Annual report of the Medical Health Officer / City of Winnipeg.

CITY OF WINNIPEG
HEALTH DEPARTMENT

ANNUAL REPORT 1964

WINNIPEG'S NEW COUNCIL AND ADMINISTRATION BUILDINGS

R. G. CADHAM, M.D., D.P.H.
MEDICAL HEALTH OFFICER

CITY HEALTH DEPARTMENT

Winnipeg, 1964.

Chairman and Members,
Committee on Public Health and Welfare.

Madam and Gentlemen:

I have the honour to present the annual report and the financial statement of the Health Department for the year 1964.

Essentially the year was a healthy one for the citizens of Winnipeg with no major outbreaks of any serious disease, and indeed a progressive year in all respects.

The birth rate dropped to 21.7 per thousand population which is the lowest recorded since 1950. As expected heart disease and cancer continue to be the leading causes of death with cancer of the lung now being the leading cause of death in males for all forms of cancer.

The incidence of infectious hepatitis has remained relatively constant over the past three years with one hundred and thirty-three cases being reported in 1964. No cases of diphtheria were reported and this has not happened since 1959.

Three typhoid carriers were discovered and remedial action instituted to prevent the spread of this disease. The number of cases of scarlet fever decreased slightly to seventy-nine. Ten deaths as the result of tuberculosis were recorded in comparison with twelve deaths from this disease in 1963. Sixty-seven new active cases of tuberculosis were discovered, which is seven less than in the previous year.

The second mass feeding of Sabin vaccine for immunization against poliomyelitis was conducted in the Spring and 162,746 citizens availed themselves of this opportunity for further protection against this crippling disease.

Three individuals who had been bitten by a rabid cat were successfully treated with the appropriate vaccine to prevent the occurrence of this disease.

On our recommendation the Welfare Institution By-law was amended to provide for "group foster homes". These homes provide accommodation for from four to eight children in a family-type setting, which is a new innovation in our City.

For some years we have been concerned about the possible transmission of infectious hepatitis or serum hepatitis, or other infectious conditions, in the tattooing of human beings. Accordingly the Health By-law was amended to prevent anyone except a duly qualified medical practitioner from practicing the art of tattooing in Winnipeg. To my knowledge Winnipeg is the first City in Canada to have such legislation.

CITY HEALTH DEPARTMENT

Winnipeg, 1964.

Chairman and Members,
Committee on Public Health and Welfare.

Madam and Gentlemen:

I have the honour to present the annual report and the financial statement of the Health Department for the year 1964.

Essentially the year was a healthy one for the citizens of Winnipeg with no major outbreaks of any serious disease, and indeed a progressive year in all respects.

The birth rate dropped to 21.7 per thousand population which is the lowest recorded since 1950. As expected heart disease and cancer continue to be the leading causes of death with cancer of the lung now being the leading cause of death in males for all forms of cancer.

The incidence of infectious hepatitis has remained relatively constant over the past three years with one hundred and thirty-three cases being reported in 1964. No cases of diphtheria were reported and this has not happened since 1959.

Three typhoid carriers were discovered and remedial action instituted to prevent the spread of this disease. The number of cases of scarlet fever decreased slightly to seventy-nine. Ten deaths as the result of tuberculosis were recorded in comparison with twelve deaths from this disease in 1963. Sixty-seven new active cases of tuberculosis were discovered, which is seven less than in the previous year.

The second mass feeding of Sabin vaccine for immunization against poliomyelitis was conducted in the Spring and 162,748 citizens availed themselves of this opportunity for further protection against this crippling disease.

Three individuals who had been bitten by a rabid cat were successfully treated with the appropriate vaccine to prevent the occurrence of this disease.

On our recommendation the Welfare Instruction By-law was amended to provide for "group foster homes". These homes provide accommodation for from four to eight children in a family-type setting, which is a new innovation in our City.

For some years we have been concerned about the possible transmission of infectious hepatitis or serum hepatitis, or other infections conditions, in the tattooing of human beings. Accordingly the Health By-law was amended to prevent anyone except a duly qualified medical practitioner from practicing the art of tattooing in Winnipeg. To my knowledge Winnipeg is the first City in Canada to have such legislation.

An attempt was made to have the Health By-law amended to require an annual tuberculin test or chest x-ray for all hairdressers and barbers but the City Charter did not contain such power. Hence recommendation was made to the Minister of Health through the Provincial Board of Health to amend the Manitoba Public Health Act to require that all barbers and hairdressers have an annual test to assure they are not suffering from tuberculosis. Such an amendment requires the approval of the Provincial Cabinet and I am confident that this amendment will be in effect in the near future.

The Department continues to receive many complaints regarding old car bodies lying around in various areas and as a result a recommendation was made that the Waste Collection By-law be amended to contain a definition of "junk" which would include old car bodies. At the time of writing this amendment has not yet been enacted but it has been approved by City Council.

The work load of the Nursing Division continued to increase substantially with the exception of a modest decrease in the number of women attending expectant mothers' classes. A request from the Medical Directors of the two large mental institutions in the Province to have public health nurses conduct the follow-up work necessary in dealing with discharged patients, had to be declined due to insufficient staff. It has been consistently shown in other areas that the rate of re-admission of mentally disturbed patients to mental hospitals can be markedly reduced by utilizing public health nurses in the follow-up program. We are under constant pressure from the Administrators of the Winnipeg School Division, school principals and others to provide more nursing service but repeated attempts to have our establishment of public health nurses increased have met with failure.

A comprehensive medical examination of one hundred and forty-four pre-school children of families on welfare was carried out with the aid of a National Health Grant to determine the state of health of these children. Details of this study are recorded later in this report.

There was a marked increase in the number of children of medically indigent families or families on welfare who received treatment in our Child Dental Clinics, increasing from 4,535 children in 1963 to 5,455 in 1964. The tremendous benefit of a fluoridated water supply is depicted in the number of children who are now entering school who have never had a dental cavity.

All Divisions of the Inspections Branch had a very busy year. Extensive swab-testing of dishes, glasses and other utensils used in drinking and eating establishments was re-established and the response of the operators of such establishments has been most satisfactory. During the year the City Charter was amended giving the right to the City to enact a By-law requiring that the exterior of buildings in residential areas be maintained in a suitable condition. Essentially such a By-law is for conservation of the housing stock and the prevention of blight in any neighbourhood. As far as can be determined Winnipeg will be the first City on the continent to have such extensive progressive legislation.

The work of the Sanitation and Hygiene Division is increasing mainly due to air pollution and the increase in the number of swimming pools in the City, particularly in apartment blocks and motels. Air pollution continues to be a problem and pressure is being continued by our Department through the Provincial Board of Health, for either the Provincial Government

An attempt was made to have the Health By-law amended to require an annual tuberculin test or chest x-ray for all hairdressers and barbers but the City Charter did not contain such power. Hence recommendation was made to the Minister of Health through the Provincial Board of Health to amend the Manitoba Public Health Act to require that all barbers and hairdressers have an annual test to assure they are not suffering from tuberculosis. Such an amendment requires the approval of the Provincial Cabinet and I am confident that this amendment will be in effect in the near future.

The Department continues to receive many complaints regarding old car bodies lying around in various areas and as a result a recommendation was made that the Waste Collection By-law be amended to contain a definition of "junk" which would include old car bodies. At the time of writing this amendment has not yet been enacted but it has been approved by City Council.

The work load of the Nursing Division continued to increase substantially with the exception of a modest decrease in the number of women attending expectant mothers' classes. A request from the Medical Directors of the two large mental institutions in the Province to have public health nurses conduct the follow-up work necessary in dealing with discharged patients, had to be declined due to insufficient staff. It has been consistently shown in other areas that the rate of re-admission of mentally disturbed patients to mental hospitals can be markedly reduced by utilizing public health nurses in the follow-up program. We are under constant pressure from the Administrators of the Winnipeg School Division, school principals and others to provide more nursing service but repeated attempts to have our establishment of public health nurses increased have met with failure.

A comprehensive medical examination of one hundred and forty-four pre-school children of families on welfare was carried out with the aid of a National Health Grant to determine the state of health of these children. Details of this study are recorded later in this report.

There was a marked increase in the number of children of medically indigent families or families on welfare who received treatment in our Child Dental Clinics, increasing from 4,335 children in 1963 to 5,455 in 1964. The tremendous benefit of a fluoridated water supply is depicted in the number of children who are now entering school who have never had a dental cavity.

All Divisions of the Inspections Branch had a very busy year. Extensive swab-testing of dishes, glasses and other utensils used in drinking and eating establishments was re-established and the response of the operators of such establishments has been most satisfactory. During the year the City Charter was amended giving the right to the City to enact a By-law requiring that the exterior of buildings in residential areas be maintained in a suitable condition. Essentially such a By-law is for conservation of the housing stock and the prevention of blight in any neighbourhood. As far as can be determined Winnipeg will be the first City on the continent to have such extensive progressive legislation.

The work of the Sanitation and Hygiene Division is increasing mainly due to air pollution and the increase in the number of swimming pools in the City, particularly in apartment block and motels. Air pollution continues to be a problem and pressure is being continued by our Department through the Provincial Board of Health, for either the Provincial Government

or the Metropolitan Corporation of Greater Winnipeg to establish an air pollution control authority.

The Bacteriological Laboratory, which in the main conducted tests on dairy products, was discontinued in March through the co-operation of the Provincial Health Department who now do all the required tests.

This is but a brief summary of the detailed reports which follow. The support of the Committee on Public Health and Welfare as well as that of other elected representatives to the City Council has been appreciated by myself and all other members of the staff. I should like to commend all members of the Department for their loyalty, diligence and efficiency in carrying out the many varied activities of the Department.

Respectfully submitted,

R.G. Cadham.

R.G. Cadham, M.D.,
Medical Health Officer.

RGC:lv

or the Metropolitan Corporation of Greater Winnipeg to establish an air pollution control authority.

The Bacteriological Laboratory, which in the main conducted tests on dairy products, was discontinued in March through the co-operation of the Provincial Health Department who now do all the required tests.

This is but a brief summary of the detailed reports which follow. The support of the Committee on Public Health and Welfare as well as that of other elected representatives to the City Council has been appreciated by myself and all other members of the staff. I should like to commend all members of the Department for their loyalty, diligence and efficiency in carrying out the many varied activities of the Department.

Respectfully submitted,

R.C. Cadham, M.D.,
Medical Health Officer.

RCC:lv

CONTENTS

C O N T E N T S

COMMITTEE ON PUBLIC HEALTH AND WELFARE

Alderman E.J. Enns, Chairman,
Alderman P. Parashin, Acting Chairman,
Alderman E.I. Tennant,
Alderman M.H. Danzker,
Alderman L. Stinson,
Alderman I. Wolch,
His Worship Mayor S. Juba (ex officio)

STAFF

Medical Health Officer	R.G. Cadham, M.D., D.P.H.
Deputy Medical Health Officer	P. Constantinidis, M.D.
Consultant, Child Care Services	H. Medovy, M.D., F.R.C.P.(C).
Director of Dental Services	L.N. Konyk, D.D.S.
Director, Public Health Nursing	Miss L. MacKenzie, R.N., M.A., P.D.
Chief Health Inspector	E.J. Rigby, D.V.M.
Secretary	E. Singleton.

COMMITTEE ON PUBLIC HEALTH AND WELFARE

Alderman E.J. Bonn, Chairman,
Alderman P. Prasekin, Acting Chairman,
Alderman R.I. Tennant,
Alderman M.H. Danzker,
Alderman L. Stinson,
Alderman I. Welch,
His Worship Mayor S. Juba (ex officio)

STAFF

Medical Health Officer . . . . . R.G. Cadham, M.D., D.P.H.

Deputy Medical Health Officer . . . . . P. Constantinidis, M.D.

Consultant, Child Care Services . . . . . H. Medovy, M.D., F.R.C.P.(C).

Director of Dental Services . . . . . L.N. Konyk, D.D.S.

Director, Public Health Nursing . . . . . Miss L. MacKenzie, R.N., M.A., P.D.

Chief Health Inspector . . . . . E.J. Rigby, D.V.M.

Secretary . . . . . E. Singleton.

HISTORY

From a Hudson's Bay Company trading post (Fort Garry) in 1870, with a population of 215, Winnipeg has grown to the size and finish of a first-class city of approximately 258,000 people. When the City was incorporated in 1873 there was a population of 1,869.

The present Health Department may be said to date from 1900 when the late Dr. A.J. Douglas was appointed the first full-time Health Officer.

From 1881 to 1900 Winnipeg had a series of part-time Medical Health Officers.

In 1941 amalgamation with the School Medical Services occurred and the services increased and extended to all child-caring institutions in the City without distinction. This applies to Medical, Dental and Nursing Services.

The Child Health Services Board was set up to help the Department in a consultative manner, meetings being held at the call of the Chairman. This Board was replaced in 1955 by a monthly meeting of the administrative officers of the School Board and the Health Department.

The Department has now several Branches to carry out the provisions of the Public Health Act of Manitoba, the Health By-law of the City and a number of other City By-laws.

AREA AND POPULATION

On January 1, 1963, the City of Winnipeg annexed an area of about 3,500 acres from the Rural Municipality of Rosser, which had a population of 450.

The City now covers a total area of 31 square miles -- land 30.27 square miles (19,196 acres), and water .73 square miles (469 acres). The density of the population is 13.4 persons per acre of land.

For statistical purposes the population for 1964 is 255,796, a decrease of 817 from 256,613 in 1963 as determined by the Assessment Commissioner. In 1964 the natural increase (live births less deaths) was 2,937. In the last ten years the population of Winnipeg has increased 11,763 while the excess of births over deaths has been 33,846.

HISTORY

From a Hudson's Bay Company trading post (Fort Garry) in 1870, with a population of 215, Winnipeg has grown to the size and finish of a first-class city of approximately 258,000 people. When the City was incorporated in 1873 there was a population of 1,869.

The present Health Department may be said to date from 1900 when the late Dr. A.J. Douglas was appointed the first full-time Health Officer.

From 1881 to 1900 Winnipeg had a series of part-time Medical Health Officers.

In 1941 amalgamation with the School Medical Services occurred and the services increased and extended to all child-caring institutions in the City without distinction. This applies to Medical, Dental and Nursing Services.

The Child Health Services Board was set up to help the Department in a consultative manner, meetings being held at the call of the Chairman. This Board was replaced in 1955 by a monthly meeting of the administrative officers of the School Board and the Health Department.

The Department has now several Branches to carry out the provisions of the Public Health Act of Manitoba, the Health By-law of the City and a number of other City By-laws.

AREA AND POPULATION

On January 1, 1963, the City of Winnipeg annexed an area of about 3,500 acres from the Rural Municipality of Rossser, which had a population of 450.

The City now covers a total area of 31 square miles -- land 30.27 square miles (19,196 acres), and water .73 square miles (469 acres). The density of the population is 13.4 persons per acre of land.

For statistical purposes the population for 1964 is 255,796, a decrease of 81/ from 256,613 in 1963 as determined by the Assessment Commissioner. In 1964 the natural increase (live births less deaths) was 2,937. In the last ten years the population of Winnipeg has increased 11,763 while the excess of births over deaths has been 33,866.

VITAL STATISTICS AS REGISTERED IN WINNIPEG, 1964

(Including Non-Residents)

	1964	1963
Live Births	8,874	9,212
Deaths	3,175	3,232
Stillbirths	150	150

Summary of Vital Statistics, Residents, 1964

		1964	1963
Live Births	Male	2,838	3,042
	Female	2,705	2,817
	Total	5,543	5,859
Rate per 1,000 population		21.7	22.8
Deaths	Male	1,557	1,578
	Female	1,049	1,167
	Total	2.606	2.745
Rate per 1,000 population		10.2	10.7
Natural increase		2,937	3,114
Infant Deaths (-1 year)	Male	77	75
	Female	51	48
	Total	128	123
Rate per 1,000 Live Births		23.1	21.0
Stillbirths	Male	34	48
	Female	49	40
	Total	83	88
Rate per 1,000 Live Births		15.0	15.0
Maternal Deaths		-	2
Rate per 1,000 Live Births		-	.3

(Population - December 31, 1964 - 255,796)

VITAL STATISTICS AS REGISTERED IN WINNIPEG, 1964

(Including Non-Residents)

	1964	1963
Live Births	8,874	9,212
Deaths	3,175	3,232
Stillbirths	150	150

Summary of Vital Statistics, Residents, 1964

		1964	1963
Live Births	Male	2,838	3,042
	Female	2,705	2,817
	Total	5,543	5,859
Rate per 1,000 population		21.7	22.8
Deaths	Male	1,557	1,578
	Female	1,049	1,167
	Total	2,606	2,745
Rate per 1,000 population		10.2	10.7
Natural Increase		2,937	3,114
Infant Deaths (-1 year)	Male	77	75
	Female	51	48
	Total	128	123
Rate per 1,000 Live Births		23.1	21.0
Stillbirths	Male	34	48
	Female	49	40
	Total	83	88
Rate per 1,000 Live Births		15.0	15.0
Maternal Deaths		-	2
Rate per 1,000 Live Births		-	.3

(Population - December 31, 1964 - 255,795)

LIVE BIRTHS

The total of 5,543 live born resident babies recorded in 1964 was the lowest number recorded since 1952 and the rate of 21.7 per 1,000 population is the lowest rate recorded since 1950. There were 2,838 boys and 2,705 girls born giving a ratio of 1,049 boys to 1,000 girls. First children accounted for 2,016 or 36.4%, second children 1,478 or 26.7%, 5,177 or 93.4% included the fifth child. There were 4,231 or 76.3% babies born to mothers in the fifteen year age group 20 - 34 years.

INFANT MORTALITY

There were 128 deaths of infants under one year of age giving a rate of 23.1 per 1,000 live births compared with 21.0 in 1963. 91 or 71.1% occurred during the first week of life.

The chief causes of infant deaths were (1963 figures are shown in parentheses). 1. Immaturity 32 (25), 2. Congenital Malformations 20 (19), 3. Injury at birth 17 (21), 4. Accidental Causes 17 (14), 5. Postnatal Asphyxia and Atelectasis 14 (9).

A detailed list of the causes of infant deaths is on page 20 of this report.

PERINATAL MORTALITY

In 1964 there were 83 stillbirths and 90 deaths of infants under one week giving a total of 173, which represents a perinatal death rate of 30.8 per 1,000 total births. Comparative rates for 1963 and 1962 show rates of 28.9 and 29.7 respectively.

MATERNAL MORTALITY

For the first time in the history of Winnipeg no deaths were recorded from conditions pertaining to childbearing for Winnipeg residents.

In the last five years there has been a total of 11 maternal deaths, two each in the years 1959, 1960, 1962 and 1963, with three occurring in 1961.

GENERAL MORTALITY

The 2,606 deaths of Winnipeg residents recorded in 1964 was 139 less than the 2,745 recorded in 1963. The rate per 1,000 population decreased to 10.2 from 10.7 in 1963.

Heart disease was again the leading cause of death, accounting for 913 deaths or 35% of all deaths. While deaths from heart disease are low, up to 44 years of age, it is the leading cause from 45 years of age and accounted for 40% of all deaths between the ages of 45 and 84 years. In the 20 year age group 65 - 84, 62% of deaths were due to heart disease.

Malignant neoplasms accounted for 511 or 19.6% of all deaths as compared with 512 or 18.7% in 1963. The site of the trachea bronchus lung accounted for the greatest number of deaths of any site - 89, with 76 of the deaths occurring to males. Cancer of the breast accounted for the

greatest number of deaths in females - 44.

Vascular lesions affecting the Central Nervous System were the third leading cause of death accounting for 282 deaths or 10.8% of all deaths with over 86% occurring at age 65 and over.

Accidents, poisoning and violent deaths ranked fourth causing 189 or 7.2% of all deaths. All Accidental Causes accounted for 155, suicide 31 and homicide 3. Motor vehicle accidents accounted for 43 deaths with 16 or 37% occurring in the 15 - 24 year age group. Accidents caused by fire or explosion of combustible material took 15 lives with 12 or 80% occurring to children 14 years of age and under.

* * *

Our appreciation and thanks are extended to all those who co-operated with us during the year in permitting us the use of the registrations of births and deaths or copies of them and for the use of the tabulating machine.

LIVE BIRTHS & INFANT DEATHS 1944 - 1964

YEAR	NUMBER OF BIRTHS	RATE PER 1,000 POPULATION	INFANT DEATHS	RATE PER 1,000 LIVE BIRTHS
1944	4,060	17.7	144	35.5
1945	4,210	18.2	134	31.8
1946	5,223	22.6	184	35.2
1947	5,532	23.6	193	34.7
1948	4,779	20.4	153	32.0
1949	4,968	21.2	137	27.6
1950	5,045	21.1	133	26.4
1951	5,254	21.9	115	21.9
1952	5,417	22.5	131	24.2
1953	5,586	23.0	166	29.7
1954	5,920	24.3	145	24.4
1955	6,016	24.2	147	24.4
1956	5,908	23.3	144	24.4
1957	6,067	23.8	180	29.7
1958	5,892	23.1	155	26.3
1959	6,023	23.4	154	25.6
1960	6,281	24.5	158	25.1
1961	6,105	23.8	137	22.4
1962	5,938	23.2	135	22.7
1963	5,859	22.8	123	21.0
1964	5,543	21.7	128	23.1

BIRTHS

ORDER OF BIRTH BY AGE OF MOTHER 1964

(Percentage of Total compared with 1963)

	10-14	15-19	20-24	25-29	30-34	35-39	40 +	Age Un-known	TOTAL	1964 % of TOTAL	1963 % of TOTAL
1st	4	564	957	348	102	30	10	1	2,016	36.4	34.5
2nd	-	157	665	410	165	60	21	-	1,478	26.7	26.8
3rd	-	18	304	308	164	87	29	-	910	16.4	15.8
4th	-	2	93	170	148	67	15	-	495	8.9	10.0
5th	-	-	44	74	79	65	16	-	278	5.0	5.5
6th & over	-	-	17	76	103	114	42	-	352	6.4	7.2
Unknown	-	-	2	2	-	-	-	10	14	.2	.2
Total	4	741	2,082	1,388	761	423	133	11	5,543	100.0	100.0

LIVE BIRTHS & INFANT DEATHS 1964 - 1964

YEAR	NUMBER OF BIRTHS	RATE PER 1,000 POPULATION	INFANT DEATHS	RATE PER 1,000 LIVE BIRTHS
1964	4,060	17.7	144	35.5
1963	4,210	18.2	134	31.8
1962	5,223	22.6	184	35.2
1961	5,532	23.6	193	34.7
1960	4,779	20.4	153	32.0
1959	4,968	21.2	137	27.6
1958	5,045	21.1	133	26.4
1957	5,254	21.9	115	21.9
1956	5,417	22.5	131	24.2
1955	5,586	23.0	166	29.7
1954	5,920	24.3	145	24.4
1953	6,016	24.2	147	24.4
1952	5,908	23.3	144	24.4
1951	6,067	23.8	180	29.7
1950	5,892	23.1	155	26.3
1949	6,023	23.4	154	25.6
1948	6,281	24.5	158	25.1
1947	6,105	23.8	137	22.4
1946	5,938	23.2	135	22.7
1945	5,859	22.8	123	21.0
1944	5,543	21.7	128	23.1

BIRTHS

ORDER OF BIRTH BY AGE OF MOTHER 1964

(Percentage of Total compared with 1963)

	10-14	15-19	20-24	25-29	30-34	35-39	40 +	Age Un-known	TOTAL	1964 % of TOTAL	1963 % of TOTAL
1st	4	564	957	348	102	30	10	1	2,016	36.4	34.5
2nd	-	157	665	410	165	60	21	-	1,478	26.7	26.8
3rd	-	18	304	308	164	87	29	-	910	16.4	15.8
4th	-	2	93	170	148	67	15	-	495	8.9	10.0
5th	-	-	44	74	79	65	16	-	278	5.0	5.5
6th & over	-	-	17	76	103	114	42	-	352	6.4	7.2
Unknown	-	-	2	2	-	-	-	10	14	.2	.2
Total	4	741	2,082	1,388	761	423	133	11	5,543	100.0	100.0

Table Showing Number of Births, Deaths, Infant Deaths And Maternal Mortality With Rates For Winnipeg For Years 1911-1964 * **

YEAR	BIRTHS	RATE PER 1,000 pop.	DEATHS	RATE PER 1,000 pop.	INFANT DEATHS	RATE PER 1,000 L.B.	MATERNAL MORTALITY	RATE PER 1,000 L.B.
1911-15	5,369	29	2,022	11.1	813	152	35	6.5
1916-20	5,695	30	2,177	11.5	570	104	35	6.9
1921-25	5,371	27	1,677	8.5	415	77	25	4.7
1926-30	4,527	22	1,777	8.7	277	61	26	5.7
1931-35	3,944	18	1,512	6.9	170	43	20	5.1
1936-40	3,785	17	1,697	7.7	138	36	17	4.5
1941-45	4,037	18	1,985	8.7	159	39	10	2.3
1946-50	5,200	22	2,035	8.7	164	31	4	0.8
1951-55	5,639	23.2	2,220	9.2	140	24.8	4	0.7
1956-60	6,034	23.7	2,595	10.2	158	26.2	2	0.4
1959	6,023	23.4	2,738	10.6	154	25.6	2	0.3
1960	6,281	24.5	2,680	10.4	158	25.1	2	0.3
1961	6,105	23.8	2,566	10.0	137	22.4	3	0.5
1962	5,938	23.2	2,564	10.0	135	22.7	2	0.3
1963	5,859	22.8	2,745	10.7	123	21.0	2	0.3
1964	5,543	21.7	2,606	10.2	128	23.1	0	-

Table Showing Number of Deaths and Rate Per 100,000 Population From Certain Diseases for Winnipeg For The Years 1911 to 1964 * **

YEAR	T.B.	RATE PER 100,000 pop.	4 Acute Comm. Diseases ≠	RATE PER 100,000 pop.	DISEASES OF HEART	RATE PER 100,000 pop.	CANCER ALL FORMS	RATE PER 100,000 pop.
1911-15	131	72	142	78	117	64	87	48
1916-20	136	72	135	72	138	73	135	72
1921-25	94	48	65	33	174	88	178	90
1926-30	86	42	37	18	233	115	209	103
1931-35	65	29	15	7	308	141	268	123
1936-40	52	24	11	5	450	205	283	129
1941-45	51	22	8	4	613	270	324	143
1946-50	34	14	4	2	676	291	333	143
1951-55	20	8	1	0.4	804	334	412	169
1956-60	17	6.5	1	0.5	952	374	466	183
1959	15	6	-	-	1010	392	482	187
1960	18	7	1	0.3	1005	391	494	192
1961	10	4	1	0.3	917	357	465	181
1962	8	3	2	0.8	934	365	499	195
1963	12	5	-	-	913	356	512	200
1964	11	4	-	-	913	357	511	200

* 1911-1930 include non-residents. 1931-1964 include residents only.
** 1911-1960 show average figures for the periods.
≠ Measles, Scarlet Fever, Diphtheria, Whooping Cough.

Table Showing Number of Births, Deaths, Infant Deaths And Maternal Mortality With Rates For Winnipeg For Years 1911-1964 * **

YEAR	BIRTHS	RATE PER 1,000 pop.	DEATHS	RATE PER 1,000 pop.	INFANT DEATHS	RATE PER 1,000 L.B.	MATERNAL MORTALITY	RATE PER 1,000 L.B.
1911-15	5,369	29	2,022	11.1	813	152	35	6.5
1916-20	5,695	30	2,177	11.5	570	104	35	6.9
1921-25	5,371	27	1,677	8.5	415	77	25	4.7
1926-30	4,527	22	1,777	8.7	277	61	26	5.7
1931-35	3,964	18	1,512	6.9	170	43	20	5.1
1936-40	3,785	17	1,697	7.7	138	36	17	4.5
1941-45	4,037	18	1,985	8.7	159	39	10	2.3
1946-50	5,200	22	2,035	8.7	164	31	4	0.8
1951-55	5,639	23.2	2,220	9.2	140	24.8	4	0.7
1956-60	6,034	23.7	2,595	10.2	158	26.2	2	0.4
1959	6,023	23.4	2,738	10.6	154	25.6	2	0.3
1960	6,281	24.5	2,680	10.4	158	25.1	2	0.3
1961	6,105	23.8	2,566	10.0	137	22.4	3	0.5
1962	5,938	23.2	2,564	10.0	135	22.7	2	0.3
1963	5,859	22.8	2,745	10.7	123	21.0	2	0.3
1964	5,543	21.7	2,606	10.2	128	23.1	0	-

Table Showing Number of Deaths and Rate Per 100,000 Population From Certain Diseases for Winnipeg For The Years 1911 to 1964 * **

YEAR	T.B.	RATE PER 100,000 pop.	Acute Communicable diseases ‡	RATE PER 100,000 pop.	DISEASES OF HEART	RATE PER 100,000 pop.	CANCER ALL FORMS	RATE PER 100,000 pop.
1911-15	131	72	142	78	117	64	87	48
1916-20	136	72	135	72	138	73	135	72
1921-25	94	48	65	33	174	88	178	90
1926-30	86	42	37	18	233	115	209	103
1931-35	65	29	15	7	308	141	268	123
1936-40	52	24	11	5	450	205	283	129
1941-45	51	22	8	4	613	270	324	143
1946-50	34	16	4	2	676	291	333	143
1951-55	20	8	1	0.4	804	334	412	169
1956-60	17	6.5	1	0.5	952	374	466	183
1959	15	6	-	-	1010	392	482	187
1960	18	7	1	0.3	1005	391	494	192
1961	10	4	1	0.3	917	357	465	181
1962	8	3	2	0.8	934	365	499	195
1963	12	5	-	-	913	356	512	200
1964	11	4	-	-	913	357	511	200

* 1911-1930 include non-residents. 1931-1964 include residents only.
** 1911-1960 show average figures for the periods.
‡ Measles, Scarlet Fever, Diphtheria, Whooping Cough.

CHIEF CAUSES OF DEATH 1964 RESIDENTS ONLY

All Ages

No.	CAUSE OF DEATH	1964 Number of Deaths	1964 % of Total Deaths	1963 Number of Deaths	1963 % of Total Deaths
1	Diseases of the Heart	913	35.0	913	33.3
2	Malignant Neoplasms	511	19.6	512	18.7
3	Vascular lesions affecting Central Nervous System	282	10.8	315	11.5
4	Accidents, Poisoning and Violent Deaths	189	7.2	164	6.0
5	Pneumonia	118	4.5	198	7.2
6	Malformations and Diseases of Early Infancy	107	4.1	112	4.1
7	Diseases of Arteries	73	2.8	78	2.8
8	Bronchitis	31	1.2	39	1.4
9	Diabetes Mellitus	31	1.2	33	1.2
10	Cirrhosis of Liver	25	1.0	38	1.4
11	Ulcer of Stomach and Duodenum	20	0.8	23	0.8
12	Intestinal Obstruction and Hernia	20	0.8	21	0.8
13	Nephritis and Nephrosis	12	0.5	9	0.4
14	Tuberculosis	11	0.4	12	0.3
15	Hypertension without mention of Heart	5	0.2	3	0.1
	All other causes	258	9.9	275	10.0
	TOTAL	2,606	100.0	2,745	100.0

Causes of Death

The following pages give particulars of the number of deaths of Winnipeg residents for the year 1964 classified according to cause, age and sex. The causes of death are coded according to the Seventh Revision of the International List of Diseases and Causes of Death.

