious cases are treated with a sufficient number of drugs for a period of 18 to 24 months the new and reactivated cases could be reduced to an acceptable rate.

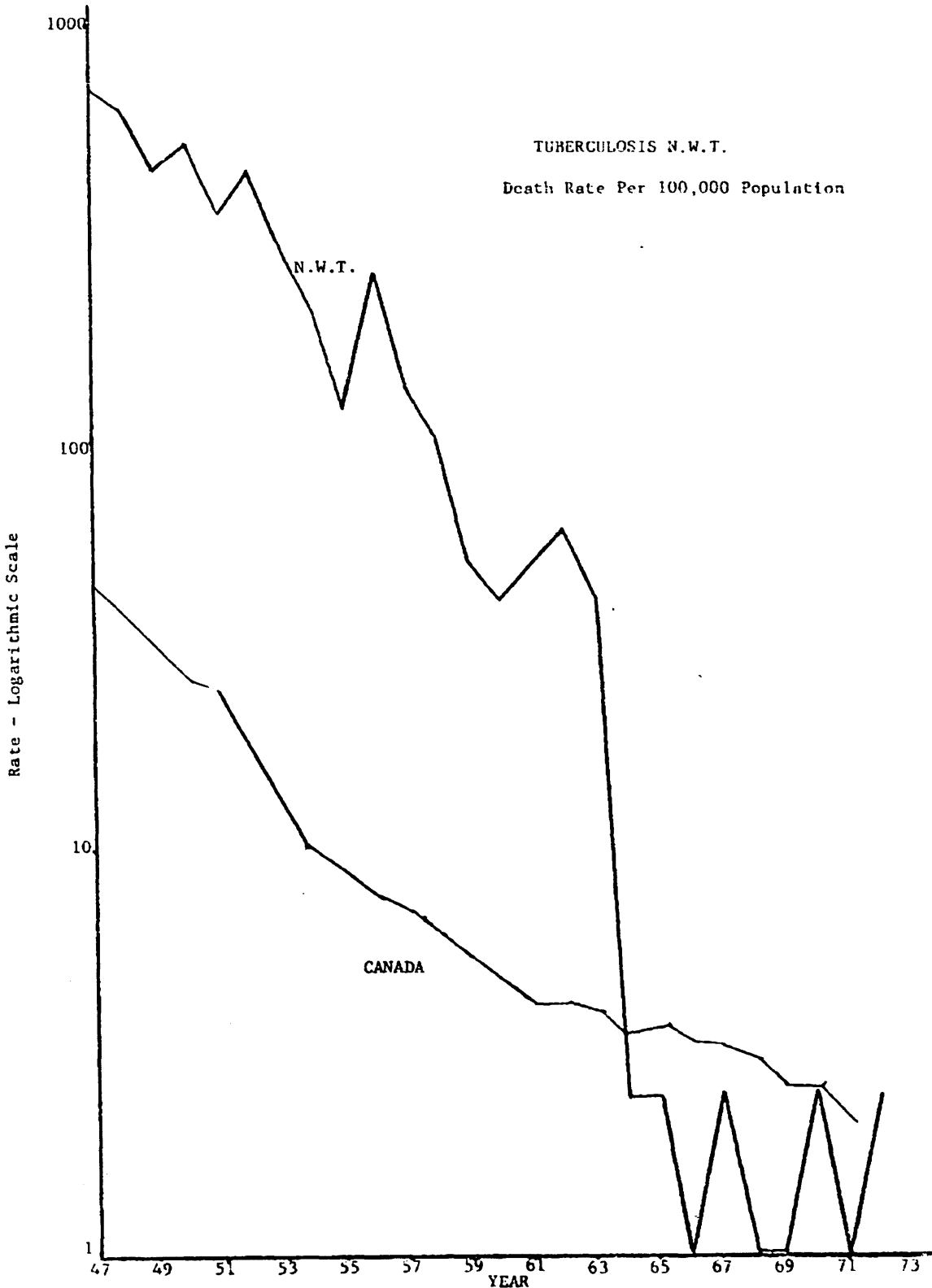
TUBERCULOSIS MORTALITY:

There was one tuberculosis death reported during the year 1972. The reported case is a 77-year-old native woman who had been treated in hospital on three different admissions and was resistant to the three first line drugs. She developed hemoptysis and expired shortly thereafter.

