Report of the City Health Department / City of Winnipeg.

CITY OF WINNIPEG

REPORT

of the

Health Department

For the Year ending
31st December, 1936

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CONTENTS

COMMITTEE ON HEALTH

1936

Alderman M. A. Gray, Chairman.

Alderman C. E. Simonite.

Alderman M. (Mrs. R. F.) McWilliams.

Alderman V. B. Anderson.

Alderman P. Bardal.

Alderman J. Penner.

His Worship Mayor J. Queen (ex-officio).

STAFF

(December, 1936)

Medical Health Officer

A. J. Douglas, M.D.

Laboratory

Bacteriologist—M. S. Lougheed, M.D.
Senior Laboratory Asst.—Miss M. Wilson.
Junior Laboratory Asst.—J. R. Bentham*
" " —C. E. Van Engel**

*Transferred to Sanitary Division on May 16, 1936.
**Appointed May 16, 1936, replacing J. R. Bentham.

District Physicians

W. Turnbull, M.D.
O. C. Dorman, M.D.

Communicable Diseases Division

Chief Inspector—W. T. Watt.
Inspector—C. H. Hargrave.
" —H. H. Marshall.
" —H. Robinson.

Tuberculosis Nurse—Miss K. M. Vanetta.
" " —Miss H. Smyth.
" " —Miss M. A. Simpson.
Inspector's Clerk—G. Moore.
Junior Clerk—W. Taylor.

Sanitary Inspections Division

Chief Inspector—A. Officer.
Smoke Inspector—D. Little*
" " —A. Aitken**
Inspector's Clerk—B. C. Brough.
Inspectors: J. McHardy***
J. Shepherd.
F. C. Austin.
B. Davies.

*Retired on Pension, May 16, 1936.
**Promoted May 16, 1936.
***Retired on Pension, July 16, 1936.

Housing and Supervising Inspector—
P. Pickering.
Inspectors: G. W. Kelly.
E. Officer.
D. G. Johnson.
A. Cross.
J. R. Bentham*
A. Martin**

*Transferred May 16, 1936, from Laboratory.
**Appointed August 1, 1936.

STAFF—(Continued)

Dairy Division

Chief Inspector—E. C. Brown.
Inspectors: T. J. Booth.
J. M. Jackson.
A. G. Isaac.

Food Division

Chief Inspector—R. McQuillan.
Inspectors: G. R. Mines.
L. G. Williams.

Bureau of Child Hygiene

Manager—A. G. Lawrence.
Nurses: Miss M. M. Wonnacott.
" Miss A. J. Attrill.
" Miss L. Spratt.
" Miss C. Maddin.
" Miss A. Moore.
" Miss C. Munro.
" Miss L. A. Schwalm.
" Miss E. A. Bennett.
" Miss M. M. Harper.
" Miss A. M. Wilkins.
" Miss H. A. Carter.
" Miss C. W. Thom*
*Resigned August 1, 1936.

Nurses: Mrs. C. E. Smith.
" Miss M. B. Bowles.
Dietitian—Miss M. A. Graham.
Asst. Dietitian—Miss M. Dick.
Senior Helper—Mrs. J. MacDonald.
Junior Helper—Mrs. H. Twist.
" " —Mrs. A. B. Gibson*
" " —Mrs. C. E. Grant**
Caretaker—F. C. White.
*Resigned September 16, 1936.
**Appointed September 16, 1936, replacing Mrs. A. B. Gibson.

Attending Physician—R. F. Rorke, M.D.
" " —F. G. Schwalm, M.D.

Division of Records and Statistics

Secretary—A. G. Lawrence.
Clerk—Miss E. S. Halliday*
Junior Clerk—Miss E. Fraser**
*Resigned July 23, 1936.
**Resigned September 24, 1936.

Clerk—Miss V. Orr*
Junior Clerk—Miss P. Dorward**
" " —C. Rayment***
*Promoted September 24, 1936.
**Appointed July 23, 1936.
***Transferred from City Clerk's Department, October 1, 1936.

Street Cleaning Division

Chief of Division—E. A. Wood.
Supt. of Scavenging—J. Shannon.
Supt. of Street Cleaning—E. J. Pope.
Stable Foreman—G. T. Wood.
Yard Foreman—A. Knight.
Foreman—N. Jack.
" —W. R. McAlpine.
" —G. Whitear.
" —D. Govitz.

4 Trailer Truck Drivers.
6 Truck Drivers.
19 Teamsters.
1 Single Horse Driver.

Clerk—J. J. Higgins.
Junior Clerk—Miss N. E. Deering.
" " —E. W. Parker.
Incinerator Foreman—J. M. Sinclair.
" " —H. Ritchie.
Foreman—G. Duncan.
" —T. Smith.
" —G. Clark.
Sub-Foreman—A. Dick.
" " —S. H. Spooner.
12 Incinerator Firemen.
28 Helpers.
2 Stablemen.
6 Skilled Laborers.

2 Nuisance Ground Caretakers.

Comfort Stations Division

8 male regular Attendants.
4 male part-time Attendants.

8 female regular Attendants.
4 female part-time Attendants.

Report of the Medical Health Officer

City Health Department,
Winnipeg, Man., May 10th, 1937.

Chairman and Members of the
Committee on Health.

Madam and Gentlemen:

I have the honour to submit for your consideration, a summary of the annual report of the Health Department for the year 1936. This includes the reports of the heads of divisions and a statement of the cost of the year's work.

SUMMARY OF VITAL STATISTICS

Corrected and Crude Figures

Area of City: Land, 14,865 acres; water, 422 acres; total, 15,287 acres. (23.9 square miles)

	1936	1935
Population (City Assessor's figures)	224,533	223,017
Persons per acre of land	15.10	15.00
Corrected		
Deaths, excluding stillbirths	1,746	1,580
Corrected rate per 1,000 population	7.77	7.08
Deaths of infants under 1 year	117	120
Corrected infant mortality rate per 1,000 live births	43.1	41.9
Deaths, measles, scarlet fever, whooping cough and diphtheria, combined	23	6
Corrected rate per 100,000 population	10.2	2.7
Births, excluding stillbirths	2,714	2,862
Corrected live birth rate per 1,000 population	12.08	12.83
Stillbirths	63	98
Corrected rate per 1,000 live births	23.2	34.2
Natural increase, excess of births over deaths	968	1,282
Corrected rate per 1,000 population	4.32	5.75
Crude		
Deaths, excluding stillbirths	2,039	1,841
Rate per 1,000 population	9.08	8.25
Deaths of infants under 1 year	160	163
Infant mortality rate per 1,000 live births	44.4	43.0
Births, excluding stillbirths	3,599	3,791
Rate per 1,000 population	15.53	17.00
Stillbirths	97	122
Rate per 1,000 live births	26.95	32.18
Marriages	2,717	2,596
Rate per 1,000 population	12.05	11.64

CONTROL AND PREVENTION OF DISEASE, 1936

Summary

(a)	Personal Services	$ 87,276.20
(b)	Outside services	4,588.12
(c)	Material, supplies and repairs	9,470.08
(d)	Equipment and replacements	291.10
(e)	Fuel, water, light and power	1,040.41
(h)	Auto expense	2,823.22
		$105,489.13

Expenditure by Division

C – 1.	Administration and Statistics	$ 11,082.23
C – 2.	Bacteriological Laboratory	6,389.42
C – 3.	Treatment and Prevention of Communicable Diseases	18,220.81
C – 4.	Sanitary Inspection	22,716.95
C–5–1.	Dairy Inspection	7,946.32
C–5–2.	Food Inspection	6,266.19
C – 6.	Bureau of Child Hygiene	28,865.25
C – 7.	Medical Relief	4,001.96
	Gross Expenditure, Control and Prevention of Disease	$105,489.13

Revenue

Police court Fines and Costs	$ 5.00	
Fees for Laboratory work	53.85	
Sale of Infants' Feedings at Milk Depot	280.55	
		339.40
		$105,149.73

Net Cost per Capital, 46.8c.

COMMUNICABLE DISEASES

The total number of reports of Communicable Diseases for the year ending December 31, 1936, was seven thousand, nine hundred and fifty-two cases and one hundred and fifty-two deaths, as compared with six thousand, two hundred and seventy-seven cases and one hundred and four deaths for 1935.

Non-resident cases numbered three hundred and twenty-nine, deaths forty-four, as compared with one hundred and fifty-seven cases and thirty-nine deaths for 1935.

Corrected deaths for the City numbered one hundred and thirty, as compared with ninety-one for the preceding year.

The following is a summary of crude totals of all diseases, showing cases and deaths and rate per one hundred thousand population and death rate per one hundred cases with comparative totals for the preceding year.

DISEASES	1936 Cases	1936 Deaths	1936 Rate per 100,000 Pop.	1936 Rate per 100 Cases	1935 Cases	1935 Deaths	1935 Rate per 100,000 Pop.	1935 Rate per 100 Cases
Cerebro Spinal Fever	3	1	.44	33.3	5	3	1.3	60.
Chickenpox	830	....	.....	.....	1,448	1	.44	.06
Diphtheria	123	6	2.67	4.87	166	6	2.24	3.6
Diphtheria Carriers	22	....	.....	.....	30	....	.....	.....
Encephalitis, infectious	2	3	1.33	.....	.....	....	.....	.....
Erysipelas	70	4	1.78	5.7	48	4	1.79	8.3
Influenza	37	35	15.5	94.5	18	13	5.82	72.2
Measles	4157	15	6.68	.36	901	1	.44	.18
Mumps	473	....	.....	.....	2,185	....	.....	.....
Poliomyelitis	107	6	2.67	5.62	3	2	.89	66.6
Poliomyelitis, (corrected)	67	3	1.33	4.47	.....	....	.....	.....
Puerperal Fever	6	6	2.67	100.	4	4	1.79	100.
Scarlet Fever	1,793	7	3.11	.38	530	1	.44	.18
Smallpox	.....	....	.....	.....	.....	....	.....	.....
Tuberculosis, Pul., crude	153	64	28.5	41.1	181	62	27.4	34.2
Tuberculosis, Pul., cor.	124	58	25.8	46.4	155	60	26.9	38.7
Tuberculosis, all forms, crude	.....	81	.....	.....	.....	83	.....	.....
Tuberculosis, all forms, cor.	.....	70	.....	.....	.....	75	.....	.....
Typhoid Fever	5	1	.44	20.	14	4	1.79	28.5
Typhoid Fever, corrected	1	....	.....	.....	9	1	.44	11.1
Typhoid Fever, Para	2	1	.44	.....	.....	....	.....	.....
Undulant Fever	5	....	.....	.....	.....	....	.....	.....
Whooping Cough	163	3	1.33	1.8	744	3	7.3	.40

Cerebro Spinal Fever—Three cases and one death were reported for the year as compared with five cases and three deaths for 1935. Of the three cases reported, one was a non-resident which terminated fatally.

Chickenpox—The total number of cases of Chickenpox recorded for the year was eight hundred and thirty, as compared with one thousand, four hundred and forty-eight cases and one death during 1935. This is a low figure when compared with totals reported during the past three years. The bulk of cases reported reach us through School Visiting Nurses and parents, this must necessarily be, owing to the demand for recovery certificate from this department for child's re-admission to school.

Total cases reported between the ages of five and fourteen years was six hundred and twenty-nine; this is seventy-five percent. of total cases.

The decline was noticeable in all wards. The highest number of cases reported was in November, when the total was one hundred and ninety-three.

Diphtheria—The total number of cases of Diphtheria reported for the year was one hundred and twenty-three, deaths six, as compared with one hundred and sixty-six cases and six deaths during 1935.

City cases totalled ninety-two, deaths three; non-resident cases totalled thirty-one, deaths three. Of the ninety-two cases recorded, five

were reported from city institutions. We are thus able to report a new low level for cases reported within the city and a slight increase in deaths as compared with the preceding year.

The following table shows incidence of cases and deaths by Wards, along with figures for 1935.

	1936		1935	
	Cases	Deaths	Cases	Deaths
Ward One	23	1	22	----
Ward Two	31	1	70	1
Ward Three	33	1	37	----
Institutional	5	----	9	----
Non-resident	31	3	28	5
Total	123	6	166	6

Age incidence of children who died was two years, three years and six years respectively. All were removed to the Isolation hospital. Two were in the third day of illness, one in the fourth day, on admission. One had received Toxoid treatment for Diphtheria in 1932. (It might be well to advise parents of the desirability of children entering school, either to receive a Schick test or to receive an injection of Toxoid, particularly when a number of years intervene between treatment and entering school.)

Seven children of pre-school age who appear on our records as having received Toxoid entered hospital with a diagnosis of Diphtheria, subsequent classification ruled three out; seven immunized children, six years and over, were admitted to hospital with diagnosis of Diphtheria, clinical symptoms in some cases doubtful.

Of the eighty-seven cases recorded in the three Wards, thirty-four were adults, twenty-nine were school children and twenty-four were under school age. Eighty-three were hospitalized and four quarantined at home. There were no secondary cases. Thirty-nine suspects were kept under observation, most of these were removed to hospital; this total does not include suspect cases which were later declared positive.

Diphtheria Prevention—Owing to the prevalence of Poliomyelitis during the fall months, we were not able to make a start on our pre-school age toxoid campaign until late in the year.

One thousand, six hundred and sixteen children received complete treatments as compared with two thousand and twenty, the preceding year. The same arrangements for the carrying on of the work was entered into with the Medical Inspection Department of Public Schools; we also received the co-operation of the school visiting nurses, nurses from the Tuberculosis visiting and Child Hygiene. The number presenting their children for this treatment is not what might be expected and it may be necessary to increase our efforts by further advertising the fact that this service is free to all who care to take advantage of it.

Including Toxoid supplied to schools for treatment of pre-school age children, enough material was distributed to immunize two thousand, six hundred and thirty-six children. After allowing for a ten percent. loss in handling, this leaves a total of seven hundred and sixty persons receiving complete treatments from private physicians and institutions.

Diphtheria Carriers—The total number of Diphtheria Carriers recorded for the year was twenty-two as compared with thirty for the preceding year.

Encephalitis "Infectious"—Two cases and three deaths were recorded against no cases and no deaths for 1935.

Influenza—A total of thirty-seven cases and thirty-five resultant deaths was recorded as compared with eighteen cases and thirteen deaths during 1935.

Of the thirty-seven cases recorded, twenty-four appear in age columns thirty-five years and over and of the thirty-five deaths, twenty-two appear in the same age classification.

With one exception all cases and deaths appear in the winter months; January and February recording the bulk of the totals.

Measles—Four thousand, one hundred and fifty-seven cases and fifteen deaths were recorded for the year as compared with nine hundred and one cases and one death for the preceding year.

The epidemic of 1934 had not burned itself out and we found ourselves going into January, 1936, with a total of two hundred and seventy cases recorded in December, 1935.

March was the peak month, when one thousand two hundred and fifty-four cases and four deaths were recorded.

Ward Two had the greatest number of cases and deaths, there being one thousand six hundred and nine cases and six deaths, whilst Ward One with one thousand three hundred and eighty cases only had one death; Ward Three, nine hundred and seventy cases and three deaths.

Mumps—Four hundred and seventy-three cases were recorded as compared with two thousand one hundred and eighty-five during 1935.

Wards One and Two reported a combined total of three hundred and eighty-nine cases.

Poliomyelitis (Infantile Paralysis)—During the month of August five cases of Poliomyelitis were reported in the city. This was not unexpected as cases had been reported from a number of municipalities in the province, south and west of Winnipeg, as early as June 15th.

We can consider ourselves fortunate that it did not make its appearance in the city at an earlier date.

The first case to be reported was that of a six year old boy, living in Ward Three. He had sickened on the 11th of August and was seen by a doctor on the 12th, and again on the 13th by the doctor and a consultant, when the case was removed to hospital. History of case was entirely negative as regards visiting outside the city or contact with sick persons either in the home or away from home.

Second case reported August 13th was that of a child three years old, resident in Ward Two. History in this case was also negative with the exception that a visit had been made to one of the beaches ten days prior to onset of illness.

Third case was a child two years and nine months old, resident in Ward Three. Visiting at Winnipeg Beach eleven days prior to illness, had suffered an attack of sore throat and swollen glands while there and was admitted to hospital for diagnosis on its return to the city.

Fourth case—A boy eight years and ten months old, living in Ward

One. History of contact negative. Had visited Matlock Beach twelve days prior to onset of illness.

Fifth case—A girl nine years old, resident in Ward One. Was holidaying at the Town of Selkirk, sickened while there, brought into the city on the third day of illness. Paralysis noted six days later, affecting one foot. This case was reported in September.

Points to be noted from the five cases recorded in August are:—Of the five, one was definitely infected while living at summer residence twenty miles north-east of Winnipeg; three had visited summer resorts ten to twelve days prior to attack and the remaining case had no history of exposure to sickness, nor had it visited outside of Winnipeg.

Two were resident in Ward Three, one in Ward Two and one in Ward One.

In reviewing Suspect Cases recorded in August, of which there were five, three of these had not been out of the city and had no relation to definite cases as regards contact or district.

It was evident before the outbreak had gone far that the Suspect Cases were being reported in greater numbers than were definite cases.

Their relationship to definite cases was sometimes established but many appeared in districts where definite cases had not been recorded.

Hospitalization of Cases—Every effort was put forth to hospitalize all cases and of the sixty-seven cases reported, sixty-three were admitted to hospital for treatment. Of this number three died, eleven showed paralysis still present at date of discharge. Forty-nine were discharged completely recovered and no paralysis.

Cases quarantined at home—Four cases were treated at home, one had paralysis when released from quarantine; the remaining three had no paralysis.

Convalescent Serum—The supply of convalescent serum was in the hands of Dr. Cadham, Provincial Bacteriologist, and was always sufficient to meet demands.

Quarantine and Isolation—Owing to the fact that all cases, with the exception of four, were removed to hospital, the enforcing of regulations governing same did not present a problem of any magnitude as the supervision of contacts was all that was required.

Sickness in the Home—Illness of a minor nature was reported in six homes.

Secondary Cases—A boy, age twelve, developed symptoms of Poliomyelitis and was removed to hospital on the third day of his illness; the day following his removal to hospital an eleven year old brother developed symptoms of the disease and was removed to hospital. Time between symptoms in both cases was four days. Diagnosis confirmed.

Young man, age twenty-eight, developed symptoms of Poliomyelitis on the eighth of September, called physician on the 10th, and was removed to hospital on the 11th suffering from paralysis of both legs.

Six days later a seventeen month old baby (niece) living in same house developed symptoms and on admission to hospital was suffering from paralysis of upper left arm.

Secondary to Suspect Cases—Following the sickness of a boy who had been seen by two physicians during his illness and who showed no paralysis, a sister, sixteen years old, developed Poliomyelitis six days after the boy's first symptom. She died on the third day of her illness.

In another instance a thirteen year old boy developed Poliomyelitis as the result of contact to a brother who had been treated as a suspect seven days earlier. The thirteen year old boy had a definite paralysis before the doctor was called.

Two or More Cases in Same Home—Two cases when symptoms were only twenty-four hours apart developed in boys, ages six and three (brothers). A cousin from St. Norbert, Man., who visited at the home, also developed the disease. There had been contact between the families ten days prior to symptoms of the first case.

Two children, girl nine, boy four, brother and sister, removed to hospital same day, diagnosis of Poliomyelitis in the boy, girl remained a suspect.

Two children, brother and sister, ages seven and nine. Symptoms four days apart, sister declared a case.

Suspect Cases—Cases treated as Poliomyelitis suspects totalled one hundred and forty-one. Of this number one hundred and forty were admitted to the King George Hospital for treatment; the final disposition of which was as follows:—

Three were definitely treated and admitted to the classification of Poliomyelitis; thirty patients within varying periods of time developed definite symptoms of infection or disease other than Poliomyelitis, whilst one hundred and eight remained in the original classification of suspect and include one treated at home. A table is attached to this report showing length of stay in hospital of the one hundred and eight patients admitted as suspects.

According to reports it has been pretty well accepted that low cell count is not reliable when we want to discount Poliomyelitis. We must therefore depend upon treatment of all suspect cases on a safe basis, that is, the treating as Poliomyelitis all those which cannot be safely ruled out.

In reviewing suspect cases recorded in August, one had sickened while in camp at Selkirk, another had visited Grand Beach ten days prior to symptoms, the remaining three had not been out of the city.

They were spread to extreme ends of the city; two in Ward One; two in Ward Two and one in Ward Three. They had no relation to the districts from which the four definite cases were reported during the month. Length of stay in hospital varied from one to fourteen days.

Illness reported in the homes of suspect cases totalled sixteen. Complaints registered in other members of the household included tonsilitis, influenza, colds and sore throat.

In reviewing the table showing length of stay in hospital of all suspects, it is interesting to note that almost eighty percent. were discharged from hospital within ten days. Just what relationship these cases bear to the cases reported is still in doubt, but it would appear to suggest the presence of large numbers of unapparent cases during an outbreak of this disease.

Tables showing Age Incidence, Sex Incidence and Incidence by Wards, is attached. The suspects or undetermined infections are also listed for comparison. Comparative chart showing cases recorded daily has also been prepared.

Scarlet Fever—The total number of Scarlet Fever cases recorded for the year was one thousand seven hundred and ninety-three, deaths seven, as compared with five hundred and thirty cases and one death during 1935.

This increase in Scarlet Fever was noticed in the late months of 1935, the Scarlet Fever index was high then and made considerable progress during 1936, reaching a peak of two hundred and sixty-four cases in June and lowest the following month when the figure was sixty-eight cases.

The type remains mild and only occasionally do we see the well defined and more severe form of the disease.

Suspect cases totalled one hundred and fifty. Of this number thirty-eight were contradicted, twenty-six diagnosed other than Scarlet Fever, while eighty-six remained in the classification of Scarlet Fever Suspect.

Wards Two and Three remained consistently high and running coincidently with the outbreak of Scarlet Fever we had to cope with a fairly extensive outbreak of German Measles. House to house visiting in affected districts was instituted, the results of which usually prove beneficial, in that cases which might otherwise remain unreported are recognized and receive attention.

Institutional cases totalled seventy as compared with thirty-one during 1935.

Non-resident cases recorded totalled one hundred and forty-three, deaths two, as compared with forty-six cases and no deaths for the year preceding. This increase would suggest that the prevalence of Scarlet Fever extended beyond the boundaries of Winnipeg.

Classification by Sex and Age show eight hundred and seventy males and nine hundred and twenty-three females; age group five to nine years having for its total seven hundred and forty. Further information is summarized and attached to this report.

School children totalled one thousand one hundred and thirty-six, while eighty-two cases are classified as unrecognized. These are generally discovered after desquamation has commenced and often subsequent to a fresh case in the home.

Secondary cases numbered one hundred and ninety-two; return cases eleven.

Excluding Institutional Cases and non-resident cases,one thousand two hundred and seventy-eight were removed to hospital, three hundred and two cases were quarantined in their homes.

Smallpox—For the fifth successive year we are recording a clear year for this disease.

Tuberculosis of the Lungs—The total number of cases reported for the year was one hundred and fifty-three, deaths sixty-four as compared with one hundred and eighty-one cases and sixty-two deaths for the preceding year.

Corrected totals are one hundred and twenty-four cases, deaths fifty-eight against one hundred and fifty-five cases and sixty deaths for 1935.

Sources of ascertainment of cases recorded for 1936 and comparative figures for the two years preceding, is as follows:

	1936	1935	1934
King Edward Memorial Hospital	29	25	26
Ninette Sanatorium	3	10	9
St. Boniface Sanatorium	23	27	24
Central Clinic	56	68	44
Doctors and others	5	18	10
Death Registration	8	12	21
Non-resident	29	21	17
Total	153	181	151

Summary showing length of time symptoms noted prior to department receiving report.

CASES

Under one month	73
One month	12
Two months	4
Three months	2
Four months	3
Five months	10
6 - 12 months	14
One year and over	6
Total	124

DEATHS (Corrected)—Length of time known to Department.

By Death Registration	10
Under One month	5
One month	1
Two months	1
Three months	2
Four months	2
Five months	1
Six months	13
Over six months	23
Total	58

Age Incidence in Ten Year Periods (for other classification see table attached).

CASES

Age Incidence	M.	F.	Total
0-10 years	1	1	2
10-20 years	3	11	14
20-30 years	21	26	47
30-40 years	17	4	21
40-50 years	14	7	21
50-60 years	11	2	13
60-70 years	2	3	5
70 and over	1	....	1
Total	70	54	124

DEATHS

Age Incidence	M.	F.	Total
0-10 years	....	2	2
10-20 years	1	....	1
20-30 years	6	10	16
30-40 years	4	5	9
40-50 years	9	3	12
50-60 years	12	....	12
60-70 years	....	5	5
70 and over	1	....	1
Total	33	25	58

Distribution of Cases appearing on our records as "in Hospital and Sanatorium", at end of the year 1936.

	M.	F.	Total
King Edward Memorial Hospital	70	19	89
St. Boniface Sanatorium	35	19	54
Ninette Sanatorium	24	15	39
Central Clinic	4	4	8
St. Rochs Hospital	4	....	4
Total	137	57	194

Nurses' reports show a total of one hundred and twenty-four new cases added to their districts during the year.

Summaries and tables showing work done by three Visiting Nurses appear in the Report of the Division of Communicable Diseases.

Typhoid Fever—Typhoid incidence has never before reached the low total of one case, although we have had a year without deaths from this disease.

One Para-typhoid was also reported from a city institution.

Non-resident Typhoid totalled four cases and one death, also one Para-typhoid and one death.

Undulant Fever—Isolated cases of this disease were reported in the following numbers and months,—one in February, April, June, July and August; history of each case as follows:—

February—Boy, eight years old, had visited outside the city during the first week of January, sickened January 11th. Milk supply not known, city supply pasteurized.

April—Woman, fifty-nine years old. Dairy Inspector reported that owner of dairy which supplied the home with milk had consulted veterinary re abortion in cattle in the dairy.

June—Man, twenty-four years old, sickened during month of April. Case removed to hospital for diagnosis in June, died in August. Milk supply included raw milk and pasteurized.

