**Report of the City Health Department / City of Winnipeg.**

CITY OF WINNIPEG

# REPORT

of the

# Health Department

For the Year ending
31st December, 1935

CITY OF WINNIPEG

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# CONTENTS

## COMMITTEE ON HEALTH

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### 1935

Alderman M. A. Gray, Chairman.
Alderman H. Andrews*
Alderman M. (Mrs. R. F.) McWilliams.
Alderman V. B. Anderson.
Alderman P. Bardal.
Alderman J. Penner.
His Worship Mayor J. Queen (ex-officio).

*Died August 7th; replaced by Alderman C. H. Gunn.

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## STAFF

(December, 1935)

### 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.

### 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.

## STAFF—(Continued)

### Sanitary Inspections Division

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

Housing and Supervising Inspector—
P. Pickering.
Inspectors: B. Davies.
G. W. Kelly.
E. Officer.
D. G. Johnson.
A. Cross.

### 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

Nurses: Miss C. W. Thom
" 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
Caretaker—G. Wade**
" —F. C. White***

*Appointed December 23, 1935.
**Resigned September 30, 1935.
***Appointed October 1, 1935, replacing G. Wade.

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
" " —Miss V. Orr

### Street Cleaning Division

Chief of Division—E. A. Wood
Supt. of Scavenging—J. Shannon
Supt. of Street Cleaning—E. J. Pope.

Clerk—J. J. Higgins
Junior Clerk—E. W. Parker
Office Assistant—Miss N. Deering

# Report of the Medical Health Officer

City Health Department,
Winnipeg, Man., May 26th, 1936.

Chairman and Members of the
Committee on Health.

Madam and Gentlemen:

I have the honor to submit for your consideration a summary of the annual report of the Health Department for the year 1935.

## 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)

| | 1935 | 1934 |
|---|---|---|
| Population (City Assessor's figures) | 223,017 | 221,242 |
| Persons per acre of land | 15.00 | 14.88 |
| **Corrected** | | |
| Deaths, excluding stillbirths | 1,580 | 1,473 |
| Corrected rate per 1,000 population | 7.08 | 6.66 |
| Deaths of infants under 1 year | 120 | 134 |
| Corrected infant mortality rate per 1,000 live births | 41.9 | 45.6 |
| Deaths, measles, scarlet fever, whooping cough, and diphtheria, combined | 6 | 19 |
| Corrected rate per 100,000 population | 2.7 | 8.6 |
| Births, excluding stillbirths | 2,862 | 2,935 |
| Corrected live birth rate per 1,000 population | 12.83 | 13.27 |
| Stillbirths | 98 | 114 |
| Corrected rate per 1,000 live births | 34.2 | 38.8 |
| Natural increase, excess of births over deaths | 1,282 | 1,463 |
| Corrected rate per 1,000 population | 5.75 | 6.61 |
| **Crude** | | |
| Deaths, excluding stillbirths | 1,841 | 1,683 |
| Rate per 1,000 population | 8.25 | 7.61 |
| Deaths of infants under 1 year | 163 | 174 |
| Infant mortality rate per 1,000 living births | 43.0 | 46.4 |
| Births, excluding stillbirths | 3,791 | 3,749 |
| Rate per 1,000 population | 17.00 | 16.94 |
| Stillbirths | 122 | 140 |
| Rate per 1,000 live births | 32.18 | 37.34 |
| Marriages | 2,596 | 2,481 |
| Rate per 1,000 population | 11.64 | 11.21 |

## FINANCIAL STATEMENT

This statement is divided into two parts, the first part covering those services concerned with the control and prevention of disease, and the second, the operation of the Comfort Stations.

### CONTROL AND PREVENTION OF DISEASE, 1935

**Summary**

| | | |
|---|---|---|
| (a) | Personal Services | $ 87,811.37 |
| (b) | Outside services | 4,769.13 |
| (c) | Material, supplies and repairs | 8,800.94 |
| (d) | Equipment and replacements | 803.47 |
| (e) | Fuel, water, light and power | 1,126.71 |
| (h) | Auto expense | 1,796.38 |
| | | $105,108.00 |

**Expenditure by Division**

| | | |
|---|---|---|
| C - 1. | Administration and Statistics | $ 11,555.48 |
| C - 2. | Bacteriological Laboratory | 6,692.79 |
| C - 3. | Treatment and Prevention of Communicable Diseases | 17,300.04 |
| C - 4. | Sanitary Inspection | 23,121.68 |
| C -5-1. | Dairy Inspection | 7,904.22 |
| C -5-2. | Food Inspection | 5,939.64 |
| C - 6. | Bureau of Child Hygiene | 29,084.60 |
| C - 7. | Medical Relief | 3,509.55 |
| | Gross Expenditure, Control and Prevention of Disease | $105,108.00 |

**Revenue**

| | | |
|---|---|---|
| Police Court Fines and Costs | $ nil | |
| Fees for Laboratory work | 46.50 | |
| Sale of Infants' Feedings at Milk Depot | 77.45 | |
| | | 123.95 |
| | | $104,984.05 |

Net Cost per Capita, 45.8c.

### COMFORT STATIONS

**Summary, 1935**

| | | |
|---|---|---|
| (a) | Personal Services | $ 17,687.62 |
| (c) | Material, Supplies and Repairs | 1,152.55 |
| (e) | Fuel, Water, Light and Power | 2,923.88 |
| (h) | Auto Allowance | 180.35 |
| (i) | Interest and Sinking Fund (Uncontr.) | 3,738.07 |
| | | $ 25,682.47 |

**Expenditures**

| | | |
|---|---|---|
| C-10-1. | Comfort Stations—Operation and Maintenance | $ 21,944.40 |
| C-10-2. | Comfort Stations—Fixed Charges on Deb. Debt | 3,738.07 |
| | Gross Expenditure | $ 25,682.47 |
| | Revenue from Comfort Stations, 1935 | 154.91 |
| | Net Expenditure | $ 25,527.56 |

Net Cost per Capita, 11c.

## COMMUNICABLE DISEASES

The total number of reports of Communicable Diseases for the year was six thousand two hundred and seventy-seven and one hundred and four deaths, as compared with nine thousand and seventy-two cases and one hundred and fourteen deaths for 1934.

Non-resident cases numbered one hundred and fifty-seven, deaths thirty- nine, as compared with one hundred and forty-eight cases and twenty-one deaths for 1934.

Corrected deaths for the city numbered ninety-one as compared with one hundred and sixteen recorded the preceding year. This is arrived at by deducting non-resident deaths and adding deaths of Winnipeg citizens registered in St. Boniface Sanatorium and Ninette Sanatorium.

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 table for the preceding year.

| DISEASES | 1935 Cases | 1935 Deaths | 1935 Rate per 100,000 Pop. | 1935 Rate per 100 Cases | 1934 Cases | 1934 Deaths | 1934 Rate per 100,000 Pop. | 1934 Rate per 100 Cases |
|---|---|---|---|---|---|---|---|---|
| Anterior Poliomyelitis | 3 | 2 | .89 | 66.6 | 4 | .... | ..... | ..... |
| Amoebic Dysentry | ..... | .... | ..... | .... | 1 | .... | ..... | ..... |
| Cerebro Spinal Fever | 5 | 3 | 1.3 | 60.0 | 2 | 1 | .45 | 50. |
| Chickenpox | 1,448 | 1 | .44 | .06 | 1,231 | 2 | .90 | .16 |
| Diphtheria | 166 | 6 | 2.24 | 3.6 | 336 | 10 | 4.52 | 2.9 |
| Diphtheria Carriers | 30 | .... | ..... | ..... | 61 | .... | ..... | ..... |
| Encephalitis, infectious | ..... | .... | ..... | ..... | ..... | 1 | .45 | ..... |
| Erysipelas | 48 | 4 | 1.79 | 8.3 | 50 | 2 | .90 | 4. |
| Influenza | 18 | 13 | 5.82 | 7.2 | 13 | 13 | 5.87 | .... |
| Measles | 901 | 1 | .44 | .11 | 6,326 | 5 | 2.76 | .08 |
| Mumps | 2,185 | .... | ..... | ..... | 197 | .... | ..... | ..... |
| Puerperal Fever | 4 | 4 | 1.79 | .... | 1 | 1 | .45 | .... |
| Scarlet Fever | 530 | 1 | .44 | .18 | 542 | .... | ..... | ..... |
| Smallpox | ..... | .... | ..... | ..... | ..... | .... | ..... | ..... |
| Tuberculosis, Pul., crude | 181 | 62 | 27.4 | 34.2 | 151 | 75 | 33.9 | 49.6 |
| Tuberculosis, Pul., cor. | 155 | 60 | 26.9 | 38.7 | 134 | 78 | 35.25 | 58.2 |
| Tuberculosis, all forms, crude | ..... | 83 | ..... | ..... | ..... | 86 | 38.8 | ..... |
| Tuberculosis, all forms, corrected | ..... | 75 | ..... | ..... | ..... | 88 | 39.7 | ..... |
| Typhoid Fever | 14 | 4 | 1.79 | 28.5 | 13 | 2 | .90 | 15.3 |
| Typhoid Fever, cor. | 9 | 1 | .44 | 11.1 | 8 | 3 | 1.35 | 37.5 |
| Whooping Cough | 744 | 3 | 7.3 | .40 | 144 | 2 | .90 | 1 4 |

**Anterior Poliomyelitis**—Three cases were reported for the year, two of which were non-resident cases. Two deaths resulted, one in each group.

**Cerebro Spinal Fever**—A total of five cases was recorded for the year. Of this number one was non-resident. Two of the four city cases terminated fatally, also the non-resident case. Age incidence for city cases was as follows: 8 months, 11 months, 20 months, and one adult of 29 years. The non-resident case was 3 months.

**Chickenpox**—The total number of cases reported for the year was one thousand four hundred and forty-eight, deaths one; as compared with one thousand, two hundred and thirty-one cases and two deaths for the preceding year. Many of these reports reach us through the visiting nurses of the Medical Inspection Department of Schools and parents. Control is difficult because of the attitude of parents and others.

It will be noted by reference to the age and sex table that one thousand one hundred and six, of the one thousand four hundred and forty-eight cases notified, appear in columns age five to nine and ten to fourteen years.

The greatest increase is in Ward One, with a slight increase in Ward Two, while Ward Three shows a substantial decrease over the preceding year's figures.

**Diphtheria**—One hundred and sixty-six cases and six deaths were recorded during the year, as compared with three hundred and thirty-six cases and eleven deaths for 1934.

Diphtheria prevention is beginning to bear fruit. The city's figures have never before reached such a low level; after deducting non-resident cases, we have a total of one hundred and thirty-eight cases, and in deaths we have five non-resident, leaving only one death for the city.

The following table shows distribution of cases and deaths by wards, along with a comparative table for 1934.

| | 1935 | | 1934 | |
|---|---|---|---|---|
| | Cases | Deaths | Cases | Deaths |
| Ward One | 22 | .... | 57 | 4 |
| Ward Two | 70 | 1 | 144 | 5 |
| Ward Three | 37 | .... | 83 | .... |
| Institutional | 9 | .... | 26 | 1 |
| Non-residential | 28 | 5 | 26 | .... |
| Total | 166 | 6 | 336 | 10 |

In 1934 one Winnipeg death registered in St. Boniface should be added to Ward Two. There were no Winnipeg deaths outside the city during 1935.

Nineteen cases are recorded as "suspects" and two as "unrecognized cases". The former classification includes cases whose clinical symptoms suggested diphtheria but laboratory findings remained negative, while unrecognized cases included cases found in the convalescent stage and from which secondary cases originated. Laboratory findings in such cases were positive. Secondary cases totalled eight. These are recorded after quarantine has been established in the home or after removal of a case to hospital.

No return cases were recorded, as compared with two last year. This constitutes a record.

Institutions were comparatively free from the disease, only nine cases being recorded, as compared with twenty-six for 1934. No deaths were recorded for 1935.

**Diphtheria Carriers**—The total number of carriers recorded for the year was thirty as compared with sixty-one for the preceding year.

**Diphtheria Prevention**—As has been mentioned in previous reports Toxoid administration has been systematically carried forward in the city schools since 1923. During 1933 a change was made in that we confined our work to children of pre-school age. We received the co-operation of the Medical Inspection Department of Public Schools and they kindly arranged to allow us the use of selected schools for this work on Saturday mornings. This work was carried on from September 28th to December 7th.

The following figures indicate the progress made for the past three years:—

| | 1933 | 1934 | 1935 |
|---|---|---|---|
| First Treatments | 1,428 | 2,593 | 2,369 |
| Second Treatments | 1,253 | 2,246 | 2,188 |
| Third Treatments | 1,183 | 2,030 | 2,020 |
| Total | 3,864 | 6,869 | 6,577 |

Enough material to immunize three thousand one hundred and thirty-six persons, is recorded as having been distributed from the office. After allowing for loss in handling we might reasonably conclude that a thousand children received this protection in private practice and institutions within the city.

Diphtheria prevention by the administration of Toxoid is making progress and we are getting results, but much remains to be done before we reach our ideal. It seems strange that with all the publicity that this preventive measure has received and the opportunities which are afforded our people for its administration, that more individuals do not take advantage of this safe and efficient means of conferring immunity on their children.

**Erysipelas**—Forty-eight cases (including nine non-resident) were recorded during the year, and four deaths, including one non-resident.

**Influenza**—The total number of cases reported was eighteen, deaths thirteen. Most of the cases are taken from the death sheet registration. Cases and deaths include one non-resident each. The bulk of our cases recorded appear in Ward Two, there being eleven cases and seven deaths reported from this Ward. With the exception of two, all deaths appear in age periods of over 35 years.

**Lethargic Encephalitis**—This is the second year the records show a clean sheet for this disease.

**Measles**—The total number of cases of measles reported during the year was nine hundred and one, deaths one, as compared with six thousand three hundred and twenty-six for 1934, deaths five.

There was a noticeable increase in January and February which continued through to the month of June.

While the previous year's epidemic was extensive, it did not cover all the ground and we found ourselves during the month of December fighting fresh outbreaks in the parts which had escaped during the outbreak of 1934. With but ten cases reported in the month of November, 1935, the cases jump to a record figure of two hundred and seventy the following month.

**Mumps**—In Ward Two, mumps continued prevalent during 1934, the

other wards entering into the year 1935 with comparatively few cases being reported. During 1935 two thousand one hundred and eighty-five cases are recorded. It is surprising with what rapidity it spreads into other wards, as we find Ward One with eight hundred and eighty-six cases and Ward Two with four hundred and fifty-one, Ward Three seven hundred and ninety-five, compared with 1934 figures: Ward One, ten; Ward Two, one hundred and sixty-four, and Ward Three, twenty-three. As has been mentioned in another part of this report, control is not only difficult but almost out of the question.

Our regulations now only control the patient and probably this goes into effect too late to be of much use in preventing spread. Coupled with this we see a decided indifference on the part of many parents who consider an attack of mumps as a part of their child's experience in life, an experience not to be taken too seriously.

**Scarlet Fever**—The total number of cases reported for the year was five hundred and thirty, deaths one, as compared with five hundred and forty-two cases and no deaths during 1934.

The Scarlet Fever situation continued favourable from the beginning of the year on to September when the cases doubled over the figures of the preceding month and again in October, when the total of September was doubled. House to house visiting was instituted in several districts where cases appeared from time to time as a result of unrecognized cases being reported or brought to light by visits made by nurses of the Medical Inspection Department of Public Schools.

The type was mild as is evidenced by the fact that we have only suffered one death from this disease during the past two years.

Local outbreaks occurred in Wards One and Three. Contact to cases not isolated early enough and to unrecognized cases appeared to be the principal cause. There was no milk borne infection.

Perhaps one of the outstanding features in connection with the Scarlet Fever situation is the large number of suspect cases and unrecognized cases that reach our records. Eighty-one suspect cases have been placed on our records during the year as against seventy-seven last year. Of the eighty-one cases, eighteen were written off as definitely not Scarlet Fever. Thirty-eight were admitted to the isolation hospital while forty-three were isolated under observation in their homes. These figures include seven institutional cases and eight non-resident. Secondary cases totalled forty-one. Twenty-eight were classified as unrecognized and five return cases.

A final review of the city cases shows four hundred and fifty-three recorded as occurring in all wards, while forty-six are registered in our hospitals from outside municipalities and listed as non-resident cases, and thirty-one as institutional; a total of five hundred and thirty cases. The disease remains scattered throughout the city and the epidemic index continues to remain high.

**Smallpox**—We are pleased to record the fact that we have completed four clear years without registering a case of Smallpox. We did, however, isolate a child who had been visiting outside the city and developed a suspicious rash, subsequent events eliminated Smallpox as a possibility.

**Tuberculosis of the Lungs**—One hundred and eighty-one cases and sixty-two deaths were recorded for the year as compared with one hundred and fifty-one cases and seventy-five deaths for 1934. Corrected

figures for the city show one hundred and fifty-five cases and sixty deaths against one hundred and thirty-four cases and seventy-eight deaths for 1934.

Source of ascertainment of cases recorded for 1935 and comparative figures for the two preceding years is as follows:—

| | 1935 | 1934 | 1933 |
|---|---|---|---|
| King Edward Memorial Hospital | 25 | 26 | 29 |
| Ninette Sanatorium | 10 | 9 | 8 |
| St. Boniface Sanatorium | 27 | 24 | 32 |
| Central Clinic | 68 | 44 | 48 |
| Doctors and others | 18 | 10 | 20 |
| Death Registration | 12 | 21 | 12 |
| Non-resident | 21 | 17 | 20 |
| Total | 181 | 151 | 169 |

For age and sex incidence, other than ten year periods see table submitted with all infections; Division of Communicable Diseases.

Summary showing length of time symptoms noted prior to notification to the Department is as follows:—

| City Cases | | Age Incidence (Ten Year Periods) | M. | F. | Total |
|---|---|---|---|---|---|
| Under one month | 89 | 0-10 years | 1 | 1 | 2 |
| One month | 8 | 10-20 years | 3 | 8 | 11 |
| Two months | 8 | 20-30 years | 17 | 38 | 55 |
| Three months | 5 | 30-40 years | 22 | 16 | 38 |
| Four months | 3 | 40-50 years | 13 | 5 | 18 |
| Five months | 5 | 50-60 years | 17 | 2 | 19 |
| 6-12 months | 9 | 60-70 years | 4 | 3 | 7 |
| One year and over | 28 | 70 and over | 3 | 2 | 5 |
| Corrected Total | 155 | Corrected Total | 80 | 75 | 155 |

**Deaths (corrected)**—Length of time known to Department.

| | Deaths | Age Incidence | M. | F. | Total |
|---|---|---|---|---|---|
| By Death Registration | 9 | 0-10 years | ... | ... | ... |
| Under one month | 8 | 10-20 years | ... | 1 | 1 |
| One month | 3 | 20-30 years | 4 | 11 | 15 |
| Two months | 3 | 30-40 years | 12 | 7 | 19 |
| Three months | 3 | 40-50 years | 7 | 2 | 9 |
| Four months | 1 | 50-60 years | 7 | 3 | 10 |
| Five months | 1 | 60-70 years | 1 | 1 | 2 |
| Six months | ... | 70 and over | 2 | 2 | 4 |
| Over Six months | 32 | | | | |
| Total | 60 | Total | 33 | 27 | 60 |

Distribution of Cases appearing on our records as "in Hospital and Sanatorium", at end of the year 1935.

| | M. | F. | Total |
|---|---|---|---|
| King Edward Memorial Hospital | 22 | 21 | 43 |
| St. Boniface Sanatorium | 34 | 32 | 66 |
| Ninette Sanatorium | 44 | 47 | 91 |
| Central Clinic | 5 | 3 | 8 |
| St. Rochs Hospital | 2 | .... | 2 |
| Total | 107 | 103 | 210 |

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

Summary showing work done by the three visiting nurses appears in the report of the Division of Communicable Diseases.

**Typhoid Fever**—Fourteen cases and four deaths were recorded for the year as against thirteen cases and two deaths for the preceding year. Corrected cases and deaths for the year 1935 show nine cases and one death against eight cases and three deaths for 1934.

A more detailed analysis gives the following information,—Five were definitely non-resident cases admitted to city hospitals for treatment, of this number three died.

Of the remaining nine cases, three contracted the disease while travelling outside the city. Four cases, three of which were members of one family, are listed as probably infected whilst visiting points adjacent to the city, leaving two citizens whose infection occurred within the city.

Three cases treated in hospital as suspect typhoid recovered and were discharged without a definite diagnosis.

**Whooping Cough**—The total number of cases of Whooping Cough recorded for the year was seven hundred and forty-four, deaths three, as compared with one hundred and forty-four cases and two deaths for the preceding year.

The three deaths recorded appear in the age group of one year and in this group fifty-nine cases are recorded whilst no deaths are registered in the group under one year where forty-nine cases are registered.

The months of March, April and May provided the high figures for the year, there being three hundred and seventy-eight cases reported in these three months.

In many cases the characteristic symptoms were absent and diagnosis was often difficult on this account. This has been noted before when the type is mild and atypical.

**Medical Relief, Etc.**—The total number of calls made by District Physicians was three hundred and forty-three as compared with three hundred and eighty-nine for the preceding year. In this regard we believe that these figures reflect freedom from illness amongst those not registered on unemployment relief, to a very low number. Associated with this work calls referred to the Margaret Scott Mission for attention also show a drop, the total for the last three years being ninety-eight, seventy and sixty-two respectively.

Calls received in the office from School Visiting Nurses, parents, Social agencies and other sources totalled six hundred and twenty-seven against eight hundred and fifty-seven. Such calls relate to clearing cases not receiving medical attention and reported to be suffering from an infectious disease, and also include two hundred and thirteen calls to pensioners or recipients of relief through the Social Welfare Commission; these are attended to through this office by Dr. Lougheed.

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

Three thousand five hundred and ninety-five school certificates were issued from the office as compared with three thousand three hundred and eighty-two during 1934. The prevalence of Mumps, Chickenpox and Whooping Cough is responsible for this high figure. The schools require a clearance for all children absent with an infectious disease. Many of the cases do not receive medical attention and are therefore compelled to appear at the Health Department for the necessary clearance.

Vaccinations performed at the City Hall totalled nine hundred and forty-six against one thousand and thirty-eight for 1934.

Antitoxin distributed during the year totalled one million one hundred and twenty-six thousand (1,126,000) units. Nineteen, one person packets of Scarlet Fever Antitoxin were issued for treatment, fifty-six, one-person packets for passive immunization and fifty-nine, one-person packets for active immunization. Dick Test material issued totalled 36 packets. Typhoid and other sera and vaccines are also supplied free.

**Insulin**—One hundred and thirty persons received insulin for all or part of the year. Of this number seventy-eight were on the "free list".

The amount expended for Drug contract supplies, prescriptions, etc., totalled $1,354.57. Other supplies distributed from the office principally for tuberculous patients included rubbing alcohol, disinfectant, refills, dressings, etc.

Twenty-four tuberculous patients received a quart of milk daily for all or part of the year, total amount supplied was seven thousand eight hundred and fifty-six quarts.

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

Section 3 of Division 1, Part 2.—The Health Officer or his representative is given power of entry to premises under the Regulations or any by-law or regulation passed by the municipality pertaining to health.

Section 10, Division 1, Part 2.—The Health Officer shall cause a house or locality to be inspected upon complaint or where reasonable belief exists that any person is suffering from an infectious or contagious disease.

Section 22 (b), Division 1, Part 2.—This section deals with Anterior Poliomyelitis and allows for the placarding of premises at the discretion of the Health Officer.

Section 22 (e), Division 1, Part 2.—This section deals with Cerebro Spinal Meningitis (Meningococcal) and allows for the placarding of premises at the discretion of the Health Officer.

Section 8, Division 1, Part 2.—This section requires the occupier to give notice in writing of the existence of infectious disease, in addition to those already required to do so.

Section 22, Division 1, Part 2.—Two sub-sections dealing with Smallpox and relating to vaccination and to an order of the Minister or School Trustees are amended by making same subject to the provisions of the Act.

Section 3, Division 1, Part 2.—A sub-section is added giving power to quarantine, at their own expense, conscientious objectors to vaccination or inoculation for a period not exceeding four weeks, when in the opinion of the Health Officer this is required for the protection of the community.

Section 49, Division 3, Part 2.—The amendment to this section empowers the Health Officer to allow others than the officiating clergymen, the undertakers, or necessary witnesses to attend the funeral of a person who has died of an infectious disease.

Sub-section (7) of Section 15 of the Public Health Act dealing with regulations is amended by giving authority to the Minister to provide medical aid for preventing or mitigating any disease.

Section 12, Division 1, Part 2.—A new sub-section is added providing that no one suffering from a communicable disease may move from one municipality to another, and no Health Officer may transport any person suffering from a communicable disease without the permission of the Health Officer of each municipality.

Section 1, Division 1, Part 2.—A new sub-section has been added which defines infectious or contagious disease as any communicable disease as defined by the Act.

Section 134, Division 4, Part 4.—Sub-section (b) which provides for licenses being granted for the slaughter for sale as food, animals raised by farmers, to be in force from the first day in December in any year to the first day of March following is amended in the last portion by adding the words, "unless otherwise stated in the permit".

Section 176, Division 6, Part 5.—Sub-section (4) deals with the issue of permits for conducting Maternity Homes. The amendment provides for such permits to be signed by the Minister.

Section 187, Division 7, Part 5.—Sub-section (3) deals with the issue of permits for conducting of child caring institutions. The amendment provides for such permits to be issued by the Minister.

Section 194, Division 8, Part 5.—The amendment to this section provides that no label or ticket of any kind shall be affixed to bread **after it has been removed from the oven.**

Section 260, Division 12, Part 5.—This section which prohibits the use of filthy or insanitary material in the manufacture of mattresses, unholstery, etc., has been amended to include recovering, repair or renovation of mattresses, upholstery, etc.

Section 55, Division 2, Part 4.—A new sub-section is added which

reads as follows: "(b) The sale of fluid milk to which homogenized cream or milk has been added, or which has an apparent percentage of cream volume exceeding four and one-quarter times the percentage of butter fat said fluid milk contains, shall constitute a violation of these regulations."

Section 176, Division 14, Part 3.—This section has been amended by adding thereto a new sub-section as follows: "(b) The Medical Officer of Health shall require a floor area of not less than 40 square feet per person in any room occupied for sleeping purposes when in his opinion such is required to safeguard the health of the occupants of such premises."

By the City of Winnipeg—By an amendment to Section 301 of By-law 14301, (The Building By-law) all applications for permits for construction or conversion of premises for use as stables must be approved by the City Council.

**Legislation Required**—In view of the number of gas stoves and plates in use, many of which are in use in rooms that are occupied for sleeping purposes; also that a large number of these are improperly connected to gas mains by rubber tubing, etc., stoves and plates with lever taps that may easily be opened by accident; defective fixtures and fittings, etc.; a By-law, or, better still, a Regulation passed under the Public Health Act, giving the Health Officer authority to regulate the class and kind of gas stoves, plates, fittings, pipes, etc., and the location of same is desirable.

**Housing**—Many conventions and meetings were held during the year regarding the housing situation, but comparatively little has been accomplished. A great many suggestions have been offered for improvement as a reference to the report of the Chief Inspector of Housing and Sanitation will show, where they are set forth in detail.

It would appear that the solution of this vexed question has not yet been arrived at; however, we feel that progress is being made and the interest of the public at large and of governing bodies has been aroused with a view to improving present conditions.

**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. Howard Spence, who are again entitled to the gratitude of our citizens for the effort put forth.

**Educational Work**—Lectures and addresses on various public health topics were given, as usual, by members of the staff, at the request of a number of organizations.

The following educational programme for the education of our own staff was arranged for the Winter season 1934-1935, and the meetings were well attended:

1934—

Nov. 9—Opening Address—Dr. A. J. Douglas, Medical Health Officer, followed by Dr. M. S. Lougheed, Bacteriologist, on "Food Examination".

Nov. 16—"Cross connections in water supplies"—Mr. John Foggie, Chief Sanitary Inspector, Province of Manitoba.

Nov. 23—"Fumigation of food stuffs by Ethyline Oxide"—Mr. Robert McQuillan, Chief Food Inspector.

Nov. 30—"Sewage disposal in connection with Greater Winnipeg Sanitary District"—Mr. W. D. Hurst, C.E., Secretary of Greater Winnipeg Sanitary District.

Dec. 7—"History of Winnipeg Milk Supply"—Mr. E. C. Brown, Chief Dairy Inspector.

Dec. 14—"The Health Unit and Immunization"—Dr. I. M. Cleghorn, Medical Director, St. Vital Health Unit.

1935—

Jan. 11—"Housing"—Mr. A. Officer, Chief Inspector, Division of Sanitation and Housing.

Jan. 18—"Some phases in fighting pulmonary tuberculosis"—Mr. W. T. Watt, Chief, Division of Communicable Diseases.

Jan. 25—"Milk"—Dr. W. A. Shoults, V.S., Provincial Department of Health.

Feb. 1—"Amoebic Dysentry"—Dr. F. Cadham, Provincial Bacteriologist.

