

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

### **Contributors**

Winnipeg (Man.). Health Department.

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# CITY OF WINNIPEG

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## REPORT

*of the*

## *Health Department*



*For the year ending  
31st December  
1930*





*Presented by*

*The Medical Officer of Health*

*August 1931*



22501421459

# CITY OF WINNIPEG

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## *REPORT* *of the* *Health Department*



*For the year ending*  
*31st December*  
*1930*



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## COMMITTEE ON HEALTH

1930

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Alderman W. B. Simpson, Chairman  
Alderman E. D. Honeyman  
Alderman L. F. Borrowman  
Alderman W. B. Lowe  
Alderman A. J. Roberts  
Alderman T. Boyd  
Alderman J. Simpkin  
Alderman J. Blumberg  
Alderman J. F. Palmer  
His Worship Mayor R. H. Webb,  
(ex-officio)

### STAFF

(December, 1930)

#### Medical Health Officer

A. J. Douglas, M.D.

#### Laboratory

Bacteriologist—M. S. Loughheed, 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. J. T. Watt | Tuberculosis Nurse—Miss K. M. Vanetta |
| Inspector—A. Paull            | “ “ —Miss H. Smyth                    |
| “ —C. H. Hargrave             | “ “ —Miss M. Simpson                  |
| “ —H. H. Marshall             | Inspectors' Clerk—G. Moore            |
| “ —H. Robinson                | Junior Clerk—G. W. Kelly*             |
|                               | “ “ —L. G. Williams**                 |

\*Transferred to Sanitary Div. March 10.

\*\*Appointed March 10.

## STAFF—Continued

### Sanitary Inspections Division

|                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                            |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Chief Inspector—E. W. J. Hague<br>Smoke and Supervising Inspector—<br>P. Pickering<br>Inspector—S. J. Scheving*<br>" —B. C. Brough<br>" —J. McHardy<br>" —J. Shepherd<br>" —M. Flattery§<br>" —E. Officer§§<br>*Ret. on Pension April 23.<br>§Resigned May 15. | Housing and Supervising Inspector—<br>A. Officer<br>Supervising Inspector—D. Little<br>Inspector—R. McQuillan**<br>" —A. Aitken<br>" —F. C. Austin<br>" —B. Davies<br>" —A. G. Isaac<br>" —D. G. Johnson‡<br>**Transferred to Food Division March 10<br>‡Appointed May 15. |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

### Dairy Division

Chief Inspector—E. C. Brown  
 Inspector—F. Lutley  
     " —T. J. Booth  
     " —J. M. Jackson  
 \*Deceased January 9.

### Food Division

Chief Inspector—A. Rigby\*  
     " —A. W. Foote\*\*  
 Inspector—G. R. Mines  
     " —R. McQuillan‡  
 \*\*Promoted February 15.      ‡Transferred March 10

### Bureau of Child Hygiene

|                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                                                                                                       |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Manager—A. G. Lawrence<br>Nurse—Miss M. M. Wonnacott<br>" —Miss A. J. Attrill<br>" —Miss L. Spratt<br>" —Miss C. Maddin<br>" —Miss A. Moore<br>" —Miss C. Munro<br>" —Miss L. A. Schwalm<br>" —Miss E. A. Bennett<br>" —Miss M. M. Harper | Nurse—Miss A. M. Wilkins<br>" —Miss H. A. Carter<br>" —Miss C. W. Thom<br>" —Mrs. C. E. Smith<br>" —Miss M. B. Bowles<br>Dietitian—Miss M. A. Graham<br>Senior Helper—Mrs. J. McDonald<br>Junior Helper—Mrs. H. Twist<br>" —Mrs. A. B. Gibson<br>Caretaker—G. Wade<br>Attending Physician—R. F. Rorke, M.D.<br>" —F. G. Schwalm, M.D. |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

### Division of Records and Statistics

|                                                       |                                                     |
|-------------------------------------------------------|-----------------------------------------------------|
| Secretary—A. G. Lawrence<br>Clerk—Miss E. S. Halliday | Junior Clerk—Miss E. Fraser<br>" —Miss F. J. V. Orr |
|-------------------------------------------------------|-----------------------------------------------------|

### Street Cleaning Division

|                                                                                                                                                         |                                                                                                                                                 |
|---------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------|
| Chief of Division—E. A. Wood<br>Superintendent of Scavenging—<br>J. Shannon*<br>Superintendent of Street Cleaning—<br>L. Woodhall<br>*Appointed in May. | Clerk—J. J. Higgins<br>" —J. McTavish<br>Office Assistant—Miss V. Pope**<br>" —Miss N. Deering‡<br>**Resigned June 15.      ‡Appointed June 15. |
|---------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------|



# Report of the Medical Health Officer

City Health Department,  
Winnipeg, Man., March 29th, 1931.

Chairman and Members,  
Committee on Health.

Gentlemen:

I have the honor to submit for your consideration the report of the Health Department for the year 1930. This includes the reports of the heads of Divisions together with a statement of the cost of the year's work.

## STATISTICS

The number of deaths, excluding stillbirths, was 1,806. Assuming the population to be 209,286 (City Assessor's figures), this gives a gross death rate of 8.63 per 1,000 population. The rate for 1929 was 8.86. The corrected number of deaths, excluding stillbirths, was 1,602, giving a corrected rate of 7.66.

The number of registered deaths in children under one year of age was 269, giving a crude mortality rate of 57.9 per 1,000 living births. In 1929 the rate was 56.0. The corrected number of infant deaths was 210, giving a corrected mortality rate of 57.9. Malformations and diseases of early infancy caused 34.5 deaths per 1,000 live births; digestive diseases, 5.8; respiratory diseases, 4.7; and all other diseases, 12.9, corrected figures.

Registered stillbirths numbered 201, giving a rate per 1,000 live births of 43.3. In 1929 there were 225 stillbirths and the rate was 49.8.

Further details regarding births and deaths will be found in the report of the Statistician. These figures, with the analysis and explanations given, are of interest and should be studied.

## FINANCIAL STATEMENT

This statement is divided into two parts, the first covering those services concerned with the control and prevention of disease, and the second, concerned with refuse collection and disposal, and street-cleaning services.

### CONTROL AND PREVENTION OF DISEASE, 1930 SUMMARY

|                                          |              |
|------------------------------------------|--------------|
| (a) Personal Services .....              | \$106,488.18 |
| (b) Outside Services .....               | 8,190.02     |
| (c) Material, supplies and repairs ..... | 8,184.34     |
| (d) Equipment and replacements .....     | 2,971.62     |
| (e) Fuel, water, light and power .....   | 1,159.14     |
| (f) Other expenses .....                 | 250.00       |
| (i) Interest .....                       | 600.00       |
|                                          | \$127,843.30 |

### EXPENDITURE BY DIVISIONS

#### C-1 Administration and Statistics (Controllable)—

|                                           |              |
|-------------------------------------------|--------------|
| (a) Personal Services .....               | \$12,180.00  |
| (b) Outside Services .....                | 140.88       |
| (c) Material, Supplies and Repairs.....   | 432.62       |
| (d) Equipment, Additions and Replacements | 75.03        |
| (f) Unforeseen Expenditures .....         | 250.00       |
|                                           | \$ 13,078.53 |

#### C-2 Bacteriological Laboratory (Controllable)—

|                                           |             |
|-------------------------------------------|-------------|
| (a) Personal Services .....               | \$ 6,456.00 |
| (b) Outside Services .....                | 39.00       |
| (c) Material, Supplies and Repairs .....  | 656.04      |
| (d) Equipment, Additions and Replacements | 5.00        |
| (e) Fuel, Water, Light and Power .....    | 123.09      |
|                                           | \$ 7,279.13 |

#### C-3 Treatment and Prevention of Communicable Diseases—

##### C-3-1 Acute Communicable Diseases (Controllable)—

|                                           |              |
|-------------------------------------------|--------------|
| (a) Personal Services .....               | \$12,251.43  |
| (b) Outside Services .....                | 157.96       |
| (c) Material, Supplies and Repairs .....  | 510.83       |
| (d) Equipment, Additions and Replacements | 228.72       |
|                                           | \$ 13,148.94 |

##### C-3-2 Tuberculosis (Controllable)—

|                                           |             |
|-------------------------------------------|-------------|
| (a) Personal Services .....               | \$ 4,471.77 |
| (b) Outside Services .....                | 1.45        |
| (c) Material, Supplies and Repairs .....  | 1,492.20    |
| (d) Equipment, Additions and Replacements | 74.25       |
|                                           | \$ 6,039.67 |



---

C-3-3 Smallpox and Diphtheria Prevention (Controllable)—

|                                          |             |             |
|------------------------------------------|-------------|-------------|
| (b) Outside Services .....               | \$ 1,772.79 |             |
| (c) Material, Supplies and Repairs ..... | 235.32      |             |
|                                          |             | \$ 2,008.11 |

## C-3-4 Automobile Services (Controllable)—

|                                          |           |             |
|------------------------------------------|-----------|-------------|
| (b) Outside Services .....               | \$ 356.42 |             |
| (c) Material, Supplies and Repairs ..... | 805.50    |             |
|                                          |           | \$ 1,161.92 |

## C-3-5 Fixed Charges on Debenture Debt (Uncontrollable)—

|                    |           |           |
|--------------------|-----------|-----------|
| (i) Interest ..... | \$ 600.00 |           |
|                    |           | \$ 600.00 |

|                                                                 |              |
|-----------------------------------------------------------------|--------------|
| Total Treatment and Prevention of<br>Communicable Diseases..... | \$ 22,958.64 |
|-----------------------------------------------------------------|--------------|

## C-4 Sanitary Inspection (Controllable)—

|                                                 |             |              |
|-------------------------------------------------|-------------|--------------|
| (a) Personal Services .....                     | \$31,356.16 |              |
| (b) Outside Services .....                      | 47.08       |              |
| (c) Material, Supplies and Repairs .....        | 308.02      |              |
| (d) Equipment, Additions and Replacements ..... | 811.39      |              |
|                                                 |             | \$ 32,522.65 |

## C-5 Food and Dairy Inspection (Controllable)—

## C-5-1 Dairy Inspection—

|                                                 |             |             |
|-------------------------------------------------|-------------|-------------|
| (a) Personal Services .....                     | \$ 8,520.00 |             |
| (b) Outside Services .....                      | 536.04      |             |
| (c) Material, Supplies and Repairs .....        | 188.35      |             |
| (d) Equipment, Additions and Replacements ..... | 196.89      |             |
|                                                 |             | \$ 9,441.28 |

## C-5-2 Food Inspection (Controllable)—

|                                                 |             |             |
|-------------------------------------------------|-------------|-------------|
| (a) Personal Services .....                     | \$ 5,694.50 |             |
| (b) Outside Services .....                      | 38.73       |             |
| (c) Material, Supplies and Repairs .....        | 77.64       |             |
| (d) Equipment, Additions and Replacements ..... | 103.64      |             |
|                                                 |             | \$ 5,914.51 |

## C-5-3 Food Inspection Automobile (Controllable)—

|                                                 |          |           |
|-------------------------------------------------|----------|-----------|
| (b) Outside Services .....                      | \$ 44.24 |           |
| (c) Material, Supplies and Repairs .....        | 88.37    |           |
| (d) Equipment, Additions and Replacements ..... | 770.10   |           |
|                                                 |          | \$ 902.71 |

|                                      |              |
|--------------------------------------|--------------|
| Total Food and Dairy Inspection..... | \$ 16,258.50 |
|--------------------------------------|--------------|



**C-6 Child Welfare (Controllable)—****C-6-1 Babies' Milk Depot—**

|                                                 |                     |
|-------------------------------------------------|---------------------|
| (a) Personal Services .....                     | \$ 4,656.78         |
| (b) Outside Services .....                      | 3,830.93            |
| (c) Material, Supplies and Repairs .....        | 2,634.39            |
| (d) Equipment, Additions and Replacements ..... | 46.35               |
| (e) Fuel, Water, Light and Power .....          | 1,036.05            |
|                                                 | <u>\$ 12,204.50</u> |

**C-6-2 Child Welfare Visiting Nurses—**

|                                                 |                     |
|-------------------------------------------------|---------------------|
| (a) Personal Services .....                     | \$20,901.54         |
| (b) Outside Services .....                      | 5.00                |
| (c) Material, Supplies and Repairs .....        | 285.63              |
| (d) Equipment, Additions and Replacements ..... | 660.25              |
|                                                 | <u>\$ 21,852.42</u> |

Total Child Welfare ..... \$ 34,056.92

**C-7 Medical Relief (Controllable)—****C-7-1 District Physicians—**

|                                          |                    |
|------------------------------------------|--------------------|
| (b) Outside Services .....               | \$ 1,219.50        |
| (c) Material, Supplies and Repairs ..... | 469.43             |
|                                          | <u>\$ 1,688.93</u> |

Gross Expenditure, Control and  
Prevention of Disease ..... \$127,843.30

**REVENUE**

(Credited to City's Revenue Account)

|                                               |                    |
|-----------------------------------------------|--------------------|
| Police Court Fines and Costs .....            | \$ 58.00           |
| Fees for Laboratory Work .....                | 221.00             |
| Sale of Infants' Feedings at Milk Depot ..... | 773.65             |
|                                               | <u>\$ 1,052.65</u> |

Net Expenditure ..... \$126,790.65

**COST PER CAPITA, CONTROL AND PREVENTION OF DISEASE**

(Population 209,286)

|                                    |            |
|------------------------------------|------------|
| Gross Expenditure per Capita ..... | 61.1 cents |
| Net Expenditure per Capita .....   | 60.6 cents |

REFUSE COLLECTION AND DISPOSAL AND STREET CLEANING,  
1930  
SUMMARY

|                                                 |              |
|-------------------------------------------------|--------------|
| (a) Personal Services .....                     | \$239,597.55 |
| (b) Outside Services .....                      | 58,143.62    |
| (c) Material, Supplies and Repairs .....        | 40,128.42    |
| (d) Equipment, Additions and Replacements ..... | 11,236.24    |
| (e) Fuel, Water, Light and Power .....          | 2,336.36     |
| (f) Other Expenses .....                        | 250.00       |
| (i) Interests .....                             | 9,745.00     |
| (ii) Sinking Fund .....                         | 4,174.46     |
|                                                 | <hr/>        |
|                                                 | \$365,611.65 |

EXPENDITURE BY DIVISIONS

C-8 Refuse Collection and Disposal—

C-8-1 Scavenging—

|                                                 |              |
|-------------------------------------------------|--------------|
| (a) Personal Services .....                     | \$98,541.68  |
| (b) Outside Services .....                      | 22,520.70    |
| (c) Material Supplies and Repairs .....         | 27,607.51    |
| (d) Equipment, Additions and Replacements ..... | 8,464.29     |
| (e) Fuel, Water, Light and Power .....          | 103.25       |
| (f) Other Expenses .....                        | 250.00       |
|                                                 | <hr/>        |
|                                                 | \$157,487.43 |

C-8-3 Nuisance Ground Operating—

|                                          |             |
|------------------------------------------|-------------|
| (a) Personal Services .....              | \$ 4,642.51 |
| (c) Material, Supplies and Repairs ..... | 52.46       |
|                                          | <hr/>       |
|                                          | \$ 4,694.97 |

C-8-6 Crematory No. 2 Operating—

|                                          |              |
|------------------------------------------|--------------|
| (a) Personal Services .....              | \$10,645.29  |
| (b) Outside Services .....               | 826.93       |
| (c) Material, Supplies and Repairs ..... | 55.89        |
| (e) Fuel, Water, Light and Power .....   | 301.30       |
|                                          | <hr/>        |
|                                          | \$ 11,829.41 |

C-8-7 Crematory No. 2 Maintenance—

|                                          |             |
|------------------------------------------|-------------|
| (c) Material, Supplies and Repairs ..... | \$ 1,255.12 |
|                                          | <hr/>       |
|                                          | \$ 1,255.12 |

|                                         |                                        |                    |
|-----------------------------------------|----------------------------------------|--------------------|
| C-8-8 Crematory No. 3 Operating—        |                                        |                    |
| (a)                                     | Personal Services .....                | \$16,320.09        |
| (b)                                     | Outside Services .....                 | 711.73             |
| (c)                                     | Material, Supplies and Repairs .....   | 103.39             |
| (e)                                     | Fuel, Water, Light and Power .....     | 1,114.05           |
|                                         |                                        | <hr/> \$ 18,249.26 |
| C-8-9 Crematory No. 3 Maintenance—      |                                        |                    |
| (c)                                     | Material, Supplies and Repairs .....   | \$ 4,726.13        |
|                                         |                                        | <hr/> \$ 4,726.13  |
| C-8-10 Ash Removal—                     |                                        |                    |
| (a)                                     | Personal Services .....                | \$20,248.25        |
| (b)                                     | Outside Services .....                 | 21,881.43          |
| (c)                                     | Material, Supplies and Repairs .....   | 2,588.09           |
|                                         |                                        | <hr/> \$ 44,717.77 |
| C-8-11 Fixed Charges on Debenture Debt— |                                        |                    |
| (i)                                     | Interest .....                         | \$ 9,745.00        |
| (ii)                                    | Sinking Fund .....                     | 4,174.46           |
|                                         |                                        | <hr/> \$ 13,919.46 |
|                                         | Total Refuse Collection and Disposal.. | <hr/> \$256,879.55 |

#### D Street Cleaning and Flushing—

|                                  |                                             |                    |
|----------------------------------|---------------------------------------------|--------------------|
| D-1-1 Administration—            |                                             |                    |
| (a)                              | Personal Services .....                     | \$ 6,693.50        |
| (b)                              | Outside Services .....                      | 70.77              |
| (c)                              | Material, Supplies and Repairs .....        | 557.97             |
| (d)                              | Equipment, Additions and Replacements ..... | 66.30              |
|                                  |                                             | <hr/> \$ 7,388.54  |
| D-1-2 Automobile Services—       |                                             |                    |
| (b)                              | Outside Services .....                      | \$ 115.00          |
| (c)                              | Material, Supplies and Repairs .....        | 364.80             |
|                                  |                                             | <hr/> \$ 479.80    |
| D-4-1 Asphalt Pavement Cleaning— |                                             |                    |
| (a)                              | Personal Services .....                     | \$70,399.49        |
| (b)                              | Outside Services .....                      | 10,076.56          |
| (c)                              | Material, Supplies and Repairs .....        | 2,521.17           |
|                                  |                                             | <hr/> \$ 82,997.22 |
| D-4-2 Macadam Pavement Cleaning— |                                             |                    |
| (a)                              | Personal Services .....                     | \$ 2,782.05        |
| (b)                              | Outside Services .....                      | 405.50             |
|                                  |                                             | <hr/> \$ 3,187.55  |



**D-4-4 Paved Lane Cleaning and Paper Picking—**

|                             |                    |
|-----------------------------|--------------------|
| (a) Personal Services ..... | \$ 3,250.81        |
| (b) Outside Services .....  | 127.29             |
|                             | <u>\$ 3,378.10</u> |

**D-4-6 Street Sprinkling and Flushing—**

|                                                 |                    |
|-------------------------------------------------|--------------------|
| (a) Personal Services .....                     | \$ 702.14          |
| (b) Outside Services .....                      | 53.20              |
| (c) Material, Supplies and Repairs .....        | 223.29             |
| (d) Equipment, Additions and Replacements ..... | 2,705.65           |
| (e) Fuel, Water, Light and Power .....          | 379.70             |
|                                                 | <u>\$ 4,063.98</u> |

**D-5-3 Cutting Noxious Weeds—**

|                                          |                    |
|------------------------------------------|--------------------|
| (a) Personal Services .....              | \$ 4,527.73        |
| (b) Outside Services .....               | 482.51             |
| (c) Material, Supplies and Repairs ..... | 13.20              |
|                                          | <u>\$ 5,023.44</u> |

**D-5-4 Yards Maintenance—**

|                                          |                    |
|------------------------------------------|--------------------|
| (a) Personal Services .....              | \$ 844.01          |
| (b) Outside Services .....               | 872.00             |
| (c) Material, Supplies and Repairs ..... | 59.40              |
| (e) Fuel, Water, Light and Power .....   | 438.06             |
|                                          | <u>\$ 2,213.47</u> |

|                                         |                     |
|-----------------------------------------|---------------------|
| Total Street Cleaning and Flushing..... | <u>\$108,732.10</u> |
|-----------------------------------------|---------------------|

|                   |                     |
|-------------------|---------------------|
| GRAND TOTAL ..... | <u>\$365,611.65</u> |
|-------------------|---------------------|

**COMMUNICABLE DISEASES**

The total number of cases of communicable diseases was 4,552 and 167 deaths, against 9,134 cases and 202 deaths in 1929.

**TYPHOID FEVER**

The total number of cases of Typhoid Fever reported during the year was 15; deaths none, as compared with 38 cases and 5 deaths for 1929.

Of the 15 cases notified, 4 were non-resident cases admitted to hospital for treatment; 4 received their infection whilst travelling outside the city; 7 received their infection from some source within the city; of this number 2 were infected by drinking river water whilst visiting boats which ply between lumber yards and the lakes. Others remained untraced.

**SMALLPOX**

Six cases were notified during the year. One was a non-resident case; the remaining 5 occurred in one home. These cases were brought

to light by report of suspect Chickenpox from school visiting nurse; investigation proved beyond doubt that it was Smallpox. The original source of infection was traced to a family who were visited by friends from Saskatchewan during the month of March, members of which developed a similar rash to that of their visitor and passed it along to relatives of the cases which found their way into our records two months later.

### CHICKENPOX

The total number of cases reported reached the high figure of 1,301; as compared with 1,130 cases for the preceding year.

This is a record, and when we consider the cases recorded in this Department during the past four years, one might feel safe in prophesying that we have gone over the top now and should show lower figures for the coming year.

We have averaged 1,124 cases yearly 1927-1930, inclusive.

1930 cases were fairly evenly distributed in districts for the year.

Parents do not take this infection seriously, with the result that control is extremely difficult.

The Winter months are usually the high months; but this year saw our figures jump from 31 cases in March to 180 in June and from 27 in September to 199 in November.

### MUMPS

868 cases were reported as compared with 905 for the preceding year. Over 700 cases were reported during the first six months and of the total 868 cases reported 710 are in two age groups of 5-9, 10-14.

The original report of these cases are chiefly through the School Nurse and many secondary cases are added to our records as the result of checking up for School Certificates.

### WHOOPING COUGH

Eight hundred and twenty cases were reported as compared with 933 cases during 1929. Deaths 14 against 10.

The outstanding feature about this disease is the high average in number of cases reported during the past 10 years as compared with the period 1911-20 and the low average in number of deaths as compared with the same period.

Cases reported 1921-30 was 5,125 as against 2,850, 1911-20. Deaths over same period was: 1921-30, 97, as against 190, 1911-20. While these figures include non-resident it may be safely assumed that the ratio would not be altered very much. The fact remains that Whooping Cough is better reported and that the fatality rate has dropped perceptibly.

The crude death rate per 100,000 population was 6.7 mortality rate per 100 cases, 1.7.



District physicians have attended indigent cases and administered vaccine treatment where cases were in the early stage and frequently gave it, as prophylactic measures, to children in the same family.

### MEASLES

Four hundred and sixty-one cases and 6 deaths were reported for the year as compared with 4,658 cases and 19 deaths for the preceding year.

Following on the heels of an epidemic year we have a low year. It has its peculiarities, however, in that, our high month appeared in mid-summer and from the end of June to the end of December we have only 75 cases recorded. Of the 6 deaths reported, 3 are non-resident, the remaining 3 are credited to Ward two. This Ward contains probably the highest percentage of overcrowded houses. Out of a total of 15 deaths in the city during 1929, this Ward had 9 deaths, so it would appear to be due, in part, to poor environment. A study of this might help us in future outbreaks in this Ward.

Crude rates per 100,000 population was 2.9 and 9.3 respectively and 1.3 and .4 per 100 cases.

Note that Ward two has 104 cases and 3 deaths, whilst Wards one and three with more cases have no deaths.

### DIPHTHERIA

The total number of cases reported during the year was 343, deaths 14; as compared with 475 cases and 21 deaths for 1929.

This is the lowest year since 1913 for cases and the lowest since 1909 for deaths.

Our epidemic index shows the decline continuing below the line of normal expectancy throughout the year with no apparent change in sight.

The crude rate per 100,000 population was 6.7 and mortality rate of 4.08 per 100 cases; the corrected rate, however for the city would be 3.3 and 3.0 respectively.

While these rates are a big improvement on those of the past we still can find room for improvement.

The preventive work, which we have been pressing, particularly in schools and institutions, is we think, in some measure responsible for the lowering of the rates. There seems to be a downward trend in this disease and by attacking it vigorously now we should be able to reduce the Diphtheria figures to a much lower point.

The summary of diseases by Wards attached to this report is interesting from the standpoint of distribution of Diphtheria cases. Again we find Ward 3 with a lower attack rate than either Ward 1 or 2. It has also improved its position in regards to deaths when compared with Ward 1.



A table showing, for comparison, Diphtheria among the immunized and non-immunized children is attached to this report.

It is not practical to reschick the children immunized in school, if it were, the numbers in this table would be reduced still further.

No child immunized since 1925 in our city schools has died from Diphtheria so far as our knowledge goes.

Where Diphtheria is recorded this Department does not question the diagnosis, in other words we have taken credit for cases which in all probability did not have clinical Diphtheria.

Diphtheria Carriers totalled 58 as compared with 53 for the preceding year. Institutions had an increase from 10 to 25.

Diphtheria Antitoxin: As formerly, this was supplied free by the Provincial Health Department, amount distributed being 2,241,000 units.

Toxoid also supplied free and including amount used in the Schools was as follows:

|                             | 1st                     | 2nd | 3rd Dose |
|-----------------------------|-------------------------|-----|----------|
| Physicians received .....   | 323                     | 289 | 268      |
|                             | 1 person complete dose  |     |          |
| Physicians and Schools..... | 437 Packets             |     |          |
|                             | 6 person complete dose  |     |          |
| “ “ “ .....                 | 97 Packets              |     |          |
|                             | 12 person complete dose |     |          |
| “ “ “ .....                 | 168 Packets             |     |          |
|                             | Schick                  |     |          |
| “ “ “ .....                 | 212 Packets             |     |          |

### SCARLET FEVER

The total number of cases of Scarlet Fever reported for the year was 327, deaths 3, as compared with 512 cases and 6 deaths during 1929.

The reduction in cases was general throughout the city. Ward one had almost reduced its number 50%. The other Wards also showed a big reduction in cases.

Winnipeg did not have a death amongst its own citizens; the 3 deaths which are recorded being non-resident.

This is a very creditable showing and we are pleased to note that the number of cases are the lowest in twelve years past.

On several occasions we have had threatened outbreaks through contact with missed cases but in each instance we were able to track down suspect convalescent cases, and where the infection had for its focus a school child we had the co-operation and valuable assistance of the School Nurses.

The total number of non-resident cases was 49, this is exactly the same number recorded for 1929. Institutions reported 16, as compared with 21 for 1929.

There was no milk borne infection reported during the year.

Secondary cases totalled 27, as compared with 49. Unrecognized cases 16 against 15; Return cases none against four, whilst 32 were treated as suspects.

The type continues mild and our expectancy chart does not show any upward trend. It has steadily shown a decline during the past three years and is still well below the line of normal expectancy.

Crude rates per 100,000 population are as follows: 1.4 against 2.9 for 1929. Fatality rate per 100 cases .9 against 1.2 for 1929.

Age and sex of Scarlet Fever patients are shown in table attached to this report.

### INFLUENZA

Sixteen cases and 14 deaths were recorded during the year against 48 cases and 27 deaths during 1929.

As will be noted by these figures, only the serious cases, usually cases with pulmonary complications, are notified.

Seven of the 14 deaths were in the age periods 35-44 and 45-64, while the remaining seven are in the sixty-five years and over period.

### TUBERCULOSIS OF THE LUNGS

The total number of cases of Pulmonary Tuberculosis reported during the year was 231; deaths 97; as compared with 229 cases and 83 deaths for 1929.

Crude rates per 100,000 population were 46.3 and 42.0 respectively. Corrected rate, which is arrived at by deducting non-resident deaths and adding Winnipeg Deaths registered in St. Boniface Hospital and Ninette Sanatorium is 51.6.

The following summary shows the sources from which the cases were reported:

|                                     | Totals<br>1930 | Totals<br>1929 |
|-------------------------------------|----------------|----------------|
| King Edward Memorial Hospital ..... | 58             | 65             |
| Ninette Sanatorium .....            | 10             | 20             |
| Chest Clinics .....                 | 70             | 59             |
| Death Registration .....            | 24             | 30             |
| City Laboratory .....               | 10             | 10             |
| St. Roch's Hospital .....           | 26             | 14             |
| Physicians and others .....         | 8              | 11             |
| Non-resident .....                  | 25             | 20             |
|                                     | —              | —              |
| Total Cases .....                   | 231            | 229            |
|                                     | —              | —              |



The work of this branch goes on without interruption year in and year out. The situation from our viewpoint varies little, with an added stimulus as the result of changes in Clinic work or addition to Hospital or Sanatorium work introduced.

We are looking forward to changes which will follow the opening of the new Central Clinic. These changes will not be radical in character but we feel sure will be an added asset to the work already being carried on.

The Clinic work of the Hospitals of this city has never slackened since it was first started at the Winnipeg General Hospital and while it may be deemed advisable, as time goes on, to centralize the work, we feel certain that Chest Clinic work is on a firm footing and will only be made more secure as the result of the addition of this very fine building and equipment.

Tables and summaries attached to this report tell their own story.

We would like once again to comment on the unreported cases, working on the theory that cases outnumber deaths 4 to 1 we must have in our midst one hundred and fifty unreported cases and of this number quite a number are probably open cases and spreaders of disease.

Death registration still remains the first intimation of from a third to a fourth of the total deaths in every year.

Why should this be? If they are of the careless type, then surely this Department should know; if they are careful patients then no harm could be done in reporting them to this Department, as we have a non-visiting list.

The patient of course is often a problem and we probably will have to delve deep into the social side as well as the Medical side of this disease before we can materially change the present situation. So many patients prefer to continue work and hope against hope; for them to stop work often looks like giving up the fight.

Table showing living conditions of patients added this year to nurses list is attached to this report.

#### ACUTE ANTERIOR POLIOMYELITIS

The total number of cases reported during the year was 9; deaths 2, as compared with 19 for the preceding year and 5 deaths.

Of the 9 cases reported, 5 were admitted to Hospital from points outside the City, leaving 4 which received their infection in the city.

One was reported in February, 1 in September and 2 in December.

The case which terminated fatally was that of a boy five years old.

Three suspects were reported and treated in April, September and October.

Distribution by Wards: Ward one, 3; Ward two, 1.

It may be of interest to note that during the latter part of the outbreak of this disease in 1928 cases were being reported chiefly from Ward one; that the cases recorded during 1929 showed Ward one with an attack rate twice as great as Ward two and almost three times that of Ward three; while 1930 shows a decrease in cases recorded, there is no change in distribution.

#### **CEREBRO SPINAL FEVER**

Six cases were reported during the year, with 2 deaths, of this number 4 were non-resident cases, of this number 2 died.

#### **LETHARGIC ENCEPHALITIS**

Two cases were recorded for the year, against 4 the preceding year. Both died.

#### **MILK SUPPLY**

There is nothing very unusual to report for the year. The matter of compulsory pasteurization was not dealt with by Council. It is some satisfaction to know that a larger proportion of our milk supply is being pasteurized from year to year but progress is too slow. We still regard this procedure as the greatest safeguard that can be adopted to protect the milk supply of a Community.

#### **MOSQUITO PREVENTION**

The citizens of Winnipeg are again indebted to the gentlemen who made possible and conducted the Anti-Mosquito Campaign in this City and its environs. Particular credit is due to Dr. H. M. Speechley and Mr. J. P. Tully for the amount of thought and effort they put forth to make this campaign a success.

#### **MEDICAL RELIEF**

District physicians calls totalled 411 as compared with 303 calls for 1929.

Financial stress is reflected in this increase we believe, more than increase in incidence of disease or sickness. Dr. Loughheed and Mr. Watt rendered excellent service in clearing sick calls requiring immediate service, and in establishing diagnosis in cases when infection was suspected.

Examinations and persons prescribed for at the office of the Medical Health Officer totalled 797 against 613 during 1929.

The Margaret Scott Nursing Mission once again co-operated with this Department by taking calls and also referred to us, for medical attention, those unable to procure same. The total number of calls referred to them was 143.



Vaccinations performed at the City Hall totalled 815; at the city schools 1,648.

School certificates issued totalled 3,097.

Insulin, supplied by the Manitoba Provincial Health Department, totalled 373,600 units; number of patients receiving this benefit being 33.

### LEGISLATION ENACTED

#### By the Province of Manitoba:

An amendment to the Public Health Act defining "maternity home" as a building where a woman or girl may be treated during pregnancy or accouchement. Also providing that the Department of Health and Public Welfare may make rules regulating the management and conduct of child-caring institutions, maternity homes, and other institutions caring for patients, and cancel their permits on failure to comply with such rules.

Sections 327 to 333 inclusive of the Act, dealing with maternity boarding homes, are repealed. This should have been done some years ago, because, although the Provincial Board of Health promulgated regulations, and took over responsibility for Maternity and Infants' Homes, the sections above-referred to still held local Health Officers responsible for the registration and regulation of such places.

An amendment to the Winnipeg Charter empowering the City to pass by-laws prohibiting unnecessary noises which are prejudicial to health, or which affect the health or comfort of citizens.

Revised regulations of the Department of Health and Public Welfare respecting the use of Hydrocyanic Acid as an Insecticide. Whilst the new regulations still prohibit absolutely the use of this gas in any dwelling, it may now be used in other buildings, but only by persons having a permit from the Department of Health and Public Welfare, and under conditions specified very fully in the regulations calculated to prevent accidents. Permit holders are to be bonded.

Regulations of the Department of Health and Public Welfare respecting Pasteurization Plants. The regulations provide for: 1. A temperature of 143 degrees Fahrenheit held for thirty minutes in pasteurization apparatus approved by the Department. 2. Requires that a license shall be procured for each plant, from the Municipality. It is also required that all applications for license be submitted to the Minister of Health and approved by him in the form of a permit. An officer of the Department of Health and Public Welfare must visit each plant in company with the Medical Health Officer or other officer of the Municipality, and in cases where any plant equipment, or operating conditions are insanitary or defective, the Provincial Department is to make recommendations for correction or improvement. 3. Any person contemplating con-



struction or alteration of a plant may submit plans to the Department for approval, the Department to notify applicant in writing whether or not the same are satisfactory. 4. Department to prepare, and have printed for distribution, the minimum requirements for construction, operation, equipment and maintenance. 5. All pasteurization apparatus to be equipped with automatic devices for recording temperatures and holding time. Standard charts to be used, and the same submitted for examination on request. 6. No milk pasteurized in one plant to be transferred to another plant or place for bottling. 7. All pasteurized milk or milk products to be placed in bottles or sealed containers at the plant, and delivered to consumers unopened. 8. Containers to be washed, rinsed and sterilized by efficient means approved by the Department and the local Health Officer. 9. Sediment tests to be made and filed once a month, and submitted for examination to the Department or the Medical Health Officer on request. 10. On and after October 1, 1930, pasteurization plants not to purchase milk from herds containing cows known to be tuberculous and ear-marked "T". 11. Every employee to furnish annually to the Department of Health and Public Welfare a certificate of health, after thorough examination by a competent physician approved by the Minister, that he is free from any disease capable of being carried in or with the milk or milk products. Such examinations to be conducted at least once a year, and oftener if required. 12. The Minister may revoke the certificate of approval of any plant that does not comply with the regulations, and in such case the local Medical Health Officer shall forthwith cancel or suspend the license of such plant until it is made to comply. 13. The local Medical Health Officer may with or without notice at any time cancel or suspend licenses. 14. If license of a plant has been cancelled or suspended the operator must cease immediately, the labelling of any containers with any words indicating that the milk or milk products are pasteurized.

Whilst there are some desirable requirements in the above regulations, in so far as the City of Winnipeg is concerned, those sections requiring inspection and approval of pasteurizing plants by the Provincial Authorities as well as by the Medical Health Officer are superfluous and unnecessary. Dual inspections and divided authority are not desirable.

As regards Section 14, which provides that when the license of a plant has been cancelled or suspended the operator shall cease immediately to label the products of the plant as pasteurized, it would seem to us that this does not go far enough, for, if the license is cancelled, under the Dairy By-law such firm would not have the right to sell any milk.

Regulation of the Provincial Board of Health amending the Wiping Rag Regulations by giving the Health Officer power to require rags which in his opinion are of such a character as to make the using thereof dangerous to the Public Health, to be re-laundered or re-sterilized or both.



The amendment was made to cover the case of imported rags where there is a doubt as to the effectiveness of their cleansing or sterilization in the country of origin.

Regulations of the Minimum Wage Board governing women employed in retail stores. These contain the usual provisions respecting light, ventilation, temperature, drinking water, sanitary conveniences, etc., found in other regulations of the Board.

**By the City of Winnipeg:**

By-law No. 13982, amending By-law 1600, to prevent certain noises. This by-law is quite short and follows very closely the provisions of the Winnipeg Charter amendment passed at the last session of the Legislature.

It reads as follows:

"No person shall make or cause to be made within the City any unnecessary noise or noises which are or may be prejudicial to the Public Health, either by reason of interfering to a greater or less degree with the rest or comfort of citizens, or otherwise."

Though somewhat limited by reason of the stipulation that only "unnecessary" noises may be dealt with, no doubt this by-law will be the means of enabling the Health Department to obtain modification if not cessation of certain noises of which complaint is or may be made by citizens.

**By-law No. 13885—**

An amendment to the Health By-law. It provides that all cleaning of temporary contractor's closets shall be done by the City; and that a charge of \$1.50, payable in advance, shall be paid by the contractor for each cleaning.

**By-law No. 13187—**

An amendment to the Building By-law dealing with the means of egress in old apartment blocks, hotels, lodging houses and office buildings over two storeys in height. Amongst other things it requires that in every such building there shall be, on every storey above the first, at least two means of egress from the building to ground level, etc.

A safety provision, but in view of the fact that the Health Department has to issue permits for licenses for hotels and lodging houses, it is necessary for our inspectors to know of this legislation, when determining the suitability or otherwise of such buildings, so that work may not be done on the building without making sure that the Building Department know of any proposal to convert any building into an hotel or a lodging-house.

**By-law No. 13967—**

An amendment to the Zoning By-law further defining the powers and duties of the Zoning Board.



**By-law No. 13924—**

A by-law passed pursuant to the Zoning By-law, and creating Grosvenor Avenue between Wellington Crescent and Lilac Street an R. 1. district.

**By-law No. 13944—**

Creating Fleet Avenue, between Pembina Highway and Hugo Street an R. 1. district.

**By-law No. 13905—**

Creating a new large zoned area lying between Maryland Street and Raglan Road, Portage Avenue to the Assiniboine River, a zoned area.

**LEGISLATION REQUIRED****Plumbing—**

In September, 1928, I wrote your Committee pointing out that provisions in the former Building By-law dealing with the number and style of plumbing fixtures required in apartment blocks and hotels, and on which a good deal of dependence had been placed by the Health Department in obtaining proper sanitary conveniences in such buildings had been omitted from the new Building By-law passed in August, 1927. This left the Department with only the provisions contained in the Health By-law, now 23 years old, and not suitable for present day conditions. I enclosed a suggested amendment to the Health By-law specifying in detail the number of plumbing fixtures of various kinds which should be installed in various kinds of buildings. Your Committee referred this to a joint sub-committee of the Health and Safety Committees. This Sub-committee held several meetings and decided that these requirements regarding plumbing should be inserted in the Building By-law. I understand that the amendments were all approved, but the fact remains that they have not yet been enacted, although two years have elapsed since then. I would ask that your Committee enquire into the matter and take steps to forward this legislation, which is much needed.

**Mechanical and Chemical Refrigerators:**

We are still without any legislation, either Provincial or City, governing these installations. The Charter Legislation asked for by the City at the last Session of the Legislature, was as you know, opposed by the Winnipeg Board of Trade, who made a plea for Province-wide legislation, and inspection by the Province. The Minister of Public Works, at a session of the Law Amendment Committee of the Legislature undertook to go into the matter, and on this understanding the Charter Amendment asked for by the City was withdrawn.