The following tables illustrate the incidence of tuberculosis in the Northwest Territories in 1972.



A graph shown on a logarithmic scale indicates the proportionate rise or fall of incidence, eg. 1:2 and 500:1000 will appear on a logarithmic graph in similar proportions.



A graph shown on a logarithmic scale indicates the proportionate rise or fall of incidence, eg. 1:2 and 500:1000 will appear on a logarithmic scale in similar proportions.

NORTHWEST TERRITORIES - 1972

	FAR ADVANCED	MODERATELY ADVANCED	MINIMAL	PRIMARY	PLEURISY	EXTRA- PULMONARY	TOTAL
NEW CASES	-	15	21	7	1	4	48
% OF TOTAL	-	31.2%	43.8%	14.6%	2.1%	8.3%	
REACTIVATED CASES	-	12	6	-	-	2	20
% OF TOTAL	-	60.0%	30.0%	-	-	10.0%	

TUBERCULOSIS ACTIVITY REPORT

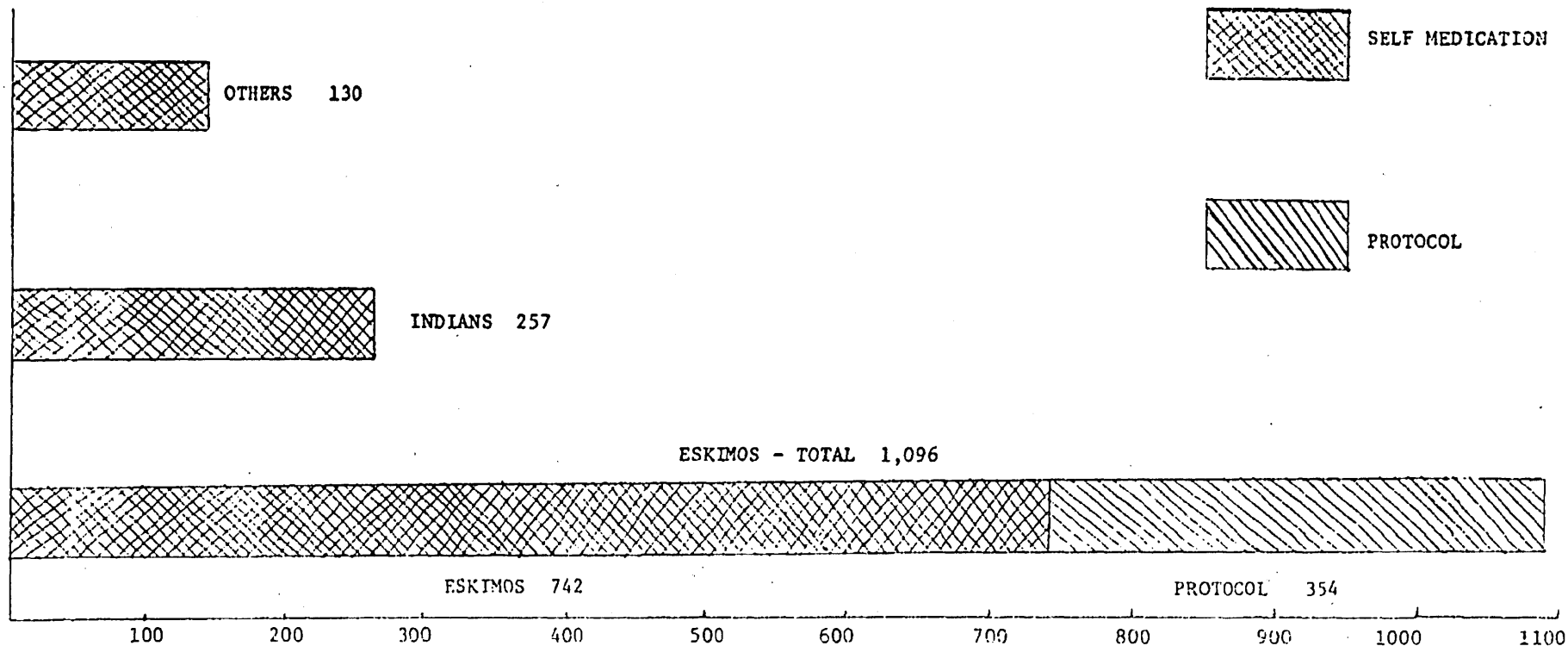
NORTHWEST TERRITORIES - 1972

ETHNIC GROUP	INDIANS			ESKIMOS			OTHERS			ALL GROUPS		
	1972	1971	1970	1972	1971	1970	1972	1971	1970	1972	1971	1970
POPULATION	7,089	7,009	6,399	12,919	13,077	11,619	14,799	18,000	14,322	34,807	36,562	32,340
NEW ACTIVE CASES	15	17	22	27	52	52	6	4	13	48	73	87
INCIDENCE	0.21	0.24	0.34	0.21	0.39	0.44	0.04	0.02	0.09	.01	.02	0.26
REACTIVATED CASES	4	4	3	16	13	20	-	3	4	20	20	27
CASES ON HOME CHEMOTHERAPY										1,477	1,664	849
TUBERCULIN TESTS										5,955	7,325	11,213
B.C.G.										2,529	1,150	1,218