Feb. 8—"Silicosis"—Dr. F. W. Jackson, D.P.H., Deputy Minister of Health, Province of Manitoba.

Feb. 15—"Common Errors in Vital Statistics"—Mr. A. G. Lawrence, Secretary.

Feb. 22—"Sanitation in rural areas"—Mr. W. W. Arnott, Sanitary Inspector, Provincial Department of Health.

Feb. 29—"Venereal Diseases"—Doctor S. C. Peterson.

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, 1935.

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

| 1935 | Cultures for Diphtheria | | Sputa for Tuberclusois Bacilli | | Urethral Smears | | Widals for Typhoid | | Water | Milk and Cream | Urinalysis | Miscellaneous | Vaccinations | Total Examinations per Month |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Pos. | | Pos. | | Pos. | | Pos. | | | | | | |
| January | 260 | 0 | 30 | 0 | 20 | 2 | 1 | 0 | 149 | 163 | 29 | 6 | 25 | 683 |
| February | 181 | 1 | 23 | 1 | 74 | 9 | 0 | 0 | 139 | 153 | 52 | 10 | 17 | 649 |
| March | 165 | 0 | 18 | 0 | 64 | 6 | 3 | 0 | 150 | 173 | 26 | 13 | 8 | 620 |
| April | 126 | 0 | 20 | 1 | 93 | 10 | 0 | 0 | 149 | 159 | 25 | 10 | 17 | 599 |
| May | 124 | 5 | 20 | 3 | 85 | 4 | 0 | 0 | 174 | 155 | 19 | 6 | 578 | 1165 |
| June | 751 | 1 | 20 | 2 | 72 | 3 | 0 | 0 | 199 | 144 | 18 | 2 | 54 | 1260 |
| July | 1496 | 2 | 16 | 1 | 123 | 6 | 0 | 0 | 188 | 150 | 17 | 6 | 0 | 1996 |
| August | 800 | 0 | 8 | 2 | 67 | 9 | 0 | 0 | 187 | 124 | 18 | 0 | 9 | 1213 |
| September | 253 | 0 | 8 | 1 | 72 | 11 | 0 | 0 | 153 | 147 | 13 | 124 | 75 | 827 |
| October | 176 | 0 | 20 | 3 | 79 | 7 | 0 | 0 | 161 | 144 | 15 | 5 | 67 | 667 |
| November | 165 | 0 | 20 | 5 | 72 | 3 | 5 | 0 | 151 | 96 | 22 | 5 | 80 | 626 |
| December | 97 | 1 | 14 | 1 | 89 | 11 | 1 | 0 | 164 | 155 | 18 | 14 | 16 | 568 |
| 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 |
| 1933 Totals | 7585 | 30 | 256 | 32 | 227 | 31 | 45 | 3 | 1888 | 1771 | 319 | 119 | 1490 | 13700 |

**Water Samples**—During the year 1,964 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 1,763 as compared with 1,746 in 1934 and 1,771 in 1933. These were examined for butter fat content and the milk for water and solids. There were also 1,634 bacterial counts made as compared with 800 in 1931.

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

| | 1935 | | 1934 | |
|---|---|---|---|---|
| | Milk | Cream | Milk | Cream |
| Dairy Inspectors | 1,671 | 15 | 1,644 | 5 |
| Bureau of Child Hygiene | 26 | 13 | 34 | 17 |
| King George Hospital | 21 | .... | 34 | .... |
| Private | 15 | 2 | 12 | .... |
| | 1,733 | 30 | 1,724 | 22 |
| Total Milk and Cream | 1,763 | | 1,746 | |
| Bacterial Counts | 1,634 | | 1,623 | |

**Diphtheria Cultures**—Cultures examined in 1935 numbered 4,694 as compared with 6,130 in 1934 and 7,585 in 1933. This is the lowest number recorded in many years and reflects the decreasing incidence of the disease.

These cultures were made for doctors, 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 the summer camps.

**Dispensary Service**—The Medical Dispensary Services rendered by this Division are quite extensive although no records are made of these services.

These consist in 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 is also given to 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 and the issuing of certificates for return to school has been continued as formerly.

Vaccinations for the year totalled 946, the lowest number in years.

In conclusion, I wish to express my appreciation for the manner in which other members of this Division, Miss Wilson and Mr. Bentham 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 submit herewith report on work done by this division, year ending December 31, 1935.

Attached hereto are a number of tables summarizing totals relating to communicable diseases, cases and deaths monthly, cases and deaths by wards; age and sex in age group totals; summaries showing totals of reports submitted by Inspectors and Nurses; also summaries relating to Toxoid administration, along with comparative totals for the year preceding.

**Communicable Diseases**—In reviewing totals of communicable diseases for the year, we have much to be pleased about. Diphtheria established a record of only one death of a Winnipeg citizen; Scarlet Fever was slightly lower in number when compared with the preceding year, it is never far away and calls for close checking almost continually. The type remains mild as is evidenced by the almost complete absence of fatality, there being only one death during the year.

Other major infections were low in numbers and in the case of Smallpox and Encephalitis Lethargic not a single case or death was recorded.

Chickenpox and Mumps were prevalent throughout the year; Whooping Cough was at its height in the spring months, falling gradually in numbers throughout the rest of the year.

**Diphtheria Prevention**—Diphtheria prevention work amongst children of pre-school age was carried on during the fall months. We had a good response and were able to complete our campaign early in December. Two thousand and twenty children received the full treatment of three doses of Toxoid.

**Inspectors' Reports**—The total number of visits made by Inspectors for the year was eight thousand seven hundred and fifty-six; new cases investigated and reported upon totalled five thousand four hundred and ninety-two, necessitating the establishing of isolation and quarantine in five thousand one hundred and forty-seven homes.

Quarantine inspections totalled three hundred and forty-seven as compared with five hundred and forty-five for 1934. Inspectors supervised or attended to the disinfection of bedding, etc., in eight hundred and eighty-one homes, sprayed one hundred and sixty rooms and seven houses. The spraying of rooms and houses is only resorted to where open cases of tuberculosis have resided.

They also issued in the course of this work two thousand one hundred and eighty-three school certificates.

**Tuberculosis Visiting**—The total number of visits made to homes of patients was six thousand and thirty-five as compared with five thousand seven hundred and eighty-two during 1934. Of this number one hundred and sixty-six were visits to new cases. .

New cases added to districts totalled one hundred and forty-one. The present standing of cases on the visiting and non-visiting list is as follows:—

| | District One | District Two | District Three | Total |
|---|---|---|---|---|
| Number of Patients | 143 | 224 | 182 | 559 |
| New Cases, non-visiting | 37 | ..... | ..... | 37 |

There is a marked reduction in the number of non-visiting patients, there being sixty-three registered in this classification during 1934.

Classification of Cases in Districts:—

| | Positive | Clinically Positive | Suspects | Contact Families | Totals |
|---|---|---|---|---|---|
| District One | 26 | 81 | 5 | 31 | 143 |
| District Two | 73 | 94 | 19 | 38 | 224 |
| District Three | 55 | 83 | 10 | 34 | 182 |

There is no marked change in these figures when compared with those of the preceding year.

In connection with this branch of the work the nurses are not required to attend at the various clinics and are therefore able to devote more time in visiting service. We maintain constant touch with all clinics however, and have a fairly heavy correspondence file with the various hospitals and sanatoriums.

The follow-up work on reported cases is closely checked in order that X-ray and medical examination of contacts will be carried out periodically.

The nurse also attends to the hospitalization of patients found on the district, often without medical attention; she sees that the poor and needy patient is placed on the free milk list; passes along calls for relief to the various social agencies; supervises the supply of the necessary material to patients chasing the cure at home, and arranging hospital where required, assisting the contacts to clinics for examination, reading and reporting on von pirque tests, supervising living conditions in the home, helping to brighten the lives of those who have the misfortune to fall a prey to the tuberculosis germ, by encouraging them to follow strictly the road to recovery or arrest of the disease. The advance made along this line in recent years is very noticeable, and patients accept much more readily the advanced treatment of the disease.

This is the work of the visiting nurse and we feel sure that it is in part, at least, responsible for our low tuberculosis death rate.

**Medical Relief**—Medical relief amongst wards of the Social Welfare, D.S.C.R. families, pensioners, and those unable to pay for medical attention is still a necessity and is part of the work of this Division. Such calls are attended to by two district physicians.

**Office Records**—The filing of office records, receiving reports, distribution of supplies, issuing of school certificates, notifying schools re quarantined homes, attending to all accounts and all clerical work re-

lating to this Division, correspondence with hospitals, sanatoriums, etc., and many other duties fall to the lot of one senior and one junior clerk.

In conclusion we wish to record our thanks to the various agencies associated with this work and by whose help and co-operation any success we may have attained has been made possible.

Yours obediently,

WM. T. WATT,

Chief Inspector, Division of Communicable Diseases.

## COMMUNICABLE DISEASES—1935

| DISEASES | Jan. | | Feb. | | Mar. | | Apr. | | May | | June | | July | | Aug. | | Sept. | | Oct. | | Nov. | | Dec. | | Totals 1935 | | Totals 1934 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 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 |
| Anterior Poliomyelitis | | | | | | | | | | | | | | | 1 | | 1 | 1 | 1 | 1 | | | | | 3 | 2 | 4 | |
| Cerebro Spinal Fever | | | 3 | 2 | | | | | | | | | 1 | | | | | | 1 | 1 | | | | | 5 | 3 | 2 | 1 |
| Chickenpox | 194 | 1 | 94 | | 160 | | 100 | | 97 | | 77 | | 69 | | 16 | | 43 | | 171 | | 248 | | 179 | | 1448 | 1 | 1231 | 2 |
| Diphtheria | 21 | 2 | 20 | | 16 | 1 | 13 | 2 | 2 | | 21 | 1 | 6 | | 14 | | 12 | | 21 | | 10 | | 10 | | 166 | 6 | 336 | 10 |
| Diphtheria Carriers | 7 | | 2 | | 1 | | 2 | | 4 | | 2 | | 4 | | 3 | | 2 | | 1 | | 1 | | 1 | | 30 | | 61 | |
| Erysipelas | 8 | 1 | 2 | | 4 | | 7 | 2 | 4 | 1 | 3 | | 2 | | 2 | | 4 | | 3 | | 2 | | 7 | | 48 | 4 | 50 | 2 |
| Influenza | 3 | 4 | 1 | | | | | | 1 | 1 | 4 | 1 | | | | | 1 | 1 | 2 | 1 | 3 | 2 | 3 | 3 | 18 | 13 | 13 | 13 |
| Lethargic Encephalitis | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Measles | 51 | | 71 | | 102 | | 149 | | 141 | | 69 | | 31 | 1 | 2 | | 2 | | 3 | | 10 | | 270 | | 901 | 1 | 6326 | 5 |
| Mumps | 83 | | 98 | | 227 | | 192 | | 557 | | 360 | | 69 | | 36 | | 55 | | 124 | | 203 | | 181 | | 2185 | | 197 | |
| Puerperal Fever | 1 | 1 | | | | | | | | | 1 | 1 | | | 1 | 1 | | | | | 1 | 1 | | | 4 | 4 | 1 | 1 |
| Scarlet Fever | 54 | | 44 | | 35 | | 31 | | 16 | | 19 | | 15 | | 18 | | 42 | | 92 | | 82 | 1 | 82 | | 530 | 1 | 542 | |
| Smallpox | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Tuberculosis | 11 | 5 | 12 | 6 | 10 | 5 | 26 | 7 | 19 | 4 | 17 | 5 | 19 | 6 | 10 | 9 | 11 | 4 | 19 | 2 | 12 | 3 | 15 | 6 | 181 | 62 | 151 | 75 |
| Typhoid Fever | 2 | 1 | | | 1 | | 1 | 2 | 1 | | | | | | 2 | | 4 | | 1 | | 1 | | 1 | 1 | 14 | 4 | 13 | 2 |
| Whooping Cough | 29 | | 54 | 1 | 112 | | 114 | | 152 | | 65 | | 57 | 1 | 33 | | 28 | | 39 | | 41 | 1 | 20 | | 744 | 3 | 144 | 2 |
| Totals | 464 | 15 | 401 | 9 | 668 | 6 | 635 | 13 | 994 | 6 | 638 | 8 | 273 | 8 | 138 | 10 | 205 | 6 | 478 | 5 | 614 | 8 | 769 | 10 | 6277 | 104 | 9072 | 114 |

## COMMUNICABLE DISEASES—1935

| | 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 | | | | | |
| Anterior Poliomyelitis | | | 1 | 2 | | 3 | | | 1 | 1 | | 2 | | |
| Cerebro Spinal Fever | 1 | 2 | 1 | 1 | | 5 | 1 | 1 | | 1 | | 3 | | |
| Chickenpox | 512 | 544 | 345 | 1 | 46 | 1448 | | 1 | | | | 1 | | |
| Diphtheria | 22 | 70 | 37 | 28 | 9 | 166 | | 1 | | 5 | | 6 | | |
| Diphtheria Carriers | 8 | 6 | 8 | 3 | 5 | 30 | | | | | | | | |
| Erysipelas | 16 | 12 | 9 | 9 | 1 | 48 | 2 | | | 1 | 1 | 4 | | |
| Influenza | 4 | 11 | 2 | 1 | | 18 | 4 | 7 | 1 | 1 | | 13 | 3 | |
| Lethargic Encephalitis | | | | | | | | | | | | | | |
| Measles | 421 | 337 | 104 | 20 | 18 | 901 | 1 | | | | | 1 | | |
| Mumps | 886 | 451 | 795 | 3 | 50 | 2185 | | | | | | | | |
| Puerperal Fever | | 1 | 1 | 2 | | 4 | | 1 | 1 | 2 | | 4 | | |
| Scarlet Fever | 160 | 133 | 160 | 46 | 31 | 530 | | | 1 | | | 1 | | |
| Smallpox | | | | | | | | | | | | | | |
| Tuberculosis, Pulmonary | 37 | 62 | 55 | 26 | 1 | 181 | 7 | 13 | 17 | 25 | | 62 | 18 | 5 |
| Typhoid Fever | 2 | 5 | 2 | 5 | | 14 | | 1 | | 3 | | 4 | | |
| Whooping Cough | 192 | 349 | 169 | 10 | 24 | 744 | | 1 | 1 | | 1 | 3 | | |
| Totals | 2261 | 1983 | 1689 | 157 | 185 | 6277 | 15 | 26 | 22 | 39 | 2 | 104 | 21 | 5 |

## NOTIFIED CASES OF COMMUNICABLE DISEASES, BY AGE AND SEX, 1935

| | 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 |
| Anterior Poliomyelitis | 1 | | | | | | | | | | 1 | | | | | | | | | | | 1 | | | | | 2 | 1 | 3 |
| Cerebro-Spinal Fever | 3 | | | 1 | | | | | | | | | | | | | | | 1 | | | | | | | | 4 | 1 | 5 |
| Chickenpox | 22 | 15 | 16 | 20 | 28 | 28 | 31 | 39 | 51 | 37 | 458 | 416 | 126 | 106 | 14 | 16 | 2 | 7 | 4 | 6 | 3 | | | | | | 756 | 692 | 1448 |
| Diphtheria | 1 | | 4 | 1 | 8 | 6 | 6 | 11 | 4 | 6 | 25 | 18 | 10 | 6 | 9 | 8 | 3 | 6 | 11 | 12 | 3 | 3 | 2 | | 1 | | 88 | 78 | 166 |
| Diphtheria Carriers | 1 | | | 1 | 1 | | | | 3 | 1 | 4 | 3 | 1 | 5 | | 1 | | 3 | | | | 2 | 1 | 2 | | 1 | 11 | 19 | 30 |
| Erysipelas | 2 | | 1 | | | | | | | | | 1 | | 2 | | 1 | 1 | 1 | 3 | 6 | 4 | 3 | 14 | 5 | 3 | 1 | 28 | 20 | 48 |
| Influenza | | | | 1 | | 1 | | 1 | | | | | | | | 1 | | | | 1 | 3 | 2 | 1 | | 5 | 2 | 9 | 9 | 18 |
| Lethargic Encephalitis | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Measles | 15 | 8 | 26 | 21 | 30 | 25 | 30 | 31 | 40 | 49 | 232 | 209 | 38 | 29 | 10 | 33 | 24 | 23 | 13 | 11 | 1 | 2 | | | | | 459 | 442 | 901 |
| Mumps | 2 | | 7 | 7 | 13 | 9 | 24 | 13 | 25 | 26 | 678 | 618 | 291 | 281 | 41 | 44 | 7 | 28 | 15 | 37 | 5 | 10 | 2 | 2 | | | 1110 | 1075 | 2185 |
| Puerperal Fever | | | | | | | | | | | | | | | | | | 1 | | 2 | | 1 | | | | | | 4 | 4 |
| Scarlet Fever | | | 4 | 3 | 10 | 6 | 18 | 8 | 26 | 18 | 114 | 122 | 67 | 58 | 12 | 16 | 11 | 18 | 6 | 6 | | 5 | 1 | 1 | | | 266 | 264 | 530 |
| Smallpox | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Tuberculosis, Pulmonary | | 3 | | | 1 | | | | | | 1 | 1 | 1 | 5 | 5 | 5 | 15 | 25 | 18 | 28 | 17 | 10 | 28 | 6 | 4 | 5 | 93 | 88 | 181 |
| Typhoid Fever | | | | 1 | | | | | | | 1 | 1 | 1 | 2 | | | 1 | | | 1 | 1 | 1 | 4 | | | | 8 | 6 | 14 |
| Whooping Cough | 19 | 30 | 32 | 27 | 31 | 24 | 40 | 39 | 34 | 32 | 189 | 207 | 15 | 12 | 1 | | | 3 | 1 | 2 | | 2 | | | | 1 | 362 | 382 | 744 |

## NOTIFIED DEATHS FROM COMMUNICABLE DISEASES, BY AGE AND SEX, 1935

| | 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 |
| Anterior Poliomyelitis | 1 | | | | | | | | | | | | | | | | | | | | | 1 | | | | | 1 | 1 | 2 |
| Cerebro-Spinal Fever | 2 | | | | | | | | | | | | | | | | | | 1 | | | | | | | | 3 | | 3 |
| Chickenpox | | | | | | | | | | | | | | | | | | | | | 1 | | | | | | 1 | | 1 |
| Diphtheria | | | | | 1 | | | 1 | | 1 | | 1 | | | 1 | | | | | 1 | | | | | | 2 | 4 | 6 |
| Diphtheria Carriers | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Erysipelas | 1 | | | | | | | | | | | | | | | 1 | | | | | | | 2 | | | | 3 | 1 | 4 |
| Influenza | | | | 1 | | 1 | | | | | | | | | | | | | | | 3 | 2 | 1 | | 3 | 2 | 7 | 6 | 13 |
| Lethargic Encephalitis | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Measles | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | | 1 |
| Mumps | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Puerperal Fever | | | | | | | | | | | | | | | | | | 1 | | 2 | | 1 | | | | | | 4 | 4 |
| Scarlet Fever | | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 1 |
| Smallpox | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Tuberculosis, Pulmonary | | 3 | | | 1 | | | | | | | | 1 | 1 | 2 | 3 | 1 | 4 | 9 | 11 | 3 | 2 | 14 | 2 | 2 | 3 | 33 | 29 | 62 |
| Typhoid Fever | | | | 1 | | | | | | | | | | | | | | | | | | 2 | 1 | | | | 1 | 3 | 4 |
| Whooping Cough | | | 2 | 1 | | | | | | | | | | | | | | | | | | | | | | | 2 | 1 | 3 |

## INSPECTORS' REPORT, 1935

| | Totals 1935 | Totals 1934 |
|---|---|---|
| Number of Visits | 8,756 | 12,307 |
| Houses Quarantined | 5,147 | 6,632 |
| Quarantines Raised | 756 | 1,386 |
| Quarantines Inspected | 347 | 545 |
| Other Calls | 2,506 | 3,744 |
| New Cases Investigated | 5,492 | 7,119 |
| Rooms Fumigated | ..... | ..... |
| Sanitary Defects Reported | 7 | 4 |
| Bedding, Etc., Disinfected | 881 | 1,030 |
| Rooms Sprayed | 160 | 180 |
| Houses Sprayed | 7 | 4 |
| School Certificates Issued | 2,183 | 4,385 |

## TUBERCULOSIS—VISITING NURSES' REPORT, 1935

| | Totals 1935 | Totals 1934 |
|---|---|---|
| Number of Visits | 6,035 | 5,782 |
| To Old Cases | 5,734 | 5,500 |
| To New Cases | 166 | 146 |
| To Suspects | 5 | 24 |
| On Behalf of Patients | 123 | 94 |
| Other Calls | 10 | 18 |
| Patients sent to King Edward Hospital | 12 | 8 |
| Patients sent to Ninette Sanatorium | 10 | 1 |
| Patients sent to St. Roch's Hospital | 2 | 2 |
| Patients sent to Children's Hospital | ..... | ..... |
| Patients sent to St. Boniface Sanatorium | 2 | 1 |
| Patients sent to Central Clinic | 12 | ..... |
| New Cases added to Districts | 141 | 126 |

## TOXOID ADMINISTRATION PRE-SCHOOL CHILDREN, 1934-35

| | 1935 | 1934 |
|---|---|---|
| Number receiving 1st treatment | 2,369 | 2,593 |
| Number receiving 2nd treatment | 2,188 | 2,246 |
| Number receiving 3rd treatment | 2,020 | 2,030 |
| Total number of treatments given | 6,577 | 6,869 |

## TOTAL TOXOID TREATMENTS—BY WARDS

| | Ward 1 | Ward 2 | Ward 3 | Total |
|---|---|---|---|---|
| 1934 | 836 | 3,229 | 2,804 | 6,869 |
| 1935 | 710 | 3,298 | 2,569 | 6,577 |

## TOXOID DISTRIBUTED FOR THE YEAR 1935

| Toxoid | Single Ampoules 1935 | 1934 | | Complete Series 1935 | 1934 | Schick Test 1935 | 1934 |
|---|---|---|---|---|---|---|---|
| 1st Dose | 53 | 120 | ( 1 person pkts.) | 826 | 790 | 148 pkts. | 136 pkts. |
| 2nd Dose | 42 | 103 | ( 6 person pkts.) | 17 | 19 | ..... | ..... |
| 3rd Dase | 46 | 100 | (12 person pkts.) | 184 | 221 | ..... | ..... |

## TUBERCULOSIS—1935—NEW CASES
## LIVING ACCOMODATIONS

| | PATIENTS | | | Total Number of Persons in Household | | |
|---|---|---|---|---|---|---|
| | Males | Females | Totals | Over 10 Years | Under 10 Years | Totals |
| 1 Room | 9 | 5 | 14 | 20 | 1 | 21 |
| 2 Rooms | 5 | 4 | 9 | 18 | 11 | 29 |
| 3 Rooms | 9 | 13 | 22 | 57 | 19 | 76 |
| 4 Rooms and over | 53 | 53 | 106 | 359 | 73 | 432 |
| Institutional and Unclassified | 4 | .... | 4 | .... | .... | .... |
| Totals | 80 | 75 | 155 | 454 | 104 | 558 |

## 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 | 8 | 1 | 5 | 14 | 6 | 2 | 8 |
| 2 Rooms | 1 | 1 | 7 | 9 | 7 | 6 | 13 |
| 3 Rooms | 9 | 1 | 12 | 22 | 13 | 5 | 18 |
| 4 Rooms and over | 57 | 2 | 47 | 106 | 48 | 10 | 58 |
| Institutional and Unclassified 4 | .... | .... | .... | 4 | .... | .... | .... |
| Totals 4 | 75 | 5 | 71 | 155 | 74 | 23 | 97 |

## DIPHTHERIA 1930—1935

| Year | City | | Deaths Wpg. Patients registered in St. Boniface | Non-Resident | | Immunized Children 0-5 Years | | Immunized Children 6 Yrs. & Over | | Non-Immunized Children 0-5 Years | | Non-Immunized Children 6-12 Years | | Total Immunized | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Cases | Deaths | | Cases | Deaths | Cases | Deaths | Cases | Deaths | Cases | Deaths | Cases | Deaths | School | Pre-Sch. |
| 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 | ..... |

1935—All cases in immunized children 0-5 years were treated by private physicians.

1935—Immunized group, six years and over, includes three treated by private physicians.

## DIPHTHERIA IN IMMUNIZED CHILDREN, SHOWING YEAR IMMUNIZED

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

* Includes 1 death.

# 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 1935, 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 29,393.

The total number of complaints received during the year was 2,095. Of these, 435 were unfounded, or the conditions complained of removed prior to inspection.

Notices served for abatement of nuisances were: written, informal, 1,020; written, statutory, 787; verbal notices or warnings, 9,644.

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

| | |
|---|---|
| Compaints received at office | 1,576 |
| Compaints made to Inspectors | 519 |
| Total | 2,095 |
| Of above: | |
| Complaints re non-removal of garbage, etc. | 204 |
| Complaints re nuisances | 1,891 |
| Total | 2,095 |
| Complaints well founded | 1,660 |
| Complaints unfounded or conditions rectified prior to inspection | 435 |
| Total | 2,095 |
| Written notices (informal) | 1,020 |
| Written notices (statutory) | 787 |
| Verbal notices or warnings | 9,644 |
| Total | 11,451 |

**Inspections Made**

| | |
|---|---|
| Dwelling houses | 1,894 |
| Tenements and apartment blocks | 1,992 |
| Hotels and lodging houses | 346 |

| | |
|---|---|
| Schools and public buildings | 26 |
| Abattoirs | 8 |
| Workshops and factories | 505 |
| Offices | 122 |
| Stores | 616 |
| Stables, Feed and Sale | 225 |
| Stables (private) | 567 |
| Laundries (hand) | 592 |
| Laundries (steam) | 9 |
| Dog Kennels | 200 |
| Theatres and places of amusement | 106 |
| Public bath houses | 146 |
| Public bath houses, water samples | 228 |
| Comfort stations, Public | 329 |
| Garage and filling stations | 497 |
| Markets, etc. | 345 |
| Bedding and upholstering factories | 25 |
| Lack of heat in dwellings | 68 |
| Wiping rags | 28 |
| Refrigerators (chemical) | 1 |
| Basements requiring permit of Health Officer | 31 |
| Common drinking cups and towels | 81 |
| Barber shops | 153 |
| Second-hand stores and junk yards | 534 |
| Poolrooms | 356 |
| Yards, sheds, areas, etc. | 4,498 |
| Vacant lots (nuisances) | 697 |
| Streets and lanes (nuisances) | 4,733 |
| Contractors' closets | 165 |
| Pit closets | 268 |
| Undertakers' parlors | 14 |
| Tanneries, Hide storage warehouses | 80 |
| Hydrocyanic acid gas fumigations | 152 |
| Total number of inspections | 20,637 |
| Re-inspections | 8,756 |
| Total number of inspections and re-inspections | 29,393 |

**Defects and Nuisances Discovered and Abated**

| | |
|---|---|
| Drains, choked or defective | 132 |
| Sinks and washbasins, choked or defective | 152 |
| Waterclosets and fittings, choked or defective | 268 |
| Baths and fittings, choked or defective | 32 |
| Urinals and fittings, choked or defective | 57 |
| Soil-pipes, clean-outs, etc., choked or defective | 112 |
| Catch-basins and traps, choked or defective | 106 |
| Watercloset compartments, defective light and ventilation | 20 |
| Plumbing and water pipes, frozen | 97 |
| Vent stacks, frozen | 19 |
| Sewer connections, frozen | 6 |
| Water services, defective or cut off | 147 |
| Plumbing fixtures, insufficient | 11 |
| New plumbing, notices to install | 6 |
| Total plumbing defects | 1,165 |

| | |
|---|---|
| Dirty yards, courts, sheds, etc. | 3,134 |
| Poultry kept in or too close to dwelling | 45 |
| Pigeons kept in dwelling or not confined to coop | 26 |
| Animals kept in dwelling | 32 |
| Poultry kept under insanitary conditions | 69 |
| Cows or other cattle kept under insanitary conditions | 33 |
| Cows or other cattle kept too close to dwelling | 2 |
| Hogs, unlawfully keeping | 3 |
| Horses, insanitary stables | 53 |
| Garbage receptacles | 1,482 |
| Refuse receptacles | 238 |
| Manure bins, defective | 203 |
| Ash receptacles | 189 |
| Paper receptacles | 154 |
| Cellars and basements, defective | 216 |
| Dwellings, dilapidated and insanitary | 223 |
| Tenements, dilapidated and insanitary | 155 |
| Offices and workshops, dilapidated and insanitary | 58 |
| Dilapidated and insanitary other buildings | 46 |
| Fly screens (lack of or defective ) | 38 |
| Overcrowding (day inspections) | 183 |
| Overcrowding (night inspections) | 20 |
| Rat-infested buildings | 60 |
| Cockroach-infested buildings | 54 |
| Bed-bug-infested buildings | 268 |
| Chimneys, or smoke pipes, defective | 84 |
| Roofs, defective | 96 |
| Eavestroughs and rain leaders, defective | 153 |
| Gas-fittings and piping, defective | 34 |
| Furnaces and heating apparatus, defective | 69 |
| Refrigerators, defective | 1 |
| Lighting, defective | 21 |
| Ventilation, defective | 25 |
| Pit closets, concrete or brick, defective | 28 |
| Contractors' closets, defective | 57 |
| Chemical or Patent closets, defective | ..... |
| Stagnant water on vacant lots | 20 |
| Other nuisances on vacant lots | 637 |
| Nuisances on lanes and streets | 3,349 |
| Unnecessary noises | 51 |
| Total defects discovered (including plumbing defects) | 12,774 |

### Smoke Nuisances

| | |
|---|---|
| Chimneys and smoke stacks (observations) | 262 |
| Furnaces, boilers, fuels, etc., inspections of | 195 |
| Total | 457 |
| Notices, statutory | 12 |
| Notices, verbal | 183 |
| Total | 195 |

**Miscellaneous**

| | |
|---|---|
| Premises placarded insanitary | 35 |
| Water samples taken | 1,385 |
| Cases reported for prosecution | 3 |
| Infractions of Zoning By-law | 18 |
| Re: cross-connections, domestic water supplies | 22 |
| Cellars illegally occupied | 3 |
| Private hospitals | 2 |
| Disused walls | 17 |
| Hydrocyanic acid gas investigations | 10 |

**Frozen Water Pipes and Plumbing**—We had to deal with 122 cases of frozen water services and plumbing this year as against 59 last year. The increase would appear to be due in part to the severity of the weather during the closing weeks of the year; but mostly, it is on account of defects in old buildings.

