

**LEGISLATIVE ASSEMBLY OF THE
NORTHWEST TERRITORIES
6TH COUNCIL, 37TH SESSION**

TABLED DOCUMENT NO. 4-37

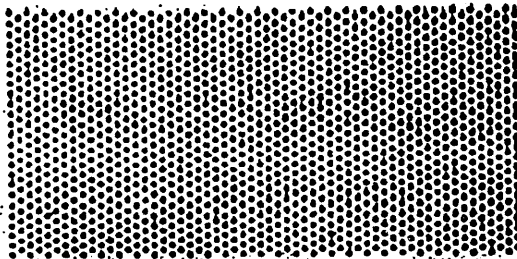
TABLED ON

JUNE 27, 1968

TABLED DOC. 4-37 Tabled on
June 27, 1968



REPORT
on
HEALTH CONDITIONS
In the
NORTHWEST TERRITORIES
1967



Northern Health Service
Department of National Health and Welfare
1968

REPORT ON HEALTH CONDITIONS IN THE NORTHWEST TERRITORIES 1967

SUMMARY

1. The population of the Territories is estimated at 5,763 Indians (19.7%), 10,278 Eskimos (35.1%) and 13,202 Others (45.2%) giving a total of 29,243 residents.
2. The birth rate for Others continued to decline while the birth rate for Indians and Eskimos are respectively 2.2 and 2.7 times the national rate of 19.4.
3. The overall crude death rate was 6.8 compared to the national rate of 7.5. The Eskimo crude rate fell from 12.6 in 1966 to 10.3 in 1967. 33.8% of the deaths were in children under one year of age.
4. The average age at death is gradually rising in all groups.
5. The overall Infant Mortality Rate percent is the lowest ever recorded and Eskimo rate fell from 108.8 in 1966 to 83.8 in 1967. There is no evidence that infant deaths occur more frequently in larger families.
6. The major causes of death were:

Injuries, Violence and Accidents	- 20.7%	of total deaths
Pneumonia	- 18.2%	" " "
Diseases of Infancy & Malfunctions	- 11.1%	" " "
Diseases of Nervous System	- 10.6%	" " "
Cardiovascular Disease	- 10.6%	" " "
Neoplasms (Cancer)	- 10.1%	" " "
7. Insured admissions to hospitals were up by 3.2% while insured patient days were down by 1.6%.
8. There was a 14% increase in active cases of Tuberculosis, partly due to better case-finding procedures, and 274 patients were in hospital at the end of the year.
9. 38 cases of Meningitis were reported.
10. The incidence of Gonorrhoea is still rising and 12 cases of Syphilis were reported.
11. Specialist visits were increased and Child Guidance teams visited all Zones.
12. A training course for Lay Dispensers was held at Inuvik during the year.
13. Fort Resolution Health Centre was converted to a Nursing Station by the addition of a trailer extension.

REPORT ON HEALTH CONDITIONS IN THE NORTHWEST TERRITORIES - 1967

INTRODUCTION:

In perusing this report, the reader should remember that while vital statistics are often the only true measure of our success or failure in the field of health, they must be interpreted with care, and consideration must be given to the fact that when dealing with small population groups a small number of births and deaths can markedly alter the rate and that moderate or even high annual changes in rates may not be statistically significant. It is for this reason that we cite numbers as well as rates in this report.

One must also keep in mind the following facts:

- (a) The population structure affects certain rates considerably, and as the Northwest Territories population is heavily weighted in the younger age groups, statistics on such items as average age at death must be interpreted accordingly.
- (b) In order to pin-point our problem areas we break down our statistics into ethnic groups and by doing so really separate them into social groups. Comparison of these data with those for all of Canada can be misleading as if we were to take a similar social group in southern Canada the variance would be much less marked.
- (c) In interpreting Vital Statistics on the non-native group in the Northwest Territories, we must remember that many of this group (Government and Company employees) are medically screened before being posted north, that they are in the middle age groupings where there is normally less disease and death and that they are evacuated to the south if their health deteriorates. On the other hand, included in this group are the Metis population, many of whom are at the lower end of the social scale, and living in very poor environmental and housing conditions with accompanying high rates of death and disease. Therefore, the interpretation of statistics in the group classed as "Others" is extremely difficult even when we are aware of the various factors influencing the data.
- (d) The Vital Statistics presented in this report are of a preliminary nature as they only include births and deaths which occurred in 1967 and which have been reported to the Registrar by March 17 1968. However, as we use approximately the same cutoff date each year this does not affect our comparison of annual preliminary rates to any great extent.

POPULATION:

A census was undertaken in 1966 by the Dominion Bureau of Statistics which showed the population of the Northwest Territories as 28,429. Unfortunately the figures were not broken down into ethnic groups. However, by using the Dominion Bureau of Statistics figures and figures from our Zones and Areas as to the number of Indians and Eskimos in each Health District, we have been able to come up with fairly accurate ethnic population figures for 1967. We estimate the 1967 population as follows:

	<u>Indians</u>	<u>Eskimos</u>	<u>Others</u>	<u>Total</u>
Number	5,763	10,278	13,202	29,243
Percent	19.7%	35.1%	45.2%	100%

VITAL STATISTICS:BIRTHS -

The birth rates per 1000 population for the different ethnic groups were as follows:

Indians - 42.3 Eskimos - 53.4 Others - 25.5 All Groups - 38.6

The birth rate for the non-native group has continued its decline while the birth rates for Indians and Eskimos are 2.2 and 2.7 times the national rate of 19.4 (1966).

The Territorial rate is double that of all Canada, but it reduced from 40 to 38.6 per 1000 population in 1967.

Male - Female Birth Ratios:

This ratio was as follows:

Indians - 1141 Eskimos - 1011 Others - 1106

The ratio for Indians has been rising over the past four years. The Eskimo ratio has been consistently lower than the other two groups.

Twin Births and Prematurity:

Seven twin births were reported - 3 Eskimo, 2 Others and 1 Indian. Prematurity (under 28 weeks) was recorded in 7.9% of Indians, 14.9% Eskimo and 12.4% of Other births.

Birth Weights:

This is the first year that birth weights have been recorded on Northwest Territories birth registration forms. As expected, births occurring outside hospitals have no weights recorded but of those recorded in hospitals and nursing stations, we obtain the average weight at birth of the various ethnic groups. These were as follows (38 weeks gestation or over):

<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>
7.57 lbs	7.29 lbs	7.43 lbs	7.40 lbs	8.02 lbs	7.56 lbs

It will be noted that while Indians and Others show a definite difference in birthweight between male and female, Eskimo males and females are practically the same birthweight. It has been suggested that the birth weight of Eskimos in the Western Arctic is higher than those in the Central and Eastern Arctic, but on investigation there is little evidence to support this surmise, e.g.