NO. OF X-RAY SURVEY FILMS										13,313	37,445	22,765
NO. OF REFERRED FILMS										12,755	12,320	11,552
BACTERIOLOGY TESTS										*7,529	7,612	13,485

* 7,529 - This figure is the number of people as compared to the number of sputa collected in 1971 and 1970 reports.

The populations shown on this graph was derived from the chronic disease control computer which differed from the more recently calculated population given on page 1.

TREATMENT AT HOME
PREVENTION OF TUBERCULOSIS (CHEMOPROPHYLAXIS)
NORTH WEST TERRITORIES
DECEMBER 31, 1972



NEW AND RE-ACTIVATED CASES OF TUBERCULOSIS

BY AGE, SEX AND RACIAL ORIGIN

NORTHWEST TERRITORIES - 1972

AGE GROUP	TOTAL			INDIANS			ESKIMOS			OTHERS		
	T	M	F	T	M	F	T	M	F	T	M	F
0 - 4												
5 - 9	6	4	2	5	3	2	1	1				
10 - 14	2		2	1		1	1		1			
15 - 19	3	2	1				3	2	1			
20 - 24	6	2	4				5	2	3	1		1
25 - 29	6	2	4	1		1	4	2	2	1		1
30 - 49	31	17	14	9	3	6	19	11	8	3	3	
50 - 69	10	5	5	2	1	1	8	4	4			
70 - Over	4	3	1	1		1	2	2		1	1	
TOTAL	68	35	33	19	7	12	43	24	19	6	4	2

BACTERIOLOGICAL STATUSOF NEW AND RE-ACTIVATED TUBERCULOSIS CASESNORTHWEST TERRITORIES - 1972

	DIRECT SMEAR		CULTURE		BIOPSY		NON-BACILLARY	
	NEW	RE-ACT	NEW	RE-ACT	NEW	RE-ACT	NEW	RE-ACT
Indians	4	1	10	3			1	
Eskimos	3	6	18	7	2		4	3
Others	1		3		1		1	
TOTAL	8	7	31	10	3		6	3