July—Man, fifty-two, non-resident. Admitted to hospital for treatment.

August—Woman, twenty-four; sickened in July, diagnosis confirmed in August. Secured most of her lunches down-town. Milk supply not known.

Whooping Cough—One hundred and sixty-three cases were reported and three deaths, as compared with seven hundred and forty-four cases and three deaths during 1935.

The three deaths recorded appear in children under one year of age, last year we had to record the death of three babies in the one year old classification. We regret to say that quite frequently we find parents careless and not exercising the necessary steps to protect babies of such tender age.

Until citizens take this disease and its complications as a serious thing, we will continue to write these sad facts.

Medical Relief—The total number of calls made by District Physicians was five hundred and thirty-three, as compared with three hundred and forty-three during 1935.

Associated with the medical relief work one hundred and two calls were referred to the Margaret Scott Nursing Mission for attention, as compared with sixty-two in 1935.

Calls recorded in the office as having been referred for attention for infection or illness by School Nurses, Social Agencies, parents and others totalled two thousand one hundred and thirty-one, as compared with six hundred and twenty-seven during 1935.

The total number of persons receiving medical attention at the office was four hundred and seventy-seven, as compared with five hundred and sixty-four for the preceding year.

School certificates issued at the office totalled five thousand seven hundred and twelve. These are necessary in all cases of absence from school with an infectious disease and where the case is not placarded by the inspector.

Vaccinations at the City Hall totalled one thousand two hundred and twenty-two, as compared with nine hundred and forty-six for the preceding year.

The amount expended during the year for drugs was $1,738.74 as compared with $1,354.57 during 1935. These prescriptions receive their O.K. in this division and refer to persons on the Social Welfare relief, D.S.C.R. relief, Old Age pensioners and others classed as indigent or unable to pay. This service has increased from $20.00 a month expenditure during 1928 to $150.00 a month during 1936.

Diphtheria Antitoxin distributed during the year totalled 1,573,000 units. Fifty-nine one-person packets of Scarlet Fever Antitoxin were issued for treatment, 146 one-person packets for passive immunization and 118 one-person packets for active immunization. Dick Test material issued totalled 48 packets. Typhoid and other sera and vaccines were also supplied free.

Insulin—One hundred and eighty persons received Insulin for all or part of the year. Of this number, one hundred and twenty-four are classed as "free list", this also shows a yearly increase.

Free milk to tubercular patients totalled eight thousand eight hundred and thirty-eight quarts, as compared with seven thousand eight hundred and fifty-six quarts for 1935.

Other supplies distributed from the office include rubbing alcohol, disinfectants, dressings, mineral oil, ointments, serums and vaccines used in the treatment or prevention of disease, and supplies necessary in the work of tuberculosis prevention.

Legislation Enacted — Amendments as passed by the Provincial Board of Health to the Consolidated Regulations under "The Public Health Act".

Section 22, Part 2, Division 1 is amended by rescinding sub-sections (1), (2) and the first paragraph of (3) of sub-section (B) of the said Section 22 relating to Anterior Poliomyelitis and providing that (1) that premises be placarded when patient remains at home, (2) patient be isolated until three weeks after the onset of disease if all temperature has disappeared. (3) quarantine of contacts fourteen days from date of last exposure to a recognized case, except in municipalities where full time health departments are in operation, where such quarantine shall be at the discretion of the Health Officer. . Also, food handlers shall not engage in their occupation within fourteen days of last exposure to infection.

Section 45 of Part 2, Division 3 is amended by adding after the word "cholera" in the fourth line thereof the word "poliomyelitis". The effect of this amendment is to place poliomyelitis among the infectious or communicable diseases in this Division of the Regulations which deal with dead bodies.

Sub-section (CC) of Section 22, Division 1, of Part 2 is amended by the addition of sections relating to Tuberculosis. The amendments are somewhat lengthy and perhaps need not be inserted here.

Regulations 16 to 24, both inclusive, Division 3 of Part 1 are repealed and new regulations substituted therefor. As these relate to the organization of full time health districts consisting of a number of municipalities having an aggregate population of at least 10,000, they have no bearing on our work.

Regulation 3 of Division 1 of Part 2 is repealed and the following regulation, dealing with the duties and powers of the Health Officer, is substituted therefor: "3. (1) He or his representative shall have the right to enter at any time during the day or night any house, building, school, college, seminary or other premises within the bounds of the municipality in pursuance of his duty, and may, when required, call upon any police officer to assist him in the carrying out of the provisions of the Act, these regulations, or any by-law or regulation passed by the municipality pertaining to health. (2) In the event of an epidemic, or threatened epidemic, he may order compulsory vaccination or inoculation insofar as the Act permits in the municipality or any part thereof, and in addition he may order any person or persons, whether vaccinated, inoculated or not, to be quarantined for a period of up to four weeks when in the opinion of the health officer such further quarantine is required for the protection of the community, without liability to the health officer, municipality, or the province."

A new sub-section is added to Regulation 187 of Division 16, Part 3, dealing with the use of Hydrocyanic Acid or any of its compounds or derivatives in flour mills, or in any other commercial or manufacturing establishment and provides for additional safeguards.

Regulation 173 of Division 14 of Part 3, dealing with light and ventilation, is amended by adding the following to sub-section (1): "Such vacant space shall be clear and unobstructed, extending from the ground and above the roof of the building, and of such area as may be considered necessary by the Medical Health Officer or the Minister, taking into consideration the height and position of the building, other buildings, or structures adjacent thereto, and the purpose for which such buildings are used, so as to provide at all times direct unobstructed natural light and free air movement." A new sub-section is also added to the regulation above referred to, as follows: "(2) If the first storey of any building is occupied for business purposes only, the above provision that any open space required to be provided shall extend from the ground floor to above the roof of the building shall only apply to such open space above the roof of the first storey of such building."

By the City of Winnipeg—By-law No. 14832, The Winnipeg Zoning By-law, was passed during the year. This By-law replaces the previous Zoning By-law No. 13060. In addition to other features, the new By-law gives a better definition of a residence, duplex dwelling, moving picture theatre, boarding and lodging houses, etc.

Housing—The question of adequate housing for our people has been one of the most pressing problems that has presented itself during the year. A full analysis of the situation will be found in the reports of the Chief of the Division of Sanitation and the Inspector of Housing.

The situation during the year did not improve but rather became worse. Quite a number of buildings were demolished and there seems to be little in the way of erection of new structures to take their places.

The whole question of housing is a very broad one and has been given much thoughtful consideration by governing boards and private individuals, apparently without much material progress being made. This question is one which is becoming very prominent not only in our own City but in other parts of Canada, both urban and rural, and we trust that during the coming year some real progress may be made towards its solution.

Mosquito Prevention—A mosquito prevention campaign was conducted as in previous years in this city and its surroundings, by Doctor H. M. Speechley and Mr. Ernest Spence, who are again entitled to the gratitude of our citizens for the effort put forth.

Educational Work—The educational work of the Department continues. We were called upon to address various meetings during the year and of course daily opportunity is afforded our Inspectors and Nurses of acquainting the public of developments in Public Health work.

The Inspectors arranged and carried out the following programme during the winter months:

1936—

Nov. 28—Opening Address—Dr. A. J. Douglas, Medical Health Officer.

Dec. 5—"Some aspects of northern townsite development".—Mr. D. M. Stevens, Survey Department, Manitoba Government.

Dec. 12—"Poliomyelitis".—Dr. M. R. Elliott, Acting Bacteriologist.

Dec. 19—"Sanitation of fur ranches".—Dr. J. A. Allen, Pathologist, Game and Fisheries Branch, Manitoba Government.

1937—

Jan. 9—"Tuberculosis amongst Indians in Northern Manitoba."—Dr. E. W. Montgomery, Chairman, Manitoba Board of Health.

Jan. 16—"Sewage disposal at Flin Flon."—Mr. R. E. Phelan, Hudson Bay Mining and Smelting Co.

Jan. 23—"Sanitation in Northern Manitoba."—Mr. M. Flattery, Sanitary Inspector, Provincial Department of Health..

Jan. 30—"Better light, better sight" (illustrated).—Mr. M. K. Macleod, Lighting Advisory Service, City Hydro Electric System.

Feb. 6—"The life cycle of various insect pests."—Prof. V. W. Jackson, University of Manitoba.

Feb. 20—"Greater Winnipeg Sewage Disposal Works."—Mr. D. L. McLean, Assistant Chief Engineer, Greater Winnipeg Sanitary District.

Feb. 27—"Industrial hazards."—Dr. R. H. Fraser, Manitoba Medical College.

Mar. 6—"Recent advances in optometric work."—Mr. J. Shaen, Optician.

Mar. 13—"Gas appliances and heating."—Mr. F. W. Satchwill, Manager, Gas Sales Department, Winnipeg Electric Co.

Mar. 20—Address on Police work.—Mr. G. Smith, Chief Constable.

Mar. 27—"Electric power in aluminum work."—Mr. J. W. Sanger, Chief Engineer, Winnipeg Hydro Electric System.

In conclusion, I desire to express to the members of the staff my sincere appreciation of the faithful manner in which they have discharged their duties throughout the year.

Respectfully submitted,

A. J. DOUGLAS,

Medical Health Officer.

Report of the Bacteriologist

A. J. Douglas, Esq., M.D.,
Medical Health Officer.

Dear Sir:

I have the honor to submit a report on the work performed in the Bacteriological Laboratory for the year ending December 31st, 1936.

A summary of the samples and specimens examined is shown on the following table:—

1936	Cultures for Diphtheria		Sputa for Tuberculosis Bacilli		Urethral Smears		Withals for Typhoid		Water	Milk and Cream	Urinalysis	Miscellaneous	Vaccinations	TotalExaminations per Month
		Pos.		Pos.		Pos.		Pos.						
January	110	2	39	1	67	5	0	0	184	157	20	10	3	590
February	112	0	17	2	64	10	2	0	143	158	23	8	2	529
March	169	0	18	0	86	6	2	0	184	166	29	10	15	679
April	89	0	11	4	44	2	0	0	169	155	27	8	14	517
May	100	0	20	4	17	2	3	0	157	154	122	2	551	1126
June	787	0	11	1	13	4	1	0	189	139	23	4	153	1320
July	1603	2	9	2	7	0	1	0	195	146	22	4	1	1988
August	977	0	10	0	29	4	1	0	156	151	19	53	60	1456
September	178	0	2	1	7	1	6	0	160	153	25	77	216	824
October	253	0	8	0	15	0	2	0	202	152	22	2	146	802
November	144	6	8	1	17	5	0	0	176	91	20	5	54	515
December	180	9	9	0	16	1	4	0	174	145	25	9	7	569
1936 Totals	4702	19	162	16	382	40	22	0	2089	1767	377	192	1222	10915
1935 Totals	4594	10	217	20	910	81	10	0	1964	1763	272	201	946	10869
1934 Totals	6130	44	199	29	185	32	36	3	1923	1746	242	190	1038	11679

Water Samples—During the year 2,089 samples of water were examined. This establishes a new high record for this laboratory. These samples were examined for the presence of lactose fermenting organisms as a presumptive test for B. Coli, and for the number of organisms per c.c. developing on agar plates at body temperature.

Milk and Cream—The number of samples examined totalled 1,767, as compared with 1,763 in 1935. These were examined for butter fat content, and the milk for water and solids. There were also 1,612 bacterial counts made.

The source of the samples is shown in the following table:

	1936	1935
Dairy Inspectors	1,641	1,686
Bureau of Child Hygiene	66	39
King George Hospital	45	21
Private	14	17
Total	1,766	1,763
Bacterial Counts	1,612	1,634

Diphtheria Cultures—Cultures examined in 1936 numbered 4,702, as compared with 4,694 in 1935: of this number only 19 were positive for B. Diphtherae, which reflects the decreasing incidence of the disease.

These cultures were made for private physicians, nurses, health inspectors, school nurses, Margaret Scott Nursing Mission nurses, and others.

During June, July and August, a large number, more than 50% of the total, were taken from the throats of children going to summer camps.

Miscellaneous Examinations—Included specimens referred by the Food Division for Bacteriological examination for food poisoning organisms, stool examinations for Typhoid Bacilli, Intestinal Parasites, etc.

Dispensary Service—The Medical Dispensary services rendered by this Division are becoming increasingly extensive year by year. These consist of making examinations and reports for the Social Welfare Commission, with treatment for minor complaints; examination of individuals for the Unemployment Relief Commission, chiefly in connection with the individual's fitness for work. Medical advice and treatment of minor complaints are also given to those on Old Age Pensions, Army Veterans' Pensions, and those who, while not on relief, are not in a position to employ a private physician. The more serious cases are referred to the clinics and wards of the hospitals.

The examination of school children for freedom from contagious diseases, with the issuing of certificates for return to school, has been continued as formerly.

Vaccinations for the year totalled 1,222, as compared with 946 in 1935.

In conclusion, I wish to express my appreciation for the manner in which other members of this Division, Miss M. Wilson and Mr. C. Van Engel have fulfilled their respective duties.

Respectfully submitted,

M. S. LOUGHEED,
Bacteriologist.

Report of Chief Inspector, Division of Communicable Diseases

A. J. Douglas, Esq., M.D.,
Medical Health Officer,

Dear Sir:—

I have the honour to report on work done by this division during the year 1936.

Summaries relating to Cases and Deaths of Communicable Diseases reported for the year, along with spot maps, chart and tables, also reports dealing with the work done by inspectors and nurses are attached hereto as follows:—

1. Communicable Diseases, Crude totals reported monthly.
2. Communicable Diseases, by Ward, non-resident and Institutional.
3. Communicable Diseases, Cases, by age and sex.
4. Communicable Diseases, Deaths, by age and sex.
5. Inspectors' and Nurses' reports; Toxoid administration.
6. Tuberculosis, Living and sleeping accommodation.
7. Diphtheria reported in children immunized.
8. Poliomyelitis, Spot maps.
9. Poliomyelitis, Chart, Cases and suspects reported daily.
10. Poliomyelitis, Age and Sex and Ward incidence; Suspects, days in Hospital.

Outstanding for the year were the outbreak of Poliomyelitis and the continued prevalence of Scarlet Fever. Measles ran in epidemic form during the early months of the year.

Poliomyelitis—Poliomyelitis which was reported from other parts of the province in June, was not recorded in the City until the month of August. We succeeded in hospitalizing almost 100 per cent. of cases and suspect cases.

On the whole the type was mild and showed a low fatality rate.

Scarlet Fever—Scarlet Fever caused us considerable worry. The type was mild and many remained unrecognized till some subsequent condition developed. Parents frequently failed to call a doctor or notify the department when a child sickened with symptoms of a mild infection, German Measles and even Measles being attributed as the cause. All three infections were being widely reported at the same time.

Every effort was put forth to prevent spread, close checking in cooperation with the school visiting nurses, house to house visiting in affected districts and close supervision of quarantines.

Measles—We did not anticipate such an extensive outbreak of

Measles after having over 6,000 cases reported during 1934 and 900 during 1935.

Once this disease is well started, measures to control appear to be almost futile.

Noticeable amongst diseases on the decline were Diphtheria and Typhoid Fever. While Smallpox remained unreported and other major infections were low.

Diphtheria Prevention—This work was carried on as formerly. The start in the fall was delayed owing to the outbreak of Poliomyelitis; numbers receiving treatments were consequently fewer.

Inspectors' Reports—The total number of visits made by Inspectors was nine thousand seven hundred and sixty-one, necessitating the quarantining of six thousand, two hundred and four homes. An arrangement whereby patients were released from Measles quarantine without a visit from the Inspector was satisfactorily instituted; thus cutting down the total calls made in this category. This also did away with the necessity of calling for help from the Inspectors of the Sanitary Division. For other entries see summarized totals appended.

Tuberculosis Visiting Nurses—The total number of visits made was five thousand eight hundred and fifteen, of this number one hundred and forty-four were to new cases. One hundred and one new cases were added to their districts. The visiting list, at the end of the year, in each district is as follows:—

	District One	District Two	District Three	Total
Number on Visiting List	137	270	165	572
New Cases, non-visiting	23	3	5	31

Classification of Cases in Districts:—

	Positive	Clinically Positive	Suspects	Contact Families	Totals
District One	8	91	7	31	137
District Two	97	104	25	44	270
District Three	62	59	10	34	165

Three nurses give their full time to this branch of the work. There is no change in procedure, we maintain a steady flow of correspondence as well as contact with all hospitals and sanatoriums caring for Tuberculosis. Follow up work is carefully checked as well as the necessary routine work of visiting and advising patients.

Medical Relief—This work has increased rapidly during the past five years. It is most marked in the social welfare calls and much of it has fallen on the shoulders of Dr. Lougheed. Other calls are attended to by our district physicians.

The increase in Medical Relief is reflected in the general office work in the passing of prescriptions and checking entries and accounts, etc..

Office Records—This work has been carried on by one senior and one junior clerk. Their duties include the filing and care of all records relating to the work of this division, distribution of supplies under medical relief, distribution of all insulin, antitoxin, vaccines, etc., checking and issuing school clearances; tabulating and summarizing reports,

checking accounts and attending to the routine correspondence of this division.

Conclusion—The year has been a busy one; we are happy, however, in the knowledge that we have enjoyed the co-operation of various agencies, necessary in the conduct of our work, amongst which we would mention the Medical Inspection Department of Public Schools, the Margaret Scott Nursing Mission, Social Welfare, Municipal Hospitals, Sanatoriums, and Institutions for the care of children.

Respectfully submitted,

WM. T. WATT,

Chief Inspector, Division of Communicable Diseases.

COMMUNICABLE DISEASES--1936

DISEASES	Jan.		Feb.		Mar.		Apr.		May		June		July		Aug.		Sept.		Oct.		Nov.		Dec.		Totals 1936		Totals 1935	
	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths
Cerebro Spinal Fever									1	1	1								1						3	1	5	3
Chickenpox	119		50		33		23		44		54		22		15		28		118		193		131		830		1448	1
Diphtheria	20		13	1	14	1	8		6		11		14	1	6		9	1	9		8	1	5	1	123	6	166	6
Diphtheria Carriers	6		1										2		1				2		4		6		22		30	
Encephalitis, infectious	1	1									1	1				1									2	3		
Erysipelas	4		3		7	2	9		3	1	8	1	6		1		5		10		7		7		70	4	48	4
Influenza	15	17	15	12	4	4							1								1	1	1	1	37	35	18	13
Measles	655		1055	6	1254	4	533	2	376	2	195		56	1	10		3		5		8		5		4157	15	901	1
Mumps	141		104		70		41		35		27		5		4		11		9		6		20		473		2185	
Poliomyelitis															8	2	64	2	25	1	9	1	1		107	6	3	2
Puerperal Fever			1	1	2	2			1	1	1	1	1	1											6	6	4	4
Scarlet Fever	93	1	162	1	132	2	148		181	1	264	1	68		86		119		212	1	201		127		1793	7	530	1
Smallpox																												
Trachoma															1										1			
Tuberculosis, Pul.	11	4	16	6	15	13	11	6	10	2	14	11	16	2	13	5	15	6	10	1	11	6	11	2	153	64	181	62
Typhoid Fever					1						1	1			1				2						5	1	14	4
Typhoid Fever, Para.																			1				1	1	2	1		
Undulant Fever			1				1				1		1		1										5			
Whooping Cough	23	2	13		20		6		25	1	12		22		13		6		13				10		163	3	744	3
Totals	1088	25	1434	27	1552	28	780	8	682	9	592	16	214	5	160	8	260	9	417	3	448	9	325	5	7952	152	6277	104

COMMUNICABLE DISEASES--1936

	CASES						DEATHS							
	WARDS			Non-Res.	Inst.	Total Cases	WARDS			Non-Res.	Inst.	Total Deaths	St. Bon. Hosp. St. Bon. San.	Ninette San. Deaths
	1	2	3				1	2	3					
Cerebro Spinal Fever	2			1		3				1		1		
Chickenpox	272	269	262	3	24	830								
Diphtheria	23	31	33	31	5	123	1	1	1	3		6		
Diphtheria Carriers		7	5	5	5	22								
Encephalitis, infectious	1			1		2		2		1		3	1	
Erysipelas	18	23	11	11	7	70	1	2		1		4		
Influenza	10	12	10	3	2	37	10	11	9	3	2	35	2	
Measles	1380	1609	970	46	152	4157	1	6	3	5		15	2	
Mumps	144	245	58	3	23	473								
Poliomyelitis	16	33	18	40		107		2	1	3		6		
Puerperal Fever	3	1		2		6	3	1		2		6		
Scarlet Fever	282	622	676	143	70	1793		3	2	2		7	1	
Smallpox														
Trachoma	1					1								
Tuberculosis	25	53	44	29	2	153	7	19	16	21	1	64	10	5
Typhoid Fever		1		4		5				1		1		
Typhoid Fever, Para.				1	1	2				1		1		
Undulant Fever	2	1	1	1		5							1	
Whooping Cough	36	80	41	5	1	163		2	1			3		
Totals	2215	2987	2129	329	292	7952	23	49	33	44	3	152	17	5

NOTIFIED CASES OF COMMUNICABLE DISEASES, BY AGE AND SEX, 1936

	Under 1 Year		1 Year		2 Years		3 Years		4 Years		5–9 Years		10–14 Years		15–19 Years		20–24 Years		25–34 Years		35–44 Years		45–64 Years		65 Yrs. and over		All Ages		
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	T't'l
Cerebro Spinal Fever													2					1									2	1	3
Chickenpox	13	8	14	13	15	17	15	15	28	28	250	244	57	78	7	7	3	9	2	3	1			1			407	423	830
Diphtheria	1	1	4	2	5	3	4	8	2	3	5	10	3	11	5	17	5	9	6	9	2	2	4	2			46	77	123
Diphtheria Carriers					1				1		2	4	1	3	3	1		1		1	2	1	1				11	11	22
Encephalitis, infectious		1									1																1	1	2
Erysipelas		3		1					1	2	1		1	2	3	2	3	2	3	6	7	4	15	8	4	2	38	32	70
Influenza		1	1				1					1	1		3	3	1			1		4	4	2	4	10	15	22	37
Measles	55	52	125	126	185	159	196	180	191	182	1063	928	126	170	57	87	44	100	30	44	8	6		3			2079	2078	4157
Mumps	1		2	1	2	4	6	2	6	8	124	100	74	64	8	16	3	21	4	10	4	9	2	2			236	237	473
Poliomyelitis			2	1		1	4	3	3	3	37	13	17	6	2	5	1	4	4	1							70	37	107
Puerperal Fever																1				4		1						6	6
Scarlet Fever	5	1	9	5	31	25	25	29	47	61	354	386	260	240	72	61	31	61	24	43	8	7	4	4			870	923	1793
Smallpox																													
Trachoma															1												1		1
Tuberculosis, Pul.				1							1	1		3	6	4	10	20	22	25	16	6	27	4	4	4	86	67	153
Typhoid Fever											1				1	1				1	1						3	2	5
Typhoid Fever, Para.																		1					1				1	1	2
Undulant Fever									1								1	1						2			2	3	5
Whooping Cough	13	10	2	3	8	8	7	8	8	15	44	28	5	4													87	76	163

NOTIFIED DEATHS FROM COMMUNICABLE DISEASES, BY AGE AND SEX, 1936

	Under 1 Year		1 Year		2 Years		3 Years		4 Years		5–9 Years		10–14 Years		15–19 Years		20–24 Years		25–34 Years		35–44 Years		45–64 Years		65 Yrs. and over		All Ages		
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	T't'l
Cerebro Spinal Fever													1														1		1
Chickenpox																													
Diphtheria			1			2		1				1												1			1	5	6
Diphtheria Carriers																													
Encephalitis, infectious		1									1									1							1	2	3
Erysipelas		2																				2					2	2	4
Influenza		1	1				1					1	1	1	2	3	1			1		3	4	3	4	8	14	21	35
Measles	2		2	1	1	2	1			1	1	2		1				1									7	8	15
Mumps																													
Poliomyelitis												2	1			1			2								3	3	6
Puerperal Fever																1				4		1						6	6
Scarlet Fever	1			1					1	2	2																4	3	7
Smallpox																													
Trachoma																													
Tuberculosis, Pul.				1							1	1		2	2		3	9	2	7	6	2	21	2	1	4	36	28	64
Typhoid Fever																					1						1		1
Typhoid Fever, Para.																							1				1		1
Undulant Fever																													
Whooping Cough	1	2																									1	2	3

INSPECTORS' REPORT, 1936

	Totals 1936	Totals 1935
Number of Visits	9,761	8,756
Houses Quarantined	6,204	5,147
Quarantines Raised	1,172	756
Quarantines Inspected	839	347
Other Calls	1,546	2,506
New Cases Investigated	6,500	5,492
Bedding, etc., Disinfected	2,063	881
Rooms Sprayed	100	160
Houses Sprayed	3	7
School Certificates Issued	2,242	2,183

TUBERCULOSIS—VISITING NURSES' REPORT, 1936

	Totals 1936	Totals 1935
Number of Visits	5,815	6,035
To Old Cases	5,539	5,734
To New Cases	144	166
To Suspects	3	2
On behalf of Patients	109	123
Patients sent to King Edward Hospital	12	12
Patients sent to Ninette Sanatorium	4	10
Patients sent to St. Rochs Hospital	.....	2
Patients sent to St. Boniface Sanatorium	5	2
Patients sent to Central Clinic	11	12
New Cases added to Districts	101	141

TOXOID ADMINISTRATION PRE-SCHOOL CHILDREN, 1935-36

	1936	1935
Number receiving 1st treatment	1,932	2 369
Number receiving 2nd treatment	1,763	22 188
Number receiving 3rd treatment	1,616	2,020
Total number of treatments given	5,311	6,577

TOTAL TOXOID TREATMENTS—BY WARDS

	Ward 1	Ward 2	Ward 3	Total
1935	710	3,298	2,569	6,577
1936	627	2,325	2,359	5,311

TOXOID DISTRIBUTED FOR THE YEARS 1935-1936

Toxoid	Single Ampoules 1936	1935		Complete Series 1936	1935	Schick Test 1936	1935
1st Dose	12	53	(1 person pkts.)	755	826	118	148
2nd Dose	6	42	(6 person pkts.)	11	17	.....	.....
3rd Dose	10	46	(12 person pkts.)	150	184	.....	.....