<u>Baffin Eskimos</u>		<u>Keewatin Eskimos</u>		<u>Western Eskimos</u>	
<u>Males</u>	<u>Females</u>	<u>Males</u>	<u>Females</u>	<u>Males</u>	<u>Females</u>
7.26 lbs	7.40 lbs	7.53 lbs	7.36 lbs	7.56 lbs	7.44 lbs

TABLE I
NORTHWEST TERRITORIES
Livobirths by Age of Mother
1967

AGE OF MOTHER	INDIANS			ESKIMOS			OTHERS			ALL GROUPS			ALL CANADA
	Number	%	%	Number	%	%	Number	%	%	Number	%	%	%
12 - 14 years	-			4	0.7		4	1.2		8	0.7		
15 - 16 years	4	1.6		10	1.8		7	2.1		21	1.8		
17 - 19 years	23	9.4	11.0	66	12.0	14.5	30	8.9	12.2	119	10.5	13.0	8.9
20 - 24 years	61	25.0		137	25.0		122	36.2		320	28.3		
25 - 29 years	64	26.2		128	23.3		91	27.0		283	25.0		
30 - 34 years	40	16.4		103	18.8		51	15.1		194	17.2		
35 - 39 years	39	16.0	83.6	60	10.9	78.0	24	7.1	85.4	123	10.9	81.4	87.3
40 - 44 years	10	4.1		31	5.6		7	2.1		48	4.2		
45 - 49 years	1	0.4	4.5	6	1.1		-			7	0.6		
50 +	-			3	0.6	7.3	1	0.3	2.4	4	0.3	5.1	3.5
Age not stated	2	0.8	0.8	1	0.2	0.2	-	-	-	3	0.3	0.3	
TOTALS	244	100	100	549	100	100	337	100	100	1130	100	100	100

TABLE II

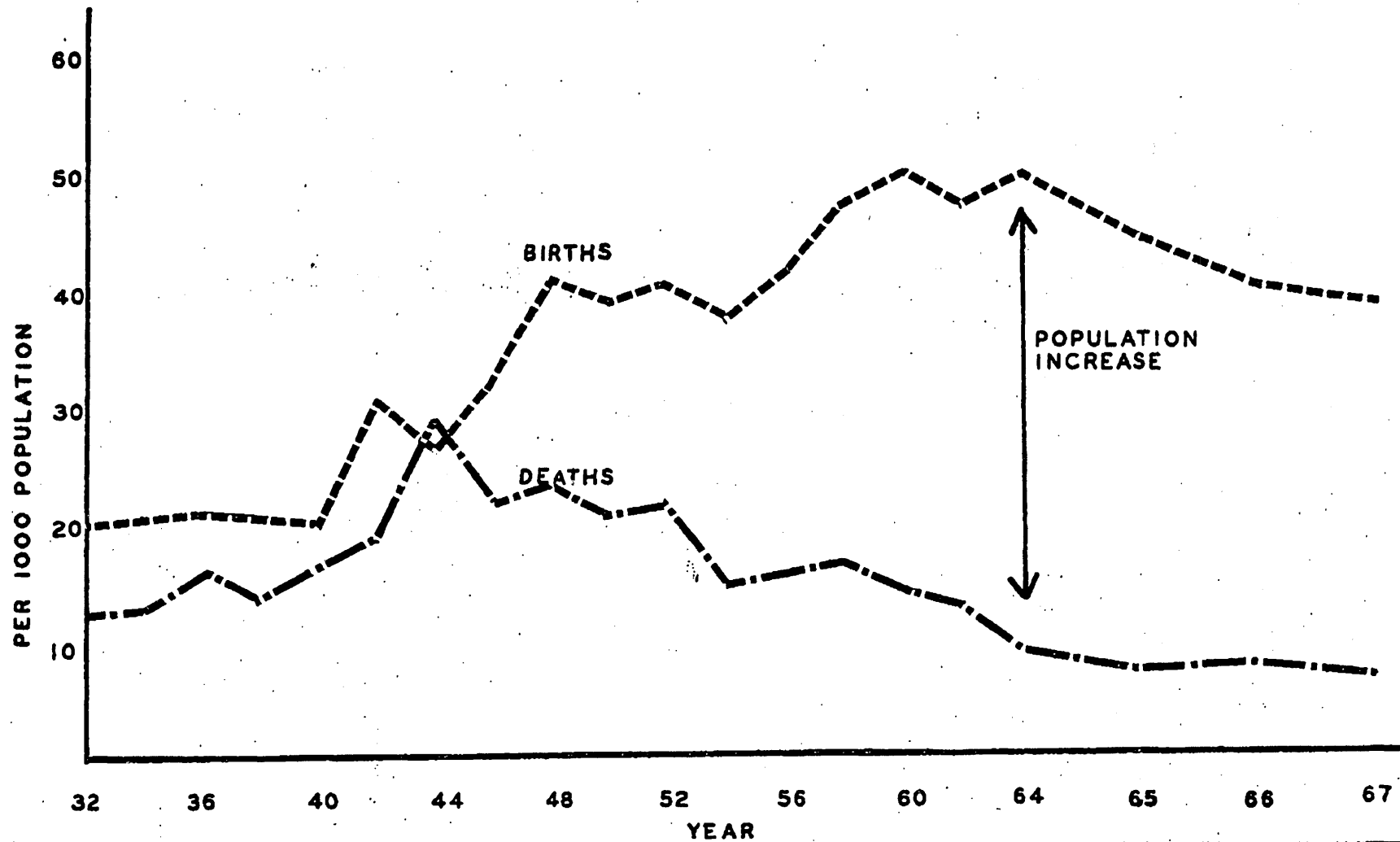
NORTHWEST TERRITORIES

Birth Order (Livebirths)

1967

	INDIANS			ESKIMOS			OTHERS			ALL GROUPS			ALL CANADA	
	Number	%	%	Number	%	%	Number	%	%	Number	%	%	%	%
1st Child	48	19.6		88	16.0		112	33.2		248	21.9		25.9	
2nd Child	31	12.7		65	11.8		82	24.3		178	15.7		23.2	
3rd Child	44	18.0	50.3	61	11.1	38.9	59	17.5	75.0	164	14.5	52.1	17.8	66.9
4th Child	20	8.1		74	13.5		27	18.0		121	10.7		12.1	
5th Child	23	9.4		60	10.9		21	6.2		104	9.2		7.5	
6th Child	17	6.9	24.4	53	9.6	34.0	7	2.1	16.3	77	6.8	26.7	4.7	24.3
7th Child	16	6.5		45	8.2		5	1.5		66	5.8		2.9	
8th Child	11	4.5		35	6.4		3	0.9		49	4.3		1.9	
9th Child	12	4.9	15.9	24	4.4	19.0	7	2.1	4.5	43	3.8	13.9	1.2	6.0
10th Child	7	2.8		10	1.8		1	0.3		18	1.6		0.9	
11th Child	3	1.2		12	2.2		5	1.5		20	1.8		0.6	
12th Child or more	12	4.9	8.9	22	4.0	8.0	8	2.4	4.2	42	3.7	7.1	1.3	2.8
TOTALS	244	100	100	549	100	100	337	100	100	1130	100	100	100	100

VITAL STATISTICS. N.W.T.



Birth weights in non-natives are significantly higher than those among both native groups. It will be noted that Eskimo female newborns in Baffin Zone are heavier than males, which is a most unusual finding. This figure has been double checked and found correct.

Place of Birth:

An increasing percentage of births are occurring in hospitals and nursing stations as instanced by the fact that 86.9% of all Territorial births occurred in an institution.

Illegitimate Births:

The overall percentage rose from 14% to 17.4% and the highest rate occurs among the Indian population. This rate is judged on a single statement as to whether the parents were married at the time of the birth and does not take into consideration common-law marriages and marriages by native custom.

Stillbirths:

The rate for all groups fell from 26 to 18.6 per 1000 live-births, the reduction being due to a fall in rate in the native groups. The rate in the "Other" status rose from 3.2 to 11.9.

Livebirths by Age and Ethnic Origin of Mother:

Table 1 gives details of this statistic and there is no significant change from 1966. Eskimo women are still producing a greater percentage of their children in the latter part of their fertile life (over 40 years) than the other two groups.

Birth Order by Ethnic Origin of Mother - (Table II):

There has been a marked change in the birth order in the non-native and Indian groups from 1966, i.e. 52% of non-native births were in families of three or less children compared to 43.9% in 1966, and the figures for Indians were 50.3 as against 39.4 in 1966. Our overall figure of 52.1 for this group is gradually approaching the national figure of 66.9. This in effect means that more and more births are occurring in the smaller rather than the larger families, and that the family size in Indians and Metis groups may be expected to decline. No change was recorded in the Eskimos group where 61% of births occurred in families with more than three children.

DEATHS -

Table III gives details of the various mortality rates and compares them with the two previous years.