**Other Plumbing Defects**—Last year we had a reduction in general plumbiing defects and this year we have to report a further reduction. There was a total of 859 this year, while in the last two years the figures were 909 and 1,087 respectively. In addition, however, this year we dealt with 147 instances where the water service was defective or cut off.

We have 275 houses without sewer and water connections, being a reduction of 3 as compared with last year. There are still a number of houses, mostly occupied by the owners who are unable financially to connect their premises with the sewer and water mains.

**Defective Roofs, Eavestroughs and Rain Water Leaders**—We had to deal with 96 defective and leaking roofs and 153 cases of defective eavestroughs and rain leaders. These defects have been on the increase for a number of years, mostly in rented property. Such faulty conditions come to our notice chiefly on account of complaints of dampness in cellars and other portions of buildings.

**Garbage, Manure and Other Receptacles**—A considerable amount of time is spent, especially in summer, in regulating the conditions under which garbage, manure, and other refuse is stored. We do not receive many complaints relating to non-removal of garbage. Only 204 such complaints were received during the year. In most cases we find that the cause is due to the material being mixed or otherwise improperly stored.

During the summer, we conducted our annual campaign for the provision and replacement of garbage cans. By this means 944 new garbage cans were provided. Our difficulties are not, in the main, with the ordinary householder or block owner, but with the rooming house and tenement occupants.

Carelessness with regard to storage of ashes and other incombustible refuse leads to nuisances on lanes and yards and we are frequently called upon to regulate such conditions.

Special supervision of stables and manure bins is maintained, especially during summer. Many manure bins were ordered rebuilt or repaired and made fly-proof.

Notices served under the above heading were as follows:

| | |
|---|---|
| To provide garbage cans and covers | 1,482 |
| To provide receptacles for incombustible refuse | 238 |
| To provide or repair manure bins | 203 |
| To provide receptacles for ashes | 189 |
| To provide receptacles for paper | 154 |
| | 2,266 |

**Scavenging**—We received only 204 complaints relating to non-removal of garbage. This reflects credit on the work of the Scavenging Division. On investigation of complaints, we frequently find that householders are themselves responsible by improper methods of storage, etc. If, for some reason, removal has been overlooked, a phone call or memo to the Scavenging Division is given immediate attention.

The indiscriminate dumping of manure on vacant lots and on lanes has increased. In a few cases we were able to trace the offenders but in most instances we were unable to do so. We had to appeal to the Scavenging Division to have the material removed, especially where it had been deposited on lanes.

Memos were sent to the Scavenging Division as follows: cleaning of contractors' closets, 26; removal of ashes, 2; removal of tins and other refuse, 5; cleaning of pit closets, 1; removal of refuse from vacant lot, 1; removal of dead animal, 1; a total of 36.

**Contractors' Closets**—There were 72 permits issued during the year; 165 inspections and re-inspections were made; and 57 notices were issued to have closets repaired or cleaned.

**Feed and Sale Stables**—Permits were issued for 13 of these and 225 inspections were made. During the fly season special supervision is maintained in the matter of manure removal.

**Private Stables**—There were 567 inspections made of these premises, mostly during summer. Repairs, alterations and improvements were made in several stables. In one case the building was closed as insanitary.

**Keeping of Animals**—Occasionally we come across horses, cows, hogs, sheep, goats, and other animals, kept in non-descript sheds. In most cases, our attention is directed on account of nuisances. The undernoted serves to show the instances in which action was taken during the year.

| | |
|---|---|
| Cows and other cattle kept in insanitary sheds, etc. | 33 |
| Cows and other cattle kept too close to dwellings | 2 |
| Horses kept in insanitary sheds, etc. | 53 |
| Hogs, unlawfully keeping | 3 |
| Animals kept in dwellings | 32 |
| | 123 |

**Poultry**—We received an unusually large number of complaints relative to the keeping of poultry and pigeons. In a number of instances we were called upon to regulate the number of fowl kept, insanitary condition of yards and pens; and in the case of pigeons, nuisances caused by these birds roosting on roofs, etc. In this connection the following conditions were also adjusted:

| | |
|---|---|
| Poultry kept in or too close to dwellings | 45 |
| Poultry kept in insanitary sheds, pens, etc. | 69 |
| Pigeons kept in dwellings or not properly confined | 26 |
| | 140 |

**Licensed Dog Kennels**—Repairs and improvements were carried out in a number of these premises. Inspections made were 200; and permits issued 30.

**Nuisances in Yards, Sheds, Lanes, Vacant Lots, etc.**—There is a growing tendency on the part of many householders to deposit refuse in yards, lanes, streets and vacant lots. During winter and the spring clean-up this is especially noticeable and the practice of depositing lawn cuttings in the channels of streets during summer appears to be on the increase. A great deal of time is taken up in regulating such conditions, and the following figures serve to illustrate this—but only in part.

| | |
|---|---|
| Dirty yards, courts, sheds, etc. | 4,498 |
| Stagnant water on vacant lots | 637 |
| Other nuisances on vacant lots | 697 |
| Nuisances on streets and lanes | 4,733 |
| | 10,565 |

Last year the above total was 5,972.

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

**Overcrowding**—A total of 203 inspections were made, 20 of these being during night. There can be no doubt that at the present time there is considerable overcrowding of rooms, particularly in those premises occupied illegally as tenements, by groups of families. But until some outlet is provided for these unfortunate people—suitable small houses constructed—a certain amount of overcrowding will have to be tolerated. In the meantime, flagrant instances are dealt with, especially in our lodging and rooming houses. The problem of overcrowding is very largely embraced in that of housing.

**Housing**—Our annual survey of vacant houses and vacant suites was undertaken, as usual, in December. As a permanent record, it is perhaps desirable to insert here, some of the material provided in the report which followed the above survey:

**Dwelling Houses**—The total number of vacant houses is 670. Last year the total vacant dwellings was 971. There are, therefore, 301 less vacant houses than a year ago—a reduction of 31%.

We find there are 36,249 houses, including dwellings in connection with stores. The vacancies, therefore, represent only 1.8% of the whole.

**Suites**—The total number of vacant suites in apartment blocks is 518 as against 683 last year. This is a decrease in vacant suites of 165—24% less vacancies than a year ago.

There are 647 apartment blocks, containing a total of 10,533 suites. The vacant suites, therefore, represent only 4.9% of the whole. Last year the vacancies were 6.4% and the year previous 11.19%.

Of the vacant suites, 273 were in residential blocks, and 245 in mixed, business and residential blocks. The percentage of vacancies was 3.4% in the former and 9.7% in the latter.

| Total Vacancies | |
|---|---|
| Houses | 670 |
| Suites | 518 |
| | 1,188 |

The total vacancies (houses and suites) are 466 less than last year.

**New Houses**—There were only 72 dwelling houses added to our list this year—60 of these being new construction—but the same number, 72, were demolished. We added 5 new dwellings in connection with stores, but 17 were removed due to demolitions and other changes. There are, therefore, 12 dwellings less than a year ago. During the year, 21 dwellings and one store and dwelling were closed under the Public Health Act as insanitary; but, of course, all of these, or some of them, may be repaired and put into habitable condition at a future date. At the present time, however, there are 34 fewer dwellings available than a year ago.

**New Blocks**—No new apartment blocks were constructed during the year, but changes were made in several existing buildings—7 of these having been made into apartment blocks—large suites divided into smaller, etc. On the other hand, a number of one-room suites were converted to suites of two rooms, or more. Also, 2 blocks were removed during the year. The net result is that there are 26 suites less than a year ago.

The following is a new table, 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 |

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. Of course, a number of the marriages would be of people from outside Winnipeg. Also, a few homes are broken up as a result of death, but it seems certain that these are more than off-set by the number of dwellings and suites demolished or closed. In any case, there were 2.596 marriages during the past year and we have 34 less dwellings and 26 less suites than a year ago. It appears, therefore, that the newly-weds must double up with other people or find accommodation outside the city.

**Total Housing Accommodation**—The total housing accommodation as at December 31st, was as under.

| | |
|---|---|
| Dwelling houses | 35,173 |
| Dwellings in connection with stores | 1,076 |
| Suites in apartment blocks | 10,533 |
| | 46,782 |

**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, the number of available dwellings is 34 less than last year, and the number of suites, 26 less.

In last year's report, I pointed out the large number of dwellings dilapidated and unfit for occupation (46) and those requiring extensive repairs (178), a total of 224. As will be seen from table 11, conditions in this regard are worse this year, there being 60 houses dilapidated and unfit for occupation and 227 requiring extensive repairs, a total of 287. Indeed, we find there are only 108 houses fit for occupation without repairs—16% of the vacancies.

Several explanations may be offered, as to why there should be even 108 vacant dwellings that are apparently suitable for immediate occupation, such as rent charged; size (number of rooms); and distance from the centre of city, etc.

There can be no doubt that a number of these dwellings are held for sale or rent outside the reach of those who most require them.

With regard to size, it will be seen by referring to table 10 that only 19 of five rooms, 6 of four rooms, and 5 of three rooms, a total of 30 houses of the size most in demand, out of 108 houses, are suitable for occupation without repairs. In other words, the other 78 are of six rooms or more.

Location also has a part in these vacancies. Some of the above are considered to be distant from the centre of the city. There appears to be a demand for living quarters close in as this saves time and travelling expenses.

It should also be stated, that a house may be in apparently good condition, but due to defects not readily visible, lack of insulation, etc., may have the reputation of being hard to heat.

Taking the gross total of 670 vacant dwellings, we find that only 193 are of five rooms or less. If we deduct 24 that are dilapidated, there are only 169 in this group.

It is also worth noting, that in dwellings of eight rooms and over, there are only 181 vacancies. But when we deduct those that are dilapidated, there are only 168. It seems, therefore, that a very large number of rented dwellings in this group are sub-divided and unlawfully occupied as tenements, otherwise the vacancies would be very much greater.

The information obtained from a study of such material as is herein provided, should have the effect of stimulating action in the provision of suitable housing accommodation for the low-wage earning class, especially amongst those more favorably placed in this regard, but particularly those in authority—Municipal, Provincial and Dominion Governments. To this end, it would seem that at least two points should be stressed, education of the public by means of the press and platform. (We have had a good measure of the former but perhaps not sufficient of the latter). And following that, a demonstration, if even on a small scale, of what may be accomplished.

**House of Commons Special Committee on Housing**—Reference should be made to my having been summoned to Ottawa in March last, to give evidence before the Parliamentary Special Committee on Housing. A number of outstanding town planning, housing, building, and financial experts were heard, but the only evidence presented by a public health official was by your own representative. It is perhaps not too much to say that representation from Winnipeg was requested because of the splendid reputation gained by our Housing Commission, City Council, and the special study given to such matters by our civic officials, past and present.

A copy of our Report on a Special Survey on Housing Conditions in Four Selected Districts, made in 1934, also one of the field cards used in making the survey, was given to each member of the Parliamentary Committee. Some of the conditions referred to in the above report, with evidence submitted at the time, are referred to in the Minutes of Proceedings of the Committee, as testimony of the need of housing accommodation suitably planned for the low-wage earner.

The following quotations are from the Third and Final Report of the Parliamentary Special Committee on Housing:

"Your Committee has heard evidence from many individuals and groups upon the sociological and economic principles involved. . . . These presentations comprise exhaustive data and study relative to the existing conditions, basic requirements and recommended methods of alleviation of problems involved in and interrelated to the subject under consideration."

"The 'white collar' wage earners, with incomes at about $1,250 can, in general, afford one-third of their incomes for rental but the semi-skilled factory worker and the unskilled labourer with incomes from $500 to $750 cannot, as a matter of social economics, afford to pay more than one-fifth of their incomes for rent."

"The trouble is that there never was accommodation designed objectively for the low-wage earner."

"The prevailing opinion would seem to be that the community as a whole has some responsibility for the housing of its people."

"There will always be a large number of people who cannot afford to purchase a home of their own, and it becomes the business of some agency, municipal, provincial or federal, to see to it that a sufficient number of suitable and sanitary dwellings are available for rent."

"The situation is well illustrated by Mr. Officer, Chief Inspector of the Division of Sanitation and Housing, Winnipeg, who, in referring to overcrowding before the Committee, said, ' I have not the soul or conscience to throw these people out, because there is no place for them to go; but as soon as our expectations are fulfilled, and the Do-

minion Government helps us out with cheap money and we can build places, we will apply pressure and get them out.' And also Professor Nobbs, who said: 'As far as Montreal is concerned, a Government aided program of housing is long overdue.' "

"Every country in Europe, the United States and Mexico either has a housing policy or has initiated one."

"There is also prima facie evidence that housing is entitled to some guidance from the State."

"In a report on housing conditions in Toronto made by a Committee under the chairmanship of Lieutenant Governor Bruce, it is stated: 'It should be urged on the Dominion Government particularly that no public works grants are so urgently needed as those for rehousing of the poorest members of the community.' "

"Your Committee is of opinion that the foregoing authoritative opinions are expressive of views which should guide the formulation of a housing policy for Canada."

"From the evidence submitted it appears that the basic housing shortage lies in the needs of the low-wage earner for whom the minimum of health and amenity should be provided on a basis of rental within his capacity to pay."

"To meet this requirement, such housing must provide protection from the weather, adequate lighting and ventilation, be capable of being properly heated; be equipped with sanitary conveniences and drainage and be furnished with such facilities as make the amenities of family life sufficient, convenient and hygienic."

"The minimum accommodation possible to meet normal family requirements involves dwelling units having three bedrooms, living-room, kitchen and bathroom, which accommodation meets the basic requirements of parents, and children of both sexes. Lesser accommodation would, of course, be ample where the family does not involve children."

"The Evidence Submitted Has Emphasized The Following:

"1. The term 'housing' should be considered to include construction, reconstruction, repairs (rehabilitation), demolition of houses and slum clearance.

"2. Housing is primarily the direct responsibility of the individual co-operating with the local authority.

"3. A national emergency will soon develop unless the building of dwellings be greatly increased.

"4. The formulation, institution and pursuit of a policy of adequate housing should be accepted as a social responsibility.

"5. There is no apparent prospect of the low rental housing need being met through unaided private enterprise, building for profit.

"6. The magnitude of the task involved in any program designed to eliminate in its entirety the housing problem in Canada is fully realized and appreciated; that such a program would involve intensive, continuous application and effort over a number of years is manifest; but that the initiation of such is imperative is obvious from even the nec-

essarily limited inquiry into prevailing housing conditions in which it has been your Committee's privilege to engage.

"7. The accurate determination of the number of houses required to meet the needs of the people, annual and accumulative, and to overtake existing shortage, must necessarily be the subject of intensive direct and statistical investigation. At least the provision of dwelling units to the number of 25,000 should be initiated immediately throughout Canada.

"8. Selective tenancy of Government aided housing should be based on total family income and ability to pay economic rent.

"9. The acuteness of the housing problem lessens to the degree that the wage scales of low-wage earners is improved.

"10. Provision should be made for long term mortgages, in view of the long term amortization generally associated with housing.

"11. A major item in the financing of housing is interest charges. There is, therefore, a close and vital relationship between interest charges and economic rents.

"12. That the principle and institution of mortgage banks, as established in other countries, be investigated with a view to their effect upon the lowering of housing costs.

"13. That slum areas have been shown to cast very heavy expenses on many branches of public administration such as health, welfare, fire prevention, administration of justice, etc., may justify public assistance, which is likely to prove as sound financially as it is certainly desirable socially.

"14. Against public liabilities may be set certain very real, if in some cases, immeasurable, assets. Good housing means less expenditure on prevention of disease, less crime, greater benefits for education, less unemployability as opposed to unemployment. The elimination of bad conditions has a cash value as well as a moral value to the nation. Further, there are wider economic aspects to consider. Bold and constructive housing projects will increase employment both directly and indirectly through the activity generated. To mitigate any liabiilties on the national finances the cost of unemployment would be directly reduced, tangible and needed assets will be created, the yield of sales and income taxes will be increased by the profits of those in building and industry as well as those who benefit from the increased spending power of wage earners employed through the undertaking.

"15. Reference made in this report to the low monthly rental possible of payment by low-wage earners should not be accepted in any way as indicative of the setting of any wage scale. Government assisted housing should not be taken advantage of to reduce the standard of living.

"16. That the initiation of a policy of new construction and particularly of repairs (rehabilitation) will appreciably stimulate private owners to do likewise, will also proportionately release for demolition slum buildings presently retained for want of other accommodation.

"17. The construction industry lends itself most effectively to the alleviation of unemployment and consequently to a reduction of those relief charges now being born by federal, provincial and municipal taxpayers.

"Your Committee Therefore Recommends:

"1. 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.

"2. That said Authority be authorized to negotiate agreements with any province, municipality, society, corporation or individual with a view to promoting construction, reconstruction and repair of such dwellings as may be necessary, and the extension of financial assistance at such favorable rates of interest, periods of amortization and other terms, as shall encourage housing.

"3. That as its first consideration the said Authority be urged to take action in respect to repairs (rehabilitation), presently needed.

"4. That such national housing policy be so framed, with respect to provision for employment, as to endeavour to co-relate and co-ordinate the efforts of provincial, municipal and other public authorities, and private agencies in relation thereto.

"All of which is respectfully submitted.

A. D. GANONG,

Chairman."

A discussion of the Dominion Housing Act, passed as a result of the deliberations of the House of Commons Special Commitee on Housing would probably be out of place here; but it would appear that the statute did not go far enough in the matter of Government assistance and control and that it may have to be repealed or amended.

**Special Committee on Housing (City of Winnipeg)**—The Special Committee on Housing, of the City Council, held a number of meetings during the year and gave much study to the housing situation in the City. The City Engineer's Department provided plans, drawings and specifications of various kinds of dwellings and blocks; also plans showing methods of rehabilitation, etc. Additional plans and designs were provided by a firm of architects.

At the request of the Committee, a survey was made of the dwellings in that portion of the city lying between Princess Street on the East and Sherbrook Street on the West, from Notre Dame Avenue on the South to Henry Avenue on the North. While this survey was of a cursory nature, it showed that there is considerable deterioration amongst the dwellings in this district. If, as has been suggested, a comprehensive plan of housing is undertaken in this locality, consideration should also be given to an inclusive town planning scheme, especially of the West portion.

Other data provided for the Committee included a list of dwellings closed under the Public Health Act during the past ten years, rents charged for dwellings in various parts of the city, and that charged for suites and rooms rented for family use.

**Concluding Remarks**—You will be interested to know that there has been a demand from various parts of the country, and from the United States, for copies of reports on our housing surveys, but particularly the special survey made in 1934. In many cases we have been requested to send copies of the cards used in our field work.

There is also an increasing demand for copies of our annual survey of dwellings and suites in apartment blocks.

In conclusion, I should like to quote the following from evidence given before the Parliamentary Committee on Housing by the late Mr. Nolan Cauchon, of Ottawa, Town Planning expert:

"Comprehensive town planning and housing rests on a biological basis. The problem of the town planner, which as I say includes housing, is to create a condition of environment in which human life can thrive. That is what we are after. Anything short of that gives you deterioration of the human element and degradation and all the social and political ills that generally follow or accompany that process. It is a problem having to do with the maintenance of human life, by providing proper environment."

"The crux of the problem of housing and the crux of the problem in town planning is congestion of traffic; that is, congestion of traffic which affects the time-space or time-distance accessibility to homes. Then there is the question of congestion of houses—that is to say, too many houses on a given portion of land; that shuts out the sunlight and air. Then there is the congestion of occupancy, the overcrowding of houses. And so we have these three factors—traffic, the house itself and its occupants coming into our problem for consideration."

**Zoning**—We dealt with 18 infractions of the Zoning By-law and, as usual, informed the Zoning Board of our action.

**Gas Stoves and Fittings**—We were called upon to take action in 34 instances of defects under this head. I wish to point out once more, that as carbon monoxide is a dangerous constituent of gas, it is important that defects and leaks be guarded against; also that we have no By-law governing gas appliances.

**Chemical and Mechanical Refrigerators**—From our records, we find there are 5,529 refrigerators in apartment blocks, 4,525 of these being of the multiple type. As in previous years, a list of the blocks with the name of the system in use, was sent to the City Electrician, the City Hydro, and the Bureau of Labor. No defects came to our notice during the year.

**Cross Connections in Water Supplies**—We made 39 inspections, not including re-inspections, of premises where there was a possibility of water lines being connected to those of other sources of supply. A few old wells that had been discontinued were ordered properly sealed in order to prevent contamination that might reach other wells.

**Factories, Workshops and Office Buildings**—The number of inspections of factories and workshops was 505 and office buildings 122. Notices were served on account of insufficient plumbing fixtures, separate toilet accommodation for the sexes, and a number of other insanitary conditions in workshops and factories. Most of our inspections of office buildings related to defective plumbing, and the use of common drinking cups and towels.

**Rats**—We made 60 inspections of premises reported to be rat-infested. The bounty of five cents per rat tail is still being paid and during the year this amounted to $382.45.

**Public Baths and Comfort Stations**—Inspections were made of the public baths and swimming pools at Sherbrook Street, Pritchard Avenue, Y.M.C.A., Y.W.C.A., also those at Stella Avenue Mission, All Peoples'

Mission and the Winter Club. In addition to 146 inspections made, 228 samples of water were obtained for bacteriological examination. Regular inspections of comfort stations numbered 329.

**Undertakers Establishments**—Inspections made 14, and permits issued 7. Conditions were found to be satisfactory.

**Common Drinking Cups and Towels**—We made 81 inspections. Systematic inspection is not made, but where inspections are made for other reasons, common drinking cups or roller towels are sometimes observed. In such cases, the provisions of the Regulations under the Public Health Act are brought to the attention of those responsible.

**Chimneys and Furnaces**—We dealt with 84 defective chimneys and smoke pipes; and 69 defective furnaces and heating apparatus. These came to our notice, mostly, as a result of smoke or gases permeating premises, lack of heat, etc.

**Billiard and Pool Rooms**—In addition to regular inspections made throughout the year, these premises are gone over specially each spring when alterations, repairs and renovations are required. Inspections made were 356 and permits issued 48.

**Second-Hand Premises and Junk Yards**—Inspections made, 534 and permits issued, 135. We were called upon, on several occasions, to take action in cases where second-hand mattresses, comforters, and upholstered furniture were found to be verminous. The Regulations of the Public Health Act deal only with such materials when they have been used by or about a person suffering from communicable disease.

**Wiping Rags**—We made 28 inspections of premises where wiping rags are sterilized, prepared for sale or sold. Two firms handling this class of goods were cautioned in the matter of observance of the Regulations governing same.

**Bedding and Upholstering Factories**—Inspections of these premises numbered 25. Firms manufacturing bedding, etc., appear to conduct their business in a satisfactory and sanitary manner. We have, however, received complaints that old mattresses were being re-made, re-covered and sold as new material. While we have endeavoured to stop this practice, as already stated, there is always the possibility that such goods may be imported from outside the Province.

**Barber Shops**—There were 153 inspections made of these premises. We were called upon to investigate several complaints relating to establishment of business in unsuitable premises.

**Vermin**—A total of 322 inspections were made of premises infested with bed-bugs or cockroaches. As stated in previous reports, we find difficulty in placing responsibility especially in the case of bed-bug infested premises. Sometimes a tenant brings infested goods into a dwelling or suite that was free of vermin, and vice versa.

**Theatres and Places of Amusement**—We made 106 inspections. Such defects as were found were of minor character.

**Schools and Public Buildings**—Only 26 inspections were made. On our recommendation, a complete new set of plumbing fixtures were provided in a private school. Schools under the jurisdiction of the Winnipeg School Board are well supervised by officials of the Board and it is at rare intervals that we have to direct attention to sanitary defects.

**Laundries**—A total of 592 inspections were made of hand laundries and 9 of steam laundries. Two hand laundries were closed under the Public Health Act. In both instances, the buildings had been gradually falling into disrepair and had reached a point where it was not profitable to put them into proper condition. We issued 90 permits—three less than last year.

**Hotels**—Inspections made 154 and permits issued 60. Each spring in conjunction with the License Department, special inspections are made of all hotels. Following these inspections, specifications of repairs, alterations and cleaning necessary are given to those responsible.

**Lodging Houses**—A total of 351 inspections were made and 41 permits issued. On the whole, these premises are well kept but constant inspection is necessary, especially in winter.

**Markets**—We made 345 inspections of public markets, mostly during warm weather. Strict supervision is necessary to prevent nuisance from accumulations of fruit and vegetable refuse, etc.

**Noise**—Inspections made 51. Most of our trouble in this connection refers to radios in apartment buildings. We were called upon to regulate the volume of these machines placed in doorways of stores and picture shows. We also had to stop a "barker" using a megaphone in front of a place of entertainment.

**Hydrocyanic Acid**—There were 152 premises fumigated for vermin this year, as against 115 last year. This work necessitates considerable time being spent on supervision. In accordance with the Regulations under the Public Health Act, written notice is given to us prior to fumigation. In each case, an inspector is present when the fumigation is commenced, to see that warning cards are placed on the building, the premises made secure and a guard on duty; also, visits are made to see that the premises remain protected against trespass and when the gas is released. As much of this work is done at night and during week-end, it entails extra duty.

**Cellar Occupation**—Reference was made, last year, to the occupation of cellars, for living and sleeping purposes, by families. We came across a number of other cases this year. Conditions in at least one case were quite deplorable. In all such instances we order the cellar vacated.

**Smoke**—As a separate report is provided by the Smoke Inspector, it will not be necessary to make any lengthy remarks here. Good work has been done in the matter of smoke prevention by informing the owners of plants where smoke is generated, of the economic losses due to imperfect combustion of fuels.

**Insanitary Buildings**—The table given below, shows the number and class of premises for which notices were served on owners and occupants under 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 a sanitary condition or else closed up.

| | |
|---|---|
| Dwelling houses, general insanitary condition | 61 |
| Dwelling houses, overcrowding | 2 |
| Dwelling houses, unlawful conversion of same to tenements | 1 |
| Stores and dwellings, general insanitary condition | 1 |
| Basement and cellar dwellings | 2 |
| Stores occupied as dwellings | 3 |

| | |
|---|---|
| Factories and workshops | 6 |
| Stores, defective plumbing | 1 |
| Stable occupied as a dwelling | 1 |
| Garages | 3 |
| Stables | 1 |
| Hand laundries, general insanitary condition | 5 |
| | 87 |
| Notices served on owners and agents | 73 |
| Notices served on occupants | 74 |

**Results:**

| | |
|---|---|
| Notices complied with (premises put into sanitary condition) | 52 |
| Premises closed and placarded | 24 |
| Cases still pending | 11 |
| | 87 |
| Remaining closed on December 31st, 1934 | 94 |
| Premises repaired or demolished during 1935 | 31 |
| | 63 |
| Premises closed during 1935 (21 dwellings, 1 store and dwelling, 1 laundry and 1 stable | 24 |
| Remaining closed on December 31st, 1935 | 87 |

It will be seen from the above that there are 87 premises remaining closed at the end of the year.

**Work Done for Other Departments**—Frequent inspections are made and water samples taken at the various swimming pools in the city and reports sent to the interested parties.

At the request of the Social Welfare Commisison, 159 inspections were made of premises occupied by wards of the Commission, and 58 notices were served, mostly on owners, relative to defects of various kinds.

Sanitary surveys were made and reports prepared, of a number of institutions, at the request of the Provincial Department of Health.

Regular inspections were made of the old Immigration Hall, Water Street; also other premises occupied by transients and unemployed single men. Following these inspections, special reports were prepared for the Relief Commission—Unemployed Single Men.

**Miscellaneous.**—The Regulations passed under the Public Health Act contain a section which states: "No alteration, re-construction, or addition to any dwelling or other building, affecting the direct natural light or ventilation shall be carried out without the permission of the Health Officer." Another section reads: "No dwelling house or part thereof shall be altered, converted, or used for the occupation of more than one family without the permission of the Health Officer who shall require such structural alterations as may be necessary and including additional plumbing fixtures."