TUBERCULOSIS—1936—NEW CASES
LIVING ACCOMMODATION

	PATIENTS			Total Number of Persons in Household		
	Males	Females	Totals	Over 10 Years	Under 10 Years	Totals
1 Room	21	2	23	13	10	23
2 Rooms	5	8	13	13	6	19
3 Rooms	6	4	10	15	10	25
4 Rooms and over	38	38	76	315	72	387
Institutional and Unclassified	2	----	2	----	----	----
Totals	72	52	124	356	98	454

SLEEPING ACCOMMODATION

	PATIENTS				CONTACTS		
	With Room to Self	With Bed but Not Room to Self	With Neither Bed nor Room to Self	Totals	Sleeping in Same Bed as Patient	Sleeping in Separate Bed but in same Room as Patient	Totals
1 Room	14	2	7	23	7	7	14
2 Rooms	5	1	7	13	8	5	13
3 Rooms	3	1	6	10	6	6	12
4 Rooms and over	34	5	37	76	34	22	56
Institutional and Unclassified (2)	----	----	----	2	----	----	----
Totals (2)	56	9	57	124	55	40	95

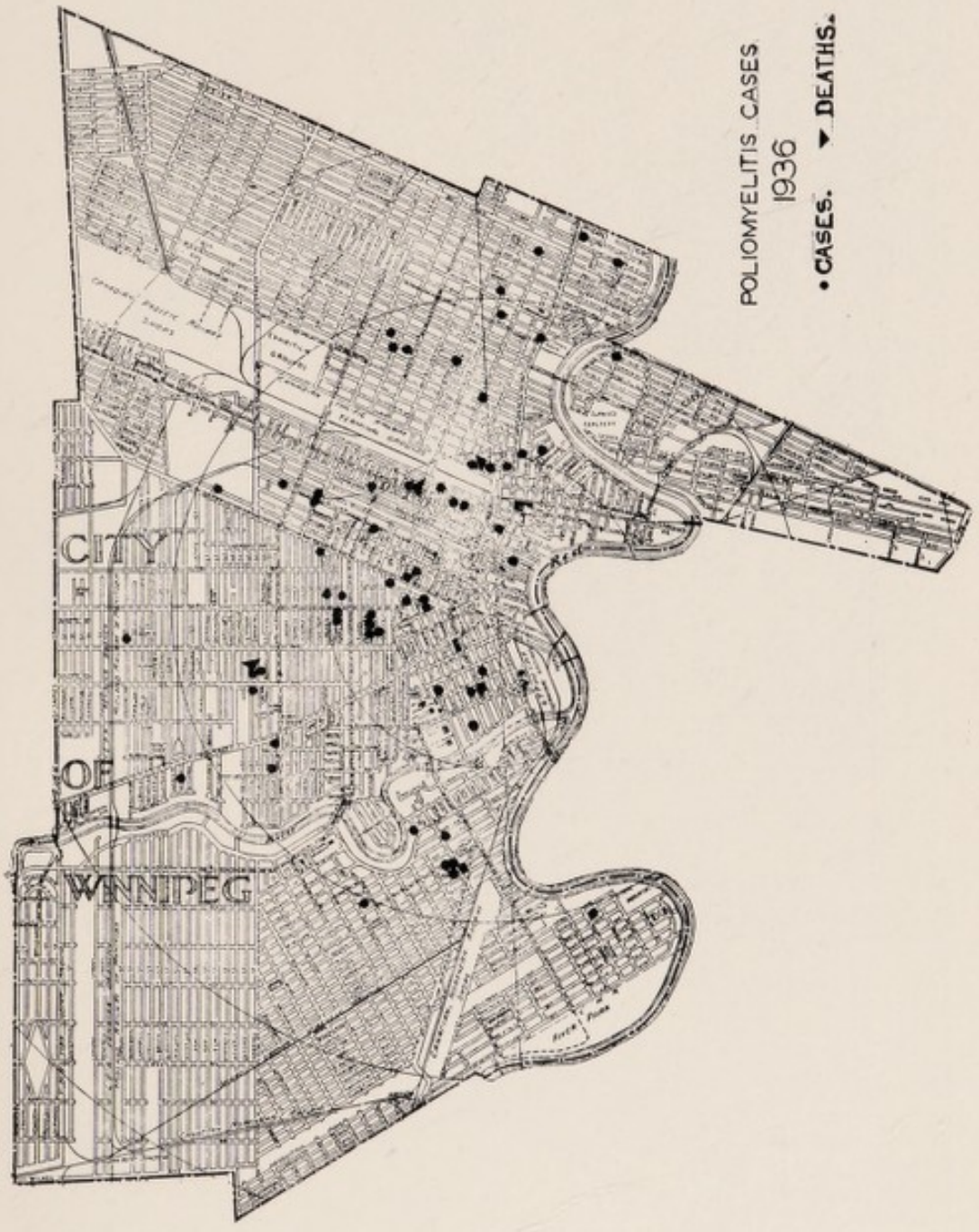
DIPHTHERIA—1930-1936

Year	City Cases	City Deaths	Deaths Wpg. Patients registered in St. Boniface	Non-Resident Cases	Non-Resident Deaths	Children Receiving Toxoid Treatments 0-5 Years Cases	0-5 Years Deaths	6 Yrs. & Over Cases	6 Yrs. & Over Deaths	Children Not Receiving Toxoid Treatments 0-5 Years Cases	0-5 Years Deaths	6-12 Years Cases	6-12 Years Deaths	Total Toxoid Treatments School	Total Toxoid Treatments Pre-Sch.
1936	92	3	....	31	3	7	....	7	1	17	2	15	....	....	1616
1935	138	1	....	28	5	3	....	7	....	38	1	27	....	....	2020
1934	310	10	1	26	....	8	1	13	....	93	5	64	3	....	2030
1933	236	3	....	26	2	6	....	8	....	81	2	43	1	....	1183
1932	218	7	....	28	....	....	....	3	....	67	4	58	1	2723	732
1931	250	11	2	29	4	....	....	8	....	73	8	56	5	1660	203
1930	295	8	....	50	6	....	....	17	....	76	3	61	2	1678	.....

DIPHTHERIA CASES, SHOWING YEAR TOXOID TREATMENT RECEIVED

	1935	1934	1933	1932	1931	1930	1929	1928	1927	1926	1925	1924	Total by Private Physician	Total by Health Dept.
By Private Physician	..	1	..	..	..	..	..	..	..	..	..	..	1	
1936—By Health Department	2	5	..	1	..	4	..	1	..	..	..	..		13
By Private Physician	..	3	2	1	..	..	..	..	..	..	..	..	6	
1935—By Health Department	..	1	..	..	..	2	1	..	..	..	..	..		4
By Private Physician	..	1	2	1*	..	..	1	..	..	..	..	..	5*	
1934—By Health Department	..	..	4	5	1	4	..	1	..	..	1	..		16
By Private Physician	..	..	..	1	..	..	..	1	..	..	..	1	3	
1933—By Health Department	..	..	..	5	2	3	..	1	..	..	..	..		11
By Private Physician	..	..	..	..	..	..	..	..	..	..	..	..		
1932—By Health Department	..	..	..	..	..	..	1	2	..	..	..	..		3
By Private Physician	..	..	..	..	..	..	..	1	..	..	..	..	1	
1931—By Health Department	..	..	..	..	..	3	..	1	4	..	..	..		8
1930—By Health Department	..	..	..	..	..	..	4	3	4	4	2	..		17
1929—By Health Department	..	..	..	..	..	..	..	1	1	8	4*	..		14*
1928—By Health Department	..	..	..	..	..	..	..	1	6	9	2	..		18
1927—By Health Department	..	..	..	..	..	..	..	..	..	4	3	3		10
1926—By Health Department	..	..	..	..	..	..	..	..	..	..	5*	1		6*
1925—By Health Department	..	..	..	..	..	..	..	..	..	..	1	3		4

*Includes 1 death.


POLIOMYELITIS CASES
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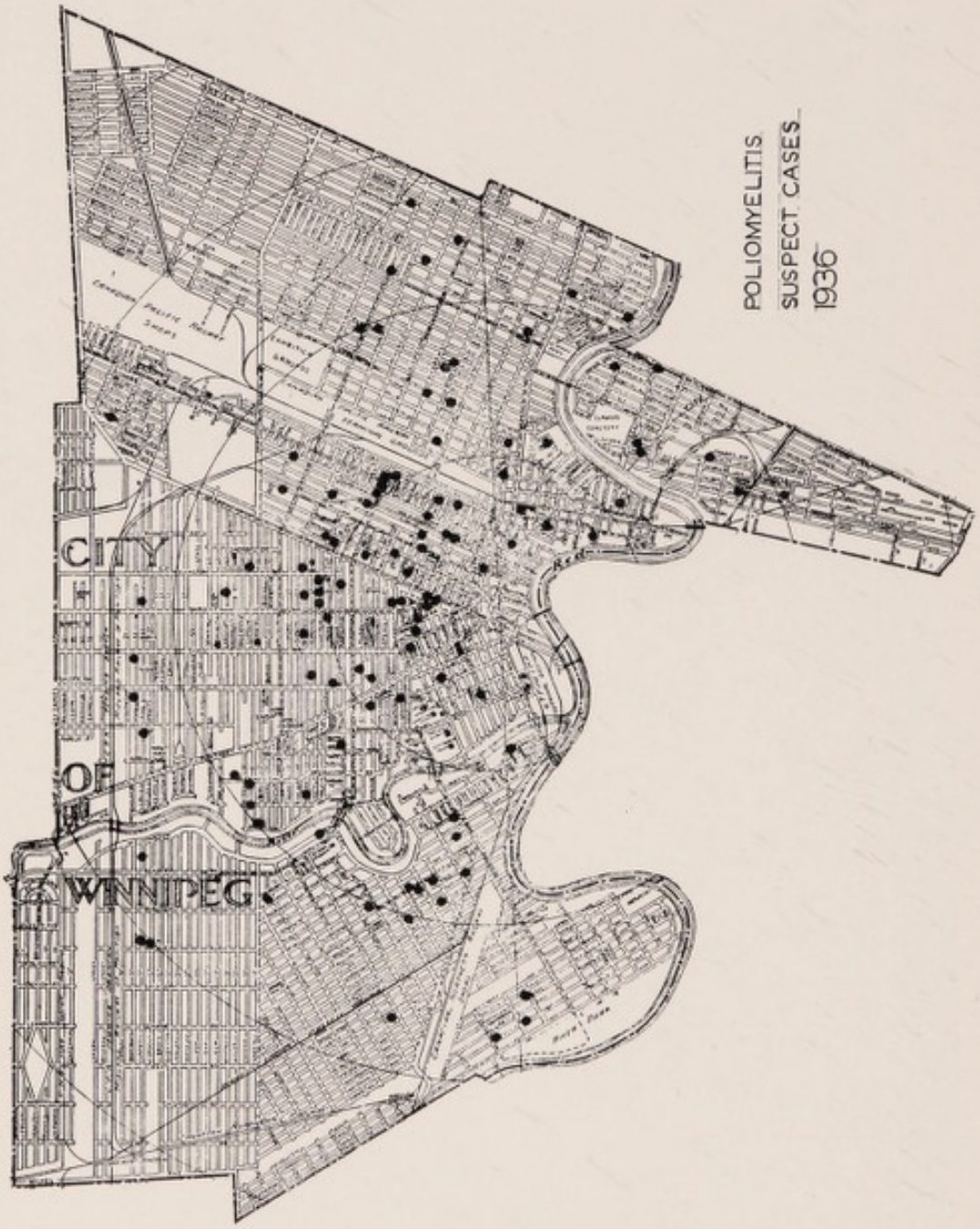
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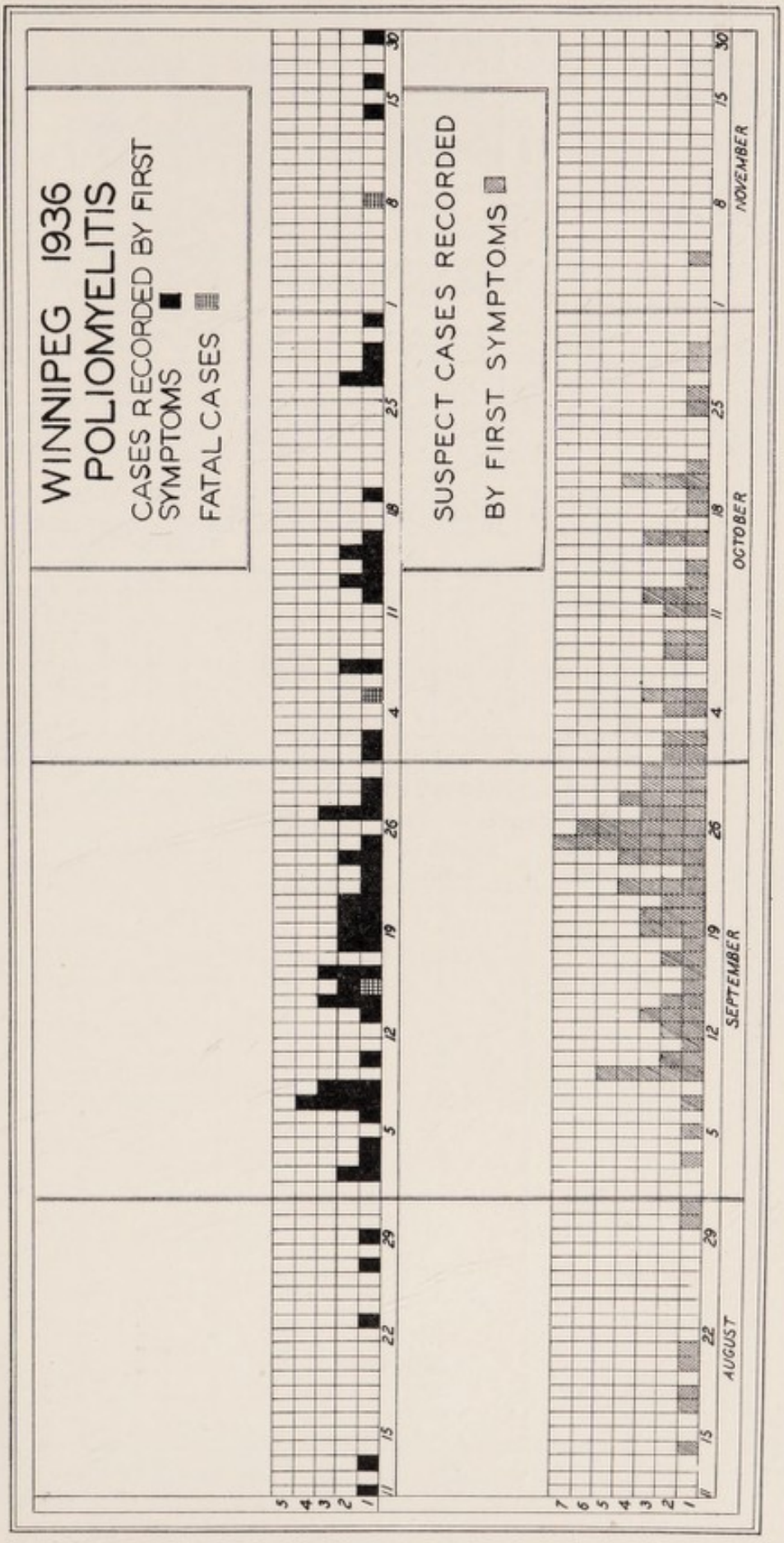
WINNIPEG 1936
POLIOMYELITIS
CASES RECORDED BY FIRST SYMPTOMS
FATAL CASES
SUSPECT CASES RECORDED BY FIRST SYMPTOMS
AUGUST
SEPTEMBER
OCTOBER
NOVEMBER

ANTERIOR POLIOMYELITIS—1936 Age Incidence

AGES	CASES	PER CENT	AGES	SUSPECTS	PER CENT
4 yrs. and under	15	22.4	4 yrs. and under	18	16.6
5 to 9 yrs.	35	52.2	5 to 9 yrs.	35	32.4
10 to 14 yrs.	11	16.4	10 to 14 yrs.	32	29.6
15 to 19 yrs.	2	3.	15 to 19 yrs.	12	11.
20 to 24 yrs.	2	3.	20 to 24 yrs.	4	3.7
25 yrs. and over	2	3.	25 yrs. and over	7	6.4
Total	67		Total	108	

SEX INCIDENCE

CASES			SUSPECTS		
Months	Male	Female	Months	Male	Female
August	2	3	August	7	1
September	24	16	September	32	35
October	13	5	October	16	16
November	3	1	November	....	1
Total	42	25	Total	55	53

INCIDENCE BY WARDS

	CASES					SUSPECTS				
Wards	Aug.	Sept.	Oct.	Nov.	Total	Aug.	Sept.	Oct.	Nov.	Total
Ward One	2	7	6	1	16	4	20	5	....	29
Ward Two	1	18	11	3	33	2	31	21	....	54
Ward Three	2	15	1	....	18	1	15	8	1	25
Total	5	40	18	4	67	7	66	34	1	108

ANTERIOR POLIOMYELITIS SUSPECTS—1936

Length of Time in Hospital

Days	Month of August	Month of Sept.	Month of Oct.	Month of Nov.	Totals
1	1	2	1	....	4
2	....	5	1	....	6
3	....	5	3	....	8
4	....	6	4	....	10
5	....	5	2	....	7
6	....	5	6	....	11
7	....	12	7	2	21
8	....	5	2	....	7
9	2	2	3	....	7
10	....	3	2	....	5
11	1	....	3	....	4
12	....	3	1	....	4
13	....	....	....	....	....
14	1	1	3	....	5
15	....	....	....	....	....
16	....	....	....	....	....
17	....	2	....	....	2
18	....	....	1	....	1
19	....	....	....	....	....
20	....	1	1	....	2
21	....	3	....	....	3
22	....	....	....	....	....
23	....	....	....	....	....
24	....	1	....	....	1
Total	5	61	40	2	108

Report of Chief Inspector, Division of Sanitation and Housing

A. J. Douglas, Esq., M.D..,
Medical Health Officer.

Dear Sir:

I have the honor to submit for your consideration, the following report on the work accomplished by this Division of the Health Department, during the year 1936, as set forth in my own report; also those of the Housing Inspector and the Smoke Inspector.

Abatement of Nuisances—The total number of inspections and re-inspections made during the year was 30,852.

The total number of complaints received during the year was 2,329. Of these, 440 were unfounded, or the conditions complained of removed prior to inspection.

Notices served for abatement of nuisances were: Written, informal, 1,495; written, statutory, 756; verbal notices and warnings, 10,292.

The number of inspections of various premises, also the number of nuisances discovered and abated, follows:

Complaints received at office	1,735
Complaints made to Inspectors	594
Total	2,329
Of above:	
Complaints re non-removal of garbage, etc.	185
Complaints re nuisances	2,144
Total	2,329
Complaints well founded	1,889
Complaints unfounded or conditions rectified prior to inspection	440
Total	2,329
Written notices (informal)	1,495
Written notices (statutory)	756
Verbal notices or warnings	10,292
Total	12,543

Inspections Made

Dwelling houses	1,687
Tenements and apartment blocks	1,905
Hotels and lodging houses	350
Schools and public buildings	39
Abattoirs	8

Workshops and factories	497
Offices	78
Stores	425
Stables, Feed and Sale	229
Stables (private)	595
Laundries (hand)	552
Laundries (steam)	12
Dog kennels	197
Theatres and places of amusement	112
Public bath houses	88
Public bath houses, water samples	189
Comfort stations, Public	303
Garages and filling stations	444
Markets, etc.	301
Bedding and upholstering factories	25
Lack of heat in dwellings	85
Wiping rags	17
Refrigerators (chemical)	3
Basements requiring permit of Health Officer	32
Common drinking cups and towels	62
Barber shops	126
Second-hand stores and junk yards	514
Poolrooms	386
Yards, sheds, areas, etc.	5,554
Vacant lots (nuisances)	818
Streets and lanes (nuisances)	5,414
Contractors' closets	220
Pit closets	372
Infectious diseases (houses placarded)	66
Undertakers' parlors	10
Tanneries and hide storage warehouses	63
Hydrocyanic Acid gas fumigations	146
Total number of inspections	21.924
Re-inspections	8,928
Total number of inspections and re-inspections	30,852

Defects and Nuisances Discovered and Abated

Drains, choked or defective	121
Sinks and washbasins, choked or defective	150
Waterclosets and fittings, choked or defective	249
Baths and fittings, choked or defective	24
Urinals and fittings choked or defective	37
Soil-pipes, clean-outs, etc., choked or defective	119
Catch-basins and traps, choked or defective	127
Watercloset compartments, defective light and ventilation	19
Plumbing and water pipes, frozen	144
Vent stacks, frozen	47
Sewer connections, frozen	10
Water services, defective or cut off	136
Plumbing fixtures, insufficient	27
New plumbing, notices to instal	5
Total plumbing defects	1,215

Dirty yards, courts, sheds, etc.	4,198
Poultry kept in or too close to dwelling	55
Pigeons kept in dwelling or not confined to coop	16
Animals kept in dwelling	24
Poultry kept under insanitary conditions	103
Cows or other cattle kept under insanitary conditions	52
Cows or other cattle kept too close to dwelling	7
Hogs, unlawfully keeping	.....
Horses, insanitary stables	95
Garbage receptacles	1,903
Refuse receptacles	303
Manure bins, defective	213
Ash receptacles	86
Paper receptacles	124
Cellars and basements, defective	214
Dwellings, dilapidated and insanitary	186
Tenements, dilapidated and insanitary	187
Offices and workshops, dilapidated and insanitary	63
Dilapidated and insanitary other buildings	39
Fly screens, lack of or defective	56
Overcrowding (day inspections)	187
Overcrowding (night inspections)	10
Rat-infested buildings	38
Cockroach-infested buildings	52
Bedbug-infested buildings	215
Chimneys or smoke pipes, defective	75
Roofs, defective	100
Eavestroughs and rain leaders, defective	111
Gas-fittings and piping, defective	17
Furnaces and heating apparatus, defective	74
Refrigerators, defective	3
Lighting, defective	30
Ventilation, defective	41
Pit closets, concrete or brick, defective	31
Contractors' closets, defective	36
Chemical or patent closets, defective	.....
Stagnant water on vacant lots	6
Other nuisances on vacant lots	698
Nuisances on lanes and streets	4,022
Unnecessary noises	52
Total defects discovered (including plumbing defects)	14,937

Smoke Nuisances

Chimneys and smoke stacks (observations)	201
Furnaces, boilers, fuels, etc., inspections of	155
Total	356
Notices, statutory	1
Notices, verbal	127
Total	128

Miscellaneous

Premises placarded insanitary	28
Water samples taken	1,489
Infractions of Zoning By-law	17
Re: cross-connections, domestic water supplies	2
Cellars illegally occupied	4
Private hospitals and nursing homes	6

Frozen Water Pipes and Plumbing—We dealt with 191 cases of frozen water services and plumbing, including 47 instances where the soil pipe terminals were frozen over. In addition, we found 10 premises where the sewer was frozen in the street. These occurrences were, in the main, due to a lengthy period of severe sub-zero weather during the month of January.

Other Plumbing Defects—The number of general plumbing defects has been decreasing during the past few years, but this year we have to report an increase. The total for this year is 963 as against 859 last year.

There are 270 houses and other premises without sewer and water connections, being a reduction of 5 as compared with last year. Only four buildings are on streets where these services are available and all four are dwellings occupied by owners who are not in a position to provide proper sanitary fixtures. However, for a city having over 36,000 dwellings, this is a very small number.

Defective Roofs, Eavestroughs and Rain Water Leaders—We do not have so much trouble with matters coming under this head as in former years. Most of the defects found are, of course, in old rented property. In the case of defects in eavestroughs and rain leaders, our attention is frequently directed to these conditions through dampness in cellars and foundations. We dealt with 100 defective and leaking roofs and 111 faulty eavestroughs and rain leaders.

Garbage, Manure and Other Receptacles—A great deal of time is spent, especially during spring and summer, in checking up on storage facilities for garbage and other refuse. Complaints received totalled 185, which, after all is not a large number and reflects credit on the Scavenging Division. We find, on investigation, that the cause of most complaints is due to careless or improper methods of storage on the part of householders.

For a number of years, we have conducted a campaign for the replacement of garbage cans. This year we obtained 1,439 in this way. Our efforts were greatly assisted by the action of the Committee on Health in printing a circular letter with a copy of the regulations and sending same with the water bills. .

We are still having considerable trouble in the matter of storage of ashes. Many householders, having sodded yards, object to storing their ashes in the yard for the want of an ashbin, either throw the material on the lane or on a nearby vacant lot. And not only ashes, but other refuse is often disposed of in like manner.

Early each summer a check-up is made of all stables and notices are served requiring the removal of manure and repair or reconstruction of manure bins, prior to the fly season.

Notices served during the year were as follows: :

To provide garbage cans and covers	1,903
To provide receptacles for incombustible refuse	303
To provide or repair manure bins	213
To provide receptacles for ashes	86
To provide receptacles for paper	124
	2,629

Scavenging—The removal of garbage and other refuse is being systematically and well done, as is evidenced by the small number of complaints received.

Contractors' Closets—There were only 88 permits issued during the year; 220 inspections were made and 36 notices were served in connection with these conveniences.

Feed and Sale Stables—Permits issued 13; and inspections 229.. On the whole, these premises are well constructed and properly maintained.

Private Stables—A total of 595 inspections were made.. One stable was closed as insanitary during the year.

Keeping of Animals—Cows, horses, sheep, goats and other animals kept in dilapidated or unsuitable sheds is occasionally brought to our notice, as indicated:

Cows and other cattle kept in insanitary sheds, etc.	52
Cows and other cattle kept too close to dwellings	7
Horses kept in insanitary sheds, etc.	95
Animals kept in dwellings	24
	178

Poultry—The keeping of poultry and pigeons is very often attended with nuisance and we are frequently called upon to regulate the manner or number kept. Sometimes the owners are required to discontinue. The following figures illustrate this:

Poultry kept in or too close to dwellings	55
Poultry kept in insanitary sheds, pens, etc.	103
Pigeons kept in dwellings or not properly confined	16
	174

Licensed Dog Kennels—Inspections numbered 197 and permits issued 25. These premises are being maintained in satisfactory condition as is evidenced not only by inspections but by the small number of complaints received.