Crude Death Rate (Total Deaths per 1000 Population):

Our overall crude death rate is down to 6.8 as compared to the national rate of 7.5. However, for the reasons stated in Item (c) of the Introduction to this report, it is more meaningful to look at this rate for the various ethnic groups and we find that our Indian rate of 6.9 compares very favourably with our national rate and that the Eskimo rate has fallen over 2 points since 1966 (10.3 as against 12.6). This is very gratifying.

The percentage age distribution of deaths was as follows:

AGE GROUP	INDIANS		ESKIMOS		OTHERS		ALL GROUPS	
	No.	%	No.	%	No.	%	No.	%
0 - 7 Days	5	12.5	12	11.3	5	9.7	22	11.1
8 - 28 Days	-	-	5	4.7	1	1.9	6	3.0
29 Days - 1 Yr	6	15.0	29	27.3	4	7.6	39	19.7
1 - 4 Years	2	5.0	10	9.4	1	1.9	13	6.6
5 - 9 "	2	5.0	8	7.5	2	3.8	12	6.1
10 - 14 "	-	-	3	2.8	-	-	3	1.5
15 - 19 "	1	2.5	3	2.8	1	1.9	5	2.5
20 - 39 "	4	10.0	5	4.7	8	15.3	17	8.6
40 - 49 "	3	7.5	3	2.8	7	13.4	13	6.6
50 - 59 "	1	2.5	12	11.3	8	15.3	21	10.6
60+ "	16	40.0	16	15.1	15	28.8	47	23.7
TOTALS	40	100	106	100	52	100	198	100

The main point to note in this Table is the high percentage of total deaths occurring in children under 1 year of age -

Indians - 27.5% Eskimos - 43.3% Others - 33.8%

Average Age at Death:

All Decedents -

<u>Year</u>	<u>Indians</u>	<u>Eskimos</u>	<u>Others</u>	<u>All Groups</u>	<u>All Canada</u>
1965	36.1	19.8	45.4	29.1	62.5
1966	38.3	20.9	27.9	25.9	
1967	41.5	21.1	40.1	27.7	

The gradual increase in this index will be noted and it is due to the reduction in the infant mortality rate.

This statistic is often confused with Expectation of Life by lay readers of this report. They are completely different indices and the life expectations of the Eskimo and Indian in the Northwest Territories are approximately 50 and 60 years respectively compared to the national rate of approximately 70 years.

Decedents over 1 Year of Age -

<u>Year</u>	<u>Indians</u>	<u>Eskimos</u>	<u>Others</u>	<u>All Groups</u>
1965	51.2	38.8	45.8	45.8
1966	54.8	39.3	44.3	44.3
1967	57.3	37.7	49.6	45.9

TABLE III
NORTHWEST TERRITORIES
Vital Statistics - 1967 (g)

	INDIANS 1967 Pop. - 5763			ESKIMOS 1967 Pop. - 10,278				OTHERS 1967 Pop. - 13,202				ALL GROUPS 1967 Pop. - 29,243			ALL CANADA		
	1967	1966	1965	1967		1966	1965	1967		1966	1965	1967		1966	1965	1966	
	No.	Rate	Rate	Rate	Rate	Rate	Rate	No.	Rate	Rate	Rate	No.	Rate	Rate	Rate	Rate	
Livebirths (a)	244	42.3	37.9	33.4	549	53.4	54.4	65.8	337	25.5	28.2	39.4	1130	38.6	40.0	43.9	19.4
Illgitimate Births (b)	88	36.1	25.2	30.5	68	12.3	8.8	10.3	41	12.2	14.4	12.2	197	17.4	14.0	14.6	7.6
Stillbirths (c)	4	16.4	21.0	9.8	13	23.6	43.1	15.3	4	11.9	3.2	9.6	21	18.6	26	12.2	11.4
Livebirths born in Hospitals and Nursing Stations (e)	237	97.1	53.8	89.1	409	74.4	63.8	62.4	336	99.7	99.3	97.1	982	86.9	71.7	79.7	99.2
Maternal Deaths (d)	-	0	0	0	-	0	13.8	0	-	0	0	0	-	0	9.3	0	3.5
Perinatal Deaths (f) (0 - 7 days)	5	36.1	28.8	34.1	12	44.5	61.1	24.4	5	26.4	29.4	11.9	22	37.3	45.2	21.6	25.5
Neonatal Deaths (c) (0 - 28 days)	5	20.5	16.8	29.5	17	30.9	35.6	41.9	6	17.8	36.1	2.4	28	24.7	31.6	25.4	16.1
Infant Deaths (c) (under 1 year)	11	45.1	46.2	64.0	46	83.8	103.8	95.4	10	29.6	52.4	12.0	67	59.3	79.9	59.5	23.1
TOTAL DEATHS (a) (Crude Death Rate)	40	6.9	6.4	9.7	106	10.3	12.6	11.1	52	3.9	3.98	3.3	198	6.3	7.7	7.2	7.5
Deaths in Hospitals and Nursing Stations (e)	20	50	55	43.2	43	40.6	47.2	35.6	30	57.7	60.5	35.0	93	47.0	51.5	37.2	65.2
Natural Increase (a)	204	35.3	31.5	26.2	443	43.1	41.9	44.7	285	21.6	24.3	35.5	932	31.8	38.4	41.7	11.9

(a) Rate per 1,000 population. (b) Rate is percentage of total livebirths. (c) Rate per 1,000 livebirths. (d) Rate per 10,000 livebirths
(e) Rate column shows percentages of livebirths or deaths occurring in Hospitals or Nursing Stations.
(f) Perinatal Death Rate is Stillbirths (28 weeks +) plus infant deaths under 1 week per 1,000 total births (live and stillbirths).
(g) Based on certificates received up to March 17, 1968.

TABLE IV
NORTHWEST TERRITORIES 1967 (*)
Vital Statistics in Zones and Areas

	MacKenzie Area						Inuvik Zone						Keewatin Area				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	
	3988		2086		9570		1775		1669		2429		2160		300		4363		803		
Population																					
Livebirths	179	44.8	99	47.4	239	24.7	65	36.6	62	37.1	69	28.4	126	58.3	5	16.6	262	60.0	24	29.8	
Illgitimate Births	63	35.2	4	4.0	34	14.2	25	38.4	31	50	7	10.1	9	7.1	-	-	27	10.3	-	-	
Stillbirths	4	22.3	3	30.3	2	8.4	-	-	1	16.1	1	14.5	3	23.8	-	-	6	22.9	1	41.6	
Livebirths born in Hospital	173	96.6	72	72.7	239	100	64	98.4	60	96.7	68	98.5	118	93.6	5	100	159	60.7	23	95.8	
Maternal Deaths	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Perinatal Deaths (0 - 7 days)	4	43.7	3	58.8	5	29.0	1	15.3	-	16.1	-	14.5	2	38.7	-	-	7	48.5	-	40.0	
Neonatal Deaths (0 - 28 days)	4	22.3	3	30.3	6	25.1	1	15.3	1	16.1	-	-	3	23.8	-	-	10	38.1	-	-	
Infant Deaths (under 1 year)	9	50.2	6	60.6	10	41.8	2	30.6	2	32.2	-	-	12	95.2	-	-	26	99.2	-	-	
TOTAL DEATHS (Crude Death Rate)	28	8.4	16	7.7	45	4.6	12	6.7	9	5.3	5	2.0	32	14.8	-	-	46	10.5	2	2.4	
Deaths in Hospitals and Nursing Stations	15	53.5	10	62.5	24	53.3	5	41.6	5	55.5	2	40	14	43.7	-	-	12	26.1	1	50	
Natural Increase	151	37.8	83	39.7	194	20.1	53	29.8	53	31.7	64	26.3	94	43.5	5	16.6	216	49.5	22	27.4	

(*) Based on certificates received up to March 17, 1968.

As previously mentioned the average age at death is greatly affected by the age composition of the population and great care is required in its interpretation.

Place of Death:

47% of all deaths occurred in medical institutions.

Maternal Deaths:

There were no maternal deaths recorded in 1967.

Perinatal Deaths (0 - 7 Days):

There was an overall reduction in this rate from the previous year.