CHIEF CAUSES OF DEATH OF WINNIPEG RESIDENTS IN CERTAIN AGE GROUPS 1964

No.	Cause of Death	Deaths in age group		Deaths at all ages	
		Number	Percent	Number	Percent
	0 - 1 years				
1	Immaturity	32	25.2	32	100.0
2	Congenital Malformations	20	15.7	24	83.3
3	Birth Injuries	17	13.4	17	100.0
4	Accidental Causes	17	13.4	155	11.0
5	Postnatal Asphyxia & Atelectasis	14	10.2	14	100.0
6	Infections of the newborn	3	2.4	3	100.0
7	Haemolytic Disease of the newborn	2	1.6	2	100.0
8	Haemorrhage disease of the newborn	2	1.6	2	100.0
	All other causes	21	16.5	2357	0.9
	Total	128	100.0	2606	4.9
	1 - 4 years				
1*	Accidental Causes	12	50.0	155	7.7
2#	Malignant Neoplasms	5	20.8	511	0.1
3	Pneumonia all forms	1	4.2	118	0.8
4	Gastro Enteritis	1	4.2	6	16.7
	All other causes	5	20.8	1816	0.3
	Total	24	100.0	2606	0.9
*	Fire - 5 Motor Vehicle - 2				
#	Leukaemia & Aleukaemia - 3				
	5 - 14 years				
1*	Accidental causes	9	64.3	155	5.8
2	Leukaemia and Aleukaemia	2	14.4	27	7.4
3	Inflammatory diseases of the nervous system	1	7.1	17	5.9
4	Acute Upper Respiratory infections	1	7.1	1	100.0
5	Congenital malformations of the circulatory system	1	7.1	9	11.1
	All other causes	-	-	2397	-
	Total	14	100.0	2606	0.5
*	Motor Vehicle - 2 Fire - 5				
	15 - 24 years				
1	Motor Vehicle accidents	16	66.7	43	37.2
2	Suicides	2	8.3	31	6.5
3	Diseases of the Heart	2	8.3	913	0.2
4	Malignant Neoplasms	1	4.2	511	0.2
5	Pneumonia all forms	1	4.2	118	0.8
	All other causes	2	8.3	990	0.2
	Total	24	100.0	2606	0.9

CHIEF CAUSES OF DEATH OF WINNIPEG RESIDENTS
IN CERTAIN AGE GROUPS - 1964

No.	Cause of Death	Deaths in age group		Deaths at all ages	
		Number	Percent	Number	Percent
	0 - 1 years				
1	Immaturity	32	25.2	32	100.0
2	Congenital Malformations	20	15.7	24	83.3
3	Birth Injuries	17	13.4	17	100.0
4	Accidental Causes	17	13.4	155	11.0
5	Postnatal Asphyxia & Atelectasis	14	10.2	14	100.0
6	Infections of the newborn	3	2.4	3	100.0
7	Haemolytic Disease of the newborn	2	1.6	2	100.0
8	Haemorrhage disease of the newborn	2	1.6	2	100.0
	All other causes	21	16.5	2357	0.9
	Total	128	100.0	2606	4.9
	1 - 4 years				
1*	Accidental Causes	12	50.0	155	7.7
2#	Malignant Neoplasms	5	20.8	511	0.1
3	Pneumonia all forms	1	4.2	118	0.8
4	Gastro Enteritis	1	4.2	6	16.7
	All other causes	5	20.8	1816	0.3
	Total	24	100.0	2606	0.9
*	Fire - 3 Motor Vehicle - 2				
#	Leukaemia & Aleukaemia - 3				
	5 - 14 years				
1*	Accidental causes	9	64.3	155	5.8
2	Leukaemia and Aleukaemia	2	14.4	27	7.4
3	Inflammatory diseases of the nervous system	1	7.1	17	5.9
4	Acute Upper Respiratory Infections	1	7.1	1	100.0
5	Congenital malformations of the circulatory system	1	7.1	9	11.1
	All other causes	-	-	2397	-
	Total	14	100.0	2606	0.5
*	Motor Vehicle - 2 Fire - 3				
	15 - 24 years				
1	Motor Vehicle accidents	16	66.7	43	37.2
2	Suicides	2	8.3	31	6.5
3	Diseases of the Heart	2	8.3	913	0.2
4	Malignant Neoplasms	1	4.2	511	0.2
5	Pneumonia all forms	1	4.2	118	0.8
	All other causes	2	8.3	990	0.2
	Total	24	100.0	2606	0.9

CHIEF CAUSES OF DEATH OF WINNIPEG RESIDENTS IN CERTAIN AGE GROUPS 1964

No.	Cause of Death	Deaths in age group		Deaths at all ages	
		Number	Percent	Number	Percent
	25 - 44 years				
1	Malignant Neoplasms	27	26.0	511	5.3
2	Diseases of the heart	18	17.3	913	2.0
3	Suicides	7	6.7	31	22.6
4	Accidental Poisoning	7	6.7	13	53.8
5	Vascular lesions affecting Central Nervous System	6	5.8	282	2.1
6	Motor vehicle accidents	5	4.8	43	11.6
7	Accidental falls	4	3.8	39	10.3
8	Cirrhosis of the liver	2	1.9	25	8.0
	All other causes	28	27.0	749	3.7
	Total	104	100.0	2,606	4.0
	45 - 64 years				
1	Diseases of the heart	221	39.5	913	24.2
2	Malignant Neoplasms	169	30.2	511	33.1
3	Vascular lesions affecting Central Nervous System	32	5.7	282	11.3
4	Suicide	21	3.8	31	67.7
5	Cirrhosis of the liver	11	2.0	25	44.0
6	Pneumonia all forms	10	1.7	118	8.5
7	Motor vehicle accidents	10	1.7	43	8.5
8	Diabetes mellitus	6	1.1	31	19.4
	All other causes	80	14.3	652	12.3
	Total	560	100.0	2,606	21.5
	65 - 84 years				
1	Diseases of the heart	566	40.2	913	62.0
2	Malignant Neoplasms	286	20.3	511	56.0
3	Vascular lesions affecting Central Nervous System	191	13.6	282	67.7
4	Pneumonia all forms	65	4.6	118	55.1
5	Arteriosclerosis	20	1.4	43	46.5
6	Diabetes mellitus	20	1.4	31	64.5
7	Bronchitis	20	1.4	31	64.5
8	Accidental falls	14	1.0	39	35.9
	All other causes	227	16.1	638	35.6
	Total	1,409	100.0	2,606	54.1
	85 years and over				
1	Diseases of the heart	106	31.8	913	11.6
2	Vascular lesions affecting Central Nervous System	52	15.6	282	18.4
3	Pneumonia all forms	39	11.7	118	33.1
4	Malignant Neoplasms	34	10.2	511	6.7
5	Arteriosclerosis	22	6.6	43	51.2
6	Accidental falls	17	5.1	39	43.6
7	Infections of the kidney	5	1.5	24	20.8
8	Diabetes mellitus	4	1.2	31	12.9
	All other causes	54	16.3	645	8.4
	Total	333	100.0	2,606	12.8

CAUSES OF DEATH OF MINNIPEG RESIDENTS

IN CERTAIN AGE GROUPS 1954

No.	Cause of Death	Deaths in age group		Deaths at all ages	
		Number	Percent	Number	Percent
	55 - 64 years				
1	Malignant Neoplasms	51	30.0	511	2.3
2	Diseases of the heart	18	13.3	419	3.0
3	Suicides	1	0.7	31	22.6
4	Accidental Poisonings	1	0.7	13	23.8
5	Arteriosclerosis	8	5.8	285	2.1
6	Motor vehicle accidents	2	4.8	43	11.6
7	Accidental Falls	4	3.8	36	10.3
8	Cirrhosis of the liver	5	1.6	52	8.0
	All other causes	58	32.0	146	3.7
	Total	104	100.0	3,608	4.0
	45 - 54 years				
1	Malignant Neoplasms	169	30.5	511	33.1
2	Diseases of the heart	151	26.2	419	24.2
3	Arteriosclerosis	33	5.1	285	11.3
	Central Nervous System				
4	Suicides	12	3.8	31	43.1
5	Cirrhosis of the liver	11	5.0	52	44.0
6	Pneumonia all forms	10	1.7	118	8.5
7	Motor vehicle accidents	10	1.7	43	8.5
8	Diabetes mellitus	9	1.1	31	15.4
	All other causes	80	14.3	525	15.3
	Total	560	100.0	3,608	21.5
	35 - 44 years				
1	Diseases of the heart	200	40.5	419	63.0
2	Malignant Neoplasms	98	20.3	511	20.0
3	Arteriosclerosis	161	13.9	285	13.7
	Central Nervous System				
4	Pneumonia all forms	65	4.9	118	22.1
5	Arteriosclerosis	30	1.4	43	28.2
6	Diabetes mellitus	30	1.4	31	29.2
7	Bronchitis	30	1.4	31	29.2
8	Accidental Falls	14	1.0	36	32.9
	All other causes	122	10.1	638	32.8
	Total	1,408	100.0	3,608	25.1
	25 - 34 years				
1	Diseases of the heart	109	31.8	419	11.9
2	Arteriosclerosis	25	12.9	285	18.4
	Central Nervous System				
3	Pneumonia all forms	36	11.1	118	33.1
4	Malignant Neoplasms	34	10.5	511	6.1
5	Arteriosclerosis	22	6.9	43	51.5
6	Accidental Falls	17	5.1	36	43.8
7	Infections of the kidney	5	1.5	34	50.8
8	Diabetes mellitus	4	1.5	16	15.9
	All other causes	54	16.3	545	8.4
	Total	333	100.0	3,608	15.8

DEATHS OF WINNIPEG RESIDENTS BY CAUSE, AGE AND SEX - 1964

Int'l List No.	Cause of Death (Intermediate List) (7th Rev.)		Age																							
			Total	0 - 27 days	28 d. - 1 yr.	1 - 4 yrs.	5 - 9 yrs.	10 - 14 yrs.	15 - 19 yrs.	20 - 24 yrs.	25 - 29 yrs.	30 - 34 yrs.	35 - 39 yrs.	40 - 44 yrs.	45 - 49 yrs.	50 - 54 yrs.	55 - 59 yrs.	60 - 64 yrs.	65 - 69 yrs.	70 - 74 yrs.	75 - 79 yrs.	80 - 84 yrs.	85 - 89 yrs.	90 yrs. +	Unknown
	All Causes	T	2606	98	30	24	12	2	12	20	11	19	25	49	68	124	148	220	232	379	442	356	225	108	2
		M	1557	59	18	13	6	2	9	13	7	11	14	26	50	88	91	144	134	226	274	206	122	43	1
		F	1049	39	12	11	6	-	3	7	4	8	11	23	18	36	57	76	98	153	168	150	103	65	1
	I. Infective & parasitic diseases	T	21	-	-	2	-	-	-	-	-	-	-	1	1	1	2	1	7	3	2	-	1	-	-
		M	14	-	-	1	-	-	-	-	-	-	-	1	-	-	2	-	6	2	2	-	-	-	-
		F	7	-	-	1	-	-	-	-	-	-	-	-	1	1	-	1	1	1	-	-	1	-	-
A1	Tuberculosis of Respiratory System	M	8	-	-	-	-	-	-	-	-	-	-	-	-	-	2	-	3	2	1	-	-	-	-
		F	3	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	1	-	-	-	1	-	-
	A. Active	M	8	-	-	-	-	-	-	-	-	-	-	-	-	-	2	-	3	2	1	-	-	-	-
		F	2	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	1	-	-
	B. Inactive	M	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		F	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-
A5	Tuberculosis, all other forms	M	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		F	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-
A6	Congenital Syphilis	M	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		F	1	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
A10	All other Syphilis	M	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	-	1	-	-	-	-
		F	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-
A16	Dysentery, all forms	M	1	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-
		F	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
A20	Septicaemia and Pyaemia	M	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-
		F	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
A23	Meningococcal Infections	M	1	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		F	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
A34	Infectious Hepatitis	M	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		F	1	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-

Int'l Cause of Death

List (Intermediate List)

No. (7th Rev.)

	Total	Age: 1 yr. & under	1 - 4 yrs.	5 - 14 yrs.	15 - 24 yrs.	25 - 34 yrs.	35 - 44 yrs.	45 - 54 yrs.	55 - 64 yrs.	65 - 74 yrs.	75 - 84 yrs.	85 yrs. +	Unknown
All Causes	T M F												
1. Infectious & parasitic diseases	T M F												
Tuberculosis of Respiratory System	M F												
A. Active	M F												
B. Inactive, all forms	M F												
A10 All other Syphilis	M F												
Communicable Diseases, all forms	M F												
A20 Bubonic plague	M F												
A21 Meningococcal Infections	M F												
A24 Streptococcal sore throat and Scarlatina	M F												
A25 Erysipelas	M F												
A26 Diphtheria	M F												
A27 Acute Poliomyelitis	M F												
A28 Smallpox	M F												
A29 Rabies	M F												
A30 Leprosy	M F												
A31 Tetanus	M F												
A32 Typhoid Fever	M F												
A33 Other Salmonella infections	M F												
A34 Shigellosis	M F												
A35 Other food poisoning	M F												
A36 Amebiasis	M F												
A37 Other Intestinal Protozoal diseases	M F												
A38 Late effects of Tuberculosis	M F												
A39 Late effects of Acute Poliomyelitis	M F												
A40 Late effects of Leprosy	M F												
A41 Late effects of Other Infectious & Parasitic Diseases	M F												
A42 Late effects of Communicable Diseases	M F												
A43 Late effects of Infectious & Parasitic Diseases	M F												

Int'l List No.	Cause of Death (Intermediate List) (7th Rev.)		Age																									
			Total	0 - 27 days	28 d. - 1 yr	1 - 4 yrs.	5 - 9 yrs.	10 - 14 yrs.	15 - 19 yrs.	20 - 24 yrs.	25 - 29 yrs.	30 - 34 yrs.	35 - 39 yrs.	40 - 44 yrs.	45 - 49 yrs.	50 - 54 yrs.	55 - 59 yrs.	60 - 64 yrs.	65 - 69 yrs.	70 - 74 yrs.	75 - 79 yrs.	80 - 84 yrs.	85 - 89 yrs.	90 yrs +	Unknown
	II. Neoplasms	T	524	-	-	5	2	-	-	1	3	5	4	15	14	39	42	74	57	76	90	63	24	10	-
		M	293	-	-	3	1	-	-	1	-	1	1	3	6	18	21	46	30	51	59	37	13	2	-
		F	231	-	-	2	1	-	-	-	3	4	3	12	8	21	21	28	27	25	31	26	11	8	-
A44 - A59	All Malignant neoplasms	M	288	-	-	3	1	-	-	1	-	1	1	3	6	18	20	46	29	50	59	35	13	2	-
		F	223	-	-	2	1	-	-	-	3	3	3	12	8	19	21	26	26	23	31	26	11	8	-
A44	Buccal Cavity and Pharynx	M	5	-	-	-	-	-	-	-	-	-	-	-	-	-	1	2	-	1	-	-	1	-	-
		F	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	1	-	1	1	-
A45	Oesophagus	M	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	2	-	-	-
		F	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	2	-	-	-	-
A46	Stomach	M	35	-	-	-	-	-	-	-	-	-	1	-	1	3	3	6	2	5	9	4	1	-	-
		F	16	-	-	-	-	-	-	-	-	-	-	1	-	-	-	3	-	-	2	6	3	1	-
A47	Intestine except rectum	M	33	-	-	1	-	-	-	-	-	-	-	-	1	1	2	3	5	8	7	5	-	-	-
		F	23	-	-	-	-	-	-	-	-	-	-	1	-	4	2	2	3	2	5	2	1	1	-
A48	Rectum	M	12	-	-	-	-	-	-	-	-	-	-	-	-	2	-	1	-	-	4	2	3	-	-
		F	10	-	-	-	-	-	-	-	-	1	-	-	-	2	-	-	1	-	4	1	-	1	-
A49	Larynx	M	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-
		F	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
A50	Trachea, Bronchus and lung not specified as secondary	M	76	-	-	-	-	-	-	-	-	-	-	1	3	5	8	11	11	19	11	4	3	-	-
		F	13	-	-	-	-	-	-	-	-	-	-	1	-	1	-	2	5	2	2	-	-	-	-
A51	Breast	M	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		F	44	-	-	-	-	-	-	-	1	2	1	3	4	2	7	6	4	3	3	5	2	1	-
A52	Cervix Uteri	F	16	-	-	-	-	-	-	-	-	-	1	3	-	1	3	1	2	2	-	2	-	1	-
A53	Other and unspecified parts of the Uterus	F	6	-	-	-	-	-	-	-	-	-	-	-	-	1	1	-	1	1	1	-	1	-	-
A54	Prostate	M	38	-	-	-	-	-	-	-	-	-	-	-	-	1	-	6	2	12	9	5	2	1	-
A55	Skin	M	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	1	1	1	1	-
		F	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	-	1	-	-
A56	Bone and Connective Tissue	M	2	-	-	-	-	-	-	1	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-
		F	2	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	1	-	-	-
A57	All other and unspecified sites	M	52	-	-	1	-	-	-	-	-	-	-	-	1	5	5	10	6	3	12	8	1	-	-
		F	60	-	-	-	-	-	-	-	-	-	1	2	3	7	6	7	8	8	9	5	2	2	-

Line 1 Cause of Death (Underlying Cause)

No. (Lib Rev.)

Page

	Total	Under 1 year	1 - 4 years	5 - 14 years	15 - 24 years	25 - 34 years	35 - 44 years	45 - 54 years	55 - 64 years	65 - 74 years	75 - 84 years	85 years and over
	T M F	M F	M F	M F	M F	M F	M F	M F	M F	M F	M F	M F
II. Neoplasms												
A44 - A59 Malignant neoplasms												
A44 Buccal Cavity and Pharynx												
Oesophagus												
A45 Stomach												
A46 Intestine except rectum												
Rectum												
A47 Pancreas												
A48 Larynx												
A49 Trachea, bronchus and lung												
A50 Melanoma of skin												
A51 Breast												
A52 Cervix uteri												
A53 Other and unspecified parts of uterus												
A54 Prostate												
A55 Kidney												
A56 Bladder												
A57 Eye												
A58 Brain and Connective tissue												
A59 All other malignant neoplasms												

Int'l List No.	Cause of Death (Intermediate List) (7th Rev.)		Age																								
			Total	0 - 27 days	28 d. - 1 yr.	1 - 4 yrs.	5 - 9 yrs.	10 - 14 yrs.	15 - 19 yrs.	20 - 24 yrs.	25 - 29 yrs.	30 - 34 yrs.	35 - 39 yrs.	40 - 44 yrs.	45 - 49 yrs.	50 - 54 yrs.	55 - 59 yrs.	60 - 64 yrs.	65 - 69 yrs.	70 - 74 yrs.	75 - 79 yrs.	80 - 84 yrs.	85 - 89 yrs.	90 yrs. +	Unknown
	A. Other Digestive organs	M	18	-	-	1	-	-	-	-	-	-	-	-	1	1	2	2	2	1	5	3	1	-	-
	155 - 159	F	20	-	-	-	-	-	-	-	-	-	-	-	-	1	1	3	2	5	6	2	-	-	-
	B. Urinary Organs	M	18	-	-	-	-	-	-	-	-	-	-	-	-	2	1	4	3	1	3	4	-	-	-
	180, 181	F	6	-	-	-	-	-	-	-	-	-	-	-	-	1	1	1	1	1	-	-	1	-	-
	C. Brain and other parts of	M	7	-	-	-	-	-	-	-	-	-	-	-	1	2	1	3	-	-	-	-	-	-	-
	nervous system 193	F	3	-	-	-	-	-	-	-	-	-	-	1	1	-	1	-	-	-	-	-	-	-	-
	D. Other	M	9	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	1	1	4	1	-	-	-
		F	31	-	-	-	-	-	-	-	-	-	1	1	2	6	3	3	5	2	2	3	2	1	-
A58	Leukaemia and Aleukaemia	M	18	-	-	1	1	-	-	-	-	-	-	-	-	1	1	5	2	2	4	1	-	-	-
		F	9	-	-	2	1	-	-	-	1	-	-	1	-	1	-	1	1	1	-	-	-	-	-
A59	Lymphosarcoma and other	M	8	-	-	-	-	-	-	-	-	1	-	2	-	-	-	-	-	-	1	3	1	-	-
	neoplasms of lympathic and	F	13	-	-	-	-	-	-	-	1	-	-	-	1	-	1	3	-	2	1	4	-	-	-
	haematopoietic system																								
	A. Hodgkin's disease	M	2	-	-	-	-	-	-	-	-	1	-	1	-	-	-	-	-	-	-	-	-	-	-
	(201)	F	2	-	-	-	-	-	-	-	-	-	-	-	1	-	-	1	-	-	-	-	-	-	-
	B. Other	M	6	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	1	3	1	-	-
		F	11	-	-	-	-	-	-	-	1	-	-	-	-	-	1	2	-	2	1	4	-	-	-
A60	Benign neoplasms and neoplasms	M	5	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	1	1	-	2	-	-	-
	of unspecified nature	F	8	-	-	-	-	-	-	-	-	1	-	-	-	2	-	2	1	2	-	-	-	-	-
	III & IV. Allergic Disorders	T	57	-	-	1	-	-	1	-	-	1	1	-	1	3	5	4	4	14	6	10	3	3	-
	and endocrine metabolic and	M	29	-	-	1	-	-	-	-	-	1	-	-	1	2	4	-	2	8	4	6	-	-	-
	Blood diseases	F	28	-	-	-	-	-	1	-	-	-	1	-	-	1	1	4	2	6	2	4	3	3	-
A61	Non Toxic Goitre	M	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		F	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-
A63	Diabetes Mellitus	M	14	-	-	-	-	-	-	-	-	1	-	-	1	-	2	-	1	4	2	3	-	-	-
		F	17	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	1	4	1	4	2	2	-
A64	Avitaminosis and other	M	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-
	deficiency states	F	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
A65	Anemias	M	4	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	1	1	1	-	-	-
		F	2	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	1	-

Int'l List No.	Cause of Death (Intermediate List) (7th Rev.)		Total	0 - 27 days	28 d. - 1 yr.	1 - 4 yrs.	5 - 9 yrs.	10 - 14 yrs.	15 - 19 yrs.	20 - 24 yrs.	25 - 29 yrs.	30 - 34 yrs.	35 - 39 yrs.	40 - 44 yrs.	45 - 49 yrs.	50 - 54 yrs.	55 - 59 yrs.	60 - 64 yrs.	65 - 69 yrs.	70 - 74 yrs.	75 - 79 yrs.	80 - 84 yrs.	85 - 89 yrs.	90 yrs. +	Unknown
	A. Other Digestive organs 155 - 159	M	18	-	-	1	-	-	-	-	-	-	-	-	-	1	2	2	2	1	5	3	1	-	-
		F	20	-	-	-	-	-	-	-	-	-	-	-	-	1	1	3	2	5	6	2	-	-	-
	B. Urinary Organs 180, 181	M	18	-	-	-	-	-	-	-	-	-	-	-	-	2	1	4	3	1	3	4	-	-	-
		F	6	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	1	1	1	-	-	1	-
	C. Brain and other parts of nervous system 193	M	7	-	-	-	-	-	-	-	-	-	-	-	1	2	1	3	-	-	-	-	-	-	-
		F	3	-	-	-	-	-	-	-	-	-	-	1	1	-	1	-	-	-	-	-	-	-	-
	D. Other	M	9	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	1	1	4	1	-	-	-
		F	31	-	-	-	-	-	-	-	-	-	1	1	2	6	3	3	5	2	2	3	2	1	-
A58	Leukaemia and Aleukaemia	M	18	-	-	1	1	-	-	-	-	-	-	-	-	1	1	5	2	2	4	1	-	-	-
		F	9	-	-	2	1	-	-	-	1	-	-	1	-	1	-	1	1	1	-	-	-	-	-
A59	Lymphosarcoma and other neoplasms of lymphatic and haematopoietic system	M	8	-	-	-	-	-	-	-	-	1	-	2	-	-	-	-	-	-	1	3	1	-	-
		F	13	-	-	-	-	-	-	-	1	-	-	-	1	-	1	3	-	2	1	4	-	-	-
	A. Hodgkin's disease (201)	M	2	-	-	-	-	-	-	-	-	1	-	1	-	-	-	-	-	-	-	-	-	-	-
		F	2	-	-	-	-	-	-	-	-	-	-	-	1	-	-	1	-	-	-	-	-	-	-
	B. Other	M	6	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	1	3	1	-	-
		F	11	-	-	-	-	-	-	-	1	-	-	-	-	-	1	2	-	2	1	4	-	-	-
A60	Benign neoplasms and neoplasms of unspecified nature	M	5	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	1	1	-	2	-	-	-
		F	8	-	-	-	-	-	-	-	-	1	-	-	-	2	-	2	1	2	-	-	-	-	-
	III & IV. Allergic Disorders and endocrine metabolic and Blood diseases	T	57	-	-	1	-	-	-	1	-	1	1	-	1	3	5	4	4	14	6	10	3	3	-
		M	29	-	-	1	-	-	-	-	-	1	-	-	1	2	4	-	2	8	4	6	-	-	-
		F	28	-	-	-	-	-	-	1	-	-	1	-	-	1	1	4	2	6	2	4	3	3	-
A61	Non Toxic Goitre	M	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		F	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-
A63	Diabetes Mellitus	M	14	-	-	-	-	-	-	-	-	1	-	-	1	-	2	-	1	4	2	3	-	-	-
		F	17	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	1	6	1	4	2	2	-
A64	Avitaminosis and other deficiency states	M	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-
		F	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
A65	Anaemias	M	4	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	1	1	1	-	-	-
		F	2	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	1	-

Int'l List No.	Cause of Death (Intermediate List) (7th Rev.)		Age																							
			Total	0 - 27 days	28 d. - 1 yr.	1 - 4 yrs.	5 - 9 yrs.	10 - 14 yrs.	15 - 19 yrs.	20 - 24 yrs.	25 - 29 yrs.	30 - 34 yrs.	35 - 39 yrs.	40 - 44 yrs.	45 - 49 yrs.	50 - 54 yrs.	55 - 59 yrs.	60 - 64 yrs.	65 - 69 yrs.	70 - 74 yrs.	75 - 79 yrs.	80 - 84 yrs.	85 - 89 yrs.	90 yrs. +	Unknown
A66	Allergic disorders, all other endocrine, metabolic and blood diseases	M	10	-	-	1	-	-	-	-	-	-	-	-	-	2	1	-	-	3	1	2	-	-	-
		F	8	-	-	-	-	-	1	-	-	-	1	-	-	1	-	-	1	2	1	-	1	-	-
	V. Mental, psychoneurotic and personality disorders	T	2	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	1	-	-
		M	2	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	1	-	-
		F	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
A67	Psychoses	M	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-
		F	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
A68	Psychoneuroses and disorders of personality	M	1	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-
		F	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	VI. Diseases, of the nervous system and sense organs	T	304	-	-	1	1	-	-	1	1	3	1	3	5	10	8	13	21	43	67	71	32	22	1
		M	143	-	-	-	-	-	-	-	-	2	-	1	4	6	3	6	7	17	39	33	16	9	-
		F	161	-	-	1	1	-	-	1	1	1	1	2	1	4	5	7	14	26	28	38	16	13	1
A70	Vascular lesions affecting central nervous system	M	134	-	-	-	-	-	-	-	-	2	-	-	4	5	3	3	7	17	37	33	14	9	-
		F	148	-	-	-	-	-	-	-	1	-	1	2	1	4	5	7	11	23	27	36	16	13	1
A72	Multiple Sclerosis	M	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		F	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	-	-	-	-	-
A73	Epilepsy	M	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-
		F	2	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-
A78	All other diseases of the nervous system and sense organs	M	8	-	-	-	-	-	-	-	-	-	-	1	-	1	-	3	-	-	1	-	2	-	-
		F	9	-	-	1	1	-	-	-	-	1	-	-	-	-	-	-	2	2	-	2	-	-	-
	VII. Diseases of the Circulatory System	T	1017	-	-	-	-	-	1	1	-	1	6	14	32	43	56	98	110	180	191	150	91	43	-
		M	634	-	-	-	-	-	1	1	-	1	5	11	29	41	40	71	65	108	111	90	44	16	-
		F	383	-	-	-	-	-	-	-	-	-	1	3	3	2	16	27	45	72	80	60	47	27	-
A80	Chronic Rheumatic Heart Disease	M	12	-	-	-	-	-	-	-	-	-	-	-	2	2	1	2	2	1	-	2	-	-	-
		F	15	-	-	-	-	-	-	-	-	-	-	-	-	-	2	1	3	5	2	-	1	1	-

Date of Death (Internal use)
(Feb Rev.)