**INSTALLATION OF PLUMBING**

The construction of new sewers and water mains keeps pace with the growth of the city. Always there are a few houses being built beyond the sewer and water lines. There were 42 notices served to install new



plumbing. There were 17 outside privies removed, but 17 new pit closets were built in connection with new houses where sewers are not yet available. Out of 520 new houses built, all were provided with plumbing except the 17 mentioned above. Outside closets still in use are as follows:

| December 31, 1929       |     | December 31, 1930       |     |
|-------------------------|-----|-------------------------|-----|
| Brick pit closets ..... | 265 | Brick pit closets ..... | 265 |
| Earth pit closets ..... | 1   | Earth pit closets ..... | 1   |
| Total .....             | 266 | Total .....             | 266 |

Since 1905 the reduction has been as follows:

|                         | Box<br>Closets | Earth<br>Pits | Brick<br>Pits | Total |
|-------------------------|----------------|---------------|---------------|-------|
| June 30, 1905 .....     | 6,153          | 186           | .....         | 6,339 |
| December 31, 1905 ..... | 3,182          | 80            | 1,020         | 4,282 |
| June 30, 1906 .....     | 2,255          | 747           | 1,325         | 4,327 |
| December 31, 1906 ..... | 1,105          | 662           | 1,626         | 3,393 |
| December 31, 1907 ..... | 80             | 201           | 1,535         | 1,816 |
| December 31, 1908 ..... | 25             | 103           | 1,492         | 1,620 |
| December 31, 1909 ..... | .....          | 53            | 1,432         | 1,485 |
| December 31, 1910 ..... | .....          | 52            | 1,300         | 1,352 |
| December 31, 1911 ..... | .....          | 47            | 1,171         | 1,218 |
| December 31, 1912 ..... | .....          | 31            | 1,014         | 1,045 |
| December 31, 1913 ..... | .....          | 39            | 838           | 877   |
| December 31, 1914 ..... | .....          | 18            | 648           | 666   |
| December 31, 1915 ..... | .....          | 14            | 504           | 518   |
| December 31, 1916 ..... | .....          | 9             | 447           | 456   |
| December 31, 1917 ..... | .....          | 11            | 442           | 453   |
| December 31, 1918 ..... | .....          | 5             | 421           | 426   |
| December 31, 1919 ..... | .....          | 6             | 438           | 444   |
| December 31, 1920 ..... | .....          | 1             | 402           | 403   |
| December 31, 1921 ..... | .....          | 1             | 399           | 400   |
| December 31, 1922 ..... | .....          | 1             | 358           | 359   |
| December 31, 1923 ..... | .....          | 1             | 351           | 352   |
| December 31, 1924 ..... | .....          | 2             | 339           | 341   |
| December 31, 1925 ..... | .....          | 2             | 318           | 320   |
| December 31, 1926 ..... | .....          | 3             | 303           | 306   |
| December 31, 1927 ..... | .....          | 2             | 290           | 292   |
| December 31, 1928 ..... | .....          | 2             | 271           | 273   |
| December 31, 1929 ..... | .....          | 1             | 265           | 266   |
| December 31, 1930 ..... | .....          | 1             | 265           | 266   |

#### EXTENSION OF SEWERS AND WATER MAINS

On completion of our Annual Census of outside closets the following list was prepared and sent to the Committee on Public Utilities:

# LIST OF STREETS WITH FOUR OR MORE HOUSES REQUIRING SEWERS OR WATER MAINS

December 31st, 1930

## 1—FORT ROUGE

| Street              | Block                        | Houses | Total | Remarks                                                                             |
|---------------------|------------------------------|--------|-------|-------------------------------------------------------------------------------------|
| Renfrew Street....  | Haskins to Jackson.....      | 1      |       | Sewer. No water main.                                                               |
| Renfrew Street....  | Jackson to Lemon .....       | 2      |       |                                                                                     |
| Renfrew Street....  | Lemon to Mathers .....       | 1      |       |                                                                                     |
|                     |                              | —      | 4     |                                                                                     |
| Lindsay Street .... | Haskins to Jackson .....     | 2      |       | 3 at Midland Rail-<br>way Shops.                                                    |
| Lindsay Street .... | Jackson to Lemon .....       | 1      |       |                                                                                     |
| Lindsay Street .... | Lemon to Mathers .....       | 6      |       | 1 at C.N.R. Signal<br>box.                                                          |
|                     |                              | —      | 9     |                                                                                     |
| Ash Street....      | G.T.P. tracks to C.N. tracks | 5      |       |                                                                                     |
|                     |                              | —      | 5     |                                                                                     |
| Cambridge St. ....  | Jackson to Scotland .....    | 8      |       |                                                                                     |
| Cambridge St. ....  | Scotland to Mathers ....     | 6      |       |                                                                                     |
|                     |                              | —      | 14    |                                                                                     |
| Fleet Ave. ....     | Guelph to Wilton .....       | 2      |       |                                                                                     |
| Fleet Ave. ....     | Wilton to Rockwood ....      | 2      |       |                                                                                     |
|                     |                              | —      | 4     |                                                                                     |
| Lorette Ave. ....   | Harrow to Guelph .....       | 4      |       | Sewer, Harrow to<br>Thurso. Advertised<br>Jan. 14, 1924. Not<br>proceeded with.     |
| Lorette Ave. ....   | Guelph to Wilton .....       | 1      |       |                                                                                     |
| Lorette Ave. ....   | Wilton to Rockwood ....      | 2      |       |                                                                                     |
|                     |                              | —      | 7     |                                                                                     |
| Scotland Ave. ....  | Harrow to Guelph .....       | 2      |       | Sewer, Harrow to<br>Rockwood. Adver-<br>tised Jan. 14, 1924.<br>Not proceeded with. |
| Scotland Ave. ....  | Guelph to Wilton .....       | 5      |       |                                                                                     |
| Scotland Ave. ....  | Wilton to Rockwood ....      | 2      |       |                                                                                     |
| Scotland Ave. ....  | Rockwood to Cambridge        | 3      |       |                                                                                     |
|                     |                              | —      | 12    |                                                                                     |
| Weatherdon Ave..    | Harrow to Guelph .....       | 8      |       |                                                                                     |
| Weatherdon Ave..    | Rockwood to Thurso ....      | 4      |       |                                                                                     |
| Weatherdon Ave..    | Nathaniel to Beaumont        | 1      |       |                                                                                     |
| Weatherdon Ave..    | Beaumont to Cambridge        | 2      |       |                                                                                     |
|                     |                              | —      | 15    |                                                                                     |
| Carter Ave. ....    | Harrow to Guelph .....       | 3      |       |                                                                                     |
| Carter Ave. ....    | Nathaniel to Beaumont..      | 1      |       |                                                                                     |
| Carter Ave. ....    | Beaumont to Cambridge        | 2      |       |                                                                                     |
|                     |                              | —      | 6     |                                                                                     |
| Hector Avenue ..    | Stafford to Harrow ....      | 9      |       |                                                                                     |
|                     |                              | —      | 9     |                                                                                     |
| Pembina Highway—    | (Scattered) .....            | 11     |       |                                                                                     |
|                     |                              | —      | 11    |                                                                                     |
| Ebby Ave. ....      | Wentworth to Stafford..      | 4      |       |                                                                                     |
| Ebby Ave. ....      | Beaumont to Cambridge        | 2      |       |                                                                                     |
|                     |                              | —      | 6     |                                                                                     |
|                     |                              |        | 102   |                                                                                     |



| Street                                                                                                               | Block                      | Houses | Total | Remarks              |
|----------------------------------------------------------------------------------------------------------------------|----------------------------|--------|-------|----------------------|
| On Streets with fewer than four houses,<br>or in which sewers or water mains have<br>recently been laid .....        |                            |        |       |                      |
|                                                                                                                      |                            |        | 29    |                      |
| Total.....                                                                                                           |                            |        | 131   |                      |
| <b>2—ASSINIBOINE RIVER TO HIGGINS AVE.</b>                                                                           |                            |        |       |                      |
| Centre St. ....                                                                                                      | Calder to Ellice .....     | 2      |       | Water main. No       |
| Centre St. ....                                                                                                      | Ellice to Sargent .....    | 3      |       | sewer.               |
|                                                                                                                      |                            | —      | 5     |                      |
| Keewatin St. ....                                                                                                    | Rapelje to St. Matthews    | 2      |       | Water main. No       |
| Keewatin St. ....                                                                                                    | St. Matthews to Ellice..   | 2      |       | sewer. Private sew-  |
| Keewatin St. ....                                                                                                    | William to Elgin .....     | 3      |       | er owned by T.       |
| Keewatin St. ....                                                                                                    | Logan to C. P. R. Main     |        |       | Jackson & Sons.      |
|                                                                                                                      | line .....                 | 1      |       | City sewer extends   |
|                                                                                                                      |                            | —      | 8     | to 150' N. of Galla- |
|                                                                                                                      |                            |        | 13    | gher only.           |
| On streets with fewer than four houses,<br>or in which sewers or water mains have<br>been recently constructed ..... |                            |        |       |                      |
|                                                                                                                      |                            |        | 26    |                      |
| Total .....                                                                                                          |                            |        | 39    |                      |
| <b>3—C.P.R. MAIN LINE TO NORTH CITY LIMITS</b>                                                                       |                            |        |       |                      |
| Atlantic Ave. ....                                                                                                   | Airlies to McPhillips..... | 4      |       |                      |
| Atlantic Ave. ....                                                                                                   | McPhillips to Fife .....   | 1      |       |                      |
|                                                                                                                      |                            | —      | 5     |                      |
| Bannerman Ave...                                                                                                     | C.P.R. Beach line to       |        |       |                      |
|                                                                                                                      | Airlies .....              | 2      |       |                      |
| Bannerman Ave...                                                                                                     | Airlies to McPhillips....  | 2      |       |                      |
|                                                                                                                      |                            | —      | 4     |                      |
| Boyd Ave. ....                                                                                                       | Prince to McPhillips.....  | 4      |       |                      |
|                                                                                                                      |                            | —      | 4     |                      |
| Kitchener Ave....                                                                                                    | Keewatin to Hearn St...    | 4      |       | (Dairies)            |
|                                                                                                                      |                            | —      | 4     |                      |
| Lansdowne Ave...                                                                                                     | Parr to Sinclair .....     | 4      |       |                      |
|                                                                                                                      |                            | —      | 4     |                      |
| Mountain Ave....                                                                                                     | McPhillips to Fife .....   | 6      |       | Water. No sewer.     |
|                                                                                                                      |                            | —      | 6     |                      |
|                                                                                                                      |                            |        | 27    |                      |
| On streets with fewer than four houses,<br>or in which sewers or water mains have<br>recently been laid .....        |                            |        |       |                      |
|                                                                                                                      |                            |        | 36    |                      |
| Total .....                                                                                                          |                            |        | 63    |                      |

## 4—ELMWOOD

| Street                                                                                                  | Block                               | Houses | Total | Remarks        |
|---------------------------------------------------------------------------------------------------------|-------------------------------------|--------|-------|----------------|
| Beach Ave. ....                                                                                         | Foster to Cameron .....             | 2      |       |                |
| Beach Ave. ....                                                                                         | Keenleyside to E. City Limits ..... | 3      |       |                |
|                                                                                                         |                                     | —      | 5     |                |
| Herbert Ave. ....                                                                                       | Foster to Green .....               | 6      |       | Water main. No |
| Herbert Ave. ....                                                                                       | Kent to Keenleyside.....            | 3      |       | sewer.         |
|                                                                                                         |                                     | —      | 9     |                |
|                                                                                                         |                                     |        | 14    |                |
| On Streets with fewer than four houses, or in which sewers or water mains have recently been laid ..... |                                     |        | 20    |                |
| Total .....                                                                                             |                                     |        | 34    |                |

## SUMMARY

|                                                                                                           |     |
|-----------------------------------------------------------------------------------------------------------|-----|
| Fort Rouge .....                                                                                          | 102 |
| Assiniboine River to Higgins Ave. ....                                                                    | 13  |
| C. P. R. Main Line to Northern City Limits .....                                                          | 27  |
| Elmwood .....                                                                                             | 14  |
|                                                                                                           | 156 |
| On streets with less than four houses, or in which sewers or water mains have recently been constructed.. | 110 |
| Total outside closets in use Dec. 31, 1930.....                                                           | 266 |

TABLE SHOWING ADDITIONS AND REMOVALS  
DURING 1930

|                                              |     |
|----------------------------------------------|-----|
| Outside closets in use, December, 1929 ..... | 266 |
| New closets built, 1930 .....                | 17  |
|                                              | 283 |
| Less closets removed during 1930 .....       | 17  |
| Remaining, December 31, 1930 .....           | 266 |

## HOUSING

There were 520 new houses built during the year, and 16 apartment blocks with a total of 256 suites. At the end of the year there were 587 houses vacant, and 1,046 suites.

Total houses in the city, 35,333, and apartment blocks 655, with 10,414 suites. Several new Zoning By-laws were passed during the year. Further details regarding housing will be found in the reports of the Chief Health Inspector and the Tenement Inspector.



### EDUCATIONAL WORK

As is usual, members of the staff have addressed various gatherings.

The usual course of lectures was arranged for the members of the staff with the following programme:

1929

Nov. 16—Introductory Address—Dr. A. J. Douglas, Medical Health Officer.

Nov. 23—"Some Notes on the Relation of Building Construction to Health."—Mr. A. Sandilands, Building Inspector.

Nov. 30—"Science in Modern Food Production"—Dr. W. J. Sharman.

Dec. 7—Visit to the Research Bureau of the T. Eaton Co., under direction of Mr. F. Pugh, Manager.

Dec. 14—"Water"—Dr. M. S. Loughheed, City Bacteriologist.

1930

Jan. 18—"Usefulness of Hospitals to a Community"—Mr. G. Stoker, Secretary to Hospital Commission.

Jan. 25—"Refuse Collection and Disposal"—Mr. E. A. Wood, Chief, Street Cleaning Division.

Feb. 1—"The Need of a National Health Service"—Mr. H. McIntyre, Prov. Health Inspector of Ontario, Cochrane, Ont. Read by Mr. E. W. J. Hague.

Feb. 8—"Safe Milk and Healthy Herds"—Mr. E. C. Brown, Chief Dairy Inspector.

Feb. 15—"A Talk on Cancer"—Dr. N. J. MacLean.

Feb. 22—"The Effect of Noises on Health and Efficiency."—Mr. E. W. J. Hague, Chief Health Inspector.

Mar. 1—"Modern Practice in the Control of Communicable Diseases"—Mr. W. J. T. Watt, Chief, Communicable Diseases Division.

Mar. 8—"The Reductase Test" (talk and demonstration)—Mr. J. M. Jackson, Dairy Inspector.

Mar. 15—"Cross Connections in Water Supplies"—Mr. W. MacFarlane, Plumbing Inspector.

Mar. 22—Social Evening.

### STAFF

Early in the year the Department sustained a very greivous loss in the death of Mr. Arthur Rigby, Chief Food Inspector. Mr. Rigby was a man of distinction who would have made his mark in any field he had



chosen to enter. The city was fortunate in benefiting by his services over a period of eighteen years. He had some training in food inspection before he entered the service and was attached to the Food Division as Inspector under Mr. Tustin for a number of years. On Mr. Tustin's retirement in 1919, Mr. Rigby was placed in charge of this Division. He passed the examination of the Royal Sanitary Institute for inspection of meats and other foods, and from the time of his appointment to his death gave unstintingly of the best that was in him to improve the food supply of Winnipeg in its many ramifications. His work was of equal benefit to the consumer, producer and middle man. A student and an investigator, he brought into service the most approved methods for safety and control. He had more than a local reputation and was continually being consulted by outsiders regarding matters pertaining to his specialty. Mr. Rigby was a man of great personal charm—kindly, generous and sympathetic—a gentleman in the finest sense of the word. His passing came to every one who knew him as a shock and a disaster. This was particularly the case with those of us who had the honor of working with him. His memory will be cherished by all of us as that of one whose work survives, and whose ideals we hope to carry on.

Mr. A. W. Foote, who has been a member of the Food Division ever since its foundation, was appointed as Mr. Rigby's successor.

Mr. S. J. Scheving of the Division of Sanitation, retired on pension during the year, after twenty-five years faithful and meritorious service. Mr. Scheving was one of the most popular members of the staff. Nature blessed him with keen sense of humor, and a high degree of tact. He carried on his duties with a minimum of friction yet very efficiently. Mr. Scheving saw the Department grow from small beginnings and bore his part in many campaigns for sanitary betterment. We regret that his retirement became necessary through his reaching the age limit.

Mr. R. McQuillan was transferred from the Sanitary to the Food Division.

Mr. E. Flattery resigned from the Department to take another position. He was with us only eleven months.

Messrs. D. G. Johnson and E. Officer were appointed to the Sanitary Division during the year, and Mr. L. G. Williams to the Communicable Diseases Division.

Mr. G. W. Kelly was transferred from the Communicable Diseases to the Sanitary Division.

In conclusion I desire to express to the members of the staff my very 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 Bacteriologist

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

Dear Sir:

I have the honor to submit a report of the work performed in the Bacteriological Laboratory for the year ending December 31, 1930.

The work done is shown in the following table and for comparison the totals of the preceding three years are added.

| 1930             | Cultures for<br>Diphtheria | Sputa for T.B. | Urethral Smears | Widals for<br>Typhoid | Water | Milk and Cream | Urinalyses | Miscellaneous | Vaccinations | Total Examinations<br>per Month |
|------------------|----------------------------|----------------|-----------------|-----------------------|-------|----------------|------------|---------------|--------------|---------------------------------|
|                  | Pos.                       | Pos.           | Pos.            | Pos.                  |       |                |            |               |              |                                 |
| January.....     | 707—15                     | 32—6           | 21—2            | 0—0                   | 106   | 145            | 12         | 11            | 13           | 1047                            |
| February.....    | 1081—26                    | 31—2           | 18—3            | 4—2                   | 88    | 152            | 21         | 10            | 17           | 1422                            |
| March.....       | 395—4                      | 39—5           | 21—0            | 1—0                   | 98    | 162            | 19         | 7             | 9            | 751                             |
| April.....       | 285—7                      | 45—0           | 25—5            | 0—0                   | 110   | 167            | 16         | 4             | 49           | 701                             |
| May.....         | 447—2                      | 34—5           | 29—2            | 4—0                   | 107   | 151            | 22         | 4             | 575          | 1373                            |
| June.....        | 998—8                      | 40—3           | 5—0             | 0—0                   | 98    | 144            | 14         | 6             | 66           | 1371                            |
| July.....        | 2008—13                    | 23—7           | 14—2            | 1—0                   | 119   | 135            | 6          | 5             | 4            | 2315                            |
| August.....      | 1340—2                     | 27—1           | 23—3            | 2—0                   | 107   | 125            | 4          | 2             | 4            | 1634                            |
| September.....   | 334—1                      | 22—1           | 72—3            | 6—2                   | 119   | 271            | 11         | 4             | 16           | 855                             |
| October.....     | 298—0                      | 63—1           | 32—1            | 19—4                  | 123   | 287            | 15         | 5             | 15           | 857                             |
| November.....    | 413—13                     | 31—2           | 15—0            | 2—2                   | 109   | 130            | 10         | 8             | 20           | 738                             |
| December.....    | 307—0                      | 28—4           | 29—2            | 4—0                   | 119   | 99             | 13         | 37            | 7            | 643                             |
| 1930 Totals..... | 8613—91                    | 415—37         | 304—23          | 43—10                 | 1303  | 1968           | 163        | 103           | 795          | 13707                           |
| 1929 ".....      | 9374—228                   | 390—35         | 375—40          | 35—7                  | 1231  | 1719           | 176        | 89            | 892          | 14281                           |
| 1928 ".....      | 11478—334                  | 500—51         | 403—45          | 34—4                  | 715   | 2029           | 240        | 94            | 1302         | 16795                           |
| 1927 ".....      | 10161—441                  | 582—62         | 337—34          | 22—5                  | 788   | 2116           | 277        | 94            | 1187         | 15582                           |

## WATER

During the year 1,303 samples of water were tested bacteriologically. Enumeration of colonies of micro-organisms on agar was done on each specimen as well as inoculating broth cultures for gas formers.

The samples were drawn from the following sources:

1. Domestic supply. Tap water from this laboratory was tested daily.

2. The river mains. Twice a week samples are taken, two for Elmwood, two for Fort Rouge and two for River Heights. These totalled 665 for the year.

3. The public swimming baths. Pritchard Avenue, Y.M.C.A. and Y.W.C.A. were tested weekly while open, and from the Sutherland Avenue Mission and Stella Avenue Mission baths, periodically. These totalled 133 samples.

4. Samples from private residences, hotels, etc., totalled 140.

### MILK AND CREAM

The number of samples examined totalled 1,968. These were examined for butter fat content and the milk for water and solids in addition. There were 579 bacterial counts made which varied from 1,000 to over 100,000 colonies per c.c. There were 1,805 samples of milk, 161 of cream and 2 of ice cream.

1. Dairy Inspectors brought in 1,742 samples of milk and 120 of cream.

2. The Bureau of Child Hygiene sent in 38 samples of milk and 19 of cream.

3. Private individuals submitted 25 samples of milk, 22 of cream and 2 of ice cream.

### DIPHTHERIA CULTURES

Cultures examined for the Diphtheria bacillus totalled 8,613. The organism was found in 91 cultures, a very low number compared with previous years. An additional interesting fact is that in two months of the year, namely October and December, no positive cultures were obtained.

These cultures were made for Doctors, Nurses, Health Inspectors, School Nurses, Margaret Scott Nursing Mission Nurses and others.

### WIDALS FOR TYPHOID FEVER

Blood examination for agglutination of Typhoid and Paratyphoid bacilli totalled 43 with 10 giving a positive reaction.

### URETHRAL SMEARS

These totalled 304 for the year. These smears are sent in by Doctors.

### URINALYSES

These totalled 163. Specimens are sent in for examination by Doctors, Nurses, Insurance Companies, the Bureau of Child Hygiene, and by private individuals. The tests required are chemical, microscopical, sugar estimations, and for tubercle bacilli.



### VACCINATIONS

These gave a total of 795. The source of individuals making the list was as follows:

1. Children up to and including those of school age on request of parents or guardians.
2. Contacts with cases of Smallpox.
3. Employees of railroads and large stores who are required to have certificates of vaccination.

### DISPENSARY WORK

Adults come for free medical advice. The more serious have been referred to hospitals. House calls have been made and these cases disposed of at the time, if necessary, by having the patient transferred to hospital.

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

In conclusion, I wish to express my appreciation for the manner in which Miss Wilson, the Assistant, and Mr. Bentham, the Attendant, have fulfilled their respective duties.

Respectfully submitted,

M. S. LOUGHEED,

City Bacteriologist.

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# Report of Chief of Division of Communicable Diseases

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

Dear Sir:

I have the honor to submit herewith report on the work done by this Division during the year 1930.

The work of this Division includes Tuberculosis Visiting, Medical Relief and Preventive work done in City Schools. Tables and summaries have been prepared showing the activities of each branch; these are appended to this report.

The total number of communicable diseases reported for the year was four thousand five hundred and fifty-two against nine thousand one hundred and thirty-four for 1929. The subsidence of the Measles epidemic is largely responsible for this reduction in cases, and with the exception of Chickenpox all other diseases are favorably reported upon for the year.

It might be generally said that the major infections never threatened at any time to get out of hand. Occasionally we were called upon to check closely for unrecognized cases. This was necessary in the cases of Smallpox discovered in May, and Scarlet Fever during the month of October, when two outbreaks occurred; one in the West end and the other in Ward three.

Chickenpox, Mumps and Whooping Cough were well reported, the latter two show a falling off during the summer and fall months.

Diphtheria prevention in the schools was carried on as usual. All schools, grades one and two, were systematically covered during the spring and early summer months. We also completed all schools with vaccination against Smallpox during the fall months.

The total number of calls necessary to confirm diagnosis of cases reported by parents not calling in a physician and cases reported by School visiting nurses was 391 against 504 during 1929.

## INSPECTORS' REPORTS

The total number of visits made by Inspectors of this Division was six thousand and fifty-eight; this includes a total of 1,947 "other calls," the majority of these being made in connection with Toxoid administration and vaccination in the Schools. Inspectors investigated and report-



ed upon 3,593 new cases necessitating the placing in quarantine 3,134 homes.

Quarantine inspections totalled 412 as compared with 728 for 1929. This is a low figure and is brought about largely as the result of hospitalizing our cases of Diphtheria and Scarlet Fever.

Inspectors supervised or attended to the disinfection of bedding, etc., in 730 homes; sprayed 153 rooms, and eight houses; this is done usually in homes where tuberculosis exists or has been removed from.

School certificates were issued to 787 children. This procedure is not new but it was felt that we ought to have some record of the number issued outside as well as in the office.

The issuing of these certificates saves time and trouble in many cases as it allows the child to continue at school without loss of time; and does away with the necessity of going to the Health Office for a clearance.

#### TUBERCULOSIS VISITING NURSES

Three nurses attached to this Division continue to give full time to this branch of the work. Summarized reports of work done are attached to this report and show that they have had quite a busy year.

The total number of cases and deaths from Tuberculosis is summarized as follows: Cases 231, deaths 97.

|                        | WARDS  |        |        | Institu- | Non-     |         |
|------------------------|--------|--------|--------|----------|----------|---------|
|                        | 1      | 2      | 3      | tional   | Resident | Total   |
| Cases .....            | 29     | 82     | 93     | 2        | 25       | 231     |
| Deaths .....           | 14     | 38     | 31     | ....     | 14       | 97      |
| Population, 1930 ..... | 63,255 | 69,503 | 76,528 | ....     | ....     | 209,286 |

#### Mortality Rates per 100,000 population by Wards

|            | WARDS |      |      |
|------------|-------|------|------|
|            | 1     | 2    | 3    |
| 1930 ..... | 22.1  | 54.6 | 40.5 |
| 1929 ..... | 24.5  | 35.0 | 43.7 |
| 1928 ..... | 24.7  | 28.3 | 30.7 |

#### Morbidity Rates per 100,000 population by wards

|            | WARDS |       |       |
|------------|-------|-------|-------|
|            | 1     | 2     | 3     |
| 1930 ..... | 45.8  | 117.9 | 121.5 |
| 1929 ..... | 83.3  | 105.1 | 110.0 |
| 1928 ..... | 51.1  | 122.4 | 94.8  |

The outstanding point in these tables is the doubling of the death rate in Ward two in 3 years while the case rate is little changed and lower as may be seen by referring to the above table. Cases reported in Wards two and three outnumbered Ward one by almost 3 to 1.

To properly distribute the work of the nurses, districts are formed and on this basis, the summaries and tables are submitted.

These Districts are as follows:

**District 1.** Includes all Ward One and part of Ward Two, North Boundary being South side of William Avenue to Arlington Street, Notre Dame to West Limits.

**District 2.** Includes parts of Wards Two and Three, North limit, Burrows South, East limit Main Street, South Limit William Avenue West to Arlington Street and Notre Dame to West Limits.

**District 3.** North limits to Burrows Avenue North and West. All East of Main Street to Market Ave., including Elmwood.

**Summary of cases and deaths as they appear in each district:**

|                       | DISTRICT |    |    | Institu-<br>tional                                                  | Non-<br>Resident | Total |
|-----------------------|----------|----|----|---------------------------------------------------------------------|------------------|-------|
|                       | 1        | 2  | 3  |                                                                     |                  |       |
| Cases .....           | 70       | 68 | 66 | 2                                                                   | 25               | 231   |
| Positive (open) ..... | 52       | 35 | 29 |                                                                     |                  |       |
| Clinically Pos. ....  | 18       | 33 | 37 |                                                                     |                  |       |
| Deaths .....          | 38       | 18 | 25 | In City.                                                            |                  |       |
| Deaths .....          | 11       | 7  | 7  | Citizens outside the City.                                          |                  |       |
| Deaths .....          | 4        | 1  | 5  | On our records as Tuberculosis.<br>Death registered "other causes." |                  |       |

**Visiting List:** Cases on visiting list for 1930:

|                          | DISTRICT |     |     | Total |
|--------------------------|----------|-----|-----|-------|
|                          | 1        | 2   | 3   |       |
| Cases .....              | 124      | 242 | 164 | 530   |
| Non Visiting (New) ..... | 35       | 3   | 3   | 41    |

**Summary:** Showing number and classification of patients in each District:

|                  | Total | Clinically |          | Suspect | Family  |
|------------------|-------|------------|----------|---------|---------|
|                  |       | Positive   | Positive |         | Contact |
| District 1 ..... | 124   | 58         | 48       | 3       | 15      |
| District 2 ..... | 242   | 85         | 89       | 21      | 47      |
| District 3 ..... | 164   | 34         | 85       | 24      | 21      |

**Cases in Hospitals and Sanitorium:** As they appear at end of the year on our records:

|                                     | DISTRICT |    |    |
|-------------------------------------|----------|----|----|
|                                     | 1        | 2  | 3  |
| King Edward Memorial Hospital ..... | 28       | 22 | 37 |
| Ninette Sanitorium .....            | 18       | 4  | 7  |
| St. Roch's Hospital .....           | 5        | 5  | 6  |



Table showing Sex and age incidence of cases and deaths notified during 1930:

| Age Period   | CASES |               | DEATHS |              |
|--------------|-------|---------------|--------|--------------|
|              | Male  | Female        | Male   | Female       |
| 0-10 .....   | 11    | 9             | 2      | 1            |
| 11-20 .....  | 14    | 15            | 3      | 6            |
| 21-30 .....  | 25    | 38            | 4      | 20           |
| 31-40 .....  | 27    | 8             | 12     | 5            |
| 41-50 .....  | 21    | 8             | 13     | 6            |
| 51-60 .....  | 10    | 4             | 1      | 4            |
| 61-70 .....  | 11    | ....          | 2      | 3            |
| 71-80 .....  | 1     | 2             | ....   | 1            |
|              |       | Non-resident  |        | Non-resident |
|              |       | Institutional |        |              |
| Totals ..... | 120   | 84            | 37     | 46           |
|              |       | 25            |        | 14           |
|              |       | 2             |        |              |

Deaths showing length of time known to the Department. Of the 83 deaths registered in the City 50 are summarized as follows:

|                              | DISTRICT |      |      | Total |
|------------------------------|----------|------|------|-------|
|                              | 1        | 2    | 3    |       |
| Death Registration .....     | 17       | 1    | 5    | 23    |
| Under 1 month .....          | ....     | 9    | 3    | 12    |
| 1 month .....                | 1        | 2    | 1    | 4     |
| 2 months .....               | ....     | .... | 1    | 1     |
| 3 months .....               | 2        | 3    | .... | 5     |
| 4 months .....               | ....     | .... | .... | ....  |
| 5 months .....               | 1        | 1    | 1    | 3     |
| 6 months .....               | 1        | .... | 1    | 2     |
| Totals .....                 | 22       | 16   | 12   | 50    |
| On Record over 6 months .... |          |      |      | 33    |

#### NATIONALITY OF CASES REPORTED DURING 1930

|                        | DISTRICT |      |      | Total |
|------------------------|----------|------|------|-------|
|                        | 1        | 2    | 3    |       |
| American .....         | 3        | 2    | 4    | 9     |
| Austrian .....         | ....     | 4    | 1    | 5     |
| Canadian .....         | 31       | 8    | 9    | 48    |
| Czecho-Slovakian ..... | ....     | .... | 1    | 1     |
| Chinese .....          | ....     | 1    | 2    | 3     |
| Danish .....           | 1        | .... | .... | 1     |
| Dutch .....            | ....     | 1    | .... | 1     |
| English .....          | 13       | 3    | 2    | 18    |
| Finlander .....        | ....     | 1    | .... | 1     |
| French .....           | ....     | .... | 1    | 1     |
| German .....           | ....     | 2    | 4    | 6     |
| Hungarian .....        | ....     | .... | 1    | 1     |

|                     | DISTRICT |      |      | Total |
|---------------------|----------|------|------|-------|
|                     | 1        | 2    | 3    |       |
| Icelandic .....     | 2        | .... | .... | 2     |
| Irish .....         | 6        | 4    | 2    | 12    |
| Italian .....       | 1        | .... | .... | 1     |
| Jewish .....        | 1        | 6    | 6    | 13    |
| Norwegian .....     | ....     | 2    | .... | 2     |
| Polish .....        | 1        | 17   | 3    | 21    |
| Russian .....       | ....     | 2    | 3    | 5     |
| Ruthenian .....     | ....     | .... | 6    | 6     |
| Scotch .....        | 9        | 4    | 5    | 18    |
| Swedish .....       | 1        | .... | .... | 1     |
| Ukrainian .....     | 1        | 11   | 16   | 28    |
| Non-resident .....  |          |      |      | 25    |
| Institutional ..... |          |      |      | 2     |
| Total .....         |          |      |      | 231   |

Summaries showing total attendance at the Winnipeg General Hospital and Children's Hospital Chest Clinic are attached to this report.

The nurses continue to assist at these Clinics. A slight increase in number of new cases attending over the figure for 1929 are shown.

### DISTRICT VISITING

The total number of visits made is slightly more than that made for the preceding year, viz. 5,200 as compared with 5,155. They arranged for the sending of 40 patients to the King Edward Memorial Hospital, twelve to St. Roch's Hospital and nine to Ninette Sanatorium. Other phases of this work received the customary attention and include a free milk list of fifty-five patients; the passing along many calls for relief to the various Social Agencies, the supplying of material necessary in the care of patients living at home, the supervising of living conditions and applying the necessary remedy where conditions are found unsuitable, these and many other duties devolve upon the visiting nurse.

It is the earnest wish of this Division to show progress in the work from year to year. More and more we endeavor to bring forward for medical examination the contacts of known cases. The follow up part of the work is most important as is evidenced by the number of infected children sometimes found in the home of a neglected or careless patient; in the contacts of one home recently was found six infected members in one family.

In conclusion we wish to place on record, once again, our sincere appreciation for the assistance given, in our Medical Relief work, by the Nurses of the Margaret Scott Nursing Mission. In the work of administering Toxoid and Vaccination and notification of suspect communic-



able diseases in School Children, we are indebted to the Medical Inspection Department of Public Schools. To the Social Welfare Commission, for the attention given to needy patients, we are also indebted. The staff of the Municipal Hospital have continued to give splendid service to this Branch of the Health Department's activities; at all times willing and anxious to assist us and at any time pull us out of some of the dilemmas we find ourselves in. This and the happy associations with the physicians and neighboring Hospitals and institutions has made possible the satisfactory records of the past year.

Yours obediently,

W. J. T. WATT,

Chief, Division of Communicable Diseases.

## COMMUNICABLE DISEASES—1930

| DISEASES               | Jan.  |        | Feb.  |        | Mar.  |        | April |        | May   |        | June  |        | July  |        | Aug.  |        | Sept. |        | Oct.  |        | Nov.  |        | Dec.  |        | Totals<br>1930 |        | Totals<br>1929 |     |
|------------------------|-------|--------|-------|--------|-------|--------|-------|--------|-------|--------|-------|--------|-------|--------|-------|--------|-------|--------|-------|--------|-------|--------|-------|--------|----------------|--------|----------------|-----|
|                        | 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 |       |        |       |        |       |        |       |        |       |        |       |        |       |        |       |        |       |        |       |        |       |        |       |        |                |        |                |     |
| Cerebro S. Fever       | 2     |        | 1     |        |       |        |       |        |       |        |       |        |       |        |       |        |       |        |       |        |       |        |       |        | 19             | 5      |                |     |
| Chickenpox             | 144   |        |       |        | 31    |        | 1     |        |       |        |       |        |       |        |       |        |       |        |       |        |       |        |       |        | 1              |        |                |     |
| Diphtheria             | 49    | 3      | 41    | 2      | 24    |        | 64    |        | 136   |        | 180   |        | 58    |        | 15    |        | 27    |        | 88    |        | 199   |        | 278   |        | 1301           |        |                |     |
| Diphtheria Carriers    | 4     |        | 18    |        | 5     |        | 2     |        | 20    |        | 40    |        | 26    |        | 21    |        | 14    |        | 30    |        | 35    |        | 1     |        | 343            |        |                |     |
| Erysipelas             | 7     |        | 9     | 2      | 19    | 2      | 4     |        | 8     |        | 5     |        | 5     |        | 1     |        | 1     |        | 1     |        | 5     |        | 3     |        | 58             |        |                |     |
| Influenza              | 3     | 2      | 2     | 2      | 2     | 2      | 2     |        | 10    |        | 5     |        | 5     |        | 1     |        | 1     |        | 7     |        | 2     |        | 11    |        | 81             |        |                |     |
| Leth. Encephalitis     |       |        |       |        |       |        |       |        | 2     |        |       |        |       |        | 1     |        |       |        |       |        | 1     |        | 3     |        | 16             |        |                |     |
| Measles                | 18    |        | 36    | 1      | 63    | 3      | 75    | 1      | 69    |        | 125   |        | 29    | 1      | 5     |        |       |        | 3     | 1      | 6     |        | 26    |        | 461            |        |                |     |
| Mumps                  | 114   |        | 107   |        | 110   |        | 123   |        | 130   |        | 121   |        | 23    |        | 5     |        | 18    |        | 15    |        | 30    |        | 72    |        | 868            |        |                |     |
| Puerperal Fever        | 2     | 2      |       |        | 1     | 1      |       |        | 1     |        | 2     |        |       |        |       |        | 1     |        | 1     |        |       |        |       |        |                |        |                |     |
| Scarlet Fever          | 27    |        | 35    | 2      | 23    | 1      | 23    |        | 14    |        | 15    |        | 9     |        | 16    |        | 30    |        | 55    |        | 46    |        | 34    |        | 327            |        |                |     |
| Smallpox               |       |        | 1     |        |       |        |       |        | 5     |        |       |        |       |        |       |        |       |        |       |        |       |        |       |        | 6              |        |                |     |
| Tuberculosis, Pul.     | 13    | 10     | 18    | 6      | 30    | 11     | 17    | 10     | 26    | 8      | 22    | 7      | 21    | 9      | 21    | 4      | 16    | 6      | 19    | 9      | 7     | 5      | 21    | 12     | 231            |        |                |     |
| Typhoid Fever          |       |        | 1     |        |       |        | 1     |        | 1     |        | 1     |        | 1     |        | 2     |        | 4     |        | 2     |        | 2     |        |       |        | 15             |        |                |     |
| Whooping Cough         | 89    |        | 152   | 1      | 126   | 2      | 108   | 2      | 108   | 2      | 87    | 2      | 32    | 2      | 28    |        | 35    | 2      | 16    |        | 10    | 1      | 29    |        | 820            |        |                |     |
|                        | 472   | 17     | 502   | 19     | 436   | 22     | 435   | 18     | 530   | 13     | 603   | 16     | 210   | 12     | 117   | 5      | 157   | 10     | 239   | 12     | 344   | 8      | 507   | 15     | 4552           | 167    | 9134           | 202 |



## COMMUNICABLE DISEASES—1930

|                             | CASES |       |       |          |       | DEATHS      |       |       |       |          |       |              |
|-----------------------------|-------|-------|-------|----------|-------|-------------|-------|-------|-------|----------|-------|--------------|
|                             | WARDS |       |       | Non-Res. | Inst. | TOTAL CASES | WARDS |       |       | Non-Res. | Inst. | TOTAL DEATHS |
|                             | 1     | 2     | 3     |          |       |             | 1     | 2     | 3     |          |       |              |
| Anterior Poliomyelitis..... | 3     | 1     | ..... | 5        | ..... | 9           | 1     | ..... | ..... | 1        | ..... | 2            |
| Cerebro-Spinal Fever.....   | ..... | 1     | 1     | 4        | ..... | 6           | ..... | ..... | ..... | 2        | ..... | 2            |
| Chickenpox.....             | 461   | 393   | 406   | 10       | 31    | 1301        | ..... | ..... | ..... | .....    | ..... | .....        |
| Diphtheria.....             | 85    | 119   | 76    | 50       | 13    | 343         | 4     | 1     | 2     | 6        | 1     | 14           |
| Diphtheria Carriers.....    | 8     | 14    | 4     | 7        | 25    | 58          | ..... | ..... | ..... | .....    | ..... | .....        |
| Erysipelas.....             | 12    | 30    | 17    | 12       | 10    | 81          | ..... | 2     | ..... | 3        | ..... | 5            |
| Influenza.....              | 6     | 5     | 5     | .....    | ..... | 16          | 6     | 3     | 5     | .....    | ..... | 14           |
| Lethargic Encephalitis..... | 1     | ..... | 1     | .....    | ..... | 2           | 1     | ..... | 1     | .....    | ..... | 2            |
| Measles.....                | 127   | 104   | 169   | 13       | 48    | 461         | ..... | 3     | ..... | 3        | ..... | 6            |
| Mumps.....                  | 78    | 245   | 484   | 12       | 49    | 868         | ..... | ..... | ..... | .....    | ..... | .....        |
| Puerperal Fever.....        | 4     | 2     | 1     | 1        | ..... | 8           | 4     | 2     | 1     | 1        | ..... | 8            |
| Scarlet Fever.....          | 62    | 90    | 110   | 49       | 16    | 327         | ..... | ..... | ..... | 3        | ..... | 3            |
| Smallpox.....               | ..... | 5     | ..... | 1        | ..... | 6           | ..... | ..... | ..... | .....    | ..... | .....        |
| Pulmonary Tuberculosis..... | 29    | 82    | 93    | 25       | 2     | 231         | 14    | 38    | 31    | 14       | ..... | 97           |
| Typhoid Fever.....          | 2     | 2     | 2     | 9        | ..... | 15          | ..... | ..... | ..... | .....    | ..... | .....        |
| Whooping Cough.....         | 184   | 423   | 179   | 13       | 21    | 820         | 2     | 5     | 3     | 4        | ..... | 14           |
|                             | 1062  | 1516  | 1548  | 211      | 215   | 4552        | 32    | 54    | 43    | 37       | 1     | 167          |

## NOTIFIED DEATHS FROM COMMUNICABLE DISEASES, BY AGE AND SEX, 1930

[illegible]



NOTIFIED CASES OF COMMUNICABLE DISEASES, BY AGE AND SEX, 1930

|                        | 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. | 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       |       | 2         | 3     | 1           |       |             |       | 1           |       |             |       |             |       |             |       |                  |       | 6        | 3     | 9    |
| Cerebro-Spinal Fever   | 1            |       |        |       |         |       |         |       |         |       |           |       | 1           |       | 1           | 1     | 1           |       |             |       |             |       |             |       |                  |       | 4        | 2     | 6    |
| Chickenpox             | 22           | 26    | 20     | 24    | 19      | 19    | 31      | 33    | 34      | 30    | 424       | 399   | 80          | 93    | 11          | 15    | 5           | 10    | 1           | 3     | 2           |       |             |       |                  |       | 649      | 652   | 1301 |
| Diphtheria             | 3            | 3     | 5      | 10    | 6       | 16    | 12      | 8     | 13      | 7     | 36        | 48    | 19          | 21    | 8           | 23    | 14          | 35    | 9           | 22    | 4           | 13    | 2           | 5     |                  | 1     | 131      | 212   | 343  |
| Diphtheria Carriers    | 5            | 5     | 1      | 2     | 2       | 3     | 2       | 1     | 3       | 1     | 5         | 6     | 4           | 4     | 2           |       |             | 5     | 1           |       | 1           | 2     | 1           | 2     |                  |       | 25       | 33    | 58   |
| Erysipelas             | 2            | 3     |        |       |         | 2     |         |       |         | 1     | 1         |       | 2           |       |             |       | 4           | 3     | 7           | 10    | 7           | 5     | 18          | 6     | 4                | 44    | 37       | 81    |      |
| Influenza              |              |       |        |       |         |       |         |       |         |       |           |       |             |       |             |       |             | 1     |             | 1     | 2           | 2     | 3           |       | 3                | 4     | 8        | 16    |      |
| Lethargic Encephalitis |              |       |        |       |         |       |         |       |         |       |           |       |             |       |             |       |             |       | 1           |       |             |       | 1           |       |                  | 2     |          | 2     |      |
| Measles                | 9            | 14    | 23     | 27    | 23      | 16    | 20      | 28    | 34      | 24    | 89        | 107   | 9           | 8     | 4           | 8     | 4           | 8     | 3           | 1     | 1           |       |             | 1     |                  | 219   | 242      | 461   |      |
| Mumps                  | 3            |       | 1      | 8     | 15      | 6     | 13      | 10    | 8       | 15    | 287       | 260   | 86          | 77    | 10          | 19    | 11          | 20    | 4           | 7     | 3           | 4     | 1           |       |                  | 442   | 426      | 868   |      |
| Puerperal Septicemia   |              |       |        |       |         |       |         |       |         |       |           |       |             |       |             | 1     |             |       |             | 2     |             | 5     |             |       |                  |       | 8        | 8     |      |
| Scarlet Fever          |              |       | 1      | 2     | 9       | 7     | 8       | 15    | 13      | 12    | 63        | 73    | 32          | 29    | 17          | 11    | 9           | 11    | 5           | 6     |             | 3     | 1           |       |                  | 158   | 169      | 327   |      |
| Smallpox               |              |       |        |       |         |       |         |       |         |       |           |       | 2           |       |             |       |             | 1     | 3           |       |             |       |             |       |                  | 5     | 1        | 6     |      |
| Pulmonary Tuberculosis | 2            |       |        |       |         | 1     |         | 2     |         |       | 6         | 5     | 4           | 4     | 9           | 11    | 12          | 23    | 37          | 28    | 22          | 12    | 30          | 10    | 8                | 3     | 130      | 101   | 231  |
| Typhoid Fever          |              |       |        |       |         |       |         |       |         |       |           |       | 2           |       | 2           |       | 1           |       | 2           |       | 2           | 2     | 2           | 1     | 1                |       | 12       | 3     | 15   |
| Whooping Cough         | 31           | 31    | 31     | 26    | 36      | 43    | 38      | 42    | 36      | 44    | 216       | 200   | 16          | 22    |             | 2     |             | 2     |             | 1     |             | 3     |             |       |                  | 404   | 416      | 820   |      |

## COMMUNICABLE DISEASES

|                              | 1930  |        |                  |                    | 1929  |        |                  |                    | 1928  |        |                  |                    | 1927  |        |                  |                    |
|------------------------------|-------|--------|------------------|--------------------|-------|--------|------------------|--------------------|-------|--------|------------------|--------------------|-------|--------|------------------|--------------------|
|                              | Cases | Deaths | Rate per 100,000 | Rate per 100 Cases | Cases | Deaths | Rate per 100,000 | Rate per 100 Cases | Cases | Deaths | Rate per 100,000 | Rate per 100 Cases | Cases | Deaths | Rate per 100,000 | Rate per 100 Cases |
| Anterior Poliomyelitis.....  | 9     | 2      | .95              | 22.2               | 19    | 5      | 2.4              | 26.3               | 279   | 17     | 8.4              | 6.1                | 4     | 1      |                  |                    |
| Cerebro-Spinal Fever.....    | 6     | 2      | .95              | 20.0               | 1     |        |                  |                    | 8     | 3      | 1.5              |                    | 8     | 2      |                  |                    |
| Chickenpox.....              | 1301  |        |                  |                    | 1155  |        |                  |                    | 997   |        |                  |                    | 1018  |        |                  |                    |
| Diphtheria.....              | 343   | 14     | 6.7              | 4.08               | 475   | 21     | 10.2             | 4.4                | 605   | 22     | 10.9             | 3.6                | 542   | 34     | 17.1             | 6.2                |
| Diphtheria Carriers.....     | 58    |        |                  |                    | 53    |        |                  |                    | 72    |        |                  |                    | 142   |        |                  |                    |
| Erysipelas.....              | 81    | 5      | 2.4              | 6.2                | 108   | 13     | 6.3              | 12.0               | 101   | 7      | 3.4              | 6.9                | 93    | 7      | 3.5              | 7.5                |
| Influenza.....               | 16    | 14     | 6.7              | 87.5               | 48    | 27     | 13.1             | 56.2               | 48    | 24     | 11.8             | 50.0               | 42    | 42     |                  |                    |
| Lethargic Encephalitis.....  | 2     | 2      | .95              |                    | 3     | 3      | 1.5              |                    | 4     | 4      | 2.0              |                    | 4     | 4      |                  |                    |
| Measles.....                 | 461   | 6      | 2.9              | 1.3                | 4658  | 19     | 9.3              | .4                 | 1595  | 7      | 3.4              | .4                 | 456   | 3      | 1.5              | .6                 |
| Mumps.....                   | 868   |        |                  |                    | 905   | 1      |                  |                    | 411   |        |                  |                    | 290   |        |                  |                    |
| Puerperal Fever.....         | 8     | 8      | 3.8              |                    | 9     | 9      | 4.4              |                    | 10    | 10     | 4.9              |                    | 6     | 6      |                  |                    |
| Scarlet Fever.....           | 327   | 3      | 1.4              | .9                 | 512   | 6      | 2.9              | 1.2                | 764   | 3      | 1.5              | .4                 | 885   | 6      | 3.0              | .67                |
| Smallpox.....                | 6     |        |                  |                    | 13    |        |                  |                    | 20    |        |                  |                    | 48    |        |                  |                    |
| Tuberculosis of Lungs.....   | 231   | 97     | 46.3             | 42.0               | 229   | 83     | 40.5             | 36.2               | 209   | 73     | 36.1             | 34.9               | 229   | 74     | 37.2             | 32.3               |
| Tuberculosis, all forms..... |       | 131    | 62.6             |                    |       | 116    | 56.6             |                    |       | 114    | 56.3             |                    |       | 93     | 46.7             |                    |
| Typhoid Fever.....           | 15    |        |                  |                    | 38    | 5      | 2.4              | 13.1               | 18    | 2      | 1.0              | 11.1               | 27    | 6      | 3.0              | 22.2               |
| Typhoid Fever Corrected..... |       |        |                  |                    |       |        | .5               | 4.5                |       | 2      |                  | .0                 |       | 3      | 1.5              |                    |
| Whooping Cough.....          | 820   | 14     | 6.7              | 1.7                | 933   | 10     | 4.9              | 1.1                | 340   | 4      | 2.0              | 1.2                | 476   | 7      | 3.5              | 1.4                |