As a result of the above, a large number of plans have been referred to us during the year from the Building Department. A great deal of time is therefore taken up in checking drawings, suggesting changes in some cases, inspecting premises, before approval or rejection of the

changes contemplated. In 44 instances, we approved of convertions to duplex dwellings and apartment suites.

Other matters attended to included the following: cellars flooded during heavy rainfall; stable occupied by a family; nuisance from curing of hides, etc.

**Prosecutions**—Court proceedings were taken in only 3 cases. These related to keeping of cows under insanitary conditions and too close to a dwelling; storage of junk on vacant lots in a Residential No. 1 District; lack of cleanliness in a Lodging House. Needless to say, it was only after repeated warnings had been given, that such action was taken. The conditions complained of were remedied in each case and as we did not ask for a penalty, costs of Court only were assessed.

I should like to point out, that considerable time is often spent by Inspectors, in an endeavor to get notices complied with, when Court action should be undertaken.

**Staff**—There are now only 9 District Inspectors. With a population of 223,017, this gives an average of 24,778 persons in each district. In 1930, with a population of 209,286, there were 11 District Inspectors, being an average of 19,026 persons per district. There are, therefore, an average of 5,752 more persons per district, than five years ago.

The members of the staff have given good service and shown a keen interest in their work; also, extra time is often given in evenings and on Sundays.

Respectfully submitted,

ALEXR. 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**—The usual varied types of complaints were received during the past year. They referred to overcrowding, defective plumbing and heating apparatus, dampness, vermin infestation, etc. Where complaints were justified they were dealt with in the usual way by serving statutory notices on the owners or agents.

More attention is being paid to the problem of vermin infestation each year by owners of infested dwellings. This is to the advantage of the public generally, especially when one considers personal contact with occupants of such dwellings in public conveyances, etc.

There were no very outstanding nuisances during the past year, excepting two instances where closing notices were served for cellar occupation and a dilapidated stable was found occupied as a dwelling by a man, wife, and five children. This family, not satisfied with "relief" conditions in their own municipality, moved to the City in their own conveyances (they had a car and truck) and took possession of the stable in question. The children were befriended by a worker in connection with the "fresh air camps", provided with suitable clothing and taken to a summer resort for a few weeks. In the meantime, the parents obtained work on a farm and later, were able to lease a market garden.

Forty-two single family residences were converted to duplex dwellings and tenements, viz.: twenty-seven and fifteen respectively. There is no doubt that this number will be increased during the ensuing year.

It is evident that many such changes are contemplated in dwellings where the owner is resident and where few changes are required other than the installation of additional plumbing. Where structural alterations are also necessary, however, the problem of financing the cost prevents execution of the work. Actually, this means that business and employment is retarded to the disadvantage of the housing situation.

**Apartment Blocks** — We received few complaints regarding these premises excepting those referring to the older buildings. Most of the complaints referred to garbage irregularities and to the keeping of cats and dogs within the premises. These complaints were adjusted in a satisfactory manner.

It is only in the older blocks that constant check is necessary in order to maintain a satisfactory standard of cleanliness. Very often, this type of building has no permanent caretaker and as a result, stairways and corridors are far from clean and plumbing fixtures neg-

lected. Moreover, the rentals are low which as a general rule, means that maintenance both as regards the structure and sanitary conditions are similar.

As a whole, however, these premises were maintained in a satisfactory state of cleanliness and generally free from nuisances.

**Lodging Houses**—There were only 37 permits issued for Lodging House license in comparison to 67 in 1934 and 110 in 1933. The reduction is undoubtedly due to unemployment of single men.

Very few complaints were received, due to the periodic visits made by the District Inspectors. There was one instance of overcrowding, however, and the rooms in another dwelling were partitioned off forming three rooms instead of one. Consequently many of the rooms were without windows or means for adequate ventilation. All partitions were removed and the premises arranged as formerly.

**Tenements**—For our purpose, we allude to tenements as illegally converted dwellings. There is no doubt that the number of dwellings so converted are gradually on the increase. There is absolutely no demand for large dwellings and consequently the majority of the old ones are occupied by a number of families. The owners, however, do not always obtain sufficient rental to clear expenses. In many instances the structural conditions of the building would warrant the expense involved for the legal conversion to either duplex dwellings or for three or four families. The general planning may also be suitable for the conversion without very extensive structural alterations.

If the present unsatisfactory method of housing is to be remedied at all, the sooner some arrangements can be made, the better for all concerned.

The question of attic occupation by families is a serious one from the viewpoint as a fire hazard. Fortunately, there has been no loss of life so far, but what may occur in the near future is problematical.

**General**—The subject of housing has, for some time, been one of the principal features studied by individuals and organizations. The Federal Government also appointed a Special Committee when experts related their experiences and expressed their opinions. This has been going on for several years without effect and in the meantime housing conditions gradually become worse. Although it must be admitted that unemployment has been responsible for the special interest of the community, there has always existed in every large city, slum areas occupied by the low wage earner. Naturally, these areas contained the older type of dwelling which were in such a dilapidated condition structurally that any expenditure other than for minor repairs was inadvisable. The rental for these dwellings therefore was low and consequently were occupied by the low wage earner for whom there were no other houses available within his means. These conditions, until the past few years were accepted as unavoidable. Improvement in education and interest shown by health authorities, social workers and others has been responsible for definitely establishing the relation of slum areas to social evils and other matters pertaining to crime and health. It follows then, that such areas are of considerable expense to the community in addition to denying the children the right to live under desirable conditions. To live and to exist have entirely different meanings.

The subject of housing then, ought to be studied from the following viewpoints:

(a) Housing in relation to health, etc.,
(b) Housing in relation to wage standards,
(c) Housing in relation to economic conditions.

Good housing means a residence substantialy constructed and economical from the maintenance viewpoint. The rooms should be adequate in number and size so as to prevent overcrowding and allow for segregation of sexes. There should be adequate direct natural light and means for ventilation to all rooms and sufficient sewer connected plumbing fixtures be installed which would include a shower or bath. There should be suitable provision for food storage. Dwellings should not be overcrowded on space and the planning should allow for full advantage of daylight. The location should be a residential area free from noise, smoke and other objectionable conditions which are liable to exist in industrial areas.

These are the principal items which make for good housing and as far as possible should be adhered to whether the buildings be detached, in duplex form or an apartment block.

Having then considered what constitutes good housing the next problem is housing in relation to wage standards. Low cost housing is the term now generally used. In my opinion it is absolutely useless to consider the construction of dwellings for the low wage earner unless the problem is combined with the economic advantage.

To provide homes of a proper standard to rent at fifteen dollars per month is a problem which has yet to be solved. Standardization in planning, construction and building on a large scale would reduce costs but not to the amount required.

In Winnipeg, owing to the severe climatic conditions, both material and methods of construction must be substantial. For this reason it is a practical impossibility to cut down costs by any means other than by the above mentioned and also by building houses in terrace form. The latter method would reduce the width of the lot thus reducing taxation generally. Terrace dwellings are also more economical both in heating and maintenance owing to the reduced wall exposure. There are, however, certain objections to houses in terrace form. They do not possess the pleasing appearance, as a general rule, as the detached house. Whether dwellings are constructed in terrace form, detached or semi-detached the items enumerated previously should be embodied in construction.

Wage standards in relation to house ownership or rental has an important bearing on the home building of the future. The size and ultimate cost of a domicile depends on the family requirements therefore, a definite cost for an average family is an estimate only. From the viewpoint of good housing it is preferable for a dwelling to be so arranged to allow for additional accommodation without overcrowding.

It is for the individual to decide on the amount of money he can afford from the family budget, taking also into account future unforeseen expenses. The latter item is a deterrent to the average wage earner. If, however, a method could be devised whereby the home owner could have a feeling of security during the period of payment, that a low rate of interest was charged on the loan and the payments were extended over a reasonable period of time, I am of the opinion that many homes would immediately be constructed.

A fair rate of interest and period of amortization are available due to the Federal Government scheme. So far as security during the

period of payment is concerned (especially relative to sickness) I am of the opinion that it could easily be covered by an insurance policy which may cover the whole method of purchase. An optimistic spirit must prevail amongst the whole of the community if the interest in home building is to be revived.

Housing for the low wage earner differs entirely. At the present time it is impossible to construct new dwellings to rent at ten or twelve dollars per month. Private enterprise certainly would not attempt the construction of such homes. Here then, must be considered the housing of the poor in relation to economic circumstances.

Environment during childhood has a great bearing on the future welfare of the individual just as education has on the future usefulness of citizens. Education has apparently been considered to be of greater importance than the physical and moral aspect of the lower paid worker. It would appear to be useless trying to educate the individual unless provision is made for an improvement in his social life also. The various cities and municipalities are providing the education. The social life, embracing as it does, all the various aspects of moral virtue including birthright, is, in my opinion, a national affair. Local authorities cannot be expected to provide good housing for the unfortunate individuals. The improvement must come through the national governing body and the scheme must be national in character. The progress of a nation depends to a great extent on the loyalty of its subjects. There is no better method to create that loyalty generally (there will be exceptions) than by promoting interest in home life. Good housing is the means whereby hospitalization expenses may be reduced, juvenile delinquencies and crime generally minimized, the various expenses resulting from social evils can be practically abolished and infant mortality can be reduced. The advantage cannot be expressed in dollars and cents. Any expenditure will actually be an investment.

In the meantime, the low wage earner is obliged to reside in the older dwellings, many of which have served their usefulness. Until better dwellings are available, all we can do is check on the sanitary conditions and insist on the execution of minor repairs when required.

Respectfully submitted,

P. PICKERING,

Housing and Supervising Inspector.

# Report of the Smoke Inspector

A. J. Douglas, Esq., M.D.,

Medical Health Officer.

Dear Sir:

Hereinunder is respectfully submitted a report on the Smoke Nuisances and their abatements during the year 1935.

**Smoke Inspections**

| 1935 | January | February | March | April | May | June | July | August | September | October | November | December | Totals |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Observations: | | | | | | | | | | | | | |
| Chimneys and Smoke Stacks | 30 | 17 | 27 | 14 | 20 | 19 | 17 | 15 | 16 | 34 | 30 | 23 | 262 |
| Inspections of Furnaces, Boilers, Fuel, etc. | 24 | 15 | 23 | 12 | 15 | 16 | 12 | 9 | 12 | 22 | 21 | 14 | 195 |
| Totals | 54 | 32 | 50 | 26 | 35 | 35 | 29 | 24 | 28 | 56 | 51 | 37 | 457 |
| Notices: | | | | | | | | | | | | | |
| Statutory | 2 | 1 | 1 | ..... | ..... | 1 | ..... | ..... | 2 | 3 | 2 | ..... | 12 |
| Verbal | 22 | 14 | 22 | 12 | 15 | 15 | 12 | 9 | 10 | 19 | 19 | 14 | 183 |
| Totals | 24 | 15 | 23 | 12 | 15 | 16 | 12 | 9 | 12 | 22 | 21 | 14 | 195 |

Smoke abatement work in Winnipeg for several years past has been gradually getting results. This must be evident to the most casual observers. We are glad to say that more modern equipment is being used, and mechanical stokers with forced drafts are gradually taking the place of the old and nearly obsolete methods of hand-firing in some of our larger plants.

It is very gratifying to know that there are not less than 2,620 connections made for services calling for steam or hot water installed within the city. These services are to be found in business blocks, apartment blocks, hotels and private dwellings and help considerably in keeping down smoke. In this regard, District Central Heating is ideal. The untidy ash pile becomes a thing of the past and cleaner premises are the result.

These results may be very pleasing to the eye, but it must be remembered that the application of forced draft to a more or less pulverized coal furnace has a tendency to release into the atmosphere, certain invisible materials in the form of fly-ash from the stack. This ash, can, and does, create as great a nuisance as its predecessor smoke ever did. It can be quite easily traced on sidewalks, streets and va-

cant snow covered lots in the vicinity adjacent to the offending smoke stack.

Out of a total of 65 complaints received during the year for the attention of this Department, 33 were straight smoke and soot complaints. Twelve were made relating to low chimneys causing smoke and fumes to get into living quarters adjoining, and two were caused by the fumes thrown off by oil burners. The burning of old rubber tires and rubbish brought in twelve complaints, and incinerators in apartment blocks gave a total of six. All these complaints were investigated and were found to be justified. The twelve low chimneys were either added to or rebuilt.

It is now a well-known fact that coal can be burned without making smoke, and the majority of firemen know that it can be done, and also, "how" it can be done, but they do not always do it. The human element involved is ever prone to follow the line of least resistance, and the result is that we want to do the job in our own way and in the easiest way to suit ourselves. The fireman, with other duties that cause him to leave the hand-fired boiler and boiler room for extended periods is an excellent example of this.

We append the figures for District Heating during 1935:

| | |
|---|---|
| **City Hydro**—(steam)—customers on the line | 210 |
| **Northern Public Service**—North side of Assiniboine River (steam and hot water)—customers on the line | 810 |
| **Northern Public Service**—North side of Assiniboine River, West of Waterloo St. (steam and hot water)—customers on the line | 400 |
| **Winnipeg Heating**—Fort Rouge, East of Waterloo Street, (steam)—customers on the line | 1,200 |
| Total | 2,620 |

In addition to the above, special inspections were made of Hotels, Undertakers' Parlours, Public Baths, Comfort Stations, Swimming pools and other premises.

Respectfully submitted,

DOUGLAS LITTLE,

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 of submitting herewith for your information and consideration the Annual Report relating to the milk supply of the City of Winnipeg for the year 1935, covering observations, policies and activities of the Dairy Division in assuring our citizen consumers of an adequate clean wholesome supply of pure fresh milk daily, produced, handled, prepared and distributed under conditions which are most conducive towards economy, stability and safety.

A safe milk supply is the first requisite in so far as we as health officials are concerned, and while we are interested in all other aspects and problems entailed, and give considerable time and thought along various lines—yet, should the matter of safety be doubtful or signs of dangerous practice or condition arise, then our policy is to concentrate on such undesirable features until the menace is removed and contaminatory influences eradicated.

The duties of the Inspectors allocated to the Dairy Division may be divided into five categories:

1. Providing certificates authorizing the issue of licenses and registration of each individual milk vendor.

2. Inspection and supervision of Dairy herds, premises and equipment of all producer-distributors.

3. Inspection and supervision of Milk Plants, checking upon methods and efficiency of pasteurization.

4. Milk Inspection and Grading. Collecting samples in an equitable manner at irregular intervals, and submitting same for analysis and the various tests which give us the necessary information for judging those qualities which relate to position in the grade scale.

5. The prompt reporting of all cases of sickness occurring where milk is produced or handled, and the taking of such measures as may be necessary in order that the consumer shall receive the maximum adequate protection.

**Production—Transportation**—The milk required by the City is produced practically within a fifty-mile radius, although a few odd producers are located sixty to eighty miles away. Approximately one hundred dairies or dairy farms are operated by producer-distributors, and nine hundred by market milk producers shipping to local distributors. Chiefly outside the fifty mile radius we have from three to five hundred table cream shippers, and lastly several thousand producers of grade cream whose product is transported to Winnipeg for manufacture into butter; and before passing beyond the area occupied by cream

shippers, we find a gradual contact or overlap with the field of production prospected by and serviced by various country creameries and factories.

For fluid consumption Winnipeg requires approximately 18,000 gallons of milk, and 2,000 gallons of cream daily and outside that supplied by the producer-distributors who transport their own product, the greater bulk is brought in by service trucks operating into the milk districts with a smaller quantity by private vehicles; while from some districts the railroads are still holding a fair share of the business. From every section and on all occasions the eight gallon can appears as the standard container for milk. The advent of highways and the service truck giving a seven day schedule per week has done much to stabilize the freshness of supply, and no longer is it necessary for a milk company to carry forward an ever increasing surplus from day to day until at the end of the week a whole day's supply is ready to take care of Sunday's requirements; nor is the producer required to lose one day's shipping entirely, or as an alternative ship two days product on Monday and probably find the half of it rejected or classed surplus.

**Distribution—Consumption**—Consumption of milk is practically the same as for previous years—approximately 18,000 gallons per day, although the status of some of this milk has been changed by the pushing of other milk commodities on the markets. The sale of half and half (a mixture of milk and cream), has displaced the sale of both milk and cream as separate products. Chocolate milk drinks containing 50% to 75% whole milk have also been pushed, probably at the expense of fluid milk. We also have reason to believe that consumption of milk by private sources (cow-keepers, etc.) has also increased slightly beyond usual expectations. On direct net sale of fluid milk the daily per capita requirements appear to be 0.60 pints while adding the milk consumed indirectly such as Cultured milk, Chocolate milk, Private supply, Half and half; per capita consumption is 0.64 pints.

There are 350 retail wagons engaged in house to house distribution, and 32 wholesale trucks engaged in wholesale delivery and servicing stores, restaurants, etc.; and 50 additional retail wagons operate from the city plants to suburban routes, while approximately 1,000 stores (750 city and 250 suburban) sell milk. With 400 retail wagons operating on or through our streets and lanes, and 1,000 milk stores, we have a huge distributing organization and this brings in the problem of returns, or unsold milk. The average citizen would be amazed if informed that 1,500 to 2,000 gallons of milk prepared daily remained unsold; but requirements fluctuate from day to day.

One case of 12 qts. per wagon equals 1,200 gallons. Half case of 10 pts. per wagon equals 500 gallons. Two quart bottles of milk per store equals 500 gallons. Two pint botles of milk per store equals 250 gallons. Six per cent. returned unsold looks small but represents 1,000 gallons and a 6% fluctuation is very often in evidence.

**Pasteurized Milk Products**—There are ten Milk Plants licensed to deal in milk products, to prepare same for consumption, and to carry out the service of distribution in the City of Winnipeg. Seven plants are located in Winnipeg and three in the City of St. Boniface. These plants comprise the total number in the Greater Winnipeg area, and all distribute the major portion of their product in Winnipeg, and all distribute in one or more of the adjacent municipalities. In addition to the above, two of our licensed dairies located inside the city limits have installed small pasteurization equipment for treatment of their own product supplied from tuberculin tested herds. Three of the larger

plants in addition to the usual pasteurized products, each distribute two brands of Special Raw milk produced and bottled on high class farms under modern sanitary conditions. The Pasteurization Plants have a combined capacity of approximately 25,000 gallons per day, or more than sufficient to take care of the whole Greater Winnipeg requirements. During 1935 these plants received an average of 20,000 gallons of milk per day, and out of this quantity, they pasteurized and prepared for distribution an average of 16,250 gallons per day. Sales of this milk inside Winnipeg average 13,170 gallons per day, the balance being sold in the municipalities or returned unsold. In addition to fluid whole milk they make indirect sales of milk in the form of Cultured buttermilk, Chocolate milk drinks, Cereal cream (half and half); thereby making a pasteurized milk total of approximately 14,000 gallons per day. The milk plants also pasteurize for distribution around 2,000 gallons of table cream disposing of same as whipping, coffee or cereal cream, etc. The above does not include cream for ice cream or butter manufacture, nor milk for cottage cheese, etc. of which large quantities are handled daily.

**Raw Milk Products**—Approximately 4,000 gallons of raw milk is consumed daily in the City of Winnipeg, and of this amount 300 gallons is distributed as "Special" by the milk companies. Certified Milk 60 to 80 quarts, and 282 gallons estimated as private supply of which the most is produced by single cow-keepers who not only provide for their own families but in many cases appear to have a large number of relatives. Such cows may sometimes be jointly owned, while other citizens having farming interests close to the City bring in their own supply. About 3,300 to 3,500 gallons are sold daily by the 95 licensed producer-distributors, of which 30% is bottled on the farm under first class conditions. Another 30% is bottled under fairly good conditions whilst the balance is mostly dipped milk of which the greater portion is handled in a very satisfactory manner. There has been little or no change in the number or status of these raw milk dairies during recent years. Owing to the depression, and the fact that the majority have spent the best portion of a lifetime in this business, the policy of the Department has been to give full opportunity and encouragement to all those (even the poorest) who showed any real desire and attempt to improve the quality of their product and the sanitary conditions under which same is produced and handled. The majority have responded to our efforts, and our tests indicate evidence of an all round improvement in cleanliness and lowered plate counts so that we find many dairies of dipped milk showing regularly No. 1 Sediments and 10.000 to 25.000 plate counts. The entire herds of these licensed dairies are tuberculin tested regularly by the Federal Department of Agriculture, all reactors promptly removed and the herd kept clear of disease.

**Prices and Spreads**—Minimum milk prices set by the Public Utility Board for 1935 call for a flat rate of 10c for the delivered quart, 8c to stores and 9c from stores cash and carry, with a 10% discount from the wagon price for all relief and welfare milk paid for by the municipality. Other schedules set include 30c per gallon wholesale bulk, 9c per quart bottled raw milk, and twelve quarts per dollar for dipped raw milk, with higher prices set for Jersey, Special, Certified, etc. The schedule also covers the sale of cream by the distributor. The producer receives $1.80 per cwt. for eight months and $1.50 per cwt. for four months, average $1.70 per cwt. for quota milk of 3.5% butter fat. All milk sold must be paid for at these prices, and all distributors standardize their product at a higher basis than that on which they purchase, the average being around 3.75%. Therefore the cost

to the distributor averages $1.75 to $1.80 per cwt. on an equalized basis.

| | |
|---|---|
| The cost to the distributor is therefore | 4.5 to 4.6 cents |
| and the delivered quart spread is | 5.4 to 5.5 cents |
| while the average spread on all sales is | 4.3 to 4.5 cents |

The variation in average spread depends on the relative ratio affecting different classes of sales which varies considerably with different plants. The retail price of 10c for the year round cannot be considered excessive as compared with other cities and a delivered quart spread of 5½ cents will stand comparison with that of any city of similar size, while an average spread of 4½ cents would be considered as most reasonable. We would have cause to complain were we not getting good milk, but all our tests indicate that we are getting a superior product at a very reasonable cost, and service which gives a wide open choice.

**Co-operative Control**—From the time the City first undertook the task of supervising its milk supply by means of licenses, regulations and inspection until a comparatively recent date the city received very little beyond sympathetic co-operation from any other public body. In 1911 the Manitoba Legislature gave us additional power under the Public Health Act which has been re-drawn in 1933. In 1922 the Federal Department of Agriculture, Health of Animals Branch, commenced tuberculin testing of our licensed dairy herds under the "Municipal Tuberculosis Order," removing and paying compensation for all reactors. In 1933 this procedure was discontinued, and all herds have since been tested by the same authority under the "Supervised Herd Plan," which allows no compensation. The Federal Inspectors have been of great assistance to this Department as not only do they test cattle but they also insist on suitable housing and clean, healthy surroundings, removal of manure, disinfection and limewashing of stables, etc. The Provincial Health Department now provides inspection of the premises and product of all farm shippers and by a system of licensing and supervision endeavours to ensure that only milk of suitable quality shall reach our Pasteurization Plants. Samples of the incoming product submitted to test now indicate that an improvement in cleanliness and keeping qualities is slowly but surely becoming effective. The Dairy Commissioner's Branch of the Provincial Department of Agriculture by their system of cream grading have done much towards providing us with a bountiful supply of sweet table cream for domestic uses, and for the manufacture of ice cream; and with a high grade butter for local consumption; while finally the Public Utility Board by its considered action in outlawing milk wars and cut-throat competition has enabled us to maintain a high standard for all dairy products.

**Gross Daily Consumption**—During the so-called "Milk War" which, following about three years of preliminary struggle with a type of competition previously unknown to the milk trade, broke out early in 1932 and concluded in the fall of the same year; milk prices were ruthlessly slashed, milk was exploited as a loss leader, and thrown on the bargain counter; heavy losses had to be incurred by those engaged exclusively in the milk business, including both producer and distributor the greater portion of which loss fell heavily on the shoulders of the former. Our citizens took advantage of these conditions and purchased many extra quarts of milk at 5 and 6 cents thereby raising the total consumption for that period several hundred gallons per day above the usual normal point. In following years the keen competition in servicing stores with milk on consignment increased considerably the proportion of unsold or returned milk to an abnormal

degree, so that the amount of milk prepared for sale ceased to bear its usual normal relationship to the amount actually sold outright and consumed. It is now evident that our estimates for the three years concerned were some 250 to 500 gallons too high on account of factors mentioned, and the fact that our information was based on a calculation adapted to a pre-depression period. Therefore, in this report we place the 1932 daily consumption on a normal basis of 17,500 gallons, which has gradually increased by approximately 120 gallons per year since, so that in 1935 we have reached the figure of 17,920 gallons which is just about where it was during the Summer of 1932. During recent depression years, while the authorities have been fairly generous in regard to the milk allowance to those on relief, many of our citizens on lower incomes have economized in their use of milk and its products.

**Milk Inspection and Grading**—There are approximately 380 milk delivery vehicles on the streets of Winnipeg, and 770 stores having milk for sale making a total of 1,150 places where bottles of milk may be purchased daily. Fortunately these do not all require or have a distinct individual brand. A total of 113 brands are offered for sale, of which 15 are pasteurized, 5 Special Raw, and one Certified, leaving 92 brands for the Producer-distributors of which 90 are raw and 2 pasteurized. Unbroken pint samples are purchased at irregular intervals covering all seasons of the year and at a time closely representing conditions as at delivery to the consumer, and from the various series of all tests taken during the year we are enabled to set an approximate normal average test for each individual brand, and it is this average in conjunction with other (plus or minus) conditions which determines the relative position of each and every particular brand on the Grade Scale.

In order that we may have complete information as to the efficiency of pasteurization, and some knowledge of the quality of the raw product received for that purpose we also take a sufficient number of composite bulk samples of unpasteurized or crude milk at the various plants, and these samples are run through and treated exactly the same as are the samples of consumer's milk. Samples of dipped milk and bulk milk at the plant are taken in 16 oz. bottles, while for all other samples we exchange bottle for bottle with the vendor. Until a few years ago we conveyed these samples in iced containers in order to prevent or curtail bacterial growth during transit, but we discontinued that method in favor of an insulated container because all samples being fairly cold at time of entry the insulation keeps out heat in Summer, prevents freezing in Winter, and is more convenient to handle.

**Some Salient Features—Milk Grading**—For Grading purposes some 1,600 pints of milk were examined in detail, ranging from 12 to 48 samples for each brand. No attempt is made to allocate these samples pro rata with the business volume, as we find that while we may require a minimum of 12 in order to establish a grade in an intelligent and equitable manner for a small vendor of 100 to 200 quarts daily, it would be impracticable and out of all reason to require 1,200 or 2,400 samples from a firm handling 10,000 to 20,000 quarts daily, because these firms standardize their methods and products to such a degree of uniformity that any cross section of 12, 24 or 48 samples, would give us practically similar results. As a matter of fact we find many and more variations showing in a small brand output than we find n the whole output of a large pasteurization plant. Seven only of these pint samples showed evidence of being "off Grade." As for general cleanliness, out of 122 brands, 25 have a Super No. 1 Sediment test all the time, and 39 more only occasional light traces,—a total of 64

No. 1 Clean. Other twenty have more distinct traces, 12 have visible light sediment and 6 have a distinct No. 2 or heavy sediment. The No. 1 clean represents 93% of our total supply, 6% is represented by occasional, and 1% only No. 2 heavy sediment. In regard to plate counts 70% of our supply registers at 25.000 or less (10% under 5.000) while 4% only registers over 60.000 per c.c.

Concerning the final grading and classification of the total supply, 64% is A. 1—90 to 95% perfect, and 24% is A. 2—85 to 90%. A total of 88% High Grade, 10.5% is Medium Grade, and 1.5% Low Grade. We now have 14 brands in Low Grade as against 36 in 1933. These Low Grade supplies represent 270 gallons of milk daily. We expect to wash out this class in the near future by means of education and improvement; failing this, our last resort is elimination.

**Quality of Plant Supplies**—Interested as we are in the quality of milk as delivered to the consumer we have had to a great extent to rely on the plant operator to check on the quality of shipments received. However, in order that we may have available first hand information, we have for several years now taken composite bulk samples at the plants of the pre-pasteurized product in sufficient quantity to give us a fair idea as to the quality of the crude material made use of in processing and manufacturing. Each sample may represent milk from a large number of producers but is considered as a check on the operator and not as a check on the individual producer. For example, unclean milk from one producer may be allowed to contaminate the clean supplies of several other producers, but not with an alert operator. The general purpose of these composite tests is to provide a fair and equitable basis for judging the fitness of the raw product for pasteurization, and to ensure that plant operators are doing their part by careful selection of all milk intended finally for fluid domestic consumption. In the earlier years of this work it was found necessary in grading and testing these samples to employ a more generous yard stick than the one used for retail samples but for the past two years we are treating all tests and results by the one formula on an equal basis. In regard to cleanliness the amount of No. 1 milk has increased from 10% in 1932 to 33% in 1935 while the average sediment test has dropped from 2.2 in 1931 to 1.7 in 1935. Plate Counts which ran in the millions in 1930-31, and half millions in 1932-33, have reached a reasonable raw milk class in 1934-35 with 35% of samples ranging 25,000 or less, and only 1.5% in the million class. A study of these results which, while not spectacular, show a slow but sure improvement becoming effective, and indicating progress along permanent lines.