No.	Cause of Death (Internal use)	Total	0 - 59 days	1 - 4 yrs.	5 - 14 yrs.	15 - 24 yrs.	25 - 34 yrs.	35 - 44 yrs.	45 - 54 yrs.	55 - 64 yrs.	65 - 74 yrs.	75 - 84 yrs.	85 + yrs.	Unknown
A00	Cholera													
A01	Typhoid fever													
A02	Salmonella infections													
A03	Shigellosis													
A04	All other diseases of the intestinal tract													
A05	Botulism													
A06	Amoebiasis													
A07	Other protozoal diseases													
A08	Viral and other specified intestinal infections													
A09	Diarrhoea and gastroenteritis of presumed infectious origin													
A15	Respiratory tuberculosis, bacteriologically and histologically confirmed													
A16	Respiratory tuberculosis, not confirmed bacteriologically or histologically													
A17	Tuberculosis of nervous system													
A18	Tuberculosis of other organs													
A19	Miliary tuberculosis													
A20	Plague													
A21	Tularaemia													
A22	Anthrax													
A23	Brucellosis													
A24	Glanders and melioidosis													
A25	Rat-bite fevers													
A26	Erysipeloid													
A27	Leptospirosis, icterohaemorrhagic													
A28	Other zoonotic bacterial diseases, not elsewhere classified													
A30	Leprosy [Hansen's disease]													
A31	Infection due to other mycobacteria													
A32	Listeriosis													
A33	Tetanus neonatorum													
A34	Obstetrical tetanus													
A35	Other tetanus													
A36	Diphtheria													
A37	Whooping cough													
A38	Scarlet fever													
A39	Meningococcal infection													
A40	Streptococcal septicaemia													
A41	Other septicaemia													
A42	Actinomycosis													
A43	Nocardiosis													
A44	Bartonellosis													
A46	Erysipelas													
A48	Other bacterial diseases, not elsewhere classified													
A49	Bacterial infection of unspecified site													
A50	Congenital syphilis													
A51	Early syphilis													
A52	Late syphilis													
A53	Other and unspecified syphilis													
A54	Gonococcal infection													
A55	Chlamydial lymphogranuloma (venereum)													
A56	Other sexually transmitted chlamydial diseases													
A57	Chancroid													
A58	Granuloma inguinale													
A59	Trichomoniasis													
A60	Anogenital herpesviral [herpes simplex] infection													
A63	Other predominantly sexually transmitted diseases, not elsewhere classified													
A64	Unspecified sexually transmitted disease													
A65	Nonvenereal syphilis													
A66	Yaws													
A67	Pinta [carate]													
A68	Relapsing fever													
A69	Other spirochaetal infections													
A70	Chlamydia psittaci infection													
A71	Trachoma													
A74	Other diseases caused by chlamydiae													
A75	Typhus fever													
A77	Spotted fever [tick-borne rickettsioses]													
A78	Q fever													
A79	Other rickettsioses													
A80	Acute poliomyelitis													
A81	Atypical virus infections of central nervous system													
A82	Rabies													
A83	Mosquito-borne viral encephalitis													
A84	Tick-borne viral encephalitis													
A85	Other viral encephalitis, not elsewhere classified													
A86	Unspecified viral encephalitis													
A87	Viral meningitis													
A88	Other viral infections of central nervous system, not elsewhere classified													
A89	Unspecified viral infection of central nervous system													
A90	Dengue fever [classical dengue]													
A91	Dengue haemorrhagic fever													
A92	Other mosquito-borne viral fevers													
A93	Other arthropod-borne viral fevers, not elsewhere classified													
A94	Unspecified viral haemorrhagic fever													
A95	Yellow fever													
A96	Arenaviral haemorrhagic fever													
A98	Other viral haemorrhagic fevers, not elsewhere classified													
B00	Herpesviral [herpes simplex] infections													
B01	Varicella [chickenpox]													
B02	Zoster [herpes zoster]													
B03	Smallpox													
B04	Monkeypox													
B05	Measles													
B06	Rubella [German measles]													
B07	Viral warts													
B08	Other viral infections characterized by skin and mucous membrane lesions, not elsewhere classified													
B09	Unspecified viral infection characterized by skin and mucous membrane lesions													
B15	Acute hepatitis A													
B16	Acute hepatitis B													
B17	Other acute viral hepatitis													
B18	Chronic viral hepatitis													
B19	Unspecified viral hepatitis													
B20	Human immunodeficiency virus [HIV] disease resulting in infectious and parasitic diseases													
B21	Human immunodeficiency virus [HIV] disease resulting in malignant neoplasms													
B22	Human immunodeficiency virus [HIV] disease resulting in other specified diseases													
B23	Human immunodeficiency virus [HIV] disease resulting in other conditions													
B24	Unspecified human immunodeficiency virus [HIV] disease													
B25	Cytomegaloviral disease													
B26	Mumps													
B27	Infectious mononucleosis													
B30	Viral conjunctivitis													
B33	Other viral diseases, not elsewhere classified													
B34	Viral infection of unspecified site													
B35	Dermatophytosis [tinea]													
B36	Other superficial mycoses													
B37	Candidiasis													
B38	Coccidioidomycosis													
B39	Histoplasmosis													
B40	Blastomycosis													
B41	Paracoccidioidomycosis													
B42	Sporotrichosis													
B43	Chromoblastomycosis and phaeomycotic abscess													
B44	Aspergillosis													
B45	Cryptococcosis													
B46	Zygomycosis													
B47	Mycetoma													
B48	Other mycoses, not elsewhere classified													
B49	Unspecified mycosis													
B50	Plasmodium falciparum malaria													
B51	Plasmodium vivax malaria													
B52	Plasmodium malariae malaria													
B53	Other parasitologically confirmed malaria													
B54	Unspecified malaria													
B55	Leishmaniasis													
B56	African trypanosomiasis													
B57	Chagas' disease													
B58	Toxoplasmosis													
B59	Pneumocystosis													
B60	Other protozoal diseases, not elsewhere classified													
B64	Unspecified protozoal disease													
B65	Schistosomiasis [bilharziasis]													
B66	Other fluke infections													
B67	Echinococcosis													
B68	Taeniasis													
B69	Cysticercosis													
B70	Diphyllobothriasis and sparganosis													
B71	Other cestode infections													
B72	Dracunculiasis [guinea-worm disease]													
B73	Onchocerciasis [river blindness]													
B74	Filariasis													
B75	Trichinellosis													
B76	Hookworm diseases													
B77	Ascariasis													
B78	Strongyloidiasis													
B79	Trichuriasis													
B80	Enterobiasis													
B81	Other intestinal helminthiases, not elsewhere classified													
B82	Unspecified intestinal parasitism													
B83	Other helminthiases													
B85	Pediculosis and phthiriasis													
B86	Scabies													
B87	Myiasis													
B88	Other infestations													
B89	Unspecified parasitic disease													
B90	Sequelae of tuberculosis													
B91	Sequelae of poliomyelitis													
B92	Sequelae of leprosy													
B94	Sequelae of other and unspecified infectious and parasitic diseases													
B95	Streptococcus and staphylococcus as the cause of diseases classified to other chapters													
B96	Other bacterial agents as the cause of diseases classified to other chapters													
B97	Viral agents as the cause of diseases classified to other chapters													
B98	Other specified infectious agents as the cause of diseases classified to other chapters													
B99	Other and unspecified infectious diseases													

Int'l List No.	Cause of Death (Intermediate List) (7th Rev.)		Age																								
			Total	0 - 27 days	28 d. - 1 yr	1 - 4 yrs.	5 - 9 yrs.	10 - 14 yrs.	15 - 19 yrs.	20 - 24 yrs.	25 - 29 yrs.	30 - 34 yrs.	35 - 39 yrs.	40 - 44 yrs.	45 - 49 yrs.	50 - 54 yrs.	55 - 59 yrs.	60 - 64 yrs.	65 - 69 yrs.	70 - 74 yrs.	75 - 79 yrs.	80 - 84 yrs.	85 - 89 yrs.	90 yrs. +	Unknown
A81	Arteriosclerotic and degenerative heart disease	M	531	-	-	-	-	-	1	1	-	1	4	11	25	39	38	63	59	97	90	60	30	12	-
		F	296	-	-	-	-	-	-	-	-	-	-	2	3	-	13	23	38	56	63	46	33	19	-
A82	Other Diseases of heart	M	20	-	-	-	-	-	-	-	-	-	-	-	1	-	-	2	1	1	8	4	2	1	-
		F	14	-	-	-	-	-	-	-	-	-	-	-	-	2	-	-	-	3	3	1	4	1	-
A83	Hypertension with heart disease	M	10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	2	4	3	-	-	-
		F	15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	2	5	1	4	2	-	-
A84	Hypertension without mention of heart	M	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	-	-	-
		F	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	1	-
A85	Diseases of Arteries	M	44	-	-	-	-	-	-	-	-	-	1	-	1	-	1	2	-	4	8	15	9	3	-
		F	29	-	-	-	-	-	-	-	-	-	1	1	-	-	1	1	1	3	3	8	5	5	-
A86	Other diseases of Circulatory System	M	14	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	3	3	1	3	3	-	-
		F	12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	8	1	2	-	-
	VIII. Diseases of the respiratory system	T	205	-	3	1	1	-	-	2	-	-	-	1	2	2	7	9	14	32	42	38	37	14	-
		M	146	-	2	1	-	-	-	-	-	-	-	-	2	2	4	8	12	23	33	25	24	10	-
		F	59	-	1	-	1	-	-	2	-	-	-	1	-	-	3	1	2	9	9	13	13	4	-
A87	Acute upper respiratory infections	M	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		F	1	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
A88	Influenza	M	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		F	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-
A89	Lobar pneumonia	M	9	-	1	-	-	-	-	-	-	-	-	-	-	-	2	2	-	1	1	-	2	-	-
		F	2	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	1	-	-	-	-	-
A90	Bronchopneumonia	M	56	-	-	1	-	-	-	-	-	-	-	-	-	1	1	1	2	8	16	10	11	5	-
		F	32	-	-	-	-	-	-	1	-	-	-	-	-	-	2	-	-	5	7	5	8	4	-
A91	Primary, atypical, other and unspecified pneumonia	M	13	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	1	3	3	4	-
		F	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	-	-	2	2	-	-
A92	Acute Bronchitis	M	3	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	1	-	1	-	-	-
		F	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
A93	Bronchitis chronic and unqualified	M	24	-	1	-	-	-	-	-	-	-	-	-	1	-	-	3	3	3	5	5	2	1	-
		F	4	-	1	-	-	-	-	-	-	-	-	-	-	-	1	-	-	1	-	1	-	-	-

Int'l List No.	Cause of Death (Intermediate List) (7th Rev.)		Total	Age 0 - 27 days	28 d - 1 yr	1 - 4 yrs.	5 - 9 yrs.	10 - 14 yrs.	15 - 19 yrs.	20 - 24 yrs.	25 - 29 yrs.	30 - 34 yrs.	35 - 39 yrs.	40 - 44 yrs.	45 - 49 yrs.	50 - 54 yrs.	55 - 59 yrs.	60 - 64 yrs.	65 - 69 yrs.	70 - 74 yrs.	75 - 79 yrs.	80 - 84 yrs.	85 - 89 yrs.	90 yrs. +	Unknown
A81	Arteriosclerotic and degenerative heart disease	M	531	-	-	-	-	-	1	1	-	1	4	11	25	39	38	63	59	97	90	60	30	12	-
		F	296	-	-	-	-	-	-	-	-	-	-	2	3	-	13	23	38	56	63	46	33	19	-
A82	Other Diseases of heart	M	20	-	-	-	-	-	-	-	-	-	-	-	1	-	-	2	1	1	8	4	2	1	-
		F	14	-	-	-	-	-	-	-	-	-	-	-	-	2	-	-	-	3	3	1	4	1	-
A83	Hypertension with heart disease	M	10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	2	4	3	-	-	-
		F	15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	2	5	1	4	2	-	-
A84	Hypertension without mention of heart	M	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	-	-	-
		F	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	1	-
A85	Diseases of Arteries	M	44	-	-	-	-	-	-	-	-	-	1	-	1	-	1	2	-	4	8	15	9	3	-
		F	29	-	-	-	-	-	-	-	-	-	1	1	-	-	1	1	1	3	3	8	5	5	-
A86	Other diseases of Circulatory System	M	14	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	3	3	1	3	3	-	-
		F	12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	8	1	2	-	-
	VIII. Diseases of the respiratory system	T	205	-	3	1	1	-	-	2	-	-	-	1	2	2	7	9	14	32	42	38	37	14	-
		M	146	-	2	1	-	-	-	-	-	-	-	-	2	2	4	8	12	23	33	25	24	10	-
		F	59	-	1	-	1	-	-	2	-	-	-	1	-	-	3	1	2	9	9	13	13	4	-
A87	Acute upper respiratory infections	M	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		F	1	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
A88	Influenza	M	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		F	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-
A89	Lobar pneumonia	M	9	-	1	-	-	-	-	-	-	-	-	-	-	-	2	2	-	1	1	-	2	-	-
		F	2	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	1	-	-	-	-	-
A90	Bronchopneumonia	M	56	-	-	1	-	-	-	-	-	-	-	-	-	1	1	1	2	8	16	10	11	5	-
		F	32	-	-	-	-	-	-	1	-	-	-	-	-	-	2	-	-	5	7	5	8	4	-
A91	Primary, atypical, other and unspecified pneumonia	M	13	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	1	3	3	4	-
		F	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	-	-	2	2	-	-
A92	Acute Bronchitis	M	3	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	1	-	1	-	-	-
		F	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
A93	Bronchitis chronic and unqualified	M	24	-	1	-	-	-	-	-	-	-	-	-	1	-	-	3	3	3	5	5	2	1	-
		F	4	-	1	-	-	-	-	-	-	-	-	-	-	-	1	-	-	1	-	1	-	-	-

Int'l List No.	Cause of Death (Intermediate List) (7th Rev.)		Age																								
			Total	0 - 27 days	28 d. - 1 yr.	1 - 4 yrs.	5 - 9 yrs.	10 - 14 yrs.	15 - 19 yrs.	20 - 24 yrs.	25 - 29 yrs.	30 - 34 yrs.	35 - 39 yrs.	40 - 44 yrs.	45 - 49 yrs.	50 - 54 yrs.	55 - 59 yrs.	60 - 64 yrs.	65 - 69 yrs.	70 - 74 yrs.	75 - 79 yrs.	80 - 84 yrs.	85 - 89 yrs.	90 yrs. +	Unknown
A95	Empyema and abscess of lung	M	2	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	1	-	-	-	-
		F	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
A96	Pleurisy	M	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-
		F	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-
A97	All other respiratory Diseases	M	38	-	-	-	-	-	-	-	-	-	-	-	1	-	-	2	6	8	9	6	6	-	-
		F	12	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	1	2	1	4	3	-	-
	IX. Diseases of the Digestive System	T	112	3	1	1	-	-	-	-	2	-	1	3	4	7	5	8	12	14	29	5	12	5	-
		M	68	1	1	-	-	-	-	-	2	-	1	2	2	5	5	4	7	9	15	3	9	2	-
		F	44	2	-	1	-	-	-	-	-	-	-	1	2	2	-	4	5	5	14	2	3	3	-
A99	Ulcer of Stomach	M	5	-	-	-	-	-	-	-	-	-	-	-	-	1	1	1	-	-	2	-	-	-	-
		F	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	1	2	-	-	-
A100	Ulcer of Duodenum	M	9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	2	1	2	2	1	-
		F	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	-	-	-	-
A102	Appendicitis	M	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	-	-	-	-
		F	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
A103	Intestinal obstruction and hernia	M	11	-	-	-	-	-	-	-	-	-	-	-	-	1	-	2	-	2	5	-	1	-	-
		F	9	2	-	-	-	-	-	-	-	-	-	-	-	-	-	3	-	-	2	-	1	1	-
A104	Gastro - enteritis and colitis, except diarrhoea of new-born	M	7	-	1	-	-	-	-	-	1	-	-	-	-	-	-	-	1	-	1	1	1	1	-
		F	4	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	-	-	-	-
A105	Cirrhosis of Liver	M	15	-	-	-	-	-	-	-	-	-	-	2	1	3	3	-	2	4	-	-	-	-	-
		F	10	-	-	-	-	-	-	-	-	-	-	-	2	2	-	-	2	1	3	-	-	-	-
A106	Cholelithiasis and Cholecystitis	M	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	2	-	3	-	-
		F	5	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	1	1	1	-	-	1	-
A107	Other diseases of digestive system	M	13	1	-	-	-	-	-	-	1	-	1	-	1	-	1	1	3	-	2	-	2	-	-
		F	10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	2	3	-	2	1	-
	X. Diseases of the Genito Urinary System	T	52	-	-	-	-	-	-	1	1	-	1	2	-	3	6	1	3	6	7	9	12	-	-
		M	40	-	-	-	-	-	-	1	1	-	1	-	-	3	2	1	2	4	6	9	10	-	-
		F	12	-	-	-	-	-	-	-	-	-	-	2	-	-	4	-	1	2	1	-	2	-	-

Int'l List No.	Cause of Death (Intermediate List) (7th Rev.)		Total	0 - 27 days	28 d. - 1 yr.	1 - 4 yrs.	5 - 9 yrs.	10 - 14 yrs.	15 - 19 yrs.	20 - 24 yrs.	25 - 29 yrs.	30 - 34 yrs.	35 - 39 yrs.	40 - 44 yrs.	45 - 49 yrs.	50 - 54 yrs.	55 - 59 yrs.	60 - 64 yrs.	65 - 69 yrs.	70 - 74 yrs.	75 - 79 yrs.	80 - 84 yrs.	85 - 89 yrs.	90 yrs. +	Unknown
A95	Empyema and abscess of lung	M	2	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	1	-	-	-	-
		F	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
A96	Pleurisy	M	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-
		F	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-
A97	All other respiratory Diseases	M	38	-	-	-	-	-	-	-	-	-	-	-	1	-	-	2	6	8	9	6	6	-	-
		F	12	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	1	2	1	4	3	-	-
	IX. Diseases of the Digestive System	T	112	3	1	1	-	-	-	-	2	-	1	3	4	7	5	8	12	14	29	5	12	5	-
		M	68	1	1	-	-	-	-	-	2	-	1	2	2	5	5	4	7	9	15	3	9	2	-
		F	44	2	-	1	-	-	-	-	-	-	-	1	2	2	-	4	5	5	14	2	3	3	-
A99	Ulcer of Stomach	M	5	-	-	-	-	-	-	-	-	-	-	-	-	1	1	1	-	-	2	-	-	-	-
		F	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	1	2	-	-	-
A100	Ulcer of Duodenum	M	9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	2	1	2	2	1	-
		F	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	-	-	-	-
A102	Appendicitis	M	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	-	-	-	-
		F	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
A103	Intestinal obstruction and hernia	M	11	-	-	-	-	-	-	-	-	-	-	-	-	1	-	2	-	2	5	-	1	-	-
		F	9	2	-	-	-	-	-	-	-	-	-	-	-	-	-	3	-	-	2	-	1	1	-
A104	Gastro - enteritis and colitis, except diarrhoea of new-born	M	7	-	1	-	-	-	-	-	1	-	-	-	-	-	-	-	1	-	1	1	1	1	-
		F	4	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	-	-	-	-
A105	Cirrhosis of Liver	M	15	-	-	-	-	-	-	-	-	-	-	2	1	3	3	-	2	4	-	-	-	-	-
		F	10	-	-	-	-	-	-	-	-	-	-	-	2	2	-	-	2	1	3	-	-	-	-
A106	Cholelithiasis and Cholecystitis	M	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	2	-	3	-	-
		F	5	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	1	1	1	-	-	1	-
A107	Other diseases of digestive system	M	13	1	-	-	-	-	-	-	1	-	1	-	1	-	1	1	3	-	2	-	2	-	-
		F	10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	2	3	-	2	1	-
	X. Diseases of the Genito Urinary System	T	52	-	-	-	-	-	-	1	1	-	1	2	-	3	6	1	3	6	7	9	12	-	-
		M	40	-	-	-	-	-	-	1	1	-	1	-	-	3	2	1	2	4	6	9	10	-	-
		F	12	-	-	-	-	-	-	-	-	-	-	2	-	-	4	-	1	2	1	-	2	-	-

Int'l List No.	Cause of Death (Intermediate List) (7th Rev.)		Age																								
			Total	0 - 27 days	28 d. - 1 yr.	1 - 4 yrs.	5 - 9 yrs.	10 - 14 yrs.	15 - 19 yrs.	20 - 24 yrs.	25 - 29 yrs.	30 - 34 yrs.	35 - 39 yrs.	40 - 44 yrs.	45 - 49 yrs.	50 - 54 yrs.	55 - 59 yrs.	60 - 64 yrs.	65 - 69 yrs.	70 - 74 yrs.	75 - 79 yrs.	80 - 84 yrs.	85 - 89 yrs.	90 yrs. +	Unknown
A108	Acute Nephritis	M	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		F	1	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-
A109	Chronic, other and	M	8	-	-	-	-	-	-	1	-	-	1	-	-	1	-	-	-	1	2	1	1	-	-	-	-
	Unspecified nephritis	F	3	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	1	-	-	-	1	-	-	-	-
A110	Infections of kidney	M	18	-	-	-	-	-	-	-	1	-	-	-	-	2	2	-	1	2	3	3	4	-	-	-	-
		F	6	-	-	-	-	-	-	-	-	-	-	1	-	-	2	-	-	2	-	-	1	-	-	-	-
A111	Calculi of Urinary System	M	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-
		F	2	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	1	-	-	-	-	-	-
A112	Hyperplasia of Prostate	M	10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	1	-	4	3	-	-	-	-
A114	Other diseases of	M	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	2	-	-	-	-
	Genito Urinary System	F	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	XI. Deliveries and complications of pregnancy, childbirth and the puerperium	T	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		F	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	XII & XIII. Diseases of the skin and musculoskeletal system	T	9	-	-	-	-	-	-	1	-	-	-	-	-	-	-	2	1	1	2	1	-	1	-	-	-
		M	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	1	1	-	-	-	-	-	-	-
		F	5	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	2	1	-	1	-	-	-
A122	Arthritis and spondylitis	M	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	-	1	-	-	-	-	-	-	-
		F	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	-	-	-	-	-
A124	Osteomyelitis and periostitis	M	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-
		F	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-
A126	All other diseases of skin and	M	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	musculoskeletal system	F	2	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-
	XIV. Congenital Malformations	T	24	13	7	-	1	-	1	-	-	-	-	1	-	-	1	-	-	-	-	-	-	-	-	-	-
		M	14	9	4	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-
		F	10	4	3	-	1	-	1	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-

| No. | (Cb Rev.) | | |

Int'l List No.	Cause of Death (Intermediate List) (7th Rev.)		Age																							
			Total	0 - 27 days	28 d. - 1 yr.	1 - 4 yrs.	5 - 9 yrs.	10 - 14 yrs.	15 - 19 yrs.	20 - 24 yrs.	25 - 29 yrs.	30 - 34 yrs.	35 - 39 yrs.	40 - 44 yrs.	45 - 49 yrs.	50 - 54 yrs.	55 - 59 yrs.	60 - 64 yrs.	65 - 69 yrs.	70 - 74 yrs.	75 - 79 yrs.	80 - 84 yrs.	85 - 89 yrs.	90 yrs. +	Unknown
A128	Congenital malformations of circulatory system	M	4	2	1	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-
		F	5	2	1	-	1	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-
A129	All other congenital malformations	M	10	7	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		F	5	2	2	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	XV. Certain Diseases of Early Infancy	T	83	78	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		M	49	47	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		F	34	31	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
A130	Birth Injuries	M	9	9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		F	8	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
A131	Postnatal asphyxia and atelectasis	M	6	5	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		F	8	5	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
A132	Infections of the newborn	M	3	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		F	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
A133	Haemolytic disease of newborn	M	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		F	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
A134	All other defined diseases of early infancy	M	2	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		F	2	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
A135	Ill defined diseases peculiar to early infancy and immaturity unqualified	M	28	27	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		F	15	15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	XVI. Symptons, senility and ill defined conditions	T	7	-	1	1	-	-	-	-	-	-	-	-	1	-	1	-	-	-	-	1	1	1	-
		M	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		F	6	-	-	1	-	-	-	-	-	-	-	-	1	-	1	-	-	-	-	1	1	1	-
A136	Senility without mention of psychosis	M	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		F	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	-	-
A137	Ill defined and unknown causes	M	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		F	4	-	-	1	-	-	-	-	-	-	-	-	1	-	1	-	-	-	-	-	-	1	-

| No. | (Tab Rev.) | Total | ayab 15 - 0 | yr 1 - b 85 | ayab 1 - 4 | ayab 5 - 1 | ayab 6 + 5 | ayab 11 - 01 | ayab 21 - 51 | ayab 25 - 05 | ayab 35 - 0E | ayab 45 - 55 | ayab 55 - 5E | ayab 65 - 0E | ayab 75 - 04 | ayab 85 - 52 | ayab 95 - 5E | ayab 05 - 0E | ayab 15 - 51 | ayab 25 - 55

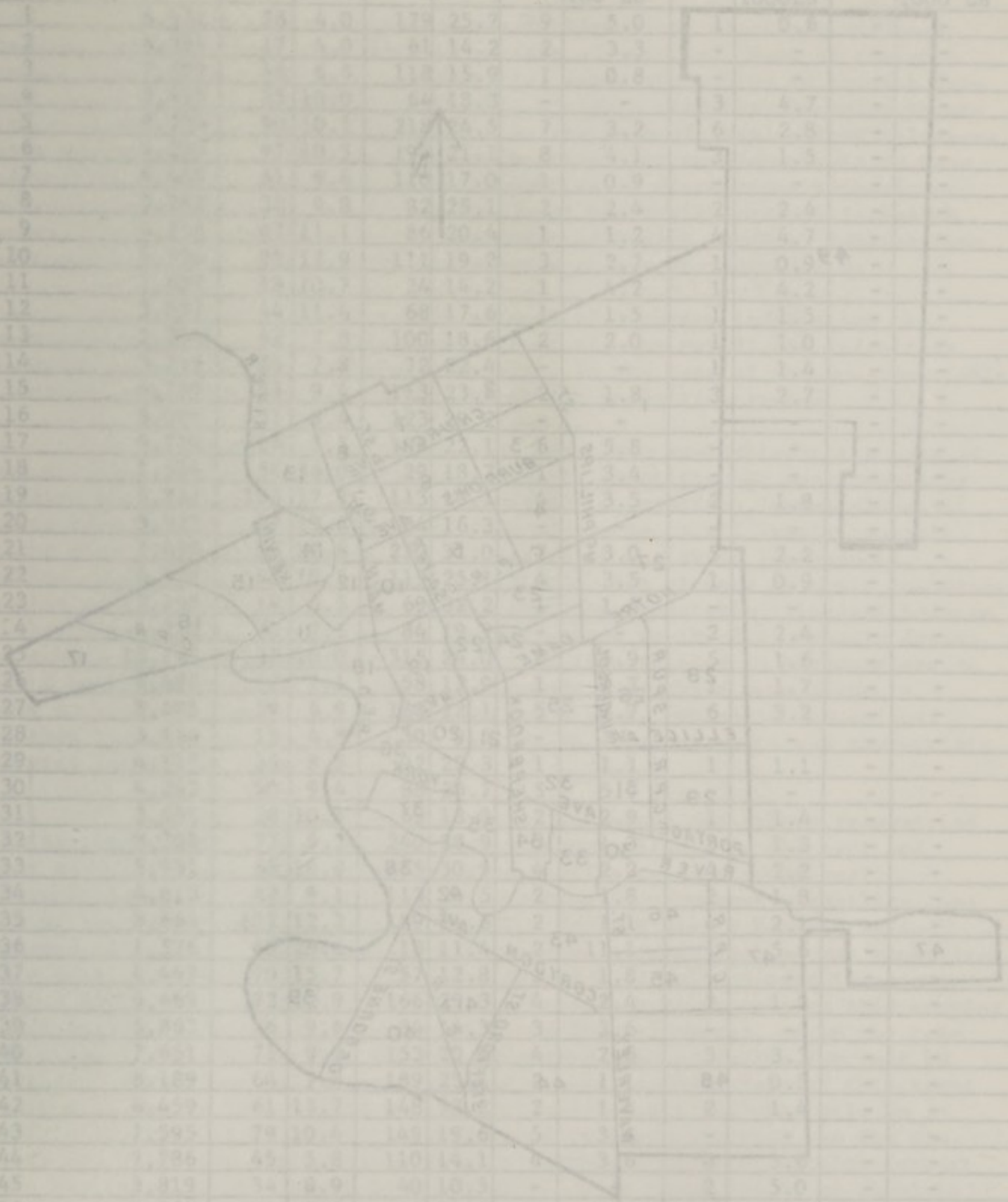
Int'l List No.	Cause of Death (Intermediate List) (7th Rev.)		Age																						
			Total	0 - 27 days	28 d. - 1 yr.	1 - 4 yrs.	5 - 9 yrs.	10 - 14 yrs.	15 - 19 yrs.	20 - 24 yrs.	25 - 29 yrs.	30 - 34 yrs.	35 - 39 yrs.	40 - 44 yrs.	45 - 49 yrs.	50 - 54 yrs.	55 - 59 yrs.	60 - 64 yrs.	65 - 69 yrs.	70 - 74 yrs.	75 - 79 yrs.	80 - 84 yrs.	85 - 89 yrs.	90 yrs. +	Unknown
	XVII. Accidents, poisonings and violence	T	189	4	13	12	7	2	9	13	4	9	11	8	8	16	15	10	3	10	6	8	11	9	1
		M	120	2	8	7	5	2	8	10	4	6	6	6	6	11	10	6	2	3	5	3	5	4	1
		F	69	2	5	5	2	-	1	3	-	3	5	2	2	5	5	4	1	7	1	5	6	5	-
A138	Motor Vehicle accidents	M	29	-	-	2	2	-	6	7	-	-	2	1	1	2	-	1	1	-	2	1	1	-	-
		F	14	-	1	-	-	-	1	2	-	-	1	1	-	1	3	2	-	1	-	1	-	-	-
A139	Other transport accidents	M	4	-	-	-	-	-	-	1	-	-	-	2	-	1	-	-	-	-	-	-	-	-	-
		F	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	-	-	-	-	-
A140	Accidental Poisoning	M	10	-	-	1	-	-	-	-	2	1	2	1	-	-	2	1	-	-	-	-	-	-	-
		F	3	-	-	-	-	-	-	-	-	-	1	-	-	1	-	1	-	-	-	-	-	-	-
A141	Accidental Falls	M	20	-	-	-	-	-	-	-	1	1	1	1	1	-	1	1	1	2	2	2	3	3	-
		F	19	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	2	1	3	6	5	-
A142	Accident Caused by machinery	M	2	-	-	-	-	-	-	-	-	1	-	-	-	-	-	1	-	-	-	-	-	-	-
		F	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
A143	Accident caused by fire and explosion of combustible material	M	6	-	-	2	2	1	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-
		F	9	-	1	4	2	-	-	-	-	1	-	1	-	-	-	-	-	-	-	-	-	-	-
A144	Accident caused by hot substance corrosive liquid, steam and radiation	M	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		F	2	-	-	1	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-
A146	Accidental drowning and submersion	M	3	-	-	1	1	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-
		F	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
A147	All other accidental causes	M	25	2	8	1	-	1	1	2	-	-	1	-	1	1	1	2	-	1	1	-	1	1	-
		F	7	1	3	-	-	-	-	-	-	-	-	-	-	-	1	-	-	1	-	1	-	-	-
	All accidental causes	M	99	2	8	7	5	2	7	10	3	3	6	6	3	4	5	6	2	3	5	3	5	4	-
		F	56	2	5	5	2	-	1	2	-	2	2	2	-	2	4	3	1	6	1	5	6	5	-
A148	Suicide	M	20	-	-	-	-	-	1	-	-	3	-	-	3	7	5	-	-	-	-	-	-	-	1
		F	11	-	-	-	-	-	-	1	-	1	3	-	1	3	1	1	-	-	-	-	-	-	-
A149	Homicide and injury purposely inflicted by other persons (not in war)	M	1	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		F	2	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	1	-	-	-	-	-