## INSPECTOR'S REPORT—1930

|                                 | Jan. | Feb. | Mar. | April | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. | Totals<br>1930 | Totals<br>1929 |
|---------------------------------|------|------|------|-------|-----|------|------|------|-------|------|------|------|----------------|----------------|
| Number of Visits.....           | 490  | 566  | 595  | 609   | 760 | 711  | 399  | 241  | 303   | 458  | 423  | 503  | 6058           | 10787          |
| Houses Quarantined.....         | 297  | 300  | 275  | 296   | 328 | 375  | 155  | 79   | 118   | 186  | 279  | 346  | 3134           | 6449           |
| Quarantines Raised.....         | 38   | 44   | 50   | 58    | 84  | 75   | 43   | 25   | 25    | 36   | 29   | 58   | 565            | 1239           |
| Quarantines Inspected.....      | 22   | 33   | 47   | 48    | 53  | 68   | 31   | 11   | 15    | 35   | 33   | 16   | 412            | 728            |
| Other Calls.....                | 133  | 189  | 223  | 207   | 295 | 193  | 70   | 126  | 145   | 201  | 82   | 83   | 1947           | 2371           |
| New Cases Investigated.....     | 342  | 386  | 337  | 453   | 391 | 434  | 180  | 92   | 85    | 200  | 285  | 408  | 3593           | 7090           |
| Rooms Fumigated.....            |      | 1    |      |       | 1   | 1    |      |      | 2     | 1    |      |      | 2              | 6              |
| Sanitary Defects Reported.....  |      |      |      |       |     |      |      |      |       |      |      |      | 6              | 8              |
| Bedding, etc., Disinfected..... | 77   | 81   | 58   | 39    | 56  | 42   | 51   | 45   | 50    | 83   | 75   | 73   | 730            | 916            |
| Rooms Sprayed.....              | 13   | 3    | 17   | 15    | 15  | 4    | 10   | 20   | 14    | 16   | 10   | 16   | 153            | 117            |
| Houses Sprayed.....             |      |      | 2    |       |     |      | 1    |      | 1     | 4    |      |      | 8              | 9              |
| School Certificates Issued..... |      |      |      | 69    | 209 | 190  |      |      | 31    | 34   | 110  | 144  | 787            |                |

## TUBERCULOSIS—SUMMARY SHOWING SOURCES FROM WHICH CASES ARE RECEIVED

|                                    | Jan. | Feb. | Mar. | April | May  | June | July | Aug. | Sept. | Oct. | Nov. | Dec. | Totals<br>1930 | Totals<br>1929 |
|------------------------------------|------|------|------|-------|------|------|------|------|-------|------|------|------|----------------|----------------|
| King Edward Memorial Hospital..... | 4    | 6    | 9    | 2     | 8    | 6    | 8    | 6    | 1     | 7    | .... | 1    | 58             | 65             |
| Ninette Sanatorium.....            | .... | 1    | 3    | 1     | .... | .... | .... | .... | ....  | .... | .... | 5    | 10             | 20             |
| Chest Clinics.....                 | 4    | 4    | 10   | 9     | 10   | 5    | 7    | 5    | 3     | 3    | 2    | 8    | 70             | 59             |
| Death Registration.....            | 4    | 2    | .... | 2     | 3    | 3    | 1    | 3    | 2     | 2    | 1    | 1    | 24             | 30             |
| City Laboratory.....               | .... | 1    | 2    | ....  | 1    | 2    | 1    | 1    | 2     | .... | .... | .... | 10             | 10             |
| St. Roch's Hospital.....           | 1    | 1    | 2    | 2     | 1    | 3    | 2    | 2    | 2     | 5    | 4    | 1    | 26             | 14             |
| Physicians and Others.....         | .... | 1    | 2    | ....  | 1    | .... | .... | 2    | 1     | .... | .... | 1    | 8              | 11             |
| Non-resident.....                  | .... | 4    | .... | 1     | 2    | 3    | 2    | 2    | 5     | 2    | .... | 4    | 25             | 20             |
| Total Cases.....                   | 13   | 20   | 28   | 17    | 26   | 22   | 21   | 21   | 16    | 19   | 7    | 21   | 231            | 229            |

## TUBERCULOSIS—DEATHS BY MONTHS

|    | Jan. | Feb. | Mar. | April | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. | Totals<br>1930 | Totals<br>1929 |
|----|------|------|------|-------|-----|------|------|------|-------|------|------|------|----------------|----------------|
| 10 | 6    | 11   | 10   | 10    | 8   | 7    | 9    | 4    | 6     | 9    | 5    | 12   | 97             | 83             |



## WINNIPEG GENERAL HOSPITAL CHEST CLINIC—1930

|                         | Jan. |       | Feb. |       | Mar. |       | April |       | May |       | June |       | July |       | Aug. |       | Sept. |       | Oct. |       | Nov. |       | Dec.  |       | Totals 1930 |       | Totals 1929 |       |
|-------------------------|------|-------|------|-------|------|-------|-------|-------|-----|-------|------|-------|------|-------|------|-------|-------|-------|------|-------|------|-------|-------|-------|-------------|-------|-------------|-------|
|                         | Day  | Night | Day  | Night | Day  | Night | Day   | Night | Day | Night | Day  | Night | Day  | Night | Day  | Night | Day   | Night | Day  | Night | Day  | Night | Day   | Night | Day         | Night | Day         | Night |
| Cases.....              | 87   | 9     | 84   | 14    | 96   | 31    | 89    | 16    | 70  | 12    | 76   | 13    | 77   | 14    | 79   | 10    | 90    | 17    | 57   | 19    | 44   | 14    | 51    | 20    | 900         | 189   | 919         | 335   |
| Old Cases.....          | 60   | 6     | 49   | 6     | 71   | 16    | 52    | 11    | 47  | 10    | 45   | 8     | 54   | 9     | 43   | 7     | 63    | 10    | 46   | 14    | 25   | 7     | 36    | 14    | 591         | 118   | 661         | 118   |
| New Cases.....          | 27   | 3     | 35   | 8     | 25   | 15    | 37    | 5     | 23  | 2     | 31   | 5     | 23   | 5     | 36   | 3     | 27    | 7     | 11   | 5     | 19   | 7     | 15    | 6     | 309         | 71    | 258         | 117   |
| Men.....                | 27   | 5     | 43   | 6     | 45   | 10    | 31    | 8     | 34  | 4     | 41   | 2     | 25   | 6     | 32   | 2     | 34    | 10    | 32   | 3     | 20   | 10    | 26    | 8     | 390         | 74    | 398         | 82    |
| Women.....              | 50   | 3     | 40   | 7     | 36   | 12    | 42    | 6     | 26  | 6     | 29   | 5     | 38   | 6     | 22   | 7     | 39    | 3     | 19   | 8     | 17   | 4     | 25    | 12    | 383         | 79    | 439         | 118   |
| Children.....           | 10   | 1     | 1    | 1     | 15   | 9     | 16    | 2     | 10  | 2     | 6    | 6     | 14   | 2     | 25   | 1     | 17    | 4     | 6    | 8     | 7    | ..... | ..... | ..... | 127         | 36    | 82          | 35    |
| Examinations.....       | 26   | 2     | 46   | 8     | 33   | 14    | 44    | 12    | 44  | 8     | 49   | 9     | 16   | ..... | 23   | 6     | 23    | 9     | 24   | 11    | 26   | 10    | 22    | 7     | 376         | 96    | 432         | 145   |
| X-Ray Examinations..... | 34   | 3     | 27   | 8     | 37   | 14    | 28    | 4     | 21  | 2     | 19   | 7     | 28   | 5     | 45   | 3     | 41    | 7     | 9    | 7     | 18   | 6     | 18    | 6     | 325         | 72    | 124         | 104   |

## CHILDREN'S HOSPITAL CHEST CLINIC—1930

|                         | Jan. | Feb. | Mar. | April | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. | Totals<br>1930 | Totals<br>1929 |
|-------------------------|------|------|------|-------|-----|------|------|------|-------|------|------|------|----------------|----------------|
| Cases.....              | 51   | 46   | 81   | 35    | 43  | 55   | 48   | 26   | 63    | 57   | 45   | 43   | 593            | 546            |
| Old Cases.....          | 41   | 33   | 59   | 30    | 33  | 44   | 35   | 18   | 46    | 45   | 37   | 31   | 452            | 407            |
| New Cases.....          | 10   | 13   | 22   | 5     | 10  | 11   | 13   | 8    | 17    | 12   | 8    | 12   | 141            | 139            |
| Examinations.....       | 40   | 32   | 40   | 21    | 26  | 41   | 31   | 21   | 49    | 38   | 40   | 40   | 419            | 376            |
| X-Ray Examinations..... | 26   | 24   | 34   | 13    | 22  | 23   | 20   | 13   | 21    | 21   | 16   | 18   | 251            | 177            |



## TUBERCULOSIS—VISITING NURSES' REPORT—1930

|                                                        | Jan. | Feb. | Mar. | April | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. | Totals<br>1930 | Totals<br>1929 |
|--------------------------------------------------------|------|------|------|-------|-----|------|------|------|-------|------|------|------|----------------|----------------|
| Number of Visits.....                                  | 432  | 438  | 454  | 403   | 444 | 458  | 512  | 273  | 423   | 534  | 417  | 412  | 5200           | 5155           |
| To Old Cases.....                                      | 388  | 402  | 422  | 350   | 397 | 432  | 459  | 242  | 394   | 472  | 376  | 384  | 4718           | 4802           |
| To New Cases.....                                      | 9    | 20   | 20   | 21    | 21  | 17   | 17   | 15   | 14    | 16   | 10   | 21   | 201            | 183            |
| To Suspects.....                                       | 3    | 4    | 2    | 2     | 1   | 1    | ...  | ...  | 2     | ...  | 2    | 1    | 18             | 26             |
| On Behalf of Patients.....                             | 10   | 12   | 10   | 22    | 18  | 7    | 16   | 15   | 8     | 18   | 28   | 6    | 170            | 102            |
| Other Calls.....                                       | 22   | ...  | ...  | 8     | 7   | 1    | 20   | 1    | 5     | 28   | 1    | ...  | 93             | 42             |
| Patients sent to King Edward<br>Memorial Hospital..... | 4    | 8    | 4    | 3     | 3   | 2    | 6    | 1    | 4     | 2    | ...  | 3    | 40             | 36             |
| Patients sent to Ninette<br>Sanatorium.....            | ...  | 1    | 1    | ...   | 2   | ...  | ...  | ...  | 1     | 3    | 1    | ...  | 9              | 11             |
| Patients sent to St. Roch's<br>Hospital.....           | 3    | 1    | ...  | ...   | ... | ...  | ...  | ...  | 2     | 2    | 2    | 2    | 12             | 8              |
| New Cases added to District.....                       | 13   | 18   | 28   | 21    | 18  | 18   | 17   | 15   | 13    | 17   | 5    | 9    | 192            | 219            |

## SLEEPING ACCOMMODATION OF PATIENTS SUFFERING FROM PULMONARY TUBERCULOSIS

| Rooms Occupied by<br>One Family | PATIENTS             |                                     |                                            |        | CONTACTS                                  |                                       |                                                 |        |
|---------------------------------|----------------------|-------------------------------------|--------------------------------------------|--------|-------------------------------------------|---------------------------------------|-------------------------------------------------|--------|
|                                 | With Room<br>to Self | With Bed<br>but not<br>Room to Self | With<br>neither<br>Bed nor<br>Room to Self | Totals | Total<br>Number of<br>Contacts<br>in Home | Sleeping in<br>same Bed<br>as Patient | Sleeping in<br>same Room<br>but separate<br>Bed | Totals |
| 1 Room.....                     | 13                   | ....                                | 6                                          | 19     | 15                                        | 7                                     | 5                                               | 12     |
| 2 Rooms                         | ....                 | 1                                   | 10                                         | 11     | 25                                        | 10                                    | 12                                              | 22     |
| 3 Rooms                         | 6                    | 7                                   | 17                                         | 30     | 105                                       | 19                                    | 25                                              | 44     |
| 4 Rooms and Over                | 90                   | 6                                   | 44                                         | 140    | 578                                       | 36                                    | 28                                              | 64     |
| Institutional                   | ....                 | ....                                | ....                                       | 2      | ....                                      | ....                                  | ....                                            | ....   |
| Unclassified                    | ....                 | ....                                | ....                                       | 4      | ....                                      | ....                                  | ....                                            | ....   |



## SCHICK TEST AND TOXOID ADMINISTRATION IN SCHOOLS—1930

| SCHOOLS                | TOTAL SCHICKS |            |             |             | POSITIVE   |            |             |             | TOXOID COMPLETED |            |             |            |
|------------------------|---------------|------------|-------------|-------------|------------|------------|-------------|-------------|------------------|------------|-------------|------------|
|                        | 1930          | 1929       | 1926-8      | 1923-5      | 1930       | 1929       | 1926-8      | 1923-5      | 1930             | 1929       | 1926-8      | 1923-5     |
| <b>Ward 1.</b>         |               |            |             |             |            |            |             |             |                  |            |             |            |
| Alexandra.....         | 68            | 60         | 221         | 155         | 26         | 34         | 151         | 112         | 18               | 25         | 125         | 92         |
| Carlton.....           | 60            | 39         | 146         | 131         | 45         | 26         | 101         | 81          | 36               | 23         | 87          | 72         |
| Earl Grey.....         | 26            | 19         | 58          | 46          | 21         | 10         | 37          | 42          | 12               | 8          | 28          | 36         |
| Fort Rouge.....        | 32            | 46         | 137         | 75          | 21         | 24         | 101         | 59          | 18               | 20         | 73          | 46         |
| Gladstone.....         | 28            | 50         | 144         | 71          | 19         | 34         | 85          | 54          | 12               | 19         | 70          | 44         |
| Grosvenor.....         | 85            | 94         | 218         | 152         | 69         | 66         | 153         | 121         | 64               | 59         | 141         | 116        |
| Laura Secord.....      | 54            | 55         | 203         | 111         | 33         | 39         | 137         | 79          | 31               | 32         | 117         | 65         |
| La Verandrye.....      | 68            | 87         | 329         | 208         | 41         | 56         | 204         | 152         | 34               | 49         | 171         | 140        |
| Lord Roberts.....      | 62            | 92         | 216         | 113         | 48         | 80         | 146         | 76          | 36               | 51         | 126         | 60         |
| Mulvey.....            | 61            | 54         | 155         | 124         | 44         | 48         | 112         | 97          | 40               | 42         | 78          | 79         |
| Riverview.....         | 40            | 39         | 114         | 63          | 24         | 30         | 68          | 43          | 18               | 20         | 53          | 39         |
| R. H. Smith.....       | 35            | 18         | 79          | 32          | 25         | 13         | 49          | 19          | 22               | 6          | 41          | 14         |
| Sir John Franklin..... | 20            | 38         | 67          | 51          | 11         | 21         | 36          | 44          | 10               | 10         | 25          | 33         |
| St. Ignatius.....      | 29            | ....       | 115         | ....        | 13         | ....       | 8           | ....        | 7                | ....       | 65          | ....       |
| St. Mary's.....        | 58            | 41         | 146         | 82          | 35         | 30         | 113         | 52          | 34               | 26         | 110         | 42         |
| Wolseley.....          |               |            |             |             |            |            |             |             |                  |            |             |            |
| <b>Totals.....</b>     | <b>726</b>    | <b>732</b> | <b>2348</b> | <b>1414</b> | <b>475</b> | <b>511</b> | <b>1501</b> | <b>1031</b> | <b>392</b>       | <b>390</b> | <b>1310</b> | <b>878</b> |

SCHICK TEST AND TOXOID ADMINISTRATION IN SCHOOLS—1930

| SCHOOLS                        | TOTAL SCHICKS |            |             |             | POSITIVE   |            |             |             | TOXOID COMPLETED |            |             |             |
|--------------------------------|---------------|------------|-------------|-------------|------------|------------|-------------|-------------|------------------|------------|-------------|-------------|
|                                |               |            |             |             |            |            |             |             |                  |            |             |             |
|                                | 1930          | 1929       | 1926-8      | 1923-5      | 1930       | 1929       | 1926-8      | 1923-5      | 1930             | 1929       | 1926-8      | 1923-5      |
| <b>Ward 2.</b>                 |               |            |             |             |            |            |             |             |                  |            |             |             |
| Albert.....                    | 100           | 82         | 248         | 128         | 77         | 47         | 157         | 85          | 65               | 34         | 142         | 75          |
| Argyle.....                    | 33            | 45         | 179         | 81          | 27         | 33         | 107         | 48          | 24               | 25         | 82          | 41          |
| Cecil Rhodes.....              | 99            | 96         | 304         | 198         | 78         | 60         | 164         | 147         | 65               | 50         | 183         | 112         |
| Dufferin.....                  | 68            | 71         | 267         | 236         | 41         | 42         | 141         | 146         | 26               | 37         | 123         | 116         |
| Ellen Street Kindergarten..... | 46            | ....       | 106         | ....        | 27         | ....       | 59          | ....        | 18               | ....       | 52          | ....        |
| General Wolfe.....             | ....          | ....       | 126         | 161         | ....       | ....       | 86          | 82          | ....             | ....       | 74          | 82          |
| Greenway.....                  | 146           | 98         | 356         | 149         | 114        | 84         | 236         | 116         | 101              | 64         | 206         | 81          |
| Isaac Brock.....               | 85            | 106        | 287         | 129         | 55         | 39         | 194         | 101         | 43               | 24         | 164         | 83          |
| Isbister.....                  | 61            | 67         | 262         | 111         | 33         | 40         | 170         | 75          | 21               | 24         | 149         | 51          |
| J. M. King.....                | 96            | 96         | 344         | 172         | 74         | 58         | 211         | 98          | 59               | 44         | 185         | 92          |
| Montcalm.....                  | 33            | 41         | 93          | 98          | 21         | 28         | 73          | 72          | 17               | 17         | 65          | 53          |
| Pinkham.....                   | 68            | 41         | 221         | 161         | 49         | 22         | 153         | 84          | 40               | 17         | 136         | 56          |
| Principal Sparling.....        | 61            | 71         | 276         | 159         | 51         | 60         | 174         | 104         | 37               | 46         | 148         | 94          |
| Somerset.....                  | 52            | 49         | 191         | 122         | 44         | 41         | 111         | 79          | 36               | 28         | 95          | 73          |
| St. Edward's.....              | 68            | ....       | 188         | ....        | 49         | ....       | 188         | ....        | 35               | ....       | 69          | ....        |
| Victoria.....                  | ....          | 16         | 41          | 73          | ....       | 10         | 29          | 42          | ....             | 6          | 21          | 39          |
| Wellington.....                | 55            | 57         | 224         | 135         | 39         | 49         | 159         | 79          | 36               | 28         | 140         | 66          |
| <b>TOTALS.....</b>             | <b>1071</b>   | <b>936</b> | <b>3713</b> | <b>2113</b> | <b>779</b> | <b>613</b> | <b>2344</b> | <b>1358</b> | <b>623</b>       | <b>445</b> | <b>2039</b> | <b>1119</b> |



## SCHICK TEST AND TOXOID ADMINISTRATION IN SCHOOLS—1930

| SCHOOLS                   | TOTAL SCHICKS |             |             |             | POSITIVE   |            |             |             | TOXOID COMPLETED |            |             |             |
|---------------------------|---------------|-------------|-------------|-------------|------------|------------|-------------|-------------|------------------|------------|-------------|-------------|
|                           | 1930          | 1929        | 1926-8      | 1923-5      | 1930       | 1929       | 1926-8      | 1923-5      | 1930             | 1929       | 1926-8      | 1923-5      |
| <b>Ward 3.</b>            |               |             |             |             |            |            |             |             |                  |            |             |             |
| Aberdeen.....             | 66            | 98          | 357         | 271         | 43         | 54         | 211         | 149         | 29               | 44         | 174         | 125         |
| Anna Gibson.....          | 24            | 32          | 85          | 35          | 22         | 21         | 59          | 27          | 17               | 17         | 49          | 24          |
| Champlain.....            | 56            | 30          | 152         | 141         | 47         | 23         | 91          | 77          | 40               | 18         | 73          | 58          |
| David Livingstone.....    | 63            | 75          | 367         | 242         | 43         | 46         | 235         | 105         | 35               | 40         | 215         | 93          |
| Elmwood.....              | 43            | 41          | 117         | 93          | 26         | 26         | 98          | 53          | 21               | 18         | 80          | 45          |
| Faraday.....              | 80            | 62          | 293         | 192         | 67         | 46         | 182         | 111         | 61               | 38         | 153         | 73          |
| Florence Nightingale..... | 21            | 24          | 65          | 73          | 13         | 20         | 42          | 52          | 10               | 16         | 35          | 47          |
| George V.....             | 20            | 25          | 78          | 87          | 16         | 17         | 55          | 50          | 12               | 12         | 49          | 41          |
| King Edward.....          | 104           | 140         | 417         | 505         | 71         | 84         | 236         | 288         | 60               | 73         | 210         | 219         |
| Liberty Temple.....       | .....         | .....       | 17          | .....       | .....      | .....      | 10          | .....       | .....            | .....      | 4           | .....       |
| Lord Nelson.....          | 47            | 50          | 195         | 158         | 31         | 36         | 118         | 65          | 29               | 32         | 104         | 53          |
| Lork Selkirk.....         | 68            | 78          | 293         | 202         | 56         | 52         | 197         | 141         | 49               | 40         | 176         | 116         |
| Luxton.....               | 60            | 39          | 184         | 159         | 46         | 34         | 125         | 78          | 39               | 31         | 108         | 64          |
| Machray.....              | 73            | 85          | 342         | 216         | 56         | 54         | 166         | 140         | 32               | 47         | 145         | 110         |
| Margaret Scott.....       | 57            | 75          | 217         | 258         | 53         | 60         | 141         | 143         | 37               | 48         | 121         | 115         |
| Norquay.....              | 129           | 121         | 502         | 446         | 62         | 63         | 260         | 245         | 52               | 51         | 223         | 203         |
| Peretz.....               | .....         | .....       | 138         | .....       | .....      | .....      | 96          | .....       | .....            | .....      | 70          | .....       |
| Ralph Brown.....          | 58            | 66          | 261         | 213         | 44         | 36         | 173         | 161         | 37               | 26         | 146         | 102         |
| Sir Sam Steele.....       | 15            | 35          | 79          | 73          | 11         | 22         | 54          | 45          | 11               | 19         | 52          | 32          |
| Strathcona.....           | 107           | 147         | 394         | 534         | 76         | 75         | 212         | 306         | 50               | 85         | 200         | 288         |
| William Whyte.....        | 81            | 83          | 323         | 263         | 54         | 56         | 161         | 149         | 42               | 48         | 139         | 141         |
| <b>TOTALS.....</b>        | <b>1185</b>   | <b>1306</b> | <b>4876</b> | <b>4161</b> | <b>837</b> | <b>825</b> | <b>2922</b> | <b>2385</b> | <b>663</b>       | <b>703</b> | <b>2526</b> | <b>1949</b> |

## DIPHTHERIA—NUMBER OF CASES AND DEATHS

|      | City  |        | Non-Resident |        | Immunized Children |        | Non-Immunized Children<br>Ages 6—12 |        | Children Immunized<br>in Schools    |
|------|-------|--------|--------------|--------|--------------------|--------|-------------------------------------|--------|-------------------------------------|
|      | Cases | Deaths | Cases        | Deaths | Cases              | Deaths | Cases                               | Deaths |                                     |
| 1930 | 293   | 8      | 50           | 6      | 17                 | ....   | 61                                  | 2      | (Grades 1-2) 1678                   |
| 1929 | 397   | 14     | 76           | 7      | 14                 | 1      | 137                                 | 5      | (Grades 1-2) 1538                   |
| 1928 | 528   | 15     | 77           | 7      | 18                 | ....   | 149                                 | 4      | (Grades 1-4) 1310                   |
| 1927 | 463   | 25     | 79           | 9      | 10                 | ....   | 167                                 | 5      | (Grades 1-4) 2039                   |
| 1926 | 468   | 14     | 86           | 6      | 6                  | 1      | 139                                 | 12     | (Grades 1-4) 2526                   |
| 1925 | 439   | 19     | 76           | 7      | 4                  | ....   | 148                                 | 8      | (Grades 1-4) 2284                   |
| 1924 | 478   | 17     | 107          | 5      | ....               | ....   | 303                                 | 9      | (Grades 1-4) 1562                   |
| 1923 | 1125  | 25     | 160          | 9      | ....               | ....   | 488                                 | ....   | (Grades 1-4)<br>3 Schools Completed |

## DIPHTHERIA IN IMMUNIZED CHILDREN, SHOWING YEAR IMMUNIZED

(\*) Shows Cases Receiving 2 Doses Toxoid.

|      | 1930  | 1929  | 1928  | 1927  | 1926  | 1925  | 1924  | Total                       |
|------|-------|-------|-------|-------|-------|-------|-------|-----------------------------|
| 1930 | ..... | 4     | 3     | 3*    | 4*    | 2     | ..... | 17                          |
| 1929 | ..... | ..... | 1     | 1*    | 8*    | 4     | ..... | 14 (1 death immunized 1925) |
| 1928 | ..... | ..... | 1     | 6*    | 9*    | 2     | ..... | 18                          |
| 1927 | ..... | ..... | ..... | ..... | 4*    | 3     | 3     | 10                          |
| 1926 | ..... | ..... | ..... | ..... | ..... | 5     | 1     | 6 (1 death immunized 1925)  |
| 1925 | ..... | ..... | ..... | ..... | ..... | 1     | 3     | 4                           |
| 1924 | ..... | ..... | ..... | ..... | ..... | ..... | ..... | .....                       |
|      | ..... | 4     | 5     | 11    | 25    | 17    | 7     | 69 (Inc. 32 2 doses)        |

3 Schools, 1923; 9 Schools, 1924; 36 Schools, 1925. Schools have been attended to each subsequent year. October, 1923, to November, 1925, Toxin-antitoxin used. November, 1925, to November, 1927, Toxoid used (2 Doses). November, 1927, to date, Toxoid used (3 Doses). 1930 includes Private Physicians two, 1928 and 1926.



# Report of Chief Health Inspector

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

Dear Sir:

I have the honor to submit herewith a report of the work accomplished during 1930 by this Division of the Health Department, as set forth in my own report, and those of the Housing and Smoke Inspectors as follows:

## ABATEMENT OF NUISANCES

The large table shown on the next six pages sets forth in a concise form a summary of the work done by the Inspectors in this Division.

The total number of inspections and re-inspections was 41,135, or 4,770 less than in 1929. As there are eleven district inspectors this equals 3,739 inspections per man.

Complaints numbered 2,568, or 204 more than in 1929. Some 443 of these complaints were unfounded, or were rectified previous to the receipt of the same.

## SANITARY INSPECTIONS FOR THE YEAR 1930

|                                                                       | Jan. | Feb. | Mar. | April | May  | June | July | Aug. | Sept. | Oct. | Nov. | Dec. | TOTALS |
|-----------------------------------------------------------------------|------|------|------|-------|------|------|------|------|-------|------|------|------|--------|
| Complaints received in Office.....                                    | 128  | 88   | 102  | 203   | 209  | 192  | 185  | 313  | 160   | 139  | 97   | 84   | 1900   |
| Complaints made to Inspector.....                                     | 70   | 73   | 51   | 77    | 55   | 57   | 46   | 48   | 44    | 46   | 46   | 55   | 638    |
| Total.....                                                            | 198  | 161  | 153  | 280   | 264  | 249  | 231  | 361  | 204   | 185  | 143  | 139  | 2568   |
| Of Above:                                                             |      |      |      |       |      |      |      |      |       |      |      |      |        |
| Complaints re non-removal of<br>garbage, etc.....                     | 26   | 31   | 18   | 42    | 48   | 36   | 35   | 57   | 54    | 32   | 19   | 26   | 424    |
| Complaints re nuisances, etc.....                                     | 172  | 130  | 135  | 238   | 216  | 213  | 196  | 304  | 150   | 153  | 124  | 113  | 2144   |
| Total.....                                                            | 198  | 161  | 153  | 280   | 264  | 249  | 231  | 361  | 204   | 185  | 143  | 139  | 2568   |
| Complaints well founded.....                                          | 167  | 138  | 132  | 228   | 222  | 210  | 202  | 293  | 157   | 150  | 115  | 111  | 2125   |
| Complaints unfounded or rectified<br>previous to receipt of same..... | 31   | 23   | 21   | 52    | 42   | 39   | 29   | 68   | 47    | 35   | 28   | 28   | 443    |
| Total.....                                                            | 198  | 161  | 153  | 280   | 264  | 249  | 231  | 361  | 204   | 185  | 143  | 139  | 2568   |
| Written notices (informal).....                                       | 218  | 165  | 75   | 204   | 225  | 161  | 148  | 191  | 264   | 193  | 241  | 103  | 2188   |
| Written notices (statutory).....                                      | 138  | 153  | 134  | 222   | 224  | 221  | 193  | 257  | 176   | 115  | 99   | 163  | 2095   |
| Verbal notices or warnings.....                                       | 1080 | 1141 | 1293 | 1308  | 1485 | 1410 | 1539 | 1257 | 1220  | 1139 | 944  | 555  | 14371  |
| Total.....                                                            | 1436 | 1459 | 1502 | 1734  | 1934 | 1792 | 1880 | 1705 | 1660  | 1447 | 1284 | 821  | 18654  |



## SANITARY INSPECTIONS FOR THE YEAR 1930—Continued.

| INSPECTIONS MADE                       | Jan. | Feb. | Mar. | April | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. | TOTALS |
|----------------------------------------|------|------|------|-------|-----|------|------|------|-------|------|------|------|--------|
| Dwelling houses.....                   | 179  | 159  | 138  | 128   | 176 | 138  | 130  | 122  | 98    | 136  | 113  | 164  | 1681   |
| Tenements and apartment blocks.....    | 158  | 131  | 105  | 107   | 137 | 120  | 111  | 86   | 110   | 119  | 160  | 425  | 1774   |
| Hotels and lodging houses.....         | 111  | 64   | 127  | 88    | 26  | 23   | 17   | 26   | 26    | 27   | 58   | 16   | 609    |
| Schools and public buildings.....      | 1    | 3    | 4    | ...   | 9   | 3    | 1    | ...  | 3     | 8    | 2    | 2    | 36     |
| Abattoirs.....                         | 2    | 3    | ...  | 1     | ... | ...  | ...  | ...  | ...   | ...  | ...  | ...  | 6      |
| Workshops and factories.....           | 65   | 54   | 42   | 43    | 59  | 41   | 51   | 37   | 33    | 47   | 47   | 33   | 552    |
| Offices.....                           | 4    | 5    | 11   | 8     | 8   | 7    | 9    | 9    | 4     | 1    | 3    | 10   | 79     |
| Stores.....                            | 77   | 74   | 60   | 44    | 58  | 55   | 55   | 39   | 39    | 48   | 49   | 30   | 628    |
| Stables, livery, feed and sale.....    | 21   | 24   | 23   | 21    | 24  | 17   | 27   | 17   | 21    | 24   | 21   | 14   | 254    |
| Stables, private.....                  | 100  | 110  | 88   | 65    | 150 | 133  | 73   | 53   | 64    | 78   | 62   | 52   | 1028   |
| Laundries, hand.....                   | 64   | 58   | 104  | 117   | 90  | 62   | 53   | 40   | 49    | 39   | 57   | 36   | 769    |
| Laundries, steam.....                  | ...  | ...  | ...  | ...   | 1   | ...  | 1    | ...  | ...   | ...  | ...  | 1    | 3      |
| Dog kennels.....                       | 11   | 14   | 13   | 21    | 23  | 12   | 11   | 12   | 12    | 11   | 6    | 3    | 149    |
| Theatres and places of amusement.....  | 9    | 7    | 4    | 7     | 7   | 8    | 7    | 8    | 8     | 7    | 10   | 4    | 86     |
| Public bath houses.....                | 1    | 4    | 4    | 4     | 4   | 4    | 3    | 4    | 4     | 4    | 4    | 4    | 44     |
| Public bath houses, water samples..... | 8    | 5    | 7    | 6     | 6   | 3    | 3    | 3    | 4     | 6    | 5    | 7    | 63     |
| Comfort stations, public.....          | 20   | 20   | 20   | 22    | 22  | 22   | 17   | 28   | 25    | 24   | 20   | 20   | 260    |
| Filling stations.....                  | 39   | 39   | 47   | 39    | 42  | 38   | 25   | 35   | 43    | 44   | 45   | 25   | 461    |
| Garages.....                           | 29   | 28   | 25   | 30    | 31  | 31   | 22   | 30   | 29    | 36   | 41   | 29   | 361    |
| Undertaking establishments.....        | ...  | ...  | ...  | ...   | 6   | 1    | 2    | 1    | ...   | ...  | ...  | ...  | 10     |
| Bedding factories.....                 | 3    | 1    | 2    | 1     | 8   | 2    | 1    | 4    | 3     | 1    | 1    | 1    | 28     |
| Lack of heat in dwellings.....         | 25   | 13   | 4    | 4     | 2   | ...  | ...  | ...  | 1     | 1    | 10   | 5    | 65     |
| Wiping rags.....                       | 1    | 1    | 1    | 2     | 9   | 3    | ...  | 2    | 1     | 4    | 7    | 1    | 32     |
| Refrigerators (chemical).....          | 4    | ...  | ...  | ...   | ... | ...  | 1    | ...  | ...   | ...  | 1    | 3    | 9      |
| Hospitals, private.....                | ...  | ...  | ...  | ...   | 2   | 2    | 2    | ...  | ...   | 1    | ...  | ...  | 7      |
| Common drinking cups and towels.....   | 4    | 3    | 10   | 7     | 9   | 8    | 5    | 6    | 4     | 5    | 6    | 4    | 71     |
| Barber shops.....                      | 10   | 12   | 10   | 10    | 16  | 9    | 5    | 5    | 7     | 9    | 7    | 7    | 107    |
| Second-hand stores and junk yards..... | 33   | 46   | 106  | 100   | 92  | 47   | 18   | 20   | 20    | 33   | 16   | 8    | 539    |
| Pool rooms.....                        | 25   | 34   | 53   | 59    | 54  | 30   | 19   | 13   | 17    | 20   | 24   | 15   | 363    |

## SANITARY INSPECTIONS FOR THE YEAR 1930—Continued.

|                                                                   | Jan. | Feb. | Mar. | April | May  | June | July | Aug. | Sept. | Oct. | Nov. | Dec. | TOTALS |
|-------------------------------------------------------------------|------|------|------|-------|------|------|------|------|-------|------|------|------|--------|
| Yards, sheds, areas, etc.....                                     | 478  | 445  | 497  | 853   | 743  | 799  | 805  | 1066 | 704   | 545  | 365  | 206  | 7503   |
| Vacant lots (nuisances).....                                      | 57   | 79   | 69   | 120   | 121  | 82   | 94   | 55   | 55    | 70   | 76   | 83   | 931    |
| Streets and lanes (nuisances).....                                | 522  | 425  | 428  | 338   | 354  | 291  | 400  | 327  | 351   | 570  | 528  | 276  | 4810   |
| Contractors' closets.....                                         | 19   | 22   | 34   | 78    | 110  | 95   | 84   | 81   | 76    | 68   | 63   | 24   | 754    |
| Infectious diseases (houses placarded,<br>disinfected, etc.)..... | ---  | ---  | ---  | ---   | ---  | ---  | ---  | ---  | ---   | ---  | ---  | ---  | ---    |
| Noise (nuisances).....                                            | ---  | ---  | ---  | ---   | ---  | ---  | ---  | ---  | ---   | ---  | 1    | ---  | 1      |
| Total number of inspections.....                                  | 2080 | 1883 | 2036 | 2323  | 2399 | 2086 | 2057 | 2129 | 1811  | 1986 | 1808 | 1508 | 24103  |
| Re-inspections.....                                               | 1482 | 1588 | 1474 | 1501  | 1858 | 1661 | 1396 | 1292 | 1401  | 1347 | 1165 | 864  | 17029  |
| Total number of inspections and re-inspections.....               | 3562 | 3471 | 3510 | 3824  | 4257 | 3747 | 3453 | 3421 | 3212  | 3333 | 2973 | 2372 | 41135  |
| <b>SMOKE NUISANCES</b>                                            |      |      |      |       |      |      |      |      |       |      |      |      |        |
| Chimneys and smoke stacks (observa-<br>tions).....                | 45   | 39   | 3    | 31    | 37   | 46   | 40   | 29   | 53    | 73   | 58   | 47   | 501    |
| Furnaces, boilers, fuels, etc., inspec-<br>tions of.....          | 153  | 130  | 21   | 87    | 114  | 130  | 86   | 32   | 61    | 180  | 173  | 175  | 1342   |
| Total.....                                                        | 198  | 169  | 24   | 118   | 151  | 176  | 126  | 61   | 114   | 253  | 231  | 222  | 1843   |
| Notices, statutory.....                                           | 3    | 3    | ---  | 2     | 1    | 1    | ---  | 1    | 1     | 2    | 2    | 2    | 18     |
| Notices, verbal.....                                              | 38   | 11   | 3    | 26    | 8    | 5    | 17   | 6    | 18    | 51   | 54   | 47   | 284    |
| Total.....                                                        | 41   | 14   | 3    | 28    | 9    | 6    | 17   | 7    | 19    | 53   | 56   | 49   | 302    |



## SANITARY INSPECTIONS FOR THE YEAR 1930—Continued.

|                                                          | Jan. | Feb. | Mar. | April | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. | TOTALS |
|----------------------------------------------------------|------|------|------|-------|-----|------|------|------|-------|------|------|------|--------|
| <b>DEFECTS AND NUISANCES<br/>DISCOVERED AND ABATED</b>   |      |      |      |       |     |      |      |      |       |      |      |      |        |
| Drains, choked or defective.....                         | 17   | 18   | 18   | 18    | 22  | 24   | 14   | 17   | 17    | 21   | 14   | 12   | 212    |
| Sinks and wash-basins, choked or defective.....          | 12   | 27   | 18   | 26    | 17  | 23   | 16   | 12   | 14    | 13   | 11   | 4    | 193    |
| Water-closets and fittings, choked or defective.....     | 30   | 31   | 39   | 44    | 36  | 34   | 25   | 17   | 18    | 24   | 19   | 16   | 333    |
| Baths and fittings, choked or defective.....             | ...  | 3    | ...  | 2     | 2   | 2    | 2    | ...  | 1     | 1    | ...  | ...  | 13     |
| Urinals and fittings, choked or defective.....           | 6    | 6    | 10   | 13    | 5   | 2    | 7    | 5    | ...   | 6    | 4    | 4    | 68     |
| Soil-pipes, clean-outs, etc., choked or defective.....   | 11   | 11   | 16   | 14    | 14  | 14   | 19   | 16   | 16    | 12   | 19   | 14   | 176    |
| Catch-basins and traps, choked or defective.....         | 9    | 5    | 10   | 16    | 18  | 17   | 16   | 10   | 14    | 9    | 13   | 8    | 145    |
| W. C. compartments, defective light and ventilation..... | 1    | 1    | 1    | 1     | 3   | 1    | 3    | 1    | 2     | 2    | 2    | 3    | 21     |
| Plumbing and water pipes, frozen.....                    | 45   | 40   | 27   | 2     | ... | ...  | ...  | ...  | ...   | ...  | 13   | 23   | 150    |
| Vent stacks, frozen.....                                 | 2    | 2    | ...  | ...   | ... | ...  | ...  | ...  | ...   | ...  | ...  | ...  | 4      |
| Sewer connections, frozen.....                           | 3    | ...  | ...  | ...   | ... | ...  | ...  | ...  | ...   | ...  | ...  | ...  | 3      |
| Water services, defective or cut off.....                | 25   | 23   | 23   | 26    | 23  | 25   | 17   | 9    | 5     | 15   | 17   | 13   | 221    |
| Plumbing fixtures, insufficient.....                     | ...  | 2    | 1    | ...   | 6   | 1    | 4    | 3    | ...   | ...  | 2    | ...  | 19     |
| New plumbing, notice to install.....                     | 3    | 3    | 4    | 2     | 1   | 8    | 5    | ...  | 4     | ...  | ...  | 12   | 42     |
| Total plumbing defects.....                              | 164  | 172  | 167  | 164   | 147 | 151  | 128  | 90   | 91    | 103  | 114  | 109  | 1600   |

## SANITARY INSPECTIONS FOR THE YEAR 1930—Continued.

|                                                            | Jan. | Feb. | Mar. | April | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. | TOTALS |
|------------------------------------------------------------|------|------|------|-------|-----|------|------|------|-------|------|------|------|--------|
| Dirty yards, courts, sheds, etc.....                       | 407  | 385  | 385  | 751   | 666 | 631  | 553  | 666  | 389   | 421  | 245  | 166  | 5665   |
| Poultry kept in dwelling.....                              | 3    | 3    | 4    | 6     | 4   | 2    | 2    | 2    | 2     | 5    | 1    | 2    | 36     |
| Pigeons kept in dwelling.....                              | 1    | 1    | 1    | 3     | 1   | 1    | 1    | ...  | 1     | 1    | ...  | ...  | 11     |
| Animals kept in dwelling.....                              | 2    | 1    | 1    | ...   | 1   | 1    | 4    | 3    | 1     | 1    | ...  | 1    | 16     |
| Poultry kept under insanitary conditions.....              | 2    | 7    | 12   | 17    | 9   | 11   | 12   | 12   | 20    | 10   | 9    | 11   | 132    |
| Cows or other cattle kept under insanitary conditions..... | 12   | 21   | 25   | 10    | 11  | 10   | 2    | ...  | 1     | 2    | 1    | 1    | 96     |
| Cows or other cattle kept too close to dwelling.....       | ...  | ...  | ...  | 1     | ... | 2    | ...  | ...  | ...   | 1    | ...  | ...  | 4      |
| Hogs, unlawfully keeping.....                              | ...  | ...  | ...  | ...   | ... | ...  | ...  | ...  | ...   | ...  | ...  | ...  | ...    |
| Horses, insanitary stables.....                            | 2    | 1    | 4    | 4     | 5   | 10   | 14   | 6    | 14    | 6    | 5    | 1    | 72     |
| Garbage receptacles.....                                   | 145  | 198  | 138  | 170   | 302 | 431  | 654  | 727  | 630   | 214  | 143  | 88   | 3840   |
| Refuse receptacles.....                                    | 14   | 62   | 35   | 46    | 89  | 48   | 36   | 34   | 47    | 13   | 17   | 33   | 474    |
| Manure bins, defective.....                                | 23   | 44   | 11   | 20    | 50  | 35   | 27   | 14   | 16    | 22   | 20   | 18   | 300    |
| Ash receptacles.....                                       | 31   | 37   | 23   | 34    | 21  | 7    | ...  | ...  | 4     | 19   | 53   | 37   | 266    |
| Paper receptacles.....                                     | 34   | 10   | 12   | 29    | 21  | 18   | 18   | 21   | 15    | 9    | 11   | 10   | 208    |
| Cellars and basements, defective.....                      | 10   | 20   | 15   | 29    | 26  | 35   | 34   | 24   | 21    | 18   | 12   | 10   | 254    |
| Dwellings, dilapidated and insanitary.....                 | 6    | 2    | 5    | 6     | 11  | 6    | 9    | 11   | 8     | 8    | 7    | 4    | 83     |
| Tenements, dilapidated and insanitary.....                 | ...  | 1    | ...  | 2     | 5   | 1    | 3    | ...  | 2     | 3    | 2    | 3    | 22     |
| Offices and workshops, dilapidated and insanitary.....     | ...  | 1    | 1    | ...   | 2   | 4    | 2    | ...  | ...   | ...  | ...  | 6    | 16     |
| Dilapidated and insanitary other buildings.....            | ...  | 1    | 2    | 3     | 3   | 7    | 4    | 3    | 2     | 2    | ...  | 8    | 35     |
| Overcrowding (day inspections).....                        | 15   | 41   | 22   | 23    | 19  | 16   | 16   | 12   | 16    | 19   | 21   | 11   | 231    |
| Overcrowding (night inspections).....                      | ...  | ...  | ...  | ...   | ... | 1    | ...  | 1    | ...   | ...  | ...  | ...  | 2      |
| Overcrowding (notices).....                                | 5    | 4    | 16   | 3     | 6   | 11   | 4    | 4    | 7     | 7    | 9    | 4    | 80     |
| Rat-infested buildings.....                                | ...  | 3    | 1    | 3     | ... | 3    | 1    | 2    | 5     | 4    | 2    | ...  | 24     |
| Cockroach infested buildings.....                          | 2    | 3    | 4    | 6     | ... | 5    | 12   | 9    | 5     | 10   | 5    | 1    | 62     |
| Bed-bug infested buildings.....                            | 6    | 4    | 9    | 15    | 15  | 17   | 30   | 27   | 15    | 12   | 6    | 5    | 161    |





### FROZEN PLUMBING AND WATER MAINS

Number of instances 150. We had the usual amount of trouble with frozen plumbing in the older and poorer class of buildings.

### OTHER PLUMBING DEFECTS

There totalled 1,450, or 184 more than last year. They included choked or dilapidated drains, sinks, washbasins, water-closets, baths, urinals, soil-stacks, catch-basins, and clean-outs. There were 42 notices served to install new or additional plumbing. Out of 520 new dwellings only 17 were constructed on streets without sewers or water-mains. There are now only 266 occupied buildings in the City without plumbing.

### DEFECTIVE ROOFS, EAVESTROUGHS AND RAIN WATER LEADERS

Complaints regarding defective roofs 123. Defective eavestroughs or rain-water leaders 193.

### GARBAGE, MANURE AND OTHER RECEPTACLES

To see that at every premises proper waterproof, fly-proof and rat-proof receptacles are provided and maintained involves a lot of work on the part of our inspectors. This Summer we put on our usual garbage-can Campaign, and the reports of inspectors show that from May 1st to November 30th, 2,958 new cans were provided.