Neonatal Deaths (0 - 28 Days):

This rate reduced in all groups except the Indian group which showed an increase.

Infant Deaths (0 - 365 Days):

The figures show a marked reduction in this rate from the previous year and the Eskimo rate of 83.8 is the lowest ever recorded. We are now reaching a stage where any further reduction in these rates will to a great extent depend on improved housing, sanitation, diet and health education and awareness of the factors involved in healthful living. We should still be able to reduce further the Eskimo infant mortality rate by extending treatment services into some of the remaining larger settlements which have as yet no nursing stations or resident nurse.

It is evident from Table IV in which we have calculated separate rates for the various Zones that Keewatin and Baffin Zones have the highest crude and infant mortality rates. This is what one would expect as our medical services in these areas are not as well developed as in the Western Arctic, and although we have extended nursing services to Igloolik, Pond Inlet, Arctic Bay and Broughton Island within the past few years, there also appears to be a higher incidence of disease in these areas which, no doubt, accounts for the higher death rates. More regular touring by Medical Officers and nursing stations at Clyde River, Gjoahaven and Whale Cove are required to reduce the present rates.

It has been suggested that infant deaths are more common in large families and that, therefore, the "pill" should be distributed more freely among Indians and Eskimos. I have investigated this matter and find that infant deaths are no more frequent in the smaller than in larger families, e.g.

	<u>Keewatin Area</u>	<u>Baffin Zone</u>
Average Number of Children under 16 yrs in Eskimo homes where no infant death reported	2.69	2.86
Average Number of Children under 16 yrs in Eskimo homes where infant death occurred	2.7	2.62

6.

	<u>Keewatin Area</u>	<u>Baffin Zone</u>
Average Number of Children under 10 yrs in Eskimo homes where no infant death reported	2.06	2.08
Average Number of Children under 10 yrs in Eskimo homes where infant death occurred	2.3	1.92

The conclusion to be drawn from these figures is that while the encouragement of the "pill" may be indicated for social and economic reasons, there is no indication that it would help to reduce the infant mortality rates now prevailing.

Natural Increase:

There has been a slight rise in this rate in both Indians and Eskimos with a reduction in the non-native rate. The overall natural increase is 3.18% while the Eskimo rate is 4.3%. The national rate is 1.19%.

Major Causes of Death:

These were as follows:

	<u>No. of Deaths</u>	<u>Percentage Of Total Deaths</u>
Injuries, Violence & Accidents	41	20.7%
Pneumonia	36	18.2%
Diseases of Infancy & Malformations	22	11.1%
Diseases of Nervous System (Meningitis & Cerebral Accidents)	21	10.6%
Cardiovascular Disease	21	10.6%
Neoplasms (Cancer)	20	10.1%
Gastro-intestinal Disease	9	4.5%
TOTAL	170 Deaths	85.2%

Injuries and Accidents have now replaced Pneumonia as the most frequent cause of death, and further analysis of these deaths gives us the following information:

DEATHS FROM ACCIDENTS & VIOLENCE 1967

	<u>INDIANS</u>	<u>ESKIMOS</u>	<u>OTHERS</u>	<u>TOTAL</u>
Drowning	3	6	2	11
Asphyxiation	4	6	-	10
Severe Burns	-	3	-	3
Gunshot Wounds	-	3	-	3
Aircraft Crash	3	1	2	6
Methylhydrate Poisoning	-	1	-	1
Accidental Strangulation	-	1	-	1
Motor Vehicle Accidents	-	-	4	4
Suicide	-	-	2	2
TOTAL	10	21	10	41

Drownings account for 25% of accidental deaths and it is therefore gratifying to see the Recreation Department encouraging the use of swimming pools as a means of teaching the people to swim. Deaths attributed to asphyxiation are probably due to Interstitial Pneumonia (sudden death of infants) and not due to overlying or smothering by bedclothes as reported. Aircrash accidents accounted for six deaths while at least 2 were suicidal.

Another major cause of deaths is Cancer, and an analysis of these deaths shows that the most common sites of the cancer are the lung and intestine -

NEOPLASMS (CANCERS)

	<u>INDIANS</u>	<u>ESKIMOS</u>	<u>OTHERS</u>	<u>TOTAL</u>
Lung	1	4	2	7
Gastrointestinal	2	2	2	6
Breast	1	-	2	3
Glandular	-	2	-	2
Brain	-	-	1	1
Uterus	1	-	-	1
TOTALS	5	8	7	20

This gives us a death rate of 68.7 per 100,000 population compared with the national rate of 135.6.

HOSPITALIZATION 1966:

Table VI shows the incidence of insured hospitalization of territorial residents according to age and ethnic groups.

It will be noted that while admissions were up by 208 (3.2%) patient days were down by 1,655 (1.6%) with the result that the average stay reduced from 9.5 to 9 days. This could mean that the type and severity of diseases requiring hospitalization had changed from the previous year, but it could also indicate a more strict referee interpretation of insured care. It is interesting to note that in the Research and Statistics booklet "Hospital Care in Canada" published in 1964 the Northwest Territories had a lower average hospital stay index than all except one of the provinces.

Ethnic distribution of patient days and admissions when compared to the ethnic population distribution was as follows:

	<u>Indians</u>	<u>Eskimos</u>	<u>Others</u>
Population	19.7%	35.1%	45.2%
Admissions	21.4%	33.6%	45%
Patient Days	24.2%	39.4%	36.4%

Children under 1 year (excluding newborns) caused 13.7% of the admissions and 15.5% of patient days, while 1 - 4 year old patients caused 15% of admissions and 14.6% of patient days.

TABLE VI

NORTHWEST TERRITORIES

Insured Hospitalization by Ethnic Origin and Age Groupings 1966 (T.H.I.S.)

Age Group	SEPARATIONS				PATIENT DAYS				AVERAGE STAY			
	Indians	Eskimos	Others	Total	Indians	Eskimos	Others	Total	Indians	Eskimos	Others	Total
Newborn	186	337	391	914	1374	2067	2518	5959	7.4	6.1	6.4	6.5
Under 1	230	433	251	914	2446	5120	2050	9616	10.6	11.8	8.2	10.5
1 - 4	195	416	382	993	1718	4579	2796	9093	8.8	11.0	7.3	9.2
5 - 9	105	194	207	506	915	2250	1272	4437	8.7	11.6	6.1	8.8
10 -14	58	102	112	272	635	1255	756	2646	10.9	12.3	6.7	9.7
15 -19	96	159	200	455	872	1654	1353	3879	9.1	10.4	6.8	8.5
20 -24	99	180	334	613	854	1200	2138	4192	8.6	6.7	6.4	6.8
25 -29	120	180	334	634	1030	1593	1903	4531	8.6	8.9	5.7	7.1
30 -34	116	173	290	579	1093	1470	1964	4527	9.4	8.5	6.8	7.3
35 -39	87	140	222	449	809	1404	1810	4023	9.3	10.0	8.2	9.0
40 -44	63	65	127	255	647	636	957	2240	10.3	9.3	7.5	8.3
45 -49	43	55	125	223	507	674	1099	2280	11.8	12.3	8.8	10.2
50 -54	25	46	107	178	355	724	884	1963	14.2	15.7	8.3	11.0
55 -59	27	30	104	161	639	533	907	2079	23.7	17.8	3.7	12.9
60 -64	28	17	60	105	410	630	742	1832	14.6	40.0	12.4	17.4
65 -69	35	24	48	107	514	391	758	1663	14.7	16.3	15.8	15.5
70 -74	31	8	29	68	407	72	375	854	13.1	9.0	12.9	12.6
75 -79	35	9	19	63	519	111	543	1173	14.8	12.3	28.6	18.6
80 -84	16	5	15	36	228	48	250	526	14.2	9.6	16.7	14.6
85 +	22	4	11	37	431	99	107	637	19.6	24.7	9.7	17.2
TOTALS (Excl. Newborn)	1,431	2,240	2,977	6,648	15,029	24,498	22,664	62,191	10.1	10.3	7.5	9.0
% of Total	21.4	33.6	45	100	24.2	39.4	36.4	100				
TOTALS 1965 (Excl. Newborns)	1,322	2,630	2,488	6,440	14,857	28,724	20,265	63,846	10.6	10.4	8.0	9.5
TOTALS 1964 (Excl. Newborns)	1,569	2,009	2,571	6,329	15,093	21,284	19,028	55,405	9.6	10.1	7.4	8.8