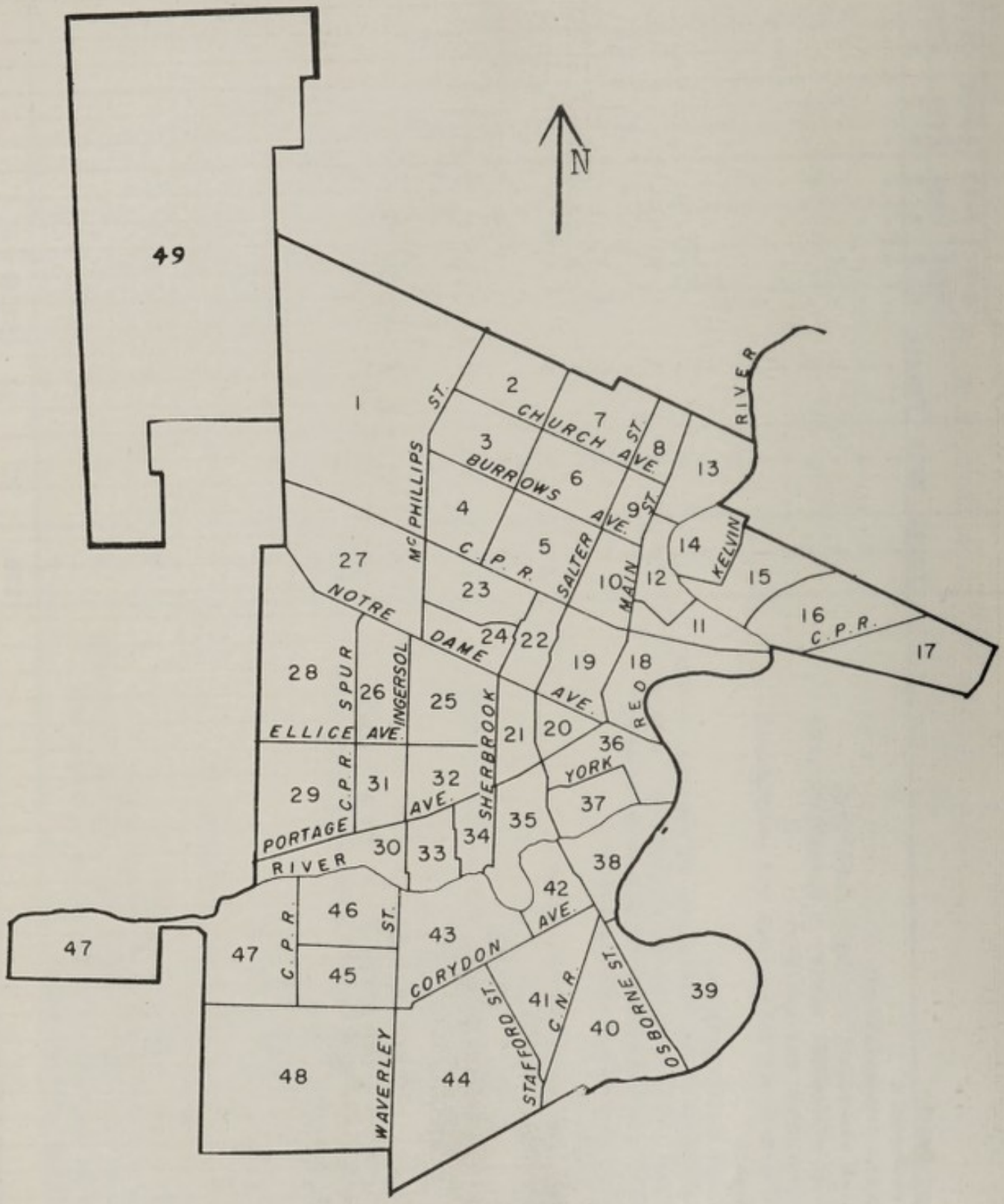
| No. | (Tcp Bay.) | Total | | |

INFANT DEATHS, WINNIPEG RESIDENTS - BY CAUSE, SEX AND AGE 1964

Code No.	Cause of Death	Total	Male	Female	Age									
					0-6 Days		7-13 Days		14-20 Days		21-27 Days		28 + Days	
					M	F	M	F	M	F	M	F	M	F
490	Lobar pneumonia	1	1	-	-	-	-	-	-	-	-	-	1	-
501	Bronchitis (unqualified)	2	1	1	-	-	-	-	-	-	-	-	1	1
560.2	Hernia of abdominal cavity - Umbilical	1	-	1	-	1	-	-	-	-	-	-	-	-
560.4	Hernia of abdominal cavity - specified site	1	-	1	-	-	-	1	-	-	-	-	-	-
571.0	Gastro-enteritis and colitis	1	1	-	-	-	-	-	-	-	-	-	1	-
578	Other Diseases of intestines and peritoneum	1	1	-	1	-	-	-	-	-	-	-	-	-
750	Monstrosity	2	2	-	2	-	-	-	-	-	-	-	-	-
752	Congenital hydrocephalus	2	1	1	-	-	-	-	-	-	-	-	1	1
753	Other congenital malformations of nervous system	1	1	-	-	-	-	-	-	-	-	-	1	-
754	Congenital malformations of circulatory system	6	3	3	1	2	1	-	-	-	-	-	1	1
756	Congenital malformations of digestive system	1	1	-	-	-	-	-	-	-	1	-	-	-
759	All other Congenital malformations	8	5	3	4	3	-	-	-	-	-	-	1	-
760-761	Birth Injuries	17	9	8	8	8	1	-	-	-	-	-	-	-
762	Postnatal asphyxia and atelectasis	14	6	8	4	5	-	-	-	-	1	-	1	3
763	Pneumonia of newborn	2	2	-	2	-	-	-	-	-	-	-	-	-
767	Umbilical sepsis of newborn	1	1	-	-	-	1	-	-	-	-	-	-	-
769	Neonatal disorders arising from certain diseases in mother	2	-	2	-	2	-	-	-	-	-	-	-	-
770	Haemolytic disease of newborn	2	1	1	1	1	-	-	-	-	-	-	-	-
771	Haemorrhagic disease of newborn	2	2	-	2	-	-	-	-	-	-	-	-	-
773	Ill-defined diseases peculiar to early infancy	11	8	3	8	3	-	-	-	-	-	-	-	-
774	Immaturity with mention of subsidiary condition	3	3	-	3	-	-	-	-	-	-	-	-	-
776	Immaturity unqualified	29	17	12	16	12	-	-	-	-	-	-	1	-
788.8	Pyrexia of unknown origin	1	1	-	-	-	-	-	-	-	-	-	1	-
823	Motor vehicle traffic accident	1	-	1	-	-	-	-	-	-	-	-	-	1
904	Unspecified fall	1	-	1	-	-	1	-	-	-	-	-	-	-
916	Accident caused by fire and explosion of combustible material	1	-	1	-	-	-	-	-	-	-	-	-	1
921	Inhalation and ingestion of food	8	5	3	-	1	1	-	-	-	-	-	4	2
922	Inhalation and ingestion of other object	1	1	-	-	-	-	-	-	-	-	-	1	-
924	Accidental mechanical suffocation in bed or cradle	3	2	1	-	1	-	-	-	-	-	-	1	1
925	Accidental mechanical suffocation in other and unspecified circumstances	2	2	-	-	-	-	-	-	-	-	-	2	-
		128	77	51	52	39	5	1	-	-	2	-	18	11

Code No.	Cause of Death	Total	Male	Female	Age											
					0-6 Days		7-13 Days		14-20 Days		21-27 Days		28 + Days			
					M	F	M	F	M	F	M	F	M	F		
490	Lobar pneumonia	1	1	-	-	-	-	-	-	-	-	-	-	1		
501	Bronchitis (unqualified)	2	1	1	-	-	-	-	-	-	-	-	-	1	1	
560.2	Hernia of abdominal cavity - Umbilical	1	-	1	-	1	-	-	-	-	-	-	-	-		
560.4	Hernia of abdominal cavity - specified site	1	-	1	-	-	-	1	-	-	-	-	-	-		
571.0	Gastro-enteritis and colitis	1	1	-	-	-	-	-	-	-	-	-	-	1		
578	Other Diseases of intestines and peritoneum	1	1	-	-	1	-	-	-	-	-	-	-	-		
750	Monstrosity	2	2	-	-	2	-	-	-	-	-	-	-	-		
752	Congenital hydrocephalus	2	1	1	-	-	-	-	-	-	-	-	-	1	1	
753	Other congenital malformations of nervous system	1	1	-	-	-	-	-	-	-	-	-	-	1	-	
754	Congenital malformations of circulatory system	6	3	3	1	2	1	-	-	-	-	-	-	1	1	
756	Congenital malformations of digestive system	1	1	-	-	-	-	-	-	-	-	1	-	-		
759	All other Congenital malformations	8	5	3	4	3	-	-	-	-	-	-	-	1	-	
760-761	Birth Injuries	17	9	8	8	8	1	-	-	-	-	-	-	-	-	
762	Postnatal asphyxia and atelectasis	14	6	8	4	5	-	-	-	-	-	1	-	1	3	
763	Pneumonia of newborn	2	-	2	-	-	-	-	-	-	-	-	-	-	-	
767	Umbilical sepsis of newborn	1	1	-	-	-	1	-	-	-	-	-	-	-	-	
769	Neonatal disorders arising from certain diseases in mother	2	-	2	-	2	-	-	-	-	-	-	-	-	-	
770	Haemolytic disease of newborn	2	1	1	1	1	-	-	-	-	-	-	-	-	-	
771	Haemorrhagic disease of newborn	2	2	-	2	-	-	-	-	-	-	-	-	-	-	
773	Ill-defined diseases peculiar to early infancy	11	8	3	8	3	-	-	-	-	-	-	-	-	-	
774	Immaturity with mention of subsidiary condition	3	3	-	3	-	-	-	-	-	-	-	-	-	-	
776	Immaturity unqualified	29	17	12	16	12	-	-	-	-	-	-	-	1	-	
788.8	Pyrexia of unknown origin	1	1	-	-	-	-	-	-	-	-	-	-	1	-	
823	Motor vehicle traffic accident	1	-	1	-	-	-	-	-	-	-	-	-	-	1	
904	Unspecified fall	1	-	1	-	-	-	1	-	-	-	-	-	-	-	
916	Accident caused by fire and explosion of combustible material	1	-	1	-	-	-	-	-	-	-	-	-	-	1	
921	Inhalation and ingestion of food	8	5	3	-	1	1	-	-	-	-	-	-	4	2	
922	Inhalation and ingestion of other object	1	1	-	-	-	-	-	-	-	-	-	-	1	-	
924	Accidental mechanical suffocation in bed or cradle	3	2	1	-	1	-	-	-	-	-	-	-	1	1	
925	Accidental mechanical suffocation in other and unspecified circumstances	2	2	-	-	-	-	-	-	-	-	-	-	2	-	
		128	77	51	52	39	5	1	-	-	2	-	18	11		





City of Winnipeg - Statistical Districts

DEATHS, BIRTHS, INFANT DEATHS, STILL BIRTHS AND MATERNAL DEATHS BY STATISTICAL DISTRICTS WITH RATES AS SHOWN - WINNIPEG RESIDENTS 1964

DISTRICT	POPULATION**	DEATHS		BIRTHS		INFANT DEATHS		STILLBIRTHS		MATERNAL DEATHS	
		No.	Rate*	No.	Rate*	No.	Rate 100 LB	No.	Rate 1000LB	No.	Rate 1000 LB
1	6,972	28	4.0	179	25.7	9	5.0	1	0.6	-	-
2	4,291	17	4.0	61	14.2	2	3.3	-	-	-	-
3	7,399	48	6.5	118	15.9	1	0.8	-	-	-	-
4	3,495	35	10.0	64	18.3	-	-	3	4.7	-	-
5	8,904	90	10.1	218	24.5	7	3.2	6	2.8	-	-
6	9,200	97	10.5	194	21.1	8	4.1	3	1.5	-	-
7	6,466	61	9.4	110	17.0	1	0.9	-	-	-	-
8	3,262	32	9.8	82	25.1	2	2.4	2	2.4	-	-
9	4,218	47	11.1	86	20.4	1	1.2	4	4.7	-	-
10	5,796	75	12.9	111	19.2	3	2.7	1	0.9	-	-
11	1,688	18	10.7	24	14.2	1	4.2	1	4.2	-	-
12	3,857	44	11.4	68	17.6	1	1.5	1	1.5	-	-
13	5,364	42	7.8	100	18.6	2	2.0	1	1.0	-	-
14	3,216	25	7.8	72	22.4	-	-	1	1.4	-	-
15	4,788	45	9.4	113	23.6	2	1.8	3	2.7	-	-
16	6,088	51	8.4	123	20.2	-	-	-	-	-	-
17	4,714	26	5.5	104	22.1	6	5.8	-	-	-	-
18	1,554	56	36.0	29	18.7	1	3.4	-	-	-	-
19	5,927	106	17.9	113	19.1	4	3.5	2	1.8	-	-
20	3,925	77	19.6	64	16.3	-	-	-	-	-	-
21	7,490	96	12.8	232	31.0	7	3.0	5	2.2	-	-
22	4,576	48	10.5	115	25.1	4	3.5	1	0.9	-	-
23	2,145	14	6.5	69	32.2	1	1.4	-	-	-	-
24	4,215	30	7.1	84	19.9	-	-	2	2.4	-	-
25	13,147	132	10.0	315	24.0	6	1.9	5	1.6	-	-
26	4,496	32	7.1	58	12.9	1	1.7	1	1.7	-	-
27	8,495	59	6.9	188	22.1	5	2.7	6	3.2	-	-
28	3,154	15	4.8	30	9.5	-	-	-	-	-	-
29	4,117	35	8.5	92	22.3	1	1.1	1	1.1	-	-
30	4,242	40	9.4	88	20.7	5	5.7	-	-	-	-
31	3,651	38	10.4	69	18.9	2	2.9	1	1.4	-	-
32	8,308	77	9.3	240	28.9	3	1.3	3	1.3	-	-
33	5,981	65	10.9	185	30.9	4	2.2	4	2.2	-	-
34	4,613	42	9.1	113	24.5	2	1.8	2	1.8	-	-
35	8,664	107	12.3	189	21.8	2	1.1	4	2.1	-	-
36	1,576	45	28.6	18	11.4	2	11.1	1	5.6	-	-
37	4,447	70	15.7	57	12.8	1	1.8	-	-	-	-
38	5,669	73	12.9	166	29.3	4	2.4	2	1.2	-	-
39	5,863	56	9.6	84	14.3	3	3.6	-	-	-	-
40	7,651	71	9.3	153	20.0	4	2.6	5	3.3	-	-
41	8,189	64	7.8	189	23.1	2	1.1	1	0.5	-	-
42	4,459	61	13.7	148	33.2	2	1.4	2	1.4	-	-
43	7,595	79	10.4	149	19.6	5	3.4	-	-	-	-
44	7,786	45	5.8	110	14.1	4	3.6	4	3.6	-	-
45	3,819	34	8.9	40	10.5	-	-	2	5.0	-	-
46	3,967	34	8.6	46	11.6	1	2.2	-	-	-	-
47	4,505	31	6.9	56	12.4	-	-	-	-	-	-
48	11,485	83	7.2	217	18.9	6	2.8	2	0.9	-	-
49	450	2	4.4	9	20.0	-	-	-	-	-	-
Unknown	-	8	-	1	-	-	-	-	-	-	-
TOTAL		2,606	10.2	5,543	21.7	128	2.3	83	1.5	-	-
Rate per 1000 live births							23.1		15.0		

** Population according to Dominion Bureau of Statistics - 1961 Census

* Rate per 1000 population

DEATHS, BIRTHS, INFANT DEATHS, STILL BIRTHS AND MATERNAL DEATHS
BY STATISTICAL DISTRICTS WITH RATES AS SHOWN - WINNIPEG RESIDENTS 1964

DISTRICT	POPULATION**	DEATHS		BIRTHS		INFANT DEATHS		STILLBIRTHS		MATERNAL DEATHS	
		No.	Rate*	No.	Rate*	No.	Rate /100 LB	No.	Rate /1000LB	No.	Rate /1000 LB
1	6,972	28	4.0	179	25.7	9	5.0	1	0.6	-	-
2	4,291	17	4.0	68	15.8	2	3.3	-	-	-	-
3	7,399	48	6.5	118	15.9	1	0.8	-	-	-	-
4	3,495	35	10.0	64	18.3	-	-	3	4.7	-	-
5	8,904	90	10.1	218	24.5	7	3.2	6	2.8	-	-
6	9,200	97	10.5	195	21.1	8	4.1	3	1.5	-	-
7	6,466	61	9.4	110	17.0	1	0.9	-	-	-	-
8	3,262	32	9.8	84	25.1	2	2.4	2	2.4	-	-
9	4,218	47	11.1	86	20.4	1	1.2	4	4.7	-	-
10	5,796	75	12.9	111	19.2	3	2.7	1	0.9	-	-
11	1,688	18	10.7	24	14.2	1	4.2	1	4.2	-	-
12	3,852	44	11.4	68	17.6	1	1.5	1	1.5	-	-
13	5,396	42	7.8	100	18.6	2	2.0	1	1.0	-	-
14	3,216	25	7.8	72	22.4	-	-	1	1.4	-	-
15	4,768	45	9.4	113	23.6	2	1.8	3	2.7	-	-
16	6,085	51	8.4	123	20.2	-	-	-	-	-	-
17	4,716	26	5.5	104	22.1	6	5.8	-	-	-	-
18	1,554	16	10.3	29	18.7	1	3.4	-	-	-	-
19	5,927	106	17.9	113	19.1	4	3.5	2	1.8	-	-
20	3,925	77	19.6	64	16.3	-	-	-	-	-	-
21	7,490	96	12.8	232	31.0	7	3.0	5	2.2	-	-
22	4,576	48	10.5	118	25.1	4	3.5	1	0.9	-	-
23	2,165	14	6.5	69	32.2	1	1.4	-	-	-	-
24	4,218	30	7.1	84	19.9	-	-	2	2.4	-	-
25	13,124	132	10.0	315	24.0	21	6.7	5	1.6	-	-
26	5,296	38	7.1	58	12.9	1	1.7	1	1.7	-	-
27	8,495	59	6.9	188	22.1	5	2.7	6	3.2	-	-
28	3,154	15	4.8	30	9.5	-	-	-	-	-	-
29	4,112	35	8.5	92	22.3	1	1.1	1	1.1	-	-
30	4,282	40	9.4	88	20.7	5	5.7	-	-	-	-
31	3,651	38	10.5	69	18.9	2	2.9	1	1.4	-	-
32	8,308	72	9.3	240	28.9	3	1.3	3	1.3	-	-
33	5,981	65	10.9	185	30.9	4	2.2	4	2.2	-	-
34	4,613	42	9.1	113	24.5	2	1.8	2	1.8	-	-
35	8,664	107	12.3	169	19.8	2	1.1	4	2.1	-	-
36	1,519	38	25.0	19	11.4	2	11.1	1	5.6	-	-
37	4,447	70	15.7	52	12.8	1	1.8	-	-	-	-
38	3,669	73	19.9	166	43.3	4	2.4	2	1.2	-	-
39	5,867	56	9.6	86	14.3	3	3.6	-	-	-	-
40	7,651	71	9.3	153	20.0	4	2.6	5	3.3	-	-
41	8,189	64	7.8	189	23.1	2	1.1	1	0.5	-	-
42	6,459	61	13.7	148	33.2	2	1.4	2	1.4	-	-
43	7,595	79	10.4	149	19.6	5	3.4	-	-	-	-
44	7,786	45	5.8	110	14.1	4	3.6	4	3.6	-	-
45	7,819	74	8.9	80	10.2	-	-	2	2.0	-	-
46	3,967	34	8.6	46	11.6	1	2.2	-	-	-	-
47	4,505	31	6.9	56	12.4	-	-	-	-	-	-
49	11,485	83	7.2	212	18.9	6	2.8	2	0.9	-	-
49	4,598	43	9.4	94	20.4	-	-	-	-	-	-
Unknown	-	8	-	1	-	-	-	-	-	-	-
TOTAL	-	2,666	10.2	5,593	21.7	128	2.3	85	1.5	-	-
Rate per 1000 live births					23.1		15.0				

* Population according to Dominion Bureau of Statistics - 1961 Census

INFECTIOUS AND OTHER DISEASES

Information regarding the incidence of infectious diseases comes to our Department from a great variety of sources. Some of the most serious diseases and/or those necessitating immediate action to prevent further spread, are designated as notifiable diseases and the attending physician is usually the official informer. In the case of less serious illnesses, which may not be notifiable but always important for our Department to know, information may come from such informal sources as discussions between our colleagues and ourselves, visits to the local hospitals, our public health nurses, the press, the Provincial Department of Health, medical publications and communications, laboratories and other agencies or individuals.

In spite of this wide network of incoming information the Department cannot claim to have knowledge of all the notifiable infectious illnesses as under-reporting always exists. In the case of the non-reportable illnesses we are satisfied if we can establish prevailing trends.

Figures more accurate than usual are available in the case of some diseases for special reasons, for example hepatitis is more regularly notified because the material for a prophylactic injection (gamma globulin) is provided by the Health Department free of charge to all family contacts. In the case of the common infectious diseases of childhood (chickenpox, measles, mumps, etc.) which are not notifiable, the picture of their incidence is also more complete than expected for such non-reportable illnesses because of the close observations of public health nurses in the City schools during the school year -- observations which are in turn related to headquarters so that a knowledge of existing infections amongst our child population is known to the Department at all times during a year; valuable comparisons can then be made with corresponding figures in previous years and appropriate measures taken when necessary.

Viral diseases like measles, influenza and others transmitted via the respiratory route, were virtually uncontrollable in the past and their annual toll in terms of absenteeism, suffering, and occasional (fortunately quite rare) complication resulting in permanent disability, was more or less accepted as a necessary evil. In last year's Report the importance of recently discovered live attenuated measles vaccine was emphasized and a hope expressed that it will prove itself a useful and safe immunizing agent. Although up to the time that this Report is being written this vaccine is not available to all children in Winnipeg free of charge, as is the case with other immunizing agents, yet the extensive testing during the year by practicing physicians has now established the value and safety of this agent and it will not be long before a universal use for all children will be possible in this City. A great step forward in that direction was the discovery and marketing during the year of a further attenuated vaccine product which has curtailed the great majority of all side reactions to an absolute minimum. Also the price of these products is diminishing and we hope that it will cease to be prohibitive for universal usage as was the case when it first became available commercially.

Comments on Particular Infectious Diseases

Impetigo:

This is a skin condition due to micro-organisms capable of

causing inflammation and sepsis and it is clinically characterized by the formation of crusts -- the result of drying of exudate from the lesions. It is readily communicable by direct contact and one can, therefore, easily understand why this has always been one of the commonest skin diseases in the school population.

Minor cases are treated under the supervision of our public health nurses and the affected children are temporarily excluded from school; the parents are told how to soak the lesions, remove the crusts and apply an antibiotic ointment (neomycin basis) which is provided by our Department free of charge for needy families. We are convinced that since the introduction of this antibiotic ointment last year to substitute for an older remedy (white precipitate) which was previously in use for many years, the results have been much more favourable in terms of both greater efficacy and shorter recovery period.

Ringworm:

This term refers to a fungus infection of the skin which is also communicable but less common than impetigo. Children are easily affected and in some instances the source can be traced to an animal pet such as a dog or cat. If this is suspected the animal in question is examined by a veterinarian. Affected children are, as in the case of impetigo, temporarily excluded from school until they improve and become non-infectious.

Infectious Hepatitis:

The problem of hepatitis is not a local one but a national and indeed a world-wide one. With improving sanitary conditions throughout the civilized countries natural immunization through subminimal exposure in infancy does not occur. The outcome is a generation of susceptibile adults and adolescents, all forming a population with insufficient immunity to the disease. In a way the situation is comparable to polio and the method of transmission and epidemiology of the two diseases is similar. In the case of polio however the viruses causing the disease have been isolated in culture, which in time led to the discovery of effective vaccines (Salk and Sabin) so that control of the disease ultimately became possible. In the case of hepatitis the virus causing the disease has not, unfortunately, yet been isolated or cultured and consequently no immunizing agent is available at the present time. During 1964, one hundred and thirty-three cases were reported in this City with one death, which is remarkably unchanged since the previous two years (134 cases in 1963, 131 in 1962). Fortunately in the case of clinical hepatitis the disease is not so severe or incapacitating as in clinical polio and complete recovery is the rule. Death is rather rare and usually of the order of .2%. Permanent liver damage is also thought to be quite rare but actual proof of this fact is still lacking. Localized outbreaks of the disease have occurred in many parts of the North American continent and in some instances epidemics were traced to consumption of raw clams and shell-fish or to association with animals of the primate family used in various scientific experiments. No such outbreaks have occurred in this City and most cases were sporadic in distribution. Undoubtedly for every case of hepatitis diagnosed there are many more of mild undiagnosed disease; this latter can spread the virus to the same extent as actual patients do and may, in fact, be more important in propagating the illness as no one suspects them. From this it can readily be seen how difficult it is to control this illness in the community.

Whooping cough: (Pertussis)

This disease is still a notifiable one but only six cases were reported in 1964. Following the incorporation of pertussis vaccine in immunization programs marked regression in both the incidence and severity of this illness occurred. Some mild cases probably pass unrecognized but in general it can confidently be said that whooping cough is no longer a health hazard in this community.

Poliomyelitis:

No poliomyelitis occurred in Winnipeg during 1964 which becomes therefore another poliomyelitis-free year. This is not coincidental or due to chance, but an achievement resulting from continued effort to maintain this happy state of affairs. Paradoxically this effort becomes greater as more time elapses since the last case in this City occurred in 1959; the public tends to forget the disease and consequently the necessity for cooperating, and I quote from a recent article in the Canadian Journal of Public Health by Dr. I. McQueen -- "Yet these diseases are vanishing and so persuade parents to have their children vaccinated against polio or smallpox or immunized against diphtheria and whooping cough needs skill in persuasion and health teaching, not clinical or epidemiological knowledge of the particular disease".

The ten immunization clinics maintained by the Department have been active as usual this year, but in addition, the mass feeding program of Sabin vaccine was organized in April as part of a province-wide campaign similar to the initial one carried out in 1962 when oral polio virus vaccine became available. The oral live attenuated product presents great advantages over the previously used injectable inactivated virus preparation in that it confers better immunity; the resistance of individuals is built up at the level of the intestine itself and mass feeding of a population therefore eliminates the wild circulating polio viruses in the community (which when existent are always potential hazards for producing disease if a person without sufficient resistance is encountered). This city-wide campaign took a tremendous amount of effort to organize and conduct in various centers strategically chosen throughout the City. In spite of certain age and other specific restrictions imposed to satisfy newly adopted recommendations by the National Advisory Committee on Immunization Procedures the results were very gratifying. A total of 162,746 doses of vaccine were given, which means that 63.6% of our population received it. There were no complications reported that could be attributed to the vaccine. Sabin vaccine will soon be marketed in small packages by the manufacturer suitable for use by individual doctors and clinics. This change is expected early in the Spring of 1965 and plans are being made for modification of the presently existing immunization schedules to incorporate Sabin vaccine in the routine immunization of infants and children in Winnipeg Child Health Centers.

Measles:

The facts about the importance of the newly discovered live attenuated measles vaccine have already been presented. As with all new methods and medicinal agents a great number of enquiries are directed to this Department both from the public and the profession asking for advice. In most instances public enquiries come in response to recent publications in the press and the subject of measles vaccine has received very wide publicity in North America. Although there is no doubt about the efficacy and the advisability of using this product -- and this Department has always recommended this without reservation -- in order to avoid undesirable complications of the

Whooping cough: (Pertussis)

This disease is still a notifiable one but only six cases were reported in 1964. Following the incorporation of pertussis vaccine in immunization programs marked regression in both the incidence and severity of this illness occurred. Some mild cases probably pass unrecognized but in general it can confidently be said that whooping cough is no longer a health hazard in this community.

Poliomyelitis:

No poliomyelitis occurred in Winnipeg during 1964 which becomes therefore another poliomyelitis-free year. This is not coincidental or due to chance, but an achievement resulting from continued effort to maintain this happy state of affairs. Paradoxically this effort becomes greater as more time elapses since the last case in this City occurred in 1959; the public tends to forget the disease and consequently the necessity for cooperating, and I quote from a recent article in the Canadian Journal of Public Health by Dr. I. McQueen -- "Yet these diseases are vanishing and so persuade parents to have their children vaccinated against polio or smallpox or immunized against diphtheria and whooping cough needs skill in persuasion and health teaching, not clinical or epidemiological knowledge of the particular disease".

The ten immunization clinics maintained by the Department have been active as usual this year, but in addition, the mass feeding program of Sabin vaccine was organized in April as part of a province-wide campaign similar to the initial one carried out in 1962 when oral polio virus vaccine became available. The oral live attenuated product presents great advantages over the previously used injectable inactivated virus preparation in that it confers better immunity; the resistance of individuals is built up at the level of the intestine itself and mass feeding of a population therefore eliminates the wild circulating polio viruses in the community (which when existent are always potential hazards for producing diseases if a person without sufficient resistance is encountered). This city-wide campaign took a tremendous amount of effort to organize and conduct in various centers strategically chosen throughout the City. In spite of certain age and other specific restrictions imposed to satisfy newly adopted recommendations by the National Advisory Committee on Immunization Procedures the results were very gratifying. A total of 162,746 doses of vaccine were given, which means that 63.6% of our population received it. There were no complications reported that could be attributed to the vaccine. Sabin vaccine will soon be marketed in small packages by the manufacturer suitable for use by individual doctors and clinics. This change is expected early in the Spring of 1965 and plans are being made for modification of the presently existing immunization schedules to incorporate Sabin vaccine in the routine immunization of infants and children in Winnipeg Child Health Centers.

Measles:

The facts about the importance of the newly discovered live attenuated measles vaccine have already been presented. As with all new methods and medicinal agents a great number of enquiries are directed to this Department both from the public and the profession asking for advice. In most instances public enquiries come in response to recent publications in the press and the subject of measles vaccine has received very wide publicity in North America. Although there is no doubt about the efficacy and the advisability of using this product -- and this Department has always recommended this without reservation -- in order to avoid undesirable complications of the

disease, yet admittedly there has been some exaggeration of the dangers of measles in these publications which have aroused unnecessary fears in the mind of many people.

Although the disease is not notifiable our impression from available information was that the amount of measles in this City in 1964 was less than during the previous year.

Mumps:

As in the case of measles there was less mumps in Winnipeg in 1964 in comparison to 1963, which was an epidemic year for mumps. The usual epidemiological characteristic of such diseases is that following an unusually severe year the disease incidence declines until enough susceptible individuals accumulate to restart a new group of cases. Although some work is being done no mumps vaccine is yet available commercially.

Influenza:

During the year there were no major epidemics of any significant severity. Several minor outbreaks of influenza-like illnesses occurred however, which caused some absenteeism in schools throughout the City. Late in December one particular outbreak was characterized by gastro-intestinal symptoms (mainly vomiting) and a brief period of fever. No particular pathogens were isolated.