The following notices were served during the year in connection with this work:

|                                                       |       |
|-------------------------------------------------------|-------|
| To provide garbage cans or covers .....               | 3,840 |
| To provide receptacles for incombustible refuse ..... | 474   |
| To provide or repair manure bins .....                | 300   |
| To provide ash receptacles .....                      | 266   |
| To provide paper receptacles .....                    | 208   |
| Total .....                                           | 5,118 |

### SCAVENGING

The Street Cleaning Division gave good service during the year. Extra teams were provided during the hot months for the removal of garbage from the lodging-house districts. We should prefer to have a semi-weekly collection of garbage from every dwelling all the year round.

We received 424 complaints regarding non-removal of garbage, or of improper methods of storing.



The following requests were sent to the Street Cleaning Division.

|                                                    |            |
|----------------------------------------------------|------------|
| To clean contractors' closets .....                | 155        |
| To remove garbage .....                            | 28         |
| To remove dead animals .....                       | 4          |
| To remove ashes .....                              | 13         |
| To clean brick pit closets .....                   | 17         |
| To remove infected bedding .....                   | 2          |
| To remove manure from streets or lanes .....       | 6          |
| To remove tins or other incombustible refuse ..... | 29         |
| <b>Total .....</b>                                 | <b>254</b> |

As is usual the closest co-operation was maintained with the Street Cleaning Division which carries out the actual work of removal of garbage and other refuse.

### CONTRACTORS' CLOSETS

Permits issued 512, or 305 fewer than in 1929. Inspections made 754. Notices served to construct, repair, clean, or remove closets, 309.

### FEED AND SALE STABLES

Only 11 permits were issued. Inspections made 254.

### KEEPING OF ANIMALS

The keeping of animals of various kinds entails a good deal of supervision, if nuisance is to be prevented.

#### Inspection of private stables:

|                                                     |           |
|-----------------------------------------------------|-----------|
| Cows kept in insanitary stables, sheds, etc. ....   | 13        |
| Calves kept in insanitary stables, sheds, etc. .... | 1         |
| Horses kept in insanitary stable,s sheds, etc. .... | 25        |
| Goats kept in insanitary stables, sheds, etc. ....  | 1         |
| <b>Total .....</b>                                  | <b>40</b> |

These animals were kept in 22 stables or sheds.

#### Action taken and results:

|                                         |           |
|-----------------------------------------|-----------|
| Stables vacated and placarded .....     | 2         |
| Stables vacated and not placarded ..... | 2         |
| Stables improved .....                  | 16        |
| Number of animals reduced in .....      | ...       |
| Pending .....                           | 2         |
| <b>Total .....</b>                      | <b>22</b> |

Other animals (mostly cats and dogs) kept in dwellings 16

One complaint regarding the keeping of eight mink in a garage on a 25' lot. Notice served and the animals removed. A few complaints of offensive odours from pet shops.

### POULTRY

|                                                   |     |
|---------------------------------------------------|-----|
| Poultry kept in dwellings .....                   | 36  |
| Poultry kept in insanitary pens, sheds, etc. .... | 96  |
| Pigeons kept in dwellings .....                   | 11  |
| Total .....                                       | 143 |

### LICENSED DOG KENNELS

Permits issued, 26. In 1929, 30.

### NUISANCES IN YARDS, SHEDS, LANES, VACANT LOTS, ETC.

|                                       |        |
|---------------------------------------|--------|
| Dirty yards, courts, sheds, etc. .... | 5,665  |
| Stagnant water on vacant lots .....   | 56     |
| Other nuisances on vacant lots .....  | 903    |
| Nuisances on streets and lanes .....  | 4,797  |
| Total .....                           | 11,421 |

In 1929, 9,898. This large number of nuisances of this character shows that despite the efforts of our inspectors, there are still a great many people without any pride in the maintenance of clean conditions, and others who will clean up and remove refuse from their own premises, only to deposit it on lanes or property belonging to other people. There were 2 prosecutions for such offences during the year, and would be more if we could detect those responsible.

### NUISANCES ABATED COMPULSORILY AND CHARGED AS TAXES

None this year. The Department has no power to abate nuisances on vacant lots in this manner, the section of the Public Health Act only covers buildings and lots on which there are buildings.

### COMPULSORY SEWER NOTICES

None this year.

### APPLICATIONS FOR CITY INSTALLED PLUMBING

None this year.



### OVERCROWDING

Day inspections, 231. Night inspections, 2. Notices served to abate overcrowding, 80. In the case of the licensed lodging-houses we find that the Lodging-house by-law is quite a help in preventing overcrowding. Each room is carded with the number of occupants permitted. We have found that more overcrowding exists amongst families living in rooms, especially those which owing to hard times can only afford one room. Many of these rooms are large enough for two adults only, so that in cases where there are children there is overcrowding. The lot of these children penned up in one small room used for living, cooking and sleeping during the Winter is not pleasant to contemplate. Frequently gas is used for cooking, and in Winter when storm sashes are in position, many of which cannot be opened, the ventilation is poor indeed. If the gas stove is not properly adjusted, or is old and leaky, an extremely unhealthy condition exists. The rents paid for the usually poor accommodation provided are relatively high.

### HOUSING

There were 520 new houses constructed and 16 new apartment blocks with 256 suites. Last year 719 houses and 28 blocks. There were 63 houses demolished during the year, so that the net increase is 457. The new houses and suites provide accommodation for 776 families. All of this work was done by private enterprise and nearly all houses were either built for the owners or for sale.

There have been 6,554 new houses built since 1918, and 110 apartment blocks with a total of 2,360 suites, but 431 houses have been demolished during that period.

At December 31st, our Annual Survey of Vacant Houses and Suites showed only 587 houses vacant. As there are now 35,333 houses in the City this figure represents only 1.6% of all houses. Vacant suites numbered 1,046, as against 729 last year. In the new blocks built this year only 10 out of 256 suites were vacant December 31st.

Contrasting the number of suites in Apartment Blocks provided with the number of new houses we note as follows:

|            | New Houses | New Suites |
|------------|------------|------------|
| 1925 ..... | 85 %       | 15 %       |
| 1926 ..... | 65.4%      | 34.6%      |
| 1927 ..... | 69.4%      | 30.6%      |
| 1928 ..... | 59.2%      | 40.8%      |
| 1929 ..... | 49 %       | 51 %       |
| 1930 ..... | 67 %       | 33 %       |

It would appear that wage earners who wish to build small cottages for themselves prefer the suburbs surrounding the City. Cannot something be done to encourage the building of cottages within the City? This would build up our vacant lots, increase the tax roll, and add to the population.



**TOTAL HOUSING ACCOMMODATION—DECEMBER 31, 1930**

|                                  |        |
|----------------------------------|--------|
| Dwelling houses .....            | 34,219 |
| Stores with dwellings .....      | 1,114  |
| Suites in apartment blocks ..... | 10,414 |
| <hr/>                            |        |
| Total lettings .....             | 45,747 |

This is the last opportunity I shall have to comment officially on housing conditions. During the last ten or twelve years I have made many reports on housing conditions in Winnipeg. Even before the War there was a shortage of small houses, and families were beginning to "double-up." With the War came total cessation of house-building, and this shortage was accentuated. After the War, about 1918, there was considerable discussion about the lack of houses. Public meetings were held. The Health Department was instructed to make a Housing Survey of conditions in certain selected districts. This report was printed and published. The conditions shown as regards the overcrowding of families into single-family dwellings were not creditable to the City. About that time the Dominion Government set aside some \$5,000,000 to be loaned to Provincial Governments for the building of houses, the Provincial Governments lending the money to Municipalities. In the City of Winnipeg, the Winnipeg Housing Commission was formed, and from 1920 to 1923, 712 houses were built, the Commission loaning money at a low rate of interest to home-builders. The terms were easy, and twenty years was allowed for re payment. The taxes were included in the monthly payments. The Commission did more than this. Lumber and other supplies were bought in large quantities, thus affording a saving to borrowers. New specifications ensuring durability; proper insulation ensuring warm houses in Winter and cool houses in Summer were insisted upon. Officials of the City supervised the erection of the houses from start to finish. The City held the whip-hand as regards payments of monies to the contractors. In all 712 dwellings were built. But in 1924 it was decided to make no more loans. Probably this scheme for the benefit of citizens was objected to by Loan Companies and private builders who found their business interfered with. So that although the scheme was in every way, financial and otherwise, a very great success, it stopped short when only well begun. In 1921 the Department made another Housing Survey which was also printed and distributed. It disclosed that notwithstanding the work of the Commission, housing conditions were no better. The new houses built only just kept up with the increase of population. The houses built under the Housing Commission plan were built mostly for higher paid wage earners and salaried officials. Since private enterprise again started building houses, such dwellings have been built to the order of private owners, or else for sale. Nobody is building houses for rent, and especially is nobody thinking of providing small cottages which might be let at a reasonable rental to the families now living cooped up in rooms in houses originally intended for one family only (from two to ten families per house according to the size).



So much has been written about such houses, the overcrowding of too many families in one house, the overcrowding of the rooms thereof, the deplorable lack of adequate sanitary conveniences (generally only one water-closet for several families), the large number of gas stoves in use, frequently in rooms occupied for sleeping, the poor ventilation, the impossibility of proper isolation in case there is communicable disease present, the use of attic rooms not suitable for use by families as dwellings, the fire hazard, etc., that I do not need to go into detail.

It may become necessary therefore for the City to follow the example set by Cities in other countries, and proceed to embark in the providing of suitable single-family dwellings for rental. Notwithstanding all that has been written and said about housing conditions in Winnipeg nobody appears to take much interest in the question. Many of the larger dwellings now occupied unlawfully as multiple dwellings could with a little expense be made much more suitable and we have, time and time again, suggested that all such houses should be required to be registered as "Houses Let in Lodgings," and brought up to a certain standard. This is the practice in England. We have suggested and drafted by-laws for this purpose but without success. Over two years ago we specially asked for a by-law requiring adequate plumbing fixtures in such houses, but although the by-law was approved it has not yet been passed by Council.

I have consistently endeavored to awaken the interest of the Council and the public in this important question of improving housing conditions, and trust that before long a feeling will be aroused which will result in a great improvement on the conditions now obtaining. If not, sooner or later the City will regret having for so long tolerated them. It should be remembered however, that the Health Department can do very little without the strong backing of the City Council, nor unless given the necessary legislation.

## ZONING

Four more by-laws creating zoned areas (mostly residential) were passed during the year. There are now eight such areas, and more are contemplated. The Department has had to deal with one or two infractions of these by-laws, in cases where property has been converted to uses not permitted by the Zoning By-law.

## GAS STOVES AND FITTINGS

Only 16 complaints under this head were dealt with. Carbon Monoxide of which the gas supplied in Winnipeg contains approximately 13.9 per cent is liberated into the air of rooms as the result of the operation of gas appliances in three main ways, viz: The leakage of gas through faulty connections; incomplete combustion as the result of faulty design of the appliances and incomplete combustion due to im-



proper upkeep and repair of appliances. Many gas stoves are bought in second-hand stores and used for years without adjustment or repairs.

To eliminate this hazard the following means should be used:

1. Proper installation by competent and authorized persons only.
2. Scientific testing of all gas appliances at a testing laboratory and the seal of the laboratory attached.
3. Regulations preventing the sale of defectively constructed appliances.
4. Compulsory inspection periodically of all such appliances in use, the repair of defective fixtures and the condemnation of those which cannot be properly repaired.

A City by-law on this subject is required. This we have suggested many times.

### CHEMICAL AND MECHANICAL REFRIGERATORS

In our last report we described fully the steps taken by this Department to obtain legislation which should properly regulate the construction and installation of such refrigerators in order to prevent unhealthy conditions, and possibly fatalities, such as has occurred in other cities. The City withdrew its application to the Legislature for powers to pass by-laws on this subject because the Provincial Government undertook to investigate the matter, and to prepare regulations for the whole Province. No regulations have, however, yet been promulgated. In the meantime the number of electric refrigerators in use in the City increases daily. If no legislation by the Province is forthcoming, it may become necessary for the City to re-introduce the proposed Charter amendment asked for last year, and to press for its enactment. The risk attached to the operation of such refrigerators, especially those of multiple type, is serious. Both the type of machines used, and the manner of installing them should be regulated and periodic inspection provided for. Since our last report one case came to our notice where a refrigerator of the unit type installed in a suite in an apartment block sprung a leak during the night, and the escaping gas, (in this case Ammonia) drove out the occupants. It was fortunate for them that this gas is very odorous and irritating. At December 31 we have a record of 3,997 refrigerators in apartment blocks, of which 3,411 are of the multiple type.

### CROSS CONNECTIONS—WATER SUPPLIES

None discovered this year.

### WORKSHOPS, MANUFACTORIES AND OFFICE BUILDINGS

Inspections of workshops and factories 552. Office buildings, 79. These included enquiry into a nuisance caused by the discharge of large volumes of waste water from the saws at large stone-cutting plants.



This water contained a large quantity of stone dust in solution and suspension which was deposited in city sewers causing chokage. We also took up with the Provincial Bureau of Labor the question of the proper ventilation of garages and auto repair shops. Inspections made convinced us that the Carbon-Monoxide hazard in many of these places is serious. The Provincial authorities admit that any such premises where three or more persons are employed come under the Factory Act. They said they were making an investigation of the subject and would co-operate with this Department. There are many small repair shops which would not come under the Factory Act. In our opinion legislation, either Provincial or City is required, providing for the proper construction of such buildings (windows, roof vents, etc.), and also requiring that adequate means be provided and maintained for thoroughly ventilating the buildings and removing therefrom as quickly as possible all exhaust gases. We had the usual number of complaints regarding poor ventilation, defective plumbing, etc., in workshops, also dust and odor nuisance in tanneries. Several premises examined as to their suitability for various businesses.

### RATS

There were only 24 complaints received respecting rat-infested buildings. Rat bounty was paid for 714 tails, cost \$35.70. Last year, 1,335 tails, \$66.75. Boxes of Extirmo distributed gratis 1,077.

### PUBLIC BATHS AND COMFORT STATIONS

Inspections of baths 44. Comfort Stations 260. Samples of water taken from swimming pools 856. This includes samples from the Y.M.C.A., Y.W.C.A., the new Winter Club, and All People's Missions. The Cornish Baths were closed during the year. With the opening of the new Sherbrooke Street baths next year, accommodation will be greatly increased. All baths and comfort stations were kept in a clean and sanitary condition, and the water in the swimming pools was kept in good condition by means of chlorination.

### UNDERTAKERS' ESTABLISHMENTS

Inspections made, 10. Permits for license issued, 7. Conditions were found to be satisfactory, and in most cases the premises and equipment are of a high order.

### COMMON DRINKING CUPS AND TOWELS

There were 71 inspections made, and warnings given in cases where infractions of the Regulations of the Provincial Board of Health were observed.

### CHIMNEYS AND FURNACES

Defective chimneys dealt with, 25, as against 19 last year. Defective furnaces, stove pipes, etc., 69, as against 61 last year. One serious case was reported of a boarding house where 8 persons were overcome with gas from the furnaces during the night and removed to hospital. This was a double house, with a hot air furnace in each basement. Piping for heating water had been introduced into each furnace and subsequently removed. The holes through which the pipes formerly ran communicated with the hot air chambers. These holes, or some of them, had been left open after the pipes were taken out, and furnace gases gained access through the hot air pipes to the bedrooms with the results already stated. Fortunately the victims all recovered. Furnaces and chimneys should be systematically inspected both for fire and health risks, but there is no officer of the City appointed for that purpose.

### BILLIARD ROOMS

Permits issued, 59. Inspections made, 363.

### SECOND-HAND DEALERS AND JUNK YARDS

Permits issued, 133. Last year, 132.

### WIPING RAGS

There were 32 inspections made. Owing to a consignment of Japanese rags received here which were not in a satisfactory condition, the Provincial Board of Health passed an amendment to its regulations, giving the Health Officer power to require the re-laundering and re-sterilization of any consignment of rags with the preparation of which he is not satisfied.

### BEDDING FACTORIES

Inspections made, 28. No infractions of the Provincial Regulations were found.

### BARBER SHOPS

Inspections made, 107. No further legislation was enacted, although some of the barbers endeavored to secure such from the Provincial Legislature.

### VERMIN

Complaints regarding buildings infested with cockroaches, 62. Last year, 45. With bed-bugs, 161. Last year, 82.

Rats we have already commented upon. Owing to a very serious complaint regarding a house being badly infested with bed-bugs, and



where the owner would do nothing, coming to the attention of the Health Committee, the Committee asked that each member be supplied with a copy of the Vermin By-law prepared and submitted some years ago. This was done and we were in hopes that we should now be given a by-law which would enable us to deal more effectively with this problem, but no action has yet been taken by the Committee.

### **THEATRES AND PLACES OF AMUSEMENT**

Number of inspections, 86. No serious complaint. One or two cases of insufficient or defective sanitary conveniences were dealt with.

### **SCHOOLS AND PUBLIC BUILDINGS**

Only 36 inspections were made.

### **LAUNDRIES**

Permits were issued for 100 hand laundries. In 1929, 105. Inspections, hand laundries, 769; steam laundries, 3.

### **HOTELS**

Permits issued, 59. All hotels were maintained in a satisfactory condition. Inspections made, 102.

### **LODGING HOUSES**

The work of bringing such premises up to the standard required by the Lodging-house by-law was continued, 130 permits were issued. The principal difficulty experienced is in getting proper facilities provided for abolitionary purposes, and also in getting the storm windows so arranged as to open. A number of the poorer places failing to receive any assistance from the owners in making improvements discontinued keeping lodgers.

### **INSANITARY BUILDINGS**

The table given below shows the number and class of premises for which notices were served upon owners and occupants under section 103 of the Public Health Act, under which section the Health Officer has power to require that premises be put into a sanitary condition or else closed up.

|                                                             |      |
|-------------------------------------------------------------|------|
| Dwelling houses, general insanitary condition .....         | 35   |
| Dwelling houses, unlawful conversion of same to tenements.. | .... |
| Tenement houses .....                                       | .... |
| Basement and cellar dwellings .....                         | 4    |
| Dark rooms (dwellings) .....                                | 4    |
| Stores occupied as dwellings .....                          | 3    |

|                                          |       |
|------------------------------------------|-------|
| Factories and workshops .....            | 9     |
| Stables .....                            | 3     |
|                                          | <hr/> |
|                                          | 58    |
| Notices served on owner and agents ..... | 58    |
| Notices served on occupants .....        | 61    |

**Results:**

|                                                                                  |       |
|----------------------------------------------------------------------------------|-------|
| Notices complied with (premises put into sanitary condition) .....               | 36    |
| Premises closed and placarded .....                                              | 20    |
| Cases still pending .....                                                        | 2     |
|                                                                                  | <hr/> |
|                                                                                  | 58    |
| Remaining closed on December 31st, 1929 .....                                    | 152   |
| Premises repaired or demolished during 1930 .....                                | 34    |
|                                                                                  | <hr/> |
|                                                                                  | 118   |
| Premises closed during 1930 (dwellings, 10; stables, 2; other premises, 8) ..... | 20    |
|                                                                                  | <hr/> |
| Remaining closed on December 31st, 1930 .....                                    | 138   |

**WORK DONE FOR OTHER DIVISIONS OR DEPARTMENTS**

Inspections of dwellings were made for the Social Welfare Commission. Investigation of complaints regarding non-removal of garbage for the Street Cleaning Division. Samples of water taken at several points twice a week for the City Bacteriologist. Monthly inspections of public baths and comfort stations for the Baths Department. Inspections for the License Department. Investigations of Birth Registrations for the Statistician.

**PROSECUTIONS****Nature of Charges:**

|                                                                                                  |       |
|--------------------------------------------------------------------------------------------------|-------|
| Occupied without permission of Health Officer (a room condemned and placarded) .....             | 1     |
| Milk below standard (Dairy Division) .....                                                       | 4     |
| Keeping two calves in dwelling .....                                                             | 1     |
| Permit more than two families to occupy a duplex house in an R. 1 district (Zoning By-law) ..... | 1     |
| Deposit night-soil on the property of another person .....                                       | 1     |
| Selling milk without having a license .....                                                      | 1     |
| Neglect to comply with notice of Health Officer .....                                            | 1     |
|                                                                                                  | <hr/> |
|                                                                                                  | 10    |



## HOW DISPOSED OF

|                           | Fines  | Cases | Total<br>Fines |
|---------------------------|--------|-------|----------------|
| Stay of Proceedings ..... | .....  | 1     | .....          |
| Withdrawn .....           | .....  | 1     | .....          |
|                           | \$8.00 | 6     | \$48.00        |
|                           | \$5.00 | 2     | 10.00          |
|                           |        | —     | —              |
|                           |        | 10    | \$58.00        |

## STAFF

We lost three inspectors during the year. Two of these men accepted appointments with the Provincial Department of Health, and one was retired on pension. Three new inspectors, all certified, were appointed to replace these men.

All inspectors and clerks fulfilled their duties in a satisfactory manner.

## VALEDICTORY

This is the last annual report which I shall be privileged to make, as I retire at the end of the year after a service with the Health Department of thirty-three years and four months. During that period I have seen great changes in the growth and development of the City, both as regards population, and the conditions under which citizens live and work. The poorly-built shacks of the early days have disappeared. Modern building construction, with all which that implies in the way of stability, improved methods of heating and lighting, plumbing, and other equipment and luxuries, considered necessities in these times, has taken its place. Similarly the well-equipped modern factory and workshop, built for efficiency and with due regard to the health and safety of the workers is now well established. Our schools, colleges, offices and public buildings, will compare favorably with those of any city on this continent. The effective protection of our water supply, milk and food; the great reduction in infant mortality, and the application of the most approved methods towards the bringing up of healthy children; the reduction of both the general mortality rate, and the incidence of communicable diseases, these are all most noticeable when compared with the conditions of thirty-three years ago. Inasmuch as most of the triumphs of public health work have been due to the improvement of the environment of man, Sanitary Inspectors have had their full share in this notable work.

This improvement is a result of the progressive policy of the city throughout the years under review, in establishing and maintaining a well-equipped and fully modern Health Department. To the improvements noted above I trust that my own humble efforts have in some small degree contributed.

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As for the future, I venture to predict that during the next fifty years we shall see such results in the conquest of disease and the prolongation of human life as will make present attainments seem small indeed.

To the Mayors and Councils, past and present, from which I have always received support and generous treatment; to the Medical Health Officer, Dr. Douglas, whom any man might be proud to serve under; and to my colleagues on the staff for their loyal support and many kindnesses, I express my grateful appreciation.

Yours obediently,

ERNEST W. J. HAGUE,

Chief Health Inspector.



## Report of Housing Inspector

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

Dear Sir:

I have pleasure in submitting for your consideration, the following report on tenement inspection and action taken during the year 1930 in housing conditions.

We received 129 complaints relating to nuisances and insanitary conditions in tenements and apartment blocks. Complaints last year numbered 99, and the year previous 82. Irregular storage of garbage was responsible for 38 of the complaints received. The others related to defective plumbing, insufficient heat provided, dampness, overcrowding, vermin, etc.

Most of our complaints come from the older tenements, where repairs are constantly required, such as defects in plumbing, broken plaster, cleansing of halls, corridors and courts. With regard to the irregular storage of garbage and refuse, a constant check is required in the matter of repairs to or renewal of garbage cans and chutes.

During the year we had a number of instances of dampness in basement suites. In such cases, the trouble is frequently caused by defective weeping drains or the lack of same. It is sometimes necessary to excavate the ground around the building and provide subsoil drains, carried to a catch basin trap. While the ground is open, the foundation walls are often coated on the outside with cement mortar and afterwards treated with tar.

A number of our old frame tenements were overhauled and extensive repairs carried out. In one instance, the whole building was raised and placed on a new foundation, the drains repaired, new and additional plumbing fixtures installed in place of old ones, and general cleaning and re-decorating done.

Permit was obtained from the Building Department for alterations in another of our old tenements, and as we were also consulted in the matter, this afforded us an opportunity of getting some much needed changes made, in having additional plumbing fixtures installed so that the families could have plumbing in their own suites; larger windows were provided, storm sashes made to open, and general repairs undertaken.

Many of our apartment blocks are built so close to one another that sufficient natural light is not available to rooms opening on the sides of the buildings. We regret to report that even in some of our new blocks this condition prevails. There is a tendency to build too close to



the lot lines, with the result that other similar buildings adjoining shut off much of the day-light and sunshine from the side windows—indeed the sun never shines on many of these windows. We received several complaints from apartment blocks regarding the lack of sufficient natural light.

We are still having trouble with the illegal tenements, "rooming houses" so-called. Large dwellings, rented out in suites of one and two rooms are far too numerous. It is often necessary to have the occupation re-arranged on account of overcrowding. One of these premises dealt with during the year, was an old frame dwelling, two storeys in height and containing eleven rooms. With the view to obtaining more revenue, the lessee conceived the idea of installing additional sinks in the various suites, the waste from these being carried in sheet iron pipes to the catch basin trap. The odor from this decomposing waste permeated the cellar and passed up the untrapped waste-pipes into the rooms. We served statutory notices and the premises were vacated.

A house such as the above may be leased for \$35.00 per month and by sub-letting, the lessee may obtain as much as \$175.00 per month, besides living rent free.

There are far too many dwellings occupied as tenements. The crowding together of families where privacy and individual family life cannot properly be obtained, is far from desirable, but with the present depression in trade and acute housing shortage, we are applying pressure only where conditions appear to demand it. There is more wear and tear in such premises, the occupants are often careless in their habits, the plumbing fixtures are more liable to get out of order, the walls and ceilings become soiled from the use of gas ranges and coal oil stoves, and the whole premises presents an aspect that points to a neglect of the elementary principles of sanitation. Besides, there is usually no means for carrying off the products of combustion and the odors of cooking, this being most in evidence during the Winter months when storm sashes are in position.

We had to take action in a number of instances where stores were used as dwellings. In several cases, at our suggestion, the store fronts were changed and it was possible to arrange for proper light and ventilation, etc., while in others we had no alternative but to serve closing notices.

We ordered a number of families out of attic rooms, mainly on account of a lack of sufficient natural light and ventilation, low sloping ceilings and overcrowding, also the fire risk.

Respectfully submitted,

ALEXR. OFFICER,

Housing Inspector.



# Report of Smoke Inspector

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

Sir:

I respectfully submit herewith report of smoke nuisances and their abatement for the year ending December 31st, 1930.

## SMOKE INSPECTIONS

|                                                    | January | February | March | April | May | June | July | August | September | October | November | December | TOTALS |
|----------------------------------------------------|---------|----------|-------|-------|-----|------|------|--------|-----------|---------|----------|----------|--------|
| Observations:                                      |         |          |       |       |     |      |      |        |           |         |          |          |        |
| Chimneys & Smoke Stacks                            | 45      | 39       | 3     | 31    | 37  | 46   | 40   | 29     | 53        | 73      | 58       | 47       | 501    |
| Inspection of furnaces,<br>boilers, fuel, etc..... | 153     | 130      | 21    | 87    | 114 | 130  | 86   | 32     | 61        | 180     | 173      | 175      | 1342   |
| Total.....                                         | 198     | 169      | 24    | 118   | 151 | 176  | 126  | 61     | 114       | 253     | 231      | 222      | 1843   |
| Notices:                                           |         |          |       |       |     |      |      |        |           |         |          |          |        |
| Statutory.....                                     | 3       | 3        |       | 2     | 1   | 1    |      | 1      | 1         | 2       | 2        | 2        | 18     |
| Verbal.....                                        | 38      | 11       | 3     | 26    | 8   | 5    | 17   | 6      | 18        | 51      | 54       | 47       | 284    |
| Total.....                                         | 41      | 14       | 3     | 28    | 9   | 6    | 17   | 7      | 19        | 53      | 56       | 49       | 302    |

During the past winter there was a general reduction in the use of imported coal due to the increased consumption of the home product. The result from the smoke density viewpoint was very evident, especially when observing the smoke from chimneys of buildings where imported Pocahontas (a low volatile coal) was previously used and a bituminous or soft coal substituted.

There are quite a large number of hand-fired boilers which have not suitable settings for efficiently burning bituminous coal. Settings are often too low, air spaces in grate bars are too narrow, combustion chambers too small and draft is often inadequate.

Conditions regarding firing in many apartment blocks are very unsatisfactory. The janitor has very often employment elsewhere and his wife attends to the firing. In such cases there is always the tendency to heap up the firebox with coal, so that further attention will not be necessary for some hours. This method of firing is far from economical for the owners of the premises and is a source of nuisance to the residents in the vicinity.



However, by co-operation and advice regarding the principles of combustion and demonstrating various methods of firing, the emission of objectionable smoke was reduced in most cases to a satisfactory density. A number however, reverted to the use of a low volatile coal.

Many improvements in boiler settings have been made during the past year and a number of boilers have been equipped with mechanical stokers.

Generally speaking however, I have, in all cases of infringements of the smoke by-law, endeavored to remedy conditions without any expense to the owner of the premises. When district heating is available they will more readily consider connecting up with such system thereby totally eliminating any possibility of creating further nuisance.

Filling stations located on corner lots have again caused considerable annoyance. They are, of course, one storey buildings with comparatively low chimneys. Economy in heating is the general tendency and nuisances are very often found to be due to burning of oily rags or waste and installation of improvised oil burners, utilizing waste lubricating oil as fuel. The large volume of smoke resulting, causes a decided nuisance to pedestrians and occupants of nearby premises. The most suitable fuel for such buildings is either coke or anthracite coal. In several instances however, where this fuel was used, chimneys had to be extended in order to prevent the gaseous products of combustion gaining access through windows of adjoining buildings.

No further complaints have been received from the residents of River Heights relative to the nuisance from "fly ash" which was very much in evidence during last winter from the pulverized fuel steam plant in the vicinity. A new chimney was constructed. Two eight hundred horse power water tube boilers were installed and fitted with Riley underfeed stokers. Smoke conditions have been excellent.

Good progress was made by the Northern Public Service Corporation in the construction of its district heating system. The Steam plant has every modern device for its economical and efficient operation. Smoke conditions since operations commenced have been excellent.

Incidentally, the construction of this plant has also been the means of eliminating recurring smoke nuisances at several buildings.

It is of interest to note the progress of district heating during the past few years in the City of Winnipeg. Buildings connected with these systems at the year ending 1930 were as follows:

#### CITY HYDRO

224 Buildings.

#### WINNIPEG HEATING COMPANY

1030 Dwellings.

16 Apartment Blocks.



## NORTHERN PUBLIC SERVICE CORPORATION

## River Heights—

360 Dwellings (Hot Water).

## West End—

420 Dwellings (Hot Water)

50 Dwellings (steam radiators to warm air installations).

30 other buildings (steam).

## Included in these are:

22 Apartment Blocks.

2 Industrial Plants.

4 Churches.

1 Hospital.

1 Public Library.

A further extension of the heating district of the Winnipeg Heating Company, together with an additional steam plant, is contemplated in the near future. The City Hydro will also extend its system this year.

District heating systems are undoubtedly a boon to any community, as atmospheric conditions are much improved due to the elimination of smoke, ash and sulphur acids. Even a light gray smoke which is generally emitted from chimneys of dwellings is responsible for considerable annoyance, especially during periods when the relative humidity of the atmosphere is high. This causes fog-like conditions and interferes at least with the comfort of the general public. These conditions have been very noticeable since the days when anthracite coal was in general use. The use of coke by a large number of consumers favors the elimination of such nuisance.

Ash in varying amounts is emitted from all chimneys together with sulphur acids, depending on the fuel in use. The former is irritating to the respiratory organs and also gains access to the interior of buildings. Sulphur acids are responsible for undue depreciation of fabrics to a greater extent than the general public are aware. In the past, only smoke has received the attention of the various authorities, but the elimination of ash, etc., is a problem of the very near future.

Unfortunately, we are still without the necessary legislation for controlling dense smoke from locomotives. Round-houses are especially very objectionable in this respect. I am informed however, that one round-house will be equipped with the direct method of locomotive steaming probably next Summer.

Direct steaming is accomplished by filling the locomotive boiler with a mixture of hot water and live steam until a proper water level is reached. The flow of steam is then continued until a working steam pressure and corresponding water temperature is built up. The locomotive may then be disconnected from the steam line and moved out of

the round-house under its own power before lighting the fire. This method is much quicker for putting locomotives in service and incidentally removes the smoke nuisance at round-houses. When this is installed, it will be of considerable benefit to the residents in the vicinity as considerable nuisance from smoke has been caused in the past.

A considerable number of complaints were received relative to defective warm air furnaces. Neglect to maintain these furnaces in good repair may cause impairment of the health of persons occupying the premises, due to inhaling the gaseous products of combustion containing carbon-monoxide.

Fortunately, there have been no fatal cases. On one occasion, however, three persons were removed to hospital suffering from the effects of inhaling the noxious fumes. This incident occurred during the night and it was fortunate that one person awoke, otherwise, the results would have undoubtedly been more serious.

The cause was due to the removal of the domestic hot water supply circulation pipes which passed through the warm air chamber and thence through the frame of the firing door to the combustion chamber of the furnace. An electric heater had been installed to the boiler and the placing of iron plugs in the orifices prepared for the piping, had been neglected. This left a direct connection between the firepot and warm air chamber with the result as above stated.

Owners of premises should realize the possible danger of such defects and have same remedied directly on notification.

In addition to smoke abatement duties, periodical inspections of the following premises were made: Hotels, undertakers parlors, public baths, comfort stations and swimming pools. Inspections relative to other Departmental work were made as requested.

Yours obediently,

P. PICKERING,

Smoke and Supervising Inspector.



## Report of Chief Dairy Inspector

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

Dear Sir:

I have the honor to submit herewith a summary of the work performed and observations made by the Dairy Division for the year 1930.

We do not feel competent to make any detailed comment on the causes leading up to the business depression which we trust has reached its maximum during the year, nor on the reasons causing the bottom to fall out of the grain market; such matters pertaining to world wide conditions over which local authorities have no control; but we do know that the spending power of the western farmer has been tremendously curtailed.

It has been customary in past years when the grain market was flourishing, for the grower of grain to consider himself just a little superior to his neighbor the mixed farmer who kept and raised cows, chickens, and hogs. The work known as chores around the grain farm did not amount to much, nor was it so binding on every day in the year, while on the mixed farm or dairy farm, we find a continual round of chores, day after day for the entire year. During the past few years it has been no uncommon thing to see a dairy farmer deciding to quit that line altogether and to re-locate himself in a grain growing district in order that he might have a little relaxation during certain times of the year.

The experience of the past two years however finds the dairy farmer sitting on top; true he is making no fortune, but at least his income is steady though small, and he is in most cases holding his own; and while prices on all farm products are low, he has the advantage of abundance of cheap feed, and lower costs of operation.

Considering the huge slump in prices for all grains and certain other farm products, the dairy farmer can congratulate himself, that while prices for his product are slightly lower, there has certainly been no slump; this winter's price for milk and cream being from 10% to 15% lower than that of the previous winter. We believe that this drop would have been much larger had not steps been taken to curtail or prevent the dumping of large shipments of imported butter on our domestic markets. We trust that the Manitoba dairy farmer will appreciate the fact that it would never have been necessary to import butter into this Province, had he not himself fallen down on the job and failed to produce sufficient for home consumption.

## MILK VENDORS

A total of 104 permits authorizing issue of licenses were granted during the year, as against 116 for the year 1929; this number comprising 99 dairies with their own dairy herds and 5 milk depots.

Of the 99 dairies, 94 distribute their own product direct to the consumer. During the year two dairy licenses were waived, the holders deciding to discontinue distribution.

|                             | 1927 | 1928 | 1929 | 1930 |
|-----------------------------|------|------|------|------|
| Dairy Licenses issued ..... | 125  | 116  | 110  | 99   |
| Dairy Licenses active ..... | 122  | 112  | 105  | 97   |
| Depot Licenses issued ..... | 10   | 7    | 6    | 5    |
| Depot Licenses active ..... | 7    | 6    | 6    | 5    |
| Total Licenses issued ..... | 135  | 123  | 116  | 104  |
| Total Licenses active ..... | 129  | 118  | 111  | 102  |

The licensed dairies have 126 delivery routes, and the pasteurizing plants 224 routes in the City of Winnipeg, making a total of 350 number plates in use as against 355 for the previous year.

Revenue from license fees, etc., amounted to \$2,544.50 as against \$2,547.50 for 1929.

|                                                 |            |
|-------------------------------------------------|------------|
| 99 Dairy License fees .....                     | \$1,740.50 |
| 5 Plant License fees .....                      | 752.00     |
| Inspection Fees .....                           | 52.00      |
|                                                 | <hr/>      |
|                                                 | \$2,544.50 |
| City Revenue \$531.50.                          |            |
| 8 Dairy Herds located inside City Limits .....  | \$149.50   |
| 2 Pasteurizing Plants located inside City ..... | 372.00     |
| 1 Small Depot located inside City .....         | 10.00      |
|                                                 | <hr/>      |
|                                                 | \$531.50   |
| Country Revenue \$1,961.00.                     |            |
| 91 Dairy Herds located outside the City .....   | \$1,591.00 |
| 2 Pasteurizing Plants outside the City .....    | 370.00     |
|                                                 | <hr/>      |
| Total .....                                     | \$1,961.00 |

The fee for pasteurizing plants located outside the city is based on a figure five times that of the City Plants which pay a city business tax.

## THE LICENSED DAIRIES

During the past 25 years the number of dairies supplying their own product direct to the consumer has been somewhere around the hundred mark, dropping on one occasion to eighty and rising on two or three occasions to 125. At the beginning of the period mentioned these dairies



supplied the entire milk requirements of our city. However they failed to keep pace with the growth of the city, and milk plant companies were organized with the idea of bringing in milk from points further afield. Meanwhile new regulations imposed required some effort towards improvement by the producer.

These improvements were brought forward by steps or in waves, the most desirable or least expensive coming first in order.

25 years ago dairies were merely cow sheds with no particular place for handling or keeping the milk.

20 years ago we put on a campaign for providing a sanitary milk house on every dairy.

15 years ago we were campaigning for sanitary stables, where a cow could live, and milk be produced under healthy conditions; while 10 years ago we were commencing our campaign leading up to the Tuberculin Test.

For several years previous to the introduction of the M. T. O. in 1922, we had actively campaigned in the interests of compulsory pasteurization; but finding no sympathy or support from any public body or authority, it was considered advisable to hold in abeyance this policy, and to fight for something more within our reach. Hence the present By-law which was a big forward step in its time, and which could not have been carried through had not the herd owners themselves given it their whole hearted support.

The average herd of the licensed dairyman runs from 25 to 30 head, and among them we find some splendid herds of dairy cows. These men know cows, and they understand production. There is no doubt whatever but what the Winnipeg district produces a heavier gross yield, and a heavier yield per animal, than any milk producing district in Manitoba. These local dairymen are born to the production game, and as such their services should not be lightly considered.

The Licensed Dairies handle about one third of the retail business in this city, approximately 40% of the product being bottled, the balance being delivered in bulk. Our inspection records regarding the dairy premises, herds, methods and equipment, together with a record of all examinations of the product supplied, enables us to classify these dairies into four groups each composed of about 25% of the total.

1. The first class consists of those with fine herds of real dairy cows housed under ideal conditions, producing clean fresh milk, well cooled and stored, and delivered bottled to the consumer; such milk showing a No. 1 sediment test, low plate count, and good average quality. A few dairies of bulk milk are included in this class.

2. The second class consists of all those who have the necessary equipment and knowledge of the business, which would enable them by exer-



cising special care to reach the first class; but in order to do this we require a full twelve month period of proven record before making the transfer. The sediment record of this class runs between Nos. 1 and 2, and the plate count around 100,000. Approximately two-thirds of the second class dairy milk is bottled.

3. The third class consists of those whose premises and equipment possibly leave something to be desired, who are nevertheless good producers, but lack the necessary finish as handlers or distributors. The most of the milk in this class is sold in bulk averaging No. 2 Sediment Test, and over 100,000 plate count. However this class is not hopeless, as we are enabled to make promotions to the second class, and have on occasion promoted direct from the third to the first class.

4. The fourth class consists of those who in our opinion are only ordinary producers, and should not be engaged in handling and distributing to the consumer.

Just so long as our regulations allow the sale of raw milk, must we keep up this classification as part of our educational campaign, aiming at a steady improvement in our milk supply. All public enquiries regarding any particular raw milk are answered by stating the class to which it belongs.

### THE PASTEURIZING PLANTS

Four plants are engaged in the business of pasteurizing and distributing milk, cream and other dairy products in the city, two being located inside, and two outside the City Limits. These plants handle two-thirds of the fluid milk business, and 95% of the table cream business of the city. In addition the city plants each handle two or three brands of Special or Select milk, and several brands of butter-milk.

The four plants combined have 12 vats or pasteurizers each equipped with recording thermometers, and from 40 to 45 batches of milk are handled daily.

The Department keeps close watch over the pasteurizing operations, and records temperatures and holding periods for all milk handled. In this respect it may be noted that plants are liable to be operating 12 hours per day and 7 days per week, so that our supervision is intermittent and not constant in that we have to rely on the graphic thermostat for much of our information.

However we may say here, that as in all inspection, the active whole-hearted co-operation of those coming under such inspection lightens and smooths over many difficult problems; and we are glad to acknowledge that co-operation which our plant operators have always extended. With a view of the public safety and interests ever in mind, we find that a little education does not go amiss with the plant operative, and in urging



and assuring ourselves that the milk be heated to and held at the proper temperature, we are only looking for the maximum margin of safety; while it occasionally happens that the operative has his mind concentrated on the cream line, and how it will be affected. The majority of Superintendents or foremen in charge of pasteurizing operations understand exactly what they are doing, and why it is being done; and how necessary it is that scrupulous care must be taken to ensure that every last drop of milk is properly treated. It has occasionally happened however that the person in charge has not had a thorough grasp or understanding of the significance of what he was supposed to be doing, and in such cases judicious educational measures are in order.

### CERTIFIED MILK FARMS

The sale of certified milk and the demand for same, has fallen off so rapidly during recent years as to be now almost negligible. Of the two farms formerly engaged in this work, one disposes of its entire output as a Special Raw Milk, while the other disposes of 90% of its output as Special Raw, and the balance as Certified.

We find that the science or art of producing certified milk is not easily forgotten, so that the milk put out by these dairies as Special, responds to all tests equally as good as when it was certified.

In the meantime four more dairies are engaged in the production of what we might call Special Raw Milk giving us a total of six Special Brands of Raw Milk No. 1 in cleanliness all the year round, and an average Plate Count of 10,000 or less.

The use of the term "Special" not being regulated by Law has been much abused, both in advertising and naming or misnaming of brands. Similar criticism may be applied to the use of the word "Grade." The giving of a name to a brand of milk implying special or extraordinary qualities to that milk should be in the hands of some official authority competent to judge, and having facilities for keeping said product under constant supervision and control. In past years we have had instances of milk described as Special, Grade A, etc., which according to our tests and examinations, was not entitled to this distinction.

Under our present system of classifying or grading the various brands of milk, we follow out the same method as with the dairies, and in order to be classed as Special the milk must have proved itself over the entire twelve month period, and given evidence that the same quality and care will be continuous.

Certified milk was introduced into this city in 1917 and for many years served a very useful purpose supplying at that time what was considered a high grade raw milk produced from healthy cows under ideal conditions. At a time when our every day supply of ordinary milk was only fair, special milk for infant feeding was in high demand.



### THE TUBERCULIN TEST

The testing of all cattle contained in the licensed dairy herds under the M.T.O. was inaugurated in 1922, and is administered by the Federal Department of Agriculture under the terms of their agreement with the City of Winnipeg, and with the individual herd owners.

Each herd is kept under exact regulation and supervision according to the latest scientific knowledge of disease control, so as to give the highest possible guarantee that all animals are healthy, and the milk free from the tubercule bacillus.

For the year ending March 31st, 1930, a total of 7,269 cattle were tested in connection with 110 herds, and 175 single cows; of which 2,335 were tested for the first time; while 12,589 re-tests were conducted making a total of 14,924 tests for the year; these figures again emphasizing the large number of replacements necessary in order that dairy herds may be kept up to normal strength; and the enormous amount of testing conducted in order to assure us that only healthy animals may be found in the herd.

A total of 450 animals were slaughtered including one from the previous year, and 22 animals were quarantined for slaughter.