TABLE VII

NORTHWEST TERRITORIES - Territorial Hospital Insurance Services - 1966

Separations, Patient Days and Average Stay by Ethnic Grouping and Major Disease Categories - Adults & Children

Disease Category	INDIANS			ESKIMOS			OTHERS		
	Separations	Patient Days	Average Stay	Separations	Patient Days	Average Stay	Separations	Patient Days	Average Stay
CLASS 1 Infective & Parasitic Diseases	43	617	14.3	70	1,155	16.5	38	457	12.0
CLASS 2 Neoplasms	23	622	27.0	29	763	26.3	70	868	12.4
CLASS 3 Allergic, Endocrine System, Metabolic & Nutritional	14	115	8.2	22	599	27.2	52	407	7.8
CLASS 4 Diseases of Blood & Blood Forming Organs	7	199	28.4	7	167	23.9	6	110	18.3
CLASS 5 Mental, Psychoneurotic & Personality Disorders	21	301	14.3	45	368	8.2	101	939	9.3
CLASS 6 Diseases Nervous System & Sense Organs	78	1,011	13.0	194	3,606	18.6	102	1,146	11.2
CLASS 7 Diseases of Circulatory System	20	258	12.9	148	853	17.8	125	1,399	11.2
CLASS 8 Diseases of Respiratory System	465	4,206	9.0	701	6,559	9.4	653	4,340	6.6
CLASS 9 Diseases of Digestive System	110	1,196	10.9	226	2,329	10.3	337	2,363	7.0
CLASS 10 Diseases of Genito-Urinary System	80	788	9.8	83	1,018	12.3	237	1,824	7.7
CLASS 11 Deliveries & Complications of Pregnancy Childbirth & the Puerperium	245	1,449	5.9	455	2,591	5.7	592	3,200	5.4
CLASS 12 Diseases of Skin & Cellular Tissue	76	660	8.7	57	696	12.2	90	722	8.0
CLASS 13 Diseases of Bones & Organs of Movement	37	761	20.6	20	610	30.5	42	605	14.4
CLASS 14 Congenital Malformations	12	583	48.6	13	371	20.6	16	169	10.6
CLASS 15 Certain Diseases of Early Infancy	11	190	17.3	17	190	11.2	16	161	10.2
CLASS 16 Symptoms, Senility & Ill-Defined Conditions	60	393	6.5	110	933	8.5	165	801	4.9
CLASS 17 Accidents, Poisonings, Violence	124	1,578	12.7	142	1,742	12.3	314	3,114	9.9
CLASS Y Supplementary Classification for Special Admissions	8	123	15.4	21	119	5.7	28	106	3.8
Unspecified	2	9	4.5	-	-	-	6	18	3.0
ALL DIAGNOSES (Excluding newborns)	1,436	15,059	10.4	2,265	24,669	10.9	2,990	22,751	7.6
1965 TOTALS (Excluding newborns)	1,326	14,916	11.2	2,653	28,895	10.9	2,500	20,354	8.1
Newborns									
CLASS 6 Diseases Nervous System & Sense Organs	-	-	-	1	8	8.0	-	-	-
CLASS 11 Deliveries & Complications of Pregnancy Childbirth & the Puerperium	-	-	-	1	6	6.0	-	-	-
CLASS 14 Congenital Malformations	-	-	-	-	-	-	1	1	1.0
CLASS 15 Certain Diseases of Early Infancy	2	3	1.5	1	1	1.0	1	4	4.0
CLASS Y Supplementary Classification for Special Admissions	184	1,371	7.4	337	2,095	6.2	389	2,513	6.5
ALL DIAGNOSES (Newborns)	186	1,374	7.4	340	2,110	6.2	391	2,518	6.4
1965 TOTALS (Newborns)	199	1,308	6.6	401	2,914	7.3	400	2,753	6.9

Table VII shows the distribution of admissions and patient days according to main disease classifications and it will be noted that the following diseases used up most of the patient days:

	<u>Admissions</u>	<u>Patient Days</u>
Class 8 - Respiratory Disease	1,719	15,115
Class 11 - Obstetrics	1,292	7,240
Class 17 - Accidents	580	6,434
Class 9 - Digestive System	673	5,888
Class 6 - Nervous System Disease	374	5,763
Totals	<u>4,638</u>	<u>40,440</u>
% of Grand Totals	46.8%	64.7%

NOTIFIABLE DISEASE:

Notifications were as follows:

Measles	505	Pertussis	8
Influenza	464	Rubella	35
Chicken Pox	81	Trichinosis	3
Dysentery (unspecified)	53	Food Poisoning	10
Dysentery - Bacillary	18	Tapeworm	7
Hepatitis - Infectious	37	Typhoid	1
Meningitis - unspecified	36	Botulism	1
Meningitis - Meningococcal	2	Diphtheria	1

The geographic distribution of Meningitis was as follows:

Inuvik Zone	- 3	Baffin Zone	- 10
Mackenzie Area	- 10	Keewatin Area	- 15

The main settlements affected by the Influenza outbreak were:

Aklavik (98), Spence Bay (145), Eskimo Point (59), Pond Inlet (41), Coral Harbour (54) and Fort Liard (39).

TUBERCULOSIS:

A total of 159 new active cases of Tuberculosis were discovered during the year and a total of 33 reactivated cases were also hospitalized. This is a 14% increase in new active cases over the previous year. Part of this increase is due to improved methods of diagnosis which have recently been introduced but there is also a true increase in incidence. The incidence among Eskimos (1.1%) is three times greater than in the other two groups.

YEAR	INDIANS			ESKIMOS			OTHERS			ALL GROUPS		
	1965	1966	1967	1965	1966	1967	1965	1966	1967	1965	1966	1967
POPULATION	6076	6274	5763	9382	9792	10278	10537	10789	13202	25995	26865	29243
No of new active cases	23	20	28	50	83	114	17	10	17	90	113	159
Incidence of new active cases	0.37	0.32	0.48	0.53	0.84	1.1	0.16	0.09	0.13	0.35	0.42	0.54
No of reactivated cases	11	5	7	21	20	25	2	1	1	34	26	33
Patients on home therapy after discharge from hospital										?	?	82
Patients on chomoprophyllaxis										-	40	116
No of tuberculin tests performed										9027	9028	13364
No of BCG vaccinations given										3426	3581	3904

The geographic distribution of cases was as follows:

	<u>New Cases</u>	<u>Reactivated Cases</u>
Inuvik Zone	14	4
Mackenzie Area	63	10
Keewatin Area	35	3
Baffin Zone	47	16
TOTALS	<u>159</u>	<u>33</u>

The classification of the pulmonary cases was as follows:

<u>Pleurisy</u>	<u>Primary</u>	<u>Minimal</u>	<u>Moderately Advanced</u>	<u>Far Advanced</u>	<u>Total</u>
9	61	43	28	7	148

i.e. 113 of the 148 Pulmonary cases were discovered in the very early stage of the disease and this speaks very well for our case finding methods, and these patients should have no disability on completion of treatment.

The following numbers of Northwest Territories Tuberculosis patients were in hospitals at the end of the year:

Charles Camshell Hospital, Edmonton	134
Aberhart Sanatorium, Edmonton	5
Alberta Hospital, Edmonton	4
Faraud Hospital, Rae	12
Inuvik General Hospital	1
Central T.B. Clinic, Winnipeg	5
Manitoba Sanatorium, Ninette	31
Weston Sanatorium, Ontario	52
Moose Factory Hospital, Ontario	30
TOTAL	<u>274</u>

A recent report by Dr. Atcheson, Psychiatrist, stresses the fact that prolonged hospitalization in the south may be having adverse effects on the mental health of patients on their return home. Other Psychiatrists have also expressed similar fears.