Diphtheria:

This Department is in the fortunate position to state that there were no actual cases of diphtheria in 1964 (there were 3 in 1963) but six persons were found to harbour virulent diphtheria baccilli and were therefore designated as carriers. Most of these were confined to members of two Winnipeg families. One family was Treaty Indians who came into Winnipeg from a northern reserve. Carriers are potential sources of cases. Although it may be true that diphtheria in general is becoming a milder disease, yet maintenance of an adequate immunization status amongst our population is the only absolute safeguard as carriers have never been absent from this community. As stated previously, to convince people to keep their children immunized against a disease which has not recently caused serious trouble in a spectacular fashion is difficult, especially in certain areas of the City where some indifference in health matters prevails. Our public health nurses are carrying out a continuous campaign to bring the families in question to the Child Health and Immunization Centres that the Department operates throughout the City.

Dysentery:

The number of cases of baccillary dysentery remained approximately the same as last year but there was a further slight increase in the reported cases of "unspecified dysentery" (total of 160 cases). As pointed out in last year's report many of these are due to viral infections with gastro-intestinal manifestations including severe diarrhoea. It is not always possible to investigate or follow all these cases but as a rule a public health nurse visits the home and explains how spreading to the other members of the family can be avoided. The same principles apply to cases of infection with organisms known as "salmonella"; These are not classified as "dysentery" but their epidemiology is similar.

Typhoid:

Typhoid is due to salmonella organisms. There were no actual

diseases, yet admittedly there has been some exaggeration of the dangers of measles in these publications which have aroused unnecessary fears in the mind of many people.

Although the disease is not notifiable our impression from available information was that the amount of measles in this City in 1964 was less than during the previous year.

Mumps:

As in the case of measles there was less mumps in Winnipeg in 1964 in comparison to 1963, which was an epidemic year for mumps. The usual epidemiological characteristic of such diseases is that following an unusually severe year the disease incidence declines until enough susceptible individuals accumulate to restart a new group of cases. Although some work is being done no mumps vaccine is yet available commercially.

Influenza:

During the year there were no major epidemics of any significant severity. Several minor outbreaks of influenza-like illnesses occurred however, which caused some absenteeism in schools throughout the City. Late in December one particular outbreak was characterized by gastro-intestinal symptoms (mainly vomiting) and a brief period of fever. No particular pathogens were isolated.

Diphtheria:

This Department is in the fortunate position to state that there were no actual cases of diphtheria in 1964 (there were 3 in 1963) but six persons were found to harbour virulent diphtheria bacilli and were therefore designated as carriers. Most of these were confined to members of two Winnipeg families. One family was Treaty Indians who came into Winnipeg from a northern reserve. Carriers are potential sources of cases. Although it may be true that diphtheria in general is becoming a milder disease, yet maintenance of an adequate immunization status amongst our population is the only absolute safeguard as carriers have never been absent from this community. As stated previously, to convince people to keep their children immunized against a disease which has not recently caused serious trouble in a spectacular fashion is difficult, especially in certain areas of the City where some indifference in health matters prevails. Our public health nurses are carrying out a continuous campaign to bring the families in question to the Child Health and Immunization Centres that the Department operates throughout the City.

Dysentery:

The number of cases of bacillary dysentery remained approximately the same as last year but there was a further slight increase in the reported cases of "unspecified dysentery" (total of 160 cases). As pointed out in last year's report many of these are due to viral infections with gastro-intestinal manifestations including severe diarrhoea. It is not always possible to investigate or follow all these cases but as a rule a public health nurse visits the home and explains how spreading to the other members of the family can be avoided. The same principles apply to cases of infection with organisms known as "salmonella". These are not classified as "dysentery" but their epidemiology is similar.

Typhoid:

Typhoid is due to salmonella organisms. There were no actual

cases during the year but three carriers were found. In one of these cases the organism was isolated following surgical removal of the gall bladder in a Winnipeg Hospital. Contacts were investigated with negative results. The assumption was that the patient was an asymptomatic carrier without her knowledge for a number of years. (Central Europe was her country of origin).

The two other cases were members of one family. Extensive investigation of contacts was done jointly with the Provincial Department of Health as these persons had been in several locations outside Winnipeg before they were discovered. A third member of the same family was also suspected of carrying the organism but this was not proven. All three members were treated until they were clear of their carrier status.

Meningococcal Meningitis:

This disease can be a very serious one. With the advent of antibiotic and chemotherapeutic drugs two decades ago the outlook is greatly improved providing the diagnosis is made early. Occasionally the illness strikes so suddenly that little can be done in time to save the life of the person involved. Infants and young children are generally affected. Two cases occurred in Winnipeg in 1964, one of them terminating fatally -- this was a 2½-year-old child living in crowded quarters. The illness was very sudden in onset and the patient expired before the lapse of twenty-four hours. Children contacts were all promptly visited and prophylactic antibiotic medication was given to prevent further cases.

The second case occurred in December, was not as severe as the previous one, and the patient recovered uneventfully.

Diarrhoea of the New Born:

Diarrhoea of the new born is not a serious problem in this City. Only eight cases were reported in comparison to fourteen last year. This condition can cause serious trouble, however, as it happened in an east coast province this year. In some instances such outbreaks occur and spread within the new born nurseries.

Conditions in new born and premature nurseries in Winnipeg hospitals are excellent. The Department is presently reviewing these facilities in Winnipeg through a survey. The hospitals and their staff have shown excellent co-operation and a highly satisfactory impression was so far obtained. The final report of the overall picture will be presented in 1965.

Scarlet Fever:

Scarlet fever is another example of a disease -- highly fatal a few decades ago -- whose severity has declined. This can only be partly due to the presently available antibiotic drugs, and "natural" decline in the virulence of the responsible micro-organism is probably equally responsible for the present day attenuation of this disease.

It is still reportable and children contacts are still being excluded from school unless placed on prophylactic chemotherapy. If this trend continues the above measure may prove unnecessary in the future.

Seventy-eight cases were reported during the year (in comparison to 89 last year). Most of them were mild and inconsequential and we are inclined to believe, as pointed out in last year's Report, that a number of

cases during the year but three carriers were found. In one of these cases the organism was isolated following surgical removal of the gall bladder in a Winnipeg Hospital. Contacts were investigated with negative results. The assumption was that the patient was an asymptomatic carrier without her knowledge for a number of years. (Central Europe was her country of origin).

The two other cases were members of one family. Extensive investigation of contacts was done jointly with the Provincial Department of Health as these persons had been in several locations outside Winnipeg before they were discovered. A third member of the same family was also suspected of carrying the organism but this was not proven. All three members were treated until they were clear of their carrier status.

Meningococcal Meningitis:

This disease can be a very serious one. With the advent of antibiotic and chemotherapeutic drugs two decades ago the outlook is greatly improved providing the diagnosis is made early. Occasionally the illness strikes so suddenly that little can be done in time to save the life of the person involved. Infants and young children are generally affected. Two cases occurred in Winnipeg in 1964, one of them terminating fatally -- this was a 2½-year-old child living in crowded quarters. The illness was very sudden in onset and the patient expired before the lapse of twenty-four hours. Children contacts were all promptly visited and prophylactic antibiotic medication was given to prevent further cases.

The second case occurred in December, was not as severe as the previous one, and the patient recovered uneventfully.

Diarrhoea of the New Born:

Diarrhoea of the new born is not a serious problem in this City. Only eight cases were reported in comparison to fourteen last year. This condition can cause serious trouble, however, as it happened in an east coast province this year. In some instances such outbreaks occur and spread within the new born nurseries.

Conditions in new born and premature nurseries in Winnipeg hospitals are excellent. The Department is presently reviewing these facilities in Winnipeg through a survey. The hospitals and their staff have shown excellent co-operation and a highly satisfactory impression was so far obtained. The final report of the overall picture will be presented in 1965.

Scarlet Fever:

Scarlet fever is another example of a disease -- highly fatal a few decades ago -- whose severity has declined. This can only be partly due to the presently available antibiotic drugs, and "natural" decline in the virulence of the responsible micro-organism is probably equally responsible for the present day attenuation of this disease.

It is still reportable and children contacts are still being excluded from school unless placed on prophylactic chemotherapy. If this trend continues the above measure may prove unnecessary in the future.

Seventy-eight cases were reported during the year (in comparison to 89 last year). Most of them were mild and inconsequential and we are inclined to believe, as pointed out in last year's Report, that a number of

them may in fact have been due to other infections with skin rashes simulating that of scarlet fever.

Summary and Conclusions

With few exceptions there has been a steady decline in the incidence of notifiable infectious illnesses in this City during recent years and in 1964 the total number was four hundred and ninety cases in all. Most of these cases were relatively mild in severity and complete recovery was the rule. Only twelve people died from infectious causes during the year, ten of them from tuberculosis, one from meningitis and one from hepatitis. In the year of 1900 in the United States the principal causes of death of the population were listed as

1900 - U.S.A.
Principal Causes of Death

1. Tuberculosis
2. Pneumonia
3. Diarrhea and Enteritis
4. Heart Disease
5. Diseases of Infancy and Malformations

Needless to say this pattern has been completely reversed today. Since at one time these diseases constituted the commonest cause of death in an average North American community, we can only rejoice at seeing these causes ranking so low in the list now. However, this achievement is not a "natural" one and can only be maintained by continued effort. The more people forget about these diseases the greater does the burden of this effort become. Also this effort is not static; new progress has to occur and new methods have to be constantly devised to cope with the ever changing picture and epidemiology of these illnesses.

We also have to concern ourselves with the newly emerging diseases -- some of them the product of modern times, way of life, and the aging of our population. People at one time heavily stricken by death from infectious diseases are now surviving to an older age and consequently become susceptible to other illnesses. True, many of these illnesses, are "non-infectious" in the proper sense of the word but their incidence and epidemiology behaves in a way comparable to that of infectious disease. Unfortunately the etiology of many of these new conditions is often obscure and not readily preventable; "immunizing agents" are not only not available but no other effective remedy is predicted for the near future. Mental illness, cancer, arthritis, traffic and other accidents are only but a few examples. Note that our statistics this year show a perhaps small but definitely significant increase in suicide rates in this City, which is not easily explainable. In other cases an explanation is available, such as the relation between smoking and lung cancer, but the problem is so complex in our present socio-economic structure that no clear-cut practical action can be taken, although health authorities are trying their best to deal with this problem, mainly through the weapon of education of our younger population. The same applies to the relation between the consumption of alcohol and traffic accidents where again the difficulty, not being simply a health matter, cannot be effectively dealt with solely by health personnel.

them may in fact have been due to other infections with skin rashes simulating that of scarlet fever.

Summary and Conclusions

With few exceptions there has been a steady decline in the incidence of notifiable infectious illnesses in this City during recent years and in 1964 the total number was four hundred and ninety cases in all. Most of these cases were relatively mild in severity and complete recovery was the rule. Only twelve people died from infectious causes during the year, ten of them from tuberculosis, one from meningitis and one from hepatitis. In the year of 1900 in the United States the principal causes of death of the population were listed as

1900 - U.S.A.
Principal Causes of Death

1. Tuberculosis
2. Pneumonia
3. Diarrhea and Enteritis
4. Heart Disease
5. Diseases of Infancy and Malformations

Needless to say this pattern has been completely reversed today. Since at one time these diseases constituted the commonest cause of death in an average North American community, we can only rejoice at seeing these causes ranking so low in the list now. However, this achievement is not a "natural" one and can only be maintained by continued effort. The more people forget about these diseases the greater does the burden of this effort become. Also this effort is not static; new progress has to occur and new methods have to be constantly devised to cope with the ever changing picture and epidemiology of these illnesses.

We also have to concern ourselves with the newly emerging diseases -- some of them the product of modern times, way of life, and the aging of our population. People at one time heavily stricken by death from infectious diseases are now surviving to an older age and consequently become susceptible to other illnesses. True, many of these illnesses, are "non-infectious" in the proper sense of the word but their incidence and epidemiology behaved in a way comparable to that of infectious disease. Unfortunately the etiology of many of these new conditions is often obscure and not readily preventable; "immunizing agents" are not only not available but no other effective remedy is predicted for the near future. Mental illness, cancer, arthritis, traffic and other accidents are only but a few examples. Note that our statistics this year show a perhaps small but definitely significant increase in suicide rates in this City, which is not easily explainable. In other cases an explanation is available, such as the relation between smoking and lung cancer, but the problem is so complex in our present socio-economic structure that no clear-cut practical action can be taken, although health authorities are trying their best to deal with this problem, mainly through the weapon of education of our younger population. The same applies to the relation between the consumption of alcohol and traffic accidents where again the difficulty, not being simply a health matter, cannot be effectively dealt with solely by health personnel.

TABLE OF REPORTABLE INFECTIOUS DISEASES

CASES AND DEATHS REPORTED	1964		1963	
	CASES	DEATHS	CASES	DEATHS
Diarrhoea, of the New Born	8	-	14	-
Diphtheria	-	-	3	-
Diphtheria Carriers	6	-	6	-
Dysentery, Anoebic	-	-	-	-
Dysentery, Bacillary	25	-	26	-
Dysentery, Unspecified	160	-	144	-
Encephalitis, Infectious	-	-	-	-
Hepatitis, Infectious	133	1	134	2
Meningitis, (Meningococcal)	2	1	2	1
Meningitis, (Viral or Aseptic)	12	-	16	1
Poliomyelitis	-	-	-	-
Scarlet Fever	78	-	89	-
Smallpox	-	-	-	-
Tuberculosis, Pulmonary	56	10	57	12
Typhoid Fever & Paratyphoid Fever	2	-	-	-
Typhoid Fever Carriers	3	-	-	-
Undulant Fever	-	-	2	-
Whooping Cough	6	-	10	-
	491	12	503	16

COMMUNICABLE AND OTHER DISEASES
IMMUNIZATIONS AND VACCINATIONS COMPLETED

	Under 1 Year	1 Year	2 - 5 Years	6 - 16 Years	Over 16 Years	TOTAL
D.P.T. & Polio	220	446	330	26	-	1,022
Reinforcing Doses	11	73	701	75	2	862
D. T. & Polio	1	-	9	15	2	27
Reinforcing Doses	3	5	150	7,545	9	7,712
Tetanus & Polio	3	2	4	31	27	67
Reinforcing Doses	-	-	5	15	27	47
Diphtheria Toxoid	-	1	4	26	13	44
Reinforcing Doses	-	-	5	13	5	23
Total Immunizations	224	449	347	98	42	1,160
Total Reinforcing Doses	14	78	861	7,648	43	8,644
Smallpox Vaccinations	395	174	236	54	-	859
Re-Vaccinations	11	8	10	8	7	44

SABIN ORAL POLIO VACCINE PROGRAM
April 20 - 24 & June 1, 1964

Winnipeg Schools	52,802
Child Health Centres	459
Public Clinics	86,544
Hospitals and Medical Services, Business and Industry	22,941
Total	162,746

MEDICAL RELIEF AND OTHER SERVICES

Patients visited by District Physicians	1,482
Glasses supplied to school children	715
Persons receiving Insulin (monthly average)	101
Persons receiving Liver Extract (monthly average)	6
Persons receiving prophylactic Penicillin (monthly average)	306

(Persons with a history of rheumatic fever receive a daily dose of penicillin as a preventive measure against recurrence of the disease. The Health Department supplies this where indicated.)

Children in Foster Homes and Welfare Institutions (monthly average)	862

COMMUNICABLE AND OTHER DISEASES
IMMUNIZATIONS AND VACCINATIONS COMPLETED

	Under 1 Year	1 Year	2 - 5 Years	6 - 16 Years	Over 16 Years	TOTAL
D.P.T. & Polio	220	446	330	26	-	1,022
Reinforcing Doses	11	73	701	75	2	862
D. T. & Polio	1	-	9	15	2	27
Reinforcing Doses	3	5	150	7,545	9	7,712
Tetanus & Polio	3	2	4	31	27	67
Reinforcing Doses	-	-	5	15	27	47
Diphtheria Toxoid	-	1	4	26	13	44
Reinforcing Doses	-	-	5	13	5	23
Total Immunizations	224	449	347	98	42	1,160
Total Reinforcing Doses	14	78	861	7,648	43	8,644
Smallpox Vaccinations	395	174	236	54	-	859
Re-Vaccinations	11	8	10	8	7	44

SABIN ORAL POLIO VACCINE PROGRAM
April 20 - 24 & June 1, 1964

Winnipeg Schools	52,802
Child Health Centres	459
Public Clinics	86,544
Hospitals and Medical Services, Business and Industry	22,961
Total	162,766

MEDICAL RELIEF AND OTHER SERVICES

Patients visited by District Physicians	1,482
Classes supplied to school children	715
Persons receiving Insulin (monthly average)	101
Persons receiving Liver Extract (monthly average)	6
Persons receiving prophylactic Penicillin (monthly average)	306

(Persons with a history of rheumatic fever receive a daily dose of penicillin as a preventive measure against recurrence of the disease. The Health Department supplies this where indicated.)

Children in Foster Homes and Welfare Institutions (monthly average)	862

TUBERCULOSIS CONTROL

I DEATHS

During 1964 there were ten deaths of Winnipeg Residents due to tuberculosis, as compared with twelve in 1963. As a disease approaches the end-point of eradication, there is a great increase in the cost of the skill, effort and resources to trace the last remaining cases and treat them. The society which bears this cost may become somewhat disinterested in a disappearing disease and resent what may superficially appear to be a disproportionately large and costly effort to eradicate an uncommon disease. The Sanatorium Board of Manitoba and the City Health Department have spared no effort during 1964 to remind our citizens that tuberculosis is not yet extinct and that only through constant fighting can we prevent its threatened re-expansion.

The following table illustrates the total deaths from tuberculosis and the rates per 100,000 population in several selected years since 1910 and is presented for comparative purposes.

Year	Number	Rate per 100,000
1910	164	123.6
1940	52	23.0
1950	21	8.3
1960	16	6.3
1961	10	3.8
1962	7	2.7
1963	12	4.7
1964	10	3.9

Deaths by Age Group 1964

Age Groups	Number of Deaths
0 - 19	0
20 - 39	0
40 - 69	6
70 +	4
Total	10

II NEW ACTIVE CASES OF TUBERCULOSIS

In tuberculosis the number of deaths usually parallels and consists of a constant proportion of the total number of newly discovered cases. In 1964, 67 such cases were discovered and reported which is seven cases less than the previous year. Note, however, that in order to discover these 67 cases a much greater search was made including a much greater total number of diagnostic procedures.

TUBERCULOSIS CONTROL

I DEATHS

During 1964 there were ten deaths of Winnipeg Residents due to tuberculosis, as compared with twelve in 1963. As a disease approaches the end-point of eradication, there is a great increase in the cost of the skill, effort and resources to trace the last remaining cases and treat them. The society which bears this cost may become somewhat disinterested in a disappearing disease and resent what may superficially appear to be a disproportionately large and costly effort to eradicate an uncommon disease. The Sanatorium Board of Manitoba and the City Health Department have spared no effort during 1964 to remind our citizens that tuberculosis is not yet extinct and that only through constant fighting can we prevent its threatened re-expansion.

The following table illustrates the total deaths from tuberculosis and the rates per 100,000 population in several selected years since 1910 and is presented for comparative purposes.

Year	Number	Rate per 100,000
1910	164	123.6
1940	52	23.0
1950	21	8.3
1960	16	6.3
1961	10	3.8
1962	7	2.7
1963	12	4.7
1964	10	3.9

Deaths by Age Group 1964

Age Groups	Number of Deaths
0 - 19	0
20 - 39	0
40 - 69	6
70 +	4
Total	10

II NEW ACTIVE CASES OF TUBERCULOSIS

In tuberculosis the number of deaths usually parallels and correlates of a constant proportion of the total number of newly discovered cases. In 1964, 67 such cases were discovered and reported which is seven cases less than the previous year. Note, however, that in order to discover these 67 cases a much greater search was made including a much greater total number of diagnostic procedures.

	New Cases	Rate per 100,000 population	Found on Surveys
1959	79	26.5	4
1960	45	17.4	4
1961	68	26.5	3
1962	65	25.3	4
1963	74	28.8	6
1964	67	26.2	4

Tuberculosis New Active Cases and Reactivations 1964

Age Group	New	Reactivations
0 - 4	2	-
5 - 14	7	-
15 - 24	11	-
25 - 39	19	2
40 - 59	14	4
60 - 79	13	4
80 +	1	-
Total	67	10

Usually in tuberculosis on this continent and in recent years most of the new cases were discovered in the older age groups. This year some deviation from this trend was noted, many of the new cases being in younger groups as well.

The number of reactivations this year was even lower than last year's figure amounting only to ten cases. This may be the reflection of a closer follow-up of known cases carried out jointly by the Sanatorium Board of Manitoba and our Department. Our public health nurses bear the brunt of ensuring regular attendance of old tuberculosis cases to the hospital for follow-up and in many instances this is a very hard task as people who feel well at the moment accept with great reluctance the necessity to go for another examination.

How New Active Cases and Reactivations Were Discovered

	New	Reactivations
General Hospital	28	5
Private Physicians	21	2
Community Surveys	4	-
Chest Clinics	10	2
Vital Statistics	4	1
Total	67	10

Note that the two most rewarding methods of case finding is the diagnostic work performed by the practicing physicians and hospitals. Routine chest x-rays of patients presenting with a variety of complaints is being done with increasing frequency today with an occasional unexpected

	New Cases	Rate per 100,000 population	Found on Survey
1959	79	26.5	4
1960	45	17.4	4
1961	68	26.5	3
1962	65	25.3	4
1963	74	28.8	6
1964	67	26.2	4

Tuberculosis New Active Cases and Reactivations 1964

Age Group	New	Reactivations
0 - 4	2	-
5 - 14	7	-
15 - 24	11	-
25 - 39	19	2
40 - 59	14	4
60 - 79	13	4
80 +	1	-
Total	67	10

Usually in tuberculosis on this continent and in recent years most of the new cases were discovered in the older age groups. This year some deviation from this trend was noted, many of the new cases being in younger groups as well.

The number of reactivations this year was even lower than last year's figure amounting only to ten cases. This may be the reflection of a closer follow-up of known cases carried out jointly by the Sanatorium Board of Manitoba and our Department. Our public health nurses bear the brunt of ensuring regular attendance of old tuberculosis cases to the hospital for follow-up and in many instances this is a very hard task as people who feel well at the moment accept with great reluctance the necessity to go for another examination.

How New Active Cases and Reactivations Were Discovered

	New	Reactivations
General Hospital	28	5
Private Physicians	21	2
Community Surveys	4	-
Chest Clinics	10	2
Vital Statistics	4	1
Total	67	10

Note that the two most rewarding methods of case finding is the diagnostic work performed by the practicing physicians and hospitals. Routine chest x-rays of patients presenting with a variety of complaints is being done with increasing frequency today with an occasional unexpected

discovery of pulmonary tuberculosis, cancer, heart disease or other disease. Doctors are increasingly realizing the important value of the chest film as a diagnostic tool.

Classification of New and Reactivated Cases for 1964

		New Cases		Reactivations	
PULMONARY	Primary	5		-	
	Minimal	17		1	
	Moderately Advanced	16		2	
	Far Advanced	5		4	
	Unclassified	1		-	
	Total		44		7

Note that a considerable proportion of new pulmonary cases, are moderately advanced and occasionally far advanced at the time of discovery.

		New Cases		Reactivations	
EXTRA PULMONARY					
	Pleurisy	14		1	
	Glandular	2		-	
	Renal & Genital	2		1	
	Bone	1		1	
	Miningeal	2		-	
	Miliary	1		-	
	Peritonitis	-		-	
	Other	1		-	
	Total		23		3
	TOTAL		67		10

Pulmonary tuberculosis in recent years, diminished to a greater extent than the extrapulmonary types and the total number of these latter cases tends to approach that of the pulmonary disease, which at one time was largely predominating, being the main contagious form of tuberculosis disease.

III SURVEYS

Tuberculin tests were carried out in schools and selected industries by the Sanatorium Board of Manitoba. Plans are presently laid out for next spring for a detailed mass x-ray survey of a large section of our City where experience has shown that most cases of tuberculosis have occurred in recent years.

This survey will represent a joint effort of the Sanatorium Board and City Health Department in an attempt to discover hidden cases of tuberculosis in the community by means of a "door to door" campaign.

discovery of pulmonary tuberculosis, cancer, heart disease or other disease. Doctors are increasingly realizing the important value of the chest film as a diagnostic tool.

Classification of New and Reactivated Cases for 1964

		New Cases	Reactivations
PULMONARY	Primary	5	-
	Minimal	17	1
	Moderately Advanced	16	2
	Far Advanced	5	4
	Unclassified	1	-
	Total	44	7

Note that a considerable proportion of new pulmonary cases, are moderately advanced and occasionally far advanced at the time of discovery.

		New Cases	Reactivations
EXTRA PULMONARY			
	Pleurisy	14	1
	Glandular	2	-
	Renal & Genital	2	1
	Bone	1	1
	Miningeal	2	-
	Military	1	-
	Peritonitis	-	-
	Other	1	-
	Total	23	3
TOTAL		67	10

Pulmonary tuberculosis in recent years, diminished to a greater extent than the extrapulmonary types and the total number of these latter cases tends to approach that of the pulmonary disease, which at one time was largely predominating, being the main contagious form of tuberculosis disease.

III SURVEYS

Tuberculin tests were carried out in schools and selected industries by the Sanatorium Board of Manitoba. Plans are presently laid out for next spring for a detailed mass x-ray survey of a large section of our City where experience has shown that most cases of tuberculosis have occurred in recent years.

This survey will represent a joint effort of the Sanatorium Board and City Health Department in an attempt to discover hidden cases of tuberculosis in the community by means of a "door to door" campaign.

Tuberculin Tests in Winnipeg

The total number of tests done during the 1964 surveys was 25,594 as compared with 16,000 in 1963, which illustrates how much more was done this year to find approximately the same number of cases (4).

	Tests	Tests Read	Positive	Negative
Schools	11,362	10,741	514	10,227
%		94.5	4.8	95.2
Colleges	1,832	not available	not available	1,432
%				78.2
Industrial	12,400	11,863	5,091	6,772
%		95.7	42.9	57.1
TOTAL	25,594	22,604	5,605	18,431
%		88.3	24.8	81.5

4.8% of tuberculin tests were positive in the schools among students examined. 42.9% were positive among industrial workers.

Positive reactors were subsequently submitted to an x-ray examination. One active case was found in a school and two in industry.

X-ray Surveys in Winnipeg

	Number	New Active Cases
Industrial	11,640	2
Schools and Colleges	2,910	1
National Employment Service	5,174	-
Central Tuberculosis Clinic, Survey Unit	2,170	1
	21,894	4

	1963	1964
Admissions to Sanatoria	61	74
Re-admissions to Sanatoria	5	1
Discharges from Sanatoria	46	74

Average number of cases under supervision by the City Health Department - 930

Note again that the total number of x-rays done by the Sanatorium Board has increased to 21,894 (from 14,904 in 1963.) The discharges from Sanatoria equalled the number of admissions, indicating a further shortening of the period of hospitalization for that disease.

There was only one re-admission in 1964 as compared with 5 in 1963 and 18 in 1962. This again reflects on the more adequate supervision of old cases.

Tuberculin Tests in Winnipeg

The total number of tests done during the 1964 survey was 25,394 as compared with 16,000 in 1963, which illustrates how much more was done this year to find approximately the same number of cases (4).

	Tests	Tests Read	Positive	Negative
Schools	11,362	10,741	514	10,227
%		94.5	4.8	95.2
Colleges	1,832	not available	not available	1,432
%				78.2
Industrial	12,400	11,863	5,091	6,772
%		95.7	42.9	57.1
TOTAL	25,594	22,604	5,605	18,431
%		88.3	24.8	81.5

4.8% of tuberculin tests were positive in the schools among students examined.
42.9% were positive among industrial workers.

Positive reactors were subsequently submitted to an X-ray examination. One active case was found in a school and two in industry.

X-ray Surveys in Winnipeg

	Number	New Active Cases
Industrial	11,640	2
Schools and Colleges	2,910	1
National Employment Service	5,174	-
Central Tuberculosis Clinic, Survey Unit	2,170	1
	21,894	4

	1963	1964
Admissions to Sanatoria	61	74
Re-admissions to Sanatoria	5	1
Discharges from Sanatoria	46	74

Average number of cases under supervision by the City Health Department - 930

Note again that the total number of x-rays done by the Sanatorium Board has increased to 21,894 (from 14,904 in 1963.) The discharges from Sanatoria equalled the number of admissions, indicating a further shortening of the period of hospitalization for that disease.

There was only one re-admission in 1964 as compared with 5 in 1963 and 18 in 1962. This again reflects on the more adequate supervision of old cases.

IV SUMMARY

At the turn of the century tuberculosis was the most frequent cause of death in the civilized part of the world. With the development of epidemiological and overall public health measures, the first and greatest improvement in the control of this disease occurred in the first few decades. With the advent of chemotherapy during the last twenty years a further limitation of the disease was achieved and the eventual disappearance of tuberculosis as a major cause of death and disability appeared as being possible. In the last few years, however, this has not occurred and a toll is still being paid yearly for this disease.

Poor locality and depressed socio-economic conditions influence adversely the prevalence of this disease and this has been repeatedly demonstrated to be a major factor in this city year after year.

The main efforts of the City Health Department are in the direction of supervision of discovered cases as they are treated at home following initial therapy in a hospital or sanatorium. We also see that these patients come back regularly for x-rays and medical examinations after they have been declared inactive to safeguard against possible relapses. Also to ensure that all close contacts of active cases are properly investigated.

During 1964 there were 930 cases under supervision by the city public health nurses, who keep performing the most vital part of this operation of tuberculosis control.

Finally, we would like to extend our thanks to all those who assisted in this work, especially the Sanatorium Board of Manitoba, without the help of which no achievement of any kind would be possible. We all realize that no further progress can be made in this disease without the constant co-operation of all the organizations concerned with its control.

IV SUMMARY

CHILD DENTAL SERVICES

The City of Winnipeg Child Dental Services Programme actively engages in the following public health measures:

(1) Dental Health Education.
(2) Studies of the local Dental Health Problems.
(3) Utilization of Public Health Measures.
(4) Dental Treatment.

1. Dental Health Education

In all fields of education as in dental health the most important step is to create an interest, motivate people to action, and then attempt to maintain improvements on a sustaining basis. In our program, major emphasis is placed on the primary school children and their parents (up to the Grade II level). This is accomplished through annual classroom dental inspections (106 sessions in 1964), parent notifications, and talks by the dentist with demonstrations in the classroom.

Co-operation by the public health nurses, the school board personnel, and the dental profession has indeed enhanced and produced a well-balanced program.

Free Dental Health Education material and teaching aids are made available to the public health nurses, school principals and teachers, parents, and pupils in order to create an interest with a resultant positive action toward improving the dental health for their community.

Dental Inspections (14,000 in 1964) are another positive approach in an education program. Interest and action can be obtained through notifications sent to the parent on their child's dental health and a request for information on the family's arrangement for providing dental services.