This completes 8 years of the tuberculin test, and the results indicate that the Federal authorities took on a large problem when they undertook to clean up these dairy herds. It begins to look now as if some permanent success is in sight as we understand that the present year will show a very substantial improvement, due probably to the extension of the restricted area plan in the province.

| Year Ending            | Reactors   | Compensation       |
|------------------------|------------|--------------------|
| March 31st, 1923 ..... | 3970       | \$158,037.33       |
| March 31st, 1924 ..... | 1568       | 63,049.33          |
| March 31st, 1925 ..... | 952        | 38,479.00          |
| March 31st, 1926 ..... | 901        | 28,802.16          |
| March 31st, 1927 ..... | 616        | 19,211.00          |
| March 31st, 1928 ..... | 568        | 17,450.40          |
| March 31st, 1929 ..... | 584        | 20,906.66          |
| March 31st, 1930 ..... | 471        | 16,554.83          |
|                        | <hr/> 9630 | <hr/> \$362,490.71 |



### CLASSIFICATION OF DAILY SUPPLY

|                                  |                                 |
|----------------------------------|---------------------------------|
| Pasteurized Milk, bottled .....  | 10,400 gallons—41,600 quarts    |
| Pasteurized Milk, in bulk .....  | 650 gallons— 2,600 quarts       |
| Raw Milk, bottled .....          | 1,600 gallons— 6,400 quarts     |
| Raw Milk, in bulk .....          | 3,400 gallons—13,600 quarts     |
| Raw Milk, certified .....        | 80 gallons— 320 quarts          |
| Raw Milk, Special .....          | 620 gallons— 2,480 quarts       |
| Raw Milk, Private Cows .....     | 250 gallons— 1,000 quarts       |
| <hr/>                            |                                 |
| Total Fluid Milk .....           | 17,000 gallons—68,000 quarts    |
| <hr/>                            |                                 |
| Pasteurized Cream, bottled ..... | 825 gallons—13,200 half pints   |
| Pasteurized Cream, bulk .....    | 600 gallons— 9,600 half pints   |
| Raw Cream, bottled .....         | 75 gallons— 1,200 half pints    |
| <hr/>                            |                                 |
| Total Table Cream .....          | 1,500 gallons—24,000 half pints |

### PERCENTAGE CLASSIFICATION

|                           | 1926 | 1928 | 1930 |
|---------------------------|------|------|------|
| Pasteurized Milk .....    | 57%  | 60 % | 65 % |
| Certified Milk .....      | 2%   | 1.5% | 0.5% |
| Raw T. Tested Herds ..... | 39%  | 37 % | 33 % |
| Raw Private Cows .....    | 2%   | 1.5% | 1.5% |

### DAILY PER CAPITA CONSUMPTION

|                                              |            |
|----------------------------------------------|------------|
| Fluid Milk only, Imperial Measure .....      | 0.65 pints |
| Milk and Cream basis, Imperial measure ..... | 0.88 pints |
| Fluid Milk only, U. S. measure .....         | .81 pints  |
| Milk and Cream basis, U. S. measure .....    | 1.10 pints |

### MILK CONSUMPTION

Early in the year, we had a total daily consumption of fluid milk of 17,200 gallons per day, but a falling off developed later causing us to modify our figures.

Not only have we in the face of a period of acute business depression kept up our average daily consumption, but the average daily per capita consumption is 0.65 pints, dropping from 0.66 in the early part to 0.64 at the end of the year.

The total consumption of cream is slightly higher due to the lower price of butter fat, and the attractive prices quoted by several of the stores handling same; the cut in most cases running from 2 to 5 cents per half pint.

### CONSUMPTION AND DISTRIBUTION—FLUID MILK

Summary showing total daily consumption, daily per capita consumption, and number of delivery routes during the past 12 years.

|            | Gallons<br>per day | Pints per<br>Capita | Delivery<br>Routes |
|------------|--------------------|---------------------|--------------------|
| 1919 ..... | 12,500             | 0.52                | 236                |
| 1920 ..... | 13,000             | 0.54                | 220                |
| 1921 ..... | 13,500             | 0.55                | 240                |
| 1922 ..... | 14,500             | 0.58                | 275                |
| 1923 ..... | 15,000             | 0.60                | 300                |
| 1924 ..... | 15,250             | 0.62                | 315                |
| 1925 ..... | 15,250             | 0.62                | 330                |
| 1926 ..... | 15,500             | 0.63                | 335                |
| 1927 ..... | 16,000             | 0.64                | 345                |
| 1928 ..... | 16,500             | 0.65                | 355                |
| 1929 ..... | 16,750             | 0.65                | 355                |
| 1930 ..... | 17,000             | 0.65                | 350                |

### DELIVERY SERVICE

The total number of delivery routes in the city has dropped from 355 in 1929 to 350 in 1930, due to consolidation with a view to economy, and to the increasing large quantity of milk sold by stores. The large delivery trucks of the distributors delivering cases of bottled milk to the stores are each capable of delivering the equivalent of 3 to 6 retail loads.

The raw milk distributors have 124 retail and 2 wholesale routes, and the pasteurized milk distributors 211 and 13 respectively.

The 15 wholesale routes handle 300 gallons of Special raw milk and 1,400 gallons of pasteurized milk by case lots; they also handle 650 gallons of bulk pasteurized milk in can lots.

The latter must not be confused with dipped milk as in nearly all cases the entire can of milk is delivered intact.

The 335 retail routes handle 9,000 gallons of pasteurized milk and 2,000 gallons of raw milk in bottles, and in addition the raw milk vendors distribute 3,400 gallons of dipped milk. These figures account for 16,750 gallons, to which we add the 250 gallons produced by the private cow-keepers, which is not distributed but consumed at home. The distribution of cream and other products being subject to daily fluctuation is not included in these calculations.



### SEDIMENT TESTS OF SELECTED BRANDS

Sediment tests of all samples submitted for Plate Count were taken, and the results showed that out of 35 brands: 5 were No. 1A for the entire season, while 19 brands were No. 1B; Total 24 No. 1.

Samples examined covered all classes of milk:—Pasteurized, Special Pasteurized, Certified, Special Raw and Ordinary Raw.

The following results were obtained from 579 special samples.

|                            |                 |
|----------------------------|-----------------|
| No. 1A Very clean .....    | 344 samples—60% |
| No. 1B Fairly clean .....  | 103 samples—18% |
| No. 2 Slightly dirty ..... | 113 samples—19% |
| No. 3-4 Dirty .....        | 19 samples— 3%  |
|                            | —               |
|                            | 579 100%        |

|               | Pasteurized    |   | Raw             |
|---------------|----------------|---|-----------------|
| No. 1A .....  | 85 samples—50% |   | 259 samples—63% |
| No. 1B .....  | 31 samples—19% |   | 72 samples—18%  |
| No. 2 .....   | 47 samples—28% |   | 66 samples—16%  |
| No. 3-4 ..... | 5 samples— 3%  |   | 14 samples— 3%  |
|               | —              | — | —               |
|               | 168 100%       |   | 411 100%        |

From the above it would appear at first glance that the raw milk was equally as clean if not cleaner than the pasteurized product, but we must here point out that the 35 brands examined included all the pasteurized 8, and 24 brands of first class raw milk, 3 brands of second class, and none of the third or fourth class, so that it would be unfair to consider this as a fair comparison between pasteurized and raw milk, but it is a fair comparison against the pasteurized milk which is all first class, and the first class raw milk. The 3 second class raw milk brands included were in the first class until the end of the year, and were then demoted to second because their annual average record placed them below the dividing line. These are the three brands numbered 33, 34, 35, in the Normal Average and Milk Score tabulation where they fail to obtain the necessary 75% in order to qualify as first class.

### CLASSIFICATION OF SELECTED BRANDS

Milk Scoring Formula applied to the Normal Averages. Cleanliness: maximum 150, deduct 5 points for each one-tenth over No. 1, example 1.5 is awarded 125, and No. 2—100 points.

Plate Count: Maximum 150 for 2,000 or less.

|                                                        |       |    |
|--------------------------------------------------------|-------|----|
| From 3,000 to 10,000 deduct 1 point per 1,000 .....    | total | 8  |
| From 10,000 to 40,000 deduct 3 points per 5,000 .....  | total | 18 |
| From 40,000 to 100,000 deduct 2 points per 5,000 ..... | total | 24 |
|                                                        |       | —  |
| Total deductions up to 100,000 .....                   |       | 50 |

Thus 10,000 is awarded 142; 40,000—124; and 100,000—100.

Quality, Butter Fat:—multiplied by 10 maximum 40.

Total Solids:—multiplied by 10 maximum 130.

Special awards: Pasteurized 20, Certified 10.

The total maximum of 500 points could only be attained by a pasteurized certified milk No. 1 in cleanliness, 2,000 or less plate count, 4% fat, and 13% total solids.

Total score divided by 5 gives the percentage of perfection. Of the 35 selected brands, 32 scored over 75% and are considered as first class while 3 under 75% are second class.

Of the 32 First Class brands, 6 scored Excellent 90%, 11 Very Good 85%, 11 Good 80%, and 4 Fair 75%.

### PLATE COUNTS OF 1,000 OR LESS

|              |                             |       |
|--------------|-----------------------------|-------|
| Pasteurized  | 3 times out of 168 samples  | 1.8%  |
| Certified    | 4 times out of 13 samples   | 30.7% |
| Raw Special  | 17 times out of 79 samples  | 21.5% |
| Raw Selected | 9 times out of 319 samples  | 2.8%  |
|              |                             | —     |
| Total .....  | 33 times out of 579 samples | 5.8%  |

### PLATE COUNTS OF 10,000 OR LESS

|              |                              |     |
|--------------|------------------------------|-----|
| Pasteurized  | 26 times out of 168 samples  | 15% |
| Certified    | 7 times out of 13 samples    | 54% |
| Raw Special  | 62 times out of 79 samples   | 78% |
| Raw Selected | 61 times out of 319 samples  | 19% |
|              |                              | —   |
| Total .....  | 156 times out of 579 samples | 27% |



## NORMAL AVERAGES AND PERCENTAGES

|                       | Sediment<br>Test | Plate<br>Count | B. Fat | T. Solids | %    |
|-----------------------|------------------|----------------|--------|-----------|------|
| 1. Raw Special .....  | 1                | 3,000          | 3.6    | 12.6      | 92.2 |
| 2. Raw Special .....  | 1                | 4,000          | 3.6    | 12.6      | 92.0 |
| 3. Raw Special .....  | 1.1              | 3,000          | 3.6    | 12.6      | 91.2 |
| 4. Certified .....    | 1.3              | 7,000          | 3.8    | 12.8      | 91.2 |
| 5. Raw Special .....  | 1                | 10,000         | 3.5    | 12.5      | 90.4 |
| 6. Pasteurized .....  | 1.2              | 45,000         | 3.9    | 12.9      | 90.0 |
| 7. Raw Class 1 .....  | 1.2              | 15,000         | 3.8    | 12.7      | 88.8 |
| 8. Raw Class 1 .....  | 1.2              | 10,000         | 3.8    | 12.4      | 88.8 |
| 9. Raw Class 1 .....  | 1.2              | 10,000         | 3.5    | 12.3      | 88.0 |
| 10. Raw Class 1 ..... | 1.1              | 15,000         | 3.3    | 12.0      | 87.4 |
| 11. Pasteurized ..... | 1.2              | 60,000         | 3.6    | 12.3      | 87.0 |
| 12. Raw Class 1 ..... | 1.2              | 25,000         | 3.5    | 12.4      | 86.4 |
| 13. Pasteurized ..... | 1.7              | 20,000         | 3.6    | 12.5      | 86.4 |
| 14. Raw Class 1 ..... | 1.1              | 21,000         | 3.2    | 11.9      | 86.4 |
| 15. Raw Class 1 ..... | 1.1              | 70,000         | 4.4    | 13.2      | 85.4 |
| 16. Pasteurized ..... | 1.4              | 50,000         | 3.4    | 12.2      | 85.2 |
| 17. Raw Class 1 ..... | 1.4              | 20,000         | 3.6    | 12.4      | 85.2 |
| 18. Raw Class 1 ..... | 1.1              | 80,000         | 3.9    | 12.9      | 84.2 |
| 19. Raw Class 1 ..... | 1.2              | 55,000         | 3.6    | 12.6      | 84.0 |
| 20. Raw Class 1 ..... | 1                | 100,000        | 4.6    | 13.8      | 84.0 |
| 21. Raw Class 1 ..... | 1.3              | 40,000         | 3.6    | 12.4      | 83.8 |
| 22. Raw Class 1 ..... | 1.1              | 75,000         | 3.4    | 12.2      | 82.2 |
| 23. Raw Class 1 ..... | 1.6              | 30,000         | 3.6    | 12.3      | 81.8 |
| 24. Raw Class 1 ..... | 1.7              | 30,000         | 3.6    | 12.7      | 81.6 |
| 25. Raw Class 1 ..... | 1                | 100,000        | 3.5    | 12.2      | 81.4 |
| 26. Raw Class 1 ..... | 1.7              | 25,000         | 3.4    | 12.4      | 81.2 |
| 27. Pasteurized ..... | 1.5              | 95,000         | 3.4    | 12.2      | 80.6 |
| 28. Pasteurized ..... | 1.5              | 100,000        | 3.7    | 12.5      | 80.4 |
| 29. Pasteurized ..... | 1.8              | 90,000         | 3.6    | 12.6      | 79.2 |
| 30. Raw Class 1 ..... | 1.7              | 60,000         | 3.4    | 12.3      | 77.6 |
| 31. Raw Class 1 ..... | 1.6              | 100,000        | 3.8    | 12.8      | 77.2 |
| 32. Pasteurized ..... | 1.7              | 100,000        | 3.4    | 12.1      | 77.0 |
| 33. Raw Class 2 ..... | 1.8              | 100,000        | 3.2    | 12.0      | 72.4 |
| 34. Raw Class 2 ..... | 2.0              | 100,000        | 3.2    | 11.8      | 70.0 |
| 35. Raw Class 2 ..... | 2.3              | 100,000        | 3.7    | 12.7      | 69.8 |

90% Excellent; 85% Very Good; 80% Good; 75% Fair;  
Under 75% Poor.

## PLATE COUNTS—SELECTED BRANDS

|                       | 0<br>to<br>1,000 | 1,000<br>to<br>5,000 | 5,000<br>to<br>10,000 | 10,000<br>to<br>25,000 | 25,000<br>to<br>50,000 | 50,000<br>to<br>100,000 | Over<br>100,000 | Total |
|-----------------------|------------------|----------------------|-----------------------|------------------------|------------------------|-------------------------|-----------------|-------|
| 1. Raw Special .....  | 5                | 12                   | 3                     | 1                      | 0                      | 0                       | 1               | 22    |
| 2. Raw Special .....  | 6                | 9                    | 3                     | 3                      | 1                      | 0                       | 0               | 22    |
| 3. Raw Special .....  | 6                | 5                    | 0                     | 1                      | 0                      | 0                       | 1               | 13    |
| 4. Certified .....    | 4                | 1                    | 2                     | 2                      | 3                      | 1                       | 0               | 13    |
| 5. Raw Special .....  | 0                | 4                    | 9                     | 3                      | 4                      | 1                       | 1               | 22    |
| 6. Pasteurized .....  | 0                | 0                    | 1                     | 2                      | 5                      | 5                       | 1               | 14    |
| 7. Raw Class 1 .....  | 1                | 3                    | 1                     | 3                      | 3                      | 2                       | 0               | 13    |
| 8. Raw Class 1 .....  | 2                | 3                    | 2                     | 1                      | 4                      | 1                       | 0               | 13    |
| 9. Raw Class 1 .....  | 2                | 2                    | 8                     | 6                      | 1                      | 2                       | 1               | 22    |
| 10. Raw Class 1 ..... | 0                | 2                    | 2                     | 5                      | 1                      | 3                       | 0               | 13    |
| 11. Pasteurized ..... | 2                | 1                    | 2                     | 5                      | 2                      | 19                      | 2               | 33    |
| 12. Raw Class 1 ..... | 1                | 4                    | 1                     | 2                      | 2                      | 3                       | 0               | 13    |
| 13. Pasteurized ..... | 1                | 6                    | 3                     | 3                      | 4                      | 5                       | 0               | 22    |
| 14. Raw Class 1 ..... | 0                | 4                    | 2                     | 6                      | 6                      | 3                       | 1               | 22    |
| 15. Raw Class 1 ..... | 0                | 0                    | 2                     | 2                      | 0                      | 8                       | 1               | 13    |
| 16. Pasteurized ..... | 0                | 1                    | 1                     | 6                      | 8                      | 17                      | 0               | 33    |
| 17. Raw Class 1 ..... | 1                | 1                    | 1                     | 7                      | 1                      | 2                       | 0               | 13    |
| 18. Raw Class 1 ..... | 0                | 0                    | 0                     | 1                      | 1                      | 10                      | 1               | 13    |
| 19. Raw Class 1 ..... | 0                | 0                    | 0                     | 3                      | 2                      | 8                       | 0               | 13    |
| 20. Raw Class 1 ..... | 0                | 1                    | 1                     | 0                      | 0                      | 8                       | 3               | 13    |
| 21. Raw Class 1 ..... | 0                | 1                    | 0                     | 4                      | 5                      | 3                       | 0               | 13    |
| 22. Raw Class 1 ..... | 0                | 0                    | 0                     | 3                      | 1                      | 6                       | 3               | 13    |
| 23. Raw Class 1 ..... | 1                | 2                    | 2                     | 1                      | 4                      | 2                       | 1               | 13    |
| 24. Raw Class 1 ..... | 0                | 3                    | 1                     | 1                      | 4                      | 4                       | 0               | 13    |
| 25. Raw Class 1 ..... | 0                | 0                    | 1                     | 0                      | 1                      | 8                       | 3               | 13    |
| 26. Raw Class 1 ..... | 0                | 3                    | 1                     | 4                      | 0                      | 3                       | 2               | 13    |
| 27. Pasteurized ..... | 0                | 0                    | 1                     | 2                      | 0                      | 9                       | 1               | 13    |
| 28. Pasteurized ..... | 0                | 2                    | 0                     | 1                      | 1                      | 14                      | 4               | 22    |
| 29. Pasteurized ..... | 0                | 3                    | 0                     | 1                      | 0                      | 7                       | 2               | 13    |
| 30. Raw Class 1 ..... | 0                | 0                    | 1                     | 3                      | 0                      | 9                       | 0               | 13    |
| 31. Raw Class 1 ..... | 0                | 0                    | 1                     | 0                      | 2                      | 14                      | 5               | 22    |
| 32. Pasteurized ..... | 0                | 0                    | 0                     | 1                      | 1                      | 6                       | 5               | 13    |
| 33. Raw Class 2 ..... | 0                | 0                    | 0                     | 1                      | 0                      | 8                       | 4               | 13    |
| 34. Raw Class 2 ..... | —                | —                    | —                     | —                      | 2                      | 9                       | 2               | 13    |
| 35. Raw Class 2 ..... | —                | —                    | —                     | —                      | 1                      | 9                       | 3               | 13    |
| Miscellaneous ..      | 1                | 1                    | 1                     | 2                      | 1                      | 3                       | 2               | 11    |
| Totals .....          | 33               | 74                   | 53                    | 86                     | 71                     | 212                     | 50              | 579   |



## MILK AND DAIRY INSPECTION, 1930

## Summary of Inspections

|                                                              |              |
|--------------------------------------------------------------|--------------|
| Private city cow-keepers' stables inspected .....            | 467          |
| Cattle dealers' and sale stables inspected .....             | 73           |
| Pasteurizers inspected, recording thermometers checked ..... | 465          |
| City licensed milk depots inspected .....                    | 57           |
| City creameries or butter factories inspected .....          | 272          |
| Milk stores, chain stores, refrigerators inspected .....     | 457          |
| Delivery wagons, trucks and sleighs inspected .....          | 2,192        |
| Special city inspections or investigations .....             | 33           |
| <b>Total city inspections .....</b>                          | <b>4,016</b> |
| Licensed dairies and dairy farms inspected .....             | 1,147        |
| Milk and cream shippers visited .....                        | 232          |
| Milk and cream stations visited .....                        | 20           |
| Country creameries visited .....                             | 85           |
| Suburban milk depots inspected .....                         | 28           |
| Suburban pasteurizers inspected and checked .....            | 110          |
| Special country inspections or investigations .....          | 32           |
| <b>Total country inspections .....</b>                       | <b>1,654</b> |
| Milk tested for butter fat and solids .....                  | 1,405        |
| Cream tested for butter fat .....                            | 126          |
| Special plate counts for bacteria content .....              | 582          |
| Sediment tests for cleanliness .....                         | 953          |
| Chemical tests for possible adulteration .....               | 300          |
| <b>Total tests and examinations .....</b>                    | <b>3,366</b> |
| Milk and Cream condemned and destroyed .....lbs.             | 2,630        |
| Value of condemned product at wholesale prices .....         | \$75.25      |
| Notices served, mailed or delivered verbally .....           | 903          |
| Cases of sickness investigated .....                         | 2            |
| Distance travelled by inspectors outside the city .....miles | 15,460       |
| Police Court Prosecutions and Convictions .....              | 5            |

It was only necessary to investigate 2 cases of sickness during the year, neither of which were communicable.

In the month of March a large number of border line cases appeared in the butter fat tests. These were checked and re-checked, resulting in 4 vendors being prosecuted and convicted for selling milk below standard, the remaining prosecution being for selling milk without license. There was no evidence of intentional extraction or adulteration.

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## MILK SUPPLY UNDER HEALTH DEPARTMENT CONTROL

### Duties of the Dairy Division

It is essential that an urban community be assured of an abundant supply of clean pure milk. The danger to the consumer, especially to infants should adequate inspection and supervision not be provided, is obvious. Milk which is unclean, aged or unwholesome is responsible for many gastro-intestinal complaints of infants. Milk from sick or diseased cows should not be consumed under any consideration. Fluid milk readily picks up organisms which cannot be seen, propagating and conveying same to the table of the consumer, and should these be of a pathogenic character, serious milk borne outbreaks may result.

The Dairy Division inspects and arranges for licensing approximately 100 Class A raw milk dairies in the rural districts adjacent to Winnipeg. Keeps an annual register of above including classification and record. Co-operates with the Federal authorities re the tuberculin test of dairy herds. Inspects stables, and issues permits to 175 private cow-keepers in the City. Arranges with the Federal Department for the tuberculin testing of these cows. Inspects all operations at 2 large pasteurizing plants in the city, 2 plants outside the city, 10 creameries and 4 ice cream plants. Inspects 12 pasteurizing machines, and keeps a record of thermostatic readings on all machines, covering 40 batches per day. Inspects 350 delivery vehicles operating on the streets of the city. Inspects 650 stores and refrigerators where milk is kept for sale. Collects and examines 4,000 samples of milk or cream yearly for quality, cleanliness, bacteria content, and freedom from contamination or adulteration; and with the information obtained: classifies over 100 brands of milk as First, Second, Third, etc. Condemns and destroys milk or cream found unfit for consumption. Conducts a general survey of the milk producing districts in Manitoba, with occasional visits to milk stations, creameries, etc. Investigates every case of sickness reported at a dairy, and takes such precautionary measures as apply to each case. Conducts an educational campaign by means of printed matter, circulars, reports, discussion, advice and assistance in preparing plans and specifications including personal instruction to individuals.



## 1930 PRICES OF PASTEURIZED MILK IN 35 CANADIAN CITIES

## Delivered Bottled to the Consumer

(Cents per 40 oz. Quart)

|                              | March | June | September | December |
|------------------------------|-------|------|-----------|----------|
| Victoria, B. C. ....         | 15    | 15   | 15        | 15       |
| Vancouver, B. C. ....        | 11    | 11   | 11        | 11       |
| N. Westminster, B. C. ....   | 11    | 11   | 11        | 11       |
| Calgary, Alta. ....          | 12    | 11   | 11        | 11       |
| Edmonton, Alta. ....         | 12½   | 11   | 11        | 11       |
| Saskatoon, Sask. ....        | 13    | 13   | 13        | 13       |
| Moose Jaw, Sask. ....        | 14    | 13   | 13        | 13       |
| Regina, Sask. ....           | 14    | 13   | 13        | 13       |
| Brandon, Man. ....           | 13    | 11   | 11        | 12       |
| Winnipeg, Man. ....          | 13    | 11   | 12        | 12       |
| Fort William, Ont. ....      | 12½   | 10   | 12        | 12½      |
| Brantford, Ont. ....         | 12    | 12   | 12        | 12½      |
| Hamilton, Ont. ....          | 12    | 12   | 12        | 12       |
| Kitchener, Ont. ....         | 13    | 11   | 11        | 11       |
| London, Ont. ....            | 11    | 11   | 11        | 11       |
| Ottawa, Ont. ....            | 13    | 12   | 12        | 12       |
| Windsor, Ont. ....           | 14    | 12   | 12        | 12       |
| St. Catharines, Ont. ....    | 14    | 13   | 13        | 12½      |
| Toronto, Ont. ....           | 13    | 12½  | 13        | 12       |
| Kingston, Ont. ....          | 11    | 11   | 11        | 11       |
| Peterborough, Ont. ....      | 10    | 10   | 10        | 10       |
| Sault Ste. Marie, Ont. ....  | 12    | 12   | 12        | 12       |
| Guelph, Ont. ....            | 12    | 12   | 12        | 12       |
| Niagara Falls, Ont. ....     | 13    | 13   | 13        | 13       |
| Montreal, P. Q. ....         | 12    | 10   | 10        | 12       |
| Quebec, P. Q. ....           | 14    | 12   | 12        | 14       |
| Sherbrooke, P. Q. ....       | 10    | 9    | 9         | 10       |
| Three Rivers, P. Q. ....     | 13    | 11   | 11        | 13       |
| Verdun, P. Q. ....           | 14    | 12   | 12        | 13       |
| Westmount, P. Q. ....        | 13    | 13   | 12        | 13       |
| St. John, N. B. ....         | 14    | 14   | 14        | 14       |
| Moncton, N. B. ....          | 12    | 12   | 12        | 12       |
| Halifax, N. S. ....          | 12½   | 12½  | 12½       | 12½      |
| Sydney, N. S. ....           | 15    | 15   | 15        | 14       |
| Charlottetown, P. E. I. .... | 12    | 10   | 10        | 10       |

## 1930 PRICES OF PASTEURIZED MILK IN 35 U. S. CITIES

Delivered Bottled to the Consumer

(Cents per 32 oz. Quart)

|                          | March | June | September | December |
|--------------------------|-------|------|-----------|----------|
| Seattle, Wash. ....      | 11    | 11   | 11        | 11       |
| Everett, Wash. ....      | 10    | 10   | 10        | 10       |
| Portland, Ore. ....      | 12    | 12   | 13        | 11       |
| Salem, Ore. ....         | 11    | 10   | 11        | 12       |
| Butte, Mont. ....        | 13    | 13   | 13        | 13       |
| Lewistown, Mont. ....    | 10    | 10   | 10        | 10       |
| Grand Forks, N. D. ....  | 11    | 11   | 11        | 10       |
| Mandan, N. D. ....       | 12    | 12   | 12        | 11       |
| Aberdeen, S. D. ....     | 11    | 10   | 11        | 11       |
| Sioux Falls, S. D. ....  | 12    | 12   | 12        | 12       |
| Minneapolis, Minn. ....  | 11    | 11   | 11        | 10       |
| Duluth, Minn. ....       | 12    | 11   | 12        | 11       |
| Winona, Minn. ....       | 11    | 11   | 11        | 11       |
| Milwaukee, Wis. ....     | 12    | 11   | 11        | 11       |
| Racine, Wis. ....        | 12    | 12   | 12        | 12       |
| Wasau, Wis. ....         | 10    | 10   | 10        | 10       |
| Detroit, Mich. ....      | 13    | 13   | 13        | 13       |
| Lansing, Mich. ....      | 12    | 12   | 12        | 12       |
| Battle Creek, Mich. .... | 12    | 12   | 12        | 12       |
| Kalamazoo, Mich. ....    | 13    | 13   | 13        | 13       |
| Chicago, Ill. ....       | 14    | 14   | 14        | 14       |
| Peoria, Ill. ....        | 13    | 13   | 13        | 13       |
| Rockford, Ill. ....      | 12    | 12   | 12        | 12       |
| Indianapolis, Ind. ....  | 12    | 12   | 12        | 11       |
| South Bend, Ind. ....    | 12    | 12   | 12        | 12       |
| Columbus, Ohio. ....     | 12    | 12   | 12        | 11       |
| Cincinnati, Ohio ....    | 14    | 14   | 14        | 14       |
| Cleveland, Ohio ....     | 12    | 12   | 13        | 12       |
| Scranton, Pa. ....       | 14    | 14   | 14        | 14       |
| Pittsburg, Pa. ....      | 13    | 13   | 14        | 13       |
| Albany, N. Y. ....       | 15    | 15   | 15        | 15       |
| Buffalo, N. Y. ....      | 14    | 14   | 14        | 12       |
| Manchester, N. H. ....   | 15    | 15   | 15        | 12½      |
| Portsmouth, N. H. ....   | 14    | 14   | 14        | 14       |
| Burlington, Vt. ....     | 12    | 10   | 12        | 12       |



## MILK SUPPLY OF 35 CANADIAN CITIES

## Percentage of Pasteurization

|                              | %    |                                   |
|------------------------------|------|-----------------------------------|
| Saskatoon, Sask. ....        | 100  | —Herds under M.T.O.               |
| Hamilton, Ont. ....          | 100  |                                   |
| Windsor, Ont. ....           | 100  |                                   |
| St. Catherines, Ont. ....    | 100  | —Certified 0.8%.                  |
| Toronto, Ont. ....           | 100  | —Certified 0.12%.                 |
| Niagara, Falls, Ont. ....    | 100  |                                   |
| Westmount, P.Q. ....         | 100  |                                   |
| Fort William, Ont. ....      | 98   | —2% Tested Herds.                 |
| Ottawa, Ont. ....            | 98   | —Herds under M.T.O.               |
| Verdun, P. Q. ....           | 98   | —2% Tested Herds.                 |
| Calgary, Alta. ....          | 96   | —Herds under M.T.O.               |
| Kitchener, Ont. ....         | 95.4 | —4.6% Tested Herds.               |
| Regina, Sask. ....           | 95   | —Herds under M.T.O.               |
| Brantford, Ont. ....         | 95   | —Herds under M.T.O.               |
| Montreal, P. Q. ....         | 95   | —Certified 0.25%.                 |
| Halifax, N. S. ....          | 95   | —5% Tested Herds.                 |
| Vancouver, B. C. ....        | 93   | —Certified 0.3%. Herds T. Tested. |
| St. John, N. B. ....         | 92   | —Certified 0.6%. Herds T. Tested. |
| Moose Jaw, Sask. ....        | 86   | —Herds under M.T.O.               |
| London, Ont. ....            | 77   | —Herds under M.T.O.               |
| Peterborough, Ont. ....      | 75   |                                   |
| Winnipeg, Man. ....          | 65   | —Certified 0.5%. M.T.O.           |
| Guelph, Ont. ....            | 65   | —Herds under M.T.O.               |
| Three Rivers, P. Q. ....     | 61.4 |                                   |
| New Westminster, B. C. ....  | 60   | —Herds T. Tested.                 |
| Edmonton, Alta. ....         | 60   | —Herds under M.T.O.               |
| Kingston, Ont. ....          | 50   |                                   |
| Quebec, P. Q. ....           | 40   |                                   |
| Victoria, B. C. ....         | 30   | —Herds T. Tested.                 |
| Brandon, Man. ....           | 30   | —Herds under M.T.O.               |
| Sault Ste. Marie, Ont. ....  | 30   |                                   |
| Sherbrooke, P. Q. ....       | 25   |                                   |
| Moncton, N.B. ....           | 18   | —Herds T. Tested.                 |
| Charlottetown, P. E. I. .... | 17   | —Herds T. Tested.                 |
| Sydney, N. S. ....           | 15   |                                   |

## WINNIPEG'S MILK SUPPLY FOR 25 YEARS

## Fluctuation of Pasteurization

|            | Pasteur-<br>ized<br>% | Certi-<br>fied<br>% | Raw<br>Tested<br>Herds<br>% | Raw<br>Private<br>Cows<br>% | Raw<br>Herds<br>Untested<br>% |
|------------|-----------------------|---------------------|-----------------------------|-----------------------------|-------------------------------|
| 1906 ..... | 3                     | ....                | 1                           | 10                          | 86                            |
| 1907 ..... | 6                     | ....                | 1                           | 9                           | 84                            |
| 1908 ..... | 12                    | ....                | 2                           | 8                           | 78                            |
| 1909 ..... | 25                    | ....                | 3                           | 6                           | 66                            |
| 1910 ..... | 33                    | ....                | 3                           | 4                           | 60                            |
| 1911 ..... | 40                    | ....                | 10                          | 4                           | 46                            |
| 1912 ..... | 50                    | ....                | 7                           | 3                           | 40                            |
| 1913 ..... | 65                    | ....                | 3                           | 2                           | 30                            |
| 1914 ..... | 60                    | ....                | 2                           | 2                           | 36                            |
| 1915 ..... | 50                    | ....                | 3                           | 3                           | 44                            |
| 1916 ..... | 50                    | ....                | 4                           | 3                           | 43                            |
| 1917 ..... | 50                    | 1                   | 3                           | 3                           | 43                            |
| 1918 ..... | 50                    | 2                   | 2                           | 3                           | 43                            |
| 1919 ..... | 55                    | 2.5                 | 3.5                         | 3                           | 36                            |
| 1920 ..... | 65                    | 2.5                 | 2.5                         | 2                           | 28                            |
| 1921 ..... | 62                    | 3                   | 3                           | 2                           | 30                            |
| 1922 ..... | 60                    | 3                   | 14                          | 3                           | 20                            |
| 1923 ..... | 58                    | 2                   | 37                          | 3                           | ....                          |
| 1924 ..... | 54                    | 2                   | 42                          | 2                           | ....                          |
| 1925 ..... | 54                    | 2                   | 42                          | 2                           | ....                          |
| 1926 ..... | 57                    | 2                   | 39                          | 2                           | ....                          |
| 1927 ..... | 58                    | 2                   | 38.4                        | 1.6                         | ....                          |
| 1928 ..... | 60                    | 1.5                 | 37                          | 1.5                         | ....                          |
| 1929 ..... | 62.4                  | 1.4                 | 34.6                        | 1.4                         | ....                          |
| 1930 ..... | 65                    | 0.5                 | 33                          | 1.5                         | ....                          |

Pasteurization commenced in this City in 1905 and reached 65% in 1913 and again in 1920 due to rapid increases in population during those years and the milk companies being better equipped for taking care of the increased business.

Raw milk from untested herds formed the greater portion of our milk supply until 1910, and was abolished finally in 1922. Certified milk appeared in 1917 and is down to 0.2% at the end of 1930.

On each occasion that pasteurization formerly reached 65%, namely, 1913-14 and 1919-20, the Department urged the desirability of a 100% policy, but received no encouragement from the authorities, or from any public body or organization.



## MILK SUPPLY PROBLEMS AND POLICIES

### Canadian and American Cities

Five years ago only 8 cities in Canada reported 90% or over pasteurization of which 2 were 100%.

In 1930, returns from 35 cities indicate that 18 register over 90%, of this number 7 are practically 100%.

A steady increase in the consumption of pasteurized milk is indicated by reports from all over the North American continent.

|                                            | U. S. | Canada |
|--------------------------------------------|-------|--------|
| Cities requiring 100% Pasteurization ..... | 24    | 5      |
| Cities which exempt Certified milk .....   | 39    | 2      |
| Cities with 98% Pasteurization .....       | 24    | 3      |
|                                            | —     | —      |
| Total .....                                | 87    | 10     |

A large number of U. S. cities provide for milk being pasteurized, certified or Grade A raw; but very little Grade A raw is either sold or consumed.

United States reports indicate that the sale of Certified milk is rapidly decreasing, this being due to the extreme cost, and to the high quality of several pasteurized brands on the market. Similar conditions appear in Canada, for example, in Toronto consumption of Certified milk has dropped from 0.5% to 0.12%, and in Winnipeg, where it has dropped from 1.4% to 0.5% in one season, and is already at 0.2% at the beginning of the next. Certified milk was introduced on the North American continent at a time when a real high class milk for the nutrition of delicate infants and invalids was very scarce and almost unknown; whereas now that a large percentage of the milk supply of most urban communities is of a high standard as regards safety and purity, the demand for certified milk has declined accordingly.

A majority of Health Authorities now claim that no system of 100% pasteurization is complete unless Certified milk is also included and brought under the requirement. A recent survey by the U. S. Public Health service indicates that 70% of all state authorities favor pasteurization of all milk, including Certified, while 30% favor the exemption of Certified milk.

### THE DAIRY INDUSTRY

Total imports into Canada for the year 1930 amounted to 13 million dollars or ½ million less than 1929. (Dairy Products).

Exports for 1930 amounted to approximately 19 1/3 million, as against 28 1/3 million for 1929; a decrease of 9 million dollars. Holdings in Canada at the end of the year showed an increase over the year

previous of  $8\frac{1}{2}$  million pounds of butter, and  $4\frac{1}{2}$  million pounds of cheese. The large carry over only accounts for a small portion of the decrease in exports, so that it is evident that we are consuming more or producing less. The increased carry over however does suggest that we are piling up products for which we can only with difficulty find a ready market. Of course we must bear in mind that all products carried in storage may not have been produced in Canada, as we are well aware of some instances where imported New Zealand butter was held in storage for abnormally long periods.

The poor results obtaining to grain farming will undoubtedly induce more dairy production in the West. For 1930 Alberta shows an increase in butter production of  $1\frac{1}{2}$  million pounds, Manitoba an increase of  $\frac{1}{4}$  million and Saskatchewan a decrease of one million.

The Manitoba increase did not commence to show itself until well towards the end of the year, and during the winter production in this province has made rapid gains which we trust will continue. The slight reduction in prices for milk or butter fat is offset by the lowered cost of stocking and feeding. Mixed farming to be successful must be well mixed and include several lines or side lines. The tendency has generally been towards extremes, and we are apt to find the milk producer with nothing but milk to dispose of, and often having to purchase butter or eggs, fruit or vegetables, pork, veal or poultry; nor should he have to purchase hay, roughage or grains for the purpose of feeding his stock.

With dairy farming and dairy manufacturing flourishing in our midst we are assured of an adequate milk supply and we trust that the harmonious relationship at present existing between producer, handler and consumer may long continue.

I have the honor to be, Sir,

Your obedient servant,

E. C. BROWN,

Chief Dairy Inspector.



## DAIRY INSPECTION—1930

|                    | Jan. | Feb. | Mar. | April | May  | June | July | Aug. | Sept. | Oct. | Nov. | Dec. | TOTALS |
|--------------------|------|------|------|-------|------|------|------|------|-------|------|------|------|--------|
| City Inspections:  |      |      |      |       |      |      |      |      |       |      |      |      |        |
| Cow Keepers.....   | 105  | 170  | 138  | 34    | 7    | 2    | 2    | 4    | 2     | .... | 3    | .... | 467    |
| Cow Dealers.....   | 6    | 6    | 6    | 10    | 6    | 7    | 4    | 4    | 6     | 6    | 6    | 6    | 73     |
| Pasteurizers.....  | 40   | 46   | 37   | 28    | 40   | 36   | 49   | 46   | 40    | 37   | 32   | 34   | 465    |
| Milk Depots.....   | 3    | 10   | 4    | 2     | 4    | 2    | 15   | 5    | 2     | 3    | 5    | 2    | 57     |
| Creameries.....    | 3    | 27   | 29   | 25    | 27   | 23   | 14   | 23   | 23    | 29   | 24   | 25   | 272    |
| Milk Stores.....   | 20   | 36   | 15   | 10    | 20   | 16   | 14   | 128  | 21    | 48   | 55   | 74   | 457    |
| Vehicles.....      | 206  | 169  | 162  | 203   | 238  | 216  | 149  | 126  | 180   | 243  | 179  | 121  | 2192   |
| Special.....       | 2    | 2    | 1    | 2     | .... | 1    | 2    | 2    | 1     | 2    | 2    | 16   | 33     |
| Total.....         | 385  | 466  | 392  | 314   | 342  | 303  | 249  | 338  | 275   | 368  | 306  | 278  | 4016   |
| Notices:           |      |      |      |       |      |      |      |      |       |      |      |      |        |
| General.....       | .... | 3    | .... | ....  | 100  | .... | 10   | 60   | ....  | 3    | .... | .... | 160    |
| Special.....       | .... | .... | .... | 5     | 4    | 8    | 2    | .... | ....  | .... | 3    | 35   | 71     |
| Formal.....        | .... | .... | 1    | 1     | 2    | .... | .... | .... | ....  | .... | .... | 1    | 7      |
| Verbal.....        | 115  | 88   | 84   | 44    | 15   | 31   | 16   | 74   | 17    | 26   | 12   | 29   | 551    |
| Consultations..... | 5    | 68   | .... | 4     | 2    | 6    | 8    | 10   | 3     | 5    | 3    | .... | 114    |
| Total.....         | 120  | 159  | 85   | 54    | 123  | 45   | 36   | 144  | 20    | 34   | 18   | 65   | 903    |

## DAIRY INSPECTION—1930

|                              | Jan. | Feb. | Mar. | April | May  | June | July | Aug. | Sept. | Oct. | Nov. | Dec. | TOTALS |
|------------------------------|------|------|------|-------|------|------|------|------|-------|------|------|------|--------|
| Country Inspections:         |      |      |      |       |      |      |      |      |       |      |      |      |        |
| Licensed Dairies.....        | 64   | 55   | 79   | 85    | 124  | 147  | 91   | 93   | 107   | 109  | 109  | 84   | 1147   |
| Milk Shippers.....           | 2    | 3    | 5    | 2     | 6    | 22   | 19   | 20   | 34    | 33   | 21   | 11   | 178    |
| Cream Shippers.....          |      |      |      |       |      | 6    | 8    | 14   | 8     | 8    | 8    | 2    | 54     |
| Milk and Cream Stations..... | 2    |      | 1    |       |      | 2    | 4    | 2    | 5     | 2    | 2    |      | 20     |
| Pasteurizers.....            | 3    | 12   | 8    | 13    | 12   | 10   | 12   | 6    | 2     | 12   | 10   | 10   | 110    |
| Milk Depots.....             | 3    | 2    | 3    | 3     | 3    | 2    | 2    | 2    | 2     | 2    | 2    | 2    | 28     |
| Creameries.....              | 2    | 6    | 5    | 12    | 1    | 5    | 9    | 8    | 11    | 13   | 3    | 10   | 85     |
| Special.....                 | 4    | 6    | 3    | 4     | 2    | 2    | 4    | 2    |       | 1    | 3    | 1    | 32     |
| Total.....                   | 80   | 84   | 104  | 119   | 148  | 196  | 149  | 147  | 169   | 180  | 158  | 120  | 1654   |
| Mileage: Country—            |      |      |      |       |      |      |      |      |       |      |      |      |        |
| Inspector A.....             | 640  | 550  | 475  | 500   | 500  | 600  | 1600 | 1250 | 1000  | 1000 | 750  | 600  | 9465   |
| Inspector B.....             | 175  | 65   | 150  | 210   | 260  | 310  | 110  | 195  | 220   | 265  | 320  | 230  | 2510   |
| Inspector C.....             | 120  | 100  | 135  | 215   | 325  | 380  | 415  | 270  | 425   | 475  | 395  | 230  | 3485   |
| Total.....                   | 935  | 715  | 760  | 925   | 1085 | 1290 | 2125 | 1715 | 1645  | 1740 | 1465 | 1060 | 15460  |





# Report of Chief Food Inspector

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

Dear Sir:

I beg to submit a report of the work of the Food Division for the year 1930.

The number of premises under inspection showed a slight decrease, dropping from 1900 to 1890, which is 40 above the 1928 total.

The year was fairly free from complaints of sickness due to the ingestion of food, there being only four such complaints. Two of these came from a private firm who provide only for their own staff. By request, we made a thorough survey of the firm's premises and collected samples from the left-over portions of food, but could find nothing to indicate the cause of the sickness, nor could the Bacteriologist find any micro-organisms in the samples submitted that would cause food poisoning. The other two complaints related to sausage and head cheese. As in the case of the two former complaints, neither we nor the bacteriologist could find anything in the sausages to indicate unwholesomeness. In the fourth case the head cheese was apparently the cause of sickness as some procured from the Vendor's store proved on examination to be decomposing, even though it had been kept in the refrigerator during the interval that elapsed from the time the purchaser procured it to the time that the vendor delivered the remainder to the inspector.

## ABATTOIRS

The abattoirs are all on the alert to improve conditions in their plants and to install the latest machinery for their work so as to cut down on their overhead expenses. All plants were renovated throughout. One plant has commenced a new process; canning chickens, the work being carried out under the most up to date and sanitary methods. The same plant has had the Dry Rendering process for treating their offal installed. This means that this refuse, from being a source of worry and anxiety not only to themselves but to outside municipalities, as to its disposal, has become a revenue producing sideline which will mean a considerable saving to the firm annually. If other plants installed this process, there is no doubt it would result in reducing the number of complaints received of bad odors from packing plants from residents in the vicinity of such premises.

## BAKERIES

There was a decrease of one in the number of small bakeries under inspection. No doubt keen competition and the business depression had



something to do with this, as the small bakeries depend more on their sale of cakes and pastries than on bread sales, and when the spending power of the citizens is curtailed by lack of work and poor business generally, cakes and pastries are looked upon as luxuries and people cease buying.

### BUTCHER SHOPS

There was no increase in the number of butcher shops, but if all the grocery store-keepers who sell fresh meats during the winter months were included, there would be a very large increase, as the tendency at present is for practically all grocers to keep fresh meats during the cold weather. If Section 142 of the Public Health Act were enforced it would to a certain extent curtail the selling of meats in open air markets by anyone unless he or they had a permit so to do. The section referred to reads as follows: "No butcher or dealer shall vend or offer for sale in any Municipality, any meat or meats intended for human consumption, unless authorized so to do by written permit issued by the Health Officer of such Municipality. Any person desiring such permit may apply to such Health Officer in writing, setting forth: (1) The name and address of the applicant. (2) Whether animals slaughtered by himself in whole or in part. (3) The manner in which said applicant intends to dispose of his meats, whether by wholesale or retail."