Nuisances in Yards, Sheds, Lanes, Vacant Lots, etc.—The depositing of refuse by householders on lanes, in ditches, on vacant lots, and even on streets and boulevards is difficult to control. Occupiers of rooms in our tenement areas frequently throw waste matter from their windows, or carry it out and deposit it in passing on front lawns and elsewhere. But the indiscriminate dumping of refuse is not confined to these districts, for even in our best residential districts, we find citizens who get rid of waste matter and discarded material, by throwing same over

their fence on the lane. The amount of work entailed is shown in part by the following figures: :

Dirty yards, courts, sheds, etc.	4,198
Stagnant water on vacant lots	6
Other nuisances on vacant lots	698
Nuisances on streets and lanes	4,022
	8,924

Compulsory Sewer Notices—None have been served during the past three years.

Overcrowding—A total of 197 inspections were made. While a great many premises are overcrowded in respect of the number of families, we do not find much overcrowding of rooms.

Housing—Following the practice of the past eighteen years, we made a survey during the year of all premises occupied as dwellings and in December a record was made of those vacant. Some of the outstanding figures and features are recorded here:

Dwelling Houses

The total number of vacant houses is 389. Last year the total vacant dwellings was 670. There are, therefore, 281 less vacant houses than a year ago—a reduction of 41.9%.

We find there are 36,171 houses, including dwellings in connection with stores. The vacancies, therefore, represent only 1.0% of the whole.

Suites

The total number of vacant suites in apartment blocks is 305 as against 518 last year. This is a decrease in vacant suites of 213—41% less vacancies than a year ago. .

There are 648 apartment blocks, containing a total of 10,537 suites. The vacant suites, therefore, represent only 2.8% of the whole. Last year the vacancies were 4.9% and the year previous 6.4%.

Of the vacant suites, 169 were in residential blocks, and 136 in mixed, business and residential blocks. The percentage of vacancies was 2.1% in the former and 5.3% in the latter.

Total Vacancies

Houses	389
Suites	305
	694

There were 1,188 vacancies last year as against 694 this year. The total vacancies (houses and suites) are therefore 494 less than last year.

New Houses

There were only 63 dwelling houses added to our list this year—58 of these being new construction—but 126 were demolished. We added 3 new dwellings in connection with stores, but 18 were removed, due to demolitions and other changes. There are, therefore, 78 dwellings less than a year ago.

During the year, we closed as insanitary, under the Public Health Act, 15 dwellings and 2 apartment blocks.

In last year's report, I pointed out that there were 34 dwellings less than in the previous year. Including the 15 dwellings above referred to, we have at the present time, 93 fewer dwellings available than at this time last year.

New Blocks

No new apartment blocks were constructed this year, but 5 buildings were suitably altered into small apartment buildings, providing a total of 20 suites.

As stated above, 2 apartment blocks were closed as insanitary, and as both of these are very old and dilapidated, they will no doubt be demolished. Due to changes and a demolition, we removed other 2 small blocks from our list.

It will be seen, therefore, that while we added 5 to our list of blocks, we deducted 4, leaving a net gain of one block. The 5 blocks added gave us 20 additional suites but the 4 blocks deducted meant a loss of 32 suites. However, we found this year, as in the past few years, that as small suites are most in demand, a number of the larger suites were altered and converted into smaller units. After deducting the number of suites lost from those gained, we find that there is a total increase during the year of 4 suites.

The following table is inserted to show the number of dwellings and suites provided in relation to the number of marriages, since 1924.

Year	Dwellings	Suites	Total	Marriages
1924	437	15	452	2,257
1925	551	97	648	2,237
1926	575	304	879	2,368
1927	812	357	1,169	2,441
1928	838	577	1,415	2,818
1929	719	754	1,473	2,781
1930	520	256	776	2,660
1931	419	254	673	2,452
1932	178	13	191	2,342
1933	124	31	155	2,246
1934	65	14	79	2,481
1935	60	37	97	2,596
1936	63	20	83	2,717

Referring to the foregoing table, in last year's report I stated as follows: "It will be seen from the above, that during the past five years, only one house or suite has been provided for every ten marriages. If each marriage means an additional domicile, the accommodation provided, especially during the past five or six years, has been hopelessly inadequate." I should like to emphasize the above, as the situation is even more acute this year, there being 2,717 marriages during the year and 78 less dwellings than a year ago (not including 15 dwellings closed as insanitary, several of which may be made habitable) and only 4 additional suites provided. I am well aware, that a number of the marriages are of people from outside Winnipeg, but even if the rate of marriages of people outside the city was one in ten, it would not appreciably affect the situation. What I desire to stress is, that during the past two-year period, there were 5,313 marriages and the small amount of additional accommodation provided has been very considerably offset by the large number of demolitions.

Total Housing Accommodation

The total housing accommodation as at December 31st, was as under:

Dwelling houses	35,110
Dwellings in connection with stores	1,061
Suites in apartment blocks	10,537
	46,708

General Remarks

As in previous years, this survey included all classes of premises occupied as dwellings. The procedure is to make a record during the year of all such premises by streets between blocks. By this means we obtain the number of dwelling houses, dwellings in connection with stores, and suites in apartment blocks. New premises since the previous survey are added and premises demolished are removed from the list. This record is made and checked throughout the year and during December a survey is made to ascertain the number and class of premises found vacant.

As already stated, there are 389 vacant dwellings. When we come to a consideration of the condition of repair of these, we find that 142 are classed as requiring extensive repairs or are so dilapidated as to be beyond being made habitable.

The houses mostly in demand are of 5 rooms or less and we find that in this group there are only 28 houses that are habitable without repair and 24 fit for occupation with slight repairs required. But the majority of these are situated on the outskirts of the city and without water and sewer connections.

Taking the gross total of 389 vacant dwellings, the records show that only 110 are of five rooms or less. If we deduct 24 that are dilapidated, there are only 86 in this group, and as already stated, the majority of these are in outlying parts of the city where water and sewer connections are not available.

As in former years, we find not only that a great many of the vacant dwellings are too large for the average family, but that they remain unoccupied for other reasons, such as distance from the centre of the city, hard to heat in winter, etc.

I have pointed out continuously, especially during the past few years, the shortage of housing accommodation for the low-wage earner and the urgent need for new construction. We cannot effectively deal with the overcrowded conditions under which many families are obliged to live, groups of families in dwellings originally constructed and equipped for one family only, until relief is provided in the erection of suitable places for these people to live.

In the concluding report of the Special Committee on Housing appointed by the House of Commons in 1935, the following is the first recommendation made: "That a Housing Authority be established with powers to initiate, direct, approve and control projects and policies, and to allocate such moneys, as in the opinion of Parliament, may be necessary for the purpose of assisting a program of urban and rural housing." The Department of Finance decided to loan money at a low rate of interest. The scheme basically seeks to make the building of new homes an attractive proposition but as it can appeal only to those

who are in a position to put up some capital for the construction of homes of their own, it has not been taken advantage of to any appreciable extent. In any case, it does not begin to meet the situation confronting us in this city.

The housing problem cannot be ignored and should not be permitted to drift; it is a matter that should receive constant consideration and support. Some publicity and careful thought has been given but mostly this has been spasmodic. The responsibility of providing low-cost housing probably does not lie with the city but with the Dominion Government. It seems to me, however, that the initiative should come from the Municipality and that concerted and constant pressure should be brought to bear on the Federal authorities. Nor can the problem be undertaken by private enterprise alone and indeed it can only be adequately solved by a state-aided scheme.

Meantime, our congested districts become more crowded and increase in area; and doubtless the burden of cost of social services, hospital treatment, crime, juvenile delinquency, etc. in these districts increases. The excellent brochure prepared last year by Alderman Margaret McWilliams dealing with the above and related subjects presents convincing proof of the costliness of the present situation in lives, health, morals and money and the need of proper housing accommodation to overcome these conditions.

Zoning—Only 5 infractions of the Zoning By-law were dealt with during the year, none of which were of an important nature.

Gas Stoves and Fittings—We dealt with only 17 instances of defects, etc. coming under this head. The use of gas stoves and plates is very largely associated with our housing problem, since many families live in rooms containing these fixtures. As pointed out in previous reports, we have no By-law governing the matter. At the time of writing this, however, the matter is before the Committee on Health and it is hoped that legislation will be enacted.

Chemical and Mechanical Refrigerators — Our records show that there are 1,034 single unit refrigerators in 95 apartment blocks, and 4,501 units of the multiple type in 202 apartment buildings. Following our annual survey, and as in former years, we sent a list of the blocks with the name of the system in use, to the City Electrician, the City Hydro, and the Bureau of Labor. No defects were brought to our notice during the year.

Cross Connections in Water Supplies—Only two cases of possible cross connections came to our attention and in both instances suitable changes were made.

Factories, Workshops and Office Buildings—A total of 575 inspections were made under this head. Most of these related to insufficient or defective plumbing, lack of proper means of ventilation, and the use of common drinking cups and towels.

Rats—Inspections of premises reported to be rat-infested numbered 38 and notices were served requiring that same be made rat-proof. The bounty of five cents per tail is still being continued and during the year the sum of $443.25 was paid.

Public Baths and Comfort Stations—A total of 88 inspections were made of the public baths and swimming pools at Sherbrook Street, Prit-

chard Avenue, Y.M.C.A., Y.W.C.A., also those at All Peoples' Mission, Stella Avenue Mission, and the Winter Club. In addition, 189 samples of water were obtained for bacteriological examination. Inspections of public comfort stations numbered 303.

Undertakers' Establishments—Ten inspections were made of these premises and they were found sanitary and satisfactory. Permits issued, 8.

Common Drinking Cups and Towels—There were 62 instances where we found common drinking cups or roller towels in use and in each case conditions were remedied following our verbal or written instructions.

Chimneys and Furnaces—A total of 75 defective chimneys or smoke pipes were dealt with during the year and 74 defective furnaces or heating apparatus. Our attention is directed to these, mostly on account of smoke or gases finding access to rooms, lack of heat, etc. In a few cases we found it advisable to inform the Building Department or Fire Department.

Billiard and Pool Rooms—We made 386 inspections. In addition to regular inspections made throughout the year, a special inspection is made of all such premises each Spring, when such alterations, renovations, etc., as may be necessary, are ordered. A total of 48 permits were issued.

Second-hand Premises and Junk Yards—Inspections numbered 514 and permits issued 146. A reasonable standard of sanitary condition, order and cleanliness is required in these premises, and in a few cases this can only be maintained by frequent inspections.

Wiping Rags—Only 17 inspections were necessary. The regulations governing this business are apparently being adhered to.

Bedding and Upholstering Factories — There were 25 inspections made. We experience very little trouble as compared with some years ago, since this class of business is now regulated by law. These premises are also under the supervision of the Bureau of Labor. Complaints relating to a nuisance caused by dust discharged from one of these factories were investigated and at our suggestion, suitable changes were made for abatement of the nuisance.

Barber Shops—We made 126 inspections of these premises, most of which related to lack of proper plumbing fixtures, water supply, etc., and unsuitable premises used for the business.

Vermin—A total of 302 inspections were made, most of these being of premises infested with bed-bugs. It is in premises occupied as multiple dwellings that we experience greatest difficulty. If one of the families brings infested bedding or furniture into the premises, in a short time, complaint is received from other families. In such cases, it is difficult to arrange for proper fumigation by hydrocyanic acid even when the owners are willing to go to this expense, as it means the occupants vacating the premises for a period of at least one day. The owners of an apartment block had the whole building vacated and effectively fumigated; the entire premises were renovated and thoroughly cleaned. In several cases, owners have not only had fumigation done but have paid hotel bills for the occupants during the time the premises and their contents were under treatment.

Theatres and Places of Amusement — There were 112 inspections made, mostly relating to cleanliness of the premises.

Schools and Public Buildings—Only 39 inspections were made. Sanitary surveys were made of several private schools and suggestions carried into effect in the improvement of plumbing fixtures, etc.

Laundries—Inspections of these premises totalled 564.. Only 12 of the inspections were of large, steam plants, the remainder being of hand laundries. Last year, we closed as insanitary two of these latter premises and this year another was closed on account of general dilapidation. We issued 83 permits.

Hotels—We made 150 inspections and issued 58 permits. As usual, special inspections were made in the Spring and changes, alterations, repairs and renovations were ordered where necessary.

Lodging Houses—Inspections made 200 and permits issued 28. From the number of inspections made, it will be seen that these premises are kept under close supervision.

Markets—There were 301 inspections made. These premises require frequent visits especially during warm weather as there is a tendency to be careless on the part of those in charge in the matter of collection and disposal of refuse.

Noise—We made 52 inspections, mostly on account of radios in use at late hours in apartment buildings. The practice of several firms in placing these machines in doorways, is also a source of complaint by other business people.

Hydrocyanic Acid—A total of 146 premises were fumigated on account of vermin infestation. Most of this work is undertaken during summer and necessitates a great deal of time being spent in supervision especially in evenings and during week-ends.

Cellar Occupation—We are remarkably free of infractions of the law in this respect, but we came across several cases this year where families were living in cellars. In a number of instances we found cellars where one or more men slept.

Smoke—A separate report on this subject is provided by the Smoke Inspector. On the whole we experience very little trouble now as compared with some years ago. Owners of industrial plants are now aware of the financial advantage to be gained by proper stoking and the provision of adequate boiler capacity.

Miscellaneous—The burning of old rubber tires in gasoline filling stations was responsible for a number of complaints and it was only after threatened prosecution that we succeeded in having the nuisance abated.

The shortage of housing accommodation may be responsible for families found in dark rooms behind stores, in old stables and other unsuitable premises.

Considerable time was taken up in making special inspections and issuing specifications of work required in premises proposed to be occupied by offensive trades.

Special inspections were made of 100 houses owned by the City of Winnipeg and a report as to the sanitary condition of each was submitted.

Work Done for Other Departments—A number of sanitary surveys

of institutions and other premises were made and reports prepared for the Provincial Department of Health.

At the request of the Committee in charge of Single Men's Unemployment Relief special inspections were made of a large number of premises where single unemployed men were housed. Where conditions were found unsatisfactory, notices were served on those responsible and the premises kept under observation until compliance with the terms of the notices, or the men moved to suitable quarters.

Sixty-six inspections were made at the request of the Division of Communicable Diseases.

As in previous years, we made a number of inspections for the Social Welfare Commission, of premises occupied by wards of the Commission, and provided reports on the conditions found.

Frequent inspections were made of the old Immigration Hall, Water Street, and other premises where unemployed transient men were housed.

A large number of plans of dwelling premises where structural alterations included changes in light, ventilation, plumbing, etc., were referred to us by the Building Department. A great deal of time is necessary in checking up these drawings and in many cases suggesting suitable changes. We also approved of 70 plans of dwellings converted to duplex and multiple suites.

Insanitary Buildings—The table given below shows the number and class of premises for which notices were served on owners and occupants under Part 3, Division 21, Sections 237 and 238 of the Public Health Act of the Province, under which sections the Health Officer has power to require, that premises be put into sanitary condition or else closed up.

Laundry and dwelling—general insanitary condition	1
Lodging house—general insanitary condition	1
Dwelling houses—general insanitary condition	49
Dwelling houses—unlawful conversion of same to tenements	10
Stores and dwellings—general insanitary condition	1
Stores occupied as dwellings unlawfully	3
Poolrooms—general insanitary condition	1
Basement and cellar dwellings	4
Factories and workshops—lack of plumbing, etc.	12
Garages or Filling Stations—lack of plumbing	2
Stables	1
Apartment blocks—general insanitary condition	2
Attic rooms—lack of adequate ventilation, etc.	6
	93
Notices on owners and agents	80
Notices served on occupants	112

Results:

Notices complied with (premises put into sanitary condition)	61
Premises closed and placarded	22
Cases still pending	10
Remaining closed on December 31st, 1935	87
Premises repaired or demolished during 1936	21
	66

Premises closed during 1936 (2 apartment blocks, 13 dwellings, 4 workshops, 1 Chinese laundry, 1 cellar dwelling, 1 stable)	22
Remaining closed on December 31st, 1936	88

Prosecutions—There were no prosecutions during the year.

Staff—I should like to comment favorably on the service rendered by the members of the staff. In this connection it should be stated that extra time is frequently given in evenings and on Sundays.

Respectfully submitted,

ALEX. OFFICER,

Chief Inspector,

Division of Sanitation and Housing.

Report of the Housing Inspector

A. J. Douglas, Esq., M.D.,
Medical Health Officer.

Dear Sir:

I respectfully submit herewith a report on housing inspections and general information relating to housing conditions.

Dwellings—Each year the number of dwellings is decreasing whilst the population is increasing. Houses being demolished and others closed as insanitary account for the reduction; new dwellings are not being erected in proportion.

Due to the age of many of the buildings, necessary repairs are being neglected, the owners apparently preferring to receive revenue until such time as the premises are declared insanitary or sold for default in taxes. Consequently, the number of dilapidated dwellings is increasing each year and it is very unlikely that the actual number of new dwellings, allowing for conversion of present houses for two or three families, will keep pace with the decline.

Many of the larger houses which cannot be rented as single family dwellings, are being converted for multiple occupation. This year 55 houses were converted for occupation by two families and 12 were arranged for three and four families. We anticipate an increased number of such conversions during the ensuing year. It is also possible that in the event of a more optimistic economic outlook, that many houses going to ruin owing to delayed repair will receive attention.

Complaints regarding nuisances were many and as usual varied in character. Overcrowding, vermin infestation, defective plumbing, dampness, etc., were amongst the majority of complaints received. A readjustment of room occupation has very often been sufficient to relieve overcrowding conditions. The cubic space in bedrooms is definitely defined in the Regulations of the Public Health Act of the Province, viz:—400 cubic feet for an adult and 200 cubic feet for a child under twelve years of age, also a floor space per person of 40 square feet. Eventually, in my opinion, it will be considered advisable to define overcrowding as not referring to cubic capacity and floor space only, but to include bedrooms occupied by both sexes over ten years of age.

Apartment Blocks—Very few complaints were received regarding insanitary conditions. They generally referred to the unsatisfactory storage of refuse. In the older type of building, however, complaints also referred to defective plumbing, dirty condition of halls, etc. These structures were erected many years ago when construction regulations were less stringent. Consequently, there has been considerable settlement of the foundations resulting in general unalignment of the buildings. The result is floors out of level, doors and windows badly fitting, cracked plaster, plumbing defects and general dilapidation. Rooms are rented at low rates and very little interest is taken in the cleanliness of halls, stairways, and lavatory compartments which are used in common. Two of such buildings were closed as insanitary during the year and one is undergoing extensive repairs.

There were several complaints regarding vermin which included bed-bugs and roaches. In one instance the entire building was vacated in order to fumigate with Hydro-cyanide gas which is apparently the only suitable method of extermination. The use of this gas is prohibited, except where the premises are vacated. Consequently, it is seldom that apartment blocks, terraces, or semi-detached dwellings receive the required attention to thoroughly eradicate the infestation. Only licensed fumigators are allowed to use this fumigant. Although the expense involved is considerable, it is eventually worth while.

Tenements—The illegal conversion of dwellings to tenements is still on the increase, and embraces a good portion of the larger dwellings in the centre of the City. It is needless to elaborate on the statements in previous reports except to emphasize the fact that eventually this method of housing will result at least in increasing hospitalization costs, etc. There are many of the larger dwellings which could be converted for multiple occupation at a reasonable cost..

Lodging Houses—There were only 28 permits issued for lodging house license in comparison to 37 in 1935.

Very few complaints were received owing to the frequent inspections by the District Inspectors. Defective plumbing and presence of vermin were the usual cause of complaint. Overcrowding is easily checked as cards are posted in each room stating the number of occupants allowed.

General—There is no doubt that public sentiment will eventually compel the Federal Government to institute a satisfactory housing scheme for the lower paid wage earner, and in addition possibly, to enact legislation providing for minimum wages. Small dwellings are not available and even those which are occupied (except in isolated instances) are rented at a price many low wage earners cannot afford. It is apparent, that dwellings in detached form cannot be constructed substantially to rent at twelve to fifteen dollars per month. Private interests realize this and naturally refrain from adding to the already encumbered status of property now held.. The average person certainly cannot afford an additional burden of expense for wholesale construction of low rental dwellings, unless any loss entailed is guaranteed by a governing body. The present housing conditions have created an emergency of national scope; therefore, the responsibility for suitable housing, at least for the low wage earners, would appear to rest with the Federal Government.

Respectfully submitted,

P. PICKERING,

Housing and Supervising Inspector.

Report of the Smoke Inspector

A. J. Douglas, Esq., M.D.,
Medical Health Officer.

Dear Sir:

Herewith is respectfully submitted a report on Smoke Nuisances and their abatement during the year 1936.

Smoke Inspections

1936	January	February	March	April	May	June	July	August	September	October	November	December	Totals
Observations::													
Chimney and Smoke Stacks	25	3	19	20	9	8	16	8	25	30	22	16	201
Inspections of Furnaces, Boilers, Fuel, etc.	16	40	12	15	4	5	10	7	10	12	14	10	155
Totals	41	43	31	35	13	13	26	15	35	42	36	26	356
Notices:													
Statutory									1				1
Verbal	16	1	12	15	4	5	6	8	15	18	12	15	127
Totals	16	1	12	15	4	5	6	8	16	18	12	15	128

The policy of education, rather than prosecution, which has been in vogue during the past few years has been continued, and judging by the small number of complaints received by the department, the general public are apparently satisfied with conditions generally.

There is still room for improvement, however, especially in some of the apartment blocks. The firing here is frequently irregular, and it is difficult sometimes to drop in at the opportune moment. However, a casual call upon the engineer keeps him alert, and often engenders a friendly co-operation. Sometimes a suspicion has to be overcome, but very seldom is there open hostility. His point of view is often interesting, as the man who fires the boiler, he knows its peculiarities.

The early part of the season witnessed a dispute between the Heating Company serving one part of the City, and its patrons, regarding rates, etc.

It was gratifying, that the better judgment of both the Company and patrons prevailed and the dispute was settled amicably.

The department has watched with interest the progress of these District Heating Systems. They are undoubtedly a boon to any community, as the atmospheric conditions are greatly improved due to the elimination of smoke, ash, and sulphur.

Any return to the individual hand firing, as threatened at the time, would have been deplored as a retrograde step.

It is therefore gratifying to know that the companies still carry the good will of their patrons even through these years of depression.

Low chimneys in close proximity to other buildings of greater height are frequently a source of complaint. A sheet metal extension of the chimney is often a useful and inexpensive way out of the difficulty for the owner of the low dwelling.

This year has seen the necessity for renewing several of these metal extensions. Their life is very short as a rule depending, of course, upon the gage of sheet metal used in construction and the nature of the flue gases to which they are exposed.. Usually no strenuous objection is raised to this renewal, the owners having appreciated the difference in draught, and efficiency of the boiler, by such extension.

It is very satisfactory to note the increase in stoker equipment and special furnace installations with a view to economy and smoke abatement.

The stoker industry record the most successful year since the industry was started.

This success was largely due to the manufacturers entering the domestic field with small household units.

For the boiler now fired by hand, especially the smaller size used in dwellings, there was need of an automatic feed, comparable to the stoker.

It has now been demonstrated, that such control is feasible and its adoption will go a long way towards elimination of the smoke nuisance now experienced in residential sections of the City.

At one time the householder paid little attention to economy in the matter of fuel, or at least not till near the end of the season, as when purchasing the last ton during a late spring. It was usually assumed that this being a cold country one had to burn the coal to get the heat. They are now learning that while they did burn the coal they did not get all the heat.

There is now a demand for fuel savers, automatic in control but economic in fuel. This is a healthy attitude.

Many of the fuel companies are taking advantage of this awakening. They are getting behind and encouraging the development of these small stokers, as well as other engineering improvements, believing that coal properly burned and mechanically handled would make less smoke and build more friends for the industry, than coal burned by the old hand fired method. The situation is fraught with possibilities. The renting out of these machines and the service which goes with them is one of the hopeful signs of the not too distant future. Somewhere along these lines our smokeless city lies.

While speaking of service a discordant note might be struck here. There is apparently a lack of replacement parts for some of the older type of stoker, especially those that have been superceded by more modern design. When a break occurs it often means a long wait during which time the stoker is out of use and the boiler fired by hand.

An adequate supply of replacement parts might well be a deciding factor in the choice of the stoker installed.

Smoke from the locomotives and roundhouses in certain parts of the city still continue to annoy the residents in the vicinity, but as the city has no legislation for controlling smoke from locomotives and roundhouses, there is not much that can be done about it.

Several inspections were made at the railway yards during the early part of the fall, where it was found that they were remarkably free from smoke; the switch engines were apparently being well handled. At the roundhouse, however, there was always more or less smoke.

During one inspection a locomotive was being used to keep steam in the outside steam lines in the vicinity of the roundhouse and was being fired to capacity regardless of the smoke emission. It transpired that the power house which usually takes care of all the steam lines was undergoing extensive alterations and part of the load was being taken care of by this locomotive. This has since been rectified.

It might be mentioned that among the improvements carried out at the power house was the installation of the Detroit Roti Stoker to replace the Murphy type of stoker previously in use. This equipment is the latest in stoker manufacture of the sprinkler type, and results are being watched by the local engineers.

It would be a welcome innovation if this modernizing movement were to extend to the roundhouse and a direct or fireless steaming system for locomotives were installed..

In this system, which by the way is claiming the attention of progressive terminal authorities to the South, a mixture of live steam and hot water is injected into the boiler until a sufficient working pressure has been built up in the boiler to enable the locomotive to move out on its own steam soon after firing up.

This not only eliminates smoke, but is a saving in fuel, as well as in time required to put the locomotive into commission. Its practical character has been fully established in recent tests and several installations are now under way..