DISTRIBUTION OF NEW AND REACTIVATED TUBERCULOSIS CASES - 1972

HEALTH DISTRICT	INDIANS		ESKIMOS		OTHERS		TOTAL		RECENT CONVER- TERS
	NEW	RE-ACT	NEW	RE-ACT	NEW	RE-ACT	NEW	RE-ACT	
Eskimo Point			1	1			1	1	
Whale Cove			1				1		
Baker Lake			2				2		
Rankin Inlet									
Chesterfield Inlet				1				1	1
Coral Harbour			1	1			1	1	
Repulse Bay			2				2		9
Fort Churchill				1				1	
Belcher Islands									
TOTAL KEEWATIN ZONE			7	4			7	4	10
Arctic Bay			2				2		1
Clyde River			3				3		
Crise Fiord									
Igloodik			1				1		
Pond Inlet				1				1	
Pangnirtung			1				1		
Broughton Island									
Cape Dorset			3	1			3	1	
Frobisher Bay			5	6			5	6	7
Lake Harbour			2	1			2	1	
Hall Beach				1				1	
Fort Burwell									
Resolute Bay									
TOTAL BAFFIN ZONE			17	10			17	10	8
Tuktoyaktuk									
Inuvik			1		1		2		
Aklavik									
Fort McPherson									
Fort Good Hope	1						1		1
Fort Norman	1						1		
Fort Franklin									
Arctic Red River	1						1		
Norman Wells									
TOTAL INUVIK ZONE	3		1		1		5		1
Cambridge Bay				1				1	
Coppermine			1	1			1	1	
Holman Island									
Spence Bay			1				1		1
Gjoa Haven									
Fort Simpson					1		1		
Fort Liard	1						1		
Fort Wrigley	1	1					1	1	1
Fort Resolution					1		1		
Fort Smith					1		1		
Hay River		1			1		1	1	
Fort Providence	2						2		
Fort Rae	7	2					7	2	2
Snowdrift									1
Yellowknife	1				1		2		2
Pelly Bay									
TOTAL MACKENZIE ZONE	12	4	2	2	5		19	6	7

MENTAL HEALTHSTAFFING:

1972 saw two staffing appointments in the area of mental health. A Mental Health Consultant for Northern Region was appointed and a Zone Psychologist for the Mackenzie Zone was also appointed and took up residence in Yellowknife. The Zone Psychologist, Mackenzie Zone provided psychological consultation to the local doctors in Yellowknife and the nurses and doctors in the outlying areas of the Zone as well as consultation services to the Correctional Institute and to the Education Department and Department of Social Development. The Mental Health Specialist with Northern Region will aid in the planning of a comprehensive and effective Mental Health Program for the N.W.T.

VISITING CONSULTANTS:

In 1972 visiting psychiatric personnel made 48 visits to communities in the N.W.T. These visits were largely by agreement with selected Universities in southern Canada, although in some cases the arrangement of the visit was a private one between Northern Health Services and the individual consultant. Universities involved were the University of Alberta, University of Manitoba and the University of Toronto in conjunction with Clarke Institute. Preliminary discussions were held with the University of Toronto regarding an expansion of visiting psychiatric services to Baffin Zone and it is planned that this expanded service will go into effect in 1973.

MENTAL HEALTH STATISTICSADMISSIONS TO MENTAL HOSPITALS:

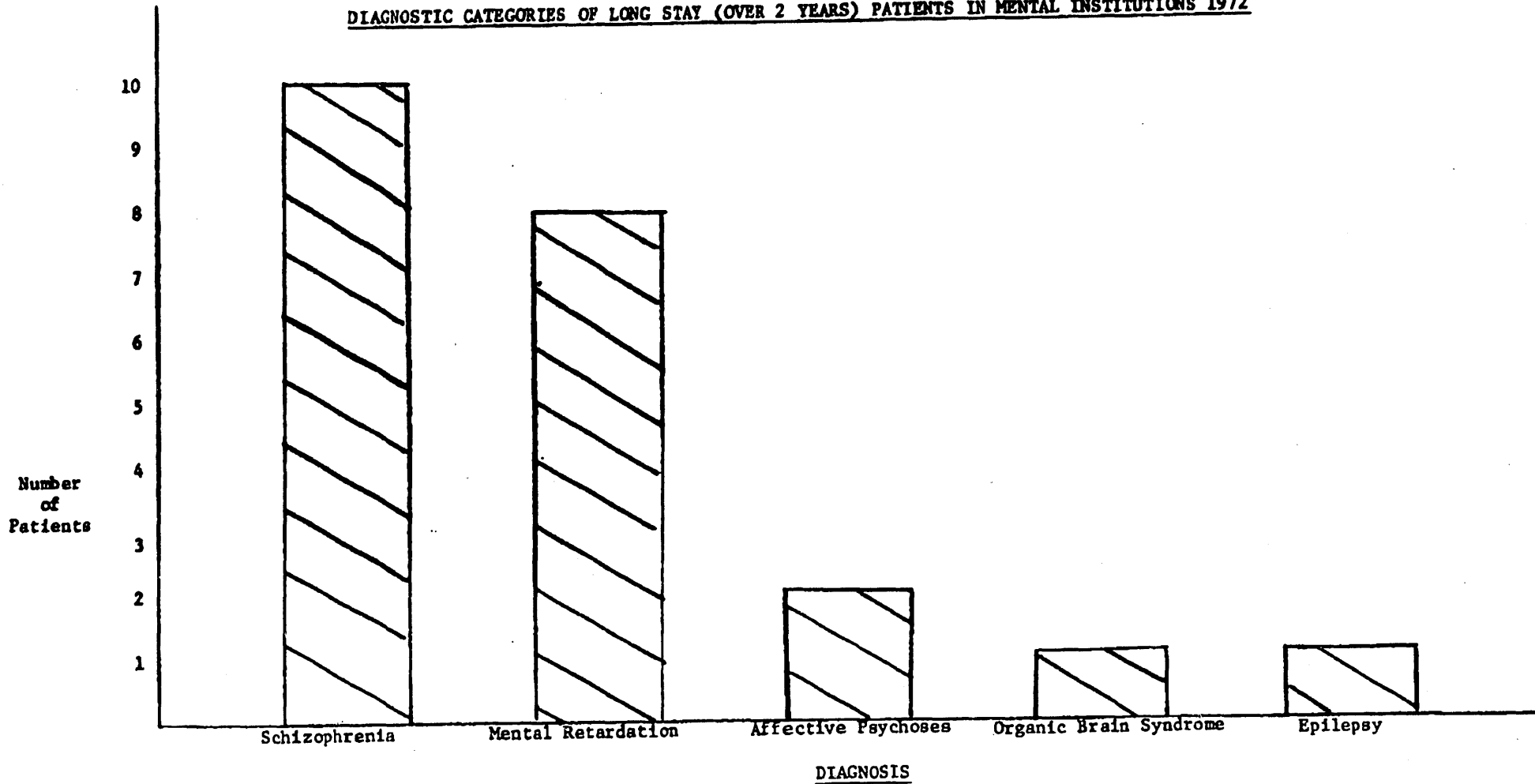
During 1972 a total of 50 patients were evacuated from the N.W.T. to mental hospitals in the south. This figure is approximately the same as in 1971 when 47 people were evacuated. Native status patients accounted for approximately 30% of the evacuations and non-native for the remaining 70%. This is in marked contrast to the figures for long stay patients in mental institutions in the south where the percentages are almost exactly reversed, namely 31% of long stay patients being non-native and 69% being native. The diagnostic breakdown of the long stay patients (defined as

being in a mental hospital more than 2 years) shows a very heavy preponderance of 2 diagnoses namely schizophrenia and mental retardation. It is not entirely clear why the native patient referred to a mental institution in the south stands such a much higher chance of becoming a long stay patient. It could be that the native person evacuated is more seriously ill although a more likely explanation is that there are far greater problems in rehabilitation than for the white patient. This is particularly in view of the fact that the vast majority of white patients evacuated do not return to the north, but are integrated into the city communities in the south.