The diagnosis and assessment of Tuberculosis is so specialized that it will always be necessary to evacuate many Tuberculosis patients for initial assessment and therapy but there is no valid reason why many of these patients cannot be returned to northern hospitals within a period of 3 to 6 months and there are many early cases which can be treated adequately in northern hospitals from the initial diagnosis. It is therefore recommended that we use those institutions in the north when beds are available for the inpatient treatment of selected cases of Tuberculosis. We are already using Rae and Inuvik Hospitals for this purpose but we should also use Fort Smith, Fort Simpson, Chesterfield and Pangnirtung hospitals in order to avoid prolonged hospitalization in the south. Regular monthly attendance by a doctor and assessment at three-monthly intervals by a specialist is a prerequisite of this program but this can easily be arranged.

Our out-patient therapy program for this disease is progressing favourably and we have now over 200 patients receiving drugs at home. We expect the number of such cases to increase markedly over the next year when we intend to treat many old Tuberculosis patients from Coppermine area who were previously treated in the days when drug therapy was not available or not properly understood. By this method we hope to reduce the incidence of reactivations in these old cases which are often the infective focus of new cases within the community.

VENEREAL DISEASE:

Gonorrhoea -

Table VIII shows the number of cases of this disease treated in the Northwest Territories and the distribution in the various health districts. It will be noted that we treated 150 more cases in 1967 than in 1966 and that Inuvik and Yellowknife Health Districts produced 486 out of the total of 823 cases.

The sex age distribution of cases was as follows:

TOTAL by Sex		5 - 9		10 - 14		15 - 19		20 - 39		40 - 59		60+		Age Not Stated	
M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
478	345	-	1	-	4	44	70	365	231	48	26	14	4	7	9
823		1		4		114		596		74		18		16	
100%		0.12%		0.4%		13.8%		72%		9.0%		2.2%		1.9%	

14.2% of the cases occurred in teenagers while 72% were discovered in the 20 - 39 age group. Ethnic distribution of cases was as follows:

Indians - 36% Eskimos - 21% Others - 43%

A total of 752 contacts were named but only 593 of these were located by the end of the year. One of the major problems in the control of this disease is that the patient often cannot provide the correct name of the contact and this makes contact tracing very difficult. All ethnic groups are involved in the spread of this disease, but the Indians have a higher rate pro rata population than the other two groups.

In considering the figures for Gonorrhoea in the Territories, it should be noted that the figures include confirmed and unconfirmed cases of the disease as lack of readily accessible laboratory facilities demands that we treat many suspect cases for which we have no laboratory confirmation. In southern Canada only confirmed cases are reported. The incidence of Gonorrhoea is 2814 per 100,000 population compared to the all Canada figure of 104.

Syphilis -

12 confirmed cases of Syphilis were reported during the year. The geographic distribution was as follows:

	Primary	Secondary	Latent	Total
Hay River	2	2	1	5
Yellowknife	2	2	1	5
Hall Beach	1	-	-	1
Fort Smith	1	-	-	1
	6	4	2	12

The fact that 10 out of the 12 cases discovered were in the early infectious stage of the disease means that there must be other undiscovered cases in the community. We have requested that more routine blood tests be undertaken on prisoners, remandees, and hospital admissions, especially in the Hay River and Yellowknife areas.

The ethnic distribution of the Syphilis cases was

Indians - 1 Others - 11

and the sex distribution was:

Female - 2 Male - 10

TABLE VIII

TOTAL CASES OF GONORRHEA TREATED - NORTHWEST TERRITORIES

1967

No.	ZONE or AREA	INDIAN		ESKIMO		OTHERS (inc.) (METIS)		TOTALS by SEX		TOTALS	
		M	F	M	F	M	F	M	F	1967	1966
W31	Tuktoyaktuk			16	17	1		17	17	34	17
W32	Inuvik - Aklavik	11	25	29	45	61	22	101	92	193	157
W 4	McPherson	6	16	4	2	2	1	12	19	31	20
W 5	Fort Good Hope										
W 6	Fort Norman - Franklin		1			1	1	1	2	3	3
TOTAL - INUVIK ZONE		17	42	49	64	65	24	131	130	261	197
W 1	Cambridge Bay			1	1			1	1	2	-
W 2	Coppermine			1				1		1	2
E 4	Spence Bay									-	-
W 7	Port Radium									-	-
W8	Fort Simpson - Liard	6	4			2	3	8	7	15	17
W10	Fort Resolution	8	8			12	3	20	11	31	25
W11	Fort Rae	17	13			1		18	13	31	7
W12	Snowdrift - Reliance									-	-
W14	Fort Smith	11	11	1		15	12	27	23	50	33
W92	Hay River	9	13			37	19	46	32	78	145
W93	Fort Providence	4	3					4	3	7	1
W132	Yellowknife	67	62	4	5	120	35	191	102	293	211
TOTAL-MACKENZIE AREA		122	114	7	6	187	72	316	192	508	441
E 1	Eskimo Point					2		2		2	-
E 2	Baker Lake									-	-
E31	Chesterfield Inlet				1				1	1	1
E32	Coral Harbour									-	-
TOTAL-KEEWATIN AREA		-	-	-	1	2	-	2	1	3	1
E 5	Pond Inlet Resolute									-	-
E 6	Pangnirtung									-	-
E71	Frobisher Bay			21	20	6		27	20	47	34
E72	Lake Harbour									-	-
E73	Cape Dorset			2	2			2	2	4	-
TOTAL-BAFFIN ZONE		-	-	23	22	6	-	29	22	51	34
TOTAL- N.W.T.		139	156	79	93	260	96	478	345	823	673

These 12 cases reported 16 contacts in the Territories and 15 of these have been followed-up, examined and treated where necessary.

SPECIALISTS VISITS:

These were increased during 1967 especially as regards visits by Ophthalmologists, Psychiatrists and Pediatricians. Visiting Ophthalmologists paid two visits to Inuvik (560 patients) and Baffin (435 patients) Zones while Dr. Harvey visited every settlement in the Keewatin Area. Dr. Cass continued to provide Ophthalmological coverage to the Mackenzie Area and saw 2,009 out-patients, admitted 189 patients to hospital and carried out 73 operations.

Dr. Harvey, who for the past four years has provided eye services to the Keewatin District, died recently, and we have now made arrangements with Dr. Krolman, Professor of Ophthalmology, and an associate, to visit every settlement in the Keewatin Area on an annual basis to carry out routine eye examinations and to see referred cases of eye disease. Dr. Thompson, Ophthalmologist and Otolaryngologist from London, Ontario, visits Baffin Zone twice yearly and refuses to accept any remuneration.

Montreal Childrens Hospital are continuing to supply a senior pediatric resident on a monthly rotation basis to Frobisher Bay Hospital and the University of Alberta Hospital also supplied a pediatric resident to Inuvik Hospital for a period of two weeks every second month.

Child Guidance Clinics visited all zones during the year.

DENTAL HEALTH:

Dental coverage increased considerably during the year and we were able to retain two dentists at both Inuvik and Frobisher, and three other dentists were employed during the summer months to cover Keewatin Area and the outstations in Inuvik Zone. A full time dental officer was posted to Churchill in November to look after the dental needs of the Eskimos in Keewatin. Private dental practitioners are in practice at Yellowknife, Hay River, Fort Smith and Fort Simpson, and these are employed on a fee for service basis to provide dental care to the outstations in the Mackenzie Area.

RADIATION FALLOUT MONITORING PROGRAM:

This has continued during the year. The Radiation Protection Division plan to join our x-ray survey teams this year to carry out estimations of Caesium 137 with a portable body counter. This will enable us to cease the urine testing monitoring system.