At the present time locomotives are fired up and held until required, periodically sending up volumes of black and grey smoke.

In addition to the above, special inspections were made of hotels, undertakers' parlours, public baths, comfort stations, swimming pools, and other premises.

Respectfully submitted,

A. AITKEN,

Smoke and Supervising Inspector.

Report of the Chief Dairy Inspector

A. J. Douglas, Esq., M.D.,
Medical Health Officer.

Dear Sir:

I have the honor to present herewith the annual Report covering the activities and observations of the Dairy Division for the year 1936.

The outstanding feature during the year was the record breaking extreme heat experienced during the month of July which would lead one to expect that all grain and forage crops would be a total loss. Such, however, did not prove to be the case, as in many instances the damage was much lighter than expectations, and even prairie hay and pasture showed a wonderful tenacity of life, especially so, where such crops were apparently enabled to draw upon a supply of subsoil moisture. During the same period we also expected to have many complaints of sour or poor keeping milk, but no abnormal number were forthcoming. Our milk grading and testing programme was carried on schedule right through those hot days, and we were extremely gratified to note that in very few instances was the milk examined unduly affected. All purchased samples were fresh and sweet, and bacteria content on a normal summer basis. The credit for this condition must be shared by all parties concerned in handling the product from producer to consumer; and confirms our opinion that we are served by a body of firms and individuals who are not only ready and willing to apply extraordinary measures in order to supply in a wholesome manner that which is usually considered a highly perishable product, but are also well equipped with ways and means, and the knowledge of when and how to apply same, not only for the benefit of themselves and their business, but for the benefit of the consuming public.

The rising market and increased demand for wheat, and shrinkage of the 1936 crop prospects were early followed by a rise in the price of mill feed and coarse grains, and milk producers were finding it necessary to supply feed to offset the effect of dried out pastures, so that it was not surprising that an application for an increase in the producers' price was received earlier in the season than usual. The application was dealt with by the Utility Board in September and in view of the fact that returns for butter fat and many farm products were still very low, the Board placed the producers on the pre-arranged winter schedule, and postponed action on the request for an increase until December, at which time the producer was awarded an increase of 15c per cwt., prices to the consumer remaining the same with the exception of relief milk discount which was reduced from ten to five per cent.

A price control Board has a very difficult duty to perform. The producer wants sufficient to make life and living easier; the distributor wants a profitable spread, and the consumer wants cheap milk. It is impossible for all three represented bodies to have their wishes realized, especially so when a number of side interests such as stores, institutions, and municipal bodies are also asking for consideration, so that eventually many are apt to give voice to the thought that the consumer carries the load.

We do not intend here to make any comment or express our opinions on decisions and policies of the price setting body, because our

primary interest is in the matter of safety, quality, cleanliness and wholesomeness of milk as a food, and the matter of price is only secondary to us; therefore so long as the price fixers confine their activities along those lines in a fair and just manner we will refrain from any adverse criticism provided, however, that the Board refrains from any interference, directly or indirectly, with those factors pertaining to quality and safety which constitute the responsibility of the municipal authority to its citizens.

Feed prices continuing to rise during the winter, together with other possible causes for complaint, have given rise to an agitation in the ranks of the producer with a view to having the price fixing jurisdiction transferred from the hands of the Municipal and Public Utility Board to a special constituted Milk Board, and we understand that an application will be made in the Legislature along these lines. The producers naturally have an idea that a Milk Board will have at least one member representative of their organization and therefore they may expect a more sympathetic hearing, and more reasonable understanding of their various problems. We believe that the public are always willing to pay a fair and reasonable price for their daily milk supply and have never shown any desire to push the producer and his family into a standard of living under which it may not be possible to profitably produce milk with such precautions as ensure quality and freedom from contamination so as to give the consumer full confidence in a product abundantly supplied to his own table and constituting the chief basic food for his children. A quart of milk delivered at 10c or carried from stores at 9c is still one of the cheapest and most nutrient foods available.

Inspection

We have mentioned in previous reports the gradual shift from Dairy Inspection to Milk Inspection, the reasons being chiefly economic; but would say here that the system of checking and grading all milk as to the consumer has many advantages, and has promoted a healthy competitive spirit amongst both producers and distributors.

There are indications that installations of the single unit farm pasteurizer will increase in the future, and our policy is to restrict such installations to first class dairies licensed as suitable to sell raw milk, so that pasteurization of the product is just an additional feature or safeguard voluntarily applied. Only milk produced on the premises is processed, but the fact that the farm is located outside the city makes it essential that some supervision be provided.

Delivery vehicles are fairly constant in number with more wheels and less sleighs prevailing in winter. The increase of motor trucks among the producer-distributors has been rapid, fully one half of whose retail deliveries are performed in this manner. The milk companies employ horse drawn vehicles for almost all retail delivery, and trucks for wholesale.

Licenses

Approximately the same number of licenses are issued annually, the volume of business and the number of delivery routes being fairly constant for the past few years. A slight reduction in total revenue (license fees) is noticeable and we expect this reduction to be progressive for the following reasons.

a. Increase of city plant pasteurized milk sales, thus transferring more wagon fees from the $10.00 to $2.00 rate.

b. Increased production of the average milch cow. Producer-distributor deriving his quota from a smaller number.

We do not believe that the city suffers from decreased gross receipts as a rebated license is offset by the assessed business tax.

Milk Consumption

Winnipeg citizens consume daily approximately 18,000 gallons of milk, 78% pasteurized and 22% raw—tuberculin tested. The average daily per capita consumption is 0.64 pints and the annual per capita consumption is 44 imperial gallons. While the increase in pasteurized milk is small, it is gratifying to note a substantial increase in consumption of high grade milk, and a corresponding decrease in low grade.

The number of private cows kept in the City is steadily decreasing from approximately 200—15 years ago, to 170—10 years ago, to 140—5 years ago, today 100 head. Unfortunately we have not had a similar decrease in the number of private stables, there still being upwards of 200, so that with changed conditions we may have additional animals. In the meantime, however, a large number of former owners are gradually becoming weaned and with an improved supply at reasonable cost, it is just possible that the desire or inclination may be automatically controlled. The private cow in a modern city is indirectly a nuisance to owners and neighbors, she is not profitable, the cost of feed alone would purchase more than sufficient milk for the average family, and the total cost and overhead if properly calculated would supply a very large family, and the surplus milk often makes irregular inroads on the legitimate milk vendors' business.

Graded Milk Supply—Out of 120 brands graded 60 were High Grade representing 89% of the total supply, and 95% of the supply is represented as clean milk with Sediment Test 1 or 1—. High Grade brands increased in 10 years 1927-1936 from 10 to 60, and Low Grade brands in the past 5 years 1932-1936 decreased from 48 to 8, of which only 3 reach the consumer, and all this on a system which has periodically been revised upwards in order to cope with faulty conditions.

Low Plate Counts are increasing and high Plate Counts decreasing, and the average Plate Count per series or Brand shows an increase from 10% to 20% in the 10,000 to 12,500 class, a number averaging under 10,000 for the year.

Sediment tests indicate that all High Grade A 1 milk is 100% clean, and A 2 milk 95% clean at all times.

The average quality of all consumers' milk on a sample ratio shows Average Sediment Test 1.2, Average Plate Count 17,000, Average Butter Fat 3.65%, Average Total Solids 12.45%. While on a volume ratio the adjusted Average would be as follows: Sediment Test 1.1, Plate Count 15,000, Butter Fat 3.7%, Total Solids 12.5%.

For the entire year's supply, involving a total of 144,000 pints of milk per day, five samples only were found slightly off grade as to taste, flavor or odor, and only one of these was affected to such a degree as to be noticeable by the ordinary consumer. A total of 22 warnings or cautions were issued, involving 12 concerning an abnormal amount of sediment; 3 high plate counts, and evidence of poor keeping quality; and 7 for poor quality—low in butter fat or solids.

For the purpose of making these grading tests, averages are taken on not less than 12 samples of any one brand, no matter how small the

volume; this constitutes a single series, while 24 samples or tests is considered a double series. The samples are taken at irregular intervals throughout the year but are apportioned so that a balanced ratio fits the seasons. At the end of the year each vendor receives a copy of his test report and grade standing; and the majority study the report very carefully and endeavor to do even better during succeeding years. It is because of the high average quality as above mentioned, and the keen interest shown by those engaged in the business, that we have no hesitation in voicing the opinion that our milk supply is satisfactory.

Crude Supplies—By Crude milk we mean raw or unpasteurized milk received from farm points at the City plants for processing, as distinguished from Raw Tuberculin Tested milk as retailed by most producer-distributors. All raw milk supplied by the latter must be from tuberculin tested herds but only a small percentage of the crude milk is from such tested herds, the greater portion being from untested herds; hence one reason for pasteurization. However, the number of tested herds in the province is steadily increasing, and the Manitoba Tuberculosis Free Restricted Area now extends from the Municipality of Rhineland in the South-Eastern to the Municipality of Arthur in the Western parts of the province; and South to the International Boundary with its Northern fringe touching Winnipeg at the South and part of the Western City Limits. The time may not be so far distant when we may be able to draw all our crude supplies from such tuberculin tested sources.

As a result of our examination of composite samples of mixed milk accepted for pasteurization, we find a gradually improving condition. No. 1 or highly satisfactory has increased from 10% in 1932 to over 50% in 1936; that of doubtful quality or suitability has decreased from 50% to 16% in the same period; while the Average Sediment Test was 2.2 in 1931; 1.75 in 1934; and 1.55 in 1936. At only one of the large plants was the Average Sediment Test below 1.5, viz., 1.3, which, however, is a start in the right direction.

The Provincial Health Department, The Milk Producers' Association, and the Plant operators are all co-operating along these lines, with a view to providing us with a clean pure wholesome supply for pasteurization purposes; and the Agricultural College assist by special short courses on care of milk—production and handling.

Previous to this winter the average distributor's spread was approximately 4½c and delivered quart spread 5½c, but recent price changes, together with an adjustment as between purchasing and selling basis of fat content, have narrowed the spread to a minimum and the quart of crude unprocessed milk costs the operator 5c, (1.95 cwt. 3.5). This winter's prices allow a delivered quart spread of 5c, an average distributor's spread of 4c and an average adjusted consumer's spread of 4¼c; and when we remember that out of the 5c delivered quart spread at least 3c is paid out for each delivery, then the amount does not appear so formidable or unreasonable.

Milk prices in the five year pre-depression period 1926-1930 were fairly constant with just a slight inclination to fall off during 1930.

Consumer's prices during the depression 1931-1936 averaged approximately 2c per quart less than in the previous five years; while an additional factor in the shape of local milk wars caused complications. In 1936 prices are showing a slight inclination to rise but whether this feature is due to the feed situation, threatened shortage, Milk Board activities, or an upward turn in the price situation, heralding the return of more prosperous times, is not for us to say.

During the past five years on the whole continent, so many artificial restraints on the one hand, and stimulants on the other have been applied to production and business in turn, as to make difficult the formation of opinions which should be based on concrete facts.

Over a period of many years, retail milk prices obtained in the following group of cities have kept on a very similar level, moving up or down in unison from time to time, viz.—Winnipeg, Edmonton, Butte-Montana, Salt Lake City, Minneapolis, Milwaukee and Indianapolis; and it has been customary in comparing prevailing prices in any one year, to conclude, that so long as Winnipeg prices kept even with or below the others, that our consumers were enjoying a reasonable square deal and not being imposed upon. For the year 1935 the price of the delivered quart in this group of cities was 10c and in the summer of 1936 the group price was still 10c, with Indianapolis 11c excepted. For the winter of 1936-37, the price level in the majority of the same group is 12c, the exceptions being Edmonton 11c, Minneapolis 11c, Winnipeg 10c; and this would appear to indicate that Winnipeg and Manitoba were heavily hit by depression conditions and that recovery will be delayed and less apparent than in older established and industrial communities.

Pasteurization—During the depression years 1931-36 very little change has taken place in the status or set-up of pasteurization in the various cities of Canada. In fact in a number of communities the percentage of pasteurized milk suffered a drop, due to the pressure from producers wishing to market their own product direct to the consumer. In the Western Provinces, Winnipeg was subjected to more than its share of this pressure due to a desire on the part of many producers to move from their own districts, settle in the vicinity of Winnipeg and force an entrance to the local market. We were fairly successful in combatting this tendency, but it undoubtedly had its effect; so that our net gain in pasteurization has been very small but solid. In the 12 year period 1925-1936 we show a rise by steady annual increases from 54 to 78%, and so carefuily has this gain been consolidated that we have no fear of a slip-back such as occurred on two previous occasions.

Future Milk Control—The necessity for some control of milk supply was recognized in the early history of Winnipeg when under the provisions of the City Charter we were authorized to issue licenses and regulations covering all dairy herds and premises, milk plants and equipment located either inside or outside the city, wherever the milk so produced or handled was intended for the city trade, and under such authority we have successfully supervised the building of an adequate and efficient organization capable of supplying clean pure milk in abundance. The crude primitive unhealthy conditions of the early days have been superseded by the more sanitary modern conditions which exist today.

During the constructive period our policy was to rectify the poorest and more dangerous features first, realizing that we must move carefully in order to conserve and build up our supply, and we were oft under pressure from those who wished to push some pet reform without first giving some consideration to the practicability, safety and economy of such measure, or of ascertaining if the time was ripe and opportune; for example,—agitations and suggestions for the tuberculin test were being made long before the dairy stables were of such sanitary construction as would ensure a healthy animal having a chance to keep healthy. Long before the dairies had the knowledge or equipment for the efficient cleansing, sterilization and use of milk bottles, it was suggested that all milk should be sold in bottles, and with pasteurization in its infancy, following methods since proved inefficient, we were urged to enforce pasteurization of all milk. When reforms such as these are

premature and without solid foundation, the results are liable to be of a hit and miss character, hazardous and dangerous and cause delay in obtaining permanent reform.

There were those who advocated "unification of delivery" on the one hand, and warned against "capitalistic monopoly" on the other; but efficient unification could not possibly operate except the product were of uniform standard throughout, and this prepares the way for the beginnings of a trade combine or monopoly.

Fixed Prices—We have now had five years of Milk Price Control under the the auspices of the Public Utility Board, during which period, the natural law of "supply and demand" has appeared to be summarily suspended, and should the new Milk Board Bill be passed with all its wide powers, then we may well assume that in so far as fluid milk is concerned, that this same natural economic law has been permanently repealed.

Arbitrary rulings which may be experimental are liable to prove costly and curtail or retard consumption. Mistakes in policy based on inadequate information, exaggerations, and biassed opinions, or an inability to correctly co-ordinate and valuate such factors, may cause additional costs in many directions, all of which in the final analysis are borne by the consumer. "Costs of production" are liable to be based on the experience of the weaklings, and "spreads" are liable to be adjusted to suit over-capitalization or inefficiency. When first introduced in 1932, Milk Price Control was supposed to be a temporary measure only, designed to deal with a threatened or imagined emergency, but now it assumes an aspect of permanency, and we can only hope that it will function satisfactorily without unduly weighing on the citizen consumer.

I have the honor to be, Sir,

Your obedient servant,

E. C. BROWN,

Chief Dairy Inspector.

Milk and Dairy Inspections, 1936

Inspections inside City:

Private cow-keepers—cattle and stables	262
Cattle dealers' premises—sales stables	96
Milk processing plants—buildings and sanitation	530
Pasteurizers—and milk processing equipment	1,023
Creameries—manufacture of butter	275
Cheese Factories—milk, cream, cottage cheese	204
Ice Cream Plants—vanilla, fruit, and fancy	42
Vehicles—delivery wagons, trucks and sleighs	2,575
Milk Stores—chain stores, grocers, cash and carry	765
Special Inspections re license, complaint or cause	43
Total inside City inspections	5,815

Inspections outside City:

Licensed Dairy Farms—producers, distributors	495
Farm Producers—milk and cream shippers	73
Milk Plants—located in adjacent municipalities	233
Pasteurizers—operated chiefly for City trade	378
Creameries—butter for sale in the City	128
Cheese Factories—product for sale in City	74
Ice Cream Plants—main market in the City	62
Farm Pasteurizers—operated by producer-distributors	27
Investigations—concerning sickness at outside dairies	29
Special Inspections re license, reports or requests	31
Total outside inspections	1,530

Milk Inspection:

Samples tested for quality—fat and solids	1,697
Tests for cleanliness—sediment tests	1,640
Bacteriological examination—plate counts	1,659
Milk and cream condemned and destroyed—lbs.	507
Pints of milk purchased for grading purposes	1,656
Brands and Composite crudes graded in detail	120
Inspections of recording themostat apparatus	1,266
Thermostat charts checked and records entered	9,960
Number of batches of milk pasteurized daily	63
Notices and instructions or advice tendered	772
Cases of sickness reported and investigated	40
Miles travelled outside the City	8,963

Milk Vendors' Licenses, 1936

	1932	1934	1936
Dairy Licenses issued	99	96	93
Plant Licenses issued	9	11	10
Total Licensed Vendors	108	107	103
Retail delivery routes	350	350	352
Wholesale delivery routes	25	30	28
Total delivery routes	375	380	380

Revenue amounted to $2,317.00, as against $2,394.50 for 1935, including $1,289.00 for dairies, and $1,074.00 for plants.

City Revenue, $501.00—	1935	1936
Producer-distributors inside City	$ 88.00	$ 103.00
Plants and Milk Depots inside City	414.00	398.00
	$ 502.00	$ 501.00

Outside Revenue, $1,816.00—		
Producer-distributors in Municipalities	$1,232.50	$1,186.00
Pasteurization Plants in St. Boniface	660.00	630.00
	$1,892.50	$1,816.00

Basis of Revenue—			
First 10 milch cows on each dairy	@ $1.00	$ 936.00	$ 905.00
Additional milch cows on dairies	@ 50c	384.50	384.00
Plant routes (business tax paid)	@ 2.00	404.00	388.00
Plant routes (no Wpg. business tax)	@ 10.00	670.00	640.00
		$2,394.50	$2,317.00

Cattle in Licensed Dairy Herds—		
Milch cows licensed by City of Winnipeg	1,673	
Milch cows for plant shipments and outside sales	422	
Cattle of other descriptions: non-milking	1,325	
		3,420

Production on Licensed Dairies—	1935	1936
For distribution in the City of Winnipeg—gallons	3,450	3,420
For distribution in adjacent municipalities	550	560
For shipment to pasteurization plants	150	380
Daily Average Production	4,150	4,360

Raw Milk Consumption—		
Daily average sales by producer-distributors	3,384	gallons
Bottled on the farm, distributed by plants	306	
Private supply from single cow owners, etc.	270	
Total raw milk, Tuberculin tested, consumed	3,960	22%

	Consumption			Distribution		
	Gallons per day	Past'd %	Per c.c. Pints	Wholesale Routes	Retail Routes	No. Stores Cash & Carry
1928	16,500	60.0	0.65	5	350	.....
1929	16,750	62.6	0.65	10	345	155
1930	17,000	65.0	0.65	15	335	650
1931	17,250	68.0	0.65	20	330	775
1932	17,500	73.5	0.65	25	350	770
1933	17,640	75.0	0.64	25	350	765
1934	17,780	77.0	0.64	30	350	765
1935	17,920	77.5	0.64	32	353	760
1936	18,000	78.0	0.64	25	355	760

Winnipeg's Daily Milk Supply

Pasteurized fluid milk	13,500 gals.	75.0%
Milk in pasteurized products	540	3.0
Total pasteurized consumed	14,040	78.0
Raw milk, tuberculin tested herds	3,384	18.8
Raw milk distributed from plants	288	1.6
Raw milk, certified	18	0.1
Raw milk, private supply	270	1.5
Total raw milk consumed	3,960	22.0

Consumption by Grade

		1934 Brands	1934 Gallons	1934 %	1936 Brands	1936 Gallons	1936 %
High Grade	A 1	19	10,860	61	22	11,500	64
	A 2	31	4,450	25	38	4,460	25
Med. Grade	B 1	35	1,440	8	36	1,500	8
	B 2	15	440	2.5	15	460	2
Low Grade	C 1	15	435	2.5	8	160	0.9
	C 2	9	175	1	1	20	0.1
Total Graded		124	17,800	100.0	120	18,000	100.0

Daily Per Capita Consumption

Fluid milk only	Imperial measure	0.64 pints
Milk and cream basis	Imperial measure	0.88 "
Fluid milk only	American measure	0.80 "
Milk and cream basis	American measure	1.10 "

Basis of Population, 225,000.

Winnipeg's Milk Supply—Grade Standing

		Perfection	1935 Brands	1936 Brands
High Grade	A 1	90 to 100%	23	22
High Grade	A 2	85 to 90	32	38
Medium Grade	B 1	80 to 85	38	36
Medium Grade	B 2	75 to 80	15	15
Low Grade	C 1	70 to 75	11	8
Low Grade	C 2	60 to 70	3	1
Totals Graded and Classified			122	120

Improved Standing of Graded Supply

	1932		1934		1936	
	Brands	Supply	Brands	Supply	Brands	Supply
High Grade	35	74.5%	50	85%	60	89%
Medium Grade	30	12.5	48	10.5	48	10
Low Grade	35	8.4	17	3	3	1
Below Grade	13	4.6	1	0.5	0	0
	113		116		111	

Average Sediment Tests

	No. Brands	% Brands	% Supply
No. 1 Perfect on all tests	38	32	55
No. 1– Occasional traces	52	46	40
No. 1.5 Generally traces	23	16	4
No. 1.7 General light sediment	5	4	0.8
No. 2 General heavy sediment	2	2	0.2
	120	100	100

Individual Sediment Tests

	1934		1935		1936	
No. 1	760	50%	832	52%	1,060	64%
No. 1–	265	17½	352	22	330	20
No. 1.5	334	21	272	17	192	12
No. 2	154	10	128	8	60	3½
No. 3	21	1½	16	1	8	½
	1,534		1,600		1,650	

Increase in High Grade

	1927	1930	1933	1936
Pasteurized	2	4	15	18
T. Tested Raw	8	19	34	42
	10	23	49	60

Plate Counts—Consumers' Milk

	1935		1936	
	No.	%	No.	%
1,000 to 5,000	170	10.5	270	18
6,000 to 10,000	295	18.5	345	23
11,000 to 25,000	625	39.0	495	33
26,000 to 50,000	280	17.5	225	15
51,000 to 100,000	134	8.4	90	6
Over 100,000	96	6.0	75	5

Classification of 120 Series

	Single Series—12 Samples. 1934		Double Series—24 Samples. 1935		1936	
	No.	%	No.	%	No.	%
10,000 to 12,500	12	10	12	10	24	20
15,000 to 17,500	44	35	36	30	30	25
20,000 to 25,000	32	25	37	30	30	25
30,000 to 35,000	18	15	15	12	21	18
40,000 to 50,000	12	10	17	14	10	8
60,000 to 125,000	6	5	5	4	5	4
	124		122		120	

Distribution of Sediment Tests

	No. 1	No. 1-	No. 1.5	No. 2	No. 3	Total	O.K.
Grade A 1	376	24	....	....	..	400	100%
Grade A 2	380	87	20	3	..	490	95%
Grade B 1	220	120	64	16	..	420	80%
Grade B 2	56	40	52	12	..	160	60%
Grade C	8	6	8	12	2	36	40%
Crude	22	56	48	18	6	150	50%
Totals	1,062	333	192	61	8	1,656	84%
Grade %	70%	18%	9%	3%	..	1,506	87%
Crude %	15%	37%	32%	12%	4%	150	50%

Summary of above indicates:

1. That High Grade A 1 milk is clean at all times.
2. That 87.5% of the entire supply is satisfactory.
3. That at least 50% of all crude milk is very satisfactory.
4. That approximately only 3% consumers' milk is poor quality.
5. That approximately 16% producers' milk needs improvement.
6. That these percentages are normal and compare favorably.
7. That the great bulk of our milk supply is of high quality.

1936 Sediment Tests of Crude Supplies

Receiving-Room-run

Plant No.	S.T. No. 1	S.T. No. 1-	S.T. No. 1.5	S.T. No. 2	S.T. No. 3	Total Samples	Ave. S.T.	Ave. Receipts Gals. Daily
1	3	16	4	1	0	24	1.3	4,500
2	1	9	8	4	2	24	1.7	4,000
3	4	8	8	3	1	24	1.5	3,500
4	1	3	8	0	1	13	1.7	800
5	4	4	2	2	1	13	1.6	800
6	2	6	3	1	1	13	1.6	1,600
7	3	4	4	2	0	13	1.5	800
8	3	4	3	3	0	13	1.5	400
9	1	2	8	2	0	13	1.5	600
	22	56	48	18	6	150	1.55	17,000

Five Years' Comparison

	1932	1933	1934	1935	1936
No. 1 or 1– highly satisfactory	10%	16%	20%	33%	52%
No. 1.5 fairly satisfactory	40	44	50	35	32
No. 2 or 3 doubtful quality	50	40	30	32	16
Aggregate Average Sed. Test	2.0	1.75	1.7	1.6	1.55

Cleanliness of Crude Supplies

Five Years' Improvement

Plant No.	Shippers Approx No.	1932 Ave. S.T.	1933 Ave. S.T.	1934 Ave. S.T.	1935 Ave. S.T.	1936 Ave. S.T,
1	240	1.8	1.7	1.5	1.7	1.3
2	200	2.2	1.7	2.0	1.7	1.7
3	160	2.0	1.7	2.0	1.7	1.5
4	60	2.1	2.0	1.7	1.7	1.7
5	60	2.0	2.0	1.7	2.0	1.6
6	120	2.2	1.7	1.5	1.5	1.6
7	60	2.0	2.0	1.7	1.7	1.5
8	20	1.7	2.0	1.7	1.5	1.5
9	30	....	1.5	1.7	1.7	1.5
Sample Averages		2.0	1.8	1.75	1.7	1.55

Figures indicate that Plant No. 1 exercises special care in checking up and selection of crude shipments.

A steady but slow improvement is evidenced by increases in satisfactory, and decreases in unsatisfactory supplies.