**Quality of Consumers' Milk**—The average consumer is perhaps more interested in the actual quality of milk rather than in those abstract features which include safety and freedom from unseen or unknown contaminatory influences. Sediment or dirt is usually visible but if removed little or no visible evidence remains in the milk although the contamination may still be there. For these reasons we have on all possible occasions emphasised that the fundamental precaution in production is not to lean heavily on the strainer, judging its efficiency by the largest amount of sediment extracted; but in preference, to judge the efficiency of methods by ensuring that the strainer will remain almost clean, and show no sediment as an indication that none was present in the milk. Many producers are now demonstrating that milk can be drawn from the cow and be free from dirt, and that the use of the strainer is just an added precaution.

Many years ago our policy was heavy on dairy farm inspection and light on milk inspection; but since we undertook grading, this order has been reversed, because we have found by experience that a de-

tailed inspection of the milk itself reveals or reflects conditions under which it is produced and handled, with the advantage that it is easier and costs less to inspect milk which is brought to the City; and such examinations can be made at more frequent intervals than dairy farm inspections. "Milk Inspection," however is not a full substitute for "Dairy Inspection," both being considered highly necessary. However since we inaugurated "Milk Grading" along these lines, the cleanliness and keeping qualities of our general supply has shown remarkable and rapid improvement. Thus we find that over 90% of our supply is No. 1 Clean, that 70% of all brands have a plate count of 25,000 or less, that 25% or 30 brands have an average plate count of 15,000 or less. Results such as these were unthought of ten years ago, and a large share in this success is due to the hearty co-operation and friendly competitive spirit of the producers and distributors.

As a simple illustration of the manner in which all this affects the general supply and the chances of the average consumer receiving a first class product, we make the following observations. There are 385 milk wagon routes covered in the city with the three large distributors each giving a city wide service and almost 100 localized or single routes, thus providing sufficient overlapping so that each and every consumer has a choice of service from ten to twenty vendors and a choice of time of delivery from early morn to noon.

Out of these 385 routes, 320 handle high grade only, 50 handle medium grade, and only 15 low grade. The question may well be asked, "why any low grade?" and the answer is to the effect that we had 40 such routes in 1933, and now only 15, and although this may include a few die-hards, we have confidence that a continuance of our educative grading scheme along with intensive inspection will bring desirable results. Out of the 750 stores handling milk sales, fully 700 deal in high grade pasteurized milk only, while we find many stores handling two or three brands, and a few handling both pasteurized and raw, we have not in the last three years found any store handling low grade milk, and we are of the opinion that the next few years will find no market in Winnipeg for such a product. The quality of service enumerated brings a high grade milk within reasonable reach of all consumers.

During recent years we have featured tabulations comparing prevailing milk prices in certain U.S. and Canadian Cities with a view to indicating whether local prices were fair and reasonable and "spreads" equitable as between producer, distributor and consumer. In this report we compare Winnipeg prices with those of the municipal plant at Wellington, New Zealand. The problems of milk supply in these two Cities over the past 25 years have developed along somewhat similar lines, and have reached the same stage but by different methods. In 1919 when our municipal milk by-law was rejected, Wellington decided to go ahead with a municipal plant and in 1922 they commenced distribution of pasteurized milk. In the same year we adopted the present Dairy By-law. Wellington has 70% pasteurized milk supplied by its own plant and 30% raw supplied by producer-distributors. Price schedules are subject to control in both Cities.

I have the honor to be, Sir,

Your obedient servant,

E. C. BROWN,
Chief Dairy Inspector.

## Milk and Dairy Inspection

| | 1934 | 1935 |
|---|---|---|
| Inspections conducted inside City | 4,934 | 5,720 |
| Inspections conducted outside City | 1,449 | 1,609 |
| Notices and Instructions issued | 693 | 783 |
| Samples, Examinations and Tests | 4,813 | 5,044 |
| Milk and Cream condemned, lbs. | 1,432 | 118 |
| Sickness on Dairies investigated | 13 | 12 |
| Miles travelled outside City | 8,041 | 9,162 |
| Certificates authorizing Licenses | 107 | 106 |
| Pints of Milk taken for Grading | 1,534 | 1,600 |
| Brands of milk Graded in Detail | 115 | 113 |
| Crude Plant runs Graded | 9 | 9 |
| Thermograph apparatus inspected | 1,248 | 1,260 |
| Thermograph charts recorded | 8,760 | 9,820 |
| Batches of milk Pasteurized daily | 60 | 62 |
| Pasteurization Records entered | 3,285 | 4,025 |

## Cattle in Licensed Dairy Herds

| | Head |
|---|---|
| Milch cows Licensed by City of Winnipeg | 1,705 |
| Milch cows Plant shippers and Suburban Sales | 335 |
| Total milch cows in regular use | 2,040 |
| Feeders, springers, bulls, heifers, steers, calves | 1,335 |
| Total cattle kept on premises | 3,375 |
| Average number of milch cows per dairy herd | 22 |
| Average number of cattle other than milch cows | 14 |
| Total number of cattle per herd | 36 |

## Milk Produced on Licensed Dairies

| | Gallons |
|---|---|
| Amount distributed daily in City of Winnipeg | 3,450 |
| Amount distributed daily in municipalities | 550 |
| Milk shipped by licensee daily to Plants | 150 |
| Total Daily average production | 4,150 |
| Average quantity sold daily per dairy in City | 36 |
| Average total City and Municipal per dairy | 43 |
| Average daily sales per delivery wagon | 32 |

The average yield per milch cow is two gallons per day or around 7,500 pounds per year. Approximately one animal of some kind is kept for each gallon of City sales.

## Milk Vendors' Licenses

| | 1931 | 1932 | 1933 | 1934 | 1935 |
|---|---|---|---|---|---|
| Dairy Licenses Issued | 99 | 99 | 98 | 96 | 95 |
| Plant Licenses Issued | 5 | 9 | 11 | 11 | 11 |
| Total Licenses | 104 | 108 | 109 | 107 | 106 |
| Retail delivery routes | 330 | 350 | 350 | 350 | 353 |
| Wholesale delivery routes | 20 | 25 | 25 | 30 | 32 |
| Total routes | 350 | 375 | 375 | 380 | 385 |

Revenue amounted to $2,394.50 as against $2,393.00 for 1934, including $1,320.50 for dairies, and $1,074.00 for Plants.

| **City Revenue, $502.00—** | 1934 | 1935 |
|---|---|---|
| Raw milk Dairies inside City | $ 75.00 | $ 88.00 |
| Pasteurizing Plants inside City | 396.00 | 414.00 |
| | $471.00 | $502.00 |

| **Outside Revenue, $1,892.50—** | | |
|---|---|---|
| Raw milk Dairies in municipalities | $1,292.00 | $1,232.50 |
| Pasteurization Plants in St. Boniface | 630.00 | 660.00 |
| | $1,922.00 | $1,892.50 |

| **Basis of Revenue—** | | |
|---|---|---|
| First 10 milch cows on each of 95 Dairies | 936 @ $1.00 | $ 936.00 |
| Additional milch cows on each dairy | 769 @ .50 | 384.50 |
| Plant delivery routes business tax paid | 202 @ 2.00 | 404.00 |
| Plant routes—no Winnipeg business tax | 67 @ 10.00 | 670.00 |
| Total Revenue from Licenses | | $2,394.50 |

## Consumption and Distribution

Chain stores started selling milk at Cash and Carry Prices in 1929.

| | Gals. Daily | Pints per cap. | Routes | C.C. Stores | Past'd % |
|---|---|---|---|---|---|
| 1927 | 16,000 | 0.64 | 345 | ..... | 58.0 |
| 1928 | 16,500 | 0.65 | 355 | ..... | 60.0 |
| 1929 | 16,750 | 0.65 | 355 | 155 | 62.6 |
| 1930 | 17,000 | 0.65 | 350 | 650 | 65.0 |
| 1931 | 17,250 | 0.65 | 350 | 775 | 68.0 |
| 1932 | 17,500 | 0.65 | 375 | 770 | 73.5 |
| 1933 | 17,640 | 0.64 | 375 | 765 | 75.0 |
| 1934 | 17,780 | 0.64 | 380 | 765 | 77.0 |
| 1935 | 17,920 | 0.64 | 385 | 760 | 77.5 |

## Grade Standing

| | Perfection | Retail Brands | Crude Runs | Total |
|---|---|---|---|---|
| High Grade A 1 | 90 to 100% | 23 | 0 | 23 |
| High Grade A 2 | 85 to 90% | 32 | 0 | 32 |
| Medium Grade B 1 | 80 to 85% | 38 | 0 | 38 |
| Medium Grade B 2 | 75 to 80% | 12 | 3 | 15 |
| Low Grade C 1 | 70 to 75% | 7 | 4 | 11 |
| Low Grade C 2 | 60 to 70% | 1 | 2 | 3 |
| Totals, Graded and Classified | | 113 | 9 | 122 |

## Improved Percentage of Supply

| | 1932 | 1933 | 1934 | 1935 |
|---|---|---|---|---|
| High A 1 | 50.0 | 60.0 | 61.0 | 64.0 |
| High A 2 | 24.5 | 25.5 | 25.0 | 24.0 |
| Medium B 1 | 8.0 | 5.0 | 8.0 | 7.5 |
| Medium B 2 | 4.5 | 2.5 | 2.5 | 3.0 |
| Low C 1 | 5.0 | 4.0 | 2.5 | 1.3 |
| Low C 2 | 3.4 | 1.0 | 0.5 | 0.2 |
| No Grade | 4.6 | 2.0 | 0.5 | 0.0 |
| | 100.0 | 100.0 | 100.0 | 100.0 |

## Average Sediment Tests

| | | Number of Brands | Percent. of Brands | Percent. of Supply |
|---|---|---|---|---|
| No. 1 | Perfect at all times | 25 | 20 | 53 |
| No. 1- | Occasionally traces | 59 | 48 | 40 |
| No. 1.5 | Generally traces | 20 | 17 | 4 |
| No. 1.7 | General light sediment | 12 | 10 | 2 |
| No. 2 | General Heavy sediment | 6 | 5 | 1 |
| | | 122 | 100 | 100 |

## Classification of All Sediment Tests

| | 1934 | | 1935 | |
|---|---|---|---|---|
| | Number | Percent. | Number | Percent. |
| No. 1 | 760 | 50.0 | 832 | 52.0 |
| 1- | 265 | 17.5 | 352 | 22.0 |
| 1.5 | 334 | 21.0 | 272 | 17.0 |
| 2 | 154 | 10.0 | 128 | 8.0 |
| 3 | 21 | 1.5 | 16 | 1.0 |
| | 1,534 | 100.0 | 1,600 | 100.0 |

*Sed. test numbers—1.1, 1.2, 1.3, 1.7—are used in average only.

## PLATE COUNTS — CONSUMERS' MILK

### Classification of 1,600 Tests

| | 1,000 to 5,000 | 6,000 to 10,000 | 11,000 to 25,000 | 26,000 to 50,000 | 51,000 to 100,000 | Over 100,000 |
|---|---|---|---|---|---|---|
| Number | 170 | 295 | 625 | 280 | 134 | 96 |
| Percent. | 10.5% | 18.5% | 39% | 17.5% | 8.4% | 6% |

### Classification of 122 Series

| | 10,000 to 12,500 | 15,000 to 17,500 | 20,000 to 25,000 | 30,000 to 35,000 | 40,000 to 50,000 | 60,000 to 125,000 |
|---|---|---|---|---|---|---|
| Number | 12 | 36 | 37 | 15 | 17 | 5 |
| Percent. | 10% | 30% | 30% | 12% | 14% | 4% |

### Improvement in Graded Brands

| | 1931 | 1932 | 1933 | 1934 | 1935 |
|---|---|---|---|---|---|
| High Grade | 31 | 35 | 49 | 50 | 55 |
| Medium Grade | 31 | 30 | 29 | 48 | 50 |
| Low Grade | 26 | 35 | 29 | 17 | 8 |
| Below Grade | 19 | 13 | 7 | 0 | 0 |
| Total Brands | 107 | 113 | 114 | 115 | 113 |

### Increase in High Grade Brands

| | A 1 90% Perfect | | | A 2 85% Perfect | | |
|---|---|---|---|---|---|---|
| | Raw | Past'd. | Total | Raw | Past'd. | Total |
| 1927 | 3 | 1 | 4 | 5 | 1 | 6 |
| 1928 | 4 | 1 | 5 | 8 | 4 | 12 |
| 1929 | 5 | 1 | 6 | 9 | 5 | 14 |
| 1930 | 5 | 1 | 6 | 14 | 3 | 17 |
| 1931 | 6 | 8 | 14 | 14 | 3 | 17 |
| 1932 | 5 | 5 | 10 | 19 | 6 | 25 |
| 1933 | 6 | 12 | 18 | 28 | 3 | 31 |
| 1934 | 9 | 10 | 19 | 26 | 5 | 31 |
| 1935 | 11 | 12 | 23 | 29 | 3 | 32 |

Grade requirements have been made more exacting from time to time in order to cope more efficiently with undesirable features. From 10 brands in 1927 to 55 in 1935 High Grade and embracing over 85% of our total supply.

## 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 | 15.000 | 94.0% | 2 | 1.2 | 10.000 | 93.0% |
| 5 | 1 | 15.000 | 92.3 | 3 | 1 | 10.000 | 92.4 |
| 6 | 1 | 10.000 | 92.2 | 4 | 1 | 12.000 | 92.4 |
| 11 | 1 | 17.500 | 91.1 | 7 | 1 | 10.000 | 92.0 |
| 13 | 1 | 15.000 | 91.0 | 8 | 1 | 15.000 | 92.0 |
| 14 | 1 | 17.500 | 91.0 | 9 | 1 | 15.000 | 92.0 |
| 15 | 1.2 | 25.000 | 91.0 | 10 | 1 | 11.000 | 91.8 |
| 17 | 1 | 15.000 | 90.6 | 12 | 1 | 15.000 | 91.0 |
| 19 | 1.1 | 18.000 | 90.1 | 16 | 1 | 12.000 | 90.7 |
| 20 | 1.2 | 15.000 | 90.1 | 18 | 1.1 | 12.000 | 90.4 |
| 21 | 1 | 20.000 | 90.0 | 23 | 1.1 | 12.000 | 90.0 |
| 22 | 1 | 25.000 | 90.0 | 24 | 1 | 20.000 | 89.0 |
| 27 | 1.1 | 35.000 | 88.5 | 25 | 1.1 | 15.000 | 89.0 |
| 28 | 1.1 | 12.000 | 88.4 | 26 | 1 | 12.000 | 88.6 |

## Grade Averages — Complete Tests

## Equi-Distant Cross Sections

| No. | S. Test | P. Count | B. Fat | T. Solids | % Perfect | Grade |
|---|---|---|---|---|---|---|
| 1 | 1 | 15.000 | 4.1 | 12.9 | 94.0 | A 1 |
| 11 | 1 | 17.500 | 3.7 | 12.3 | 91.1 | A 1 |
| 21 | 1 | 20.000 | 4.0 | 12.5 | 90.0 | A 1 |
| 31 | 1 | 25.000 | 3.5 | 12.0 | 87.5 | A 2 |
| 41 | 1.2 | 20.000 | 3.75 | 12.5 | 86.5 | A 2 |
| 51 | 1.1 | 20.000 | 3.5 | 12.25 | 85.5 | A 2 |
| 61 | 1.3 | 15.000 | 3.6 | 12.0 | 84.2 | B 1 |
| 71 | 1.2 | 20.000 | 3.3 | 11.75 | 83.0 | B 1 |
| 81 | 1.5 | 20.000 | 3.75 | 12.25 | 82.0 | B 1 |
| 91 | 1.3 | 10.000 | 3.2 | 11.6 | 81.0 | B 1 |
| 101 | 1.5 | 35.000 | 3.4 | 12.1 | 78.0 | B 2 |
| 111 | 1.5 | 25.000 | 3.25 | 11.5 | 74.0 | C 1 |
| 121 | 2 | 60.000 | 3.9 | 12.6 | 67.0 | C 2 |

## Cleanliness of Crude Supplies

| Plant No. | Sample Ratio | Volume Ratio | 1932 Ave. S.T. | 1933 Ave. S.T. | 1934 Ave. S.T. | 1935 Ave. S.T. |
|---|---|---|---|---|---|---|
| 1 | 2 | 9 | 1.8 | 1.7 | 1.5 | 1.7 |
| 2 | 2 | 7 | 2.2 | 1.7 | 2.0 | 1.7 |
| 3 | 2 | 6 | 2.0 | 1.7 | 2.0 | 1.7 |
| 4 | 1 | 1 | 2.1 | 2.0 | 1.7 | 1.7 |
| 5 | 1 | 2 | 2.0 | 2.0 | 1.7 | 2.0 |
| 6 | 1 | 2.5 | 2.2 | 1.7 | 1.5 | 1.5 |
| 7 | 1 | 2 | 2 | 2.0 | 1.7 | 1.7 |
| 8 | 1 | 0.5 | 1.7 | 2.0 | 1.7 | 1.5 |
| 9 | 1 | 1 | .... | 1.5 | 1.7 | 1.7 |
| Average aggregate..... | | | 2.0 | 1.8 | 1.75 | 1.7 |

## Samples

| | | | | | |
|---|---|---|---|---|---|
| No. 1 or 1– | highly satisfactory ..... | 10% | 16% | 20% | 33% |
| No. 1.5 | fairly satisfactory ..... | 40 | 44 | 50 | 35 |
| No. 2 or 3 | doubtful quality ..... | 50 | 40 | 30 | 32 |

## Plate Counts of Crude Milk 1934-35

| Plant No. | 10.000 | 25.000 | 50.000 | 100.000 | 250.000 | 500.000 | 1000.000 |
|---|---|---|---|---|---|---|---|
| 1 | 12 | 7 | 9 | 8 | 6 | 0 | 0 |
| 2 | 2 | 9 | 11 | 10 | 6 | 5 | 0 |
| 3 | 6 | 13 | 10 | 5 | 6 | 2 | 1 |
| 4 | 5 | 9 | 3 | 3 | 2 | 1 | 0 |
| 5 | 1 | 6 | 6 | 1 | 4 | 4 | 1 |
| 6 | 3 | 8 | 4 | 2 | 3 | 2 | 1 |
| 7 | 5 | 7 | 6 | 4 | 2 | 0 | 0 |
| 8 | 6 | 8 | 3 | 1 | 3 | 1 | 1 |
| 9 | 8 | 5 | 4 | 6 | 0 | 0 | 0 |
| Total | 48 | 72 | 56 | 40 | 32 | 15 | 4 |
| | 18% | 27% | 21% | 15% | 12% | 5.5% | 1.5% |

| | 1934 | 1935 | Totals |
|---|---|---|---|
| 5.000 to 25.000..... | 52 – 40% | 68 – 49% | 120 – 45% |
| 25.000 to 100.000..... | 48 – 36% | 48 – 35% | 96 – 36% |
| 100.000 to 250.000..... | 20 – 16% | 12 – 9% | 32 – 12% |
| 250.000 to 1000.000..... | 10 – 8% | 10 – 7% | 20 – 7% |

## Distribution in Gallons Daily

| | Minimum | Maximum | Average |
|---|---|---|---|
| Total Plant Capacity | 20,000 | 25,000 | 22,500 |
| Regular requirements | 16,500 | 17,500 | 17,000 |
| Pasteurized daily | 16,000 | 16,500 | 16,250 |
| Pasteurized total sales | 14,250 | 15,000 | 14.600 |
| City Sales Pasteurized | 13,000 | 13,500 | 13,170 |
| Indirect Pasteurized sales total | 850 | 900 | 870 |
| City sales indirect Pasteurized | 650 | 750 | 700 |
| Plants Special Raw sales | 360 | 400 | 380 |
| City Sales, Special and Certified | 280 | 330 | 318 |
| Returns or unsold | 1,200 | 2,000 | 1,600 |
| Producer-Distributor Sales | 3,200 | 3,500 | 3,450 |
| Private Supply raw milk | 250 | 300 | 282 |
| Total City milk sales | 16,480 | 17,330 | 16,938 |
| Total City consumption | 17,380 | 18,380 | 17,920 |

## Winnipeg's Daily Milk Supply

| Description | | Gallons per Day | |
|---|---|---|---|
| Pasteurized fluid milk | 13,170 | | |
| Milk as pasteurized products | 700 | | |
| Total pasteurized consumed | | 13,870 | 77.4% |
| Raw milk Tuberculin tested | 3,450 | | |
| Special Raw milk (plants) | 300 | | |
| Certified milk | 18 | | |
| Private supply raw milk | 282 | | |
| Total raw milk consumed | | 4,050 | 22.6% |
| Total milk consumption | 17,920 gallons daily. | | |

| Daily Consumption Pints per Capita | | Percentage Classification | |
|---|---|---|---|
| Direct sales milk | 0.600 | Pasteurized | 77.4% |
| Milk Products (fluid) | 0.028 | Certified | 0.1% |
| Private Supply | 0.012 | Raw | 22.5% |
| Total | 0.640 | | 100.0% |

## Daily Per Capita Consumption

### Milk and Cream

| | Imp. Pints | U.S. Pints |
|---|---|---|
| Fluid milk sales | 0.600 | 0.750 |
| Chocolate milk Drinks | 0.012 | 0.015 |
| Cultured lactic milks | 0.008 | 0.010 |
| Milk in Cereal Cream | 0.008 | 0.010 |
| Private Supply | 0.012 | 0.015 |
| Cream in Cereal Cream | 0.040 | 0.050 |
| Coffee Cream | 0.120 | 0.150 |
| Whipping Cream | 0.080 | 0.100 |
| Total pints per capita | 0.880 | 1.100 |

### Milk and Cream Basis

### Milk in Gallon and Quart Units

| | | |
|---|---|---|
| Fluid milk sales | 16,940 | 67,760 |
| Milk prepared products | 700 | 2,800 |
| Private supply | 280 | 1,120 |

### Cream Transposed to Milk Equivalent

| | | |
|---|---|---|
| Cereal Cream | 1,080 | 4,320 |
| Coffee Cream | 3,240 | 12,960 |
| Whipping Cream | 2,160 | 8,640 |
| Gallons | 24,400 | 97,600 Qts. |

| | |
|---|---|
| Milk and Cream daily consumption | 200,000 lbs. |
| Calculated in terms of milk | 24,400 gallons. |
| Reduced to Imperial Pint unit | 195,200 pints |
| Annual consumption per capita | 44 gallons. |
| Equivalent to American measure | 55 gallons. |

## Daily Per Capita Consumption

| | |
|---|---|
| Fluid milk only—Imperial Measure | 0.64 pints |
| Milk and Cream basis—Imperial Measure | 0.88 pints |
| Fluid milk only—U.S. Measure | 0.80 pints |
| Milk and Cream basis—U.S. Measure | 1.10 pints |

Note:—Returns from 373 U.S. cities with a total population of thirty-nine million, give the average annual consumption on a milk and cream basis per person as 55 gallons.

## Comparisons in Retail Prices—Ten-year Period.

### Wellington, New Zealand — Municipal Plant

| 12 Months April 1st to March 31st | Winnipeg Summer 4 Months Quart | Winnipeg Winter 8 Months Quart | Wellington Summer 8 Months Quart | Wellington Winter 4 Months Quart |
|---|---|---|---|---|
| 1925-26 | 12c | 12c | 14c | 17c |
| 1926-27 | 12 | 12 | 14 | 17 |
| 1927-28 | 12 | 13 | 12 | 14 |
| 1928-29 | 12 | 13 | 12 | 14 |
| 1929-30 | 12 | 13 | 12 | 14 |
| 1930-31 | 11 | 12 | 11 | 12 |
| 1931-32 | 10 | 10 | 11 | 12 |
| 1932-33 | 8 | 10 | 10½ | 11 |
| 1933-34 | 9 | 10 | 10 | 11 |
| 1934-35 | 9 | 10 | 10 | 11 |

### Year Ending March 31st, 1934

| | Winnipeg | Wellington |
|---|---|---|
| Ave. Producers' Price per cwt. at Plant | $1.57½ | $1.85 |
| Delivered Quart Spread—8-month period | 5½c | 5c |
| Delivered Quart Spread—4-month period | 5½ | 5½ |
| Average retail selling price—12 months | 9.66 | 10.33 |
| Average price paid at plant—Quota | 4.1 | 4.7 |
| Average price received—total sales | 8.6 | 9.7 |
| Average Quart Spread—total sales | 4½ | 5 |

### Greater Winnipeg Minimum Prices, 1935

| | 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 to consumer | 9 | 9 |
| Wholesale bulk delivered per gallon | 30 | 30 |
| Special raw or Pasteurized, quart | 11 | 11 |
| Jersey raw or Pasteurized | 12 | 12 |
| Producer-distributors, bottled minimum | 9 | 9 |
| Producer-distributors, dipped minimum | 8 1/3 | 8 1/3 |
| Producers' price at plant per cwt. 3.5 base | $1.50 | $1.80 |

# Report of the Chief Food Inspector

A. J. Douglas, Esq., M.D.,

Medical Health Officer.

Dear Sir:

I have the honor to submit herewith a summary of the activities of the Food Division for the year 1935, together with comments thereon.

Premises, etc., under inspection during the year total two thousand, one hundred and thirty-two, giving an increase for the year of forty-three; part of this increase is accounted for in increases of hawkers, there being twenty more permits issued in 1935 than in 1934.

The number of complaints regarding food infection or intoxication or so-called Ptomaine poisoning increased over 100% during the year there being only eight in 1934 whereas there were seventeen registered in 1935. If samples of the foodstuff, that was under suspicion as the causative agent, were obtainable, these were all submitted to Doctor M. S. Lougheed, City Bacteriologist, and a number of them to Mr. A. Blackie, Consulting City Chemist, also, to try to find the cause. Doctor Lougheed found 66% of samples submitted had been contaminated previous to examination; Mr. A. Blackie's reports all showed negative results as regards anything detrimental to health. A total of one hundred and fifty-nine samples were submitted to Doctor Lougheed, of these the greater proportion were aerated waters and several of these again showed high counts and gas forming organisms present. We again took this matter up with the manufacturers with beneficial results. The remedy lies in pre-cooling the syrup and water to around 34 degrees Fahrenheit, which allows the mix to absorb more of the Carbon-Dioxide which in turn should inhibit the growth of bacteria. Nineteen were samples of ice from the different lakes, Lake Manitoba, Lake Winnipeg, Shoal Lake and Fort Whyte, and these were found free from any harmful organisms.

**Complaints**—There were four hundred and ninety phone calls made to the office during the year. Of these two hundred and seventy-one were in regard to making inspection relative to issuing licenses and transfers. Next highest in number were those relating to unsound foodstuffs which totalled fifty-five, this resulted in forty seizures being made. Complaints of bad odors, thirteen, and the same number regarding plumbing fixtures and sewers, and eleven calls to inspect new bakeshops. There were numerous other complaints—of these seventeen were regarding food said to have caused sickness; ten of these samples were submitted to Mr. A. Blackie for analysis and showed negative results. Fifteen were given to Doctor M. S. Lougheed, City Bacteriologist, and of these ten showed gas forming organisms present within forty-eight hours. One was submitted to Doctor Cadham at the Medical College, as the party complaining stated they thought they had Bacillus Botulinus poisoning, but the result of Doctor Cadham's investigation was in the negative.

**Abattoirs**—There is no change in the number of abattoirs located within the city. These places, considering that they are classified as an offensive trade, cause very little offense to the public as no complaints were received concerning them. A fire occurred in one of these premises and on restoration the sanitary conveniences for the employees on the killing floor were augmented and improved. Three complaints regarding killing of animals by others than the licensed abattoirs were received at office. No trace of any such contravention of the law could be found in two instances, but in the third, evidences of the slaughter of the animal was found, entrails, hoofs, etc., being left on the ground. This animal had been killed for the home only, none being offered for sale to the public. The party was warned and informed that any further contravention of the law in this regard would be followed by prosecution. The meat canvasser or his salesman is the one that is the source of most trouble in that calves of less age and weight, than that prescribed in the Public Health Act, are bought and sold by some of these merchants, and because this meat is easily cooked and tender, there is a demand for such amongst a certain class of the buying public. This is a contravention of the law that is hard to detect, if the umbilicus is removed along with the hide, head and feet, the inspector has nothing else to go on in his suspicions as to age except the bones, and bone marrow and weight.