RESEARCH PROGRAMS:

Dr. O. Schaefer, Internist in charge of Northern Research Unit, has continued his investigations into Nutrition, Glycosuria and Alcoholism metabolism in the native population. He has now produced a paper on the latter subject.

Dr. Cameron of McGill University has continued his research into the development of a Hydatid Vaccine while Dr. Tanner and Dr. Eaton conducted a study on various hydatid antigens at Inuvik.

We find that many researchers request permission to carry out various para medical studies on our small northern native populations, especially on our Eskimo population. Many requests are for studies previously carried out by other workers and which are not likely to benefit the ethnic group being studied. We must continue to resist studies which are carried out in the north for the simple reason that the researcher has a captive population, as our northern ethnic groups have been studied so many times that they are now beginning to resist studies which are necessary or desirable for their own benefit and health.

HEALTH EDUCATION:

Two Community Health Workers from Fort Good Hope and Fort Resolution were sent to British Columbia for training during the year and there are now Community Health Workers on staff who together with our Public Health Nurses are endeavouring to educate the local populations in ways and means of improving their standards of health. A refresher course for Community Health Workers was held in Yellowknife in April 1967.

TRAINING COURSE FOR NATIVE LAY DISPENSERS:

A five week intensive training course for native lay dispensers was held at Inuvik Hospital early in 1967. Eight lay dispensers from the Yukon and Northwest Territories completed the course and were employed on a stipend basis as lay dispensers on their return to their communities.

Subsequent follow-up by Zone Officers confirm the fact that these trainees are doing an excellent job and it is hoped that we can repeat such courses in future years.

CAMSI SEMINAR:

The Canadian Association of Medical Students and Interns, the Canadian Medical Association and the College of General Practitioners co-operated with us in the planning of a very successful seminar for 80 medical students and 20 faculty staff at Inuvik in August 1967. The seminar lasted three weeks and following ten days of lectures at Inuvik, the participants were posted to various outstations to see prevailing health problems and to carry out some studies.

This seminar created a lot of interest in the twelve Canadian Medical Schools on health problems in the North.

NUTRITION:

The Regional Dietitian visited Inuvik and Yellowknife Hospitals and five hostels in the Mackenzie District and gave advice and guidance on nutrition and diet planning.

A student dietitian was employed for four months during the summer and worked with nurses in the outstations of Inuvik Zone in educating the local populations on improved diets.

A study conducted at Breynat Hall, Fort Smith, to see if powdered milk fortified with Vitamin D was as acceptable as other dried milks, indicated that there was no real difference in preference, and

the Education Division of Indian Affairs & Northern Development have been advised to use Vitamin D fortified powdered milk in preference to the non-fortified brands.

LEGISLATION:

A new Mental Health Ordinance was drafted as were Regulations governing Public Water Supplies, which have been approved by the Commissioner. Public Sewage Services Regulations have just been completed and are awaiting approval.

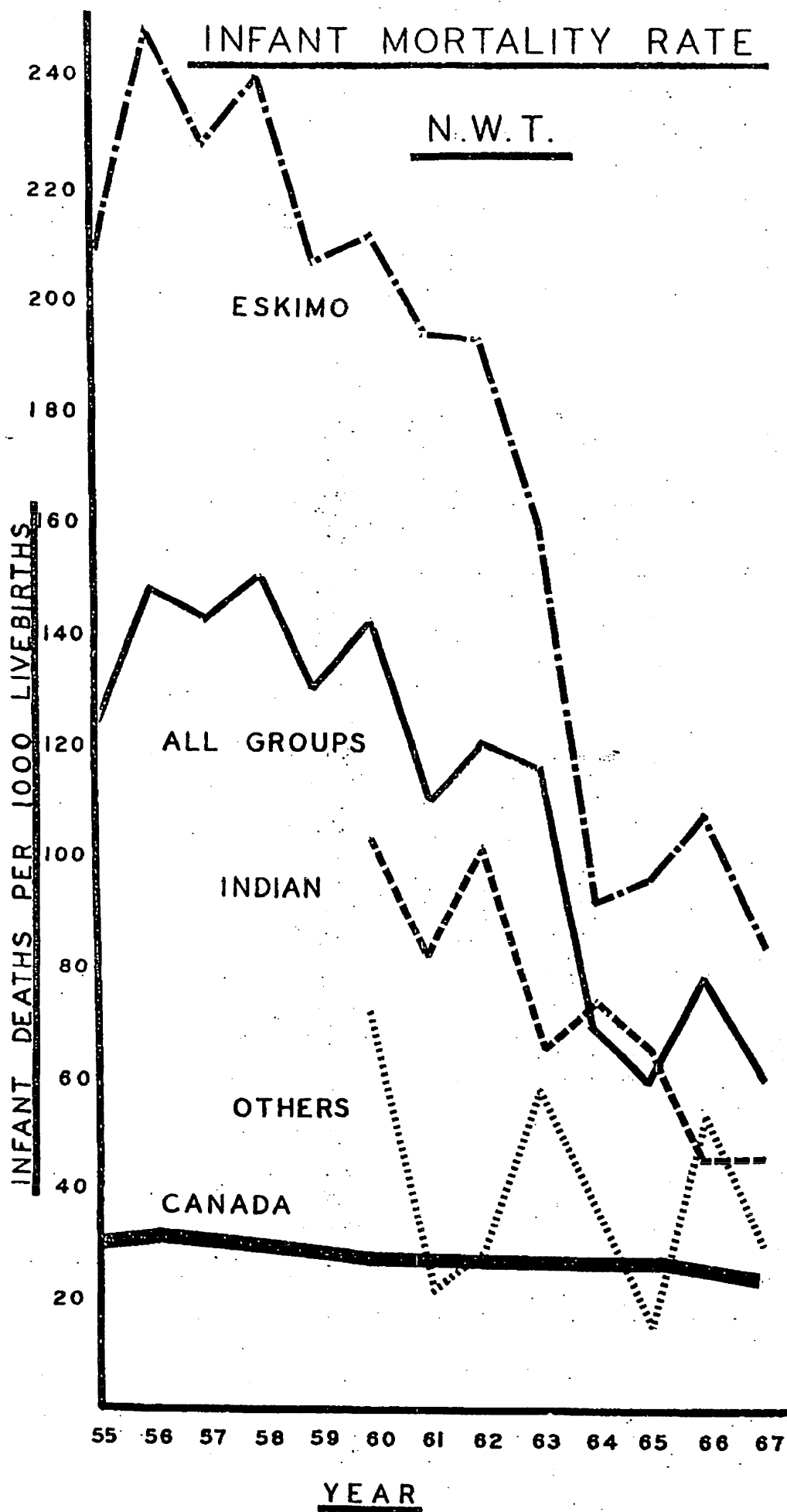
NEW FACILITIES:

The Roman Catholic Mission closed their hospital at Fort Resolution in July 1967 and emergency funds were used to purchase a clinic trailer unit which was attached to the existing health centre to institute nursing station services in the settlement. Two nurses are now in residence and adequate services are being provided to this community. Mobile trailer health stations were purchased for Resolute Bay, Port Burwell and Repulse Bay - these were not completed in time to meet the 1967 sea-lift and they are stored at Montreal awaiting shipment in 1968.