### CONDEMNATIONS

There was a large decrease in the amount of food condemned as unfit for human consumption during the year, poultry alone showing a reduction of over 6,000 lbs. No doubt this is partially due to the educational work carried on by the Agricultural College, and by the talks over the radio. Another feature that may account for the decrease, is the fact that one firm, formerly a large buyer direct from the farmers, has ceased buying direct and buys now through the abattoirs where culling is done. Out of over 14,000 lbs. of poultry condemned, only 1.25% was found to be tubercular, the remainder being condemned for the so called "greening." If the shippers would study the preparation, dressing and packing of poultry, and take every precaution to see that poultry intended for market were given nothing but water for at least 24 hours before slaughter, and that the birds were properly cooled before packing, they would be money in pocket as the birds would reach the market much better in appearance and keeping quality.

### FLIES

A few winters ago, the Department insisted that Bakeries and Restaurants should keep fly papers renewed all the time that flies were present. The reasons given at that time for such procedure must either have been forgotten or proprietors have become indifferent. If one could only get the intelligent interest of all proprietors in regard to the menace of the house fly to the public health, more attention would be



paid to preventing the breeding of these pests in Bakeshops and Restaurants in the winter months, and if there were more rigid inspection of all such places regarding the breeding places of the house fly in winter, the citizens would reap the benefit during the summer and fall months. We are convinced that by concentrated action along this line, that the fly nuisance could be reduced very materially.

### GROCERY STORES

There has been a decrease in the number of grocery stores. Considerable improvement is going on all the time in the way of renovating and remodelling. A large percentage of the stores show much improvement, not only in the store proper but in the fixtures and the displaying of the merchandise. The tendency today is to keep the stock as small as practicable with the class of business carried on. This is an improvement as the stock is renewed much oftener than formerly and presents a clean fresh appearance to the prospective buyer.

### ICE CREAM AND CONFECTIONERY STORES

There was a slight decrease in the number of such places during the past year. This is no doubt due to the keen competition in the confectionery business, storekeepers having converted their premises into light lunch places where competition is not so keen. This is good from a health point of view, as the new members in this line of business usually renovate their premises and have all the latest equipment in the way of refrigeration. This is a decided improvement on methods employed only two years ago. The latest refrigeration equipment consists of a cabinet containing a refrigeration solution controlled by a thermostat, which starts a pump circulating the solution when a certain temperature is reached, thus keeping the ice cream at a practically uniform temperature. In the ice cream cabinet, the ice and salt packing has been replaced by cartons containing a refrigeration solution which has been exposed to a temperature of 20 degrees below zero. These cartons are airtight, so there is no evaporation or leakage, and they retain a low temperature for 48 hours even in the hottest weather. These new methods have to a large extent eliminated the danger of bacteria contained in the compound, whose growth is inhibited while ice cream remains frozen but multiply rapidly if the mixture warms to a point above freezing. Today the Food Inspector seldom if ever has to call attention to the section in the Food and Drugs Act prohibiting the sale of re-frozen ice cream.

### FRESH FRUIT AND VEGETABLES

There is considerable improvement in the handling of fresh fruit and vegetables, no doubt due to the more efficient methods adopted during transportation and to control of supply, which has prevented the glutting of the market so prevalent in former years. The precautions taken



by the Food and Drug officials of the United States and the educational campaigns conducted by the state agricultural colleges for controlling the amount of arsenical spray on fruit and vegetables have, so far as the Winnipeg market is concerned, been beneficial, and no complaints have been received this year. When it is remembered that an enormous amount of Lead Arsenate, Calcium Arsenate and Paris Green, possibly amounting to 50,000,000 lbs. annually, is used as sprays by fruit and vegetable growers, it is remarkable that no complaints were received, and commendation is in order for the parties who achieve such results.

### MARKETS

There is no municipally owned market in the city, the one in use being privately owned. Were it not for the considerable checking up done by the Inspector for this district, conditions would soon become such that numerous complaints would reach this office. Since its establishment, this market has outgrown the accommodation provided, and a number of merchants have established themselves nearby. These merchants, (mostly fruit and vegetable), use the sidewalk of the street to display their wares, causing obstruction.

### RESTAURANTS AND LIGHT LUNCH HOUSES

Under the License By-law, all places where food, solid or liquid, is consumed on the premises, are licensed, but why license only premises where victualling is done? It would not only help the city's revenue if all food stores irrespective of what they sell were licensed, but existing regulations could be more easily enforced. Conditions in these places are gradually improving, a number of proprietors of such premises having renovated and remodelled their premises, discarded the old style ice boxes and installed up-to-date refrigeration cabinets. These ensure the keeping of meats, pies, etc., at a proper temperature.

### PROSECUTIONS

There were no prosecutions during the year. Some people might regard this as slackness or a let up in the enforcement of the law, but the educational work carried on by my predecessor is bearing fruit. We find people employed in the handling of foodstuffs anxious to co-operate with the Department by doing so in as clean and sanitary a method as possible.

### STAFF

I wish to record my appreciation for the ever willing and close co-operation of Inspectors Mines and McQuillan.

Yours respectfully,

A. W. FOOTE,

Chief Food Inspector.

## FOOD CONDEMNATIONS—1930

| DESCRIPTION         | Jan.  | Feb.  | Mar.  | April  | May   | June   | July    | Aug.  | Sept. | Oct.  | Nov.   | Dec.   | TOTALS  |
|---------------------|-------|-------|-------|--------|-------|--------|---------|-------|-------|-------|--------|--------|---------|
| Beef.....           | 20    | ..... | 20    | 30     | 989   | 1,262  | 1,318   | 268½  | 423   | 172   | .....  | 35     | 50      |
| Veal.....           | ..... | ..... | 280   | 1,442  | 201   | .....  | .....   | 7     | ..... | ..... | .....  | .....  | 6,209½  |
| Pork.....           | ..... | ..... | ..... | .....  | ..... | .....  | .....   | 110   | ..... | ..... | 150    | .....  | 208     |
| Sausage.....        | ..... | ..... | ..... | .....  | 8     | 44½    | 549½    | 187   | 78    | 514   | 5,457¾ | 6,518½ | 260     |
| Poultry.....        | 150   | 315   | 243   | 234    | ..... | .....  | .....   | ..... | 150   | ..... | .....  | 64     | 14,299¼ |
| Fish.....           | 130   | 45    | 75    | 30     | ..... | .....  | .....   | ..... | ..... | 20    | .....  | .....  | 494     |
| Fresh Fruit.....    | ..... | ..... | 105   | .....  | ..... | .....  | .....   | ..... | ..... | 30    | .....  | .....  | 125     |
| Dried Fruit.....    | ..... | ..... | ..... | 19,880 | ..... | .....  | .....   | ..... | ..... | ..... | 24     | .....  | 19,910  |
| Jam.....            | ..... | ..... | 150   | .....  | ..... | 6,020  | 11,760  | ..... | 80    | 30    | 1,200  | .....  | 174     |
| Vegetables.....     | ..... | ..... | ..... | .....  | ..... | .....  | .....   | ..... | 15    | ..... | .....  | .....  | 19,090  |
| Candy.....          | ..... | ..... | ..... | .....  | ..... | .....  | .....   | 30    | ..... | ..... | .....  | .....  | 45      |
| Biscuits.....       | 500   | ..... | ..... | 50     | ..... | .....  | .....   | 25    | ..... | 45    | 132    | .....  | 575     |
| Cereals.....        | ..... | 100   | ..... | .....  | ..... | .....  | .....   | 20    | ..... | ..... | .....  | .....  | 297     |
| Baking Soda.....    | ..... | 50    | ..... | .....  | ..... | .....  | .....   | ..... | ..... | ..... | .....  | .....  | 50      |
| Game (Rabbits)..... | 17    | 64    | 94    | 27     | ..... | .....  | .....   | ..... | ..... | ..... | .....  | 92     | 294     |
| Pickles.....        | ..... | ..... | ..... | .....  | ..... | 187    | .....   | ..... | ..... | ..... | .....  | .....  | 187     |
| Tea.....            | ..... | ..... | ..... | 50     | ..... | .....  | .....   | ..... | ..... | 76    | .....  | .....  | 123     |
| Sugar.....          | ..... | 350   | ..... | 266    | 100   | 100    | .....   | ..... | 600   | 70    | 590    | .....  | 2,076   |
| Bread.....          | ..... | ..... | ..... | .....  | ..... | .....  | .....   | 10    | ..... | ..... | .....  | .....  | 10      |
| Totals.....         | 817   | 924   | 967   | 22,009 | 1,298 | 7,613½ | 13,627½ | 657½  | 1,346 | 957   | 7,553¾ | 6,709½ | 64,479¾ |



## PREMISES UNDER INSPECTION AND IMPROVEMENTS MADE

| DESCRIPTION                              | Number<br>under<br>Inspection | New<br>Modern | Cement<br>Floors | Renovated | New<br>Plumbing | Remodelled |
|------------------------------------------|-------------------------------|---------------|------------------|-----------|-----------------|------------|
| Abattoirs.....                           | 3                             | .....         | .....            | 3         | .....           | .....      |
| Auction Rooms.....                       | 1                             | .....         | .....            | .....     | .....           | .....      |
| Bakeries.....                            | 63                            | 6             | .....            | 35        | 2               | 6          |
| Biscuit and Cereal Plants.....           | 7                             | .....         | .....            | 7         | .....           | .....      |
| Bottling Plants.....                     | 16                            | 1             | .....            | 4         | .....           | .....      |
| Breweries.....                           | 5                             | .....         | .....            | 5         | .....           | .....      |
| Butcher Shops.....                       | 209                           | 9             | .....            | 65        | 5               | 6          |
| Butter Rooms.....                        | 2                             | .....         | .....            | .....     | .....           | .....      |
| Candy Factories.....                     | 25                            | .....         | .....            | 11        | 2               | 5          |
| Cold Storage Plants.....                 | 8                             | .....         | .....            | .....     | .....           | .....      |
| Canning Factories.....                   | 2                             | .....         | .....            | .....     | .....           | .....      |
| Commission and Produce Houses.....       | 49                            | 1             | .....            | 2         | .....           | 1          |
| Confectioners and Ice Cream Parlors..... | 280                           | 6             | .....            | 113       | 12              | 12         |
| Cone Factories.....                      | 1                             | .....         | .....            | .....     | .....           | .....      |
| Delicatessen Shops.....                  | 3                             | .....         | .....            | .....     | .....           | .....      |
| Fish Stores.....                         | 12                            | 1             | 1                | 1         | .....           | .....      |
| Fruit Houses (Wholesale).....            | 28                            | .....         | .....            | 7         | .....           | .....      |
| General Stores.....                      | 363                           | 4             | .....            | 64        | 1               | 1          |
| Groceries (Retail).....                  | 283                           | 4             | .....            | 66        | 6               | 15         |
| Groceries (Wholesale).....               | 29                            | .....         | .....            | 1         | .....           | .....      |
| Hawkers' Vehicles.....                   | 89                            | .....         | .....            | .....     | .....           | .....      |
| Hotel Kitchens.....                      | 24                            | .....         | .....            | 24        | .....           | 3          |
| Jam, Pickle and Vinegar Factories.....   | 8                             | 1             | .....            | 3         | .....           | 1          |
| Markets.....                             | 2                             | .....         | .....            | .....     | .....           | .....      |
| Packing Plants.....                      | 4                             | .....         | .....            | 1         | .....           | .....      |
| Peanut Butter Factories.....             | 1                             | .....         | .....            | 1         | .....           | .....      |
| Poultry Slaughter Houses.....            | 7                             | .....         | .....            | 7         | .....           | .....      |
| Restaurants.....                         | 336                           | 16            | 2                | 211       | 6               | 40         |
| Railway and Express Companies.....       | 5                             | .....         | .....            | .....     | .....           | .....      |
| Sausage Factories.....                   | 19                            | 2             | .....            | 5         | .....           | 1          |
| Tea, Coffee and Spice Houses.....        | 5                             | .....         | .....            | .....     | .....           | .....      |
| Yeast Factories.....                     | 1                             | .....         | .....            | .....     | .....           | .....      |
| Totals.....                              | 1890                          | 51            | 3                | 636       | 34              | 91         |

## FOOD INSPECTIONS—1930

| PREMISES                                 | Jan.  | Feb.  | Mar.  | April | May   | June  | July  | Aug.  | Sept. | Oct.  | Nov.  | Dec.  | TOTALS |
|------------------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|
| Abattoirs and Packers.....               | ...   | 1     | 1     | 6     | 3     | 2     | 3     | 1     | 2     | 2     | 3     | 3     | 27     |
| Bakeries.....                            | 38    | 39    | 44    | 74    | 74    | 70    | 58    | 63    | 74    | 82    | 71    | 72    | 759    |
| Bakery Vehicles.....                     | 21    | 24    | 28    | 28    | 28    | 28    | 17    | 16    | 26    | 33    | 29    | 23    | 301    |
| Biscuit Factories and Cereal.....        | 2     | 1     | ...   | 2     | 2     | 3     | ...   | ...   | 2     | 4     | 1     | ...   | 17     |
| Breweries.....                           | 12    | 8     | 11    | 13    | 12    | 18    | 17    | 12    | 29    | 14    | 15    | 36    | 197    |
| Butchers' Shops.....                     | 138   | 142   | 182   | 241   | 241   | 198   | 233   | 163   | 213   | 245   | 207   | 213   | 2,416  |
| Butter and Cheese.....                   | ...   | ...   | ...   | ...   | ...   | ...   | ...   | 1     | 2     | ...   | ...   | 1     | 4      |
| Candy Factories.....                     | 26    | 19    | 13    | 28    | 21    | 22    | 23    | 18    | 30    | 20    | 24    | 19    | 263    |
| Cold Storage Plants.....                 | 3     | 6     | 4     | 3     | 2     | 3     | 3     | 1     | 4     | 3     | 8     | 14    | 54     |
| Cone Factories.....                      | ...   | ...   | ...   | ...   | 2     | 1     | 1     | ...   | ...   | ...   | ...   | ...   | 4      |
| Fish Stores.....                         | 6     | 8     | 8     | 21    | 15    | 13    | 16    | 9     | 27    | 11    | 10    | 6     | 150    |
| Fruit Stores.....                        | 34    | 36    | 38    | 42    | 58    | 46    | 29    | 38    | 57    | 46    | 40    | 32    | 496    |
| General Stores.....                      | 363   | 313   | 315   | 366   | 327   | 302   | 299   | 281   | 389   | 359   | 355   | 374   | 4,043  |
| Grocers.....                             | 141   | 159   | 208   | 332   | 324   | 236   | 268   | 165   | 215   | 302   | 318   | 313   | 2,981  |
| Hawkers' Vehicles.....                   | 111   | 90    | 45    | 145   | 157   | 127   | 143   | 135   | 89    | 149   | 123   | 120   | 1,434  |
| Hotel Kitchens.....                      | 13    | 17    | 6     | 14    | 15    | 4     | 13    | 12    | 8     | 10    | 11    | 16    | 139    |
| Ice Cream Parlors and Confectionery..... | 144   | 129   | 202   | 263   | 296   | 249   | 252   | 176   | 241   | 262   | 256   | 279   | 2,749  |
| Jam, Pickle and Spice Factories.....     | 4     | 4     | 3     | 5     | 7     | 5     | 4     | 7     | 6     | 6     | 4     | 4     | 59     |
| Markets and Auction Rooms.....           | 3     | 4     | 4     | 5     | 3     | 4     | 3     | 3     | 5     | 5     | 6     | 2     | 47     |
| Produce, Commission and Eggs.....        | 27    | 30    | 29    | 30    | 30    | 32    | 22    | 20    | 29    | 36    | 42    | 16    | 343    |
| Peanut Butter.....                       | ...   | 1     | ...   | ...   | ...   | ...   | 1     | 1     | 1     | 2     | 1     | 1     | 8      |
| Restaurants and Lunch Counters.....      | 299   | 290   | 121   | 301   | 323   | 199   | 284   | 244   | 302   | 324   | 306   | 336   | 3,329  |
| Sausage Factories.....                   | 16    | 11    | 10    | 14    | 12    | 13    | 10    | 14    | 17    | 14    | 14    | 15    | 160    |
| Special.....                             | 120   | 113   | 147   | 158   | 152   | 101   | 130   | 161   | 136   | 162   | 149   | 134   | 1,663  |
| Delicatessen.....                        | ...   | 5     | 2     | 6     | 2     | 2     | 3     | 7     | 5     | 6     | 2     | 6     | 46     |
| Poultry Slaughter-houses.....            | 3     | ...   | 4     | 4     | 3     | 4     | 3     | 1     | 4     | 5     | 4     | 6     | 41     |
| Railway Express.....                     | ...   | 2     | 3     | 2     | 3     | 3     | ...   | 4     | 1     | ...   | 2     | ...   | 20     |
| Totals.....                              | 1,524 | 1,452 | 1,428 | 2,103 | 2,112 | 1,685 | 1,835 | 1,553 | 1,914 | 2,102 | 2,001 | 2,041 | 21,750 |
| Notices to improve conditions.....       | 108   | 96    | 102   | 187   | 198   | 143   | 169   | 107   | 154   | 168   | 145   | 108   | 1,677  |



## Bureau of Child Hygiene

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

Dear Sir:

I have the honor to submit herewith a report on the work of the Bureau of Child Hygiene for the year 1930.

### LIVE BIRTHS AND STILLBIRTHS

Live births registered totalled 4,645, an increase of 130 over the 1929 total, and equivalent to a crude rate of 22.19 per 1,000 population, against 22.01 for 1929. This slight increase is the first shown above a preceding year's rate since 1920, when the rate was 32.06, but analysis of the returns shows that the increase is due to a larger number of non-residents entering our hospitals, the corrected birth rate for the city being 17.33 for 1930 against 17.54 for 1929, indicating that the decline in city births is still continuing.

The stillbirths registered numbered 201, giving a crude rate of 43.3, an average rate, against the high rate of 49.8 for 1929. The corrected rates are 44.7 and 46.7 for 1930 and 1929 respectively.

### INFANT MORTALITY RATE AGAIN LOW

Registered deaths of infants under one year of age totalled 269, against 253 for 1929. These figures give crude rates of 57.9 and 56.0 respectively, the increase being due to a larger number of non-resident deaths. Deducting non-residents and adding residents whose death occurred in hospital in the adjoining City of St. Boniface, the corrected figures for 1930 are 210 infant deaths, and a rate of 57.9 (same as crude), and 211 infant deaths and a rate of 58.6 for 1929.

Last year I drew attention to the rates calculated on the total births and combined infant deaths and stillbirths, pointing out that whereas the crude infant mortality rates for 1925 and 1929 showed a decline of twelve points, the rates on the combined figures showed but three points reduction. The crude "combined" rate for 1930 shows a reduction of seven points since 1925, which may be considered a distinct improvement, and far more important than our record low infant mortality rate of 1929. The significance of the combined totals of infant deaths and stillbirths is shown by the following table.

| Crude Rates                                | 1930 | 1929 | 1928 | 1927 | 1926 | 1925 |
|--------------------------------------------|------|------|------|------|------|------|
| Infant mortality per 1,000 live births.... | 58   | 56   | 63   | 61   | 71   | 68   |
| Stillbirths and infant deaths per 1,000    |      |      |      |      |      |      |
| total births .....                         | 97   | 101  | 100  | 101  | 102  | 104  |

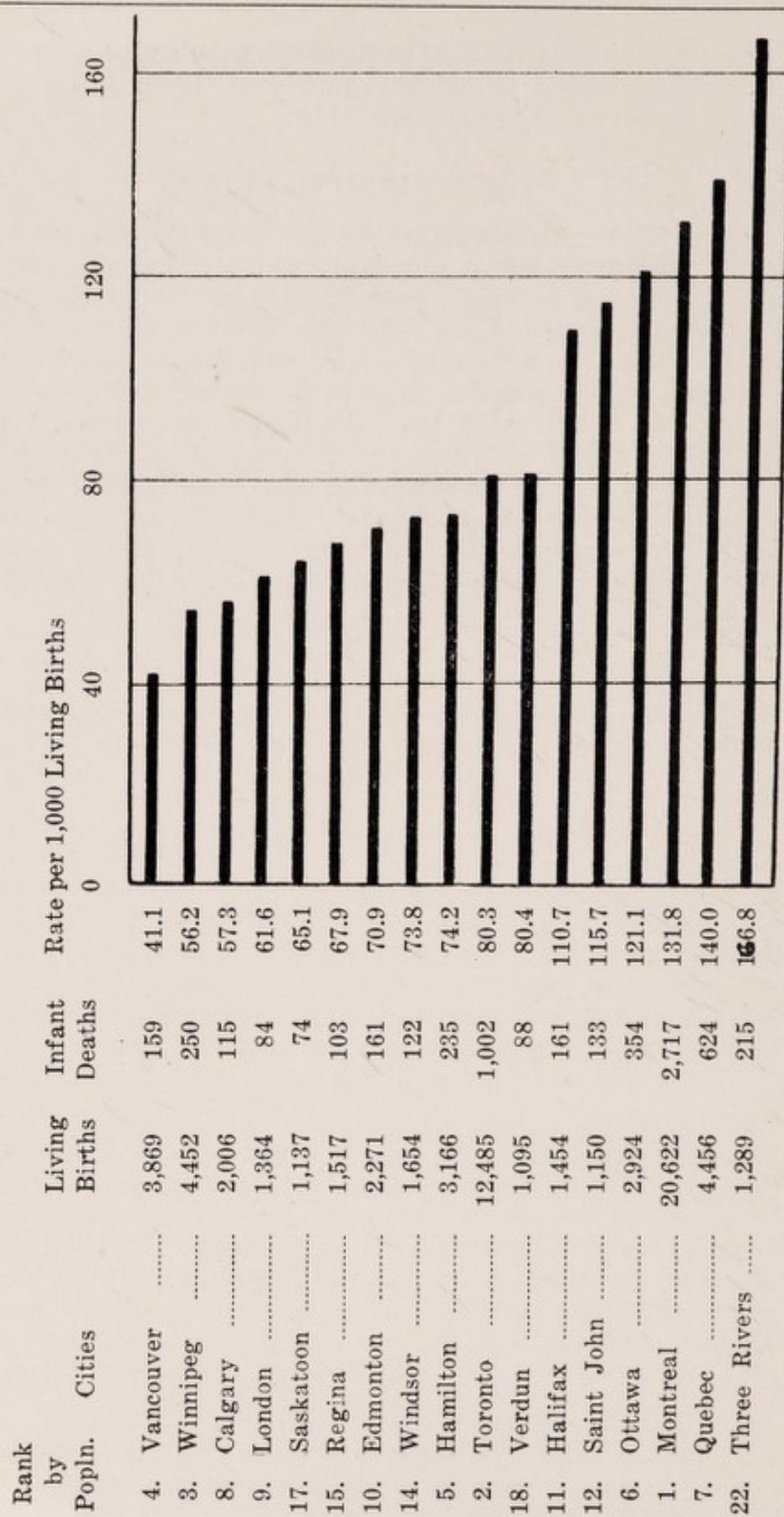
The corrected rates for 1930 on the above basis are 58 and 98, against 59 and 101 for 1929, which figures again reflect the improved conditions amongst infants of city residents in 1930.

#### WHERE WINNIPEG STANDS

The question is frequently asked as to where this City stands in regard to infant mortality as compared with other Canadian cities. The question is most effectively answered by the excellent posters issued by the Canadian Council on Child and Family Welfare, which show in chart form the infant mortality statistics of 60 Canadian cities and towns, divided into three groups according to the number of live births: 1,000 and over; 500 to 999; under 500. The figures used are supplied by the Dominion Bureau of Statistics and the posters are published through funds supplied by the Canadian Life Insurance Officers Association. The poster for 1929 has not yet been published, but the form of the chart for the seventeen cities with over 1,000 live births, based on the corrected figures of the Dominion Bureau of Statistics, is shown on the next page.



# INFANT MORTALITY IN SEVENTEEN LEADING CANADIAN CITIES IN 1929



### INFANT MORTALITY ACCORDING TO SECTIONS OF CITY

Infant deaths in different sections varied greatly in 1930, Fort Rouge west having 323 live births and 5 infant deaths, and Elmwood 206 live births and 21 infant deaths, which figures give rates of 15 and 102 deaths per 1,000 births respectively. Elmwood usually has a low rate, but in 1930 there were no less than 9 deaths of infants due to Diseases of Early Infancy.

In the following table the death rate is shown on a per 100 live birth basis.

### INFANT MORTALITY ACCORDING TO SECTIONS OF CITY

\*(Non-residents excluded and St. Boniface registrations of  
Winnipeg residents included.)

|                                              |                                                                      | Live<br>Births | Infant<br>Deaths | Corrected<br>Rate |
|----------------------------------------------|----------------------------------------------------------------------|----------------|------------------|-------------------|
| I                                            | W Fort Rouge, west of Pembina .....                                  | 323            | 5                | 1.5               |
| I                                            | E Fort Rouge, east of Pembina .....                                  | 216            | 12               | 5.5               |
| II                                           | Red River to Spence Street .....                                     | 384            | 30               | 7.8               |
| III                                          | SE Young, Ellice and Sherbrook Sts. ....                             | 146            | 13               | 8.9               |
| III                                          | S Assiniboine River to Ellice Ave. ....                              | 359            | 11               | 3.1               |
| III                                          | N Ellice Ave. to Notre Dame Ave. ....                                | 241            | 17               | 7.0               |
| III                                          | NE Young, Ellice and Sherbrook Sts. ..                               | 97             | 8                | 8.2               |
| IV                                           | W Notre Dame to C.P.R. Tracks .....                                  | 224            | 15               | 6.7               |
| IV                                           | C Sherbrook St. to Main St. ....                                     | 287            | 22               | 7.7               |
| V                                            | E Point Douglas, south of C.P.R. and<br>north of C.P.R. Tracks ..... | 206            | 12               | 5.8               |
| V                                            | S C.P.R. Tracks to Selkirk Ave. ....                                 | 208            | 12               | 5.8               |
| V                                            | N Pritchard Ave. to Burrows Ave. ....                                | 206            | 9                | 4.4               |
| VI                                           | W Burrows to Limits, W. of No. 500.....                              | 249            | 15               | 6.0               |
| VI                                           | E Burrows to Limits, E. of No. 499.....                              | 275            | 8                | 2.9               |
| VII                                          | Elmwood .....                                                        | 206            | 21               | 10.2              |
| City .....                                   |                                                                      | 3,627          | 210              | 5.8               |
| *Non-Resident registrations (excluded) ..... |                                                                      | 1,367          | 75               | 5.5               |
| *St. Boniface registrations (included) ..... |                                                                      | 349            | 16               | 4.6               |

### MATERNAL MORTALITY

Puerperal deaths in 1930 numbered 21, against 28 for 1929. This gives a crude rate of 4.5 per 1,000 live births, against 6.2 for 1929.

Of these 21 deaths, six were non-residents, but three Winnipeg mothers died in St. Boniface Hospital, giving a corrected total for Winnipeg of 18, or 5.0 per 1,000 live births.



### INFANTS BORN OUT OF WEDLOCK

Infants born out of wedlock numbered 372, live and stillborn, or 7.7% of the total births registered in Winnipeg. This is a decrease of 34 as compared with 1929, which year gave our highest recorded percentage.

Of the 372 infants registered, 183 were to non-resident mothers.

### MIDWIFE ATTENDANTS

Deliveries by midwives again showed a decrease, only 83 live births, or 1.8% of the live births, being attended by midwives in 1930. In 1918, there were no less than 1,159 births attended by persons other than physicians, a percentage of 19.8 of the total births.

### HOSPITALIZATION OF MATERNITY CASES

Of the 4,645 live births registered in 1930, 3,835, or 82.5% occurred in hospitals and maternity homes, another increase as compared with 1929, when 78.4% of the Winnipeg registered births took place in hospitals or maternity homes. In 1917, the percentage was 36.3, and in 1912, 31.5%.

The increase in the number of non-residents entering the City's maternity wards, and the increase in the number of Winnipeg mothers entering the maternity wards of the hospital of the adjoining City of St. Boniface, are shown in the following tabulation:

| Year       | Winnipeg Registrations |           | St. Boniface                           |
|------------|------------------------|-----------|----------------------------------------|
|            | Non-Residents          | Residents | Registrations of<br>Winnipeg Residents |
| 1930 ..... | 1,367                  | 3,278     | 349                                    |
| 1929 ..... | 1,230                  | 3,285     | 312                                    |
| 1928 ..... | 1,200                  | 3,275     | 305                                    |
| 1927 ..... | 1,157                  | 3,306     | 260                                    |
| 1926 ..... | 1,149                  | 3,295     | 235                                    |
| 1925 ..... | 1,072                  | 3,560     | 221                                    |
| 1924 ..... | 1,063                  | 3,699     | 181                                    |

The numbers of live births, stillbirths and deaths of infants under 15 days occurring in each hospital, nursing home and in private homes are shown in the following table.

**LIVE BIRTHS, STILLBIRTHS AND EARLY INFANT DEATHS  
IN HOSPITALS, 1930**

| Hospitals            | Live<br>Births | Still-<br>births | Infant<br>Deaths<br>1-14 days | Rate per<br>1,000 Live Births |                      |
|----------------------|----------------|------------------|-------------------------------|-------------------------------|----------------------|
|                      |                |                  |                               | Still-<br>births              | Infants<br>1-14 days |
| Grace .....          | 1,408          | 47               | 44                            | 33                            | 31                   |
| General .....        | 916            | 45               | 31                            | 49                            | 34                   |
| Misericordia .....   | 673            | 38               | 18                            | 57                            | 27                   |
| Victoria .....       | 372            | 19               | 17                            | 51                            | 46                   |
| St. Josephs .....    | 273            | 14               | 7                             | 51                            | 26                   |
| Concordia .....      | 112            | 2                | 1                             | 18                            | 9                    |
| Healthwin .....      | 69             | 4                | 2                             | 60                            | 30                   |
| Furby .....          | 8              | ....             | ....                          | ....                          | ....                 |
| Cooper's .....       | 4              | 1                | ....                          | ....                          | ....                 |
| St. Boniface* .....  | 349            | 12               | 11                            | 34                            | 32                   |
| <hr/>                |                |                  |                               |                               |                      |
| All Hospitals .....  | 4,184          | 182              | 131                           | 44                            | 31                   |
| Private Homes .....  | 773            | 31               | 24                            | 40                            | 31                   |
| <hr/>                |                |                  |                               |                               |                      |
| Total Births** ..... | 4,994          | 213              | 155                           | 43                            | 31                   |
| Non-Residents .....  | 1,367          | 51               | 37                            | 37                            | 27                   |
| Winnipeg Residents—  |                |                  |                               |                               |                      |
| Corrected Totals ..  | 3,627          | 162              | 118                           | 45                            | 33                   |

\* Winnipeg residents only.

\*\* Including St. Boniface registrations of Winnipeg residents.

The variation in the stillbirth rates and early infant death rates are not nearly so pronounced for the different hospitals as they were for 1929, when the stillbirth rates varied from 43 to 106, and the early infant death rates from 19 to 45. The rates for hospitals and private homes are again almost on a par.

### MEDICAL ATTENDANTS

Eleven physicians each attended seventy or more live births in Winnipeg in 1930, making a total of 1,873. The remaining 2,772 live births registered in the City were attended by 197 physicians, but over half of these doctors attended less than ten births each.



## CRUDE AND CORRECTED INFANT MORTALITY RETURNS

| Year       | Winnipeg Registrations |               |            | Corrected as Above |               |                |
|------------|------------------------|---------------|------------|--------------------|---------------|----------------|
|            | Live Births            | Infant Deaths | Crude Rate | Live Births        | Infant Deaths | Corrected Rate |
| 1930 ..... | 4,645                  | 269           | 57.9       | 3,627              | 210           | 57.9           |
| 1929 ..... | 4,515                  | 253           | 56.0       | 3,597              | 211           | 58.6           |
| 1928 ..... | 4,475                  | 284           | 63.4       | 3,580              | 236           | 65.9           |
| 1927 ..... | 4,463                  | 273           | 61.2       | 3,566              | 232           | 65.0           |
| 1926 ..... | 4,444                  | 314           | 70.6       | 3,530              | 252           | 71.4           |
| 1925 ..... | 4,632                  | 315           | 68.0       | 3,781              | 252           | 66.6           |
| 1924 ..... | 4,762                  | 323           | 67.8       | 3,880              | 278           | 71.6           |

The corrected rates exclude non-resident births and deaths registered in Winnipeg and include births and deaths of Winnipeg residents registered in the adjoining City of St. Boniface. The reports of the Dominion Bureau of Statistics present different totals to the above as their's include late birth registrations which the Winnipeg Registrar is not permitted to register.

The present system is unsatisfactory. Our nurses visit infants up to two years of age, yet if a birth is not registered at the City Hall within three months of its occurrence, registration must be made at the Legislative Buildings, and this department never learns of the birth except by chance from a neighbor or through a complaint from the mother that our nurse has not called.

This matter has been taken up before with the Provincial authorities, but it is hoped that this year the Provincial Health Department will remove this handicap to our work and cause of error in our records.

## CAUSES OF INFANT DEATHS

The causes of infant deaths in 1930 are summarized in the following table:

|                                                   | Corrected Totals |      |        |      |
|---------------------------------------------------|------------------|------|--------|------|
|                                                   | 1930             |      | 1929   |      |
|                                                   | Deaths           | Rate | Deaths | Rate |
| Diseases of Early Infancy and Malformations ..... | 125              | 34.5 | 107    | 29.7 |
| Diseases of Digestive System ....                 | 21               | 5.8  | 17     | 4.7  |
| Diseases of Respiratory System..                  | 17               | 4.7  | 29     | 8.1  |
| All other Diseases .....                          | 47               | 12.9 | 58     | 16.1 |
|                                                   | 210              | 57.9 | 211    | 58.6 |

The foregoing rates reveal a higher mortality from diseases of early infancy but the 1930 rate is an average one, the 1929 figure being exceptionally low.

A remarkable showing was made in the Respiratory diseases, the crude 1930 rate being 4.5 against 8.0 for 1929, which was our previous lowest. The decline in infant deaths from these diseases is very striking as the following tabulation of crude rates shows:

### RESPIRATORY DISEASES IN INFANTS

(Crude Rates)

|           |                                    |
|-----------|------------------------------------|
| 1912..... | 30.2 deaths per 1,000 live births. |
| 1916..... | 24.7 deaths per 1,000 live births. |
| 1919..... | 20.7 deaths per 1,000 live births. |
| 1922..... | 13.3 deaths per 1,000 live births. |
| 1926..... | 11.5 deaths per 1,000 live births. |
| 1929..... | 8.0 deaths per 1,000 live births.  |
| 1930..... | 4.5 deaths per 1,000 live births.  |

In 1912, the uncorrected infant deaths from respiratory diseases numbered 147; in 1930, 21. In the early days of the Bureau of Child Hygiene when the nurses visited homes of the poorer class citizens, the windows of a sick child's room in winter were almost invariably sealed up to exclude fresh air, and when the nurse induced the mother to open them, the father frequently nailed them up at night and it was necessary for the nurse to visit the home in the evening to teach the gospel of fresh air to the unbeliever. These difficulties have long since passed, and the pneumonias have declined in line with the other causes of death, except diseases of early infancy.

### MALFORMATIONS AND DISEASES OF EARLY INFANCY

In 1930, crude infant deaths from Malformations numbered 27, and from Diseases of Early Infancy, 133, giving rates of 5.8 and 28.6 per 1,000 live births, figures which are about our average for the past ten years.

I would here draw your attention to the remarkably low mortality rates enjoyed by the City of Vancouver, B.C. Their crude infant mortality rate in 1930 was 32.6 per 1,000 live births, while the crude stillbirth rate was only 24.7 per 1,000 live births. Winnipeg's corresponding rates were 57.9 and 43.3.

Dr. J. W. McIntosh, Medical Officer of Health of Vancouver, has kindly forwarded me an analysis of their infant deaths in 1930, and the result is presented below, together with the corresponding figures for Winnipeg.



| Crude Figures                                 | Winnipeg |      | Vancouver |      |
|-----------------------------------------------|----------|------|-----------|------|
|                                               | Deaths   | Rate | Deaths    | Rate |
| 159. Malformations .....                      | 27       | 5.8  | 14        | 3.1  |
| 160. Congenital debility .....                | 8        | 1.7  | 8         | 1.8  |
| 161a. Premature birth .....                   | 78       | 16.8 | 44        | 9.7  |
| 161b. Injury at birth .....                   | 23       | 4.9  | 7         | 1.5  |
| 162. Other diseases of early<br>infancy ..... | 24       | 5.2  | ....      | .... |
| <hr/>                                         |          |      |           |      |
|                                               | 160      | 34.4 | 73        | 16.1 |
| Stillbirths .....                             | 201      | 43.3 | 112       | 24.7 |
| <hr/>                                         |          |      |           |      |
|                                               | 361      | 77.7 | 185       | 40.8 |
| Live births .....                             | 4,645    |      | 4,539     |      |

The difference between these rates is worthy of study; the higher Winnipeg figures are not due to our large proportion of foreign-born citizens, the latter's infant mortality rates being slightly lower than those of our Canadian and British-born citizens, while their stillborn rates are not very much higher. Climatic differences undoubtedly have an influence upon the question, but whether or not they entirely account for the low rates prevalent in Vancouver is problematical.

### BABIES' CLINIC

The Babies' Clinic, being a free clinic, is a barometer of the economic situation, the attendance being low when money is freely circulating and high when money is stringent. The 1930 attendance was 552, an increase of 38 over 1929 and of 128 over 1928. Our previous peak for new cases was 870 in 1922, the number steadily declining to 425 in 1926 and 424 in 1928.

By sections, the 1930 new cases were distributed as follows:

| District   | I  |    | II |     | III |      | IV  |               | V  |    | VI |       | VII |    |    |
|------------|----|----|----|-----|-----|------|-----|---------------|----|----|----|-------|-----|----|----|
| Section    | W. | E. |    | SE. | S.  | N.   | NE. | W.            | C. | E. | S. | N.    | W.  | E. |    |
| 1930 ....  | 12 | 14 | 52 | 12  | 28  | 25   | 12  | 51            | 64 | 43 | 57 | 34    | 46  | 55 | 32 |
| 1929 ....  | 17 | 17 | 36 | 5   | 22  |      | 38  | 31            | 39 | 32 | 71 | 35    | 47  | 57 | 46 |
|            |    |    |    |     |     |      |     |               |    |    |    |       |     |    |    |
|            |    |    |    |     |     | City |     | Non-Residents |    |    |    | Total |     |    |    |
| 1930 ..... |    |    |    |     |     | 537  |     | 15            |    |    |    | 552   |     |    |    |
| 1929 ..... |    |    |    |     |     | 493  |     | 21            |    |    |    | 514   |     |    |    |

The attendance at the Clinic totalled 5,686, against 5,377 for 1929. By months the attendance was as follows:

|            | J.  | F.  | M.  | A.  | M.  | J.  | J.  | A.  | S.  | O.  | N.  | D.  | Total |
|------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-------|
| 1930 ..... | 404 | 423 | 454 | 466 | 482 | 443 | 525 | 575 | 567 | 481 | 426 | 440 | 5,686 |
| 1929 ..... | 343 | 402 | 419 | 493 | 502 | 474 | 461 | 527 | 478 | 502 | 365 | 411 | 5,377 |

Doctor R. F. Rorke and Doctor F. G. Schwalm continued to act as

attending physicians on alternate mornings to advise mothers as to correct diets for their infants. As in previous years, general cases are referred to the Children's Hospital. Our baby clinic is free to city residents, but parents in a position to afford a family physician are not encouraged to attend.

### MILK DISPENSARY

The number of feedings prepared totalled 27,555, against 25,445 for 1929. Cash collected for feedings amounted to \$773.65, and the Children's Hospital feedings cost \$1,125.14, making a total revenue of \$1,898.79. This is a decline of \$394.81 in the clinic collections, and of \$38.77 in the Hospital accounts, as compared with those of 1929. The free feedings at the Milk Depot will continue to grow in number until the present depression is relieved.

### CHILD WELFARE STATIONS

During the year two additional Child Welfare Stations were opened, one in Elmwood and the other in St. John's district, and both have proved successful, especially the Elmwood Station for which there was a wide demand. Each of the six stations now in operation are open one afternoon a week. The attendances in 1930 numbered 5,871 for 240 afternoons, divided as follows:

|                                                                 | After-<br>noons | Atten-<br>dance | Aver-<br>age |
|-----------------------------------------------------------------|-----------------|-----------------|--------------|
| Home St. United Church (Nurses Maddin<br>and Wilkins) .....     | 50              | 2,130           | 43           |
| McLean Mission (Nurse Bowles) .....                             | 51              | 717             | 14           |
| Sutherland Mission (Nurse Carter) .....                         | 50              | 834             | 17           |
| Crescent United Church (Nurse Smith) ....                       | 50              | 1,251           | 25           |
| Elmwood School (Nurse Moore) .....                              | 19              | 604             | 32           |
| Robertson House (Nurses Bennett and<br>Munro alternately) ..... | 20              | 335             | 17           |
| Totals .....                                                    | 240             | 5,871           | 24           |

In addition, 759 babies were brought to the Milk Depot, (Nurse Spratt), to be weighed in the afternoons, an average of 15 a week.

The attendance at these stations are regarded as satisfactory as a nurse can meet three to four times as many of her listed cases at the Station as she can visit in an afternoon at their homes, thus permitting more time to be given to sick children who cannot be brought to the Child Welfare Station.



### CHILD WELFARE NURSES

The thirteen visiting nurses made a total of 41,971 calls to babies' homes, the calls showing a decline as compared with 1929, owing to the afternoons taken up at the Child Welfare Stations. Visits to infants' boarding homes totalled 232, these visits being made by arrangement with the Provincial Health Department which licenses such homes.

New cases visited numbered 2,861, or 78.9% of the corrected live births to Winnipeg mothers, the balance being births where the infant died within three weeks, or where the parents' circumstances did not suggest that our nurses' visits would be required.

Calls to sick babies numbered 944, as against 1,190 in 1929; cases referred to private physicians totalled 374, against 462; and cases referred to the Babies' Clinic totalled 290 against 305 in 1929. These figures indicate less sickness amongst city babies aged over three weeks, a condition reflected in the mortality, there being 69 fewer deaths of infants aged over three weeks than in 1929. Treatments to babies, prescribed by private physicians and the attending physicians at the clinic, increased from 998 in 1929 to 1,325 in 1930. [Prenatal advice was given in 538 instances; demonstrations numbered 127; and lectures were given on 27 occasions to mothers' meetings. Further particulars of the nurses' work are given on page 119.

There were no changes in the Bureau of Child Hygiene staff during the year. Nurse Spratt continued in charge of the clinic and Nurses Carter, Thom and Bowles relieved the dietitian in the dispensary. The nursing, dispensary and recording staffs have, as in the past, carried out their duties in a devoted manner, and I sincerely appreciate their co-operation in the various phases of our child welfare work.

Respectfully submitted,

Yours obediently,

A. G. LAWRENCE,

Manager, Bureau of Child Hygiene.