SUICIDES:

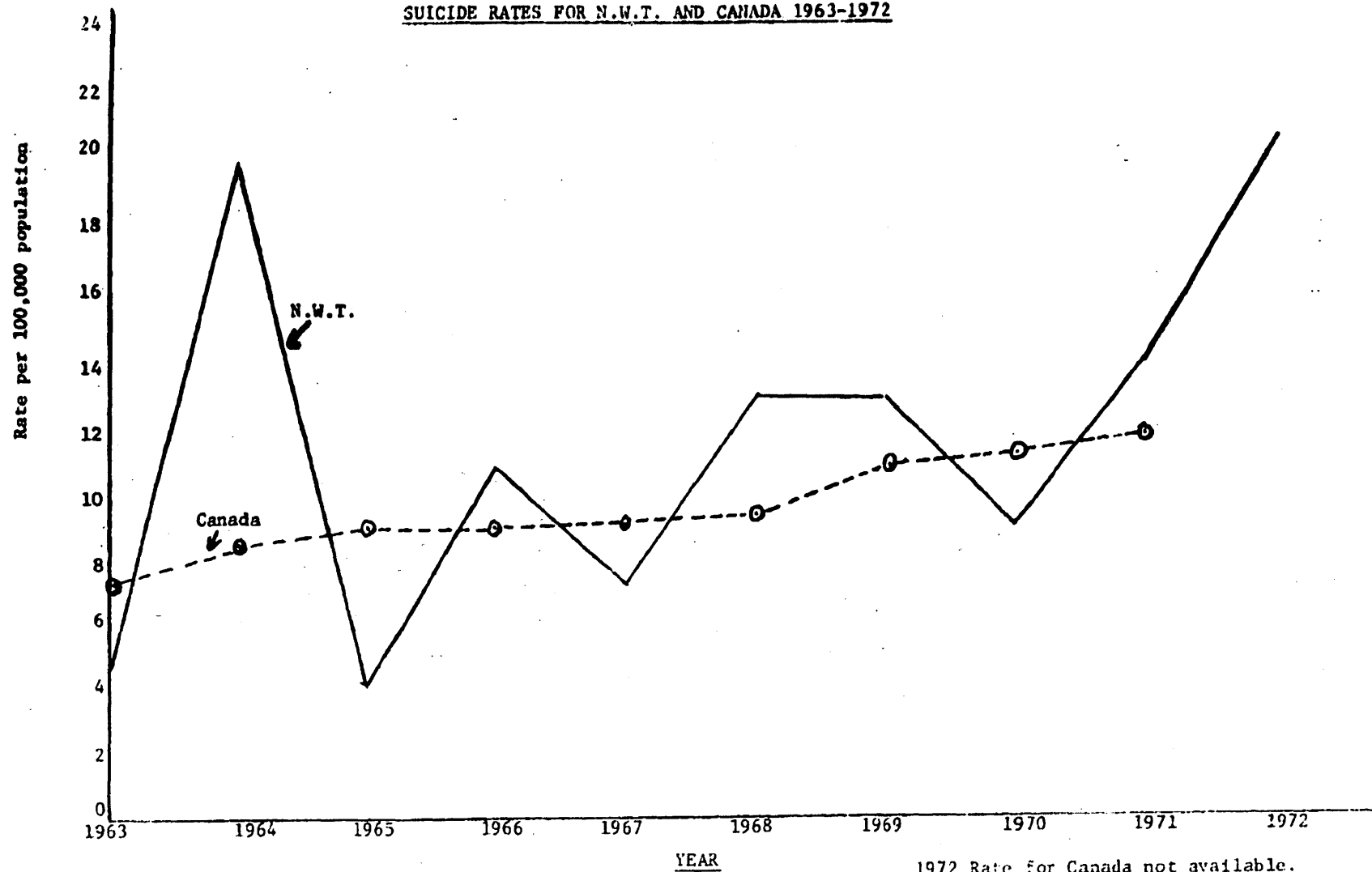
It is generally believed that the suicide rate in the N.W.T. is far higher than the national average. However, the accompanying graph would not bear out such an assumption. Over the years there has been a fluctuating rate but overall, the rate is fairly close to the national figure. During 1972, there were 8 suicides, 1 poisoning and 7 fire arm suicides. The high preponderance of fire arm suicides is certainly at variance with the national figures, but can be probably most readily explainable on the basis of availability of fire arms in the north and the relative unavailability of other means of suicide such as overdose of medication. It is particularly noteworthy that in 1972 only 1 of the 8 suicides involved a person of Indian status. This suicide, in fact, was the first suicide recorded in the period 1959 to 1972. In the same period, 16 suicides were recorded in persons of Eskimo status and 30 in persons of white status. This disparity in the incidence of suicide among different ethnic groups is of obscure etiology at this point in time and would appear to warrant further investigation. A note of caution should be sounded that in assessing any rate for suicide in the N.W.T., we are dealing with extremely small numbers.