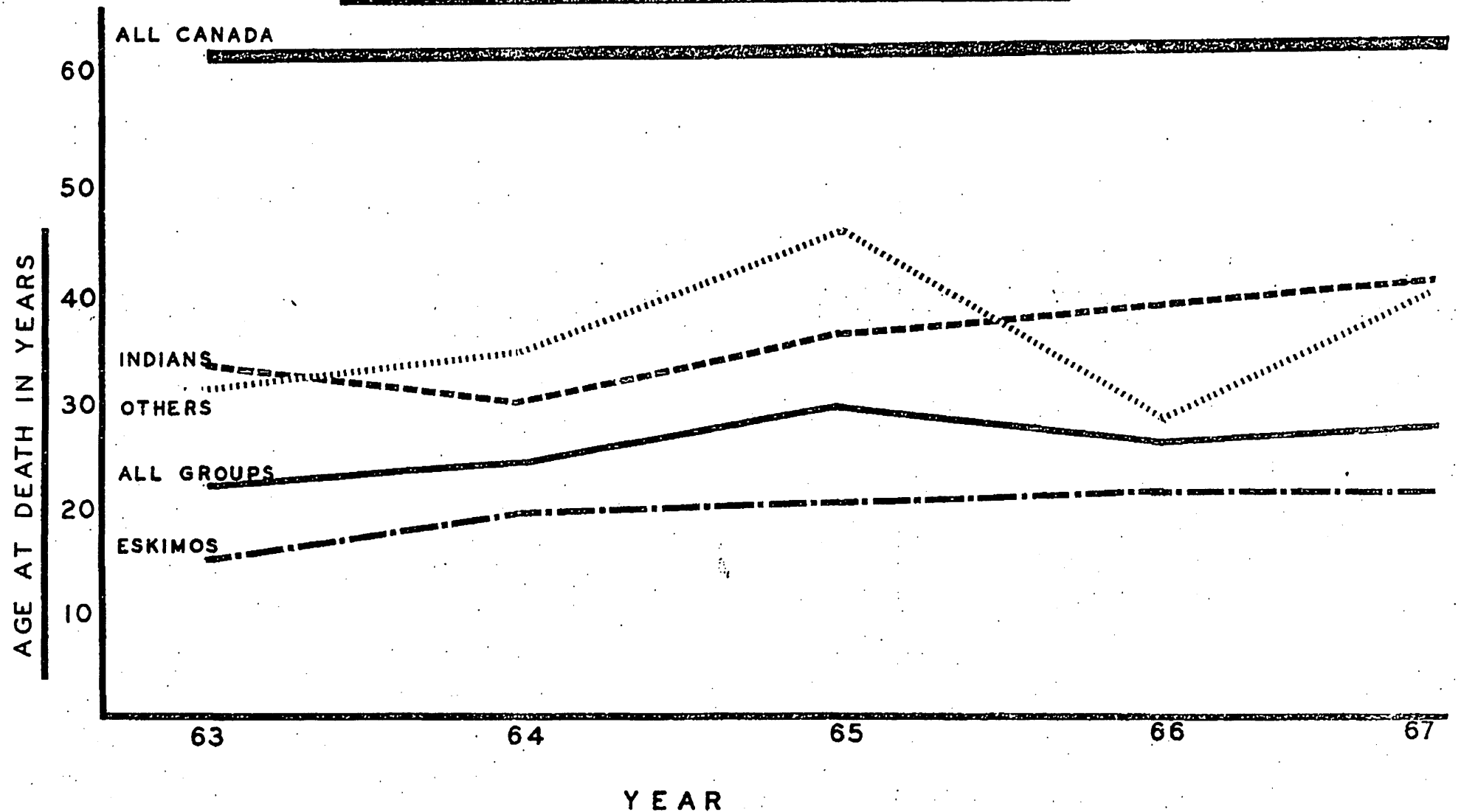
STAFFING:

We have had a relatively good year as regards recruitment of medical, dental and nursing staff. We have been able to keep 95% of our positions filled at all times and this no doubt accounts for the satisfactory reduction in our infant mortality rate and for our increased case-finding in Tuberculosis. The annual rotation of our staff still presents many problems but this problem will persist until we adopt a more realistic attitude in encouraging staff to remain in an isolated post for a number of years. As previously stated other countries with Arctic territories provide very special inducements to achieve permanency of critical staff and our existing isolation allowances are an insufficient inducement.

Great difficulty has been experienced in recruiting and retaining administrative, senior clerical, technical and maintenance staff at our major centres - this is mainly due to the low classification obtained for these positions which are vital to the efficient operation of our institutions.

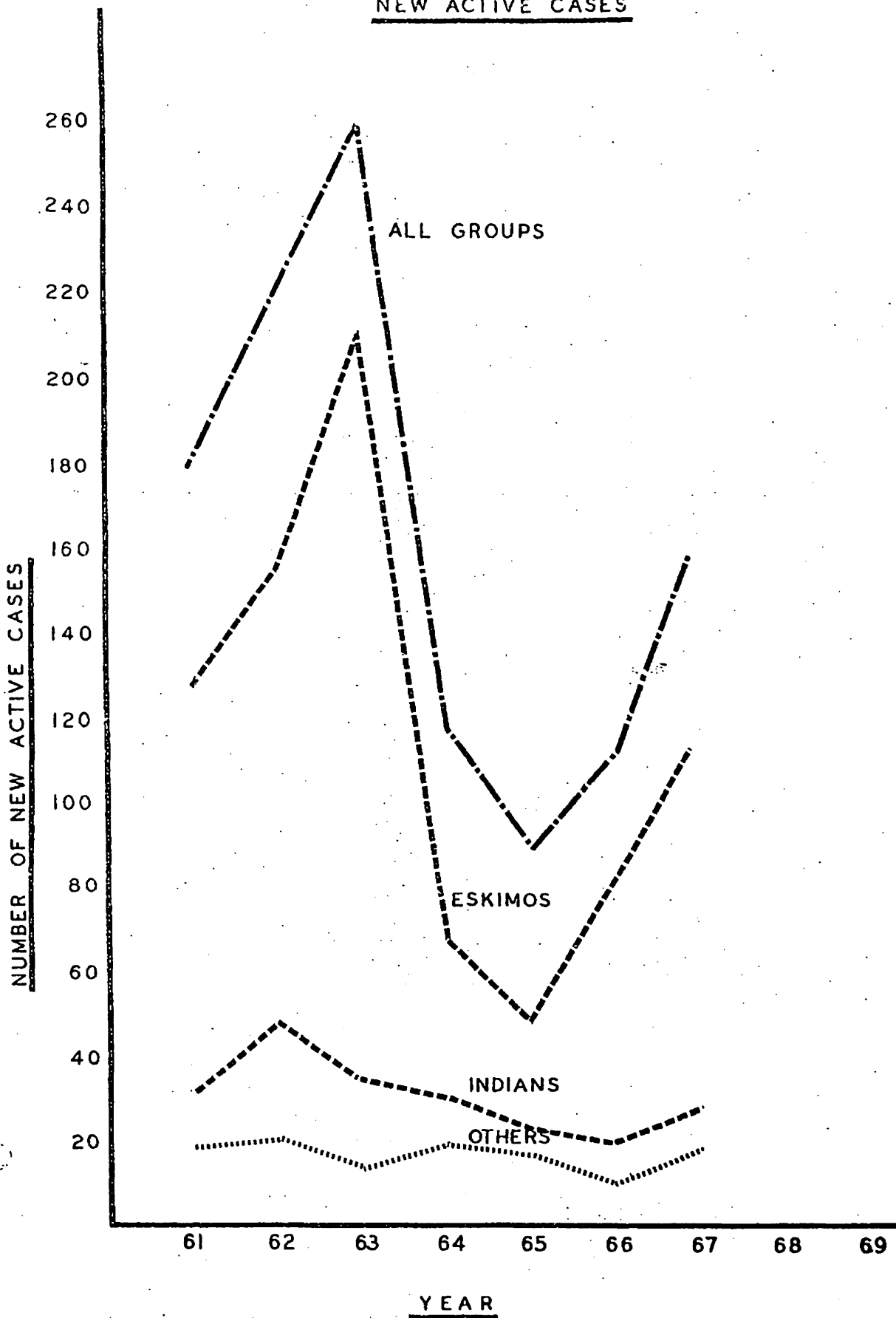


AVERAGE AGE AT DEATH. N.W.T.



TUBERCULOSIS. N.W.T.

NEW ACTIVE CASES



GONORRHOEA. N.W.T.

NUMBER OF CASES