In addition to the consultant services provided through the treatment clinics, the Director acts as a consultant to the Winnipeg General Hospital Welfare Dental Clinic, Mount Carmel Clinic and the Winnipeg School Board. The Branch also took an active part in the annual Manitoba Dental Health Week promotion.

The annual staff in-service training program in 1964 was held jointly with the Dental Staff of the Province. The program included conferences, reports, sessions on care and maintenance of dental equipment, organization, administration and techniques. Two dental assistants completed the special course sponsored by the Manitoba Dental Association for Dental Assistants.

2. Studies of the Local Dental Health Problems

Data collected by the Dental Branch indicates a trend is developing towards an improvement in the oral health of the child population of Winnipeg.

The approach of the Dental Branch in providing comprehensive dental treatment for a select group (Social Welfare and Indigent children) seems to be effective in encouraging utilization of this service.

CHILD DENTAL SERVICES

The City of Winnipeg Child Dental Services Programme actively engages in the following public health measures:

(1) Dental Health Education.
(2) Studies of the local Dental Health Problems.
(3) Utilization of Public Health Measures.
(4) Dental Treatment.

1. Dental Health Education

In all fields of education as in dental health the most important step is to create an interest, motivate people to action, and then attempt to maintain improvements on a sustaining basis. In our program, major emphasis is placed on the primary school children and their parents (up to the Grade II level). This is accomplished through annual classroom dental inspections (108 sessions in 1965), parent notifications, and talks by the dentist with demonstrations in the classroom.

Co-operation by the public health nurses, the school board personnel, and the dental profession has indeed enhanced and produced a well-balanced program.

Free Dental Health Education material and teaching aids are made available to the public health nurses, school principals and teachers, parents, and pupils in order to create an interest with a resultant positive action toward improving the dental health for their community.

Dental Inspections (14,000 in 1965) are another positive approach in an education program. Interest and action can be obtained through notifications sent to the parent on their child's dental health and a request for information on the family's arrangement for providing dental services.

In addition to the consultant service provided through the treatment clinics, the Director acts as a consultant to the Winnipeg General Hospital Welfare Dental Clinic, Mount Carmel Clinic and the Winnipeg School Board. The Branch also took an active part in the annual Manitoba Dental Health Week promotion.

The annual staff in-service training program in 1964 was held jointly with the Dental Staff of the Province. The program included conferences, reports, sessions on care and maintenance of dental equipment, organization, administration and techniques. Two dental assistants completed the special course sponsored by the Manitoba Dental Association for Dental Assistants.

2. Studies of the Local Dental Health Problems

Data collected by the Dental Branch indicates a trend is developing towards an improvement in the oral health of the child population of Winnipeg.

The approach of the Dental Branch in providing comprehensive dental treatment for a select group (Social Welfare and Indigent children) seems to be effective in encouraging utilization of this service.

Maintenance care through regular recall examinations and treatment planning spreads dental manpower hours over a larger group of children. Failure rates are kept to a minimum. The table below indicates that welfare recipients are seeking and co-operating in providing dental treatment for their children.

Welfare Children on Active Files

1959	345
1960	659
1961	852
1962	877
1963	1328
1964	1576

Dental supervision is also available for pre-school children.

3. Utilization of Public Health Measures

A. Classroom Dental Inspection Analysis

Table 1 is a compilation of data collected during the school terms 1963-1964 to 1959-1960. Comparing the school term 1963-1964 with 1959-1960 favourable progress can be observed in the percentage of children with caries, Kindergarten 77% to 56%; Grade I 84% to 62%; and Grade II 88% to 64%. On analyzing the caries free columns for the 1963-64 term (Kindergarten 44%; Grade I 38%; Grade II 36%) about 40% of the children inspected were in a preferred state of being caries free, as compared with 17% in the school term 1959-60. This increase must of necessity be mostly attributable to the benefits of fluoridation which Metro Winnipeg instituted in the year 1957.

Analyzing the data under the heading of 'attend dentist' for the year 1963-64 reveals that in Kingergarten less than half the children were reported to have attended a dentist whereas in Grade II more than three-fourths of the school children inspected had seen a dentist.

The constant figure of 20% of families of Grade I children requiring financial assistance in providing dental treatment is significant in projecting the requirements if this service is to be extended into the higher grades. Information collected during the 1963-64 inspection verifies this fact to be true in that 22% of the children in Grade II requested aid.

B. D.M.F.T. (Decay, Missing, Filled Teeth) "Specials"

Table II is a compilation of data on a sample of children born and raised in the Metro area of Winnipeg. Information was collected during regular school inspection visits, subjects selected on the basis of every tenth child according to the alphabetical listing of children in the school index card register.

Maintenance care through regular recall examinations and treatment planning spreads dental manpower hours over a larger group of children. Failure rates are kept to a minimum. The table below indicates that welfare recipients are seeking and co-operating in providing dental treatment for their children.

Welfare Children on Active Files

1959	345
1960	659
1961	852
1962	877
1963	1328
1964	1576

Dental supervision is also available for pre-school children.

3. Utilization of Public Health Measures

A. Classroom Dental Inspection Analysis

Table I is a compilation of data collected during the school terms 1963-1964 to 1959-1960. Comparing the school term 1963-1964 with 1959-1960 favourable progress can be observed in the percentage of children with caries, Kindergarten 71% to 56%; Grade I 84% to 62%; and Grade II 88% to 64%. On analyzing the caries free columns for the 1963-64 term (Kindergarten 44%; Grade I 38%, Grade II 36%) about 40% of the children inspected were in a preferred state of being caries free, as compared with 17% in the school term 1959-60. This increase must of necessity be mostly attributable to the benefits of fluoridation which Metro Winnipeg instituted in the year 1957.

Analyzing the data under the heading of 'attend dentist' for the year 1963-64 reveals that in Kindergarten less than half the children were reported to have attended a dentist whereas in Grade II more than three-fourths of the school children inspected had seen a dentist.

The constant figure of 20% of families of Grade I children requiring financial assistance in providing dental treatment is significant in projecting the requirements if this service is to be extended into the higher grades. Information collected during the 1963-64 inspection verifies this fact to be true in that 22% of the children in Grade II requested aid.

B. D.M.F.T. (Decay, Missing, Filled Teeth) "Specials"

Table II is a compilation of data on a sample of children born and raised in the Metro area of Winnipeg. Information was collected during regular school inspection visits, subjects selected on the basis of every tenth child according to the alphabetical listing of children in the school index card register.

Substantial improvements in the teeth of children is noted in this survey. In 1964 children age 7 showed a reduction in the D.M.F.T. rate of more than 50% from that of 1958. The average D.M.F.T. decrease in all groups (7, 9, 11, and 13 years old) from 1958 to 1964 is over 43% as compared with over 38% in 1963. Fluoridation, education, and readily available dental care may be cited as the contributing factors for this marked improvement.

Table III is a breakdown of data from 1958-64 compiled on the samples of the seven-year-old children born and raised in Metropolitan Winnipeg. During the past three years there has been more than a 50% reduction in the incidence of affected teeth.

4. Dental Treatment

A. Dental Clinics

(1) 136 Ellen Street - 2 chairs (also Emergency clinic)

(2) William Whyte School - 2 chairs

(3) King Edward School - 2 chairs

(4) John M. King School - 1 chair

Dental Treatment clinics are located in strategic areas of the school system. The latest addition was the John M. King School Dental Clinic which went into operation in May 1964. Comprehensive dental treatment (some minor orthodontia) is provided for children whose families are on City of Winnipeg Public Welfare and resident children seven years of age and under (including pre-schoolers) whose families require economic assistance. Applications for treatment are subject to the approval of the school nurse. Dental emergencies (relief of pain or infection) are given priority and include all children (no age limit) who are in full-time attendance at any of the City schools.

B. Treatment

In 1964, 5,191 children were treated during the course of 15,273 patient visits to the clinics. Patients completed and provided with maintenance dental care to the extent of facilities available totalled 3,454 or 66%. 13,933 individual teeth were attended and of these 3,690 teeth were removed and 10,243 teeth were restored to healthy functioning units. Three-quarters of the patients accepted on an emergency treatment basis were 8 years of age and over and would account for a majority of tooth extractions. Preventive and conservative dental procedures are emphasized in the management of child patients.

C. Recall Systems

Further dental treatment coverage is extended to a large group of children from co-operative and interested families through a periodic recall system. Patients qualify for this service by following the initially prescribed dental treatment plan. Regular maintenance care is an effective method of prevention and keeping oral irregularities under control. This has resulted in an increase in the number of children receiving benefits over a longer period of time.

There were 3,714 patients recalled and of these 1,484 or 40% had maintained or were returned to optimum dental health on their first appointment.

Failed appointments are a concern to the Branch and precautions are taken to eliminate many of the causative factors. In 1964 out of 17,326 assigned appointments 1,032 or 5.9% had failed. 264 of these failed appointments were new patients after having requested assistance and been approved by the public health nurse. Failed appointments were low in the recall group, 105 (2.8%) out of the 3,714, indicating an appreciation of the program and the effects of our dental health education. The advantage of having the clinics located in select schools permits replacement from within the school to fill the allotted time thus reducing lost dental manpower hours to a minimum.

There were 1,021 patients who cancelled (5.9%) and another suitable time arranged. Courtesy of advising the clinics in advance of an inability to keep an appointment suggests that the treatment service provided is appreciated by this clientele.

Table IV is a summary of the dental treatment groups by ages and Table V is an analysis of dental treatment services provided by the Health Department to school children for the year 1964.

Handicapped Children

The study of providing dental treatment for mentally retarded children attending a special school in the City was continued throughout 1964. Arrangements were made again to transport the eligible children to one of the regular dental treatment centres.

Table VI is a compilation of the dental services provided to children attending this school. The dental inspection program included all the children and dental treatment was available to all eligible children resident in the City of Winnipeg.

Dental Inspection revealed that approximately 54% of the children required dental attention (60% in 1963), 17% (13% in 1963) were found to be caries immune and 29% (27% in 1963) had the caries process under control through dental supervision.

In most cases mentally retarded children can be treated using normal dental procedure techniques. The major problem is providing ways and means for families who have the burden of raising a handicapped child to obtain dental service for the child, followed by a program to motivate the parents to take action in improving the child's dental health. A preferred method in handling these patients would be the establishment of a permanent type dental clinic within an institution or school for handicapped children where many of the conveniences and facilities are already established -- transportation, availability of patients, familiar surroundings, and environment.

Provision for dental treatment of mentally and physically handicapped children in the City and Province has improved but a great deal has yet to be done to make this service adequate. The problem is centered around neglect, misunderstanding, finances, lack of facilities, and trained personnel.

Adult Dental Services

The establishment of a Welfare Dental Clinic at the Winnipeg General Hospital in April 1963 has provided, to some degree, a dental program for adult welfare and medico-dental indigents in the Province of Manitoba. The clinic is located in the Out-Patients Department and is only in operation in the afternoons. Preventive, interceptive or restorative dentistry is available to interested and co-operative patients. The clinic is financed by the Manitoba Hospital Commission but is administered and operated by the City Health Department. Residents of the City of Winnipeg (Welfare and medico-dental indigents) are provided by the Health Department with dentures and repairs where indicated.

Staff

The staff of the Branch includes a full-time director, with a professional establishment of six and one-half full-time dentists. Two dentists were retained on a full-time staff, and eighteen dentists were employed on a sessional fee part-time basis. The auxilliary staff includes seven dental assistants and three clerks.

Adult Dental Services

The establishment of a Welfare Dental Clinic at the Winnipeg General Hospital in April 1963 has provided, to some degree, a dental program for adult welfare and medico-dental indigents in the Province of Manitoba. The clinic is located in the Out-Patients Department and is only in operation in the afternoons. Preventive, interceptive or restorative dentistry is available to interested and co-operative patients. The clinic is financed by the Manitoba Hospital Commission but is administered and operated by the City Health Department. Residents of the City of Winnipeg (Welfare and medico-dental indigents) are provided by the Health Department with dentures and repairs where indicated.

Staff

The staff of the Branch includes a full-time director, with a professional establishment of six and one-half full-time dentists. Two dentists were retained on a full-time staff, and eighteen dentists were employed on a sessional fee part-time basis. The auxiliary staff includes seven dental assistants and three clerks.

TABLE I

Class Room Dental Inspection information compiled by the City of Winnipeg Health Department on the general child population attending Kindergarten, Grade I and Grade II in The Winnipeg School Division No. 1. Permanent and Deciduous Dentition.

	School Term	Total Inspect.	Percentage of Children										
			Caries		Dentistry		Extrac-		Attend	Applied	Request	Approv-	Nil
			Imm.	Free	Completed	Caries	tions	Filled	Dentist	Dentistry	Dentistry	ed	Int.
Kinder-garten	1959-1960	3,322	14	23	9	77	15	27	59	37	13	10	12
	1960-1961	3,026	18	34	16	66	13	28	47	36	12	11	11
	1961-1962	2,816	26	39	13	61	10	28	47	34	14	12	12
	1962-1963	3,539	31	45	14	55	8	24	38	30	14	11	12
	1963-1964	3,492	30	44	14	56	9	26	45	31	14	12	17
Grade I	1959-1960	4,381	6	16	10	84	28	40	72	57	25	21	8
	1960-1961	4,686	9	25	16	75	27	40	64	55	21	20	8
	1961-1962	4,601	12	31	19	69	23	43	64	52	23	20	9
	1962-1963	4,555	16	37	21	63	23	40	63	51	21	19	9
	1963-1964	4,609	18	38	20	62	21	33	60	47	21	19	16
Grade II	1959-1960	4,054	3	12	9	88	43	49		70			
	1960-1961	3,916	6	25	19	75	39	53		70			
	1961-1962	3,819	7	28	21	72	37	55		72			
	1962-1963	3,958	10	37	27	63	36	55		70			
	1963-1964	3,714	11	36	25	64	33	54	76	58	22	20	13

Definition of Terms: -

- Caries Immune - (natural or acquired) - No visible evidence of caries in the deciduous or permanent teeth, x-rays not used.
- Caries Free - Includes caries immune plus children whose dentistry has been completed by a dentist.
- Dentistry Completed - Children who attended a dentist and were in optimum dental health at time of dental inspection.
- Caries, premature extraction, filled - % of children with these conditions.
- Attend Dentist - As indicated by presence of extraction, or filling, or reported by parent on questionnaire regardless of evidence. Does not include caries immune - some of these children may have regular dental examinations.
- Applied Dentistry - As indicated by the presence of a filling or premature extraction or both.
- Request Dentistry - A written request for dental treatment.
- Approved - Screened by school nurse for eligibility to free dental service.
- Nil Interest - Questionnaires not returned by parent.

TABLE I

Class Room Dental Inspection Information compiled by the City of Winnipeg Health Department on the general child population attending Kindergarten, Grade I and Grade II in The Winnipeg School Division No. 1. Permanent and Deciduous Dentition.

	School Term	Total Inspect.	Percentage of Children								
			Caries Imm.	Caries Free	Dentistry Completed	Caries	Filled	Extractions	Attend Dentist	Applied Dentistry	Request Dentistry	Approved	Nil Int.
Kinder-garten	1959-1960	3,322	14	23	9	77	27	13	59	37	13	10	12
	1960-1961	3,026	18	34	16	66	28	13	47	36	12	11	11
	1961-1962	2,816	26	39	13	61	28	10	47	34	14	12	12
	1962-1963	3,539	31	45	8	55	24	14	38	30	14	11	12
	1963-1964	3,492	30	44	9	56	26	14	45	31	14	12	17
Grade I	1959-1960	4,381	6	16	10	84	40	28	72	37	25	21	8
	1960-1961	4,686	9	25	16	75	40	27	64	35	21	20	8
	1961-1962	4,601	12	31	19	69	43	23	64	32	23	20	9
	1962-1963	4,555	16	37	21	63	40	23	60	31	21	19	9
	1963-1964	4,609	18	38	20	62	33	21	60	47	21	19	16
Grade II	1959-1960	4,054	3	12	9	88	49	43		70			
	1960-1961	3,916	6	25	19	75	53	39		70			
	1961-1962	3,819	7	28	21	72	55	37		72			
	1962-1963	3,958	10	37	27	63	55	36		70			
	1963-1964	3,714	11	36	25	64	54	33	76	58	22	20	13

Definition of Terms: -

- Caries Immune - (natural or acquired) - No visible evidence of caries in the deciduous or permanent teeth, x-rays not used.
- Caries Free - Includes caries immune plus children whose dentistry has been completed by a dentist.
- Dentistry Completed - Children who attended a dentist and were in optimum dental health at time of dental inspection.
- Caries, premature extraction, filled - % of children with these conditions.
- Attend Dentist - As indicated by presence of extraction, or filling, or reported by parent on questionnaire regardless of evidence. Does not include caries immune - some of these children may have regular dental examinations.
- Applied Dentistry - As indicated by the presence of a filling or premature extraction or both.
- Request Dentistry - A written request for dental treatment.
- Approved - Screened by school nurse for eligibility to free dental service.
- Nil Interest - Questionnaires not returned by parent.

TABLE II

School Dental Examinations of Children born in Metropolitan Winnipeg showing age, number examined and the average number of decayed, missing, and filled teeth per child.

Year	Age 7		Age 9		Age 11		Age 13	
	Number Exam.	D.M.F.T. per child	Number Exam.	D.M.F.T. per child	Number Exam.	D.M.F.T. per child	Number Exam.	D.M.F.T. per child
1958	106	2.1	80	3.8	99	5.2	81	8.3
1960	81	1.5	109	3.1	110	4.5	110	7.9
1961	221	1.4	192	2.7	174	4.3	44	6.0
1962	278	1.0	236	2.6	233	3.9	71	5.5
1963	243	.8	229	2.4	217	3.4	87	5.8
1964	238	1.0	276	2.3	214	3.4	57	4.5

1958, 1960 single examiner, selected schools (high, medium & low income)
1961 5 examiners, random sample
1962 6 examiners, random sample
1963 8 examiners, random sample
1964 10 examiners, random sample

TABLE III

A sample of seven-year-old children born and raised in Metro Winnipeg showing premature lost, destroyed crowns, caries and restored permanent teeth.
Average number of permanent teeth affected per child.

Year	Children Examined	Premature lost	Crowns Destroyed	Other caries	Restored	DMFT
1958	106	0.01	0.03	1.40	0.68	2.1
1960	81	0.00	0.00	0.86	0.65	1.5
1961	221	0.02	0.01	0.93	0.39	1.4
1962	278	0.00	0.02	0.67	0.34	1.0
1963	243	0.00	0.00	0.53	0.29	0.8
1964	238	0.00	0.00	0.63	0.33	1.0

TABLE II

School Dental Examinations of Children born in Metropolitan Winnipeg showing age, number examined and the average number of decayed, missing, and filled teeth per child.

Year	Age 7		Age 9		Age 11		Age 13	
	Number Exam.	D.M.F.T. per child	Number Exam.	D.M.F.T. per child	Number Exam.	D.M.F.T. per child	Number Exam.	D.M.F.T. per child
1958	106	2.1	80	3.8	99	5.2	81	8.3
1960	81	1.5	109	3.1	110	4.5	110	7.9
1961	221	1.4	192	2.7	174	4.3	44	6.0
1962	278	1.0	236	2.6	233	3.9	71	5.5
1963	243	.8	229	2.4	217	3.4	87	5.8
1964	238	1.0	276	2.3	214	3.4	57	4.5

1958, 1960 single examiner, selected schools (high, medium & low income)
1961 5 examiners, random sample
1962 6 examiners, random sample
1963 8 examiners, random sample
1964 10 examiners, random sample

TABLE III

A sample of seven-year-old children born and raised in Metro Winnipeg showing premature lost, destroyed crowns, caries and restored permanent teeth.
Average number of permanent teeth affected per child.

Year	Children Examined	Premature lost	Crowns Destroyed	Other caries	Restored	DMFT
1958	106	0.01	0.03	1.40	0.68	2.1
1960	81	0.00	0.00	0.86	0.65	1.5
1961	221	0.02	0.01	0.93	0.39	1.4
1962	278	0.00	0.02	0.67	0.34	1.0
1963	243	0.00	0.00	0.53	0.29	0.8
1964	238	0.00	0.00	0.63	0.33	1.0

TABLE IV

Summary of Dental Treatment Groups
(Number of Children)
1964

	AGE								
	Preschool	5	6	7	8	9	10	Older	Total
A. Patients notified of Appointments	309	510	702	845	809	623	453	1,204	5,455
B. Failed Initial Appointment	14	47	53	41	35	20	9	45	264
C. Completed Patients	205	293	429	564	582	444	328	685	3,530
D. Patients Recalled 6-8 months	148	210	364	549	623	540	410	870	3,714
E. Recalls - Completed 1st visit	63	79	148	199	231	210	203	351	1,484
F. Recalls Failed Appointments	7	7	13	15	14	11	11	27	105
G. Emergency Patients	34	66	100	117	151	168	166	466	1,268

TABLE IV - Definition of Terms

A. Patients notified of appointments - the number of patients applying and accepted for dental treatment.

B. Failed initial appointment - patients assigned to dental clinics for treatment following school inspections and approved by the school nurse.

C. Patients completed - children from Section A receiving comprehensive dental treatment as provided by the clinics.

D. Patients recalled (6-8 months) - following last appointment when completed, (1963-1964).

E. Recalls completed on first appointment - includes children whose maintenance care is attended to during the recall examination appointment.

F. Patients failed recall appointment - patients from D, who were contacted and failed to appear for scheduled appointment.

G. Emergency Patients - arrive at clinics for relief of pain and infection, no definite appointment scheduled.

	A C E								
	Trimester	2	3	4	5	6	7	Other	Total
A. Patients monitored of abbortments	209	210	203	842	908	852	423	1,304	2,422
B. Failed Initial abbortment	14	13	23	41	32	20	6	24	304
C. Completed Patients	205	295	458	284	285	444	358	884	2,230
D. Patients Recalled 6-8 months	148	210	304	248	252	240	210	818	2,174
E. Recalls - Completed last visit	63	97	148	198	221	210	203	321	1,484
F. Recalls Failed abbortments	1	1	13	12	14	11	11	32	101
G. Emergency Patients	34	66	100	113	121	108	100	304	1,308

TABLE V

Analysis of Child Dental Services provided by City of Winnipeg Health Department - 1964.

X-rays (single films)	1,795
Exodontia - Deciduous Teeth	3,110
- Permanent Teeth	580
Anaesthetic (local)	9,008
Restorative - (Number Teeth Completed - Filled)	
- Deciduous	5,295
- Permanent	4,492
- Treatment Fillings	207
- Endodontics - Teeth completed	410
Crowns - Celluloid	7
- Stainless Steel	38
Space Maintainers	19
Prosthetic Appliances	4
Prophylaxis (Complete)	2,918
Topical Fluoride (Completed)	964
Fillings Polished	976
Parents Counselled	431
Other treatments	6,635
Refused (non co-operative)	60
Total Number assigned Dental Appointments	17,326
Cancelled Appointments	1,021
Failed Appointments	1,032
Referred to Private Dentists	17
Recalls (6-8 months)	3,714
School Inspection Clinics	106
Classroom Dental Inspection (Approx. no. of children Oct. 1964 - Mar. 1965)	16,179

TABLE V

Analysis of Child Dental Services provided by City of Winnipeg Health Department - 1964.

X-rays (single films)	1,795
Exodontia - Deciduous Teeth	3,110
- Permanent Teeth	580
Anaesthetic (local)	9,008
Restorative - (Number Teeth Completed - Filled)	
- Deciduous	5,295
- Permanent	4,492
- Treatment Fillings	207
- Endodontics - Teeth completed	410
Crowns - Celluloid	7
- Stainless Steel	38
Space Maintainers	19
Prosthetic Appliances	4
Prophylaxis (Complete)	2,918
Topical Fluoride (Completed)	964
Fillings Polished	976
Parents Counselled	431
Other treatments	6,635
Refused (non co-operative)	60
Total Number assigned Dental Appointments	17,326
Cancelled Appointments	1,021
Failed Appointments	1,032
Referred to Private Dentists	17
Recalls (6-8 months)	3,714
School Inspection Clinics	106
Classroom Dental Inspection (Approx. no. of children Oct. 1964 - Mar. 1965)	16,179

TABLE VI

Dental services provided children attending a school for retarded children - 1964

Clinical Services			
Children attending clinic		53	
Children not attending clinic		22	
Total eligible children			75
Patient appointments			163
Cancelled and failed appointments			2
Extractions:	Deciduous	20	
	Permanent	13	33
Restorations:	Deciduous	29	
	Permanent	67	96
Prophylaxis			57
Topical fluoride treatments			-
Patients completed to last appointment with facilities available			75
Children still attending school from the 1963 treatment group			34
Number of these children caries free or dental maintenance care completed on recall appointment			16
Refused treatment			1

School Dental Inspection	Number of Children	Percent
Children with caries	154	54%
Children caries immune	49	17%
Children, caries controlled	81	29%
	284	100%

TABLE VI

Dental services provided children attending
a school for retarded children - 1964

Clinical Services

Children attending clinic	53	
Children not attending clinic	22	
Total eligible children		75
Patient appointments		163
Cancelled and failed appointments		2
Extractions: Deciduous	20	
Permanent	13	33
Restorations: Deciduous	29	
Permanent	67	96
Prophylaxis		57
Topical fluoride treatments		-
Patients completed to last appointment with facilities available		75
Children still attending school from the 1963 treatment group		34
Number of these children caries free or dental maintenance care completed on recall appointment		16
Refused treatment		1

School Dental Inspection

	Number of Children	Percent
Children with caries	154	54%
Children caries immune	49	17%
Children, caries controlled	81	29%
	284	100%

PUBLIC HEALTH NURSING SERVICES

In the past three decades there has been a tremendous accumulation of new scientific knowledge made available to the public for the improvement of living. The public health nurse, more than any other group of persons, is able to bring the message of these benefits to families and individuals. The public health nurse is a family health teacher. She visits homes and schools, organizes and counsels mothers in child health conferences, demonstrates nursing care and treatments, teaches expectant parents in day and evening classes, participates with others in the rehabilitation of the sick, injured and handicapped and is the link between the hospital and the home. Her chief concern is with the general welfare of people and families rather than with disease or conditions.

Public Health Nursing Staff 1964

In 1964, the City of Winnipeg employed fifty-five nurses to disseminate health information to Winnipeg citizens. Forty-eight of these fifty-five nurses were field staff giving a ratio of one nurse to 5,348 people. Of the fifty-five nurses, thirty-five or sixty-four percent of the staff have been with the Health Department for over five years.

The City of Winnipeg Health Department Staff is the highest qualified nursing group in the Province. In 1964, ninety percent of the nursing staff had completed the necessary university qualifications in public health nursing.

During the year 1964, eight resignations and one retirement occurred. Nine appointments to the nursing staff were made. Two nurses were granted leave of absence to take post-graduate work at the University of Manitoba.

Distribution of Nursing Time

The Community's acceptance of public health nursing services is well documented by increasing demands for more service. To cope with these ever-increasing requests it has been necessary to analyze the distribution of nursing services with a view to establishing priorities. A review of the nurses' daily work reports in 1964, indicates the following distribution of nursing time:

51% on school health services
20% on home visiting
9% on child health conferences
2% on expectant parents classes
3% on miscellaneous activities, such as special surveys and committees
15% on various clerical activities

One of the products of increased acceleration in the health field is the volume of paper work that is required. To cope with this situation, the clerical establishment in the Nursing Division was increased by one clerk in 1964. Fifty volunteer workers were also used to relieve the nurses of some of the clerical duties in the school health program. The following paragraphs highlight some of the nursing activities in 1964.

PUBLIC HEALTH NURSING SERVICES

In the past three decades there has been a tremendous accumulation of new scientific knowledge made available to the public for the improvement of living. The public health nurse, more than any other group of persons, is able to bring the message of these benefits to families and individuals. The public health nurse is a family health teacher. She visits homes and schools, organizes and counsels mothers in child health conferences, demonstrates nursing care and treatments, teaches expectant parents in day and evening classes, participates with others in the rehabilitation of the sick, injured and handicapped and is the link between the hospital and the home. Her chief concern is with the general welfare of people and families rather than with disease or conditions.

Public Health Nursing Staff 1964

In 1964, the City of Winnipeg employed fifty-five nurses to disseminate health information to Winnipeg citizens. Forty-eight of these fifty-five nurses were field staff giving a ratio of one nurse to 5,348 people. Of the fifty-five nurses, thirty-five or sixty-four percent of the staff have been with the Health Department for over five years.

The City of Winnipeg Health Department Staff is the highest qualified nursing group in the Province. In 1964, ninety percent of the nursing staff had completed the necessary university qualifications in public health nursing.

During the year 1964, eight resignations and one retirement occurred. Nine appointments to the nursing staff were made. Two nurses were granted leave of absence to take post-graduate work at the University of Manitoba.

Distribution of Nursing Time

The Community's acceptance of public health nursing services is well documented by increasing demands for more service. To cope with these ever-increasing requests it has been necessary to analyze the distribution of nursing services with a view to establishing priorities. A review of the nurses' daily work reports in 1964, indicates the following distribution of nursing time:

51% on school health services
20% on home visiting
9% on child health conferences
7% on expectant parents classes
3% on miscellaneous activities, such as special surveys and committees
15% on various clerical activities

One of the products of increased acceleration in the health field is the volume of paper work that is required. To cope with this situation, the clerical establishment in the Nursing Division was increased by one clerk in 1964. Fifty volunteer workers were also used to relieve the nurses of some of the clerical duties in the school health program. The following paragraphs highlight some of the nursing activities in 1964.

School Health Services

One of the chief purposes of the school health program is to screen out children with health problems that might impede educational progress, and to follow-up these health impairments until they are corrected.

Success in this particular endeavour and in the entire school health program depends mainly on the public health nurse who as a health teacher, counselor, interpreter and co-ordinator spends more than 51% of her time in this area of service. The nurse in the school not only deals with the individual pupils who are referred to her because of a health problem, but she also counsels and supports each member of the school staff in the management of health problems within the school. She communicates these health findings and needs to parents and other health agency personnel in the community.

The magnitude of the nurse's work in the school system is verified by a review of the tables that follow and in other sections on the school health services that appear in this report. These tables are as significant for what they reveal as for what they conceal. They do not show the intangible complex problems faced by public health nurses in dealing with children from broken homes, children suffering from parental neglect, children from alcoholic or working parents, children from homes where there is mental illness or sex problems. They do not indicate changing patterns in community health. To keep pace with these and other changes that are taking place in education and in the community, the school health program must be dynamic. More research in the school health program is indicated. One administrative aspect that needs to be clarified is the nurse-pupil ratio in a generalized public health nursing program. Another area that could be studied is the non-professional activities. Why should the school nurse spend approximately 40% of her professional time on the mechanical handling of records? Is there a more efficient method of screening defects in pupils in order to save professional time for both teacher and nurse? Should the level at which hearing defects are now tested be changed?