DIAGNOSTIC CATEGORIES OF LONG STAY (OVER 2 YEARS) PATIENTS IN MENTAL INSTITUTIONS 1972



Where persons have been ascribed more than one diagnosis, they have been included in only one group. The figures represent the total number of persons affected.

SUICIDE RATES FOR N.W.T. AND CANADA 1963-1972



HEALTH EDUCATION ACTIVITIES 1972

Every staff member of the Northern Health Service is a Health Educator to some degree. The support provided by a full time Health Educator was lacking for over a year. By March 1972, there was a replacement and a Zone Health Educator for Mackenzie Zone for the first time.

Northern Health Service education staff have as a goal that all people of the North shall take greater responsibility for their own health; and further, that native people should plan and produce their own programs as far as possible. To this end, the present health education program is designed:

- to assist Northern residents to increase their understanding of physical, mental and social health;
- to support them in increasing their responsibilities in this regard and helping them to identify and make known their needs;
- to work with them in evaluating their attempts to improve their health standards.

The new Health Educator visited all Zones to assess health education needs and resources, and also to meet the Community Workers. Assistance was given in planning the Inuvik Zone Nurses' Conference and this experience has produced a pattern which should be useful in similar future projects.

The areas selected for future effort include dental health (including the nutritional aspects), family planning, mental health (which also includes alcoholism), venereal disease, safe water and school health.

Specific projects include the production of a videotape in dental health with support materials, production of newspaper articles and radio programs; a news letter for Community Workers, reorganization of the film library and co-ordination of the health education aspects of school and adult education programs.

During the summer, an extensive tour was made by a Task Force appointed to study the Community Health Aid Program. Much of the co-ordination of the Task Force activity was undertaken by the Health Educator. Meetings were held throughout the Territory and discussion with interested native persons and groups was undertaken. The Task Force has produced a report making recommendations for the further development of the Health Auxiliaries Program.

NUTRITION ACTIVITIES 1972

Nutrition problems, and diseases influenced by nutritional status, tend to be intensified in isolated Northern Canada compared to the south. Factors affecting these problems are the rapidly changing way of life, conflict of cultures, paucity of nutrition information, lack of food variety, together with the cost of transportation and storage. Nutrition education and promotion, a vital part of the public health program, needs more planning and imagination, in the North than elsewhere.

Most nutrition education is carried out by nurses at the field level, counselling in their day to day work, and encouraging any local activities that might improve residents' nutritional status. This year, a nutrition workshop for field nurses was held in Inuvik Zone. The workshop clarified nutrition information, gave some nutrition education methodology, and generally created interest in nutrition. During 1972, the Regional Nutritionist worked with the nursing officers to encourage sound nutrition promotion and assist field nurses in that part of their public health activities.

Seven communities, Frobisher Bay, Pelly Bay, Eskimo Point, Coppermine, Yellowknife, Fort Smith and Whitehorse were surveyed by the National Nutrition Survey party from January to June 1972. Because of the publicity necessary to explain the survey on the radio, in newspapers and at meetings, much interest was created in nutrition. The survey results will probably be available late in 1973 and should be of great assistance in planning nutrition education and other promotional activities.

This year the Regional Nutritionist spent some time teaching at both the Fort Smith Dental Therapists' School and the Community Health Worker Training Program, Sardis, B.C. Community Health Workers in some areas have done a lot of nutrition education and it is felt that the dental therapists will be "nutrition counselling" as nutrition is so closely related to dental health.

The Department of Education, Government of the Northwest Territories' Home Management Specialists are involved in nutrition and money management education. Home Management Programs are active in Baffin and Keewatin regions and beginning in Fort Smith region. This

is an extension-type program where community leaders and native extension workers are being trained to lead education projects in the communities.