**Bakeries**—There is an additional bakery this year to the number previously reported, 83 in 1934 and 84 in 1935. The number of renovations in bakeshops this year show a higher percentage than for several years, 63.58%, which gives 18.25% higher than 1934. Bread prices were cut to the minimum again this year and this brought on what is known as the Bread Enquiry. The findings of the Commission appointed are not yet available to the public. In speaking of bakeries and mention of complaints of insanitary methods of handling the products of the bakery, it may be well to remind the trade of the serious outbreak of food poisoning that occurred in Westchester, New York State, in April of this year, when over 1,000 persons were made ill after eating cream puffs and eclairs from a well-known wholesale bakery in Westchester. Why did this trouble occur? Some bacteria developed in the filling that should not have been there. The Yonkers Health Department Laboratory found 30,000,000 bacteria per gram in the filling of the eclairs, a figure that is out of all proportion divided by 300 to the tolerance allowed in milk as a maximum. Both the Yonkers Laboratory and the New York State Health Laboratory found large number of Staphylococcus Pyogenes Aureus also Streptococcus and a coli like organism were present. None of the bacteria would ordinarily be suspected of being the causal agent, but since 1931 it is becoming recognized that Staphylococcus Pyogenes Aureus is fairly regularly associated with food poisoning outbreaks, and under certain conditions seems to produce a poisonous substance. To many this will be an incredible statement, as this particular Staphylococcus is a common inhabitant of the normal skin of everybody, being the usual cause of boils and carbuncles (See Food Borne Infections and Intoxications, Tanner, 1933, and Jordan Journal of American Medical Association, 97, 1704, 1931). At a conference held regarding this outbreak, it was agreed by the members of conference, that in the handling of perishable and very readily contaminated material of this kind, it is essential that stringent sanitary precautions should be taken in its manufacture, and that it should be promptly marketed, kept at a low temperature, and the public warned to avoid storage and to consume them promptly. All food manufacturers must learn and apply the principle, that there is an economic value as well as an esthetic value to extreme care in sanitary control, clean appearance alone is not enough, material and equipment must also be bacteriologically clean. It takes much more than

white walls, white coats and aprons to produce conditions of bacteriological cleanliness.

**Bottling Plants**—The number of such premises under inspection remains fairly constant, only one new one having been added this year. Samples of all maufactured aerated waters were obtained from all premises engaged in its manufacture and samples submitted to Doctor M. S. Lougheed for bacteriological examination. Several samples showed gas forming organisms. This matter was taken up with the management and remedy suggested and on further samples being taken the trouble had cleared up. If proper care is taken in washing and sterilizing the bottles and pre-cooling the syrup and water, there should be no gas forming organisms able to live in the product.

**Butcher Shops**—There are now two hundred and fifteen butcher shops listed. This is a decrease of nine from last year. It is difficult to account for the decrease as the price of meat has advanced usually with advance in price, profit advances also, but it may be that the buying public have not the means to meet the increase in price and either buy less or none at all. More and more of these merchants are installing electric refrigeration or conditioned air and very few complaints re meat unfit for use were made to the office, although several were received that meat ingested had caused so-called ptomaine poisoning. These complaints were immediately investigated and sample obtained, if possible, and submitted to Doctor M. S. Lougheed, City Bacteriologist.

**Condemnations**—During the year inspectors of this Division were responsible for the condemnation of 12,581¼ lbs. of foodstuffs. Vegetables head the list with 4,580 pounds, the greater portion of this being potatoes, as numerous complaints re frozen potatoes were received in office. Next highest was veal and third in order of quantity being poultry with canned goods running very close. In addition to these goods condemned by your inspectors, a large volume was sent voluntary by wholesalers, jobbers, etc. to the incinerator to be destroyed. Of these various foodstuffs, fish takes the lead with 117,450 pounds, next pickles, 57,980 pounds, vegetables 16,400 pounds, canned goods 14,275 pounds, candy 3,500, fruit 3,320 and cheese 850 pounds. This shows an increase in the total of approximately 25% over last year. The co-operation given by jobbers, wholesalers, etc., in regard to voluntarily sending such goods to be destroyed is appreciated. It is a very difficult matter to trace up shipment of goods that may be not just up to standard of soundness or wholesomeness, once they get into the retailers' hands. This voluntary action of the wholesale trade not only gives prestige to the trade as a whole but may also safeguard against damage claims for sickness or death.

**Fruit and Vegetables**—The amount of fruit and vegetables seized and condemned is slightly higher for the year than in 1934, in latter 3,280 pounds were seized and 4,580 pounds in 1935. The greater portion of such seizures were potatoes that had been frozen previous to delivery. Imported leafy vegetables and celery are always examined for spray residue, arsenous oxide, As2O3, lead and also fluorine. Insecticide spray residue on fruit have been a serious problem for food inspectors and the trade. It has long been necessary to wash and treat chemically certain fruits to eliminate the residual arsenic and lead. The stringent regulations of the Food and Drugs administration (in the states to the South) were policed diligently to see to it that the careless or negligent sprayer did not leave such material on the foodstuff offered to the public. Relief is in sight, however, to overcome this serious and costly problem. A large number of organic materials have

been investigated by the Bureau of Entomology of the Department of Agriculture in the United States and one has been identified which promises to be just as good an insecticide as lead arsenate but offers none of the difficulties of spray residue. This material is Phenothiazine, an organic chemical compound, synthetized from easily available cheap chemicals by an inexpensive process. It has had two years field trials with most promising results, and officials of the Bureau are optimistic in their expectations of success with it. Phenothiazine is a three-ring organic chemical compound in which the middle ring contains nitrogen and sulphur. It is manufactured by fusing together one part of Diphenylamine with two parts of Sulphur at 180 degrees centigrade, using iodine as a catelyst. The crude product may be purified by re-crystalization from toluene. It is a light yellow crystalline powder which melts at about 180 degrees centigrade; natural in reaction, insoluble in water and only slightly soluble in cold oil or the usual organic solvent. It can be applied as a dust for dry treatment, the preferred application is by suspension in a wetting and adhesive medium. Vegetables of which the leaf or other green part is eaten such as cabbage, lettuce and beans, have already been extensively treated with other organic insecticides. The presence of arsenic or lead spray residues on such food would make them unmarketable because, in contrast with apples, for example, it is not possible to wash off all residues by the simple chemical treatment which eliminate arsenic and lead completely. The Rotenone type of insecticide for leafy vegetables is likely to be also superseded by this newer organic compound. The new insecticide is said to be non-toxic to man and to all warm blooded animals. It is expected when its use is more universal that an even more rigid enforcement of the tolerance in respect to As2O3 residue will be enforced by the administration throughout the States.

**Grocery Stores**—There were three hundred and ninety-six grocery stores listed at December 31st, 1935, and two hundred and seventy general stores enumerated, giving a total of six hundred and sixty-six stores that sell groceries. There were nine of these opened up new modern premises during the year, six had their premises remodelled and one hundred and eighty-five had their premises renovated, giving approximately 30 percent of the total that try and keep their premises clean and up-to-date. There were very few complaints regarding this class of merchandise. The keen competition for business eliminates to a great extent any malpractice and it is seldom that an inspector has to draw the proprietor's attention to blown canned goods or other foodstuffs of an unsound nature.

**Confectioners**—There are at present one hundred and sixty-one premises listed under this heading, an increase since last report of forty-two. This is accounted for by taking premises out of one category and placing in another, in an endeavour to get proper classifiication, as confectioners are mostly concerned with the sale of candies, ice cream, drinks from soda fountains, etc. A few comments regarding ice cream and soda fountains, etc., may not be out of place here. Ice cream is regulated by law regarding the amount of butter fat content, minimum amount of butter fat 10 percent in nut or fruit ice cream and 12 percent other flavors. Is the time not reached when the total solids in ice cream should also be regulated? It has been customary in the past to try and obtain from 70% to 100% overrun, but when the manufacturer tries to obtain 120% a halt should be called. The question is often asked, "why should there be any overrun at all." The idea of beating air into the mix, and then freezing it seems to

a lot of people a fraudulent practice. Usually any such idea is entertained only by virtue of the fact that it is not generally understood why overrun is necessary in a palatable ice cream. Home made ice cream is usually granular and often contains large ice crystals. The beating of air into the mix in manufacturing ice cream imparts a quality which cannot be obtained by any other treatment or by the addition of any other ingredient. It keeps ice cream from becoming icy. It imparts lightness. It keeps the product from being too cold on the tongue. It improves paltability. Since a gallon of average mix weighs about ten pounds (10.1 lbs.) it follows that the minimum allowed weight on a gallon of ice cream should be not less than 5 pounds. This provides for an overrun of about 100%. In the case of nut or fruit ice cream, the maximum weight would be increased in proportion to the total solids added to the mix, either by fruit or nuts. There has appeared on the market during the past two years, what are known as "Counter Freezers" and several local merchants have theses installed in their several places of business. It is questionable if these merchants know that there are regulations governing the sale of such product. Regarding soda fountains the question is often asked, "Is tin harmful on soda fountain pumps?" Tin is outstanding amongst the metals for use in covering pumps on syrup containers of soda fountains. "From the standpoint of corrosion, tin is very resistant to the atmosphere and to neutral or nearly neutral solutions, such as water, carbonated water or milk. It is seriously attacked by inorganic acids and fairly strong alkalis. Most organic acids like lactic, citric, tartaric, oxalic and malic attack tin to a slight extent especially in the presence of oxygen in air or oxidizing agents, but this corroding action may be almost eliminated by excluding oxygen. Acetic acid attacks tin very slightly. When tin merely forms a protective covering over lead or copper, corrosion is not just a question of attack on tin, but also on the underlying metal which may be exposed by mechanical injury or through very small holes in the coating due to imperfect tinning or workmanship."—E. S. Hedges and C. E. Homer, The Properties of Tin, Technical Publication of International Tin Research, Development Council, Series B, August, 1934.

**Hawkers**—One hundred and eight permits were given to this class of merchant during the year. This is an increase of twenty from previous year. Very few complaints were made to the office in respect of merchandise sold by these vendors. It may be with increased competition that a better grade of fruit, etc., was carried, thereby eliminating any cause for complaint in this regard. There is still the exception to the rule as some unscrupulous member of this profession called on householders, etc., representing himself as a farmer and sold chickens that were emaciated and tubercular. Vehicles are stopped on the street and contents of same examined to see that produce is sound and wholesome.

**Markets**—An additional market was opened this year on Portage and Furby Street, thereby making two such places to inspect. Numerous complaints were received regarding both markets especially in regards to exposure of fruit and fish, the latter only on Main Street Market. Your inspectors tried every means to get the stallholders to try and meet the requirements of the Public Health Act, but where stalls are occupied by A. Smith today and J. Jones tomorrow, it is difficult to get any action. The matter was taken up with the Manitoba Potato

and Vegetable Association, Secretary and Executive, for the North-end market and the law pointed out to them. They promised consideration of the points at issue but failing to get their whole-hearted co-operation the other alternative for the Department is to cancel their license and prosecute them for operating without such.

**Prosecutions**—There were four prosecutions instituted during the year. One of these was for selling unsound fruit, two for exposing fruit, etc., in the open doorways of stores and the other for keeping dirty bakeshops and depositing bread on floor contrary to regulations. All of the defendants were convicted and fined.

**Restaurants, Clubs and Hotels**—There are five hundred and eighty-six such premises under inspection, of this number five hundred and nineteen are listed as restaurants. Constant supervision is given business listed in this category and there is still room for extensive educational work amongst persons engaged in this business. Over 50% of all phone calls to inspect is regarding this class of business, the number during 1935 being 261. An innovation in regard to restaurants was introduced during the year, namely, Classification. The Manitoba Restaurant Association appeared before the Health Committee and requested that the Department set up a standard so that restaurants obtaining such might be classified as A standing. Their application was granted and after several meetings with the Secretary and Executive of the Association a basis of classification was adopted: Building—light, ventilation, walls, ceilings, windows, doors and screens, floors, 3 points each —15. Conveniences—Toilets, washbasins, hot and cold water—5. Kitchen—sink, drains, hot and cold water, method of dishwashing, mechanical or otherwise, tables, equipment, crockery, etc., general cleanliness each 5 points—20. Refrigeration, general cleanliness and proper receptacles for storing food, 10 points each—20. Staff—cleanliness and neatness, medical inspection—15. Food—general quality and condition, cleanliness and storage, handling—25 points; summed up make a total of 100. To obtain a certificate the premises must be rated at or over 80 points. So far seventeen of the premises of the Association members have obtained a class "A" standing and three others, making a total of 20 to be in the class "A". Several other applications are on hand but so far the owners of premises have found it inconvenient to spend the money to put premises in such order as to classify. While the supervision is strict in regard to all premises where victualling is done, it requires to be equally so in regard to class "A" 'restaurants, because a class "A" certificate has been granted does not mean that without the strictest attention to every detail of cleanliness that the premises will long remain in this category. A little carelessness on the part of the owner or management and premises soon assume the appearance of neglect and indifference. Attention has again been given the Dining Halls for unemployed and transient men maintained by the Dominion Government. Periodical inspections have been made and all foodstuffs in stock at time of visits have been examined for soundness and wholesomeness. These premises are well conducted and kept scrupulously clean and on only one occasion had fault to be found with any of the foodstuff in stock.

**Sausage Manufacturers**—Premises occupied by these merchants are fairly well conducted. The regulations under which they now do business tend to make them careful in regard to cleanliness and also what class of meat is purchased to be made into sausage. There were nine-

teen such places at December 31st, 1935. One started operations in premises approved of by the Department during the year.

In conclusion I wish to express my thanks to Mr. A. Blackie, Consulting City Chemist, and to Doctor M. S. Lougheed, City Bacteriologist, for their kindly interest and help in the many problems that arise in connection with unsound or adulterated food, also to Inspectors Mines and Williams for their assistance and help in carrying out the manifold duties that fall to the lot of this Division.

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 seventeenth annual report, covering the year 1935, on the work of the Bureau of Child Hygiene.

**Infant Mortality**—The crude and corrected rates for 1935 are the lowest in the City's history, the record rates being due to the almost complete disappearance of diarrhoeal diseases, only seven infants having died from this cause out of 2,862 born to Winnipeg mothers. The following table shows crude and corrected figures for several years past:

| Year | Crude Infant Deaths | Rate | Year | Corrected Infant Deaths | Rate |
|---|---|---|---|---|---|
| 1935 | 163 | 43.0 | 1935 | 120 | 41.9 |
| 1934 | 174 | 46.4 | 1934 | 134 | 45.6 |
| 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 | | | |

The corrected rates exclude live births and infant deaths of non-residents, but include births and infant deaths to Winnipeg mothers confined in hospital in the adjoining City of St. Boniface. The crude rates are based upon the live births and infant deaths registered in Winnipeg.

**Stillbirths**—The crude stillbirth rate is also the lowest yet recorded, 32.2 per 1,000 live births, as compared with 37.3 for 1934, but the corrected rate, 34.2, takes second place.

The combined infant death rate and stillbirth rate for 1935 was 74.0 per 1,000 total births, corrected, against 81.3 for 1934. The combined rate in 1927 was 106 per 1,000 total births, a figure which reveals the substantial progress that is being made in reducing deaths immediately prior to and after birth. Deaths from malformations and diseases of early infancy total only 79 out of the 2,862 Winnipeg births.

**Live Births**—Births in hospitals and maternity homes again increased, the crude rate for 1935 being 92%; in 1930, the percentage was 82.5; in 1926, 70.9%; in 1917, 36.3%, and in 1912, 31.5%.

Coincident with the increase in hospitalization of maternity cases, has been an annual reduction in the number of births attended by midwives. In 1935, midwives attended only seventeen births, or .4%; in 1918, there were 1,159 births attended by midwives, or 19.8%.

Deaths from puerperal causes numbered 17, giving a crude rate of 4.5 per 1,000 live births, which is the same crude rate as for 1934. Eight of the 17 deaths were non-residents, but as there was one puerperal death of a Winnipeg mother in the St. Boniface Hospital, our corrected total is 10, giving a corrected rate of 3.5.

**Live Births, Stillbirths and Early Infant Deaths in Hospitals, 1935**

| Hospitals | Live Births | Still-births | Infant Deaths 1-14 days | Rate per 1,000 Live Births Still-births | Infants 1-14 days |
|---|---|---|---|---|---|
| General | 961 | 44 | 20 | 46 | 21 |
| Misericordia | 900 | 19 | 20 | 21 | 22 |
| Grace | 616 | 11 | 13 | 18 | 21 |
| St. Joseph's | 477 | 16 | 11 | 33 | 23 |
| Victoria | 360 | 10 | 8 | 28 | 22 |
| Concordia | 159 | 3 | 1 | 19 | 6 |
| Healthwin | 30 | 3 | .... | .... | .... |
| King George | 1 | .... | .... | .... | .... |
| St. Boniface* | 349 | 12 | 11 | 35 | 31 |
| All Hospitals | 3,853 | 118 | 84 | 31 | 22 |
| Private Homes | 287 | 16 | 7 | 56 | 24 |
| Total Births** | 4,140 | 134 | 91 | 32 | 22 |
| Non-Residents | 1,278 | 36 | 20 | 28 | 16 |
| Winnipeg Residents— Corrected Totals | 2,862 | 98 | 71 | 34 | 25 |

* Winnipeg Residents only.
**Including St. Boniface registrations of Winnipeg residents.

The following table is a summary of the causes of infant deaths in 1935, together with the figures for 1930, by way of comparison:

| | Corrected Totals 1935 | | 1930 | |
|---|---|---|---|---|
| | Deaths | Rate | Deaths | Rate |
| Diseases of Early Infancy and Malformations | 79 | 27.6 | 125 | 34.5 |
| Diseases of Digestive System | 7 | 2.4 | 21 | 5.8 |
| Diseases of Respiratory System | 12 | 4.2 | 17 | 4.7 |
| All other Diseases | 22 | 7.7 | 47 | 12.9 |
| | 120 | 41.9 | 210 | 57.9 |

## INFANT MORTALITY ACCORDING TO SECTIONS OF CITY

The present report is notable for the extremely low rate in two sections of the city: 1.2 per 100 live births in V N., a section largely populated by foreign-born citizens, and VII, Elmwood, a section which generally has a low rate.

As has been the case for a number of years, the sections showing the highest rates are the older parts of the city where overcrowding mostly prevails: IV C., 6.3, and II, 6.2 per 100 live births.

By way of comparison, the rates are given for 1921, the first year the infant statistics were recorded by sections:

| Nursing Section | 1935 Live Births | 1935 Infant Deaths | 1935 Death Rate per 100 Births | 1921 Death Rate per 100 Births |
|---|---|---|---|---|
| I W Fort Rouge, west of Pembina | 239 | 8 | 3.3 | 6.7 |
| I E Fort Rouge, east of Pembina | 179 | 5 | 2.8 | 7.2 |
| II Red River to Spence Street | 321 | 20 | 6.2 | 8.2 |
| III SE Young, Ellice and Sherbrook Sts. | 104 | 4 | 3.8 | 6.3 |
| III S Assiniboine River to Ellice Ave. | 267 | 11 | 4.1 | |
| III N Ellice Ave. to Notre Dame Ave. | 236 | 11 | 4.7 | 6.2 |
| III NE Young, Ellice and Sherbrook Sts. | 88 | 4 | 4.5 | |
| IV W Notre Dame to C.P.R. Tracks | 182 | 9 | 4.9 | 6.9 |
| IV C Sherbrook St. to Main St | 222 | 14 | 6.3 | 10.4 |
| V E Point Douglas, south of C.P.R. and north of C.P.R. Tracks | 159 | 9 | 5.7 | 9.8 |
| V S C.P.R. Tracks to Selkirk Ave. | 163 | 6 | 3.7 | 7.3 |
| V N Pritchard Ave. to Burrows Ave. | 170 | 2 | 1.2 | 9.9 |
| VI W Burrows to Limits, W. of No. 500 | 189 | 6 | 3.2 | 10.1 |
| VI E Burrows to Limits, E. of No. 499 | 184 | 9 | 4.9 | 8.1 |
| VII Elmwood | 159 | 2 | 1.2 | 5.5 |
| City Residents, corrected figures | 2,862 | 120 | 4.2 | 7.8 |
| Non-Residents' Registrations (excluded above) | 1,278 | 56 | 4.4 | |
| St. Boniface Registrations (included above) | 349 | 13 | 3.7 | |

**Visiting Nurses**—Miss C. Thom, Child Hygiene Nurse, became seriously ill in mid-September, necessitating her taking prolonged leave of absence. Her position was not filled so that for the latter part of the year there were twelve nurses on the districts instead of thirteen. The total number of calls to babies' homes numbered 31,469, and visits to infants' boarding homes, 26. The attendance at the Child Hygiene Centres was 16,954, distributed as follows:

| Station | 1935 Afternoons | Attendance | Average |
|---|---|---|---|
| Crescent United Church | 51 | 1,254 | 25 |
| Holy Trinity Church | 50 | 1,444 | 29 |
| Home Street United Church | 46 | 1,948 | 42 |
| First Lutheran Church | 50 | 2,758 | 55 |
| Maclean United Church | 51 | 1,147 | 22 |
| Weston Salvation Army Home | 26 | 672 | 26 |
| St. Andrew's Church | 51 | 1,908 | 37 |
| All People's Mission | 51 | 1,068 | 21 |
| Robertson House | 50 | 1,773 | 35 |
| Milk Depot | 52 | 1,095 | 21 |
| St. Paul's Lutheran Church | 51 | 1,887 | 37 |
| Totals and Average | 529 | 16,954 | 32 |

The Junior League continued to send a member as clerical assistant at the Home Street Child Hygiene Station, a service which is much appreciated.

The total number of new cases visited by the nurses was 2,386; sick calls totalled 559; cases referred to private physicians, 332; and cases referred to the Milk Depot Clinic, 254. The sick calls were far below the average as many of the unemployed called in a medical attendant instead of a nurse.

Of the 2,386 new births visited by the nurses, 806 were births to unemployed families and 98 to part-time employees and pensioners. In 1934, the figures were 2,543 new births visited, 1,015 and 133.

The visiting nurses continued to co-operate with the Communicable Diseases Division in its anti-diphtheria campaign, and compiled 1,088 names of children whose parents desired them to receive protection. Details regarding this work appears in the report of the Division of Communicable Diseases.

**Milk Depot Clinic**—Dr. R. F. Rorke and Dr. F. G. Schwalm conducted the clinics for infants requiring modified feedings, on alternate mornings as in previous years. The number of cases attending was 497, nearly all of whom were infants of unemployed families. Nurse Spratt continued in charge of the Clinic.

**Milk Dispensary**—Feedings prepared totalled 26,774, as compared with 29,810 in 1934; cash collected was $77.45 and $81.80, respectively. There were in addition 2,268 feedings prepared for the Children's Hospital, for which $361.45 was charged.

The nursing, dispensary and recording staffs carried out their duties conscientiously and efficiently, and I wish to place on record my sincere appreciation of their loyal co-operation.

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 honor to submit herewith the report on Vital Statistics for the year 1935. As in previous years, copies of the birth and death registrations have been furnished the Department by the courtesy of the Winnipeg Registrar, Mr. G. F. Bentley.

This report shows both crude and corrected totals and rates, the corrected figures 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.

Respectfully submitted,

A. G. LAWRENCE,
Secretary.

## 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.)

| | 1935 | 1934 |
|---|---|---|
| Population (City Assessor's figures) | 223,017 | 221,242 |
| Persons per acre of land | 15.00 | 14.88 |

### Corrected

| | | |
|---|---|---|
| Deaths, excluding stillbirths | 1,580 | 1,473 |
| Corrected rate per 1,000 population | 7.08 | 6.66 |
| Deaths of infants under 1 year | 120 | 134 |
| Corrected infant mortality rate per 1,000 live births | 41.9 | 45.6 |
| Deaths, measles, scarlet fever, whooping cough, and diphtheria, combined | 6 | 19 |
| Corrected rate per 100,000 population | 2.7 | 8.6 |
| Births, excluding stillbirths | 2,862 | 2,935 |
| Corrected live birth rate per 1,000 population | 12.83 | 13.27 |
| Stillbirths | 98 | 114 |
| Corrected rate per 1,000 live births | 34.2 | 38.8 |
| Natural increase, excess of births over deaths | 1,282 | 1,463 |
| Corrected rate per 1,000 population | 5.75 | 6.61 |

### Crude

| | | |
|---|---|---|
| Deaths, excluding stillbirths | 1,841 | 1,683 |
| Rate per 1,000 population | 8.25 | 7.61 |
| Deaths of infants under 1 year | 163 | 174 |
| Infant mortality rate per 1,000 living births | 43.0 | 46.4 |
| Births, excluding stillbirths | 3,791 | 3,749 |
| Rate per 1,000 population | 17.00 | 16.94 |
| Stillbirths | 122 | 140 |
| Rate per 1,000 iive births | 32.18 | 37.34 |
| Marriages | 2,596 | 2,481 |
| Rate per 1,000 population | 11.64 | 11.21 |

### Infant Mortality, 1912-35

| | Corrected | | | Crude | | |
|---|---|---|---|---|---|---|
| | Live Births | Infant Deaths | Rate per 1,000 Births | Live Births | Infant Deaths | Rate per 1,000 Births |
| 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 |
| 1931 | 3,526 | 185 | 52.5 | 4,422 | 218 | 49.3 |
| 1930 | 3,627 | 210 | 57.9 | 4,645 | 269 | 57.9 |
| 1929 | 3,579 | 211 | 58.6 | 4,515 | 253 | 56.0 |
| 1928 | 3,580 | 236 | 65.9 | 4,475 | 284 | 63.4 |
| 1927 | 3,566 | 232 | 65.0 | 4,463 | 273 | 61.2 |
| 1926 | 3,530 | 252 | 71.4 | 4,444 | 314 | 70.6 |
| 1925 | 3,781 | 252 | 66.6 | 4,632 | 315 | 68.0 |
| 1924 | 3,880 | 278 | 71.6 | 4,762 | 323 | 67.8 |
| 1923 | ..... | ..... | ..... | 5,214 | 416 | 79.8 |
| 1922 | ..... | ..... | ..... | 5,629 | 500 | 88.8 |
| 1921 | ..... | ..... | ..... | 6,029 | 471 | 78.1 |
| 1920 | ..... | ..... | ..... | 6,174 | 625 | 101.2 |
| 1919 | ..... | ..... | ..... | 5,254 | 562 | 106.9 |
| 1918 | ..... | ..... | ..... | 5,621 | 516 | 91.8 |
| 1917 | ..... | ..... | ..... | 5,446 | 545 | 100.1 |
| 1916 | ..... | ..... | ..... | 5,980 | 700 | 117.0 |
| 1915 | ..... | ..... | ..... | 5,823 | 619 | 106.3 |
| 1914 | ..... | ..... | ..... | 5,789 | 729 | 125.9 |
| 1913 | ..... | ..... | ..... | 5,577 | 947 | 169.8 |
| 1912 | ..... | ..... | ..... | 4,870 | 1,006 | 206.6 |

## TYPHOID FEVER MORTALITY RATES PER 100,000 POPULATION, 1904-1935

| 1904 | 1912 | 1913 | 1914 | 1915 | 1916 | 1917 | 1918 | 1919 | 1920 | 1921 | 1922 | 1923 | 1924 | 1925 | 1926 | 1927 | 1928 | 1929 | 1930 | 1931 | 1932 | 1933 | 1934 | 1935 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 248.3 | 10.8 | 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 |
| Corrected Rate for 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 |

## CRUDE MORTALITY RATES PER 100,000 POPULATION FOR LEADING CAUSES OF DEATH, 1917-1935

| 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 Typhlitis (121) | Hernia, Intestinal Obstruction (122) | Acute and Chronic Nephritis (130-131) | Puerperal Deaths (140-150) | External Causes (163-214) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 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 |
| 1917 | 182,848 | 74.4 | 24.1 | 62.4 | 14.2 | 24.6 | 72.2 | 13.7 | 114.8 | 14.2 | 4.9 | 31.2 | 19.7 | 41.0 |

## STILLBIRTHS, LIVEBIRTHS AND DEATHS, CRUDE AND CORRECTED FIGURES, BY MONTHS AND SEX, 1935

| 1935 | STILLBIRTHS | | | | | | LIVE BIRTHS | | | | | | 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. | 6 | 6 | 12 | 3 | | 9 | 149 | 167 | 316 | 113 | 24 | 227 | 99 | 86 | 185 | 36 | 19 | 168 |
| Feb. | 11 | 4 | 15 | 4 | 1 | 12 | 152 | 141 | 293 | 103 | 30 | 220 | 79 | 57 | 136 | 38 | 13 | 111 |
| Mar. | 5 | 4 | 9 | 3 | 3 | 9 | 138 | 131 | 269 | 86 | 34 | 217 | 76 | 73 | 149 | 45 | 10 | 114 |
| April | 4 | 3 | 7 | 3 | | 4 | 170 | 170 | 340 | 111 | 29 | 258 | 81 | 70 | 151 | 31 | 18 | 138 |
| May | 5 | 7 | 12 | 6 | | 6 | 160 | 178 | 338 | 103 | 39 | 274 | 90 | 61 | 151 | 45 | 14 | 120 |
| June | 8 | 7 | 15 | 4 | 2 | 13 | 131 | 145 | 276 | 89 | 33 | 220 | 94 | 66 | 160 | 32 | 16 | 144 |
| July | 7 | 2 | 9 | 2 | 1 | 8 | 161 | 164 | 325 | 104 | 32 | 253 | 86 | 72 | 158 | 41 | 16 | 133 |
| Aug. | 4 | 5 | 9 | 3 | 2 | 8 | 171 | 166 | 337 | 125 | 30 | 242 | 58 | 53 | 111 | 29 | 17 | 99 |
| Sept. | 5 | 1 | 6 | 1 | 2 | 7 | 145 | 145 | 290 | 93 | 25 | 222 | 77 | 69 | 146 | 39 | 13 | 120 |
| Oct. | 7 | 5 | 12 | 3 | | 9 | 135 | 152 | 287 | 105 | 29 | 211 | 84 | 78 | 162 | 34 | 16 | 144 |
| Nov. | 4 | 2 | 6 | 1 | | 5 | 172 | 147 | 319 | 118 | 22 | 223 | 94 | 73 | 167 | 30 | 14 | 151 |
| Dec. | 6 | 4 | 10 | 3 | 1 | 8 | 213 | 188 | 401 | 128 | 22 | 295 | 90 | 75 | 165 | 43 | 16 | 138 |
| Totals | 72 | 50 | 122 | 36 | 12 | 98 | 1897 | 1894 | 3791 | 1278 | 349 | 2862 | 1008 | 833 | 1841 | 443 | 182 | 1580 |

| Year | Population | STILLBIRTHS | | | | LIVE BIRTHS | | | | DEATHS | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Crude | | Corrected | | Crude | | Corrected | | Crude | | Corrected | |
| | | Totals | *Rate | Totals | *Rate | Totals | †Rate | Totals | †Rate | Totals | †Rate | Totals | †Rate |
| 1935 | 223,017 | 122 | 32.2 | 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 |
| 1931 | 212,815 | 169 | 38.2 | 147 | 41.7 | 4,422 | 20.78 | 3,526 | 16.57 | 1,709 | 8.03 | 1,499 | 7.04 |