## BUREAU OF CHILD HYGIENE—CHILD WELFARE NURSES—1930

| 1930           | No. of Days on Duty | Days on District | Days in Depot, Conventions, etc. | Total Live Births Visited | Deaths of Infants visited more than once | Visits to Babies | Visits to Infants' Homes | Other Visits | Special Calls | Calls to Sick Babies | Requested Calls | Cases referred to Physicians | Cases referred to Milk Depot | Cases referred to Social Welfare Hospital | Cases referred to M.S.N.M. | Cases referred to Fresh Air Camp | Private Demonstrations | Treatments to Babies | Pre-natal Instruction given | Lectures given |       |
|----------------|---------------------|------------------|----------------------------------|---------------------------|------------------------------------------|------------------|--------------------------|--------------|---------------|----------------------|-----------------|------------------------------|------------------------------|-------------------------------------------|----------------------------|----------------------------------|------------------------|----------------------|-----------------------------|----------------|-------|
| Jan.....       | 308½                | 254              | 54½                              | 222                       | 3                                        | 3,631            | 27                       | .....        | .....         | 104                  | 183             | 46                           | 21                           | 3                                         | 16                         | 4                                | .....                  | 8                    | 169                         | 43             | 1     |
| Feb.....       | 255½                | 214              | 41½                              | 227                       | 3                                        | 3,155            | 13                       | .....        | .....         | 59                   | 128             | 27                           | 21                           | 2                                         | 25                         | 4                                | .....                  | 15                   | 114                         | 50             | 3     |
| Mar.....       | 301                 | 258              | 43                               | 249                       | 14                                       | 3,975            | 19                       | .....        | 1             | 101                  | 158             | 48                           | 37                           | 2                                         | 18                         | 5                                | .....                  | 6                    | 118                         | 62             | 3     |
| April.....     | 293½                | 244              | 49½                              | 224                       | .....                                    | 4,047            | 18                       | .....        | .....         | 91                   | 107             | 36                           | 27                           | 2                                         | 28                         | 3                                | 6                      | 11                   | 136                         | 62             | 5     |
| May.....       | 294                 | 244½             | 49½                              | 249                       | 6                                        | 3,812            | 29                       | 1            | 1             | 63                   | 130             | 38                           | 24                           | 4                                         | 13                         | 7                                | 8                      | 12                   | 110                         | 51             | 5     |
| June.....      | 253                 | 205              | 48                               | 237                       | 5                                        | 3,425            | 18                       | .....        | 1             | 49                   | 97              | 24                           | 29                           | 2                                         | 19                         | 5                                | 17                     | 8                    | 101                         | 32             | ..... |
| July.....      | 248½                | 196½             | 52                               | 279                       | 3                                        | 3,186            | 18                       | .....        | .....         | 53                   | 100             | 18                           | 20                           | 1                                         | 14                         | 3                                | 13                     | 8                    | 80                          | 28             | ..... |
| August.....    | 226½                | 178½             | 48                               | 254                       | 1                                        | 2,617            | 11                       | .....        | .....         | 82                   | 119             | 20                           | 16                           | 2                                         | 12                         | 3                                | 8                      | 18                   | 109                         | 33             | ..... |
| September..... | 293½                | 242              | 51½                              | 259                       | 6                                        | 3,715            | 19                       | .....        | 1             | 87                   | 84              | 30                           | 19                           | 1                                         | 17                         | 6                                | .....                  | 16                   | 74                          | 46             | 1     |
| October.....   | 312                 | 262              | 50                               | 262                       | 1                                        | 3,776            | 32                       | 1            | 3             | 86                   | 134             | 38                           | 33                           | 4                                         | 21                         | 5                                | .....                  | 10                   | 138                         | 39             | 1     |
| November.....  | 276                 | 232½             | 43½                              | 190                       | 6                                        | 3,338            | 15                       | .....        | 5             | 82                   | 122             | 30                           | 23                           | 4                                         | 18                         | 3                                | .....                  | 9                    | 81                          | 51             | 4     |
| December.....  | 298                 | 241½             | 56½                              | 209                       | 3                                        | 3,294            | 13                       | .....        | 2             | 87                   | 147             | 19                           | 20                           | 7                                         | 20                         | 2                                | .....                  | 6                    | 95                          | 36             | 4     |
| Totals.....    | 3360                | 2772½            | 587½                             | 2861                      | 51                                       | 41,971           | 232                      | 2            | 14            | 944                  | 1509            | 374                          | 290                          | 34                                        | 221                        | 50                               | 52                     | 127                  | 1325                        | 538            | 27    |



## BABIES' MILK DEPOT REPORT—1930

| 1930        | FEEDINGS MILK DEPOT |               |                                                        |                                                            | Cash Collected<br>Dispensary | Children's Hospital<br>Accounts | FEEDINGS PREPARED |         |       |                 |           |                | MILK USED           |                |                    |
|-------------|---------------------|---------------|--------------------------------------------------------|------------------------------------------------------------|------------------------------|---------------------------------|-------------------|---------|-------|-----------------|-----------|----------------|---------------------|----------------|--------------------|
|             | Paid Feedings       | Free Feedings | Total Feedings (ex-<br>cluding Children's<br>Hospital) | Grand Total Feedings<br>(including Children's<br>Hospital) |                              |                                 | Lactic Acid       | Protein | Casee | Evaporated Milk | Acidified | Condensed Milk | Whole Milk (Quarts) | Cream (Quarts) | Skim Milk (Quarts) |
| Jan.....    | 351                 | 1380          | 1731                                                   | 2225                                                       | \$ 45.05                     | \$ 76.81                        | 238               | 4       | 31    | 31              | 100       | ...            | 1134                | 30             | 564                |
| Feb.....    | 272                 | 1299          | 1571                                                   | 2007                                                       | 46.20                        | 94.10                           | 158               | 105     | 28    | 28              | 90        | ...            | 1078                | 25 1/4         | 476                |
| Mar.....    | 395                 | 1628          | 2023                                                   | 2373                                                       | 18.60                        | 77.31                           | 70                | 97      | 31    | 11              | 168       | ...            | 1148                | 28 1/4         | 616                |
| April.....  | 493                 | 1527          | 2020                                                   | 2590                                                       | 74.95                        | 111.42                          | 58                | 86      | 24    | 6               | 402       | ...            | 1114                | 37 3/4         | 740                |
| May.....    | 430                 | 1314          | 1744                                                   | 2391                                                       | 67.85                        | 142.10                          | 69                | 128     | ...   | 8               | 583       | ...            | 1080                | 37             | 584                |
| June.....   | 464                 | 1167          | 1631                                                   | 2171                                                       | 68.20                        | 99.90                           | 66                | 54      | ...   | ...             | 410       | ...            | 1024                | 30 1/2         | 544                |
| July.....   | 586                 | 1313          | 1899                                                   | 2365                                                       | 56.95                        | 76.05                           | 62                | 40      | ...   | ...             | 449       | 11             | 1072                | 33             | 604                |
| Aug.....    | 640                 | 1280          | 1920                                                   | 2650                                                       | 81.95                        | 134.90                          | 221               | 301     | ...   | ...             | 401       | ...            | 1058                | 40             | 772                |
| Sept.....   | 578                 | 1135          | 1713                                                   | 2434                                                       | 85.55                        | 124.70                          | 317               | 204     | 9     | 2               | 255       | ...            | 840                 | 35             | 760                |
| Oct.....    | 457                 | 1085          | 1542                                                   | 1957                                                       | 96.70                        | 76.15                           | 143               | 137     | 44    | 11              | 205       | ...            | 876                 | 38 3/4         | 524                |
| Nov.....    | 417                 | 1251          | 1668                                                   | 2020                                                       | 85.90                        | 58.90                           | 83                | 97      | 3     | ...             | 167       | ...            | 936                 | 36             | 516                |
| Dec.....    | 392                 | 1659          | 2051                                                   | 2372                                                       | 45.75                        | 52.80                           | 59                | 46      | ...   | 36              | 129       | 3              | 1238                | 36 1/2         | 512                |
| Totals..... | 5475                | 16038         | 21513                                                  | 27555                                                      | \$773.65                     | \$1125.14                       | 1544              | 1299    | 170   | 133             | 3359      | 14             | 12598               | 408            | 7212               |

## 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 1930. As in previous years, copies of the birth and death registrations have been furnished the Department by the courtesy of the Winnipeg Registrar, Mr. Magnus Peterson.

As in 1929, 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, and in 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, 622 acres;  
total, 15,287 acres (23.9 square miles).

|                                            | 1930    | 1929    |
|--------------------------------------------|---------|---------|
| Population (City Assessor's figures) ..... | 209,286 | 205,083 |
| Persons per acre of land .....             | 14.08   | 13.80   |

#### Corrected

|                                                                                   |       |       |
|-----------------------------------------------------------------------------------|-------|-------|
| Deaths, excluding stillbirths .....                                               | 1,603 | 1,581 |
| Corrected rate per 1,000 population .....                                         | 7.66  | 7.71  |
| Deaths of infants under 1 year .....                                              | 210   | 211   |
| Corrected infant mortality rate per 1,000 live births .....                       | 57.9  | 58.6  |
| Deaths, measles, scarlet fever, whooping cough, and<br>diphtheria, combined ..... | 23    | 49    |
| Rate per 100,000 population .....                                                 | 11.0  | 23.9  |
| Births, excluding stillbirths .....                                               | 3,627 | 3,597 |
| Corrected live birth rate per 1,000 population .....                              | 17.33 | 17.54 |
| Stillbirths .....                                                                 | 162   | 168   |
| Corrected rate per 1,000 live births .....                                        | 44.7  | 46.7  |
| Natural increase, excess of births over deaths .....                              | 2,024 | 2,016 |
| Corrected rate per 1,000 population .....                                         | 9.67  | 9.83  |

#### Crude

|                                     |       |       |
|-------------------------------------|-------|-------|
| Deaths, excluding stillbirths ..... | 1,806 | 1,817 |
| Rate per 1,000 population .....     | 8.63  | 8.86  |



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|                                                       |       |       |
|-------------------------------------------------------|-------|-------|
| Deaths of infants under 1 year .....                  | 269   | 253   |
| Infantile mortality rate per 1,000 living births .... | 57.9  | 56.0  |
| Births, excluding stillbirths .....                   | 4,645 | 4,515 |
| Rate per 1,000 population .....                       | 22.19 | 22.01 |
| Stillbirths .....                                     | 201   | 225   |
| Rate per 1,000 live births .....                      | 43.27 | 49.83 |
| Marriages .....                                       | 2,660 | 2,781 |
| Rate per 1,000 population .....                       | 12.71 | 13.56 |

## TYPHOID FEVER MORTALITY RATES PER 100,000 POPULATION—1904-30

| Year                         | 1904 | 1907 | 1908 | 1909 | 1910 | 1911 | 1912 | 1913 | 1914 | 1915 | 1916 | 1917 | 1918 | 1919 | 1920 | 1921 | 1922 | 1923 | 1924 | 1925 | 1926 | 1927 | 1928 | 1929 | 1930 |
|------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 248.3                        | 51.0 | 40.6 | 38.4 | 31.6 | 17.1 | 10.8 | 9.7  | 7.9  | 3.9  | 2.0  | 7.5  | 6.0  | 6.5  | 7.4  | 0    | 0    | 0    | 5    | 1.0  | 1.0  | 4.0  | 3.0  | 1.0  | 2.4  | 0    |
| Corrected Rate for City..... | 7.9  | 5.4  | 4.3  | 3.9  | 2.0  | 7.5  | 6.0  | 6.5  | 7.4  | 0    | 0    | 0    | 5    | 1.0  | 1.0  | 1.0  | 1.5  | 2.5  | 3.1  | 3.1  | 4.0  | 3.0  | 1.0  | 2.4  | 0    |

## CRUDE MORTALITY RATES PER 100,000 POPULATION FOR LEADING CAUSES OF DEATH—1913-1930

| Year | Population | Tuberculosis of Lungs (31) | Tuberculosis, other forms (32-37) | Cancer (all forms) (43-49) | Meningitis (71) | Cerebral Haemorrhage (74) | Diseases of the Heart (87-90) | Diseases of the Arteries (91) | Acute and Chronic Bronchitis (99) | Pneumonia, all forms (100-101) | Appendicitis and Typhlitis (117) | Hernia, Intestinal Obstruction (118) | Acute and Chronic Nephritis (128-129) | Puerperal Deaths (143-150) | External Causes (165-203) |
|------|------------|----------------------------|-----------------------------------|----------------------------|-----------------|---------------------------|-------------------------------|-------------------------------|-----------------------------------|--------------------------------|----------------------------------|--------------------------------------|---------------------------------------|----------------------------|---------------------------|
| 1930 | 209,286    | 46.3                       | 16.2                              | 113.2                      | 6.7             | 52.6                      | 122.8                         | 15.8                          | 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                         | 8.3                           | 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                         | 10.9                          | 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                         | 10.1                          | 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                         | 12.2                          | 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                          | 9.7                           | 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                          | 11.3                          | 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                          | 13.5                          | 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                          | 15.0                          | 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                          | 15.7                          | 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                          | 11.9                          | 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                          | 9.8                           | 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                          | 9.3                           | 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                          | 19.7                          | 13.7                              | 114.8                          | 14.2                             | 4.9                                  | 31.2                                  | 19.7                       | 41.0                      |
| 1916 | 200,090    | 79.5                       | 24.4                              | 63.5                       | 20.5            | 25.0                      | 71.5                          | 17.5                          | 21.0                              | 129.4                          | 12.5                             | 9.0                                  | 29.0                                  | 20.5                       | 41.5                      |
| 1915 | 201,981    | 79.2                       | 16.8                              | 48.5                       | 17.3            | 20.8                      | 59.9                          | 15.3                          | 21.8                              | 91.1                           | 13.4                             | 11.4                                 | 28.2                                  | 12.9                       | 52.9                      |
| 1914 | 203,255    | 72.8                       | 19.7                              | 44.3                       | 12.8            | 19.2                      | 53.1                          | 10.3                          | 22.1                              | 93.0                           | 6.4                              | 6.4                                  | 28.0                                  | 26.1                       | 60.5                      |
| 1913 | 184,730    | 71.4                       | 26.0                              | 51.4                       | 21.6            | 21.6                      | 68.2                          | 11.9                          | 13.0                              | 109.9                          | 10.3                             | 8.7                                  | 35.7                                  | 21.1                       | 68.2                      |





## DEATHS BY MONTHS, SEX AND AGE PERIOD—1930

| 1930                    | Under<br>1 | 1   |     | 3   |     | 5   |     | 10   |      | 20   |      | 30  |     | 40     |     | 50 |     | 60 |     | 70  |     | 80  |    | 90 |     | 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.     |     |
| January.....            | 9          | 10  | 3   | 3   | 1   | 1   | 3   | 1    | 4    | 2    | ...  | 4   | 7   | 7      | 15  | 11 | 13  | 4  | 20  | 16  | 13  | 19  | 5  | 3  | 1   | 1      | 94     | 82  |
| February.....           | 13         | 4   | 1   | 3   | 2   | 3   | 1   | 2    | 6    | 5    | 2    | 4   | 5   | 10     | 3   | 9  | 18  | 10 | 14  | 7   | 19  | 15  | 3  | 5  | 1   | 1      | 88     | 78  |
| March.....              | 25         | 15  | 2   | 1   | ... | ... | 3   | 2    | 5    | 3    | 9    | 5   | 6   | 6      | 19  | 10 | 13  | 8  | 16  | 7   | 10  | 12  | 3  | 1  | ... | 111    | 70     |     |
| April.....              | 12         | 12  | 1   | 2   | ... | ... | 1   | 1    | 3    | 3    | 2    | 4   | 2   | 7      | 9   | 8  | 10  | 8  | 13  | 12  | 10  | 14  | 4  | 5  | ... | 1      | 67     | 77  |
| May.....                | 11         | 13  | 3   | 1   | 2   | ... | ... | 1    | 6    | 2    | 2    | 7   | 5   | 4      | 11  | 8  | 15  | 6  | 14  | 7   | 11  | 7   | 4  | 2  | 1   | 1      | 85     | 59  |
| June.....               | 12         | 5   | 2   | 2   | ... | ... | 1   | 2    | 3    | 4    | 2    | 5   | 7   | 6      | 7   | 4  | 7   | 6  | 9   | 9   | 13  | 9   | 3  | 3  | 1   | 1      | 65     | 57  |
| July.....               | 8          | 12  | 2   | 2   | ... | ... | 2   | 1    | 6    | 4    | 5    | 6   | 6   | 4      | 11  | 4  | 10  | 9  | 9   | 9   | 14  | 9   | 6  | 4  | ... | 1      | 77     | 65  |
| August.....             | 12         | 10  | 3   | 3   | ... | ... | 3   | 3    | 1    | 1    | 7    | 6   | 4   | 2      | 10  | 6  | 7   | 6  | 9   | 12  | 7   | 11  | 4  | 5  | 1   | ...    | 68     | 66  |
| September.....          | 10         | 24  | 4   | 1   | 1   | ... | ... | 1    | 4    | 2    | 5    | 3   | 5   | 6      | 11  | 5  | 13  | 11 | 9   | 8   | 13  | 5   | 4  | 6  | ... | ...    | 79     | 72  |
| October.....            | 7          | 7   | 1   | 2   | 1   | 1   | ... | ...  | 1    | 3    | 9    | 5   | 2   | 4      | 10  | 7  | 20  | 5  | 9   | 11  | 9   | 9   | 4  | 3  | 1   | 3      | 74     | 60  |
| November.....           | 11         | 7   | 1   | 1   | ... | ... | 1   | 2    | 3    | 3    | 2    | 4   | 7   | 4      | 5   | 9  | 14  | 8  | 20  | 7   | 20  | 10  | 4  | 4  | ... | ...    | 87     | 60  |
| December.....           | 11         | 9   | 3   | 1   | ... | ... | 1   | 1    | 5    | 3    | 2    | 8   | 6   | 6      | 9   | 6  | 17  | 10 | 17  | 10  | 10  | 13  | 8  | 7  | ... | ...    | 89     | 76  |
| Totals.....             | 141        | 128 | 22  | 22  | 9   | 10  | 13  | 15   | 47   | 35   | 47   | 61  | 62  | 68     | 120 | 87 | 157 | 91 | 159 | 115 | 149 | 133 | 52 | 48 | 6   | 9      | 984    | 822 |
| Crude Totals.....       | 269        | 44  | 19  | 28  | 82  | 108 | 130 | 207  | 248  | 274  | 282  | 100 | 15  | 1,806  |     |    |     |    |     |     |     |     |    |    | 15  | ...    | 1,806  |     |
| Non-res. Dedctd.....    | 75         | 12  | 8   | 15  | 28  | 28  | 30  | 44   | 40   | 56   | 26   | 10  | ... | 372    |     |    |     |    |     |     |     |     |    |    | ... | ...    | 372    |     |
| Residents Added.....    | 16         | 5   | ... | 5   | 3   | 19  | 18  | 23   | 31   | 30   | 12   | 5   | 1   | 168    |     |    |     |    |     |     |     |     |    |    | 1   | ...    | 168    |     |
| Corrected Totals.....   | 210        | 37  | 11  | 18  | 57  | 99  | 118 | 186  | 239  | 248  | 268  | 95  | 16  | 1,602  |     |    |     |    |     |     |     |     |    |    | 16  | ...    | 1,602  |     |
| Crude, per cent.....    | 14.9       | 2.4 | 1.1 | 1.6 | 4.5 | 6.0 | 7.2 | 11.5 | 13.7 | 15.2 | 15.6 | 5.5 | .8  | 100.0% |     |    |     |    |     |     |     |     |    |    | ... | ...    | 100.0% |     |
| Corrected, percent..... | 13.1       | 2.3 | .7  | 1.1 | 3.6 | 6.2 | 7.4 | 11.6 | 14.9 | 15.5 | 16.7 | 5.9 | 1.0 | 100.0% |     |    |     |    |     |     |     |     |    |    | ... | ...    | 100.0% |     |



## NATIVITY OF DECEDENTS, 1930

(Deaths as Registered)

|                            |     |                   |       |
|----------------------------|-----|-------------------|-------|
| Winnipeg .....             | 354 | Greece .....      | 1     |
| Manitoba (rest of) .....   | 150 | Holland .....     | 1     |
| Nova Scotia .....          | 18  | Hungary .....     | 5     |
| Prince Edward Island ..... | 7   | Iceland .....     | 25    |
| New Brunswick .....        | 10  | Italy .....       | 6     |
| Quebec .....               | 37  | Latvia .....      | 1     |
| Ontario .....              | 298 | Lithuania .....   | 2     |
| Saskatchewan .....         | 13  | Norway .....      | 7     |
| Alberta .....              | 3   | Poland .....      | 106   |
| British Columbia .....     | 1   | Roumania .....    | 14    |
| Canada .....               | 12  | Russia .....      | 99    |
| England and Wales .....    | 261 | Sweden .....      | 17    |
| Ireland .....              | 59  | Switzerland ..... | 1     |
| Scotland .....             | 146 | Turkey .....      | 1     |
| Austria .....              | 33  | Ukraine .....     | 3     |
| Czecho-Slovakia .....      | 4   | China .....       | 10    |
| Denmark .....              | 7   | India .....       | 2     |
| Finland .....              | 1   | U. S. A. ....     | 56    |
| France .....               | 5   | Unknown .....     | 13    |
| Galicia .....              | 3   |                   |       |
| Germany .....              | 14  |                   |       |
|                            |     | Crude Total ..... | 1,806 |

## SUMMARY

|                                        | Deaths |       | Per Cent<br>of Total |       |
|----------------------------------------|--------|-------|----------------------|-------|
|                                        | 1930   | 1929  | 1930                 | 1929  |
| Canada .....                           | 903    | 904   | 50.0                 | 49.8  |
| British Isles .....                    | 466    | 481   | 25.8                 | 26.5  |
| Europe (excluding British Isles) ..... | 356    | 327   | 19.7                 | 18.0  |
| United States .....                    | 56     | 62    | 3.1                  | 3.4   |
| Asia .....                             | 12     | 13    | .7                   | .7    |
| Other Countries .....                  | ....   | 11    | ....                 | .6    |
| Unknown .....                          | 13     | 19    | .7                   | 1.0   |
| Totals .....                           | 1,806  | 1,817 | 100.0                | 100.0 |

## RATIO OF MALES TO 100 FEMALES, 1923-30

(As Registered)

|                   | 1930 | 1929 | 1928 | 1927 | 1926 | 1925 | 1924 | 1923 |
|-------------------|------|------|------|------|------|------|------|------|
| Stillbirths ..... | 116  | 165  | 109  | 130  | 129  | 132  | 137  | 134  |
| Live Births ..... | 103  | 107  | 102  | 110  | 110  | 108  | 100  | 106  |
| Deaths .....      | 120  | 122  | 117  | 123  | 108  | 110  | 113  | 118  |

## SOCIAL STATUS OF DECEDENTS, 1930

(As Registered)

|                                 | Male | Female | Totals | % of Total |
|---------------------------------|------|--------|--------|------------|
| Single, under 16 years .....    | 212  | 189    | 401    | 22.2       |
| Single, 16 years and over ..... | 142  | 91     | 233    | 12.9       |
| Total Single .....              | 354  | 280    | 634    | 35.1       |
| Married .....                   | 507  | 342    | 849    | 47.0       |
| Widowed .....                   | 112  | 200    | 312    | 17.3       |
| Divorced .....                  | 2    | ....   | 2      | .1         |
| Unknown .....                   | 9    | ....   | 9      | .5         |
| Crude Totals .....              | 984  | 822    | 1,806  | 100.0      |

## ATTENDANT AT BIRTH

(As Registered)

|                  | 1930       | 1929        | 1918*       |
|------------------|------------|-------------|-------------|
| Physicians ..... | 4,558 98.1 | 4,402 97.5% | 4,707 80.2% |
| Midwives .....   | 83         | 109         |             |
| Unattended ..... | 4 1.9      | 2 2.5%      | 1,159 19.8% |
| Unknown .....    | ....       | 2           |             |

\*Includes stillbirths.

## INFANTS BORN OUT OF WEDLOCK

(Including Stillbirths)

|                                   | 1930 | 1929 | 1926 | 1924 | 1921 | 1920 | 1917 | 1912 |
|-----------------------------------|------|------|------|------|------|------|------|------|
| Infants born out of Wedlock ..... | 374  | 406  | 313  | 284  | 317  | 262  | 267  | 383  |
| Per cent of Total Births .....    | 7.7  | 8.6  | 6.8  | 5.7  | 5.0  | 4.1  | 4.7  | 7.6  |

## PLURAL LIVE BIRTHS

|                     | 1930 | 1929 | 1928 | 1927 | 1926 | 1925 | 1924 | 1923 |
|---------------------|------|------|------|------|------|------|------|------|
| Twin Births .....   | 46   | 53   | 62   | 51   | 50   | 48   | 57   | 58   |
| Triple Births ..... | 0    | 1    | .... | .... | 1    | .... | .... | .... |



## ORDER OF LIVE BIRTHS, 1930

(Corrected and Crude Figures)

|               | Corrected | Crude |                   | Corrected | Crude |
|---------------|-----------|-------|-------------------|-----------|-------|
| First .....   | 1,513     | 1,932 | Eleventh .....    | 8         | 22    |
| Second .....  | 839       | 1,030 | Twelfth .....     | 8         | 12    |
| Third .....   | 509       | 642   | Thirteenth .....  | 3         | 4     |
| Fourth .....  | 268       | 362   | Fourteenth .....  | 3         | 8     |
| Fifth .....   | 167       | 220   | Fifteenth .....   | 3         | 3     |
| Sixth .....   | 133       | 177   | Sixteenth .....   | 1         | 1     |
| Seventh ..... | 83        | 116   | Seventeenth ..... | 1         | 1     |
| Eighth .....  | 44        | 54    | Twentieth .....   | 1         | 1     |
| Ninth .....   | 25        | 39    |                   |           |       |
| Tenth .....   | 18        | 21    | Total .....       | 3,627     | 4,645 |

|                                 | Corrected | Crude  |
|---------------------------------|-----------|--------|
| First Children .....            | 41.7%     | 41.6%  |
| Second Children .....           | 23.2%     | 22.2%  |
| Third Children .....            | 14.0%     | 13.8%  |
| Fourth Children .....           | 7.4%      | 7.8%   |
| Fifth to Twentieth Children.... | 13.7%     | 14.6%  |
|                                 | 100.0%    | 100.0% |

STILLBIRTHS ACCORDING TO NATIONALITY OF MOTHERS,  
1930

|                                     | Rates per 1,000 Live Births |      |             |      |
|-------------------------------------|-----------------------------|------|-------------|------|
|                                     | Corrected                   |      | Crude       |      |
|                                     | Stillbirths                 | Rate | Stillbirths | Rate |
| Canadian .....                      | 61                          | 39   | 85          | 40   |
| British .....                       | 35                          | 40   | 45          | 40   |
| Southern and Central European ..... | 51                          | 53   | 51          | 47   |

## INFANT MORTALITY, 1912-30

| Corrected  |             |               |                       | Crude       |               |                       |
|------------|-------------|---------------|-----------------------|-------------|---------------|-----------------------|
|            | Live Births | Infant Deaths | Rate per 1,000 Births | Live Births | Infant Deaths | Rate per 1,000 Births |
| 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                 |

## INFANT MORTALITY ACCORDING TO NATIONALITY OF MOTHERS, 1930

| Corrected                           |             |               |                       | Crude       |               |                       |
|-------------------------------------|-------------|---------------|-----------------------|-------------|---------------|-----------------------|
|                                     | Live Births | Infant Deaths | Rate per 1,000 Births | Live Births | Infant Deaths | Rate per 1,000 Births |
| Canadian .....                      | 1,577       | 103           | 65                    | 2,139       | 133           | 62                    |
| English and Welsh..                 | 465         | 22            | 47                    | 632         | 30            | 47                    |
| Irish .....                         | 115         | 9             | 78                    | 138         | 10            | 7                     |
| Scotch .....                        | 299         | 20            | 67                    | 365         | 22            | 60                    |
| American (U.S.A.) ..                | 127         | 2             | 16                    | 179         | 5             | 28                    |
| Scandinavian .....                  | 61          | 3             | 49                    | 84          | 6             | 71                    |
| Southern and Central European ..... | 964         | 50            | 52                    | 1,088       | 62            | 57                    |
| All others .....                    | 19          | 1             | ....                  | 20          | 1             | 4                     |



### INFANT MORTALITY—CAUSE OF DEATH—1930

#### Number of Deaths

|                                                        | Corrected | Crude |
|--------------------------------------------------------|-----------|-------|
| Acute Communicable Diseases .....                      | 13        | 19    |
| Other general diseases .....                           | 17        | 27    |
| Of nervous system and of organs of special sense ..... | 11        | 7     |
| Of respiratory system .....                            | 17        | 21    |
| Of digestive system .....                              | 21        | 30    |
| Malformations and diseases of early infancy .....      | 125       | 160   |
| All other diseases .....                               | 6         | 5     |
|                                                        | —         | —     |
| Totals .....                                           | 210       | 269   |

#### Rates per 1,000 Live Births

|                                                       | Corrected | Crude |
|-------------------------------------------------------|-----------|-------|
| Acute Communicable Diseases .....                     | 3.6       | 4.1   |
| Other general diseases .....                          | 4.7       | 5.8   |
| Of nervous system and of organs of special sense .... | 3.0       | 1.5   |
| Of respiratory system .....                           | 4.7       | 4.5   |
| Of digestive system .....                             | 5.8       | 6.5   |
| Malformations and diseases of early infancy .....     | 34.5      | 34.4  |
| All other diseases .....                              | 1.6       | 1.1   |
|                                                       | —         | —     |
| Totals .....                                          | 57.9      | 57.9  |

#### Per Cent of Total

|                                                        | Corrected | Crude |
|--------------------------------------------------------|-----------|-------|
| Acute Communicable Diseases .....                      | 6.2       | 7.1   |
| Other general diseases .....                           | 8.1       | 10.0  |
| Of nervous system and of organs of special sense ..... | 5.2       | 2.6   |
| Of respiratory system .....                            | 8.1       | 7.8   |
| Of digestive system .....                              | 10.0      | 11.2  |
| Malformations and diseases of early infancy .....      | 59.5      | 59.5  |
| All other diseases .....                               | 2.9       | 1.8   |
|                                                        | —         | —     |
| Totals .....                                           | 100.0     | 100.0 |

### CLASSIFICATION OF AGES OF DECEDENTS UNDER ONE YEAR OF AGE—1930

|                                     | Corrected        |                             |                          | Crude            |                             |                          |
|-------------------------------------|------------------|-----------------------------|--------------------------|------------------|-----------------------------|--------------------------|
|                                     | No. of<br>Deaths | Rate<br>per 1,000<br>Births | Per<br>Cent. of<br>Total | No. of<br>Deaths | Rate<br>per 1,000<br>Births | Per<br>Cent. of<br>Total |
| Minutes to 1 week .....             | 108              | 29.8                        | 51.4                     | 126              | 27.1                        | 46.9                     |
| Over 1 to 2 weeks .....             | 12               | 3.3                         | 5.7                      | 20               | 4.3                         | 7.4                      |
| Over 2 to 3 weeks .....             | 4                | 1.1                         | 1.9                      | 10               | 2.2                         | 3.7                      |
| Over 3 weeks to 1 month .....       | 5                | 1.4                         | 2.4                      | 6                | 1.3                         | 2.2                      |
| Minutes to 1 month .....            | 129              | 35.6                        | 61.4                     | 162              | 34.9                        | 60.2                     |
| Over 1 to 2 months .....            | 11               | 3.0                         | 5.2                      | 12               | 2.6                         | 4.5                      |
| Over 2 to 3 months .....            | 14               | 3.9                         | 6.7                      | 17               | 3.6                         | 6.3                      |
| Minutes to 3 months .....           | 154              | 42.5                        | 73.3                     | 191              | 41.1                        | 71.0                     |
| Over 3 to 6 months .....            | 24               | 6.6                         | 11.4                     | 29               | 6.3                         | 10.8                     |
| Over 6 to 9 months .....            | 9                | 2.5                         | 4.3                      | 22               | 4.7                         | 8.2                      |
| Over 9 and under 12<br>months ..... | 23               | 6.3                         | 11.0                     | 27               | 5.8                         | 10.0                     |
|                                     | 210              | 57.9                        | 100.0                    | 269              | 57.9                        | 100.0                    |

For comparison with the above, the final figures for the years 1929 and 1912 are given below:

|                                  | Crude            |                             |                          |
|----------------------------------|------------------|-----------------------------|--------------------------|
|                                  | No. of<br>Deaths | Rate<br>per 1,000<br>Births | Per<br>Cent. of<br>Total |
| <b>1929</b>                      |                  |                             |                          |
| Minutes to 3 months .....        | 178              | 39.4                        | 70.3                     |
| Over 3 to 6 months .....         | 37               | 8.2                         | 14.7                     |
| Over 6 to 9 months .....         | 24               | 5.3                         | 9.5                      |
| Over 9 and under 12 months ..... | 14               | 3.1                         | 5.5                      |
|                                  | 253              | 56.0                        | 100.0                    |
| <b>1912</b>                      |                  |                             |                          |
| Minutes to 3 months .....        | 630              | 129.4                       | 62.6                     |
| Over 3 to 6 months .....         | 189              | 38.8                        | 18.8                     |
| Over 6 to 9 months .....         | 125              | 25.7                        | 12.4                     |
| Over 9 and under 12 months ..... | 62               | 12.7                        | 6.2                      |
|                                  | 1,006            | 206.6                       | 100.0                    |

### INFANT MORTALITY STATISTICS

For further particulars regarding infantile mortality, see report of the Manager, Bureau of Child Hygiene, pages 108 to 120.



| 1930                                                      |        |              |        |        |        |          |          |          |          |          |          |          |          |          |            |
|-----------------------------------------------------------|--------|--------------|--------|--------|--------|----------|----------|----------|----------|----------|----------|----------|----------|----------|------------|
| 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 |
| I.—Epidemic, Endemic, and Infectious Diseases             |        |              |        |        |        |          |          |          |          |          |          |          |          |          |            |
| 7                                                         | 2      | 4            | 4      | 1      | 1      | 2        | 1        |          |          |          |          |          |          |          | 6          |
| 8                                                         | 3      | 13           | 1      |        |        |          |          |          |          |          |          |          |          |          | 3          |
| 9                                                         | 5      | 7            | 2      | 4      | 4      |          |          | 1        |          | 1        |          |          |          |          | 14         |
| 10                                                        | 7      | 2            | 2      |        |        |          |          |          |          |          |          |          |          |          | 14         |
| 11                                                        | 3      |              |        |        |        |          |          | 1        | 2        | 2        | 1        |          | 1        |          | 5          |
|                                                           | 4      |              |        |        |        |          |          | 1        |          |          |          | 2        | 4        |          | 9          |
|                                                           | 25     | 26           | 19     | 3      | 1      | 5        | 6        | 1        | 3        | 2        | 3        | 1        | 2        | 5        | 51         |
| Totals, Nos. 1 to 11                                      |        |              |        |        |        |          |          |          |          |          |          |          |          |          |            |
| 21                                                        | 3      | 2            | 2      |        |        |          |          | 1        | 1        |          |          |          |          |          | 5          |
| 22                                                        | 2      |              |        | 1      |        |          | 1        |          |          |          |          | 1        |          |          | 2          |
| 23                                                        | 2      |              |        |        |        |          |          | 1        |          |          | 1        |          |          |          | 2          |
| 24                                                        | 1      | 1            | 1      |        |        |          | 1        |          |          |          |          |          |          |          | 2          |
| 25                                                        |        |              |        |        |        |          |          |          |          |          |          |          |          |          | 2          |
| Other epidemic and endemic diseases:                      |        |              |        |        |        |          |          |          |          |          |          |          |          |          |            |
| *(c) Others under this title                              |        |              |        |        |        |          |          |          |          |          |          |          |          |          |            |
| 31                                                        | 1      | 2            | 2      |        |        |          |          |          |          |          |          |          | 1        |          | 3          |
| 32                                                        | 47     | 50           | 2      | 1      |        | 5        | 27       | 20       | 20       | 11       | 8        | 3        |          |          | 97         |
| 33                                                        | 4      | 10           | 2      | 4      | 1      | 3        | 1        | 2        |          | 1        |          |          |          |          | 14         |
| 35                                                        | 2      | 2            |        |        |        |          | 2        | 1        | 2        |          |          |          |          |          | 5          |
| 36                                                        |        | 1            |        | 1      |        |          |          |          |          |          |          |          |          |          | 1          |
| Tuberculosis of other organs:                             |        |              |        |        |        |          |          |          |          |          |          |          |          |          |            |
| (a) Tuberculosis of skin and subcutaneous cellular tissue |        |              |        |        |        |          |          |          |          |          |          |          |          |          |            |
| (d) Tuberculosis of the genitourinary system              |        |              |        |        |        |          |          |          |          |          |          |          |          |          |            |
| (e) Tuberculosis of organs other than the above           |        |              |        |        |        |          |          |          |          |          |          |          |          |          |            |

[illegible]



| 1930                                    |                                | AGE IN YEARS |   |  |  |  |  |  |  |   |   |  |  | SEX     |        |        |        |          |          |          |          |          |          |          |          |          |            |        |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
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| CAUSE OF DEATH BY AGE AND SEX           |                                |              |   |  |  |  |  |  |  |   |   |  |  | Male    |        | Female |        |          |          |          |          |          |          |          |          |          |            |        |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| CRUDE FIGURES                           |                                |              |   |  |  |  |  |  |  |   |   |  |  | 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 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| (As Registered; Non-Residents included) |                                |              |   |  |  |  |  |  |  |   |   |  |  |         |        |        |        |          |          |          |          |          |          |          |          |          |            |        |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 60                                      | Diseases of the thyroid gland: | 2            | 5 |  |  |  |  |  |  | 1 | 1 |  |  |         |        |        |        |          |          |          |          |          |          |          |          |          |            |        |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |





| 1930                                    |                                                                      |              |        |        |        |          |          |          |          |          |          |          |          |          |            |        |     |  |
|-----------------------------------------|----------------------------------------------------------------------|--------------|--------|--------|--------|----------|----------|----------|----------|----------|----------|----------|----------|----------|------------|--------|-----|--|
| 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 |     |  |
| 101                                     | Pneumonia:                                                           |              |        |        |        |          |          |          |          |          |          |          |          |          |            |        |     |  |
|                                         | (a) Lobar.....                                                       | 42           | 23     | 7      | 5      | 1        | 1        | 3        | 4        | 4        | 4        | 11       | 10       | 12       | 3          |        | 65  |  |
|                                         | (b) Unspecified.....                                                 | 1            | 2      |        |        |          |          |          |          | 1        |          |          | 1        | 1        |            |        | 3   |  |
| 102                                     | Pleurisy.....                                                        | 5            | 6      | 1      |        | 1        |          | 2        | 1        | 3        | 1        | 1        | 1        |          |            |        | 11  |  |
| 103                                     | Congestion and hemorrhagic infarct of the lung.....                  | 5            | 3      |        |        |          |          |          |          | 1        | 1        | 1        | 1        | 4        | 1          |        | 8   |  |
| 105                                     | Asthma.....                                                          | 1            | 2      |        |        |          |          |          |          |          | 2        | 1        |          |          |            |        | 3   |  |
| 107                                     | Other diseases of the respiratory system (T.b. excepted):            |              |        |        |        |          |          |          |          |          |          |          |          |          |            |        |     |  |
|                                         | (c) Others under this title.....                                     | 2            | 1      |        |        |          |          |          |          | 2        | 1        |          |          |          |            |        | 3   |  |
|                                         | Totals, Class V.....                                                 | 88           | 60     | 21     | 10     | 2        | 2        | 7        | 6        | 9        | 10       | 20       | 20       | 25       | 13         | 3      | 148 |  |
| VI.—Diseases of the Digestive System.   |                                                                      |              |        |        |        |          |          |          |          |          |          |          |          |          |            |        |     |  |
| 108                                     | Diseases of the mouth and annexa.....                                |              | 1      |        |        |          |          |          |          |          |          |          | 1        |          |            |        | 1   |  |
| 109                                     | Diseases of the pharynx and tonsils (including adenoid vegetations): |              |        |        |        |          |          |          |          |          |          |          |          |          |            |        |     |  |
|                                         | * (b) Others under this title.....                                   | 5            | 2      | 1      | 2      |          |          |          | 2        |          | 1        |          | 1        |          |            |        | 7   |  |
| 111                                     | Ulcer of the stomach and duodenum:                                   |              |        |        |        |          |          |          |          |          |          |          |          |          |            |        |     |  |
|                                         | (a) Ulcer of the stomach.....                                        | 9            | 3      |        |        |          |          |          | 2        | 1        | 2        | 5        |          | 2        |            |        | 12  |  |
|                                         | (b) Ulcer of the duodenum.....                                       | 4            | 2      |        |        |          |          |          | 2        |          | 2        |          | 2        |          |            |        | 6   |  |
| 112                                     | Other diseases of the stomach (cancer excepted).....                 | 6            |        | 1      |        |          |          | 1        |          | 1        | 1        | 1        | 2        |          |            |        | 6   |  |
| 113                                     | Diarrhea and enteritis (under 2 years of age).....                   | 19           | 9      | 25     | 3      |          |          |          |          |          |          |          |          |          |            |        | 28  |  |
| 114                                     | Diarrhea and enteritis (2 years and over).....                       | 3            | 8      |        | 2      | 1        | 1        |          | 2        |          | 1        | 1        | 2        | 1        |            |        | 11  |  |
| 117                                     | Appendicitis and typhlitis.....                                      | 23           | 14     |        | 1      | 1        | 4        | 9        | 3        | 4        | 7        | 5        | 2        | 1        |            |        | 37  |  |
| 118                                     | Hernia, intestinal obstruction:                                      |              |        |        |        |          |          |          |          |          |          |          |          |          |            |        |     |  |
|                                         | (a) Hernia.....                                                      | 4            | 3      | 1      |        |          |          |          |          | 1        |          |          | 1        | 3        | 1          |        | 7   |  |
|                                         | (b) Intestinal obstruction.....                                      | 10           | 7      | 2      |        |          |          | 1        | 2        |          | 1        | 2        | 4        | 4        | 1          |        | 17  |  |
| 119                                     | Other diseases of the intestines.....                                | 2            |        |        |        |          |          |          | 1        |          |          |          |          |          |            |        | 2   |  |
| 120                                     | Acute yellow atrophy of the liver.....                               | 1            |        |        |        |          |          |          |          |          |          | 1        |          |          |            |        | 1   |  |



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| 1930                                                      |                                                      | AGE IN YEARS |    |     |   |  |  |  |   |   |   |   |   |  | SEX     |        |        |        |          |          |          |          |          |          |          |          |          |            |        |  |
|-----------------------------------------------------------|------------------------------------------------------|--------------|----|-----|---|--|--|--|---|---|---|---|---|--|---------|--------|--------|--------|----------|----------|----------|----------|----------|----------|----------|----------|----------|------------|--------|--|
| CAUSE OF DEATH BY AGE AND SEX                             |                                                      |              |    |     |   |  |  |  |   |   |   |   |   |  | Male    | Female |        |        |          |          |          |          |          |          |          |          |          |            |        |  |
| CRUDE FIGURES                                             |                                                      |              |    |     |   |  |  |  |   |   |   |   |   |  | 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 |  |
| (As Registered; Non-Residents included)                   |                                                      |              |    |     |   |  |  |  |   |   |   |   |   |  |         |        |        |        |          |          |          |          |          |          |          |          |          |            |        |  |
| IX.—Diseases of the Skin and of the Cellular Tissue.      |                                                      |              |    |     |   |  |  |  |   |   |   |   |   |  |         |        |        |        |          |          |          |          |          |          |          |          |          |            |        |  |
| 151                                                       | Gangrene.....                                        | 2            | 3  |     |   |  |  |  |   |   |   |   |   |  |         |        |        |        |          |          |          |          |          |          |          |          |          |            |        |  |
| 153                                                       | Acute abscess.....                                   | 1            |    |     |   |  |  |  | 1 |   |   |   |   |  |         |        |        |        |          |          |          |          |          |          |          |          |          |            |        |  |
| 154                                                       | Other diseases of the skin and annexa.....           |              | 1  |     |   |  |  |  |   | 1 |   |   |   |  |         |        |        |        |          |          |          |          |          |          |          |          |          |            |        |  |
| Totals, Class IX.....                                     |                                                      | 3            | 4  |     |   |  |  |  |   | 1 |   |   |   |  |         |        |        |        |          | 1        | 1        | 1        |          |          |          |          |          |            |        |  |
| X.—Diseases of the Bones and of the Organs of Locomotion. |                                                      |              |    |     |   |  |  |  |   |   |   |   |   |  |         |        |        |        |          |          |          |          |          |          |          |          |          |            |        |  |
| 155                                                       | Diseases of the bones (tuberculosis excepted).....   | 6            | 1  |     |   |  |  |  |   | 1 | 1 | 1 | 3 |  |         |        |        |        |          |          |          |          |          |          |          |          |          |            |        |  |
| Totals, Class X.....                                      |                                                      | 6            | 1  |     |   |  |  |  |   | 1 | 1 | 1 | 3 |  |         |        |        |        |          |          |          |          |          |          |          |          |          |            |        |  |
| XI.—Malformations.                                        |                                                      |              |    |     |   |  |  |  |   |   |   |   |   |  |         |        |        |        |          |          |          |          |          |          |          |          |          |            |        |  |
| 159                                                       | Congenital malformations (stillbirths not included): |              |    |     |   |  |  |  |   |   |   |   |   |  |         |        |        |        |          |          |          |          |          |          |          |          |          |            |        |  |
|                                                           | * (a) Congenital hydrocephalus.....                  | 2            | 2  | 4   |   |  |  |  |   |   |   |   |   |  |         |        |        |        |          |          |          |          |          |          |          |          |          |            |        |  |
|                                                           | * (b) Congenital malformations of the heart.....     | 6            | 7  | 10  | 2 |  |  |  | 1 |   |   |   |   |  |         |        |        |        |          |          |          |          |          |          |          |          |          |            |        |  |
|                                                           | * (c) Others under this title.....                   | 4            | 9  | 13  |   |  |  |  |   |   |   |   |   |  |         |        |        |        |          |          |          |          |          |          |          |          |          |            |        |  |
| Totals, Class XI.....                                     |                                                      | 12           | 18 | 27  | 2 |  |  |  | 1 |   |   |   |   |  |         |        |        |        |          |          |          |          |          |          |          |          |          |            |        |  |
| XII.—Early Infancy.                                       |                                                      |              |    |     |   |  |  |  |   |   |   |   |   |  |         |        |        |        |          |          |          |          |          |          |          |          |          |            |        |  |
| 160                                                       | Congenital debility, icterus, and sclerema.....      | 6            | 2  | 8   |   |  |  |  |   |   |   |   |   |  |         |        |        |        |          |          |          |          |          |          |          |          |          |            |        |  |
| 161                                                       | Premature birth; Injury at birth:                    |              |    |     |   |  |  |  |   |   |   |   |   |  |         |        |        |        |          |          |          |          |          |          |          |          |          |            |        |  |
|                                                           | * (a) Premature birth (not stillborn).....           | 32           | 46 | 78  |   |  |  |  |   |   |   |   |   |  |         |        |        |        |          |          |          |          |          |          |          |          |          |            |        |  |
|                                                           | * (b) Injury at birth (not stillborn).....           | 14           | 9  | 23  |   |  |  |  |   |   |   |   |   |  |         |        |        |        |          |          |          |          |          |          |          |          |          |            |        |  |
| 162                                                       | Other diseases peculiar to early infancy.....        | 15           | 9  | 24  |   |  |  |  |   |   |   |   |   |  |         |        |        |        |          |          |          |          |          |          |          |          |          |            |        |  |
| Totals, Class XII.....                                    |                                                      | 67           | 66 | 133 |   |  |  |  |   |   |   |   |   |  |         |        |        |        |          |          |          |          |          |          |          |          |          |            |        |  |
| XIII.—Old Age.                                            |                                                      |              |    |     |   |  |  |  |   |   |   |   |   |  |         |        |        |        |          |          |          |          |          |          |          |          |          |            |        |  |
| 164                                                       | Senility.....                                        | 4            | 7  |     |   |  |  |  |   |   |   |   |   |  |         |        |        |        |          |          |          |          |          |          |          |          |          |            |        |  |
| Totals, Class XIII.....                                   |                                                      | 4            | 7  |     |   |  |  |  |   |   |   |   |   |  |         |        |        |        |          |          |          |          |          |          |          |          |          |            |        |  |