Communicable Disease Control

In 1964, an annual survey conducted by public health nurses indicated that 4.2% of the children entering schools had no primary inoculation. Since 28% of these new admissions came from outside of Winnipeg, indications are that the local school children have a high degree of immunity. Arrangements were made for children requiring primary inoculations to receive them privately or by the Health Department. In addition, 5,889 children were given booster inoculations at school. Another 8,410 inoculations were given in child health centres. In April, 1964 Oral Sabin Poliomyelitis Vaccine was again offered to Winnipeg citizens and 162,746 doses were given. Ninety-six percent of Winnipeg school children have received a second feeding of this vaccine.

During 1964, there were 930 cases of tuberculosis under supervision by the City Public Health Nurses. Further details about the Tuberculosis Control Program will be found in another section of the report.

School Health Services

One of the chief purposes of the school health program is to screen out children with health problems that might impede educational progress, and to follow-up these health impairments until they are corrected.

Success in this particular endeavour and in the entire school health program depends mainly on the public health nurse who as a health teacher, counselor, interpreter and co-ordinator spends more than 51% of her time in this area of service. The nurse in the school not only deals with the individual pupils who are referred to her because of a health problem, but she also counsels and supports each member of the school staff in the management of health problems within the school. She communicates these health findings and needs to parents and other health agency personnel in the community.

The magnitude of the nurse's work in the school system is verified by a review of the tables that follow and in other sections on the school health services that appear in this report. These tables are as significant for what they reveal as for what they conceal. They do not show the intangible complex problems faced by public health nurses in dealing with children from broken homes, children suffering from parental neglect, children from alcoholic or working parents, children from homes where there is mental illness or sex problems. They do not indicate changing patterns in community health. To keep pace with these and other changes that are taking place in education and in the community, the school health program must be dynamic. More research in the school health program is indicated. One administrative aspect that needs to be clarified is the nurse-pupil ratio in a generalized public health nursing program. Another area that could be studied is the non-professional activities. Why should the school nurse spend approximately 60% of her professional time on the mechanical handling of records? Is there a more efficient method of screening defects in pupils in order to save professional time for both teacher and nurse? Should the level at which hearing defects are now tested be changed?

Communicable Disease Control

In 1964, an annual survey conducted by public health nurses indicated that 4.2% of the children entering schools had no primary inoculation. Since 28% of these new admissions came from outside of Winnipeg, indications are that the local school children have a high degree of immunity. Arrangements were made for children requiring primary inoculations to receive them privately or by the Health Department. In addition, 5,889 children were given booster inoculations at school. Another 8,410 inoculations were given in child health centres. In April, 1964 Oral Sabin Poliomyelitis Vaccine was again offered to Winnipeg citizens and 182,746 doses were given. Ninety-six percent of Winnipeg school children have received a second feeding of this vaccine.

During 1964, there were 930 cases of tuberculosis under supervision by the City Public Health Nurses. Further details about the Tuberculosis Control Program will be found in another section of the report.

Maternal Hygiene Service

Public health nurses made 1,441 home visits to teach pre-natal hygiene in 1964. This is a slight increase over the number of similar visits made in 1963. However, only 349 mothers registered for pre-natal classes during the year, a decrease of 127 mothers over 1963. Although there were no maternal deaths, and there was a slight decrease in the number of births, the 349 expectant mothers registered at these classes represent only six percent of the live births for the year.

In order to improve the attendance at these classes, printed notifications were mailed to all obstetricians and general practitioners in Winnipeg. A meeting was also held with the Head of the Obstetrical Department of the Faculty of Medicine and the Chairman of the Manitoba Medical Obstetrical Committee to review the maternal hygiene program and to discuss the possibility of joint meetings with obstetricians and public health nurses in the early part of 1965.

Home Care Service

The public health nurses' program is an extension of all services of the Health Department. Her numerous contacts in Winnipeg homes may be necessitated by a variety of reasons such as unsanitary home conditions, food poisoning, accidents, a variety of infectious conditions or to teach mothers about the normal growth and development of their children.

In the year under review, 85,855 individuals were contacted in their homes. Approximately thirty-nine percent of these contacts were to infants and pre-school children, twenty-three percent were to school children and thirty-one percent to adults. Seven percent of the individuals were contacted for the purpose of gathering information for a research study to determine the effects of radiation in the production of chromosomal anomalies.

One major project undertaken by public health nurses in 1964 involved the making of home visits to all public recipient families with pre-school children. The purpose was to encourage these parents to bring their children to child health conferences for regular medical supervision and immunizations. This project not only necessitated repeated visits to 932 families, but also the setting up and maintenance of a case register so that the current health status of these children could be followed.

Child Health Conferences

In the past 3 years the enrolment in child health centres has increased from 1,564 in 1962 to 3,182 in 1964, and increase of 50.8%. One of the most encouraging facts has been that the pre-school enrolment has tripled in the past 3 years increasing from 505 in 1962 to 1,497 in 1964. This increase is due partly to the rearrangement of immunization schedules and also to the concerted effort made by public health nurses in motivating parents to the importance of regular medical supervision for this age group.

Maternal Hygiene Service

Public health nurses made 1,441 home visits to teach prenatal hygiene in 1964. This is a slight increase over the number of similar visits made in 1963. However, only 349 mothers registered for pre-natal classes during the year, a decrease of 127 mothers over 1963. Although there were no maternal deaths, and there was a slight decrease in the number of births, the 349 expectant mothers registered at these classes represent only six percent of the live births for the year.

In order to improve the attendance at these classes, printed notifications were mailed to all obstetricians and general practitioners in Winnipeg. A meeting was also held with the Head of the Obstetrical Department of the Faculty of Medicine and the Chairman of the Manitoba Medical Obstetrical Committee to review the maternal hygiene program and to discuss the possibility of joint meetings with obstetricians and public health nurses in the early part of 1965.

Home Care Service

The public health nurses' program is an extension of all services of the Health Department. Her numerous contacts in Winnipeg homes may be necessitated by a variety of reasons such as unsanitary home conditions, food poisoning, accidents, a variety of infectious conditions or to teach mothers about the normal growth and development of their children.

In the year under review, 85,855 individuals were contacted in their homes. Approximately thirty-nine percent of these contacts were to infants and pre-school children, twenty-three percent were to school children and thirty-one percent to adults. Seven percent of the individuals were contacted for the purpose of gathering information for a research study to determine the effects of radiation in the production of chromosomal anomalies.

One major project undertaken by public health nurses in 1964 involved the making of home visits to all public resident families with pre-school children. The purpose was to encourage these parents to bring their children to child health conferences for regular medical supervision and immunizations. This project not only necessitated repeated visits to 932 families, but also the setting up and maintenance of a case register so that the current health status of these children could be followed.

Child Health Conferences

In the past 3 years the enrolment in child health centres has increased from 1,356 in 1962 to 3,182 in 1964, and increase of 50.8%. One of the most encouraging facts has been that the pre-school enrolment has tripled in the past 3 years increasing from 505 in 1962 to 1,497 in 1964. This increase is due partly to the rearrangement of immunization schedules and also to the concerted effort made by public health nurses in motivating parents to the importance of regular medical supervision for this age group.

Child Caring Institutions

Four day nurseries, seventeen nursery schools and seven child caring institutions were recommended for licensing and supervised by the Nursing Division in 1964. During the year, several contacts with the Department of Education were made to point out the need for a course to prepare personnel for nursery school work in Manitoba.

Diabetic Follow-Up

In 1964, the City Nutritionist was asked to visit the seventy-five diabetics who were receiving insulin or anti-diabetic drugs from the City. As these people are on a limited budget, the purpose of the visit was to find out how they were managing their diet. Thirty-two of these people needed diet instructions. Thirteen were not receiving regular meals and were exhibiting symptoms of insulin reaction. The majority of the diabetics complained of insufficient funds to manage their diet. Three were referred to the Public Welfare Department and were given extra allowance. All diabetics were instructed on the importance of an adequate diet and were given help with budgeting.

Staff Education

The Nursing Division continued to send members of the staff to the Selkirk Hospital for Mental Diseases to obtain up-to-date knowledge in psychopharmacology, the treatment of mental illnesses and rehabilitative practices. In 1964, eleven nurses were enrolled in this three-week program. In June, Dr. Kenneth McRae interpreted the use of a proposed developmental screening record and outlined the program of the new Developmental Clinic at the Children's Hospital.

Once again may I express my personal appreciation to every member of the Nursing Division who, by their efforts and devotion to the best interests of public health, have helped to maintain the high standard of nursing service.

Child Caring Institutions

Four day nurseries, seventeen nursery schools and seven child caring institutions were recommended for licensing and supervised by the Nursing Division in 1964. During the year, several contacts with the Department of Education were made to point out the need for a course to prepare personnel for nursery school work in Manitoba.

Diabetic Follow-Up

In 1964, the City Nutritionist was asked to visit the seventy-five diabetics who were receiving insulin or anti-diabetic drugs from the City. As these people are on a limited budget, the purpose of the visit was to find out how they were managing their diet. Thirty-two of these people needed diet instructions. Thirteen were not receiving regular meals and were exhibiting symptoms of insulin reaction. The majority of the diabetics complained of insufficient funds to manage their diet. Three were referred to the Public Welfare Department and were given extra allowance. All diabetics were instructed on the importance of an adequate diet and were given help with budgeting.

Staff Education

The Nursing Division continued to send members of the staff to the Selkirk Hospital for Mental Diseases to obtain up-to-date knowledge in psychopharmacology, the treatment of mental illnesses and rehabilitative practices. In 1964, eleven nurses were enrolled in this three-week program. In June, Dr. Kenneth McRae interpreted the use of a proposed developmental screening record and outlined the program of the new Developmental Clinic at the Children's Hospital.

Once again may I express my personal appreciation to every member of the Nursing Division who, by their efforts and devotion to the best interests of public health, have helped to maintain the high standard of nursing service.

SCHOOL MEDICAL SERVICES

The general plan of organization of School Medical Services continues as before with the addition of the summer program for comprehensive pre-school medical examinations of welfare family children and expansion of the practical application of the School Health Handicap Registry.

As in previous years, approximately sixty to sixty-five percent of children on school entrance had received medical health examinations within a two-year period prior to registration, in spite of the fact that at least seventy-five percent of the population is now covered by voluntary health insurance plans. In order to reduce the number of routine medical examinations done in the schools for reasons referred to in previous reports, a Fourth-Year medical student, Dr. Robert Armbruster, was employed in the summer of 1964, with assistance from a National Health Grant, to carry out a comprehensive medical examination of one hundred and forty-four pre-school children of welfare families. Dr. Armbruster attended an intensive course of instruction under the direction of Assistant Professor Kenneth McRae of the University of Manitoba, in examination of pre-school children, and then proceeded to examine the children mentioned above in groups of six appointments, three afternoons a week, during July and August. Appointments were made by public health nurses, who often were required to make three or four home visits before the appointment was definitely confirmed. Even so, of two hundred and forty-four appointments made in this way, only 144 were kept. However, this number of children received a very satisfactory examination, including urinalysis and blood count, as well as a developmental assessment by the public health nurses and Dr. Armbruster.

The following Table reviews the major and minor findings resulting from this project:

Appointments made	-	226
Appointments kept	-	146
Major defects found (Speech, Vision, Enuresis, Hematuria, Cardiovascular, Musculoskeletal, undescended testicles, etc.)	-	42
Minor defects found (Caries, otolaryngical, skin, etc.)	-	64

Results of the 1964 summer project were so encouraging, that it will be repeated in 1965 with Dr. Annette Finkel, one of the top students in her class last year, undertaking to examine a similar number of pre-school welfare children. Every effort was made by public education and by means of a report presented to a school board meeting to emphasize the importance of a comprehensive pre-school medical examination by the private physician where possible, or in the Child Health Centres, if private medical care was not available. If the percentage of school entrants having a pre-school

SCHOOL MEDICAL SERVICES

medical examination were increased from the present sixty to sixty-five percent to eighty or eighty-five percent, which is certainly quite possible, the school physicians and public health nurses working in the schools could concentrate their time in important areas of school health, and could probably help to expand the program of health education in the public schools.

The School Health Handicap Registry continues to be of real value, and with the accumulated experience, more effective use is being made of it all the time. The full-time secretary, Mrs. Mulloy, has done an excellent job in bringing the records up to date and in making possible more efficiency in correspondence with private physicians in regard to school children and their health.

Listed below are the numbers involved in this Registry, which does not include learning disorders, emotional problems and children with intellectual subnormality.

Rheumatic heart disease	-	46
Congenital heart disease	-	62
Convulsive Disorders	-	86
Diabetes	-	37
Unclassified handicapping conditions	-	114
Seriously Visually handicapped	-	115

The Hearing program is at present under study, and up-to-date figures will be available shortly.

It is important to note that most school children, even with quite severe handicaps, are able to carry on quite satisfactorily in regular classrooms, and generally do a commendable job. A certain number are of course handicapped by not being able to participate in competitive sports or physical training programs, but this number is kept to a minimum and some children participate to the extent that their handicaps may allow. By means of frequent correspondence with physicians, it has been possible to increase participation in all school activities on the part of children with school handicaps which have become stabilized, or where the problem has actually become minimal.

The screening programs for vision, hearing, and the medical questionnaires, have continued to be useful and reasonably efficient in drawing attention to those school children who are having health problems in the schools.

Visits were made to schools during the year because of problems involving hepatitis and heart disease, and to observe the operation of school health conferences involving the school physician and the public health nurse. The work of the public health nurse is referred to elsewhere in these reports, but it is important to point out the important contributions of the school physicians, all of whom have now given several years of valuable service and have gained experience which is very valuable in their role as health

advisers and health counsellors.

Two meetings were held of school physicians, in order to discuss current problems relating to the health of the school child.

The co-operation of the Nursing Division and the school administration is acknowledged with gratitude.

advisers and health counsellors.

Two meetings were held of school physicians, in order to discuss current problems relating to the health of the school child.

The co-operation of the Nursing Division and the school administration is acknowledged with gratitude.

REPORT OF HEALTH INSPECTION OF SCHOOL CHILDREN

	DISTRICTS				
	South	West	East	North	Total
Pupils examined in Health Service Room					
On Exclusion					
Pediculosis	2	6	70	81	159
Skin Conditions (eg. Impetigo)	88	49	96	384	617
Suspect Communicable Diseases	343	142	322	794	1,601
Miscellaneous	1,341	830	863	1,984	5,018
Total	1.774	1.027	1.351	3.243	7.395
Treatments given	8,210	5,743	5,452	11,623	31,028
TOTAL	9,984	6,770	6,803	14,866	38,423
Classroom Inspections					
Acute Communicable	11	5	18	256	290
General	728	286	558	881	2,453
Total	739	291	576	1,137	2,743
Conference re pupil (with pupil, parent, teacher, etc.)	31,564	24,628	24,496	33,803	114,491
Health Education	232	105	501	336	1,174
Accidents in Schools	363	467	223	305	1,358
Doctors' visits to schools	140	109	141	202	592
Children examined by doctor	1,297	921	1,208	1,645	5,071
Defects found in Medical Exams	288	353	445	391	1,477
Parents invited to physical exam	834	575	970	1,207	3,586
Parents present at physical exam	438	357	380	516	1,691
% of parents present	53%	62%	39%	43%	47%

D.T. & Polio Reinforcing Doses given in schools	5,978
Sabin Oral Poliomyelitis Vaccine	52,802

AUDIOMETRY REPORT

Children tested (Grade IV and referrals from other grades)		8,873
First Tests	7,467	
Re-Tests	1,406	
Total	8,873	
Defects found		300
Teachers Tested		78
Others Tested		–

REPORT OF HEALTH INSPECTION OF SCHOOL CHILDREN

	DISTRICTS			
	South	West	East	North	Total
Pupils examined in Health Service Room					
On Exclusion					
Pediculosis	2	6	70	81	159
Skin Conditions (eg. Impetigo)	88	49	96	384	617
Suspect Communicable Diseases	343	142	322	794	1,601
Miscellaneous	1,341	830	863	1,984	5,018
Total	1,774	1,027	1,351	3,243	7,395
Treatments given	8,210	5,743	5,452	11,623	31,028
TOTAL	9,984	6,770	6,803	14,866	38,423
Classroom Inspections					
Acute Communicable	11	5	18	256	290
General	728	286	558	881	2,453
Total	739	291	576	1,137	2,743
Conference re pupil (with pupil, parent, teacher, etc.)	31,564	24,628	24,496	33,803	114,491
Health Education	232	105	501	336	1,174
Accidents in Schools	363	467	223	305	1,358
Doctors' visits to schools	140	109	141	202	592
Children examined by doctor	1,297	921	1,208	1,645	5,071
Defects found in Medical Exams	258	353	445	391	1,477
Parents invited to physical exam	834	575	970	1,207	3,586
Parents present at physical exam	438	357	380	516	1,691
% of parents present	53%	62%	39%	43%	47%
D.T. & Polio Reinforcing Doses given in schools					5,978
Sabin Oral Poliomyelitis Vaccine					52,302

AUDIOMETRY REPORT

Children tested (Grade IV and referrals from other grades) 8,873

First Tests	7,467
Re-Tests	1,406
Total	8,873

Defects found	300
Teachers Tested	78
Others Tested	-

CHILD HEALTH CENTRES

	DISTRICTS				
	South	West	East	North	Total
Child Health Centres	1	3	3	3	10
Child Health Centre Sessions Held	50	151	153	107	461
New Babies Admitted					
Infants	262	564	492	367	1,685
Pre-school	255	322	392	382	1,351
Total	517	886	884	749	3,036
Attendance at Sessions					
Infants	1,346	3,858	2,175	2,054	9,433
Pre-school	1,299	2,077	2,018	2,041	7,435
School Children & Adults	169	444	485	314	1,412
Total	2,814	6,379	4,678	4,409	18,280
Doctors' Examinations & Consultations					
Infants	198	546	623	376	1,743
Pre-school	234	507	276	220	1,237
Total	432	1,053	899	596	2,980
Immunizations by Doctors	1,096	2,760	2,126	2,428	8,410

ATTENDANCE AT CHILD HEALTH CENTRES

	Immunizations		Consultations	
Name of Centre	Total	Sessions	Total	Sessions
St. Lukes	1,096	50	1,661	50
St. Matthews	1,349	50	1,960	50
St. Judes	957	50	1,276	50
Sparling	454	51	870	50
St. Andrews	1,055	51	1,210	51
Holy Trinity	450	51	647	51
Chalmers	621	51	908	51
Mount Carmel	373	10	60	3
Robertson House	992	49	1,499	50
McGregor	1,063	48	829	48
Total	8,410	461	10,920	454

CHILD HEALTH CENTRES

	DISTRICTS				
	South	West	East	North	Total
Child Health Centres	1	3	3	3	10
Child Health Centre Sessions Held	50	151	153	107	461
New Babies Admitted					
Infants	262	564	492	367	1,685
Pre-school	255	322	392	382	1,351
Total	517	886	884	749	3,036
Attendance at Sessions					
Infants	1,366	3,858	2,175	2,054	9,433
Pre-school	1,299	2,077	2,018	2,041	7,435
School Children & Adults	169	444	465	314	1,412
Total	2,814	6,379	4,678	4,409	18,280
Doctors' Examinations & Consultations					
Infants	198	546	623	376	1,743
Pre-school	234	507	276	220	1,237
Total	432	1,053	899	596	2,980
Immunisations by Doctors	1,096	2,760	2,126	2,428	8,410

ATTENDANCE AT CHILD HEALTH CENTRES

	Immunisations		Consultations	
Name of Centre	Total	Sessions	Total	Sessions
St. Lukes	1,096	50	1,661	50
St. Matthews	1,349	50	1,960	50
St. Judes	957	50	1,276	50
Sparling	454	51	810	50
St. Andrews	1,055	51	1,210	51
Holy Trinity	450	51	647	51
Chalmers	624	51	903	51
Mount Carmel	373	10	60	3
Robertson House	992	49	1,499	50
McGregor	1,063	49	829	49
Total	8,410	491	10,920	454

PERSONAL SERVICES TO PATIENTS BY PUBLIC HEALTH NURSES

	DISTRICTS				
	South	West	East	North	Total
Newborn	1,372	1,489	1,253	1,431	5,545
Under 1 Year	1,646	1,386	1,462	2,703	7,197
Pre-School Children	3,743	3,233	4,503	8,367	19,846
School Children	3,607	2,832	4,544	7,719	18,702
Adults	4,585	3,609	4,712	6,412	19,318
Pre-Natal Visits	266	248	288	639	1,441
Post-Natal Visits	1,173	1,446	1,143	1,428	5,190
Tuberculosis	257	278	381	610	1,526
Acute Communicable	72	53	65	391	581
Not Found	1,398	1,328	1,530	1,563	5,819
Not taken under care	34	16	79	25	154
Special Activity	39	147	80	156	422
Inspection for licensing of boarding homes	32	24	30	28	114
Total	18,224	16,089	20,070	31,472	85,855
Attendance at Pre-natal Classes	1,071	748	475	176	2,470
New Registrants to Pre-natal Classes	91	109	60	35	295
Attendance at Evening Pre-natal Classes	426	-	-	96	522

PERSONAL SERVICES TO PATIENTS BY PUBLIC HEALTH NURSES

	DISTRICTS				
	South	West	East	North	Total
Newborn	1,372	1,489	1,253	1,431	5,545
Under 1 Year	1,646	1,386	1,462	2,703	7,197
Pre-School Children	3,743	3,233	4,303	8,367	19,846
School Children	3,607	2,832	4,544	7,719	18,702
Adults	4,585	3,609	4,712	6,412	19,318
Pre-Natal Visits	266	248	288	639	1,441
Post-Natal Visits	1,173	1,446	1,143	1,428	5,190
Tuberculosis	257	278	381	610	1,526
Acute Communicable	72	53	65	391	581
Not Found	1,398	1,328	1,330	1,563	5,819
Not taken under care	36	16	79	25	154
Special Activity	39	147	80	156	422
Inspection for licensing of boarding homes	32	24	30	28	114
Total	18,274	16,089	20,070	31,472	85,855
Attendance at Pre-natal Classes	1,071	748	475	176	2,470
New Registrants to Pre-natal Classes	91	109	60	35	295
Attendance at Evening Pre-natal Classes	426	-	-	96	522

CHILDREN'S HOSPITAL - EYE CLINIC REPORT

Number of Clinics held	240

Number of Children Examined

New	528
Re-examined	1,023
Total	1,551

Number of Refractions

Refractions Completed

Not needing glasses	216
Glasses prescribed	760
No change on prescription.	392
Glasses discontinued	8
Total	1,376

Refractions Not Completed

Refractions not needed	18
Returned for observation	157
Total	175

Number of Children with 1/3 or less normal vision with glasses	2
Number of Out-patient consultations (Winnipeg residents)	593
Number of Children referred to Orthoptic Clinic	30

VICTORIAN ORDER OF NURSES

New Cases 2,105

	Nursing Care Visits	Health Inst. Visits	Total
Pre-natal	4	47	51
Post-natal	23	296	319
Newborn	274	757	1,031
Infant	255	132	387
Pre-school	155	94	249
School	371	69	440
Adult	52,698	-	52,698
Total	53,780	1,395	55,175

Patients not seen	733
On behalf of patients	61
Total	794
Night Calls included in above	1,083

CHILDREN'S HOSPITAL - EYE CLINIC REPORT

Number of Clinics held 240

Number of Children Examined

New	528
Re-examined	1,023
Total	1,551

Number of Refractions

Refractions Completed

Not needing glasses	216
Glasses prescribed	760
No change on prescription.	392
Glasses discontinued	8
Total	1,376

Refractions Not Completed

Refractions not needed....	18
Returned for observation..	157
Total	175

Number of Children with 1/3 or less normal vision with glasses 2
Number of Out-patient consultations (Winnipeg residents) 393
Number of Children referred to Orthoptic Clinic 30

VICTORIAN ORDER OF NURSES

New Cases 2,105

	Nursing Care Visits	Health Inst. Visits	Total
Pre-natal	4	47	51
Post-natal	23	296	319
Newborn	274	757	1,031
Infant	255	132	387
Pre-school	155	94	249
School	371	69	440
Adult	52,698	-	52,698
Total	53,780	1,395	55,175

Patients not seen 733
On behalf of patients 61
Total 794
Night Calls included in above 1,083

INSPECTIONS BRANCH

Dairy	Principal Inspector	R. Bentham	Cert.R. San.I.
Food	Principal Inspector	R.C. Morrow	D.V.M.,C.S.I.(C).
Housing	Principal Inspector	G.W. Kelly	Cert. R. San. I.
Sanitation & Hygiene	Principal Inspector	A. Cross	C.P.H.I.(C).,M.R.S.H.
Chief Health Inspector		E.J. Rigby	D.V.M.,B.S.A.,C.S.I.(C).

On August 21st, 1964, the staff of the Inspections Branch moved into new offices on the fourth floor of the Administration Building, Civic Centre. The privilege of working in modern offices is a welcome change after being in temporary offices for many years.

Rabies: This disease continues to be a threat that must continually be guarded against. The Federal Department of Agriculture, Health of Animals Branch, reports that in 1964 in Manitoba the following animals were affected with rabies -- 2 cats, 21 cattle, 1 horse, 127 skunks, 7 dogs, 3 swine, 4 foxes and 1 racoon. cases -- 1 cat and 1 dog -- were within the limits of Winnipeg. These cases appear to be unrelated and the source of infection, in either case, was not found.

In the Province the disease is a most serious one that appears to be endemic in wildlife, particularly in skunks. It therefore is imperative that measures be continued to curtail the spread of the disease to domestic animals, especially dogs and cats. These include (1) Keeping the number of stray dogs and cats to a minimum. (2) Immunization of dogs against rabies. This is most important if the dog is to be taken to a summer resort or other area where it may come in contact with skunks, foxes, wolves or other wild animals.

All animals that bite a person are kept under observation for a period of fourteen days from the time of the bite. If the animal does not exhibit symptoms of rabies during this observation period it was not infective for rabies at the time the person was bitten and therefore it is unnecessary for the person to take the anti-rabies treatment. The Pound By-law has a clause in it requiring a fourteen day observation period for all cats and dogs that have bitten a human. Dogs generally are held for observation in the City Pound, whereas, since the Pound has no facilities for holding cats, it is necessary that cats be held in a veterinary hospital.

The Poundkeeper has been most co-operative carrying out his duties and making every effort to trace and apprehend stray dogs and cats. At various times the public were reminded via the press, radio and television that all incidents of bites by animals particularly dogs, cats and wild animals, should be reported.

Dairy Division:

Although the number of producers shipping milk to the fluid milk plants remained constant at 685 the volume of milk shipped increased from 13,000,000 lbs. to over 14,000,000 lbs. per month. All producers have

INSPECTIONS BRANCH

Dairy	Principal Inspector R. Bentham Cert.R. San.I.
Food	Principal Inspector R.C. Morrow D.V.M.,C.S.I.(C).
Housing	Principal Inspector C.W. Kelly Cert. R. San. I.
Sanitation & Hygiene	Principal Inspector A. Cross C.P.H.I.(C).,M.R.S.H.
Chief Health Inspector	E.J. Rigby D.V.M.,B.S.A.,C.S.I.(C).

On August 21st, 1964, the staff of the Inspections Branch moved into new offices on the fourth floor of the Administration Building, Civic Centre. The privilege of working in modern offices is a welcome change after being in temporary offices for many years.

Rabies: This disease continues to be a threat that must continually be guarded against. The Federal Department of Agriculture, Health of Animals Branch, reports that in 1964 in Manitoba the following animals were affected with rabies -- 2 cats, 21 cattle, 1 horse, 127 skunks, 7 dogs, 3 swine, 6 foxes and 1 raccoon. Cases -- 1 cat and 1 dog -- were within the limits of Winnipeg. These cases appear to be unrelated and the source of infection, in either case, was not found.

In the Province the disease is a most serious one that appears to be endemic in wildlife, particularly in skunks. It therefore is imperative that measures be continued to curtail the spread of the disease to domestic animals, especially dogs and cats. These include (1) Keeping the number of stray dogs and cats to a minimum. (2) Immunization of dogs against rabies. This is most important if the dog is to be taken to a summer resort or other area where it may come in contact with skunks, foxes, wolves or other wild animals.

All animals that bite a person are kept under observation for a period of fourteen days from the time of the bite. If the animal does not exhibit symptoms of rabies during this observation period it was not infective for rabies at the time the person was bitten and therefore it is unnecessary for the person to take the anti-rabies treatment. The Pound By-law has a clause in it requiring a fourteen day observation period for all cats and dogs that have bitten a human. Dogs generally are held for observation in the City Pound, whereas, since the Pound has no facilities for holding cats, it is necessary that cats be held in a veterinary hospital.

The Poundkeeper has been most co-operative carrying out his duties and making every effort to trace and apprehend stray dogs and cats. At various times the public were reminded via the press, radio and television that all incidents of bites by animals particularly dogs, cats and wild animals, should be reported.

Dairy Division:

Although the number of producers shipping milk to the fluid milk plants remained constant at 685 the volume of milk shipped increased from 13,000,000 lbs. to over 14,000,000 lbs. per month. All producers have

bulk tanks from which the milk is hauled by 26 tanker trucks.

Effective March 1, 1964, the plate loop count replaced the resazurin test for assessing the quality of raw milk entering the pasteurization plants. A standard was set of 100,000 per ml. for acceptable milk and 50,000 per ml. to qualify for the bonus. At the end of the year over 90% of the producers were shipping milk qualifying for the bonus. Producers shipping milk with a plate loop count over 100,000 ml. have their permit to ship milk suspended until they demonstrate that they can and will ship milk of acceptable quality. Samples of each producer's milk are tested at least twice monthly.

Over 2,500 inspections of producers' premises were made during the year. These premises show a steady improvement in appearance and sanitary conditions. All producers now have milk houses equipped to provide running hot water for washing utensils, electrically operated bulk tanks for cooling and storing the milk and employ modern methods in the production and handling of their milk. All cattle have been tested for both tuberculosis and brucellosis and reactors to the tests have been slaughtered.

Samples of milk, cream and other milk products distributed for public consumption are collected on a routine basis and submitted for testing in the laboratory in the Norquay Building. Results of these tests indicate that the quality of all products is good and recognized public health standards are being met. All milk and cream sold in Winnipeg is pasteurized.

Pasteurization plants are inspected at frequent intervals to ensure that the equipment, methods of processing, and sanitary conditions comply with the regulations.

Changes in equipment, methods of processing, packaging, distribution and selling methods are constantly taking place. It is imperative that inspectors be alert to these changes to ensure that such changes will not adversely affect the safety or quality of the final product. In order to keep abreast of current practice the pasteurization plant inspector attended a special course on "Milk Pasteurization Controls and Tests" conducted by the United States Public Health Service in Cincinnati. A National Health Training Grant was obtained to cover the expenses involved.