Comparisons in High Grade

Sediment Tests — Plate Counts — Perfection
Numbered in Order of Merit

Pasteurized Milk				Raw Milk			
No.	S.T.	P. Count	% Perfect	No.	S.T.	P. Count	% Perfect
1	1	11.000	93.8%	3	1	7.500	92.5%
2	1	12.500	92.8	4	1	7.500	92.5
5	1	9.000	92.2	14	1	11.000	91.1
6	1	9.000	92.2	15	1	8.000	90.9
7	1	13.000	92.0	16	1	6.000	90.5
8	1	13.000	92.0	18	1	10.000	90.2
9	1	20.000	92.0	20	1	12.000	90.0
10	1	14.000	91.9	22	1	20.000	90.0
11	1	12.500	91.5	23	1	11.000	89.7
12	1	12.000	91.3	24	1	11.000	89.3
13	1	10.000	91.2	25	1	20.000	89.0
17	1	12.500	90.5	26	1	25.000	89.0
19	1	10.000	90.1	27	1.1	10.000	89.0
21	1	15.000	90.0	28	1.1	15.000	89.0

Grade Averages—Cross Sections

No.	S.T.	P. Count	B. Fat	T. Solids	% Perfect	Grade
3	1	7.500	4.0	13.00	92.5	A 1
11	1	12.500	3.7	12.30	91.5	A 1
17	1	12.500	3.8	12.70	90.5	A 1
25	1	20.000	3.75	12.75	89.0	A 2
33	1	15.000	3.6	12.30	88.0	A 2
41	1.1	15.000	3.8	12.20	87.0	A 2
48	1.2	12.000	3.6	12.25	86.3	A 2
56	1.1	20.000	3.5	12.15	85.3	A 2
64	1	35.000	3.9	12.40	84.6	B 1
71	1.3	20.000	3.7	12.30	84.0	B 1
78	1.3	20.000	3.5	12.25	83.5	B 1
86	1.1	40.000	3.7	12.30	82.0	B 1
94	1.3	25.000	3.4	12.00	81.0	B 1
100	1.5	30.000	3.75	12.30	79.1	B 2
107	1.5	40.000	3.6	12.00	76.2	B 2
116	1.5	50.000	3.6	11.75	72.2	C 1
120	2	65.000	3.9	12.60	66.0	C 2

Movement of Pasteurization in 35 Canadian Cities

	1930	1936
Montreal, Que.	95%	95%
Toronto, Ont.	100	100
Vancouver, B.C.	93	78
Winnipeg, Man.	65	78
Hamilton, Ont.	100	100
Quebec, Que.	40	54
Ottawa, Ont.	98	99
Calgary, Alta.	96	77
Edmonton, Alta.	60	79
London, Ont.	77	86
Windsor, Ont.	100	100
Verdun, Que.	98	98
Halifax, N.S.	95	80
Regina, Sask.	95	97.2
St. John, N.B.	92	93.7
Saskatoon, Sask.	100	100
Victoria, B.C.	30	30
Trois Rivieres, Que.	61	57
Kitchener, Ont.	95	97
Brantford, Ont.	95	98
Hull, Que.	75	90
Sherbrooke, Que.	25	25
Outremont, Que.	95	95
Fort William, Ont.	98	90
St. Catherines, Ont.	100	100
Westmount, Que.	98	98
Kingston, Ont.	50	60
Oshawa, Ont.	100	100
Sydney, N.S.	15	17
Sault Ste. Marie, Ont.	30	75
Peterborough, Ont.	75	70
Moose Jaw, Sask.	86	89.3
Guelph, Ont.	65	65
Moncton, N.B.	18	20
Niagara Falls, Ont.	100	100

WINNIPEG
33 Years
PASTEURIZATION
1904 - 1936

1904	0%
1905	1
1906	3
1907	6
1908	12
1909	25
1910	33
1911	40
1912	50
1913	66
1914	60
1915	50
1916	50
1917	50
1918	50
1919	55
1920	66
1921	62
1922	60
1923	58
1924	54
1925	54
1926	57
1927	58
1928	60
1929	62.6
1930	65
1931	68
1932	73.5
1933	75
1934	77
1935	77.5
1936	78

Producers' Prices Per Cwt. or B.F. at Plant.

Consumers' Price Per Quart Delivered.

	Summer, 1935		Winter, 1935-36	
Victoria, B.C.	45c lb. B.F.	11c	45c lb. B.F.	11c
Vancouver, B.C.	53c lb. B.F.	10	53c lb. B.F.	10
Portland, Ore.	$1.84	10	$1.84	10
Salt Lake City, Utah	1.86	10	1.86	10
Calgary, Alta.	1.95	10	1.95	10
Edmonton, Alta.	1.85	10	1.85	10
Butte, Mont.	1.92	10	1.92	10
Saskatoon, Sask.	48c lb. B.F.	10	48c lb. B.F.	10
Moose Jaw, Sask.	50c lb. B.F.	10	50c lb. B.F.	10
Regina, Sask.	45c lb. B.F.	10	45c lb. B.F.	10
Grand Forks, N.D.	2.00	10	2.00	10
Sioux Falls, S.D.	1.75	9-10	1.75	9-10
Winnipeg, Man.	1.50	10	1.80	10
Minneapolis, Minn.	1.75	10	1.85	10
Milwaukee, Wis.	2.05	10	2.05	10
Fort William, Ont.	2.05	11	2.05	11
Windsor, Ont.	2.20	12	2.20	12
Detroit, Mich.	2.48	12	2.48	12
Indianapolis, Ind.	1.77	10	1.70	10
London, Ont.	1.70	10	1.70	10
St. Catherines, Ont.	1.85	11	1.85	11
Hamilton, Ont.	2.00	11½	2.00	11½
Brantford, Ont.	1.90	11	1.90	11
Cleveland, Ohio	1.90	10	2.00	10
Guelph, Ont.	1.65	11	1.90	12
Ottawa, Ont.	1.75	10	1.75	10
Toronto, Ont.	2.10	12	2.10	12
Oshawa, Ont.	1.70	11	1.70	11
Montreal, P.Q.	1.47½	8-10	1.77½	10-11
Verdun, P.Q.	1.40	9	1.40	10
Trois Rivieres, P.Q.	1.35	8	1.90	10
Quebec, P.Q.	1.40	9	1.72	10
Moncton, N.B.	1.80	10	1.80	10
St. John, N.B.	2.00	12	2.00	12

1936 Milk Prices—Per Cwt. F.O.B. City Plant.

Consumers' Price Per Quart Delivered.

	Summer, 1936		Winter, 1936-37	
Victoria, B.C.	45c lb. B.F.	11c	45c lb. B.F.	11c
Vancouver, B.C.	53c lb. B.F.	10	53c lb. B.F.	10
Portland, Ore.	$2.05	11	$2.34	12
Salt Lake City, Utah	1.86	10	2.13	11
Calgary, Alta.	1.95	10	2.35	11
Edmonton, Alta.	1.85	10	2.23	11
Butte, Mont.	1.92	10	2.52	12
Saskatoon, Sask.	48c lb. B.F.	10	48c lb. B.F.	10
Moose Jaw, Sask.	50c lb. B.F.	10	50c lb. B.F.	10
Regina, Sask.	45c lb. B.F.	10	50c lb. B.F.	10
Grand Forks, N.D.	2.00	10	2.00	10
Sioux Falls, S.D.	1.75	6-7	2.00	10-11
Winnipeg, Man.	1.45	10	1.80-1.95	10
Minneapolis, Minn.	1.75	10	2.20	11
Milwaukee, Wis.	2.00	10	2.80	12
Fort William, Ont.	2.05	11		
Windsor, Ont.	2.20	12	2.20	12
Detroit, Mich.	2.48	12	2.48	12
Indianapolis, Ind.	2.05	11	2.39	12
London, Ont.	1.70	10		
St. Catherines, Ont.	1.90	11		
Hamilton, Ont.	2.00	11½		
Brantford, Ont.	1.90	11	1.90	11
Cleveland, Ohio	2.23	11	2.50	12
Guelph, Ont.	1.90	12	1.90	12
Ottawa, Ont.	1.75	11	1.75	11
Toronto, Ont.	2.10	12	2.10	12
Oshawa, Ont.	1.70	11	1.70	11
Montreal, P.Q.	1.47½	9-10	1.77½	10-11
Verdun, P.Q.	1.40	9	1.40	10
Trois Rivieres, P.Q.	1.60	9	1.90	10
Quebec, P.Q.	1.40	9	1.72	10
Moncton, N.B.	1.80	10	1.80	10
St. John, N.B.	2.00	12	2.00	12

Pre-Depression Retail Milk Prices, 1926-1930

Figures at Right Represent Winter Schedules

	1926	1927	1928	1929	1930
Victoria, B.C.	12½	12½–14	12½	12½–14	15
Vancouver, B.C.	11	11	11	11	11
Calgary, Alta.	11–12	11–12	11–12	11–12	11
Edmonton, Alta.	10–13	11–12½	11–12½	12½	11
Saskatoon, Sask.	12	13	13	13	13
Regina, Sask.	12–13	12½	12½–13	13–14	13
Winnipeg, Man.	12	12–13	12–13	12–13	11–12
Ft. William, Ont.	12½–14	12½–14	12½–14	12½–14	10–12½
Brantford, Ont.	12–11½	11½	11–12	12–12½	12–12½
London, Ont.	10–11	10–11	11	11	11
Hamilton, Ont.	11–13	12–13	12–13	12½–14	12
Ottawa, Ont.	10–11	10–12	11–13	12–13	12
Toronto, Ont.	13–14	13–14	12½	12½–14	13–12
St. John, N.B.	14	14	14	14	14
Minneapolis, Minn.	11	11–12	12	12	11–10
Detroit, Mich.	14	14	14	14	13

Depression Milk Prices, 1931-36. Average 2c Lower.

	1931	1932	1933	1934	1935	1936
Victoria	15–14	12½–11	10	11	11	11
Vancouver	9–8½	8½	9	9–10	10	10
Calgary	10	9	9–10	9–10	10	10–11
Edmonton	10	9–10	10	9–10	10	10–11
Saskatoon	11	10	10	10	10	10
Regina	12	10	10	10	10	10
Winnipeg	11–10	8–10	9–10	9–10	10	10
Ft. William	11	11	10	10–11	11	11
Brantford	11–9	9	9	10–11	11	11
London	9	9–6	7	9	10	10
Hamilton	11	10	10–11	11–11½	11½	11½
Ottawa	12	8–10	9–10	10	10	11
Toronto	11	10	10–11	11–12	12	12
St. John	13–12	12	10–12	12	12	12
Minneapolis	10–9	8	7–9	9	10	10–11
Detroit	12–11	9	9–10	11	12	12

Prices and Spreads, 1936

Distributors' Theoretical Spread, Fall Prices

		Cost	Price	Spread	Qts.		Cents
40 %	Retail	4.4	10	5.6	40	spread =	224
29 %	Stores	4.4	8	3.6	29	" =	104.4
17 %	Relief	4.4	9	4.6	17	" =	78.2
14 %	Wholesale	4.4	7.5	3.1	14	" =	43.4
						Total Spread on 100 quarts =	450 cents

Winter, 1935-36. The average Theoretical Spread was	4.4 cents
Summer, 1936. The average Theoretical Spread was	5.2
With 8 months at 4.4 and 4 months at 5.2, average is	4.66
For the whole year the distributor received, average price	9.04
The distributor paid for market milk on nett sale basis	4.38
Therefore the actual distributors' spread averaged	4.66
Fall, 1936. The calculated Theoretical Spread was	4.5
Winter, 1936-37. The Spread is reduced to	4.25
And the adjusted spread—purchasing to selling basis	4.1

Consumers' Spread, Winter 1936-37

	Cost	Price	Spread
Delivered daily retail	5	10	5
Cash and Carry stores	5	9	4
Relief and Welfare	5	9.5	4.5
Wholesale bulk	5	7.5	2.5
Adjusted average	5	9.27	4.27

Greater Winnipeg Minimum Prices, 1936

	Summer	Winter
Delivered quart pasteurized, retail wagon	10c	10c
To store-keepers for re-sale	8	8
Store to consumer, cash and carry	9	9
Relief and Welfare, delivered	9	9–9½
Wholesale bulk in cans	7½	7½
Special, raw or pasteurized	11	11
Jersey, raw or pasteurized	12	12
Producer-distributor, bottled min.	9	9
Producer-distributor, dipped min.	8 1/3	8 1/3
Producers' Price at Plant 3.5 base	$1.45	$1.80–$1.95

Report of the Chief Food Inspector

A. J. Douglas, Esq., M.D.,
Medical Health Officer.

Dear Sir:

Herewith you will find a resume of the activities of the Food Inspection Division for the year 1936, which I have the honour to present, together with observations thereon.

Premises under inspection now total two thousand one hundred and thirty-two, a few less than in the year 1935.

The number of complaints regarding "Food infection or intoxication" total 20 in number. "Ptomaine poisoning" is in the better informed circles seldom used, as it is now deemed obsolete by modern commentators, who state that the condition known as food poisoning is the result of the injestion of specific organisms, rather than the product of pretoid decomposition. This would seem to explain how people in some countries are able to assimilate, without ill effects, game, eggs, and fish in a condition which we would regard as putrid. The important feature of this class of organism responsible for food poisoning is the toxins produced are highly resistant to ordinary cooking temperature which may fail to reach the interior of, say, a roast of meat, when the remains of the roast are made into hash, or pie, (especially is this true of gelatinous foods like veal or chicken) the poisonous properties are not affected and may give rise to conditions associated with food poisoning. If any of the left-over portions of the food under suspicion could be procured, such samples were submitted to Dr. M. S. Lougheed or Dr. M. R. Elliott, Acting City Bacteriologist, and also to Mr. A. Blackie for analysis, depending on the symptoms of sickness described to your inspectors.

Many and varied are the foodstuffs that came under suspicion and said to have caused sickness, namely, Canned Corn, Canned Peas, Canned Tomatoes, Canned Salmon, Beef, Bologna, Jellied Veal, Liver Sausage, Chicken Pattie, Apple Pie, White Bread, Rye Bread, Chocolates, Saurkraut, Carbonated Beverages. Cheese also came under suspicion. The latter item is outstanding, in so far, that when sample of cheese was tested out in the laboratory staphylococcus organisms were found. A whole cheese of the same make, taken from the same shipment of imported cheese, also showed the same organisms present; plate count in the millions. No doubt these organisms would be a contributory factor to the cause of sickness.

A tin of salmon brought to the office, said to have glass therein, is somewhat out of the ordinary. On submitting this salmon to Mr. A. Blackie, City Chemist, he was of the opinion that the hard crystal like objects in the salmon were not glass, but were of chemical origin. On calling a representative of the Canning Co. he submitted a copy of a circular issued by the Biological Board of Canada, in which it states that these glass like crystals have been identified as magnesium ammonium phosphate and that they are quite harmless, this chemical being found in the blood of all fish and animals. These crystals will dissolve in hot vinegar or lemon juice.

Several complaints were received regarding bread, two in regard to mould and two in regard to ropiness. Ropiness in bread is caused by the Mesentericus group of bacteria. Samples of the flour used in baking this bread were obtained from the baker and were furnished Dr. M. S. Lougheed for examination. After flour was thoroughly cooked and submitted to the usual tests, Dr. Lougheed obtained a growth of the bacteria that is the causative agent. It has been estimated that in the bread baking industry alone, 1% of the total production of loaves per year is conservatively estimated to be made unsalable from mould and ropiness. The principle difference between rope and mould problems lies in that the micro-organisms responsible for the spoilage vary considerably in their resistance to high temperatures. The spores of the mesentericus group of bacteria which cause "ropiness" in bread are capable of surviving baking temperature. Once these spores gain entrance to the dough, either by dough ingredients or by contact of the dough with a source of infection, a large number of them will survive the baking process and will cause "ropiness" in the bread, if the moisture, temperature, and acid conditions are favourable for their development. On the other hand mould spores are killed by baking temperatures: rarely, if ever, do mould spores survive the baking temperature. It is generally conceded that bread is, for all practical purposes, sterile with respect to moulds when it leaves the oven. Bakeries would save trouble in this respect by cooling and wrapping their bread in a room where the air has been washed and conditioned. Scrupulous cleanliness on the part of those engaged in the handling and packing of the bread will result in a reduced number of complaints regarding mouldy bread to the Department, and a general saving to the bakers. The use of harmless acids or acid salts in the dough, lactic acid, calcium acid prosphate, or tartaric acid, together with scrupulous cleanliness will practically solve the problem of "ropiness" in bread for the baking industry. Bakeries were visited and the owner or manager given instructions to thoroughly cleanse all utensils, tables, dough troughs, etc., with satisfactory results.

Complaints—Under this heading there were six hundred and twenty calls made to the office for the year ending December 31st, 1936. As in former years the greater number of these calls were inspections for transfer of licenses or for new premises opening up.

One hundred and eleven were in regard to unsound food; examination of such foodstuffs resulted in forty-five seizures being made. Eighteen such seizures were made of poultry, 50% of which was T.B., the other 50% was for greening or putrification having set in. There were twenty seizures made in regard to veal, 90% of such seizures were decomposition and the remaining 10% for immaturity. A carload of potatoes from Shafta, Texas, U.S.A., early in May had to be condemned because of a brown rot or fungoid growth throughout 90% of stock; and four consignments of frozen potatoes. In quite a number of cases money was refunded the purchaser, for goods sold, that upon examination were found to be unsound or unwholesome. Forty-eight complaints were made in regard to plumbing or water cut off from fixtures. These were given attention and defects remedied. Eighteen were in respect to bad odours emanating from Cafes, etc.; twenty to inspect premises for manufacturing or packing food products; and sixteen to inspect bakeries; six in regard to bottling plants. Twelve such complaints were in respect to dirty premises.

Abattoirs—The number of above establishments remain constant, only three are located within the city. No complaints were received regarding this class of business. These abattoirs are very well conducted and kept in as sanitary condition as the nature of the business

will allow. One such establishment is located adjacent to the Red River and crude sewage is discharged direct into the stream. As the new sewage system for the city is nearing completion, it might be well for the management of this abattoir to be on the lookout for the best system of sewage disposal commensurate with least financial outlay. For a plant of this size and capacity, providing they have to install their own system, chemical precipitation by means of ferric chloride or chlorine would likely prove the most efficacious. Ferric chloride is considered the best coagulant but the sludge becomes septic so rapidly that the odour nuisance would have to be taken care of. Chlorine, on the other hand, results in a larger amount of the proteins being precipitated and the sewage after having passed through the several clarifiers is reduced to a effluence that can be discharged into any stream. The residue or sludge can be prepared for fertilizer at a cost of $12.00 to $15.00 per ton: present market value of prepared fertilizer is from $30.00 to $35.00 per ton.

Bakeries—The number of bakeries listed remain fairly consistent, four closed up during the year but two others were opened, this leaves two of a decrease since last report. Conditions in this industry have been more stable for the greater part of the year, but uneasiness was felt by the trade during the latter months owing to some individuals not keeping to the arrangements made as to price and there is talk of another bread war. The Commission that had charge of the Bread Inquiry, during the fall of 1935, did not fix prices but recommended that the bakers fix the price themselves. Three bakeries were remodelled and another thirty-three were renovated.

Bottling Plants—There is an increase of three carrying on this class of business compared to a year ago. Samples of the product, put up by all carbonated beverage manufacturers were obtained and submitted for bacteriological examination: several samples again showed gas forming organisms. Owners and managers were interviewed, further sampling gave negative results. There appears to be a laxity amongst the employees of some of these (several) places. We have had a number of complaints of extraneous matter being found in the bottles, when customers were served. No system of mechanical washing will overcome the indifference of the individual in charge of the machine. An educational program for employees engaged in, or in charge of bottle washing, either by hand, or mechanical, might save the producer endless worry and financial loss.

Butcher Shops—Two hundred and thirteen butcher shops are listed, or a decrease of two for the year. Four closed their business, two new modern premises opened during the year. On the average, butcher shops are fairly well conducted. Practically all places have electric refrigeration, and it is the exception to find only ice boxes in use, for this class of business. There were twelve complaints received in the office regarding meat and meat products having caused sickness. These were all submitted to Dr. M. S. Lougheed or Dr. M. R. Elliott for examination and were invariably found to be contaminated with gas forming organisms.

Condemnations—Throughout the year, your inspectors were accountable for the condemnation of 36,080¾ lbs. of foodstuffs. Vegetables take first place in quantity condemned; veal second place; candy third; then poultry and canned goods. These five items form the bulk of foods that were seized as being unfit for human consumption. Supplement to the foodstuffs seized by your inspectors, the various manufacturers, wholesalers, jobbers, etc., sent a total of 217,950 lbs. of foodstuffs to the incinerator; fish and pickles forming the greater bulk of

this food; dried fruit being next highest in volume, there being 49,880 lbs. destroyed because of wormy ("larva") infestation; fresh fruit, of which there was 16,280 lbs. destroyed; 12,080 lbs. of canned goods; and 6,250 lbs. of cheese; and 2,420 lbs. of candies; also 670 lbs. of meat; 500 lbs. of biscuit that was also infested with larva of the Mediterranean flour moth. The bulk of the dried fruit and biscuit could have been saved for consumption by proper warehousing and treatment with ethyelene oxide gas which is non-toxic to man and leaves no harmful residue in foodstuffs.

Fruit and Vegetables—There was very little unsound fruit condemned, but over thirty thousand lbs. of vegetables were seized as unsound and unwholesome. Imported leafy vegetables, together with the home grown product are inspected for spray residue, arsenic, lead and flourine. One sample of the home grown product that looked very suspicious was submitted to Mr. A. Blackie, City Chemist, for examination. This report gave it a clean bill of health so far as the spray residue was concerned, as the residue was non-toxic to man.

Grocery Stores—There are five hundred and eighty-four stores listed in above category together with seventy-four as general stores, making a total of six hundred and fifty-eight. Two of these opened in new modern premises, thirteen had their premises remodelled and one hundred and twenty-three renovated. Closing notices were issued for two such premises, one of which was renovated together with reconstruction of cellar, new floor, etc., the other was placarded insanitary and so far remains closed. Renovations and remodelling advanced considerably during the year, no doubt this is a result of somewhat better business conditions that prevailed. A feature of this year's work was a survey of conditions in all grocey stores. This survey showed that 16% of the trade are careless in their method of looking after their stock. The check up has shown beneficial results in a number of instances.

Confectioners—We have two hundred and seven premises listed under this heading. Quite a number of such premises are licensed to do victualling, simply because they use dishes and glass in serving soft drinks and ice cream. These products being consumed on the premises, proprietors have to take a victualling license. Twenty-three samples of ice cream were taken from premises where is it manufactured; samples were submitted to Mr. A. Blackie, City Chemist, and several samples were below the standard set by the regulations of the Public Health Act. Owners or managers were warned that any further samples of any ice cream taken from their premises found to be below standard set for butter fat content, would be followed by Court proceedings. The majority were well above 12% butter fat for plain or vanilla ice cream.

Regarding soda fountains. The trade is somewhat lax in keeping water sufficiently hot to sterilize glasses, etc. It might be well to have a regulation that if your inspectors, on taking the temperature of the hot water at the sinks or sprays for dishwashing purposes, found this on several occasions to be below a certain temperature, the license could be rescinded or premises closed until such time as the owner would comply.

Hawkers—There is a large reduction in the number of permits issued this year to these itinerant vendors of merchandise. No complaints were received regarding produce from any of such in the produce business, but the meat peddler or canvasser is still a source of trouble, in regard to buying immature veal and disposing of it to the retail butcher trade. This is one of the most difficult matters to regulate, for

even if any are detected in this practice, and court proceedings instituted and conviction obtained, the fine imposed in most instances is no deterrant to further practice along the same line. A minimum penalty for first offence, with a jail sentence for second offences, might deter those engaged in this business. Vehicles are stopped and contents examined whenever an opportunity presents itself.

Markets—There were three producer markets in operation during the year, permit having been granted for additional market on Colony Street, north of Portage Avenue. Renewal of permit for market on Furby and Portage Avenue, south-west corner, was refused but operator was granted a permit for a producers' market on Furby, north of Portage. This only remained open for a few weeks, then a building on Portage, west of Sherbrook, was leased and produce was sold therein.

Practically no trouble was experienced at the North End Market, as only products of the farm were allowed to be sold on this site.

Prosecutions—There were two prosecutions instituted during the year. One of such was for selling immature veal; calves less than three days old were found in a butcher shop. Conviction was secured but only a nominal fine imposed. The other was instituted at the instigation of a citizen who had bought potatoes that were frozen at time of delivery; this case was dismissed by the magistrate.

Restaurants — There are five hundred and thirty-six premises licensed to do victualling. All of these are not restaurants, in the proper meaning of the term, a number are chiefly grocery stores and others confectioners. As in former years the phone calls to the office are mainly to inspect in connection with such premises, the largest number being for transfer of license. This entails considerable work, and often as many as four re-inspections are made before premises can be given a permit. Ten applied for a Grade A rating, four were successful in reaching the minimum number of points to obtain a certificate. A survey of this class of business was also carried out during the year. Survey revealed that a number had inadequate toilet accommodation and inadequate ventilation; at least 50% of the latter have improved their ventilation system, and of the former, 90% have provided additional water closets. Strict surveillance is kept on this class of business by frequent visits to the premises and we find that cleanliness is a term that has many meanings. It all depends on the point of view. The kind of good clean up job done by a street sweeper would not be tolerated by a housewife in her own home. On the other hand the housewife's best at dishwashing would not be satisfactory in a chemical laboratory where accurate analysis were being made because the glass or dish would not be chemically clean. Yet the chemist's method of perfect cleaning would not often leave the glass or dish in a satisfactory condition for the bacteriologist. The equipment might be chemically clean but not bacteriologically clean. From the street sweeper to the bacteriologist is a long step forward in cleanliness. Foods are best preserved or kept from spoiling by strictly following the bacteriologist's method, but most of the work has to be carried out by men and women whose notion of what constitutes cleanliness is often on a par with that of the street cleaner. A vast amount of educational work of the employees in such premises needs to be done. Employees who are not properly informed cannot be expected to perform properly. They cannot even understand what it is all about. The average employee in such premises may be willing eough and may be adaptable enough, he or she may be intelligent enough to be trained into a valuable employee, but if they have only a street sweeper's notions of cleanliness they must be taught something different, otherwise they retain their old ideas—ideas

that usually work against a strict sense of cleanliness. This raises the question—Who is going to teach them? Sometimes even the owners or managers do not understand the fine points in cleanliness, and when they do understand, they sometimes fail to provide the adequate facilities for such work. At times proper cleanliness has to do with the prevention of spoilage. More often it has to do with preventing quality falling off, of flavours and the like. In cafes where left-over foods are stored the problem of bacterial cleanliness is very important. An important step in attaining proper cleanliness is to require every employee to have clean hands and clean uniforms, clean wiping cloths and clean equipment.