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

## DEATHS BY MONTHS, SEX AND AGE PERIOD, 1935

| | 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 1935 | 89 | 74 | 21 | 15 | 6 | 7 | 12 | 10 | 33 | 19 | 47 | 57 | 44 | 42 | 116 | 92 | 188 | 109 | 190 | 147 | 179 | 166 | 77 | 79 | 6 | 15 | 1 | 1008 | 833 |
| Crude Totals | 163 | | 36 | | 13 | | 22 | | 52 | | 104 | | 86 | | 208 | | 297 | | 337 | | 345 | | 156 | | 21 | | 1 | 1,841 | |
| Non-Res. Deducted | 56 | | 12 | | 6 | | 10 | | 17 | | 41 | | 29 | | 64 | | 67 | | 78 | | 50 | | 12 | | 1 | | ..... | 443 | |
| Residents Added | 13 | | 3 | | 2 | | 2 | | 1 | | 14 | | 27 | | 26 | | 30 | | 33 | | 23 | | 8 | | ..... | | ..... | 182 | |
| Corrected Totals | 120 | | 27 | | 9 | | 14 | | 36 | | 77 | | 84 | | 170 | | 260 | | 292 | | 318 | | 152 | | 20 | | 1 | 1,580 | |
| Crude, per cent | 8.9 | | 2.0 | | .7 | | 1.2 | | 2.8 | | 5.6 | | 4.7 | | 11.3 | | 16.1 | | 18.3 | | 18.7 | | 8.5 | | 1.1 | | .1 | 100% | |
| Correct., per cent | 7.6 | | 1.7 | | .6 | | .9 | | 2.3 | | 4.9 | | 5.3 | | 10.7 | | 16.4 | | 18.5 | | 20.1 | | 9.6 | | 1.3 | | .1 | 100% | |

### Nativity of Decedents, 1935

(Deaths as Registered)

| | Deaths | | Per Cent. of Total | |
|---|---|---|---|---|
| | 1935 | 1934 | 1935 | 1934 |
| Canada | 815 | 793 | 44.3 | 47.1 |
| British Isles | 541 | 472 | 29.4 | 28.0 |
| Europe (excluding British Isles) | 396 | 347 | 21.5 | 20.6 |
| United States | 46 | 51 | 2.5 | 3.0 |
| Asia | 12 | 9 | .6 | .6 |
| Other Countries | 18 | 5 | 1.0 | .3 |
| Unknown | 13 | 6 | .7 | .4 |
| | 1,841 | 1,683 | 100.0 | 100.0 |

### Attendant at Birth

(As Registered)

| | 1935 | | 1934 | | 1918* | |
|---|---|---|---|---|---|---|
| Physicians | 3,774 | 99.6% | 3,726 | 99.4% | 4,707 | 80.2% |
| Midwives | 16 | | 21 | | | |
| Unattended | 1 | .4% | 1 | 6% | 1,159 | 19.8% |
| Unknown | | | 1 | | | |

*Includes Stillbirths.

### Stillbirths According to Nationality of Mothers, 1935

| | Rates per 1,000 Live Births | | | |
|---|---|---|---|---|
| | 1935 | | 1934 | |
| | Stillbirths | Rate | Stillbirths | Rate |
| Canadian | 72 | 32 | 67 | 31 |
| British | 20 | 34 | 35 | 56 |
| Southern and Central European | 27 | 36 | 30 | 37 |

### Order of Live Births, 1935

(Corrected figures)

| | 1935 | 1934 | 1935 | 1934 |
|---|---|---|---|---|
| First Children | 1,248 | 1,239 | 43.6% | 42.2% |
| Second Children | 771 | 775 | 27.0% | 26.4% |
| Third Children | 369 | 415 | 12.9% | 14.1% |
| Fourth Children | 199 | 187 | 6.9% | 6.4% |
| Fifth to 19th Children | 275 | 319 | 9.6% | 10.9% |
| Totals | 2,862 | 2,935 | 100.0% | 100.0% |

## Infant Mortality—Cause of Death—1935, 1934

### Number of Deaths, Corrected.

| | 1935 | 1934 |
|---|---|---|
| Acute communicable diseases | 2 | 2 |
| Other general diseases | 9 | 9 |
| Of nervous system and of organs of special sense | 5 | 5 |
| Of respiratory system | 12 | 17 |
| Of digestive system | 7 | 12 |
| Malformations and diseases of early infancy | 79 | 86 |
| All other diseases | 6 | 3 |
| Totals | 120 | 134 |

### Rates per 1,000 Live Births, Corrected

| | 1935 | 1934 |
|---|---|---|
| Acute communicable diseases | .7 | .7 |
| Other general diseases | 3.1 | 3.0 |
| Of nervous system and of organs of special sense | 1.8 | 1.7 |
| Of respiratory system | 4.2 | 5.8 |
| Of digestive system | 2.4 | 4.1 |
| Malformations and diseases of early infancy | 27.6 | 29.3 |
| All other diseases | 2.1 | 1.0 |
| Totals | 41.9 | 45.6 |

### Per Cent. of Total, Corrected

| | 1935 | 1934 |
|---|---|---|
| Acute communicable diseases | 1.7 | 1.5 |
| Other general diseases | 7.5 | 6.7 |
| Of nervous system and of organs of special sense | 4.2 | 3.7 |
| Of respiratory system | 10.0 | 12.7 |
| Of digestive system | 5.8 | 9.0 |
| Malformations and diseases of early infancy | 65.8 | 64.2 |
| All other diseases | 5.0 | 2.2 |
| Totals | 100.0 | 100.0 |

## Classification of Ages of Decedents Under One Year of Age—1935

| Ages of | CORRECTED No. of Deaths | CORRECTED Rate per 1,000 Births | CORRECTED Per Cent. of Total | CRUDE No. of Deaths | CRUDE Rate per 1,000 Births | CRUDE Per Cent. of Total |
|---|---|---|---|---|---|---|
| Minutes to 1 week | 68 | 23.8 | 56.6 | 77 | 20.3 | 47.3 |
| Over 1 to 2 weeks | 3 | 1.0 | 2.5 | 3 | .8 | 1.8 |
| Over 2 to 3 weeks | 5 | 1.8 | 4.2 | 7 | 1.9 | 4.3 |
| Over 3 weeks to 1 month | 2 | .7 | 1.7 | 3 | .8 | 1.8 |
| Minutes to 1 month | 78 | 27.3 | 65.0 | 90 | 23.8 | 55.2 |
| Over 1 to 2 months | 4 | 1.4 | 3.3 | 10 | 2.6 | 6.1 |
| Over 2 to 3 months | 5 | 1.7 | 4.2 | 7 | 1.8 | 4.3 |
| Minutes to 3 months | 87 | 30.4 | 72.5 | 107 | 28.2 | 65.6 |
| Over 3 to 6 months | 14 | 4.9 | 11.7 | 28 | 7.4 | 17.2 |
| Over 6 to 9 months | 10 | 3.5 | 8.3 | 13 | 3.4 | 8.0 |
| Over 9 and under 12 months | 9 | 3.1 | 7.5 | 15 | 4.0 | 9 2 |
| | 120 | 41.9 | 100.0 | 163 | 43.0 | 100.0 |

## Infant Mortality According to Nationality of Mothers—1935

| | 1935 Live Births | 1935 Infant Deaths | 1935 Rate per 1,000 Births | 1934 Live Births | 1934 Infant Deaths | 1934 Rate per 1,000 Births |
|---|---|---|---|---|---|---|
| Canadian | 2,273 | 103 | 45 | 1,648 | 88 | 53 |
| English and Welsh | 324 | 11 | 34 | 257 | 8 | 31 |
| Irish | 83 | 4 | 48 | 51 | 1 | 20 |
| Scotch | 183 | 8 | 44 | 186 | 7 | 38 |
| American (U.S.A.) | 139 | 8 | 57 | 92 | 4 | 43 |
| Scandinavian | 36 | 2 | 55 | 33 | 1 | 30 |
| Southern and Central European | 744 | 27 | 36 | 658 | 25 | 38 |
| All others | 9 | .... | .... | 10 | .... | .... |

## Infant Mortality Statistics

For further particulars regarding infantile mortality, see report of the Manager, Bureau of Child Hygiene, pages 76 to 79.

**1935**

**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 |
| 1. | Typhoid Fever (1) | ..... | 1 | ..... | ..... | ..... | ..... | ..... | ..... | ..... | 1 | ..... | ..... | ..... | ..... | ..... | ..... | 1 |
| 4. | Measles (7) | 1 | ..... | 1 | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | 1 |
| 5. | Scarlet Fever (8) | ..... | 1 | 1 | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | 1 |
| 6. | Whooping-Cough (9) | 2 | 1 | ..... | 3 | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | 3 |
| 7. | Diphtheria (10) | ..... | 1 | ..... | ..... | 1 | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | 1 |
| 8. | Influenza (11) | 9 | 6 | ..... | 1 | ..... | ..... | ..... | 1 | 2 | 3 | 1 | ..... | 3 | 4 | ..... | ..... | 15 |
| 10. | Tuberculosis of the respiratory system (23) | 30 | 30 | ..... | ..... | ..... | ..... | 3 | 12 | 22 | 7 | 10 | 2 | 4 | ..... | ..... | ..... | 60 |
| 11. | Other forms of tuberculosis (24, 25, 26, 30) | 5 | 10 | ..... | 2 | 1 | 1 | ..... | 1 | 2 | 4 | 1 | 2 | 1 | ..... | ..... | ..... | 15 |
| 12. | Syphilis (34) | 21 | 2 | 2 | ..... | ..... | ..... | ..... | ..... | 3 | 3 | 11 | 2 | 2 | ..... | ..... | ..... | 23 |
| 14. | Other infectious and parasitic diseases (13, 15, 16, 18, 36, 43, 44) | 9 | 4 | 4 | 2 | ..... | ..... | 1 | 1 | 1 | 3 | ..... | ..... | 1 | ..... | ..... | ..... | 13 |
| 15. | Cancer and other malignant tumors (45, 46, 47, 48, 49, 50, 51, 52, 53) | 128 | 141 | ..... | 2 | ..... | ..... | ..... | 5 | 11 | 44 | 60 | 65 | 66 | 14 | 2 | ..... | 269 |
| 16. | Tumors, nonmalignant, or of which the nature is not specified (54, 55) | 4 | 6 | ..... | ..... | ..... | ..... | ..... | ..... | 3 | 1 | 3 | 1 | 1 | 1 | ..... | ..... | 10 |
| 17. | Chronic rheumatism (57) | 3 | 1 | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | 2 | 2 | ..... | ..... | ..... | 4 |
| 18. | Diabetes mellitus (59) | 11 | 14 | ..... | ..... | ..... | ..... | 1 | 1 | 1 | 2 | 3 | 12 | 4 | 1 | ..... | ..... | 25 |
| 19. | Alcoholism (acute or chronic) (75) | 4 | 1 | ..... | ..... | ..... | ..... | ..... | 1 | 1 | 1 | 2 | ..... | ..... | ..... | ..... | ..... | 5 |
| 20. | Other general diseases and chronic poisonings (56, 63, 65, 66, 67, 71, 72, 73) | 18 | 14 | 3 | ..... | ..... | ..... | 4 | 6 | 4 | 3 | 4 | 6 | 1 | 1 | ..... | ..... | 32 |
| 21. | Progressive locomotor ataxia and general paralysis of the insane (80, 83) | 4 | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | 3 | 1 | ..... | ..... | ..... | ..... | 4 |
| 22. | Cerebral hemorrhage, cerebral embolism and thrombosis, (82) | 61 | 77 | 1 | ..... | ..... | 1 | ..... | ..... | ..... | 12 | 20 | 34 | 46 | 20 | 4 | ..... | 138 |

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 23. Other diseases of the nervous system and of the organs of special sense (78, 79, 81, 84, 85, 86, 87, 89) | 16 | 15 | 3 | ..... | ..... | 1 | 1 | 4 | 3 | 3 | 4 | 6 | 6 | ..... | ..... | ..... | 31 |
| 24. Diseases of the heart (90, 91, 92, 93, 94, 95) | 188 | 165 | ..... | ..... | ..... | ..... | 4 | 8 | 6 | 26 | 67 | 81 | 103 | 54 | 4 | ..... | 353 |
| 25. Other diseases of the circulatory system (96, 97, 98, 99, 100) | 22 | 14 | ..... | ..... | ..... | ..... | ..... | ..... | ..... | 2 | 3 | 6 | 13 | 11 | 1 | ..... | 36 |
| 26. Bronchitis (106) | 3 | 3 | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | 1 | 2 | 2 | 1 | ..... | ..... | 6 |
| 27. Pneumonias (107, 108, 109) | 47 | 41 | 13 | 5 | 1 | 1 | 2 | 4 | 6 | 4 | 8 | 12 | 17 | 9 | 5 | 1 | 88 |
| 28. Other diseases of the respiratory system (tuberculosis excepted) (104, 105, 111, 112, 114) | 8 | 5 | ..... | ..... | ..... | 1 | 1 | 2 | 1 | ..... | 4 | 1 | 2 | ..... | 1 | ..... | 13 |
| 29. Diarrhea and enteritis (119, 120) | 7 | 9 | 5 | 6 | ..... | 1 | ..... | ..... | ..... | ..... | 1 | 1 | 1 | 1 | ..... | ..... | 16 |
| 30. Appendicitis (121) | 11 | 8 | ..... | ..... | 1 | 3 | 3 | 3 | ..... | 5 | 2 | 1 | ..... | 1 | ..... | ..... | 19 |
| 31. Diseases of the liver and biliary passages (124, 125, 126, 127) | 16 | 10 | ..... | ..... | ..... | ..... | ..... | ..... | ..... | 4 | 10 | 5 | 4 | 3 | ..... | ..... | 26 |
| 32. Other diseases of the digestive system (115, 117, 118, 122, 123, 128, 129) | 47 | 18 | 2 | 3 | 2 | ..... | 5 | 2 | 5 | 6 | 16 | 14 | 5 | 5 | ..... | ..... | 65 |
| 33. Nephritis (130, 131, 132) | 36 | 21 | ..... | ..... | ..... | ..... | 1 | 2 | 1 | 8 | 6 | 17 | 14 | 8 | ..... | ..... | 57 |
| 34. Other diseases of the genitourinary system (133, 134, 135, 136, 137, 139) | 27 | 10 | ..... | ..... | ..... | ..... | ..... | 3 | 2 | 7 | 4 | 8 | 10 | 3 | ..... | ..... | 37 |
| 35. Puerperal septicemia (140, 145) | ..... | 4 | ..... | ..... | ..... | ..... | ..... | 2 | 2 | ..... | ..... | ..... | ..... | ..... | ..... | ..... | 4 |
| 36. Other diseases of pregnancy, childbirth and the puerperal state (141, 143, 147, 149) | ..... | 6 | ..... | ..... | ..... | ..... | ..... | 5 | ..... | 1 | ..... | ..... | ..... | ..... | ..... | ..... | 6 |
| 37. Diseases of the skin and cellular tissue and of the bones and organs of locomotion (151, 152, 153, 154, 156) | 7 | 5 | 1 | ..... | ..... | ..... | 3 | 1 | 1 | 3 | 1 | 2 | ..... | ..... | ..... | ..... | 12 |
| 38. Congenital debility and malformation, premature birth and other diseases of early infancy (157, 158, 159, 160, 161) | 48 | 33 | 79 | 2 | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | 81 |
| 39. Senility (162) | 4 | 6 | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | 2 | 7 | 1 | ..... | 10 |
| 40. Suicide (163, 164, 165, 166, 167, 168) | 14 | 4 | ..... | ..... | ..... | ..... | ..... | 7 | 2 | 2 | 4 | 2 | 1 | ..... | ..... | ..... | 18 |
| 41. Homicide (173, 174, 175) | 2 | 5 | ..... | ..... | ..... | ..... | 1 | 3 | 1 | 1 | 1 | ..... | ..... | ..... | ..... | ..... | 7 |
| 42. Violent and accidental deaths (suicide and homicide excepted) (178, 180, 182, 183, 186, 190, 193, 194, 203, 206, 207, 209 , 210, 212) | 51 | 24 | 5 | 1 | 3 | 5 | 6 | 3 | 4 | 14 | 10 | 7 | 7 | 8 | 2 | ..... | 75 |
| Corrected Totals | 864 | 716 | 120 | 27 | 9 | 14 | 36 | 77 | 84 | 170 | 260 | 292 | 318 | 152 | 20 | 1 | 1580 |

**1935**

## 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 (1) | 2 | 2 | | 1 | | | | | | 2 | 1 | | | | | | 4 |
| 4. | Measles (7) | 1 | | 1 | | | | | | | | | | | | | | 1 |
| 5. | Scarlet Fever (8) | | 1 | 1 | | | | | | | | | | | | | | 1 |
| 6. | Whooping-Cough (9) | 2 | 1 | | 3 | | | | | | | | | | | | | 3 |
| 7. | Diphtheria (10) | 2 | 4 | | 1 | 2 | 1 | 1 | | 1 | | | | | | | | 6 |
| 8. | Influenza (11) | 7 | 6 | | 2 | | | | | 2 | 3 | 1 | | 2 | 3 | | | 13 |
| 10. | Tuberculosis of the respiratory system (23) | 32 | 30 | 3 | 1 | | | 7 | 18 | 11 | 8 | 8 | 2 | 3 | 1 | | | 62 |
| 11. | Other forms of tuberculosis (24, 25, 26, 27, 30) | 10 | 11 | 2 | 4 | 4 | | | 2 | 1 | 3 | 2 | 2 | 1 | | | | 21 |
| 12. | Syphilis (34) | 14 | 2 | 1 | | | | | | 3 | 2 | 7 | 2 | 1 | | | | 16 |
| 14. | Other infectious and parasitic diseases (13, 15, 16, 18, 36, 41, 44) | 15 | 7 | 6 | 3 | | | 1 | 1 | 2 | 3 | 2 | 2 | 2 | | | | 22 |
| 15. | Cancer and other malignant tumors (45, 46, 47, 48, 49, 50, 51, 52, 53) | 167 | 163 | | 2 | | | 2 | 10 | 15 | 49 | 74 | 86 | 75 | 15 | 2 | | 330 |
| 16. | Tumors, nonmalignant, or of which the nature is not specified (54, 55) | 5 | 10 | | | | | 1 | | 3 | 3 | 3 | 3 | 1 | 1 | | | 15 |
| 17. | Chronic rheumatism (57) | 3 | 1 | | | | | | | | | | 2 | 2 | | | | 4 |
| 18. | Diabetes mellitus (59) | 10 | 14 | | | | | 1 | | | 2 | 3 | 14 | 3 | 1 | | | 24 |
| 19. | Alcoholism (acute or chronic) (75) | 4 | 1 | | | | | | 1 | 1 | 1 | 2 | | | | | | 5 |
| 20. | Other general diseases and chronic poisonings (56, 63, 65, 66, 67, 71, 72, 73) | 21 | 27 | 6 | | 2 | | 4 | 8 | 3 | 7 | 7 | 7 | 3 | 1 | | | 48 |
| 21. | Progressive locomotor ataxia and general paralysis of the insane (80, 83) | 4 | 1 | | | | | | | | 1 | 3 | 1 | | | | | 5 |
| 22. | Cerebral hemorrhage, cerebral embolism and thrombosis (82) | 63 | 77 | 1 | | | 1 | | 1 | | 9 | 23 | 37 | 44 | 20 | 4 | | 140 |

| | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 23. Other diseases of the nervous system and of the organs of special sense (78, 79, 81, 84, 85, 86, 87, 89) | 26 | 17 | 6 | 2 | ..... | 2 | 3 | 5 | 2 | 8 | 3 | 5 | 7 | ..... | ..... | ..... | 43 |
| 24. Diseases of the heart (90, 91, 92, 93, 94, 95) | 198 | 176 | ..... | ..... | ..... | 1 | 4 | 9 | 6 | 35 | 73 | 86 | 103 | 53 | 4 | ..... | 374 |
| 25. Other diseases of the circulatory system (96, 97, 98, 99, 100) | 24 | 18 | ..... | ..... | ..... | ..... | ..... | ..... | ..... | 2 | 3 | 8 | 16 | 11 | 2 | ..... | 42 |
| 26. Bronchitis (106) | 4 | 5 | 1 | 1 | ..... | ..... | ..... | ..... | ..... | ..... | 2 | 2 | 2 | 1 | ..... | ..... | 9 |
| 27. Pneumonia (107, 108, 109) | 61 | 46 | 17 | 5 | 1 | 1 | 3 | 5 | 5 | 7 | 9 | 16 | 20 | 12 | 5 | 1 | 107 |
| 28. Other diseases of the respiratory system (tuberculosis excepted) (104, 105, 110, 111, 112, 114) | 9 | 5 | ..... | 1 | ..... | 1 | 2 | 2 | 1 | 2 | 2 | ..... | 2 | ..... | 1 | ..... | 14 |
| 29. Diarrhea and enteritis (119, 120) | 13 | 8 | 11 | 4 | ..... | 1 | ..... | ..... | ..... | 1 | 1 | 1 | 1 | 1 | ..... | ..... | 21 |
| 30. Appendicitis (121) | 12 | 16 | ..... | ..... | ..... | 5 | 5 | 6 | 1 | 5 | 1 | 3 | 1 | 1 | ..... | ..... | 28 |
| 31. Diseases of the liver and biliary passages (124, 125, 126, 127) | 22 | 17 | ..... | ..... | ..... | ..... | ..... | ..... | 2 | 6 | 14 | 5 | 8 | 4 | ..... | ..... | 39 |
| 32. Other diseases of the digestive system (115, 117, 118, 122 123, 128, 129) | 56 | 27 | 4 | 3 | 1 | ..... | 5 | 2 | 7 | 11 | 19 | 19 | 7 | 5 | ..... | ..... | 83 |
| 33. Nephritis (130, 131, 132) | 41 | 23 | ..... | ..... | ..... | ..... | 1 | 2 | 1 | 10 | 9 | 16 | 16 | 9 | ..... | ..... | 64 |
| 34. Other diseases of the genitourinary system (133, 134, 135 136, 137, 139) | 30 | 8 | 1 | ..... | ..... | ..... | 1 | 2 | 2 | 6 | 5 | 5 | 12 | 4 | ..... | ..... | 38 |
| 35. Puerperal septicemia (140, 145) | ..... | 10 | ..... | ..... | ..... | ..... | ..... | 6 | 3 | 1 | ..... | ..... | ..... | ..... | ..... | ..... | 10 |
| 36. Other diseases of pregnancy, childbirth and puerperal state (141, 143, 144, 146 147, 149) | ..... | 7 | ..... | ..... | ..... | ..... | ..... | 4 | 2 | 1 | ..... | ..... | ..... | ..... | ..... | ..... | 7 |
| 37. Diseases of the skin and cellular tissue, and of the bones and organs of locomotion (151, 152, 153, 154, 156) | 9 | 6 | 1 | ..... | ..... | 1 | 3 | 2 | 1 | 3 | 1 | 2 | 1 | ..... | ..... | ..... | 15 |
| 38. Congenital debility and malformation, premature birth and other diseases of early infancy (157, 158, 159, 160, 161) | 56 | 43 | 95 | 2 | ..... | 2 | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | 99 |
| 39. Senility (162) | 3 | 7 | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | 3 | 6 | 1 | ..... | 10 |
| 40. Suicide (163, 164, 165, 166, 167, 168) | 14 | 3 | ..... | ..... | ..... | ..... | ..... | 6 | 2 | 2 | 4 | 2 | 1 | ..... | ..... | ..... | 17 |
| 41. Homicide (173, 174, 175) | 2 | 5 | ..... | ..... | ..... | ..... | 1 | 3 | 1 | 1 | 1 | ..... | ..... | ..... | ..... | ..... | 7 |
| 42. Violent and accidental deaths (suicide and homicide excepted) (178, 180, 181, 182, 183, 186, 188, 193, 194, 200, 202, 203, 205, 206, 207, 209, 210, 212) | 66 | 28 | 6 | 1 | 3 | 6 | 7 | 9 | 8 | 14 | 14 | 9 | 8 | 7 | 2 | ..... | 94 |
| Crude Totals | 1008 | 833 | 163 | 36 | 13 | 22 | 52 | 104 | 86 | 208 | 297 | 337 | 345 | 156 | 21 | 1 | 1841 |

## AN INVESTIGATION INTO CERTAIN SOCIAL CONDITIONS IN WINNIPEG

In the spring of 1935, a special statistical investigation was carried out for Alderman Margaret McWilliams. As a matter of record, a condensed summary of the rates only is here presented. As no funds were available for the survey, it was necessary to accept the data which each organization was able to furnish, hence the varying periods of time covered.

### A Comparison of Two Central Areas with the Rest of the City

Area I—Assiniboine River to Notre Dame Avenue; Red River to Sherbrook Street.

Area II—Notre Dame Ave. to C.P.R. lines, along Main St. to Burrows Ave.; Red River to Sherbrook St. and Main St.