The 46 soft ice cream establishments are licensed and inspected during the season that they are in operation. Samples of the mix and the finished product are collected and tested to ensure that they meet acceptable bacteriological standards.

Food Division:

The Food Division is responsible for carrying out inspections for sanitary conditions in all food handling premises and that the food served to the general public is safe for human consumption. The total number of food handling premises varies from year to year with an average of approximately 1,800 premises. This number does not include the 536 food and drink vending machines which are located throughout the City and require a Medical Health Officer's permit to operate. During 1964, 788 food handling premises were licensed by the City of Winnipeg and required Medical Health Officer's permits; these include 482 restaurants, 64 caterers, 92

dance halls, 53 hotels, 10 sausage kitchens and the balance is made up of a variety of food premises. Unlicensed food handling premises include 21 supermarkets, 542 food stores, 51 bakeries, 51 private clubs, 57 wholesale premises, 57 canteens, 16 fish processors and 207 other premises.

Restaurants are inspected monthly and a follow-up contact made where an infraction has been noted. Bakeries require monthly inspections due to the type of ingredients used and the high humidity involved in processing.

The Red River Exhibition presented a problem for this Division in that 42 temporary refreshment booths were located throughout the grounds and midway; however through the presence of two food inspectors afternoons and evenings on the grounds for the 10 days the Exhibition was in operation and the fine co-operation of the operators of the booths, no serious problems arose.

Sausage manufacturers located within the city, all of which use only federally inspected meats for processing have, in several locations, taken steps to come under federal inspection. Construction is being carried on by one company renovating their premises while another company has started construction of a new plant in the Inkster Park Industrial Development Area, which will be ready for occupancy in the early part of 1965.

With the great strides taken in the past year in the processing of frozen foods a change in the handling of frozen foods may be necessary. It is felt that refrigerated trucks at a temperature of $0^{\circ}F.$ or lower may be required to transport frozen foods from cold storage plants to retail outlets in order to protect the quality of such frozen foods.

It has been found that in the past year there is a trend throughout the hotels located within the City to replace a beer parlor licence with a beverage room and restaurant beer and wine licence, in which premises "mixed" drinking is allowed. It is felt that in the near future a beer parlor licence will be eliminated by public demand.

Plans were approved for 25 newly constructed food handling premises and for extensive renovations on 56 other food handling premises. During the year one new hotel was completed, while construction was started on two other hotels. A new shopping centre development was started in East Elmwood which when completed will be one of the most modern in the area.

Extensive swab testing of dishes, glasses and other utensils in drinking and eating establishments was re-instituted during the year. Owners and operators are very responsive to this type of inspection and education and numerous requests for this service have been received. Bacteriological tests are carried out in the following manner:

Procedure in a restaurant - Collect the following utensils meant to be served to the public:

1 teaspoon 1 soup spoon
2 forks 1 cup
1 water glass and/or plastic glass

Procedure in Beer Parlors and Beverage Rooms - 6 glasses

Procedure in Cocktail Bar - 6 glasses (sherberts, stemware, etc.)

A cotton-tipped applicator is lightly immersed into sterile bottle of water. With this applicator the entire rim of a utensil, e.g. cup, is swabbed. This swab is inserted into a bottle of Jamieson medium, and drawn and rotated from side to side on the surface of the medium. The mouth of the bottle is flamed and the screw cap replaced. One bottle of medium, undisturbed (unopened) is used for "control".

The above procedure is used for every article that is being swabbed. All bottles are placed in a special rack on a shelf at room temperature, on the premises, for a week. The results are read and tabulated as follows:

1 - 10	colonies	- good
10 - 50	"	- fair
over 50	"	- poor

Condemnation of foodstuffs during the year of 23,165 lbs. was mainly due to damage by fire or damage due to water main breaks causing flooded basements. Many examinations of foodstuffs were made for the general public.

The personnel of the Food Division consists of one principal inspector, one Grade III Inspector, and six Grade II Inspectors, one of whom is utilized for the bacteriological testing of utensils in food and drink premises.

Close liaison was maintained by this Division with other food handling and beverage agencies of both the Federal and Provincial Governments.

Housing Division:

This division is charged with the responsibility of enforcing regulations and by-laws dealing with premises where people live. Such premises include rooming houses, dwellings, terraces, hotels, lodging houses and welfare institutions. The regulations and by-laws are quite comprehensive and cover such items as overcrowding, occupancy of cellars, dark low-ceilinged attics, presence of vermin or rodents, dampness, defective plumbing, insufficient plumbing fixtures, lack of hot water and insufficient heat. The primary purpose of the division is to improve housing conditions and prevent the spread of "blight" or "slum" conditions.

During the year the City Charter was amended giving Winnipeg the right to enact a by-law requiring that the exterior of buildings in residential areas be maintained in a suitable condition. Considerable thought and effort has been given to drafting a by-law that will accomplish the intent of amendment, be readily enforceable and will have public acceptance. The proposed by-law endorced with discretion should be of tremendous help in preventing the spread of "blight" or "slum" conditions. The proposed by-law was still under study at the end of the year.

During the year the Burrows-Keewatin housing development was opened to receive families. At the same time the demolition of buildings in the Lord Selkirk Park Development area was started. Our inspectors worked in co-operation with other officials in the movement of families, the closing of dwelling units and other aspects of the Urban Renewal program.

Reference to the tabulated report of the division shows that while there were 88 houses placarded "Unsanitary" at the beginning of the year and 84 more were placarded during the year, 33 placards were removed after the premises had been renovated and 56 placarded premises demolished, leaving a total of 83 placarded premises at the end of the year.

There were 22 Police Court cases (17 convictions, 5 withdrawals) during the year. Even though the Heating By-law has been in force for several years, there were 207 complaints re lack of heat and prosecution was necessary in six instances.

Pursuant to the previously followed practice referrals in writing were made to other departments and agencies of noticed violations of by-laws or items of particular interest. This practice has resulted in unsatisfactory conditions being corrected sooner than otherwise would be the case.

The Regulations respecting rooming houses were amended in 1960 making them more comprehensive in scope and more readily enforceable. Since that time there has been a marked improvement in the sanitary conditions of many formerly sub-standard dwellings. This trend has been augmented by Urban Renewal and the provision of subsidized dwelling units for people in the lower income bracket.

Sanitation & Hygiene Division:

This division of the Inspections Branch is responsible for routine inspection of factories, workshops, offices and office buildings; hairdressing establishments; swimming pools; wading pools; schools; comfort stations; and premises that require an annual permit from the Medical Health Officer. In addition the Division reports on conditions in yards, sheds and areas; on temporary surface closets for workmen; on noises; on smoke; dust and fumes; on offensive odours; on infestations of rodents and insects, in properties other than residential premises or food establishments; and on the keeping of pigeons and poultry. An inspector from this Division collects samples for bacteriological analysis of the City's water supply and also collects samples for bacteriological analysis from swimming pools and wading pools.

During the latter part of June a portion of the Division's staff assisted in the instruction given to the personnel responsible for the proper operation of the City's wading pools. In July and August a public health inspector of the Division was allotted to assist in the supervision of the thirty-five wading pools and during these two months he ensured that at least once a week he obtained from each pool a sample of the pool water for bacteriological analysis. In all 291 samples were submitted for analysis. Each time a water sample was obtained the inspector ran an orthotolodine test for residual chlorine and also measured the pH. The wading pool operators have instructions to run residual tests and pH measurements at least every two hours.

Swimming pools in the City (exclusive of private pools) now number twenty-two. When these pools are in operation, weekly inspections are made and samples of the pool water for bacteriological analysis are obtained at each inspection.

Reference to the tabulated report of the division shows that while there were 88 houses placarded "Unsanitary" at the beginning of the year and 84 more were placarded during the year, 33 placards were removed after the premises had been renovated and 56 placarded premises demolished, leaving a total of 83 placarded premises at the end of the year.

There were 22 Police Court cases (17 convictions, 5 withdrawals) during the year. Even though the Heating By-law has been in force for several years, there were 207 complaints re lack of heat and prosecution was necessary in six instances.

Pursuant to the previously followed practice referrals in writing were made to other departments and agencies of noticed violations of by-laws or items of particular interest. This practice has resulted in unsatisfactory conditions being corrected sooner than otherwise would be the case.

The Regulations respecting rooming houses were amended in 1960 making them more comprehensive in scope and more readily enforceable. Since that time there has been a marked improvement in the sanitary conditions of many formerly sub-standard dwellings. This trend has been augmented by Urban Renewal and the provision of subsidized dwelling units for people in the lower income bracket.

Sanitation & Hygiene Division:

This division of the Inspections Branch is responsible for routine inspection of factories, workshops, offices and office buildings; hairdressing establishments; swimming pools; wading pools; schools; comfort stations; and premises that require an annual permit from the Medical Health Officer. In addition the Division reports on conditions in yards, sheds and areas; on temporary surface closets for workmen; on noises; on smoke; dust and fumes; on offensive odours; on infestations of rodents and insects, in properties other than residential premises or food establishments; and on the keeping of pigeons and poultry. An inspector from this Division collects samples for bacteriological analysis of the City's water supply and also collects samples for bacteriological analysis from swimming pools and wading pools.

During the latter part of June a portion of the Division's staff assisted in the instruction given to the personnel responsible for the proper operation of the City's wading pools. In July and August a public health inspector of the Division was allotted to assist in the supervision of the thirty-five wading pools and during these two months he ensured that at least once a week be obtained from each pool a sample of the pool water for bacteriological analysis. In all 291 samples were submitted for analysis. Each time a water sample was obtained the inspector ran an orthotoloidine test for residual chlorine and also measured the pH. The wading pool operators have instructions to run residual tests and pH measurements at least every two hours.

Swimming pools in the City (exclusive of private pools) now number twenty-two. When these pools are in operation, weekly inspections are made and samples of the pool water for bacteriological analysis are obtained at each inspection.

The routine inspection of factories and workshops, of which there are approximately 3,272, was continued. At least two inspections per year are made of each factory or workshop.

Hairdressing establishments received periodic inspection. All 441 barber shops and beauty parlors must be approved as satisfactory before the annual permit of the Medical Health Officer is issued.

The Division continues its effort in the control of pigeons. During the year 2,572 pigeons were shot.

From April 6th to April 10th most of the inspectors attended the fourteenth in-service training institute held at the Royal Alexandra Hotel. This institute is sponsored by the Province of Manitoba Department of Health and is financed by a Federal Health Grant.

The staff of the division includes one principal inspector, one grade III inspector and seven grade II inspectors. During the year the staff made 22,079 inspections and re-inspections, held 2,467 interviews, collected 3,271 water samples and dealt with 5,309 defects requiring 4,594 notices.

The reports of the various divisions follow :

The routine inspection of factories and workshops, of which there are approximately 3,272, was continued. At least two inspections per year are made of each factory or workshop.

Hairdressing establishments received periodic inspection. All 441 barber shops and beauty parlors must be approved as satisfactory before the annual permit of the Medical Health Officer is issued.

The Division continues its effort in the control of pigeons. During the year 2,572 pigeons were shot.

From April 6th to April 10th most of the inspectors attended the fourteenth in-service training institute held at the Royal Alexandra Hotel. This institute is sponsored by the Province of Manitoba Department of Health and is financed by a Federal Health Grant.

The staff of the division includes one principal inspector, one grade III inspector and seven grade II inspectors. During the year the staff made 22,079 inspections and re-inspections, held 2,467 interviews, collected 3,271 water samples and dealt with 5,309 defects requiring 4,594 notices.

The reports of the various divisions follow :

DAIRY DIVISION

	INSPECTIONS	CONTACTS
COUNTRY:		
Milk Producers	2,570	290
Prospective Producers	42	13
Bulk Milk Tanks	2,570	
CITY:		
Pasteurization Plants	181	1,932
Ice Cream Manufacturers	186	
Counter Freezers	488	
Butter Plants	212	
Cheese Plants	162	
Tests of Equipment	45	
Milk Trucks Inspected	87	
Tanker Trucks Inspected	682	
Vehicles - Delivery	67	
	7,292	2,235

SAMPLES:	
Milk Shippers	16,252
Milk Retail	1,485
Milk Special	403
Cream	507
Ice Cream	715
Bottles for sterility	59
Water	85
	19,506

GENERAL:	
Calls	1,344
Complaints	27
Letters sent re: Premises	401
Letters sent re: Quality of Milk	17,197
Permits Issued	17
Permits Cancelled	19
Temperatures	69
Special Samples Tested	223
	19,297

BACTERIOLOGICAL LABORATORY

WATER	Presumptive Test	21
	Confirmed Test	4
	SPC/ML	20
MILK & CREAM	Resazurin Test	13,104
	PLC/ML	11,338
	Special Samples Tested	46
DIAGNOSTIC	Urinalysis	268
		24,801

DAIRY DIVISION

	INSPECTIONS	CONTACTS
COUNTRY:		
Milk Producers	2,570	290
Prospective Producers	42	13
Bulk Milk Tanks	2,570	
CITY:		
Pasteurization Plants	181	1,932
Ice Cream Manufacturers	186	
Counter Freezers	488	
Butter Plants	212	
Cheese Plants	162	
Tests of Equipment	45	
Milk Trucks Inspected	87	
Tanker Trucks Inspected	682	
Vehicles - Delivery	67	
	7,292	2,235
SAMPLES:		
Milk Shippers		16,252
Milk Retail		1,485
Milk Special		403
Cream		507
Ice Cream		715
Bottles for sterility		59
Water		85
		19,506
GENERAL:		
Calls		1,344
Complaints		27
Letters sent re: Premises		401
Letters sent re: Quality of Milk		17,197
Permits Issued		17
Permits Cancelled		19
Temperatures		69
Special Samples Tested		223
		19,297

BACTERIOLOGICAL LABORATORY

WATER	Presumptive Test	21
	Confirmed Test	4
	SPC\ML	20
MILK & CREAM	Resazurin Test	13,104
	PLC\ML	11,338
	Special Samples Tested	46
DIAGNOSTIC	Urinalysis	268
		24,801

FOOD DIVISION

	Inspections	Contacts
Abbatoirs	1	7
Bakeries	307	104
Banquet Halls	124	63
Beer Parlors	264	154
Breweries and Bottling Plants	21	25
Candy Manufacturers	34	24
Canteens and Hotel Kitchens	203	99
Caterers	217	80
Cereal Mills	42	21
Cocktail Lounges	248	205
Dance Halls	159	40
Egg and Poultry Wholesale	29	3
Fish-filleting, cold storage, etc.	70	45
Food Processing	54	4
Frozen Food Locker Plants	16	9
Ice Houses and Depots	11	0
Pickle and Vinegar factories	22	28
Poultry Slaughterhouses	27	20
Private Clubs	33	76
Producers' markets, vegetable stalls	190	111
Restaurants	5,596	1,467
Retail Food Stores, grocer, butcher, etc.	3,743	995
Sausage Manufacturers	178	192
Wholesale - Groceries & Vegetables	147	35
Fires in Food Premises	38	46
Vehicles	41	4
Vending Machines	383	28
Special Calls	599	314
	12,797	4,199

Complaints 197

Notices: Verbal 5,682
Written 300

Samples: Water 15
Food 1,015

Plans Examined 181

Plans Approved 79

Bacteriological Tests - Restaurants & Beer Parlors

No. of Premises 165

No. of Utensils 1,054

Condemnations: (destroyed in City Incinerator)

Baked Goods	454½ lbs.	Fruit	203 lbs.
Candy	223 lbs.	Gravy	8 lbs.
Canned Goods	218 lbs.	Meat	4,325 lbs.
Cereals	102 lbs.	Nuts	32 lbs.
Coffee	27 lbs.	Pastries	31 lbs.
Eggs	1 lb.	Poultry	97 lbs.
Fish	16,329 ¾ lbs.	Soup	24 lbs.
Frozen Foods	98 lbs.	Vegetables	732 lbs.

FOOD DIVISION

	Inspections	Contacts
Abbatoirs	1	7
Bakeries	307	104
Banquet Halls	124	63
Beer Parlors	264	154
Breweries and Bottling Plants	21	25
Candy Manufacturers	34	24
Canteens and Hotel Kitchens	203	99
Caterers	217	80
Cereal Mills	42	21
Cocktail Lounges	248	205
Dance Halls	159	40
Egg and Poultry Wholesale	29	3
Fish-Filleting, cold storage, etc.	70	45
Food Processing	54	4
Frozen Food Locker Plants	16	9
Ice Houses and Depots	11	0
Pickle and Vinegar Factories	22	28
Poultry Slaughterhouses	27	20
Private Clubs	33	76
Producers' markets, vegetable stalls	190	111
Restaurants	5,596	1,467
Retail Food Stores, grocer, butcher, etc.	3,743	995
Sausage Manufacturers	178	192
Wholesale - Groceries & Vegetables	147	35
Fires in Food Premises	38	46
Vehicles	41	4
Vending Machines	383	28
Special Calls	599	314
	12,797	4,199

Complaints 197

Notices: Verbal ..... 5,682 Samples: Water 15
Written ..... 300 Food 1,015

Plans Examined ..... 181 Plans Approved 79

Bacteriological Tests - Restaurants & Beer Parlors

No. of Premises ..... 165 No. of Utensils 1,054

Condemnations: (destroyed in City Incinerator)

Baked Goods	4544 lbs.	Fruit	203 lbs.
Candy	223 lbs.	Gravy	8 lbs.
Canned Goods	218 lbs.	Meat	4,325 lbs.
Cereals	102 lbs.	Nuts	32 lbs.
Coffee	27 lbs.	Pastries	31 lbs.
Eggs	1 lb.	Poultry	97 lbs.
Fish	16,329 lbs.	Soup	24 lbs.
Frozen Foods	98 lbs.	Vegetables	732 lbs.

HOUSING DIVISION

Primary inspections of dwellings	552
Primary inspections of rooming houses and lodging houses	107
Primary inspections of apartment blocks, duplexes, dwellings connected to commercial premises, hotels, nursing homes, welfare institutions	244
Other inspections and re-inspections	11,589
	12,492

Violations of the Health Act Regulations remedied during the year under orders from the Housing Division

Houses placarded "Unsanitary" (including 1 apartment block)	84 buildings
Overcrowding remedied	84 families
Damp or dark cellars vacated	23 cellars
Dark, low-ceilinged attics vacated	13 attics
Additional windows constructed in previously dark attics	3 attics
Bed-bugs exterminated	181 buildings
Cockroaches exterminated	85 buildings
Silverfish, lice, mites, fleas, beetles, ants and sowbugs exterminated	77 buildings
Rats exterminated	30 properties
Mice exterminated	121 buildings
Defective cellars repaired	108 buildings
Leaky roofs repaired	101 buildings
Walls, ceilings, floors repaired	442 buildings
Defective eavestroughing repaired or renewed	168 buildings
Defective heating equipment repaired or renewed	166 buildings
Fly screens and/or storm sashes provided	330 buildings
Defective plumbing repaired	308 buildings
Additional plumbing installed 279 (or type of occupancy changed to conform with plumbing fixture requirements 46)	325 buildings
Hot water facilities provided or improved	137 buildings
Additional heat provided	203 buildings
Redecorated	488 buildings
Gas stoves removed from bedrooms	17 buildings
Floor coverings renewed	277 buildings
Additional electric light provided	81 buildings
Blinds provided for windows	34 buildings
Filthy or torn mattresses or bedding cleansed, repaired or renewed	126 buildings
Filthy or dilapidated furniture cleaned, repaired or renewed	63 buildings
Floors, walls washed	298 buildings
Garbage nuisances corrected	238 properties
Miscellaneous defects remedied	144 buildings

Primary inspections of dwellings	552
Primary inspections of rooming houses and lodging houses	107
Primary inspections of apartment blocks, duplexes, dwellings connected to commercial premises, hotels, nursing homes, welfare institutions	264
Other inspections and re-inspections	11,589
	12,492

Violations of the Health Act Regulations remedied during the year under orders from the Housing Division

Houses placarded "Unsanitary" (including 1 apartment block)	84 buildings
Overcrowding remedied	84 families
Damp or dark cellars vacated	23 cellars
Dark, low-ceilinged attics vacated	13 attics
Additional windows constructed in previously dark attics	3 attics
Bed-bugs exterminated	181 buildings
Cockroaches exterminated	85 buildings
Silverfish, lice, mites, fleas, beetles, ants and sowbugs exterminated	77 buildings
Rats exterminated	30 properties
Mice exterminated	121 buildings
Defective cellars repaired	108 buildings
Leaky roofs repaired	101 buildings
Walls, ceilings, floors repaired	442 buildings
Defective sewer trough repaired or renewed	168 buildings
Defective heating equipment repaired or renewed	166 buildings
Fly screens and/or storm sashes provided	330 buildings
Defective plumbing repaired	308 buildings
Additional plumbing installed 279 (or type of occupancy changed to conform with plumbing fixture requirements 46).	325 buildings
Hot water facilities provided or improved	137 buildings
Additional heat provided	203 buildings
Redecorated	488 buildings
Gas stoves removed from bedrooms	17 buildings
Floor coverings renewed	277 buildings
Additional electric light provided	81 buildings
Blinds provided for windows	34 buildings
Filthy or torn mattresses or bedding cleaned, repaired or renewed	126 buildings
Filthy or dilapidated furniture cleaned, repaired or renewed	63 buildings
Floors, walls washed	298 buildings
Garbage nuisances corrected	238 properties
Miscellaneous defects remedied	144 buildings

Placarded houses as at December 31, 1963: 88
During 1964, 84 additional houses were placarded "Unsanitary".
33 were renovated: 56 were demolished in that year.
Placarded houses as at December 31, 1964: 83

Notices issued:		Complaints attended to:	
Verbal warnings	6,417	Lack of heat	207
Formal notices	2,242	Other complaints	1,051

22 Police Court Cases
17 convictions, 5 withdrawals

Police Court Convictions

First quarter:	Owner failed to remove gas stoves from bedrooms, redecorate and install additional plumbing fixtures	$ 18.30
	Insufficient heat (2)	26.60
	Owner failed to repair defective heating equipment	53.30
	Owner failed to repair defective windows, walls and floors (2)	66.60
	Owner failed to install a wash basin	28.30
Second quarter:	Insufficient heat (2)	52.50
	Owner failed to repair a leaky roof and defective plaster	reprimanded
Third quarter:	Owner failed to provide screens	23.30
	Occupant failed to clean up garbage and refuse	13.30
Fourth quarter:	Insufficient heat (2)	56.60
	Owner failed to provide hot water	reprimanded
	Owner failed to put plumbing system in proper working order	reprimanded
	Owner failed to install bath and wash basin	reprimanded
	Total fines (including costs of Court)	$338.80

Violations of other by-laws discovered by our inspectors and referred in writing to the proper departments for their action:

Electrical inspectors	hazardous wiring	120 buildings
Fire inspectors	fire hazards	12 buildings
Building inspectors	other safety hazards	80 buildings
Zoning inspectors	zoning violations	4 buildings
Plumbing inspectors	plumbing permit required	4 buildings
Children's Aid Society		2 families
Public Welfare Department		3 families
	Total referrals in writing	225

DIVISION OF SANITATION AND HYGIENE

		Inspections
OFFICES, WORKSHOPS AND FACTORIES		7,357
HAIRDRESSING ESTABLISHMENTS		663
LICENSED PREMISES:		
Billiard Parlors	170	
Bowling Alleys	39	
Hatcheries and Pet Shops	23	
Junk Yards	139	
Laundries	142	
Massage Parlors	85	
Poultry Keepers	9	
Second-hand Stores	179	
Skating Rinks	9	
Soap Manufacturing	2	
Tanneries and Hide Curing	7	
Undertaking Parlors	28	
Total Licensed Premises		832
OTHER INSPECTIONS:		
Air Pollution	95	
Comfort Stations	205	
Garbage and Refuse	3,024	
Lanes, Streets and Lots	6,239	
Outbuildings	172	
Schools	13	
Swimming Pools	772	
Wading Pools	343	
Wells	90	
Workmen's Closets	1,856	
Miscellaneous	418	
Total Other Inspections		13,227
TOTAL NUMBER OF INSPECTIONS		22,079
INTERVIEWS	2,467	
WATER SAMPLES	3,271	
DELIVERIES	1,606	
COMPLAINTS	1,089	
PROSECUTIONS	3	
FINES	$64.80	
NOTICES:		
Verbal		4,122
Letter		147
Informal		258
Specification		13
Mandatory		54
Total Notices		4,594
Plans Approved		23

DIVISION OF SANITATION AND HYGIENE

	Inspections
OFFICES, WORKSHOPS AND FACTORIES	7,357
HAIRDRESSING ESTABLISHMENTS	663

LICENSED PREMISES:

Billiard Parlors	170
Bowling Alleys	39
Hatcheries and Pet Shops	23
Junk Yards	139
Laundries	142
Massage Parlors	85
Poultry Keepers	9
Second-hand Stores	179
Skating Rinks	9
Soap Manufacturing	2
Tanneries and Hide Curing	7
Undertaking Parlors	28
Total Licensed Premises	832

OTHER INSPECTIONS:

Air Pollution	95
Comfort Stations	205
Garbage and Refuse	3,024
Lanes, Streets and Lots	6,239
Outbuildings	172
Schools	13
Swimming Pools	172
Wading Pools	343
Wells	90
Workmen's Closets	1,859
Miscellaneous	418
Total Other Inspections	13,227
TOTAL NUMBER OF INSPECTIONS	22,079

INTERVIEWS	2,467
WATER SAMPLES	3,271
DELIVERIES	1,606
COMPLAINTS	1,089
PROSECUTIONS	3
FINES	$64.80

NOTICES:

Verbal	4,122
Letter	147
Informal	259
Specification	13
Mandatory	54
Total Notices	4,594
Plans Approved	23

DEFECTS DISCOVERED AND DEALT WITH:

Cleanliness, Lack of		264
Common Drinking Cups		91
Covered Waste Receptacles		307
Dampness		5
Drinking Facilities (Water)		4
Garbage and Refuse		1,325
Gas Installations		29
Heating:	Lack of	46
	Furnaces & Equipment	6
Lanes, Streets and Lots		1,596
Lighting:	Natural or Artificial	21
Noises		69
Overcrowding		1
Plumbing:	Lack of	5
	Defective	48
	Illegally Installed	5
	Insufficient	10
	Dirty Fixtures	192
	Legible Signs, Lack of	98
	No Water Supply	8
	No Hot Water	6
	Privacy, Lack of	9
Pigeons and Poultry, Illegal		77
Rest Rooms:	Dirty	13
	Furnishings	3
Rodents:	ats	76
	Mice, other	8
Smoke, Dust, Fumes, Odors		346
Soap and Towels, Lack of		72
Stagnant Water		4
Structural Defects:	Roofs and Ceilings	14
	Eavestroughing & R.W.L.	2
	Cellars, floors and walls	14
	Storm doors and windows	2
Swimming Pools, Wading Pools		54
Ventilation		61
Vermin		28
Workmen's Closets		175
Miscellaneous		215
Total Defects and Irregularities		5,309

DEFECTS DISCOVERED AND DEALT WITH:

Cleanliness, Lack of	264
Common Drinking Cups	91
Covered Waste Receptacles	307
Dampness	5
Drinking Facilities (Water)	4
Garbage and Refuse	1,325
Gas Installations	29
Heating: Lack of	46
Furnaces & Equipment	6
Lanes, Streets and Lots	1,596
Lighting: Natural or Artificial	21
Noises	69
Overcrowding	1
Plumbing: Lack of	5
Defective	48
Illegally Installed	5
Insufficient	10
Dirty Fixtures	192
Legible Signs, Lack of	98
No Water Supply	8
No Hot Water	6
Privacy, Lack of	9
Pigeons and Poultry, Illegal	77
Rest Rooms: Dirty	13
Furnishings	3
Rodents: ats	76
Mice, other	8
Smoke, Dust, Fumes, Odors	346
Soap and Towels, Lack of	72
Stagnant Water	4
Structural Defects: Roofs and Ceilings	14
Ravestroughing & R.W.L.	2
Ceilars, floors and walls	14
Storm doors and windows	2
Swimming Pools, Wading Pools	54
Ventilation	61
Vermin	28
Workmen's Closets	175
Miscellaneous	215
Total Defects and Irregularities	5,309

CITY HEALTH DEPARTMENT

Summary of Expenditures, 1964

100	Personal Services	$595,928.00
200	Outside Services	77,311.00
300	Materials, Supplies & Repairs	60,532.00
400	Equipment, Additions and Replacements	2,221.00
600	Other Expenses	794.00
800	Automobile Expenses	22,269.00
	Total	$759,055.00

		Total	Salaries	Other Expenses
314-010	Administration and Statistics	$ 36,813.00	$ 32,959.00	$ 3,854.00
314-011	Communicable and Other Diseases	83,897.00	28,287.00	55,610.00
314-012	Inspection Services & Laboratory	136,185.00	122,350.00	13,835.00
314-013	Child Medical Services	34,346.00	4,800.00	29,546.00
314-014	Child Dental Services	95,547.00	57,948.00	37,599.00
314-015	Nursing Services	265,023.00	251,838.00	13,185.00
314-016	Health Services Extension	107,244.00	97,746.00	9,498.00
	Total	$759,055.00	$595,928.00	$163,127.00

Sources of Revenue

National Health Grants	$ 72,756.00	9.6%
Provincial Government Grant	90,265.00	11.9%
Milk Control Board Grant	4,320.00	0.6%
Dental Clinic at General Hospital	8,012.00	1.0%
Social Allowances Act	87,042.00	11.5%
City of Winnipeg	496,660.00	65.4%
Total	$759,055.00	100.0%

Cost per capita $2.97

CITY HEALTH DEPARTMENT

Summary of Expenditures, 1964

100	Personal Services	$595,928.00
200	Outside Services	77,311.00
300	Materials Supplies & Repairs	60,532.00
400	Equipment, Additions and Replacements	2,721.00
600	Other Expenses	794.00
800	Automobile Expenses	22,769.00
	Total	$759,055.00

		Total	Salaries	Other Expenses
314-010	Administration and Statistics	$ 36,813.00	$ 32,959.00	$ 3,854.00
314-011	Communicable and Other Diseases	83,897.00	28,287.00	55,610.00
314-012	Inspection Services & Laboratory	136,185.00	122,350.00	13,835.00
314-013	Child Medical Services	34,346.00	4,800.00	29,546.00
314-014	Child Dental Services	95,547.00	57,948.00	37,599.00
314-015	Nursing Services	265,023.00	251,838.00	13,185.00
314-016	Health Services Extension	107,244.00	97,746.00	9,498.00
	Total	$759,055.00	$595,928.00	$163,127.00

Sources of Revenue

	National Health Grants	$ 72,756.00	9.6%
	Provincial Government Grant	90,265.00	11.9%
	Milk Control Board Grant	4,320.00	0.6%
	Dental Clinic at General Hospital	8,012.00	1.0%
	Social Allowances Act	87,042.00	11.5%
	City of Winnipeg	496,660.00	65.4%
	Total	$759,055.00	100.0%

Cost per capita $2.97