Attention has also been given to the Dining Halls for unemployed and transient men maintained by the Federal Government. Periodical inspections have been made in company with Inspector Pickering. All stock of foodstuffs have been examined, at time of these visits, for soundness and wholesomeness and were invariably found to be good and wholesome. These premises are well conducted and kept in a clean condition. The menu is good and varied from week to week.

Sausage Manufacturers—Two more premises were opened this year for this class of business; one of these was in a building formerly occupied by a jobbing firm, premises were remodelled and renovated; the other was in a store, this also was remodelled and new plumbing installed, together with a concrete floor. There are at present fourteen licensed to carry on such business as wholesalers, several others who only do a large retail trade are not so licensed.

Zoning—Several applications to start home industries in zoned areas have been dealt with. A complaint regarding chicken slaughtering being carried on at premises in a zoned area was also considered. Closing notices were served and are being held in abeyance, pending the occupier of premises fiding other suitable location, early in the spring.

In conclusion I wish to express my thanks to Mr. A. Blackie, Consulting City Chemist, and to Dr. M. S. Lougheed, City Bacteriologist, and also to Dr. M. R. Elliott, Acting City Bacteriologist, for their interest and help in the various problems that crop up in connection with unsound or adulterated food. Also to my colleagues, Inspectors Mines and Williams, for their willing help at all times in carrying out the various duties.

Respectfully submitted,

R. McQUILLAN,

Chief Food Inspector.

Bureau of Child Hygiene

A. J. Douglas, Esq., M.D.,
Medical Health Officer.

Dear Sir:

I have the honor to submit my eighteenth annual report, covering the year 1936, on the work of the Bureau of Child Hygiene.

Infant Mortality—Although there were fewer infant deaths in 1936 than in 1935, both the crude and corrected infant mortality rates are slightly higher owing to the reduced number of births. The crude rate, that is, the rate based on infant deaths and live births as registered in Winnipeg, was 44.4 deaths per 1,000 live births, and the corrected rate, that is, the rate based on the infant deaths and live births to Winnipeg mothers only, including those attending St. Boniface Hospital, was 43.1, Previous rates are shown in the table below:

Year	Crude Infant Deaths	Rate	Year	Corrected Infant Deaths	Rate
1936	160	44.4	1936	117	43.1
1935	163	43.0	1935	120	41.9
1930	269	57.9	1930	210	57.9
1925	315	68.0	1925	252	66.6
1920	625	101.2			
1912	1,006	206.6			

An analysis of the causes of death shows that the increase occurred in diseases of the digestive system and of the respiratory system, but the increase in each case is negligible. The following are the figures for 1936 and 1935:

	Corrected Totals			
	1936		1935	
	Deaths	Rate	Deaths	Rate
Diseases of Early Infancy and Malformations	75	27.6	79	27.6
Diseases of Digestive System	13	4.8	7	2.4
Diseases of Respiratory System	15	5.5	12	4.2
All other Diseases	14	5.2	22	7.7
	117	43.1	120	41.9

Of the 117 infant decedents, seventy were aged minutes to 7 days; four, 8 days to 1 month; eight, 2 to 3 months; fifteen, 4 to 6 months; nine, 7 to 9 months; and eleven, 10 to 12 months. These figures give rates of 25.8 per 1,000 births for infants aged 1 to 7 days, and 17.3 for infants aged 8 days to 12 months.

INFANT MORTALITY ACCORDING TO SECTIONS OF CITY

The infant death rate in the various sections ranged from 1.5 per 100 live births to 9.2, the latter occurring in the section from Young to Sherbrook Street, and Ellice to the C.P.R. Tracks, a section now largely consisting of boarding houses. The lowest rate occurred in Fort Rouge, East of Pembina Highway, a section which over a long period of years has shown the most favorable rates for infants in the City. The figures for each section are as follows:

	Nursing Section	Live Births	Infant Deaths	Death Rate per 100 Births
A	Fort Rouge, west of Pembina	218	7	3.2
B	Fort Rouge, east of Pembina	135	2	1.5
C	Red River to Spence Street	299	17	5.7
C1	Young to Sherbrook, south of Ellice	63	4	6.3
C2	Young to Sherbrook, north of Ellice	87	8	9.2
D	Assiniboine River to Ellice Ave.	283	10	3.5
E	Ellice Ave. to Notre Dame Ave.	250	9	3.6
F	Notre Dame to C.P.R. Tracks, west of Sherbrook	194	7	3.6
G	Notre Dame to C.P.R. Tracks, east of Sherbrook	226	14	6.2
H	Tracks to Manitoba Ave., east of Nos. 500	213	9	4.2
J	Tracks to Manitoba Ave., west of Nos. 500	176	9	5.1
K	Magnus Ave. to North Limits, west of Nos. 500	209	7	3.3
L	Magnus Ave. to North Limits, east of Nos. 500	208	9	4.3
M	Elmwood	153	5	3.3
	City Residents, corrected figures	2,714	117	4.3
	Non-Residents (excluded above)	1,216	51	4.9
	St. Boniface Registrations (included)	331	8	2.4

Stillbirths—There were only 63 stillbirths recorded for the year, giving a rate of 23.2 per 1,000 live births for City residents, an all time low. There were 38 stillbirths to non-resident mothers which gives a rate of 31.2 per 1,000 live births.

The corrected combined infant death rate and stillbirth rate for 1936 was 66.3 per 1,000 total births, which is a record low for this rate and one which compares very favorably with the lowest rates on the Continent. In 1935, the corrected combined rate was 74.0 per 1,000 total births.

Maternity Hospitals—Only 228 live births and 12 stillbirths occurred in private homes, the balance to City residents, 2,486 live births and 51 stillbirths, having taken place in Hospitals or Maternity Homes. Only 12 cases were attended by mid-wives.

Unfortunately, the puerperal death rate for Winnipeg mothers rose from 3.5 to 5.5 per 1,000 live births, 15 Winnipeg mothers having made the sacrifice, against 10 in 1935.

The following table shows figures and rates for each hospital:

Hospitals	Live Births	Still-births	Infant Deaths 1-14 days	Rate per 1,000 Live Births Still-births	Infants 1-14 days
General	861	29	17	34	20
Misericordia	872	19	20	22	22
Grace	615	13	17	21	28
St. Joseph's	514	8	11	15	21
Victoria	305	12	7	39	23
Concordia	189	4	4	21	10
Healthwin	13	----	----	----	----
Children's	----	----	6	----	----
King George	2	----	----	----	----
St. Boniface*	331	4	4	12	12
All Hospitals	3,702	89	86	24	22
Private Homes	228	12	11	52	48
Total Births**	3,930	101	97	26	24
Non-Resident	1,216	38	24	31	20
Winnipeg Residents— Corrected Totals	2,714	63	73	23	26

*Winnipeg Residents only.

**Including St. Boniface registrations of Winnipeg residents.

The above figures show that of the 2,714 live births to Winnipeg mothers, 2,486, or 91.6%, occurred in hospitals or maternity homes. This rate is again an increase over last year.

Visiting Nurses — Number of Child Hygiene nurses remained at thirteen, twelve visiting babies in their homes and one attending to the Sick Baby Clinic in the Milk Depot. The number of calls to babies' homes totalled 30,318 and visits to infants' boarding homes, 25. Attendance at the Child Hygiene centres, or Well Baby centres, was 15,489, divided as follows:

Section	Station	Afternoons	1936 Attendance	Average
A	Crescent United Church	50	975	20
C	Holy Trinity Church	53	1,165	22
D	Home Street United Church	47	1,536	33
E	Maryland United Church	50	2,906	58
F	Maclean United Church	50	759	15
F	Weston Salvation Army Home	25	541	22
G	St. Andrew's Church	49	1,853	38
H	All People's Mission	49	1,082	22
J	Roberson House	51	2,302	45
L	Milk Depot	51	589	11
M	St. Paul's Lutheran Church	50	1,781	36
	Totals and Average	525	15,489	28

New cases visited by the nurses totalled 2,097; sick calls numbered 634; cases referred to private physicians, 608; and cases referred to the Milk Depot Clinic, 275. The number of sick calls was much higher than last year, but still below the average for years prior to the City's paying for medical relief for the unemployed. Of the 2,289 new births visited by the nurses, 691 were births to unemployed families and 71 to part-time employees and pensioners. Last year, the totals were 806 and 97 out of 2,386 births. A list of 1,176 names of children whose parents wished them to receive protection against diphtheria, was compiled for the Communicable Diseases Division in connection with their campaign against this disease.

Sick Baby Clinic—The number of new cases listed with the Clinic totalled 454, nearly all of whom were infants of unemployed families. The attendance totalled 5,651, ranging from 291 in February to 655 in September. Doctors R. F. Rorke and F. G. Schwalm continued to attend the Clinic on alternate mornings. This Clinic is for feeding cases only.

Milk Dispensary—Improved economic conditions are reflected in the number of feedings prepared and in the amount of cash received from families in a position to pay for same. In 1936, 25,250 feedings were prepared on physicians' prescriptions and $280.55 were collected; in 1935, 26,774 feedings were made up and $77.45 were collected. In addition, 831 feedings were prepared for the Children's Hospital, for which $128.85 were paid. Miss M. Dick, who was appointed temporary assistant dietitian in December, 1935, was transferred to the permanent staff to replace the three nurses who relieved the dietitian over week-ends and holidays, an arrangement which resulted in a certain amount of inconvenience to both the nurses and the dispensary.

I wish to express my appreciation of the loyal and conscientious services of the nursing, dispensary and recording staffs; at all times they have carried on their duties most efficiently.

Respectfully submitted,

A. G. LAWRENCE,

Manager, Bureau of Child Hygiene.

Statistician's Report

A. J. Douglas, Esq., M.D.,
Medical Health Officer.

Dear Sir:

I have the honour to submit herewith my twenty-fourth report on Vital Statistics, covering the year 1936. Through the courtesy of the Winnipeg Registrar, Mr. G. F. Bentley, City Clerk, we have received copies of the birth and death registrations filed in his department, and through the courtesy of the St. Boniface Registrar, Mr. E. A. Poulain, City Clerk and Treasurer, we have been permitted to make copies of the birth and death registrations of Winnipeg residents who have been born or died in St. Boniface Hospital.

As in previous years, the report shows both crude and corrected totals and rates, the crude figures being compiled according to the Winnipeg registrations, which include non-residents, and the corrected being obtained by eliminating non-residents and including residents of Winnipeg who died in the adjoining City of St. Boniface, the St. Boniface Sanatorium and the Ninette Sanatorium, or in the case of births, who were born in St. Boniface Hospital.

Every year greater emphasis is being placed upon the corrected rates for Winnipeg citizens as in the prevention of disease in the City these rates are the basis of our work. The inclusion of fluctuating numbers of non-residents each year befogs the value of our statistics for practical use. As a matter of fact, I feel that this division should only tabulate and analyze the corrected figures for Winnipeg residents in order that the unsatisfactory features in the health of the City may be the more clearly shown.

Respectfully submitted,

A. G. LAWRENCE,
Secretary.

Infant Mortality, 1912-36

	Corrected			Crude		
	Live Births	Infant Deaths	Rate per 1,000 Births	Live Births	Infant Deaths	Rate per 1,000 Births
1936	2,714	117	43.0	3,597	160	44.4
1935	2,862	120	41.9	3,791	163	43.0
1934	2,935	134	45.6	3,749	174	46.4
1933	3,032	134	44.2	3,810	173	45.4
1932	3,335	146	43.8	4,106	184	44.8
1930	3,627	210	57.9	4,645	269	57.9
1925	3,781	252	66.6	4,632	315	68.0
1920	.....	.....	.....	6,174	625	101.2
1915	.....	.....	.....	5,823	619	106.3
1912	.....	.....	.....	4,870	1,006	206.6

TYPHOID FEVER MORTALITY RATES PER 100,000 POPULATION, 1904-1936

1904	1913	1914	1915	1916	1917	1918	1919	1920	1921	1922	1923	1924	1925	1926	1927	1928	1929	1930	1931	1932	1933	1934	1935	1936
248.3	9.7	7.9	3.5	9.5	8.2	7.6	10.3	5.7	5.1	1.5	2.5	3.1	3.1	4.0	3.0	1.0	2.4	.0	1.4	.9	1.8	.9	1.8	.4
Corr. Rate City			2.0	7.5	6.0	6.5	7.4	.0	.0	.0	.5	1.0	1.0	1.0	1.5	.0	.5	.5	1.9	.5	.9	1.3	.4	.0

CRUDE MORTALITY RATES PER 100,000 POPULATION FOR LEADING CAUSES OF DEATH, 1918-1936

Year	Population	Tuberculosis of Lungs (23)	Tuberculosis, other forms (24-32)	Cancer (all forms) (45-53)	Meningitis (79)	Cerebral Hemorrhage (82a)	Diseases of the Heart (90-95)	Acute and Chronic Bronchitis (106)	Pneumonia, all forms (107-109)	Appendicitis and Typhilitis (121)	Hernia, Intestinal Obstruction (122	Acute and Chronic Nephritis(130-131)	Puerperal Deaths (140-150)	External Causes (163-214)
1936	224,533	28.5	7.6	111.3	4.0	50.8	184.4	2.7	57.9	14.7	13.4	28.5	8.9	73.9
1935	223,017	27.8	9.4	148.0	2.2	55.2	167.7	2.2	48.0	12.5	15.7	24.2	7.6	52.9
1934	221,242	33.9	5.0	125.2	2.2	44.8	152.8	5.0	50.2	14.0	14.0	27.6	7.7	50.2
1933	218,545	27.4	4.6	136.3	4.6	49.9	152.4	4.6	44.8	17.8	12.8	25.2	5.9	52.6
1932	215,768	28.3	8.3	129.7	4.6	51.9	149.7	4.6	49.1	11.6	8.3	32.0	11.6	59.8
1931	212,815	39.0	10.8	128.3	1.9	51.2	110.9	7.5	48.4	16.4	15.0	27.7	10.3	55.4
1930	209,286	46.3	16.2	113.2	6.7	52.6	122.8	3.3	54.0	17.7	11.5	33.9	10.0	59.2
1929	205,083	40.5	16.1	120.9	4.9	55.1	117.5	4.9	71.7	9.3	12.7	38.0	13.6	64.8
1928	202,377	36.1	20.3	105.2	6.4	48.9	129.0	5.9	62.3	15.8	15.8	34.1	11.4	65.2
1927	198,932	37.2	9.5	102.5	5.0	38.1	112.6	5.5	75.5	16.1	11.1	30.7	12.6	57.8
1926	197,125	44.6	14.2	100.4	7.6	39.1	105.5	4.0	70.5	15.7	12.2	32.5	12.7	62.9
1925	195,148	41.5	11.8	95.3	7.2	41.5	84.0	7.2	68.1	20.0	9.2	33.8	12.8	57.9
1924	194,850	44.6	16.9	88.8	8.7	42.6	96.5	7.7	80.6	13.8	6.7	20.5	13.3	43.6
1923	199,300	48.2	16.0	82.3	6.0	28.6	87.8	5.5	77.3	9.5	9.5	28.6	13.0	52.2
1922	199,129	52.7	11.0	93.4	6.0	45.2	87.4	5.0	87.4	19.1	9.5	29.1	12.5	40.7
1921	196,947	50.8	26.4	87.3	8.1	32.0	91.9	4.6	84.8	14.2	4.6	18.3	10.7	46.7
1920	192,571	71.7	20.8	79.4	13.0	45.7	68.6	13.5	132.9	14.0	9.9	25.3	28.0	47.3
1919	183,378	72.0	24.5	73.1	10.9	30.5	72.0	18.0	105.2	17.4	13.6	33.3	15.3	57.2
1918	183,595	86.6	26.7	80.6	7.6	32.1	78.5	10.9	117.6	19.1	10.9	38.7	19.1	49.0

STILLBIRTHS, LIVEBIRTHS AND DEATHS, CRUDE AND CORRECTED FIGURES, BY MONTHS AND SEX, 1936

1936	STILLBIRTHS						LIVEBIRTHS						DEATHS					
Mth.	As Registered			Non-Res. Ded'ctd	Res. Added	Corrected Totals	As Registered			Non-Res. Ded'ctd	Res. Added	Corrected Totals	As Registered			Non-Res. Ded'ctd	Res. Added	Corrected Totals
	M.	F.	T.				M.	F.	T.				M.	F.	T.			
Jan.	9	2	11	3	2	10	102	95	197	68	16	145	105	100	205	39	18	184
Feb.	2	2	4	3		1	139	127	266	78	34	222	117	85	202	44	16	174
Mar.	6*	3	9*	4		5	185	132	317	105	38	250	100	80	180	38	11	153
April	3	5	8	5	2	5	166	128	294	114	34	214	98	68	166	32	9	143
May	6	8	14	6		8	158	147	305	112	20	213	87	80	167	41	18	144
June	5	1	6	2		4	168	175	343	113	22	252	79	60	139	30	9	118
July	6	1	7	1		6	164	165	329	112	33	250	105	88	193	43	10	160
Aug.	4	1	5	2		3	202	171	373	125	26	274	96	81	177	42	14	149
Sept.	7	4	11	4		7	130	135	265	89	33	209	88	80	168	40	7	135
Oct.	6	2	8	4		4	149	146	295	100	32	227	84	64	148	31	20	137
Nov.	2	1	3			3	133	130	263	87	20	196	88	62	150	39	13	124
Dec.	6	5	11	4		7	199	153	352	113	23	262	72	72	144	27	8	125
	62*	35	97*	38	4	63	1895	1704	3599	1216	331	2714	1119	920	2039	446	153	1746

*1–Sex Unknown.

Year	Population	STILLBIRTHS				LIVE BIRTHS				DEATHS			
		Crude		Corrected		Crude		Corrected		Crude		Corrected	
		Totals	*Rate	Totals	*Rate	Totals	†Rate	Totals	†Rate	Totals	†Rate	Totals	†Rate
1936	224,533	97	26.9	63	23.2	3,599	15.53	2,714	12.08	2,039	9.08	1,746	7.77
1935	223,017	122	32.3	98	34.2	3,791	17.00	2,862	12.83	1,841	8.25	1,580	7.08
1934	221,242	140	37.3	114	38.8	3,749	16.94	2,935	13.27	1,683	7.61	1,473	6.66
1933	218,545	136	35.7	111	36.6	3,810	17.43	3,032	13.87	1,681	7.69	1,491	6.82
1932	215,768	133	32.4	106	31.8	4,106	19.02	3,335	15.46	1,711	7.92	1,515	7.02

*Per 1,000 Live Births. †Per 1,000 Population.

DEATHS BY MONTH, SEX AND AGE PERIOD, 1936

	Under 1		1 to 2		3 to 4		5 to 9		10 to 19		20 to 29		30 to 39		40 to 49		50 to 59		60 to 69		70 to 79		80 to 89		90 to 99		Over 100	Totals	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	F.	M.	F.
Totals, 1936	79	81	16	19	11	10	20	23	28	24	49	62	52	57	112	99	224	127	220	139	202	149	95	107	11	22	1	1119	920
Crude Totals	160		35		21		43		52		111		109		211		351		359		351		202		33		1	2039	
Non-Res. Deducted	51		13		10		19		23		34		37		50		72		64		49		23		1		.....	446	
Residents Added	8		1		2		2		3		11		19		17		34		31		17		8		.....		.....	153	
Corrected Totals	117		23		13		26		32		88		91		178		313		326		319		187		32		1	1746	
Crude, per cent	7.9		1.7		1.1		2.1		2.6		5.4		5.4		10.4		17.1		17.6		17.1		9.9		1.6		1.1	100%	
Correct, per cent	6.7		1.3		.7		1.5		1.8		5.0		5.2		10.0		17.9		18.6		18.2		10.7		1.8		.6	100%	

Nativity of Decedents, 1936

(Deaths as Registered)

	Deaths		Per Cent. of Total	
	1936	1935	1936	1935
Canada	940	815	46.2	44.3
British Isles	590	541	28.9	29.4
Europe (excluding British Isles)	422	396	20.7	21.5
United States	60	46	2.9	2.5
Asia	11	12	.5	.6
Other Countries	13	18	.6	1.0
Unknown	3	13	.2	.7
	2,039	1,841	100.0	100.0

Attendant at Birth

(As Registered)

	1936		1935		1918*	
Physicians	3,587	99.7%	3,774	99.6%	4,707	80.2%
Midwives	12	.3%	16	.4%	1,159	19.8%
Unattended	.....		1			
Unknown	.....		.....			

*Includes Stillbirths.

Stillbirths According to Nationality of Mothers, 1936

	Rates per 1,000 Live Births			
	1936		1935	
	Stillbirths	Rate	Stillbirths	Rate
Canadian	56	15	72	32
British	16	44	20	34
Southern and Central European	19	54	27	36

Order of Live Births, 1936

(Corrected figures)

	1936	1935	1936	1935
First Children	1,187	1,248	43.7%	43.6%
Second Children	717	771	26.4%	27.0%
Third Children	368	369	13.6%	12.9%
Fourth Children	181	199	6.7%	6.9%
Fifth to 19th Children	261	275	9.6%	9.6%
Totals	2,714	2,862	100.0%	100.0%

Infant Mortality—Cause of Death—1936, 1935

Number of Deaths, Corrected

	1936	1935
Acute communicable diseases	4	2
Other general diseases	4	9
Of nervous system and of organs of special sense	3	5
Of respiratory system	14	12
Of digestive system	13	7
Malformations and diseases of early infancy	76	79
All other diseases	3	6
Totals	117	120

Rates Per 1,000 Live Births, Corrected

	1936	1935
Acute communicable diseases	1.4	.7
Other general diseases	1.4	3.1
Of nervous system and of organs of special sense	1.1	1.8
Of respiratory system	5.1	4.2
Of digestive system	4.8	2.4
Malformations and diseases of early infancy	28.2	27.6
All other diseases	1.1	2.1
Totals	43.1	41.9

Per Cent. of Total, Corrected

	1936	1935
Acute communicable diseases	3.4	1.7
Other general diseases	3.4	7.5
Of nervous system and of organs of special sense	2.6	4.2
Of respiratory system	12.0	10.0
Of digestive system	11.1	5.8
Malformations and diseases of early infancy	64.9	65.8
All other diseases	2.6	5.0
Totals	100.0	100.0

Classification of Ages of Decedents Under One Year of Age—1936

	CORRECTED			CRUDE		
	No. of Deaths	Rate per 1,000 Births	Per Cent. of Total	No. of Deaths	Rate per 1,000 Births	Per Cent. of Total
Minutes to 1 week	70	26.0	59.8	90	25.0	56.3
Over 1 to 2 weeks	3	1.1	2.6	3	.8	1.9
Over 2 to 3 weeks	....	.....	.....	1	.3	.6
Over 3 weeks to 1 month	1	.3	.8	1	.3	.6
Minutes to 1 month	74	27.4	63.2	95	26.4	59.4
Over 1 to 2 months	5	1.8	4.3	9	2.5	5.6
Over 2 to 3 months	3	1.1	2.6	5	1.4	3.1
Minutes to 3 months	82	30.3	70.1	109	30.3	68.1
Over 3 to 6 months	15	5.5	12.8	23	6.4	14.4
Over 6 to 9 months	9	3.3	7.7	12	3.3	7.5
Over 9 and under 12 months	11	4.0	9.4	16	4.4	10.0
	117	43.1	100.0	160	44.4	100.0

Infant Mortality According to Nationality of Mothers—1936

	1936			1935		
	Live Births	Infant Deaths	Rate per 1,000 Births	Live Births	Infant Deaths	Rate per 1,000 Births
Canadian	2,276	106	45	2,273	103	45
English and Welsh	294	8	27	324	11	34
Irish	46	4	87	83	4	48
Scotch	144	6	42	183	8	44
American (U.S.A.)	114	6	53	139	8	57
Scandinavian	46	2	43	36	2	55
Southern and Central European	663	25	35	744	27	36
All others	16	3	19	9	....	....

Infant Mortality Statistics

For further particulars regarding infantile mortality, see report of the Manager, Bureau of Child Hygiene, pages 77 to 80.

1936

CAUSE OF DEATH BY AGE AND SEX

CORRECTED FIGURES

(Non-Residents excluded; St. Boniface, Ninette and St. Boniface Sanitarium Registrations of Winnipeg Residents inc.)