An encouraging development in the nutrition field is commercial harvesting of local food under the direction of the Department of Industry and Development. Now in certain parts of Northern Canada, persons who are not able to hunt can buy local meat.

The Nutritionist offered dietetic consulting services to six hospitals in Northern Region during 1972. Hostels, childrens' homes, senior citizens homes, correctional institutions were visited and the nutritional quality of the diet checked.

Institutions Visited by the Nutritionist in 1972

	<u>Number</u>	<u>Number Visited</u>
Hospitals	7	6
Correctional Institutes	2	2
Work Camps for Corrections	2	1
Hostels	12	8
Childrens' Homes	8	4
Senior Citizens' Homes	3	2

It is hoped that an intensified nutrition in-service education program can be carried out in 1973 for Medical Services' field staff.

MEDICAL RESEARCH

The following research projects were initiated, pursued or concluded by Northern Medical Research Unit during 1972:

1. Carbohydrate Metabolism

A study was concluded in 1972 on the normalization effect of preceding protein meals on the glucose tolerance and insulin response in Eskimos. This was presented to the IXth International Nutrition Congress and published in the Canadian Medical Association Journal. Briefly, a number of Eskimos who were not clinically diabetic were tested by giving a glucose solution to drink. They showed a response which would be expected from diabetic persons, but not from normal persons. The insulin output of these persons was the same as those showing a normal response to oral glucose.

This intolerance to oral glucose was related to a delay in the insulin response. A lean meat meal given before the oral glucose normalized the response of these persons to the glucose meal. This information is of importance in the investigation of sick Eskimos.

2. INH Metabolism in Indians and Eskimos

A study in the rate of INH metabolism was undertaken in co-operation with the TB Control Laboratory in Ottawa and published in the C.M.A.J. in February 1972.

This study showed that Canadian Eskimos all rapidly destroy INH when it is given to them as a drug in the control of tuberculosis while of the Indians studied, only 63.4% responded in the same way. Another study is being undertaken into the effectiveness of a slow release INH matrix preparation to keep up the blood level of the drug in individuals whose metabolism responds in this way. The results of the study may lead to a more effective home treatment for T.B. of these rapid INH inactivators.

3. A study of pulmonary functions of cardiological abnormalities in Eskimos related to Cold Air Exposure

This is an ongoing large project not yet concluded.

4. Sweat Gland Functions in Eskimos

There is significantly less sweating in the extremities and trunk, but more in the face when Eskimos are compared with Caucasians as controls.

5. There was continuing involvement with the International Biology Program Study of Human Adaptation of Circumpolar populations in investigations at Igloolik and Hall Beach.

PARASITOLOGY:

Further research was done into factors leading to amoebic disease.

Parasitological monitoring continued for patients admitted from the Northwest Territories to Charles Camsell Hospital.

The results of three years parasitology surveys show that in Indians and Eskimos from the Northwest Territories, the most serious protozoal infection is Giardia Lamblia which is found very commonly with at least one third of child admissions exhibiting the infection.

Giardia Lamblia is a parasite which infects the gut. Many persons having the condition show no symptoms or signs but some complain of abdominal distress and diarrhoea which may be severe. The organism is often found together with *Entamoeba histolytica* which causes amoebic dysentery.

Further research from the High Arctic is into parasitism with a small fish tapeworm which appears to be acquired from eating raw char, while further south in the Territories, infection with a large fish tapeworm derived from eating infected northern pike is being found less frequently.

Trichinosis from the consumption of infected bear or walrus meat occasionally produces a small outbreak of potentially dangerous disease. Cooking or deep freezing of this meat prior to consumption would render it perfectly safe.

The Northern Medical Research Unit, besides its routine task kept contact with Canadian and Foreign universities involved with the health of Northern and native populations. The unit advised Headquarters and other medical personnel on new findings and gave a number of lectures to Northern medical staff groups and Nurse Practitioner Programs.

The Research Unit was also involved in an advisory capacity and sometimes represented Northern Region on conferences dealing with the problems of Northern regions and native people. An active role was taken in planning the Infant Mortality and Morbidity Study and in the Soviet Canadian Science Exchange Program.