#### XIV.—External Causes

[illegible]



| 1930                                                                                                                                                     |                                                           | SEX  |        | AGE IN YEARS |        |        |        |          |          |          |          |          |          |          | Totals   |          |            |
|----------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------|------|--------|--------------|--------|--------|--------|----------|----------|----------|----------|----------|----------|----------|----------|----------|------------|
| CAUSE OF DEATH BY AGE AND SEX<br>CORRECTED FIGURES<br>(Non-Residents Excluded; St. Boniface and Ninette<br>Registrations of Winnipeg Residents Included) |                                                           | 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 |
| <b>I.—Epidemic, Endemic, and Infectious Diseases.</b>                                                                                                    |                                                           |      |        |              |        |        |        |          |          |          |          |          |          |          |          |          |            |
| 1                                                                                                                                                        | Typhoid and paratyphoid fever:                            |      |        |              |        |        |        |          |          |          |          |          |          |          |          |          |            |
|                                                                                                                                                          | (a) Typhoid fever                                         |      |        |              |        |        |        |          |          |          |          |          | 1        |          |          |          |            |
| 7                                                                                                                                                        | Measles                                                   | 1    | 2      | 3            | 1      |        |        |          |          |          |          |          |          |          |          |          |            |
| 9                                                                                                                                                        | Whooping-cough                                            | 6    | 4      | 9            | 1      |        |        |          |          |          |          |          |          |          |          |          |            |
| 10                                                                                                                                                       | Diphtheria                                                | 4    | 4      | 1            | 2      |        | 2      | 2        |          |          |          | 1        |          |          |          |          |            |
| 11                                                                                                                                                       | Influenza:                                                |      |        |              |        |        |        |          |          |          |          |          |          |          |          |          |            |
|                                                                                                                                                          | (a) With pulmonary complications specified                | 3    | 2      |              |        |        |        |          |          | 1        | 2        | 2        | 1        |          | 1        |          |            |
|                                                                                                                                                          | (b) Without pulmonary complications specified             | 4    | 5      |              |        |        |        |          |          | 1        | 1        | 2        |          | 2        | 4        |          |            |
| Totals, Nos. 1 to 11                                                                                                                                     |                                                           | 20   | 17     | 13           | 4      |        | 2      | 2        |          | 2        | 2        | 3        | 2        | 2        | 5        |          |            |
| 21                                                                                                                                                       | Erysipelas                                                | 3    | 1      |              |        |        |        |          |          | 1        |          | 1        |          | 2        |          |          |            |
| 22                                                                                                                                                       | Acute anterior poliomyelitis                              | 1    |        |              |        | 1      |        |          |          |          |          |          |          |          |          |          |            |
| 23                                                                                                                                                       | Lethargic encephalitis                                    | 2    |        |              |        |        |        |          |          | 1        |          |          | 1        |          |          |          |            |
| 24                                                                                                                                                       | Meningococcus meningitis                                  |      | 1      |              |        |        |        | 1        |          |          |          |          |          |          |          |          |            |
| 25                                                                                                                                                       | Other epidemic and endemic diseases:                      |      |        |              |        |        |        |          |          |          |          |          |          |          |          |          |            |
|                                                                                                                                                          | *(c) Others under this title                              | 1    | 1      |              | 1      |        |        |          |          |          |          |          |          |          |          | 1        |            |
| 30                                                                                                                                                       | Mycoses                                                   | 1    |        |              |        |        |        |          |          |          |          |          |          |          |          |          |            |
| 31                                                                                                                                                       | Tuberculosis of the respiratory system                    | 58   | 48     | 2            | 2      |        | 1      | 4        | 30       | 22       | 26       | 10       | 7        | 2        |          |          |            |
| 32                                                                                                                                                       | Tuberculosis of the meninges and central nervous system   | 3    | 8      | 2            | 4      |        | 1      | 1        | 1        | 1        |          | 1        |          |          |          |          |            |
| 33                                                                                                                                                       | Tuberculosis of the intestines and peritoneum             | 1    | 2      |              |        |        |        |          | 1        |          | 2        |          |          |          |          |          |            |
| 34                                                                                                                                                       | Tuberculosis of the vertebral column                      |      | 1      | 1            |        |        |        |          |          | 1        |          |          |          |          |          |          |            |
| 35                                                                                                                                                       | Tuberculosis of the joints                                | 1    | 1      |              |        | 1      |        |          |          |          |          |          |          |          |          |          |            |
| 36                                                                                                                                                       | Tuberculosis of other organs:                             |      |        |              |        |        |        |          |          |          |          |          |          |          |          |          |            |
|                                                                                                                                                          | (a) Tuberculosis of skin and subcutaneous cellular tissue |      | 1      |              |        |        |        |          | 1        |          |          |          |          |          |          |          |            |
|                                                                                                                                                          | (b) Tuberculosis of bones (vertebral column excepted)     | 1    |        |              |        |        |        |          |          |          |          | 1        |          |          |          |          |            |
|                                                                                                                                                          | (c) Tuberculosis of the genitourinary system              | 2    |        |              |        |        |        |          |          | 1        |          |          | 1        |          |          |          |            |
|                                                                                                                                                          | (d) Tuberculosis of organs other than the above           | 1    | 1      |              |        |        |        |          |          |          | 1        |          |          |          |          |          |            |





| 1930                                                                                                                                                     |                                                                                                                | SEX    | AGE IN YEARS |        |         |        |        |        |          |          |          |          |          |          | Totals |          |          |          |            |  |
|----------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------|--------|--------------|--------|---------|--------|--------|--------|----------|----------|----------|----------|----------|----------|--------|----------|----------|----------|------------|--|
| CAUSE OF DEATH BY AGE AND SEX<br>CORRECTED FIGURES<br>(Non-Residents Excluded; St. Boniface and Ninette<br>Registrations of Winnipeg Residents Included) |                                                                                                                |        | 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 |  |
| 60                                                                                                                                                       | Diseases of the thyroid gland:<br>(a) Exophthalmic goiter.....<br>(b) Other diseases of the thyroid gland..... | 2<br>1 | 4<br>1       |        |         |        |        |        | 1        | 1        | 1        |          |          | 2        |        | 1        |          |          |            |  |
| 62                                                                                                                                                       | Diseases of the thymus gland.....                                                                              | 1      | 3            |        |         |        |        |        | 1        |          |          |          |          |          |        |          |          |          |            |  |
| 63                                                                                                                                                       | Diseases of the adrenals (Addison's disease).....                                                              | 1      | 1            |        |         |        |        |        |          |          | 1        | 1        |          |          |        |          |          |          |            |  |
| 65                                                                                                                                                       | Leukemia and Hodgkin's disease:<br>(a) Leukemia.....<br>(b) Hodgkin's disease.....                             | 5<br>1 | 8<br>1       | 2      |         |        |        |        |          |          | 1        | 3        | 4        | 3        |        |          |          |          |            |  |
| 66                                                                                                                                                       | Alcoholism (acute or chronic).....                                                                             | 2      |              |        |         |        |        |        |          |          | 1        | 1        |          |          |        |          |          |          |            |  |
| 69                                                                                                                                                       | Other general diseases.....                                                                                    | 1      | 2            |        |         | 2      |        |        |          |          | 1        |          |          |          |        |          |          |          |            |  |
| Totals, Class II.....                                                                                                                                    |                                                                                                                |        | 153          | 156    | 8       | 4      |        |        | 9        | 8        | 19       | 45       | 66       | 74       | 65     | 11       |          |          | 309        |  |
| III.—Diseases of the Nervous System and of the Organs of<br>Special Sense.                                                                               |                                                                                                                |        |              |        |         |        |        |        |          |          |          |          |          |          |        |          |          |          |            |  |
| 70                                                                                                                                                       | Encephalitis.....                                                                                              | 1      |              |        |         |        |        |        |          |          |          |          |          |          | 1      |          |          |          |            |  |
| 71                                                                                                                                                       | Meningitis:<br>*(a) Simple meningitis.....<br>*(b) Non-epidemic cerebrospinal meningitis.....                  | 8      | 4            | 3      | 1       | 1      |        |        |          | 3        |          | 1        | 2        | 1        |        |          |          |          |            |  |
| 72                                                                                                                                                       | Tabes dorsalis (locomotor ataxia).....                                                                         | 2      | 1            |        |         |        |        |        | 1        |          |          |          |          | 2        |        |          |          |          |            |  |
| 73                                                                                                                                                       | Other diseases of the spinal cord.....                                                                         | 8      |              |        |         |        |        |        | 1        |          |          | 1        | 2        | 1        | 1      | 1        |          |          |            |  |
| 74                                                                                                                                                       | Cerebral hemorrhage, apoplexy:<br>(a) Cerebral hemorrhage.....<br>(b) Cerebral embolism and thrombosis.....    | 51     | 45           |        |         |        |        |        |          |          | 2        | 4        | 17       | 27       | 35     | 9        | 2        |          |            |  |
| 75                                                                                                                                                       | Paralysis without specified cause:<br>(a) Hemiplegia.....<br>(b) Others under this title.....                  | 3      | 5            |        |         |        |        |        |          |          |          |          | 2        | 1        | 1      | 3        | 1        |          |            |  |
| 76                                                                                                                                                       | General paralysis of the insane.....                                                                           | 4      |              |        |         |        |        |        |          |          |          |          |          | 1        | 3      |          |          |          |            |  |
|                                                                                                                                                          |                                                                                                                | 1      | 1            |        |         |        |        |        |          |          |          | 1        |          |          | 2      |          |          |          |            |  |





| 1930                                                                                               |                                                                                               | SEX | AGE IN YEARS |        |         |        |        |        |          |          |          |          |          |          | Totals |          |          |          |            |
|----------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------|-----|--------------|--------|---------|--------|--------|--------|----------|----------|----------|----------|----------|----------|--------|----------|----------|----------|------------|
| CAUSE OF DEATH BY AGE AND SEX<br>CORRECTED FIGURES                                                 |                                                                                               |     |              |        |         |        |        |        |          |          |          |          |          |          |        |          |          |          |            |
| (Non-Residents Excluded; St. Boniface and Ninette<br>Registrations of Winnipeg Residents Included) |                                                                                               |     | 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 |
| 105                                                                                                | Asthma.....                                                                                   |     |              | 2      |         |        |        |        |          |          |          |          |          |          | 1      | 1        |          |          |            |
| 107                                                                                                | Other diseases of the respiratory system (T.B. excepted):<br>(c) Others under this title..... | 2   | 1            |        |         |        |        |        |          |          |          | 1        | 1        |          |        |          |          |          |            |
| Totals, Class V.....                                                                               |                                                                                               |     | 78           | 47     | 17      | 8      | 2      | 1      | 5        | 3        | 5        | 8        | 20       | 18       | 22     | 13       | 3        |          | 125        |
| VI.—Diseases of the Digestive System.                                                              |                                                                                               |     |              |        |         |        |        |        |          |          |          |          |          |          |        |          |          |          |            |
| 109                                                                                                | Diseases of the pharynx and tonsils (including adenoid<br>vegetations):                       |     |              |        |         |        |        |        |          |          |          |          |          |          |        |          |          |          |            |
| 111                                                                                                | * (b) Others under this title.....                                                            | 4   | 2            |        | 2       |        |        |        |          | 2        |          | 1        |          |          | 1      |          |          |          |            |
|                                                                                                    | Ulcer of the stomach and duodenum:                                                            |     |              |        |         |        |        |        |          |          |          |          |          |          |        |          |          |          |            |
|                                                                                                    | (a) Ulcer of the stomach.....                                                                 | 9   | 2            |        |         |        |        |        |          | 2        | 1        | 1        | 5        |          |        | 2        |          |          |            |
| 112                                                                                                | (b) Ulcer of the duodenum.....                                                                | 4   | 2            |        |         |        |        |        |          | 2        |          | 2        | 1        | 1        |        |          |          |          |            |
| 113                                                                                                | Other diseases of the stomach (cancer excepted)                                               | 5   | 1            | 1      |         |        |        |        |          |          |          | 1        | 1        | 1        |        |          |          |          |            |
| 114                                                                                                | Diarrhea and enteritis (under 2 years of age)                                                 | 14  | 5            | 17     | 2       |        |        |        |          |          |          |          |          |          |        |          |          |          |            |
| 117                                                                                                | Diarrhea and enteritis (2 years and over)                                                     | 2   | 7            |        | 2       |        |        |        |          |          | 2        |          | 2        | 1        | 1      | 1        |          |          |            |
| 117                                                                                                | Appendicitis and typhlitis.....                                                               | 15  | 12           |        | 1       | 1      | 4      | 4      | 2        | 3        | 4        | 5        | 2        | 2        | 1      |          |          |          |            |
| 118                                                                                                | Hernia, intestinal obstruction:                                                               |     |              |        |         |        |        |        |          |          |          |          |          |          |        |          |          |          |            |
|                                                                                                    | (a) Hernia.....                                                                               | 3   | 1            | 1      |         |        |        |        |          |          |          |          |          |          |        | 1        | 1        |          |            |
|                                                                                                    | (b) Intestinal obstruction.....                                                               | 8   | 5            | 2      |         |        |        | 1      | 2        |          |          | 1        | 1        | 3        |        |          | 1        |          |            |
| 119                                                                                                | Other diseases of the intestines.....                                                         | 1   |              |        |         |        |        |        |          |          |          |          |          |          |        |          |          |          |            |
| 120                                                                                                | Acute yellow atrophy of the liver.....                                                        | 1   |              |        |         |        |        |        |          |          |          |          |          |          |        |          |          |          |            |
| 122                                                                                                | Cirrhosis of the liver:                                                                       |     |              |        |         |        |        |        |          |          |          |          |          |          |        |          |          |          |            |
|                                                                                                    | (b) Not specified as alcoholic.....                                                           | 7   | 2            |        |         |        |        | 1      |          |          | 2        | 1        | 3        | 1        |        | 1        |          |          |            |
| 123                                                                                                | Biliary calculi.....                                                                          | 2   | 3            |        |         |        |        |        |          |          |          | 3        | 1        |          |        | 1        |          |          |            |
| 124                                                                                                | Other diseases of the liver.....                                                              | 3   | 5            |        |         |        |        |        |          | 1        | 1        | 1        | 2        |          |        | 2        | 1        |          |            |





| 1930                                                                                                                                                     |                                                     | AGE IN YEARS |        |        |        |          |          |          |          |          |          |          |          |          | SEX        | Totals |
|----------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------|--------------|--------|--------|--------|----------|----------|----------|----------|----------|----------|----------|----------|----------|------------|--------|
| CAUSE OF DEATH BY AGE AND SEX<br>CORRECTED FIGURES<br>(Non-Residents Excluded; St. Boniface and Ninette<br>Registrations of Winnipeg Residents Included) |                                                     | 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 |        |
| <b>X.—Diseases of the Bones and of the Organs of Locomotion.</b>                                                                                         |                                                     |              |        |        |        |          |          |          |          |          |          |          |          |          |            |        |
| 155                                                                                                                                                      | Diseases of the bones (tuberculosis excepted)       |              |        |        |        | 1        | 1        | 2        |          |          |          |          |          |          |            | 4      |
| Totals, Class X                                                                                                                                          |                                                     |              |        |        |        | 1        | 1        | 2        |          |          |          |          |          |          |            | 4      |
| <b>XI.—Malformations.</b>                                                                                                                                |                                                     |              |        |        |        |          |          |          |          |          |          |          |          |          |            |        |
| 159                                                                                                                                                      | Congenital malformations (stillbirths not included) |              |        |        |        |          |          |          |          |          |          |          |          |          |            |        |
|                                                                                                                                                          | *(a) Congenital hydrocephalus                       | 2            | 1      | 3      |        |          |          |          |          |          |          |          |          |          |            | 3      |
|                                                                                                                                                          | *(b) Congenital malformations of the heart          | 3            | 4      | 4      | 2      | 1        |          |          |          |          |          |          |          |          |            | 7      |
|                                                                                                                                                          | *(c) Others under this title                        | 2            | 7      | 9      |        |          |          |          |          |          |          |          |          |          |            | 9      |
| Totals, Class XI                                                                                                                                         |                                                     | 7            | 12     | 16     | 2      | 1        |          |          |          |          |          |          |          |          |            | 19     |
| <b>XII.—Early Infancy.</b>                                                                                                                               |                                                     |              |        |        |        |          |          |          |          |          |          |          |          |          |            |        |
| 160                                                                                                                                                      | Congenital debility, icterus, and sclerema          | 5            | 2      | 7      |        |          |          |          |          |          |          |          |          |          |            | 7      |
| 161                                                                                                                                                      | Premature birth; Injury at birth                    |              |        |        |        |          |          |          |          |          |          |          |          |          |            |        |
|                                                                                                                                                          | *(a) Premature birth (not stillborn)                | 24           | 37     | 61     |        |          |          |          |          |          |          |          |          |          |            | 61     |
|                                                                                                                                                          | *(b) Injury at birth (not stillborn)                | 11           | 10     | 21     |        |          |          |          |          |          |          |          |          |          |            | 21     |
| 162                                                                                                                                                      | Other diseases peculiar to early infancy            | 12           | 8      | 20     |        |          |          |          |          |          |          |          |          |          |            | 20     |
| Totals, Class XII                                                                                                                                        |                                                     | 52           | 57     | 109    |        |          |          |          |          |          |          |          |          |          |            | 109    |
| <b>XIII.—Old Age.</b>                                                                                                                                    |                                                     |              |        |        |        |          |          |          |          |          |          |          |          |          |            |        |
| 164                                                                                                                                                      | Senility                                            | 4            | 7      |        |        |          |          |          |          |          |          | 4        | 4        | 3        |            | 11     |
| Totals, Class XIII                                                                                                                                       |                                                     | 4            | 7      |        |        |          |          |          |          |          |          | 4        | 4        | 3        |            | 11     |

#### XIV.—External Causes

|     | XIV.—External Causes                                                                                            | I.  | II. | III. | IV. | V. | VI. | VII. | VIII. | IX. | X.  | XI. | XII. | XIII. | Total |
|-----|-----------------------------------------------------------------------------------------------------------------|-----|-----|------|-----|----|-----|------|-------|-----|-----|-----|------|-------|-------|
| 165 | Suicide by solid or liquid poisons (corrosive substances excepted).....                                         | 1   |     |      |     |    |     |      |       |     |     |     |      | 1     | 1     |
| 166 | Suicide by corrosive substances.....                                                                            | 1   |     |      |     |    |     |      |       |     |     |     |      | 1     | 1     |
| 167 | Suicide by poisonous gas.....                                                                                   | 1   |     |      |     |    |     |      |       |     |     |     |      | 1     | 1     |
| 168 | Suicide by hanging or strangulation.....                                                                        | 6   | 1   |      |     |    |     |      |       | 1   | 1   |     |      | 3     | 1     |
| 169 | Suicide by drowning.....                                                                                        | 4   | 1   |      |     |    |     |      |       | 2   |     |     |      | 3     |       |
| 170 | Suicide by firearms.....                                                                                        | 3   |     |      |     |    |     |      |       | 1   |     |     |      | 1     |       |
| 171 | Suicide by cutting or piercing instruments.....                                                                 | 1   | 2   |      |     |    |     | 1    |       |     |     |     |      | 1     | 3     |
| 172 | Suicide by jumping from high places.....                                                                        | 2   | 2   |      |     |    |     |      |       | 1   | 1   |     |      |       | 2     |
| 177 | Other acute accidental poisonings (gas excepted).....                                                           | 2   | 1   |      |     |    |     |      |       | 1   | 1   |     |      | 1     | 3     |
| 179 | Accidental burns (conflagration excepted).....                                                                  | 3   |     | 2    |     |    |     |      |       | 1   |     |     |      |       | 3     |
| 180 | Accidental mechanical suffocation.....                                                                          | 1   | 1   | 2    |     |    |     |      |       |     |     |     |      |       | 2     |
| 181 | Accidental absorption of irrespirable, irritating, or poisonous gas.....                                        | 6   |     |      |     |    |     |      |       |     |     |     |      | 1     | 6     |
| 182 | Accidental drowning.....                                                                                        | 7   |     |      |     | 1  | 1   | 3    |       |     | 1   |     |      | 1     | 7     |
| 185 | Accidental traumatism by fall.....                                                                              | 6   | 1   |      |     |    |     |      |       | 1   | 2   |     |      | 1     | 7     |
| 187 | Accidental traumatism by machines.....                                                                          | 1   |     |      |     |    |     |      |       |     | 1   |     |      |       | 1     |
| 188 | Accidental traumatism by other crushing (vehicles, railways, landslides, etc.):<br>*(a) Railroad accidents..... | 6   |     |      |     |    |     |      |       | 2   | 2   |     |      | 1     | 6     |
|     | *(b) Street-car accidents.....                                                                                  | 1   |     |      |     |    |     |      |       |     |     |     |      | 1     | 1     |
|     | *(c) Automobile accidents.....                                                                                  | 16  | 10  |      |     | 3  | 1   | 1    | 4     | 2   | 5   | 3   | 1    | 1     | 26    |
|     | *(f) Injuries by other vehicles.....                                                                            | 1   |     |      |     |    |     |      |       |     | 1   |     |      |       | 1     |
|     | *(g) Landslides, other crushing.....                                                                            | 1   |     |      |     |    |     |      |       | 1   |     |     |      |       | 1     |
| 189 | Injuries by animals (not poisoning).....                                                                        | 2   |     |      |     |    |     |      | 1     |     |     |     | 1    |       | 2     |
| 193 | Excessive cold.....                                                                                             | 1   |     |      |     |    |     |      |       |     |     |     | 1    |       | 1     |
| 196 | Other accidental electric shocks.....                                                                           | 2   |     |      |     |    |     |      | 2     |     |     |     |      |       | 2     |
| 197 | Homicide by firearms.....                                                                                       | 1   |     |      |     |    |     |      |       |     | 1   |     |      |       | 1     |
| 202 | Other external violence.....                                                                                    |     | 3   | 2    |     |    |     |      |       |     |     |     |      | 1     | 3     |
| 203 | Violent deaths of unknown causation.....                                                                        | 1   |     |      |     |    |     |      |       |     |     |     |      | 1     | 1     |
|     | Totals, Class XIV.....                                                                                          | 75  | 22  | 4    | 2   | 4  | 2   | 6    | 18    | 14  | 17  | 15  | 8    | 4     | 97    |
|     | Grand Totals.....                                                                                               | 887 | 715 | 210  | 37  | 11 | 18  | 57   | 99    | 118 | 187 | 238 | 248  | 268   | 1,602 |



## Report of Chief of the Street Cleaning Division

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

Dear Sir:

I have the honor to submit herewith the report of the Street Cleaning and Scavenging Division, for the year 1930.

### SCAVENGING

The volume of organic matter collected during the year showed an increase of 1,219 tons as compared with the previous year. Similarly the tonnage of inorganic matter collected increased by 2,234 tons. The so-called economic depression through which we are passing is not reflected in the quantity of organic matter (garbage) collected during the year. In 1929 the average quantity of organic matter produced per capita was 211.4 lbs., whereas in 1930 this amount increased to 218.9 lbs.

The year 1930 showed an increase in population, over the previous year, of 4,203, and there were 457 new homes and 11 new apartment blocks erected in 1930.

During the year a new Ford light delivery truck and a Thornycroft tractor truck were added to the equipment of the Division, as replacements.

The trailer equipment was again painted.

### INCINERATORS

Extensive repair work was carried out at the Saskatchewan Avenue Incinerator during the year. The flue and damper of the south furnace was enlarged, and a hydraulic charging ram was installed. This completes the programme of alterations which was begun last year.

At the Elmwood Incinerator a run-way was constructed for the loading of ashes into the dump wagons. Only minor repairs were made to the furnaces at this plant.

The revenue earned at these two Incinerators, for the year amounted to \$3,987.92 or a decrease of \$112.40 compared with the year 1929.

### ASH REMOVAL

The volume of ashes collected during the year shows a decrease of 2,639 tons, as compared with the year 1929. This no doubt was due to the number of houses installing central steam heat, and also to the mild winter that was experienced.

### NUISANCE GROUND

No new method has been devised for the final disposal of inorganic refuse. The contract price for the privilege of removing junk from the Nuisance Grounds for the year 1930 amounted to \$2,025.00 as against \$815.00 for 1929.

### STREET CLEANING

An increase of 11 miles of pavement during the year 1930, added considerably to the street cleaning operations.

During the year 26,444 cubic yards of street sweepings were collected, as against 25,380 cubic yards in 1929; an increase of 1,064 cubic yards. The rate per mile for street cleaning in 1930 was \$346.00 as compared with \$367.00 in 1929 and \$433.00 in 1924.

The question of purchasing a Motor Pick-up Sweeper was discussed during the year, but was laid over.

### FLUSHING

An up-to-date motor driven, single unit Hvass power flusher, mounted on a Mack chassis was added to the equipment of the Division, and replaced the obsolete horse drawn units previously used. This flusher was delivered about the middle of July, and throughout the summer gave very efficient service. Approximately 2,300,000 gallons of water were used in the flushing operations.

### WOOD CAMP OPERATIONS

During the wood camp year, which ended April 30th, 1930, a total of 5,074 cords were cut, as compared with 3,627 the previous year. The quantity purchased amounted to 1,748 cords, as compared with 1,840 for 1929. The quantity of cordwood delivered to civic buildings and institutions amounted to 4,738 cords as compared with 4,206 the year previous. A surplus of \$1,587.69 was created during the wood camp year.

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

Your obedient servant,

E. A. WOOD,

Chief Street Cleaning Division.



## GARBAGE COLLECTION—1930

| Month      | Trucks and Trailers |                | City Teams and Singles |                | Hired Teams |                | Combined Totals |                |
|------------|---------------------|----------------|------------------------|----------------|-------------|----------------|-----------------|----------------|
|            | No. of Lds.         | Weight in Lbs. | No. of Lds.            | Weight in Lbs. | No. of Lbs. | Weight in Lbs. | No. of Lds.     | Weight in Lbs. |
| Jan.....   | 1031                | 2,855,810      | 85                     | 201,750        | 35          | 79,470         | 1151            | 3,137,030      |
| Feb.....   | 904                 | 2,529,000      | 74                     | 180,730        | 32          | 70,990         | 1010            | 2,780,720      |
| Mar.....   | 962                 | 2,708,550      | 74                     | 177,590        | 35          | 80,000         | 1071            | 2,966,140      |
| April..... | 983                 | 3,344,300      | 89                     | 326,950        | 36          | 104,910        | 1108            | 3,686,160      |
| May.....   | 995                 | 3,755,820      | 101                    | 279,480        | 40          | 148,490        | 1136            | 4,183,790      |
| June.....  | 967                 | 3,669,230      | 95                     | 273,900        | 42          | 144,370        | 1104            | 4,087,500      |
| July.....  | 1040                | 3,863,360      | 117                    | 325,800        | 43          | 151,010        | 1200            | 4,340,170      |
| Aug.....   | 1009                | 3,797,280      | 108                    | 299,160        | 44          | 158,350        | 1161            | 4,254,790      |
| Sept.....  | 1019                | 4,320,440      | 120                    | 376,630        | 46          | 173,890        | 1185            | 4,870,960      |
| Oct.....   | 1031                | 3,923,430      | 108                    | 320,590        | 43          | 138,470        | 1182            | 4,382,490      |
| Nov.....   | 905                 | 3,114,450      | 106                    | 287,100        | 43          | 122,420        | 1054            | 3,523,970      |
| Dec.....   | 1044                | 3,216,710      | 106                    | 266,000        | 45          | 117,600        | 1195            | 3,600,310      |
|            | 11890               | 41,098,380     | 1183                   | 3,225,680      | 484         | 1,489,970      | 13557           | 45,814,030     |

Table Showing Average Weight per Load

|                             | Number of Loads | Total Weight | Average Wt. per Load (Lbs.) |
|-----------------------------|-----------------|--------------|-----------------------------|
| Trucks and Trailers.....    | 11,890          | 41,098,380   | 3,456                       |
| City Teams and Singles..... | 1,183           | 3,225,680    | 2,726                       |
| Hired Teams.....            | 484             | 1,489,970    | 3,078                       |
|                             | 13,557          | 45,814,030   | 3,379                       |

Table Showing Percentage of Collection by Units

|                             | Weight (Lbs.) | Percentage of Total Weight |
|-----------------------------|---------------|----------------------------|
| Trucks and Trailers.....    | 41,098,380    | 89.7%                      |
| City Teams and Singles..... | 3,225,680     | 7%                         |
| Hired Teams.....            | 1,489,970     | 3.3%                       |
|                             | 45,814,030    | 100.0%                     |

## ELMWOOD INCINERATOR OPERATIONS—1930

|            | City Garbage |            | Private Garbage |         | Animals |        | Total      | Revenue Earned |
|------------|--------------|------------|-----------------|---------|---------|--------|------------|----------------|
| Month      | No. Lds.     | Weight     | No. Lds.        | Weight  | No.     | Weight | Weight     | \$ c           |
| Jan.....   | 347          | 932,880    | 20              | 41,860  | 2       | 1,920  | 976,660    | 16.32          |
| Feb.....   | 299          | 810,420    | 19              | 38,800  | 1       | 1,590  | 850,810    | 15.06          |
| Mar.....   | 317          | 852,970    | 18              | 35,240  |         |        | 888,210    | 16.77          |
| April..... | 371          | 1,266,000  | 46              | 70,530  |         |        | 1,336,530  | 55.63          |
| May.....   | 505          | 2,068,430  | 86              | 163,070 | 3       | 4,490  | 2,235,990  | 165.20         |
| June.....  | 462          | 1,833,730  | 90              | 150,490 |         |        | 1,984,220  | 138.93         |
| July.....  | 540          | 2,013,530  | 73              | 129,670 |         |        | 2,143,200  | 116.39         |
| Aug.....   | 552          | 2,107,670  | 83              | 140,225 |         |        | 2,247,895  | 175.35         |
| Sept.....  | 515          | 2,144,430  | 39              | 63,510  |         |        | 2,207,940  | 64.34          |
| Oct.....   | 520          | 2,016,290  | 29              | 54,010  |         |        | 2,070,300  | 30.52          |
| Nov.....   | 497          | 1,715,200  | 21              | 36,530  |         |        | 1,751,730  | 17.23          |
| Dec.....   | 499          | 1,451,910  | 26              | 43,400  |         |        | 1,495,310  | 10.88          |
|            | 5424         | 19,213,460 | 550             | 967,335 | 6       | 8,000  | 20,188,795 | \$822.62       |

### SASKATCHEWAN AVENUE INCINERATOR OPERATIONS—1930

| Month              | City Garbage |            | Private Garbage |           | Animals |        | Total      | Revenue Earned |
|--------------------|--------------|------------|-----------------|-----------|---------|--------|------------|----------------|
|                    | No. Lds.     | Weight     | No. Lds.        | Weight    | No.     | Weight | Weight     | \$ c           |
| Jan.....           | 804          | 2,204,150  | 197             | 168,630   | 55      | 2,050  | 2,374,830  | 94.26          |
| Feb.....           | 711          | 1,970,300  | 180             | 138,440   | 19      | 650    | 2,109,390  | 82.54          |
| Mar.....           | 754          | 2,113,170  | 236             | 187,140   | 33      | 1,340  | 2,301,650  | 149.04         |
| April.....         | 737          | 2,420,160  | 282             | 262,790   |         |        | 2,682,950  | 243.19         |
| May.....           | 631          | 2,115,360  | 324             | 354,330   |         |        | 2,469,690  | 336.00         |
| June.....          | 642          | 2,253,770  | 257             | 230,260   |         |        | 2,484,030  | 188.84         |
| July.....          | 660          | 2,326,640  | 235             | 208,380   |         |        | 2,535,020  | 168.75         |
| Aug.....           | 609          | 2,147,120  | 257             | 216,910   |         |        | 2,364,030  | 158.75         |
| Sept.....          | 665          | 2,726,450  | 256             | 211,610   |         |        | 2,938,060  | 156.50         |
| Oct.....           | 662          | 2,366,200  | 233             | 209,790   |         |        | 2,575,990  | 155.17         |
| Nov.....           | 557          | 1,808,770  | 178             | 138,130   |         |        | 1,946,900  | 84.25          |
| Dec.....           | 696          | 2,148,400  | 211             | 171,110   |         |        | 2,319,510  | 117.50         |
|                    | 8,128        | 26,600,490 | 2,846           | 2,497,520 | 107     | 4,040  | 29,102,050 | \$1,934.79     |
| Sale of Steam..... |              |            |                 |           |         |        |            | 1,230.51       |
|                    |              |            |                 |           |         |        |            | \$3,165.30     |



## COLLECTION OF INCOMBUSTIBLE REFUSE—1930

| Month      | Trucks and Trailers |                | City Teams and Singles |                | Hired Teams |                | Combined Totals |                |
|------------|---------------------|----------------|------------------------|----------------|-------------|----------------|-----------------|----------------|
|            | No. of Lds.         | Weight in Lbs. | No. of Lds.            | Weight in Lbs. | No. of Lds. | Weight in Lbs. | No. of Lds.     | Weight in Lbs. |
| Jan.....   | 326                 | 801,430        | 167                    | 364,950        | 56          | 201,730        | 549             | 1,368,110      |
| Feb.....   | 314                 | 1,344,340      | 180                    | 383,670        | 56          | 206,570        | 550             | 1,934,580      |
| Mar.....   | 411                 | 1,091,170      | 313                    | 599,010        | 51          | 191,210        | 775             | 1,881,390      |
| April..... | 522                 | 1,474,550      | 346                    | 762,950        | 423         | 1,133,510      | 1291            | 3,371,010      |
| May.....   | 916                 | 3,495,020      | 342                    | 898,450        | 301         | 1,065,880      | 1559            | 5,459,350      |
| June.....  | 880                 | 3,458,160      | 259                    | 631,330        | 125         | 400,320        | 1264            | 4,489,810      |
| July.....  | 746                 | 2,331,560      | 166                    | 350,750        | 68          | 311,910        | 980             | 2,994,220      |
| Aug.....   | 797                 | 2,165,430      | 198                    | 428,780        | 60          | 278,500        | 1055            | 2,872,710      |
| Sept.....  | 812                 | 2,103,610      | 113                    | 233,590        | 100         | 352,100        | 1025            | 2,689,300      |
| Oct.....   | 906                 | 2,466,510      | 184                    | 409,130        | 58          | 220,520        | 1148            | 3,096,160      |
| Nov.....   | 504                 | 1,309,420      | 180                    | 369,600        | 50          | 202,430        | 734             | 1,881,450      |
| Dec.....   | 256                 | 691,350        | 178                    | 365,340        | 32          | 95,150         | 466             | 1,151,840      |
|            | 7390                | 22,732,550     | 2626                   | 5,797,550      | 1380        | 4,659,830      | 11396           | 33,189,930     |

Table Showing Average Weight per Load

|                             | Number of Loads | Total Weight Lbs. | Average Wt. per Load Lbs. |
|-----------------------------|-----------------|-------------------|---------------------------|
| Trucks and Trailers.....    | 7,390           | 22,732,550        | 3,076                     |
| City Teams and Singles..... | 2,626           | 5,797,550         | 2,207                     |
| Hired Teams.....            | 1,380           | 4,659,830         | 3,376                     |
|                             | 11,396          | 33,189,930        | 2,912                     |

Table Showing Percentage of Collection Units

|                             | Weight Lbs. | Percentage of Total Weight |
|-----------------------------|-------------|----------------------------|
| Trucks and Trailers.....    | 22,732,550  | 68.5%                      |
| City Teams and Singles..... | 5,797,550   | 17.5%                      |
| Hired Teams.....            | 4,659,830   | 14 %                       |
|                             | 33,189,930  | 100%                       |

### REPORT OF REFUSE DEPOSITED ON ELMWOOD NUISANCE GROUND 1930

| Month      | Tins Hauled<br>by City |            | Ashes Hauled<br>by City |           | Street<br>Sweepings |           | Privately<br>Hauled Refuse |           | Combined<br>Totals |            |
|------------|------------------------|------------|-------------------------|-----------|---------------------|-----------|----------------------------|-----------|--------------------|------------|
|            | No.<br>Lds.            | Weight     | No.<br>Lds.             | Weight    | No.<br>Lds.         | Weight    | No.<br>Lds.                | Weight    | No.<br>Lds.        | Weight     |
| Jan.....   | 194                    | 570,110    | .....                   | .....     | .....               | .....     | 173                        | 658,460   | 367                | 1,228,570  |
| Feb.....   | 325                    | 1,442,060  | .....                   | .....     | .....               | .....     | 149                        | 518,090   | 474                | 1,960,150  |
| Mar.....   | 237                    | 809,680    | 92                      | 194,120   | 2                   | 11,470    | 161                        | 570,610   | 492                | 1,585,880  |
| April..... | 295                    | 849,580    | 99                      | 572,650   | 291                 | 1,323,460 | 179                        | 683,960   | 864                | 3,429,650  |
| May.....   | 714                    | 2,982,810  | 40                      | 210,280   | 67                  | 349,350   | 215                        | 863,210   | 1036               | 4,405,650  |
| June.....  | 441                    | 1,792,280  | 46                      | 225,160   | 79                  | 398,040   | 181                        | 554,940   | 747                | 2,970,420  |
| July.....  | 333                    | 1,314,220  | 31                      | 157,660   | 77                  | 468,950   | 194                        | 771,300   | 635                | 2,712,130  |
| Aug.....   | 341                    | 1,240,560  | 31                      | 160,690   | 70                  | 444,840   | 211                        | 822,930   | 653                | 2,669,020  |
| Sept.....  | 291                    | 1,010,280  | 36                      | 185,380   | 58                  | 374,420   | 218                        | 851,770   | 603                | 2,421,850  |
| Oct.....   | 336                    | 1,136,960  | 55                      | 284,310   | 51                  | 345,570   | 223                        | 852,080   | 665                | 2,618,920  |
| Nov.....   | 227                    | 711,830    | 37                      | 177,900   | 38                  | 242,570   | 182                        | 684,240   | 484                | 1,816,540  |
| Dec.....   | 175                    | 474,800    | 58                      | 243,510   | .....               | .....     | 182                        | 656,910   | 415                | 1,375,220  |
|            | 3909                   | 14,335,170 | 525                     | 2,411,660 | 733                 | 3,958,670 | 2268                       | 8,488,500 | 7435               | 29,194,000 |

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

| Month      | Tins Hauled<br>by City |            | Ashes Hauled<br>by City |            | Street Sweepings |        | Privately<br>Hauled Refuse |            | Combined<br>Totals |            |
|------------|------------------------|------------|-------------------------|------------|------------------|--------|----------------------------|------------|--------------------|------------|
|            | No.<br>Lds.            | Weight     | No.<br>Lds.             | Weight     | No.<br>Lds.      | Weight | No.<br>Lds.                | Weight     | No.<br>Lds.        | Weight     |
| Jan.....   | 355                    | 798,000    | 635                     | 2,302,100  | .....            | .....  | 229                        | 567,050    | 1219               | 3,667,150  |
| Feb.....   | 225                    | 492,520    | 660                     | 3,481,700  | .....            | .....  | 243                        | 679,380    | 1128               | 4,653,600  |
| Mar.....   | 538                    | 1,071,710  | 404                     | 2,644,600  | .....            | .....  | 253                        | 785,580    | 1195               | 4,501,890  |
| April..... | 996                    | 2,521,430  | 343                     | 2,325,050  | .....            | .....  | 1091                       | 5,559,170  | 2430               | 10,405,650 |
| May.....   | 855                    | 2,476,540  | 340                     | 2,159,200  | .....            | .....  | 698                        | 2,180,740  | 1893               | 6,816,480  |
| June.....  | 823                    | 2,697,530  | 238                     | 1,413,300  | .....            | .....  | 600                        | 1,747,340  | 1661               | 5,858,170  |
| July.....  | 647                    | 1,680,000  | 118                     | 546,700    | .....            | .....  | 524                        | 1,181,860  | 1289               | 3,408,560  |
| Aug.....   | 714                    | 1,632,150  | 100                     | 441,900    | .....            | .....  | 359                        | 955,140    | 1173               | 3,029,190  |
| Sept.....  | 734                    | 1,679,020  | 190                     | 865,500    | .....            | .....  | 349                        | 970,000    | 1273               | 3,514,520  |
| Oct.....   | 812                    | 1,959,200  | 264                     | 1,452,600  | .....            | .....  | 731                        | 3,807,530  | 1807               | 7,219,330  |
| Nov.....   | 507                    | 1,169,620  | 252                     | 1,606,200  | .....            | .....  | 293                        | 976,420    | 1052               | 3,752,240  |
| Dec.....   | 291                    | 677,040    | 426                     | 2,777,200  | .....            | .....  | 319                        | 1,161,980  | 1036               | 4,616,220  |
|            | 7497                   | 18,854,760 | 3970                    | 22,016,050 | .....            | .....  | 5689                       | 20,572,190 | 17156              | 61,443,000 |



## REVENUE COLLECTED—1930

| Month          | Deposits<br>Workmen's<br>Closets | Scaveng-<br>ing | Incin.<br>No. 2 | Incin.<br>No. 3 | Ash Boxes<br>and<br>Garbage<br>Cans | Sale of<br>Steam | Total      |
|----------------|----------------------------------|-----------------|-----------------|-----------------|-------------------------------------|------------------|------------|
| January.....   | \$ 15 00                         | \$ 179 10       | \$ 35 78        | \$ 152 45       | .....                               | \$ 30 51         | \$ 412 84  |
| February.....  | 21 00                            | 154 20          | 83 68           | 112 35          | .....                               | .....            | 371 23     |
| March.....     | 63 00                            | 124 45          | 27 46           | 150 20          | .....                               | 552 99           | 918 10     |
| April.....     | 258 00                           | 86 70           | 27 50           | 106 08          | 3 00                                | 111 72           | 593 00     |
| May.....       | 327 00                           | 147 45          | 48 13           | 240 90          | 6 00                                | 222 60           | 992 08     |
| June.....      | 225 00                           | 87 96           | 199 33          | 156 86          | .....                               | 20 58            | 689 73     |
| July.....      | 141 00                           | 117 20          | 111 35          | 292 11          | .....                               | .....            | 661 66     |
| August.....    | 180 00                           | 32 45           | 105 76          | 159 77          | 6 00                                | .....            | 483 98     |
| September..... | 180 00                           | 136 55          | 99 23           | 338 83          | .....                               | .....            | 754 61     |
| October.....   | 195 00                           | 125 45          | 44 86           | 158 52          | .....                               | 192 46           | 716 29     |
| November.....  | 96 00                            | 159 30          | 20 89           | 68 37           | .....                               | 99 65            | 444 21     |
| December.....  | 9 00                             | 92 30           | 41 31           | 169 69          | .....                               | .....            | 312 30     |
|                | \$1,710 00                       | \$1,443 11      | \$845 28        | \$2,106 13      | \$15 00                             | \$1,230 51       | \$7,350 03 |

## MISCELLANEOUS DATA

| Month          | Cubic Yards of<br>Street Sweepings<br>Collected | Cubic Yards of<br>Ashes Collected | Gallons of Water<br>Used in Flushing<br>Streets |
|----------------|-------------------------------------------------|-----------------------------------|-------------------------------------------------|
| January.....   | .....                                           | 15,752                            | .....                                           |
| February.....  | .....                                           | 13,889                            | .....                                           |
| March.....     | 332                                             | 12,499                            | .....                                           |
| April.....     | 7,756                                           | 15,356                            | .....                                           |
| May.....       | 3,157                                           | 1,691                             | .....                                           |
| June.....      | 2,586                                           | 653                               | .....                                           |
| July.....      | 2,293                                           | 209                               | 410,000                                         |
| August.....    | 2,349                                           | 34                                | 907,053                                         |
| September..... | 2,482                                           | 62                                | 884,078                                         |
| October.....   | 3,897                                           | 1,064                             | 96,495                                          |
| November.....  | 1,592                                           | 3,376                             | .....                                           |
| December.....  | 1,592                                           | 8,051                             | .....                                           |
|                | 26,444                                          | 72,636                            | 2,297,626                                       |

COMPARATIVE TABLES  
Garbage Collection

| Year      | Number of<br>Loads<br>Collected | Weight<br>in<br>Pounds |
|-----------|---------------------------------|------------------------|
| 1926..... | 11,550                          | 40,479,180             |
| 1927..... | 13,286                          | 42,325,430             |
| 1928..... | 13,313                          | 43,896,090             |
| 1929..... | 13,048                          | 43,374,665             |
| 1930..... | 13,557                          | 45,814,030             |

## Collection of Incombustible Refuse

| Year      | Number of<br>Loads<br>Collected | Weight<br>in<br>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             |

## Ash Removal

| Year      | Number of<br>Loads<br>Collected | Weight<br>in<br>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            |