Population (estimated from Assessor's count by polls, 1934; live births, etc.)

| | Total Population | Under 1 to 5 Yrs. | 6 to 16 Yrs. |
|---|---|---|---|
| Area I | 29,479 | 3,213 | 3,185 |
| Area II | 23,246 | 2,587 | 3,853 |
| Rest of City | 170,292 | 13,232 | 38,861 |
| City | 223,017 | 19,032 | 45,899 |

| | Area I | Area II | Rest of City |
|---|---|---|---|
| **Municipal Hospitals**—(Average of 1933-34 cases) | | | |
| Patient days per 1,000 population | 288 | 562 | 207 |
| Annual Admissions per 1,000 population | 7.2 | 10.5 | 3.9 |
| Annual cost per 1,000 population | $825 | $1,608 | $593 |
| **Hospital Public Wards Admissions**—(Dec., 1934 to Feb., 1935) | | | |
| Annual Admissions per 1,000 population | 91.1 | 101.4 | 52.9 |
| **General Hospital Outpatients**— (Jan. to Mch., 1935) | | | |
| Annual Cases per 1,000 population | 11.1 | 33.4 | 9.1 |
| **St. Boniface Hospital Out-patients**—(Jan. to March, 1935) | | | |
| Annual Cases per 1,000 population | 22.9 | 34.2 | 5.3 |
| **Provincial Venereal Diseases Clinic**—(Cases in 1934) | | | |
| Annual Cases for 1,000 population | 5.0 | 16.5 | 1.8 |

| | Area I | Area II | Rest of City |
|---|---|---|---|
| **Margaret Scott Nursing Mission**—(Calls in 1934) | | | |
| Annual Calls per 1,000 population | 12.7 | 29.6 | 8.5 |
| **Social Welfare Commission**—(April, 1935) | | | |
| Active Cases per 1,000 population | 16.1 | 19.3 | 6.7 |
| **Police Department Arrests**—(1934) | | | |
| Arrests per 1,000 population | 21.1 | 52.2 | 6.5 |
| **Juvenile Court Cases from Public Schools**—(Average of 1932-33-34) | | | |
| Annual Cases per 1,000 pupils registered | 16.9 | 23.7 | 11.5 |
| **Children's Aid**—(Sept., 1933-Aug., 1934) | | | |
| Cases per 1,000 population, under 17 years of age | 36.1 | 67.7 | 14.8 |
| **Children's Bureau**—(Sept., 1933-Aug., 1934) | | | |
| Cases per 1,000 population, under 17 years of age | 9.1 | 9.2 | 4.2 |
| **School Board, Defective Children**— | | | |
| 1926-28, Pupils Defective per 100 examined | 71.6 | 72.1 | 65.8 |
| 1932-35, Pupils Defective per 100 examined | 57.5 | 62.6 | 58.3 |
| **Health Department, Infant Mortality**—(1934) | | | |
| Infant Deaths per 1,000 live births | 50.2 | 52.0 | 42.5 |
| **Health Department, Scarlet Fever and Diphtheria**—(1930-34) | | | |
| Annual Cases per 1,000 child population | 13.6 | 15.7 | 7.5 |
| **Health Department, Tuberculosis of Lungs**—(1930-34) | | | |
| Annual Deaths per 10,000 population | 4.6 | 7.9 | 2.9 |
| **Health Department, Dilapidated Dwellings**—(Dec., 1934) | | | |
| Dilapidated Houses per 10,000 population | 4.4 | 27.9 | 5.9 |

## DOMINION CENSUS, 1931

### Abstract of tables relating to population of Winnipeg

### Population by Sex and Age

| | Total | Male | Female |
|---|---|---|---|
| Under 1 year | 2 919 | 1,473 | 1,446 |
| 1- 4 years | 12,071 | 6,163 | 5,908 |
| 5- 9 " | 18,261 | 9,294 | 8 967 |
| 10-14 " | 19 975 | 10,040 | 9 935 |
| 15-19 " | 23,538 | 10,668 | 12,870 |
| 20-24 " | 22,941 | 9,815 | 13,126 |
| 25-29 " | 18,809 | 9 233 | 9,576 |
| 30-34 " | 16,274 | 8,232 | 8,042 |
| 35-39 " | 16,875 | 8,360 | 8,515 |
| 40-44 " | 17,033 | 9,132 | 7,901 |
| 45-49 " | 15,849 | 8,757 | 7,092 |
| 50-54 " | 12,193 | 6,919 | 5.274 |
| 55-59 " | 7,756 | 4,319 | 3,437 |
| 60-64 " | 5,596 | 3,039 | 2 557 |
| 65-69 " | 3,920 | 2,048 | 1,872 |
| 70 and over | 4,710 | 2,219 | 2,491 |
| Not given | 65 | 31 | 34 |
| All Ages | 218,785 | 109,742 | 109,043 |

### Per Cent. Distribution by Age for Six Leading Cities, 1931

| | Montreal | Toronto | Vancouver | Winnipeg | Hamilton | Quebec |
|---|---|---|---|---|---|---|
| 0- 4 years | 10.0 | 7.2 | 6.3 | 6.9 | 8.4 | 12.0 |
| 5-19 " | 29.2 | 24.8 | 24.9 | 28.2 | 27.2 | 31.8 |
| 20-39 " | 35.0 | 35.0 | 30.7 | 34.2 | 33.1 | 32.1 |
| 40-59 " | 19.4 | 24.4 | 29.7 | 24.2 | 23.1 | 16.7 |
| 60 and over | 6.4 | 8.6 | 8.4 | 6.5 | 8.2 | 7.4 |
| | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

### Nativity of Parents

| | |
|---|---|
| Both parents Canadian born | 38,174 |
| Both parents British born | 76,599 |
| Both parents Foreign born | 77,004 |
| Father Canadian, Mother British | 6,048 |
| Father Canadian, Mother Foreign | 3,197 |
| Father British, Mother Canadian | 10,149 |
| Father British, Mother Foreign | 2,015 |
| Father Foreign, Mother Canadian | 3,947 |
| Father Foreign, Mother British | 1,373 |
| Not stated | 279 |
| Total | 218,785 |

### School Attendance by Age Groups

| | At School | Not at School |
|---|---|---|
| 5- 9 years | 14,053 | 4,208 |
| 10-14 " | 19,685 | 290 |
| 15-19 " | 10,963 | 12,575 |
| 20-24 " | 934 | 22,007 |
| Totals | 45,635 | 39,080 |

## Dominion Census, 1931, Winnipeg Data—(Continued)

### Birthplace

| | Totals | Male | Female |
|---|---|---|---|
| Canada, Manitoba | 92,524 | 43,745 | 48,779 |
| Other Canadian Provinces | 31,110 | 14,948 | 16,162 |
| England and Wales | 27,010 | 14,202 | 12,808 |
| Scotland | 14,719 | 7,594 | 7,125 |
| Ireland | 5,741 | 3,098 | 2,643 |
| Lesser British Isles | 174 | 109 | 65 |
| British Possessions | 644 | 373 | 271 |
| Poland | 16,164 | 9,132 | 7,032 |
| Russia | 9,649 | 4,609 | 5,040 |
| Scandinavian Countries | 4,008 | 2,284 | 1,724 |
| Austria | 2,080 | 1,175 | 905 |
| Roumania | 1,890 | 1,084 | 806 |
| Germany | 1,241 | 699 | 542 |
| Hungary | 792 | 530 | 262 |
| Italy | 685 | 442 | 243 |
| Czechoslavkia | 654 | 484 | 170 |
| Juga-Slavia | 468 | 267 | 201 |
| Holland | 377 | 244 | 133 |
| Ukraine | 362 | 217 | 145 |
| France | 260 | 105 | 155 |
| Belgium | 237 | 117 | 120 |
| Finland | 179 | 95 | 84 |
| Other European Countries | 711 | 446 | 265 |
| China | 971 | 955 | 16 |
| Japan | 21 | 16 | 5 |
| Other Asiatic Countries | 144 | 84 | 60 |
| United States | 5,902 | 2,654 | 3,248 |
| Other Countries | 68 | 34 | 34 |
| Totals | 218,785 | 109,742 | 109,043 |

### Conjugal Condition

| | Total | Male | Female |
|---|---|---|---|
| Single, under 15 years | 53,226 | 26,970 | 26,256 |
| Single, 15 and over | 64,531 | 32,966 | 31,565 |
| Not stated | 27 | 11 | 16 |
| Total Single | 117,784 | 59,947 | 57,837 |
| Married | 91,245 | 46,842 | 44,403 |
| Widowed | 9,182 | 2,595 | 6,587 |
| Divorced | 383 | 170 | 213 |
| Not stated | 191 | 188 | 3 |
| Totals | 218,785 | 109,742 | 109,043 |

### Religions

| | Total | | Total |
|---|---|---|---|
| United Church | 50,608 | Christian Science | 1,229 |
| Anglicans | 48,539 | Pentecostal | 1,221 |
| Roman Catholics | 46,990 | Mennonites | 909 |
| Presbyterians | 22,210 | Salvation Army | 908 |
| Jews | 17,153 | Confucians and Buddists | 529 |
| Lutherans | 14,829 | Other Sects | 5,453 |
| Baptists | 5,157 | Not stated | 314 |
| Greek Orthodox | 2,736 | | |
| | | Total | 218,785 |

# 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 1935.

**Scavenging**—The organic matter collected during the year averaged 213.4 lbs. per capita as against 213.9 lbs. for the year 1934. The total collected for the year 1935, however, showed an increase of 274,180 lbs. over the collections for 1934.

The Annual Spring Clean-up commenced on May 9th, and was completed May 31st at a total cost of $16,508.55.

**Incinerators**—The tonnage destroyed at the Incinerators during the year 1935, showed an increase of 260 tons as compared with the previous year. The revenue earned showed a decrease of $304.01. Operating costs increased by $372.17 in 1935. The gross cost per ton for destruction amounted to $1.13, the same amount as shown in 1934.

During the month of August the eavestroughs at the Saskatchewan Avenue Incinerator were renewed.

The combustion chamber of the north furnace at Saskatchewan Avenue Incinerator was rebuilt in September.

**Street Cleaning**—During the Street Cleaning year a total of 25,536 cubic yards of sweepings were collected and removed, or an average of 97 cubic yards per mile of paved street. This was a decrease of 4.6 cubic yards per mile compared with 1934. The mileage cost for 1935 was $240.27 as compared with $224.70 for 1934.

The motor driven power flusher was used to a much greater extent in 1935 than in 1934. The water consumption in 1934 amounted to 1,657,876 gallons as compared with 6,008,332 in 1935.

In the month of July a new Diamond T dump truck, 2 ton capacity, was purchased.

**Wood Camp Operations**—During the Wood Camp year, which ended April 30th, 1935, one Wood Camp was operated at which a total of 4,149 cords was cut. The total cordage brought to the City during the year amounted to 74,488.

**Miscellaneous**—I regret to record that during the year one employee met death while in the performance of his duty. Two employees were retired on pension and one left the service. Ten 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, and of the co-operation existing between this and all other departments of the Civic Service.

Respectfully submitted,

E. A. WOOD,
Chief, Street Cleaning and
Scavenging Division.

## REFUSE COLLECTION AND DISPOSAL AND STREET CLEANING, 1935

### Summary

| | | |
|---|---|---|
| (a) | Personal Services | $230,367.00 |
| (b) | Outside Services | 1,201.49 |
| (c) | Material, Supplies and Repairs | 17,310,70 |
| (d) | Equipment, Additions and Replacements | 721.80 |
| (e) | Fuel, Water, Light and Power | 5,225.74 |
| (f) | Other Expenses | 795.00 |
| (h) | Truck and Auto Expense | 14,082.29 |
| (i) | Interest | 9,225.00 |
| (ii) | Sinking Fund | 3,922.62 |
| | | $280,899.57 |

### Expenditure by Divisions

**C 8 Refuse Collection and Disposal.**

**C 8-1 Scavenging and Ash Removal:**

| | | | |
|---|---|---|---|
| (a) | Personal Services | $136,225.89 | |
| (b) | Outside Services | 341.25 | |
| (c) | Material, Supplies and Repairs | 12,855.05 | |
| (d) | Equipment, Additions and Replacements | 721.80 | |
| (e) | Fuel, Water, Light and Power | 259.65 | |
| (h) | Truck and Auto Expense | 10,562.42 | |
| | | | $160,966.06 |

**C 8-2 Nuisance Ground Operating:**

| | | | |
|---|---|---|---|
| (a) | Personal Services | 3,566.66 | |
| (b) | Outside Services | | |
| (c) | Material, Supplies and Repairs | 71.75 | |
| (f) | Other Expenses | 750.00 | |
| | | | 4,388.41 |

**C 8-3 Crematories, Operation and Maintenance:**

| | | | |
|---|---|---|---|
| (a) | Personal Services | 23,587.12 | |
| (b) | Outside Services | 21.50 | |
| (c) | Material, Supplies and Repairs | 3,029.81 | |
| (e) | Fuel, Water, Light and Power | 1,536.46 | |
| (f) | Other Expenses | 45.00 | |
| | | | 28,219.89 |

**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 | | $206,721.98 |

**D Street Cleaning and Flushing.**

**D 1-1 Administration:**

| | | | |
|---|---|---|---|
| (a) | Personal Services | $ 5,816.53 | |
| (b) | Outside Services | 56.24 | |
| (c) | Material, Supplies and Repairs | 341.57 | |
| (h) | Truck and Auto Expense | 398.68 | |
| | | | $ 6,613.02 |

**D 4 Asphalt Pavement Cleaning:**

| | | | |
|---|---|---|---|
| (a) | Personal Services | 57,947.03 | |
| (b) | Outside Services | 62.50 | |
| (c) | Material, Supplies and Repairs | 839.38 | |
| (e) | Fuel, Water, Light and Power | 1,169.12 | |
| (h) | Truck and Auto Expense | 3,121.19 | |
| | | | 63,139.22 |

**Miscellaneous.**

**D 5-3 Cutting Noxious Weeds:**

| | | | |
|---|---|---|---|
| (a) | Personal Services | 2,720.58 | |
| (c) | Material, Supplies and Repairs | 91.78 | |
| | | | 2,812.36 |

**D 5-4 Yards Maintenance:**

| | | | |
|---|---|---|---|
| (a) | Personal Services | 503.19 | |
| (b) | Outside Services | 720.00 | |
| (c) | Material, Supplies and Repairs | 81.36 | |
| (e) | Fuel, Water, Light and Power | 308.44 | |
| | | | 1,612.99 |

| | |
|---|---|
| Total, Street Cleaning and Flushing | $ 74,177.59 |
| Total, Refuse Collection and Disposal | 206,721.98 |
| Grand Total | $280,899.57 |

## GARBAGE COLLECTION, 1935

| Month | Trucks and Trailers | | City Teams and Singles | | Hired Teams | | Combined Totals | |
|---|---|---|---|---|---|---|---|---|
| | Number of Loads | Weight in lbs. | Number of Loads | Weight in lbs. | Number of Loads | Weight in lbs. | Number of Loads | Weight in lbs. |
| Jan. | 1,013 | 3,082,390 | 126 | 316,170 | 40 | 119,720 | 1,179 | 3,518,280 |
| Feb. | 902 | 2,719,340 | 42 | 72,180 | 36 | 106,840 | 980 | 2,898,360 |
| Mar. | 876 | 2,573,610 | 226 | 631,020 | 43 | 128,990 | 1,145 | 3,333,620 |
| Apr. | 984 | 3,369,500 | 128 | 338,300 | 44 | 142,890 | 1,156 | 3,850,690 |
| May | 1,030 | 3,673,190 | 137 | 365,570 | 47 | 165,040 | 1,214 | 4,203,800 |
| June | 920 | 3,561,700 | 138 | 408,780 | 41 | 159,440 | 1,099 | 4,129,920 |
| July | 1,036 | 3,988,200 | 154 | 434,000 | 48 | 193,450 | 1,238 | 4,615,650 |
| Aug. | 1,018 | 4,013,670 | 134 | 387,870 | 44 | 186,060 | 1,196 | 4,587,600 |
| Sept. | 958 | 4,077,520 | 130 | 398,510 | 43 | 188,290 | 1,131 | 4,664,320 |
| Oct. | 1,016 | 3,947,470 | 147 | 442,410 | 44 | 160,590 | 1,207 | 4 550 470 |
| Nov. | 962 | 3,095,960 | 123 | 329,460 | 44 | 129,970 | 1,129 | 3,555,390 |
| Dec. | 1,010 | 3,172,680 | 132 | 362,520 | 52 | 157,530 | 1,194 | 3,692,730 |
| | 11,725 | 41,275,230 | 1,617 | 4,486,790 | 526 | 1,838,810 | 13,868 | 47,600,830 |

### Table Showing Average Weight per Load

| | Number of Loads | Total Weight | Average Weight Per Load (lbs.) |
|---|---|---|---|
| Trucks and Trailers | 11,725 | 41,275,230 | 3,520 |
| City Teams and Singles | 1,617 | 4,486,790 | 2,774 |
| Hired Teams | 526 | 1,838,810 | 3,495 |
| | 13,868 | 47,600,830 | 3,432 |

### Table Showing Percentage of Collection by Units

| | Weight in Lbs. | Percentage of Total Weight |
|---|---|---|
| Truck and Trailers | 41,275,230 | 86,71% |
| City Teams and Singles | 4,486,790 | 9.59% |
| Hired Teams | 1,838,810 | 3.70% |
| | 47,600,830 | 100.00% |

## COLLECTION OF INCOMBUSTIBLE REFUSE, 1935

| Month | Trucks and Trailers | | City Teams and Singles | | Hired Teams | | Combined Totals | |
|---|---|---|---|---|---|---|---|---|
| | Number of Loads | Weight in lbs. | Number of Loads | Weight in lbs. | Number of Loads | Weight in lbs. | Number of Loads | Weight in lbs. |
| Jan. | 1,242 | 4,772,270 | 46 | 74,030 | 86 | 290,770 | 1,374 | 5,137,070 |
| Feb. | 1,411 | 5,873,500 | 42 | 72,180 | 30 | 90,780 | 1,483 | 6,036,460 |
| Mar. | 816 | 3,494,570 | 37 | 73,650 | 29 | 87,280 | 882 | 3,655,500 |
| Apr. | 1,670 | 8,142,970 | 118 | 291,010 | 30 | 87,880 | 1,818 | 8,521,860 |
| May | 5,240 | 21,141,020 | 212 | 713,200 | 629 | 1,954,590 | 6,081 | 23,808,810 |
| June | 1,367 | 4,771,290 | 210 | 561,260 | 60 | 182,520 | 1,637 | 5,515,070 |
| July | 1,319 | 4,303,460 | 208 | 503,680 | 111 | 379,990 | 1,638 | 5,187,130 |
| Aug. | 1,285 | 4,191,130 | 206 | 533,960 | 61 | 205,640 | 1,552 | 4,930,730 |
| Sept. | 1,210 | 4,030,040 | 213 | 557,220 | 34 | 111,200 | 1,451 | 4,698,460 |
| Oct. | 1,419 | 4,695,380 | 162 | 424,550 | 44 | 143,770 | 1,625 | 5,263,700 |
| Nov. | 1,236 | 4,183,650 | 183 | 456,700 | 30 | 94,350 | 1,449 | 4,734,700 |
| Dec. | 1,063 | 4,722,230 | 30 | 72,110 | 27 | 84,570 | 1,120 | 4,878,910 |
| | 19,278 | 74,321,510 | 1,667 | 4,333,550 | 1,171 | 3,713,340 | 22,116 | 82,368,400 |

### Table Showing Average Weight Per Load

| | Number of Loads | Total Weight | Average Weight Per Load (lbs.) |
|---|---|---|---|
| Trucks and Trailers | 19,278 | 74,321,510 | 3,855 |
| City Teams and Singles | 1,667 | 4,333,550 | 2,596 |
| Hired Teams | 1,171 | 3,713,340 | 3,171 |
| | 22,116 | 82,368,400 | 3,207 |

### Table Showing Percentage of Collection Units

| | Weight in Lbs. | Percentage of Total Weight |
|---|---|---|
| Trucks and Trailers | 74,321,510 | 90.72% |
| City Teams and Singles | 4,333,550 | 5.26% |
| Hired Teams | 3,713,340 | 4.02% |
| | 82,368,400 | 100.00% |

## ELMWOOD INCINERATOR OPERATIONS, 1935

| Month | City Garbage | | Private Garbage | | Total | | Revenue Earned |
|---|---|---|---|---|---|---|---|
| | Number Loads | Weight | Number Loads | Weight | Number Loads | Weight | $ c |
| Jan. | 396 | 1,109,630 | 11 | 31,520 | 407 | 1,141,150 | $60.67 |
| Feb. | 334 | 965,580 | 15 | 37,370 | 349 | 1,002,950 | 73.44 |
| Mar. | 399 | 1,193,420 | 12 | 23,170 | 411 | 1,216,590 | 43.92 |
| Apr. | 503 | 1,692,130 | 14 | 27,560 | 517 | 1,719,690 | 53.12 |
| May | 450 | 1,567,690 | 7 | 14,190 | 457 | 1,581,880 | 24.94 |
| June | 422 | 1,641,570 | 10 | 9,520 | 432 | 1,651,090 | 17.46 |
| July | 530 | 2,086,930 | 14 | 29,380 | 544 | 2,116,310 | 51,81 |
| Aug. | 513 | 2,114,140 | 20 | 29,070 | 533 | 2,143,210 | 49.78 |
| Sept. | 491 | 2,110,690 | 13 | 14,750 | 504 | 2,125,440 | 26.58 |
| Oct. | 578 | 2,272,890 | 16 | 23,740 | 594 | 2,296,630 | 44.34 |
| Nov. | 486 | 1,474,330 | 13 | 18,790 | 499 | 1,493,120 | 34.58 |
| Dec. | 420 | 1,237,140 | 4 | 3,740 | 424 | 1,240,880 | 6.18 |
| | 5,522 | 19,466,140 | 149 | 262,800 | 5,671 | 19,728,940 | $486.82 |

## SASKATCHEWAN AVENUE INCINERATOR OPERATIONS, 1935

| Month | City Garbage | | Private Garbage | | Total | | Revenue Earned |
|---|---|---|---|---|---|---|---|
| | Number Loads | Weight | Number Loads | Weight | Number Loads | Weight | $ c |
| Jan. | 783 | 2,408,650 | 110 | 100,300 | 893 | 2,508,950 | $55.90 |
| Feb. | 720 | 2,158,250 | 106 | 88,100 | 826 | 2,246,350 | 47.20 |
| Mar. | 746 | 2,140,200 | 122 | 96,930 | 868 | 2,237,130 | 55.25 |
| Apr. | 653 | 2,158,560 | 142 | 139,570 | 795 | 2,298,130 | 138.55 |
| May | 764 | 2,656,110 | 144 | 123,730 | 908 | 2,779,840 | 102.15 |
| June | 677 | 2,488,350 | 176 | 171,370 | 853 | 2,659,720 | 171.65 |
| July | 708 | 2,528,720 | 211 | 204,560 | 919 | 2,733,280 | 186.30 |
| Aug. | 683 | 2,473,460 | 166 | 169,430 | 849 | 2,642,890 | 114.10 |
| Sept. | 638 | 2,553,630 | 149 | 164,020 | 787 | 2,717,650 | 95.55 |
| Oct. | 629 | 2,277,580 | 130 | 132,890 | 759 | 2,410,470 | 65.25 |
| Nov. | 643 | 2,081,060 | 112 | 122,860 | 755 | 2,203,920 | 54.05 |
| Dec. | 774 | 2,455,590 | 107 | 110,410 | 881 | 2,566,000 | 45.45 |
| | 8,418 | 28,380,160 | 1,675 | 1,624,170 | 10,093 | 30,004,330 | $1,131.40 |
| | | | | | Sale of Steam | | 1,200.00 |
| | | | | | | | $2,331.40 |

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

## REPORT OF REFUSE DEPOSITED ON ELMWOOD NUISANCE GROUND, 1935

| Month | Tins Hauled by City | | Ashes Hauled by City | | Street Sweepings | | Privately Hauled Refuse | | Combined Totals | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Number Loads | Weight | Number Loads | Weight | Number Loads | Weight | Number Loads | Weight | Number Loads | Weight |
| Jan. | 221 | 783,800 | 122 | 484,480 | | | 162 | 429,300 | 505 | 1,697,580 |
| Feb. | 170 | 622,330 | 221 | 1,058,700 | | | 190 | 508,420 | 581 | 2,189,450 |
| Mar. | 43 | 121,540 | 139 | 773,000 | 14 | 107,510 | 181 | 498,950 | 377 | 1,501,000 |
| Apr. | 109 | 325,200 | 118 | 582,750 | 216 | 1,688,620 | 141 | 370,940 | 584 | 2,967,510 |
| May | 2,309 | 7,817,740 | 72 | 239,760 | 88 | 687,960 | 191 | 529,450 | 2,660 | 9,274,910 |
| June | 576 | 1,841,070 | 57 | 151,470 | 59 | 383,720 | 172 | 410,870 | 864 | 2,787,130 |
| July | 388 | 1,239,080 | 70 | 208,100 | 81 | 636,010 | 168 | 420,990 | 707 | 2,504,180 |
| Aug. | 337 | 1,058,670 | 70 | 216,870 | 79 | 583,820 | 148 | 373,540 | 634 | 2,232,900 |
| Sept. | 338 | 1,037,980 | 63 | 204,650 | 85 | 641,200 | 137 | 359,310 | 623 | 2,243,140 |
| Oct. | 240 | 721,050 | 72 | 237,030 | 77 | 515,040 | 148 | 365,950 | 537 | 1,839,070 |
| Nov. | 345 | 1,048,310 | 121 | 640,130 | 4 | 26,020 | 132 | 324,870 | 602 | 2,039,330 |
| Dec. | 75 | 218,210 | 107 | 619,690 | | | 120 | 311,020 | 302 | 1,148,920 |
| | 5,151 | 16,834,980 | 1,232 | 5,416,630 | 703 | 5,269,900 | 1,890 | 4,903,610 | 8,976 | 32,425,120 |

## REPORT OF REFUSE DEPOSITED ON SASKATCHEWAN AVENUE NUISANCE GROUND, 1935

| Month | Tins Hauled by City | | Ashes Hauled by City | | Street Sweepings | | Privately Hauled Refuse | | Combined Totals | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Number Loads | Weight | Number Loads | Weight | Number Loads | Weight | Number Loads | Weight | Number Loads | Weight |
| Jan. | 286 | 675,080 | 745 | 3,193,710 | | | 184 | 449,160 | 1,215 | 4,317,950 |
| Feb. | 283 | 693,980 | 809 | 3,661,450 | | | 183 | 517,600 | 1,275 | 4,873,030 |
| Mar. | 292 | 709,320 | 394 | 1,944,130 | | | 175 | 430,600 | 861 | 3,084,050 |
| Apr. | 661 | 1,819,990 | 714 | 4,105,300 | | | 232 | 591,480 | 1,607 | 6,516,770 |
| May | 840 | 3,051,750 | 2,772 | 11,911,600 | | | 278 | 756,710 | 3,890 | 15,720,060 |
| June | 646 | 1,751,750 | 299 | 1,387,060 | | | 274 | 679,710 | 1,219 | 3,818,520 |
| July | 874 | 2,197,440 | 225 | 906,500 | | | 439 | 876,870 | 1,538 | 3,980,810 |
| Aug. | 877 | 2,200,900 | 189 | 870,470 | | | 340 | 792,130 | 1,406 | 3,863,500 |
| Sept. | 793 | 1,984,490 | 178 | 830,140 | | | 292 | 846,850 | 1,263 | 3,661,480 |
| Oct. | 882 | 2,232,530 | 354 | 1,558,050 | | | 302 | 865,140 | 1,538 | 4,655,720 |
| Nov. | 745 | 1,819,240 | 234 | 1,201,000 | | | 227 | 635,610 | 1,206 | 3,655,850 |
| Dec. | 389 | 1,201,900 | 549 | 2,839,110 | | | 243 | 679,540 | 1,181 | 4,720,550 |
| | 7,568 | 20,338,370 | 7,462 | 34,408,520 | | | 3,169 | 8,121,400 | 18,199 | 62,868,290 |

## MISCELLANEOUS DATA

| Month | Cubic Yards Street Sweepings Collected | Cubic Yards of Ashes Collected | Gallons of Water used in Flushing Streets |
|---|---|---|---|
| January | | 11,582 | |
| February | | 23,647 | |
| March | 172 | 7,811 | |
| April | 5,932 | 6,718 | 132,336 |
| May | 2,931 | 2,106 | 1,294,781 |
| June | 2,458 | 247 | 1,452,020 |
| July | 2,721 | 67 | 1,526,459 |
| August | 2,650 | 118 | 1,256,273 |
| September | 3,038 | 46 | 346,463 |
| October | 5,533 | 416 | |
| November | 101 | 3,230 | |
| December | | 6,512 | |
| | 25,536 | 62,500 | 6,008,332 |

## COMPARATIVE TABLES

### Garbage Collection

| Year | Number of Loads Collected | Weight in Pounds |
|---|---|---|
| 1926 | 11,550 | 40,479,180 |
| 1927 | 13,826 | 42,325,430 |
| 1928 | 13,313 | 43,896,090 |
| 1929 | 13,048 | 43,374,665 |
| 1930 | 13,557 | 45,814,030 |
| 1931 | 13,611 | 50,098,730 |
| 1932 | 13,222 | 48,329,450 |
| 1933 | 13,561 | 46,236,370 |
| 1934 | 15,776 | 49,211,690 |
| 1935 | 15,764 | 49,733,270 |

### Collection of Incombustible Refuse

| Year | Number of Loads Collected | Weight in Pounds |
|---|---|---|
| 1926 | 6,034 | 15,894,150 |
| 1927 | 6,682 | 18,579,020 |
| 1928 | 9,571 | 24,877,715 |
| 1929 | 11,094 | 28,719,945 |
| 1930 | 11,396 | 33,189,930 |
| 1931 | 13,147 | 36,291,661 |
| 1932 | 14,237 | 49,928,030 |
| 1933 | 19,942 | 70,734,590 |
| 1934 | 18,849 | 66,773,120 |
| 1935 | 22,126 | 82,268,400 |

## Ash Removal

| Year | Number of Loads Collected | Weight in Pounds |
|---|---|---|
| 1926 | 19,012 | 90,215,000 |
| 1927 | 23,378 | 108,973,000 |
| 1928 | 24,456 | 110,052,000 |
| 1929 | 25,385 | 114,232,500 |
| 1930 | 24,212 | 108,954,000 |
| 1931 | 22,235 | 100,057,500 |
| 1932 | 18,741 | 84,334,500 |
| 1933 | 21,797 | 98,086,500 |
| 1934 | 18,437 | 82,975,646 |
| 1935 | 20,833 | 93,225,000 |

## REVENUE COLLECTED, 1935

| Month | Incinerator No. 2 | Incinerator No. 3 | Sale of Steam | Total |
|---|---|---|---|---|
| January | $ 51.29 | $ 45.30 | | $ 96.59 |
| February | 38.40 | 62.46 | $ 600.00 | 700.86 |
| March | 123.16 | 93.41 | | 216.57 |
| April | 42.45 | 72.68 | | 115.13 |
| May | 114.73 | 110.38 | 600.00 | 825.11 |
| June | 25.79 | 59.67 | | 85.46 |
| July | 96.09 | 83.50 | | 179.59 |
| August | 104.02 | 99.14 | | 203.16 |
| September | 48.51 | 139.75 | | 188.26 |
| October | 141.30 | 88.30 | | 229.60 |
| November | 45.22 | 42.72 | | 87.94 |
| December | 15.59 | 66.20 | | 81.79 |
| | $846.55 | $963.51 | $1,200.00 | $3,010.06 |