		SEX		AGE IN YEARS														
		Male	Female	Under 1	1 to 2	3 to 4	5 to 9	10 to 19	20 to 29	30 to 39	40 to 49	50 to 59	60 to 69	70 to 79	80 to 89	90 to 99	100 to 109	Totals
2a.	Undulant Fever	1							1									1
4.	Measles (7)	4	8		5	2	3		2									12
5.	Scarlet Fever (8)	3	3	1	1	3	1											6
6.	Whooping-Cough (9)	1	1	2														2
7.	Diphtheria (10)		3		2		1											3
8.	Influenza (11)	12	22	1	1		1	7	1	2	3	6	3	4	5			34
10.	Tuberculosis of the respiratory system (23)	34	24		1			1	15	11	9	14	6		1			58
11.	Other forms of tuberculosis (24, 25, 27, 30, 32)	7	5	1	1		1		3	1	1	1	3					12
12.	Syphilis (34)	18	6		1				2	3	4	9	4	1				24
14.	Other infectious and parasitic diseases (15, 16, 17, 36,)	8	7	3			1	2	1	2		2	2	2				15
15.	Cancer and other malignant tumors (45, 46, 47, 48, 49, 50, 51, 52, 53)	147	129				1	1	3	16	38	72	69	57	19			276
16.	Tumors, nonmalignant, or of which the nature is not specified (54, 55)	4	5					1			5	3						9
17.	Chronic rheumatism Osteoarthritis (57)		2											1	1			2
18.	Diabetes mellitus (59)	8	14					1	1		1	5	6	7	1			22
19.	Alcoholism (acute or chronic) (75)	1																1
20.	Other general diseases and chronic poisonings (56, 66, 67, 71, 72, 73, 74,)	16	20	1			2		1	4	6	7	10	3	2			36
21.	General paralysis of the insane (83)	4									1	1	2					4
22.	Cerebral hemorrhage, cerebral embolism and thrombosis, (82)	69	67	1			1		2	2	11	18	32	38	28	3		136

23.	Other diseases of the nervous system and of the organs of special sense (78, 79, 81, 84, 85, 86, 87, 89)	16	20	3	1	1	2	3	3	6	3	4	9	1				36
24.	Diseases of the heart (90, 91, 92, 93, 94, 95)	215	174					2	8	9	30	84	84	102	59	10	1	389
25.	Other diseases of the circulatory system (96, 97, 98, 99, 100)	31	25					1		1	3	4	14	23	9	1		56
26.	Bronchitis (106)	3	2	1								1		3				5
27.	Pneumonias (107. 108, 109)	76	40	12	3		3	1	1	8	5	23	18	18	20	4		116
28.	Other diseases of the respiratory system (tuberculosis excepted) (110, 111, 112, 113, 114)	12	4	1	1				2	2	1	2	5		1	1		16
29.	Diarrhea and enteritis (119, 120)	5	10	9	1	1		1	1			1	1					15
30.	Appendicitis (121)	12	9		1		1	2	7	1	1	4	3	1				21
31.	Diseases of the liver and biliary passages (124, 126, 127)	8	12							1	6	5	2	4	2			20
32.	Other diseases of the digestive system (115, 117, 122, 123, 128, 129)	35	24	4		2	1	1	2	1	10	15	14	7	2			59
33.	Nephritis (130, 131, 132)	41	36		1		1	1	5	8	6	7	19	17	10	2		77
34.	Other diseases of the genitourinary system (133, 134, 135, 137, 139)	21	10								6	4	4	10	6	1		31
35.	Puerperal septicemia (140, 145)		5						2	2	1							5
36.	Other diseases of pregnancy, childbirth and the puerperal state (141, 142, 144, 146, 147, 149)		10					1	8	1								10
37.	Diseases of the skin and cellular tissue and of the bones and organs of locomotion (151, 152, 154)	4	2				1	1	2		1	1						6
38.	Congenital debility and malformation, premature birth and other diseases of early infancy (157, 158, 159, 160, 161)	37	43	76		3					1							80
39.	Senility (162)	2	10										2	1	4	5		12
40.	Suicide (163, 164, 165, 166, 167, 168, 170)	15	9						5	4	7	3	4	1				24
41.	Homicide (173, 175)	3	2				1		2		2							5
42.	Violent and accidental deaths (suicide and homicide excepted) 178, 179, 181, 182, 183, 184, 186, 190, 191, 194, 203, 207, 209, 210, 211)	74	35	1	3	1	4	4	7	6	16	17	10	18	17	5		109
43.	Cause of death not specified or ill-defined (200)	1						1										1
Corrected Totals		948	798	117	23	13	26	32	88	91	178	313	326	319	187	32	1	1746

1936

CAUSE OF DEATH BY AGE AND SEX

CRUDE FIGURES

(As Registered; Non-Residents included)

		SEX		AGE IN YEARS														
		Male	Female	Under 1	1 to 2	3 to 4	5 to 9	10 to 19	20 to 29	30 to 39	40 to 49	50 to 59	60 to 69	70 to 79	80 to 89	90 to 99	100 to 109	Totals
1.	Typhoid and Paratyphoid Fever (1, 2)	2									1	1						2
4.	Measles (7)	7	8	2	6	2	3	1	1									15
5.	Scarlet Fever (8)	4	3	1	1	3	2											7
6.	Whooping-Cough (9)	1	2	3														3
7.	Diphtheria (10)	1	5		3	1	1					1						6
8.	Influenza (11)	14	21	1	1	1	1	7	1	2	3	6	2	4	6			35
10.	Tuberculosis of the respiratory system (23)	35	29		1		2	4	17	9	8	15	8					64
11.	Other forms of tuberculosis (24, 25, 27, 30, 32)	10	7	2	3	1	1		4	1	1	1	3					17
12.	Syphilis (34)	18	4		1				1	2	3	10	3	2				22
14.	Other infectious and parasitic diseases (15, 16, 17, 18, 22, 36, 43)	15	9	4			3	5	2	5		2	2	1				24
15.	Cancer and other malignant tumors (45, 46, 47, 48, 49, 50, 51, 52, 53)	192	158				3	2	4	23	41	89	96	71	21			350
16.	Tumors, nonmalignant, or of which the nature is not specified (54, 55)	4	7					1	1		6	3						11
17.	Chronic rheumatism Osteoarthritis (57)		2											1	1			2
18.	Diabetes mellitus (59)	8	13				1		2		1	4	4	8	1			21
19.	Alcoholism (acute or chronic) (75)	2							1			1						2
20.	Other general diseases and chronic poisonings (56, 63, 66, 67, 68, 71, 72, 73, 74)	21	32	3		1	2		3	5	11	12	10	4	2			53
21.	General paralysis of the insane (83)	4									1	1	2					4
22.	Cerebral hemorrhage, cerebral embolism and thrombosis, (82)	68	73				1		2	2	12	20	32	41	28	3		141

23.	Other diseases of the nervous system and of the organs of special sense (78, 79, 81, 84, 85, 86, 87, 89)	26	24	3	2	3	3	7	3	8	4	6	10	1	.....	.....	.....	50
24.	Diseases of the heart (90, 91, 92, 93, 94, 95)	231	184	.....	.....	.....	.....	2	7	9	41	88	85	110	61	11	1	415
25.	Other diseases of the circulatory system (96, 97, 98, 99, 100)	31	29	.....	.....	.....	.....	1	.....	1	3	4	13	25	12	1	.....	60
26.	Bronchitis (106)	3	3	1	.....	.....	.....	.....	.....	.....	.....	1	.....	3	1	.....	.....	6
27.	Pneumonias (107, 108, 109)	79	48	20	4	.....	3	2	3	8	5	20	17	21	20	4	.....	127
28.	Other diseases of the respiratory system (tuberculosis excepted) (104, 110, 111, 112, 113, 114)	17	5	1	1	.....	1	.....	2	3	2	3	5	.....	3	1	.....	22
29.	Diarrhea and enteritis (119, 120)	9	14	15	1	1	.....	1	2	.....	.....	2	1	.....	.....	.....	.....	23
30.	Appendicitis (121)	22	11	.....	2	2	3	7	9	1	2	4	1	2	.....	.....	.....	33
31.	Diseases of the liver and biliary passages (124, 125, 126, 127)	11	18	.....	.....	.....	.....	.....	1	1	10	6	5	4	2	.....	.....	29
32.	Other diseases of the digestive system (115, 117, 118, 122, 123, 128, 129)	46	26	7	1	3	3	1	4	2	13	13	16	7	2	.....	.....	72
33.	Nephritis (130, 131, 132)	40	36	.....	1	.....	1	.....	5	6	6	8	20	16	11	2	.....	76
34.	Other diseases of the genitourinary system (133, 134, 135, 136, 137, 139)	25	12	1	.....	.....	.....	.....	2	1	6	6	6	8	6	1	.....	37
35.	Puerperal septicemia (145)	.....	6	.....	.....	.....	.....	1	2	3	.....	.....	.....	.....	.....	.....	.....	6
36.	Other diseases of pregnancy, childbirth and the puerperal state (142, 144, 146, 147, 148, 149)	.....	14	.....	.....	.....	.....	2	10	2	.....	.....	.....	.....	.....	.....	.....	14
37.	Diseases of the skin and cellular tissue and of the bones and organs of locomotion (151, 152, 154, 156)	10	3	.....	1	.....	2	3	3	.....	2	2	.....	.....	.....	.....	.....	13
38.	Congenital debility and malformation, premature birth and other diseases of early infancy (157, 158, 159, 160, 161)	49	49	95	1	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	98
39.	Senility (162)	3	10	.....	.....	.....	.....	.....	.....	.....	.....	.....	2	1	5	5	.....	13
40.	Suicide (163, 164, 165, 166, 167, 168, 170)	20	9	.....	.....	.....	.....	.....	6	6	8	3	5	1	.....	.....	.....	29
41.	Homicide (173, 175)	4	2	.....	.....	.....	1	.....	2	.....	2	1	.....	.....	.....	.....	.....	6
42.	Violent and accidental deaths (suicide and homicide excepted) 178, 179, 181, 182, 183, 184, 186, 190, 191, 194, 201, 202, 203, 207, 209, 210, 211, 212)	86	43	1	5	1	5	4	11	9	19	18	11	20	20	5	.....	129
43.	Cause of death not specified or ill-defined (200)	1	1	.....	.....	.....	1	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	2
Crude Totals		1119	920	160	35	21	43	52	111	109	211	351	359	351	202	33	1	2039

Comfort Station Division

A. J. Douglas, Esq., M.D.,
Medical Health Officer.

Dear Sir:

The eight Comfort Stations, in five buildings, operated by the City continued during the year under the supervision of this Department. The expenditures on this service in 1936 were as follows:

(a)	Personal Services	$17,865.39
(c)	Material, Supplies and Repairs	1,134.31
(e)	Fuel, Water, Light and Power	2,980.55
(h)	Auto Expense	180.00
(i)	Interest and Sinking Fund (Uncontr.)	3,738.07
	Gross expenditures	$25,898.32
	Revenue collected	169.66
	Net expenditures	$25,728.66

Net Cost per Capita ..... 11.4c.

On instructions of the Chairman, a count of the attendance at the Market Men's station was made for the seven days, April 20-26; the total tallied was 16,575, the week-day attendance averaging 2,501 and the Sunday, 1,568.

Respectfully submitted,

A. G. LAWRENCE,
Secretary.

Street Cleaning and Scavenging Division

A. J. Douglas, Esq., M.D.,
Medical Health Officer,
City Hall, Winnipeg.

Dear Sir:

I have the honor to submit herewith the report of the Street Cleaning and Scavenging Division for the year 1936.

Scavenging—The organic matter collected during the year averaged 204.4 lbs. per capita as against 213.4 lbs. for 1935. The total collected for the year showed a decrease of 1,599,480 lbs., compared with the collection for 1935.

The Annual Spring Clean-up commenced May 11th and was completed June 8th, at a total cost of $20,576.87.

In accordance with an Agreement between the City and the employees, all permanent employees were placed on a monthly rate of pay as from February 1st.

On June 19th a new Ford light delivery truck was purchased, replacing a similar truck.

Owing to the extreme hot weather experienced during the month of July, it was necessary to purchase straw hats to protect the horses' heads.

On July 20th an extra tin collecting Unit was put to work at night, thereby making two shifts during the 24 hours. This continued until August 22nd.

Incinerators—The tonnage destroyed at the Incinerators during the year 1936 showed a decrease of 685 tons as compared with the previous year. The revenue earned showed an increase of $352.25. Operating costs in 1936 showed an increase of $1,723.73, as compared with 1935, but this was due to the fact that extensive repairs were made to the small combustion chamber of Saskatchewan Avenue Incinerator, and also to repair work at Elmwood Incinerator.

The gross cost per ton for destruction amounted to $1.23 or an increase of 10c per ton compared with the cost for 1935.

Street Cleaning—During the Street Cleaning year a total of 24,578 cubic yards of sweepings were collected and removed, or an average of 92 cubic yards per mile of paved streets. The mileage cost for 1936 was $223.82, compared with $240.27 for 1935.

The motor driven power-flusher was again used to good advantage. 6,486,302 gallons of water were used in 1936, as compared with 6,008,332 for 1935.

In the month of May, twenty litter baskets were attached to lamp standards in the down town district for citizens to deposit cigarette boxes, gum wrappers, etc., in, and thereby prevent the streets from becoming littered with trash of this kind. It is encouraging to note that the citizens responded very well, but there is still room for improvement.

Wood Camp Operation—During the Wood Camp year, which ended April 30th, 1936, the total receipts of wood in the City amounted to 43,746 cords.

Miscellaneous—During the year 1936, employees of this Division were involved in 102 accidents, with a total loss of 648 days or an average of 6.4 days per accident.

I regret to record the death of one employee during the year. One employee resigned and one was retired on pension. Four employees were added to the permanent list.

In conclusion I again wish to express my appreciation of the faithful work of the employees of this Division.

Respectfully submitted,

E. A. WOOD,

Chief, Street Cleaning and
Scavenging Division.

REFUSE COLLECTION AND DISPOSAL AND STREET CLEANING, 1936.

Summary

(a)	Personal Services	$242,350.33
(b)	Outside Services	1,120.04
(c)	Material, Supplies, and Repairs	15,512.61
(d)	Equipment, Additions and Replacements	473.55
(e)	Fuel, Water, Light and Power	3,353.90
(h)	Truck and Auto Expense	13,758.31
(i)	Interest	9,225.00
(ii)	Sinking Fund	3,922.62
		$289,716.36

Expenditure by Divisions

C 8 Refuse Collection and Disposal:

C 8-1 Scavenging and Ash Removal:

(a)	Personal Services	$148,962.78	
(b)	Outside Services	290.75	
(c)	Material, Supplies and Repairs	10,426.54	
(d)	Equipment, Additions and Replacements	340.00	
(e)	Fuel, Water, Light and Power	271.07	
(h)	Truck and Auto Expense	10,995.00	
			$171,286.14

C 8-2 Nuisance Ground Operating:

(a)	Personal Services	4,745.07	
(b)	Outside Services		
(c)	Material, Supplies and Repairs	19.25	
			4,764.32

C 8-3 Crematories, Operation and Maintenance:

(a)	Personal Services	24,147.93	
(b)	Outside Services	22.00	
(c)	Material, Supplies and Repairs	4,189.67	
(e)	Fuel, Water, Light and Power	1,584.02	
			29,943.62

C 8-4 Fixed Charges on Debenture Debt:

(i)	Interest	9,225.00	
(ii)	Sinking Fund	3,922.62	
			13,147.62
	Total, Refuse Collection and Disposal		$219,141.70

D Street Cleaning and Flushing:

D 1-1 Administration:

(a)	Personal Services	$ 5,939.40	
(b)	Outside Services	59.79	
(c)	Material, Supplies and Repairs	289.77	
(d)	Equipment, Additions and Replacements	133.55	
(h)	Truck and Auto Expense	337.59	
			$ 6,760.10

D 4 Asphalt Pavement Cleaning:

(a)	Personal Services	55,358.49	
(b)	Outside Services	27.50	
(c)	Material, Supplies and Repairs	476.07	
(e)	Fuel, Water, Light and Power	1,248.61	
(h)	Truck and Auto Expense	2,425.72	
			59,536.39

Miscellaneous:

D 5-3 Cutting Noxious Weeds:

(a)	Personal Services	2,692.76	
(c)	Material, Supplies and Repairs	8.96	
			2,701.72

D 5-4 Yards Maintenance:

(a)	Personal Services	503.90	
(b)	Outside Services	720.00	
(c)	Material, Supplies and Repairs	102.35	
(e)	Fuel, Water, Light and Power	250.20	
			1,576.45

Total, Street Cleaning and Flushing	$ 70,574.66
Total, Refuse Collection and Disposal	219,141.70
Grand Total	$289,716.36

GARBAGE COLLECTION, 1936

Month	Trucks and Trailers		City Teams and Singles		Hired Teams		Combined Totals	
	No. of Lds.	Weight in Lbs.	No. of Lds.	Weight in Lbs.	No. of Lds.	Weight in Lbs.	No. of Lds.	Weight in Lbs.
Jan.	977	2,987,530	146	386,330	39	123,350	1162	3,497,210
Feb.	926	2,746,510	125	307,210	37	117,860	1088	3,171,580
Mar.	973	3,039,880	140	366,070	41	135,600	1154	3,541,550
April	973	3,251,660	144	376,280	39	124,590	1156	3,752,530
May	949	3,609,780	146	412,400	44	159,520	1139	4,181,700
June	1012	3,893,580	153	421,710	50	186,840	1215	4,502,130
July	1022	3,664,700	175	464,310	43	155,500	1240	4,284,510
August	984	3,497,240	153	391,440	44	156,860	1181	4,045,540
Sept.	1006	3,961,650	143	393,620	43	163,010	1192	4,518,280
Oct.	1004	3,372,670	149	388,570	46	144,640	1199	3,905,880
Nov.	938	2,746,700	128	326,680	46	123,320	1112	3,196,700
Dec.	1049	2,919,860	143	334,640	53	149,240	1245	3,403,740
	11813	39,691,760	1745	4,569,260	525	1,740,330	14083	46,001,350

Table Showing Average Weight per Load

	Number of Loads	Total Weight	Average Wgt. per Load (Lbs.)	Percentage of Total Weight
Trucks & Trailers	11,813	39,691,760	3,360	86.27%
City Teams and Singles	1,745	4,569,260	2,618	9.93%
Hired Teams:	525	1,740,330	3,314	3.8%
	14,083	46,001,350		

COLLECTION OF INCOMBUSTIBLE REFUSE, 1936

Month	Trucks and Trailers		City Teams and Singles		Hired Teams		Combined Totals	
	No. of Lds.	Weight in Lbs.	No. of Lds.	Weight in Lbs.	No. of Lds.	Weight in Lbs.	No. of Lds.	Weight in Lbs.
Jan.	971	3,423,550	132	357,720	68	229,660	1171	4,100,930
Feb.	1624	6,950,610	38	77,120	32	104,050	1694	7,131,780
Mar.	1458	6,162,410	49	93,710	57	185,990	1564	6,442,110
April	1568	6,879,420	116	323,250	32	105,260	1716	7,307,930
May	6169	23,884,010	197	666,990	605	22,07,400	6971	26,758,400
June	2186	7,807,510	198	511,370	150	517,260	2534	8,836,140
July	1402	4,051,350	166	377,950	43	138,180	1611	4,567,480
Aug.	1339	3,993,070	189	437,430	39	126,240	1567	4,556,740
Sept.	1179	3,536,360	200	437,890	40	124,910	1419	4,099,160
Oct.	1170	3,311,620	70	145,600	37	118,840	1277	3,576,060
Nov.	1341	4,193,090	197	468,890	26	81,550	1564	4,743,530
Dec.	990	3,497,480	178	405,610	31	109,410	1199	4,012,500
	21397	77,690,480	1730	4,303,530	1160	4,048,750	24287	86,042,760

Table Showing Average Weight per Load

	Number of Loads	Total Weight Lbs.	Average Wgt. per Load Lbs.	Percentage of Total Weight
Trucks & Trailers	21,397	77,690,480	3,638	90.16%
City Teams and Singles	1,730	4,303,530	2,475	5.01%
Hired Teams	1,160	4,048,750	3,490	4.83%
	24,287	86,042,760		

ELMWOOD INCINERATOR OPERATIONS, 1936

Month	City Garbage		Private Garbage		Total		Revenue Earned
	No. Loads	Weight	No. Loads	Weight	No. Loads	Weight	$ c
Jan.	392	1,107,830	10	10,880	402	1,118,710	$ 19.21
Feb.	354	986,710	8	7,470	362	994,180	13.08
Mar.	411	1,237,510	8	29,180	419	1,266,690	58.06
April	492	1,620,380	16	26,920	508	1,647,300	50.05
May	373	1,384,250	13	20,520	386	1,404,770	38.82
June	533	2,075,710	10	21,000	543	2,096,710	40.20
July	509	1,853,680	30	51,160	539	1,904,840	99.98
August	494	1,730,990	11	24,150	505	1,755,140	47.30
Sept.	519	2,025,830	34	45,140	553	2,070,970	83.41
Oct.	551	1,806,510	65	81,880	616	1,888,390	161.38
Nov.	476	1,279,970	37	57,660	513	1,337,630	112.88
Dec.	507	1,315,900	19	23,880	526	1,339,780	40.45
	5611	18,425,270	261	399,840	5872	18,825,110	$ 764.82

SASKATCHEWAN AVENUE INCINERATOR OPERATIONS, 1936

Month	City Garbage		Private Garbage		Total		Revenue Earned
	No. Loads	Weight	No. Loads	Weight	No. Loads	Weight	$ c
Jan.	770	2,389,380	120	141,560	890	2,530,940	$ 76.70
Feb.	734	2,184,870	116	128,330	850	2,313,200	55.20
Mar.	744	2,304,040	134	156,580	878	2,460,620	83.65
April	664	2,132,150	156	186,360	820	2,318,510	127.10
May	766	2,797,450	157	209,160	923	3,006,610	198.90
June	682	2,426,420	164	168,810	846	2,595,230	95.70
July	731	2,430,830	178	169,060	909	5,599,890	110.35
Aug.	687	2,314,550	171	168,230	858	2,482,780	97.30
Sept.	673	2,492,450	174	171,220	847	2,663,670	97.80
Oct.	648	2,099,370	162	166,500	810	2,265,870	92.30
Nov.	636	1,916,730	151	166,140	787	2,082,870	94.30
Dec.	738	2,087,840	135	138,420	873	2,226,260	76.35
	8473	27,576,080	1818	1,970,370	10291	29,546,450	$1,205.65
					Sale of Steam		1,200.00
							$2,405.65

Approximately 800 dead cats and dogs were collected and destroyed during the year.

REPORT OF REFUSE DEPOSITED ON ELMWOOD NUISANCE GROUND, 1936

Month	Tins and Ashes Hauled by City		Street Sweepings		Privately Hauled Refuse		Combined Totals	
	No. Loads	Weight	No. Loads	Weight	No. Loads	Weight	No. Loads	Weight
Jan.	563	2,041,120			9	11,820	572	2,052,940
Feb.	593	2,330,550			12	16,400	605	2,346,950
March	370	1,642,860	6	44,620	132	333,570	508	2,021,050
April	397	1,353,270	426	2,748,470	142	378,490	965	4,480,230
May	2008	7,340,540	94	663,980	176	458,950	2278	8,463,470
June	1039	3,623,260	70	415,030	165	397,460	1274	4,435,750
July	496	1,514,650	60	311,300	146	365,410	702	2,191,360
Aug.	396	1,227,110	59	287,200	148	381,760	603	1,896,070
Sept.	390	1,214,180	86	434,700	166	419,740	642	2,068,620
Oct.	304	954,520	92	439,090	192	528,260	588	1,921,870
Nov.	419	1,268,030	6	27,590	161	425,640	586	1,721,260
Dec.	230	780,460			141	364,950	371	1,145,410
	7205	25,390,550	899	5,371,980	1590	4,082,450	9694	34,744,980

REPORT OF REFUSE DEPOSITED ON SASKATCHEWAN AVENUE NUISANCE GROUND, 1936

Month	Tins and Ashes Hauled by City		Street Sweepings		Privately Hauled Refuse		Combined Totals	
	No. Loads	Weight	No. Loads	Weight	No. Loads	Weight	No. Loads	Weight
Jan.	870	3,508,100			228	650,580	1098	4,158,680
Feb.	1243	5,151,020			240	655,670	1483	5,806,690
Mar.	1194	4,799,250			240	726,100	1434	5,525,350
April	1319	5,954,660			316	988,190	1635	6,942,850
May	5370	19,417,860			407	1,363,740	5777	20,781,600
June	1495	5,212,880			384	1,184,820	1879	6,397,700
July	1115	3,052,830			403	910,740	1518	3,963,570
Aug.	1171	3,329,630			319	892,860	1490	4,222,490
Sept.	1029	2,884,980			338	867,000	1367	3,751,980
Oct.	973	2,621,540			330	923,370	1303	3,544,910
Nov.	1145	3,475,500			281	884,150	1426	4,359,650
Dec.	969	3,232,040			250	580,060	1219	3,812,100
	17893	62,640,290			3736	10,627,280	21629	73,267,570

MISCELLANEOUS DATA

Month	Cubic Yards Street Sweepings Collected	Cubic Yards of Ashes Collected	Gallons of Water used in Flushing Streets
January		12,819	
February		12,828	
March	38	14,617	
April	7,533	6,350	181,962
May	3,848	1,394	876,726
June	2,384		1,267,301
July	2,686		1,495,213
August	2,410	3	1,371,148
September	2,374	63	1,257,192
October	3,234	1,110	36,760
November	71	3,521	
December		3,848	
	24,578	56,553	6,486,302

COMPARATIVE TABLES

Garbage Collection and Incombustible Refuse

Year	No. Loads Collected	Pounds of Garbage	No. Loads Collected	Pounds of Incombustible Refuse
1926	11,550	40,479,180	6,034	15,894,150
1927	13,826	42,325,430	6,682	18,579,020
1928	13,313	43,896,090	9,571	24,877,715
1929	13,048	43,374,665	11,094	28,719,945
1930	13,557	45,814,030	11,396	33,189,930
1931	13,611	50,098,730	13,147	36,291,661
1932	13,222	48,329,450	14,237	49,928,030
1933	13,561	46,236,370	19,942	70,734,590
1934	15,776	49,211,690	18,849	66,773,120
1935	15,764	49,733,270	22,126	82,268,400
1936	14,083	46,001,350	24,287	86,042,760

REVENUE COLLECTED

Month	Incinerator No. 2	Incinerator No. 3	Sale of Steam	Total
January	$ 24.20	$ 67.18		$ 91.38
February	34.35	73.93	$ 600.00	708.28
March	72,40	54.12		126.52
April	64.55	35.61		100.16
May	65.13	124.19	600.00	789.32
June	76.83	192.03		268.86
July	26.78	94.32		121.10
August	25.79	103.54		129.33
September	65.75	86.10		151.85
October	173.88	105.54		279.42
November	100.64	71.85		172.49
December	163.87	108.83		272.70
	$894.17	$1,117.24	$1,200.00	$3,211.41