

Report of the City Health Department / City of Winnipeg.

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CITY OF WINNIPEG

REPORT
of the
Health Department



For the Year ending
31st December, 1937

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CITY OF WINNIPEG

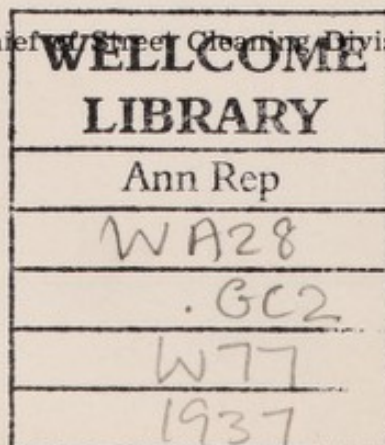
REPORT
of the
Health Department



For the Year ending
31st December, 1937

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COMMITTEE ON HEALTH

1937

Alderman M. (Mrs. R. F.) McWilliams, Chairman.
Alderman H. C. Morrison, K.C.
Alderman J. Simpkin.
Alderman M. A. Gray.
Alderman P. Bardal.
Alderman M. J. Forkin.
His Worship Mayor F. E. Warriner (ex-officio).

STAFF

(December, 1937)

Medical Health Officer

A. J. Douglas, M.D.

Laboratory

Asst. Medical Health Officer and
Bacteriologist—M. S. Loughheed, M.D., D.P.H.
Senior Laboratory Asst.—Miss M. Wilson.
Junior Laboratory Asst.—C. E. Van Engel.

District Physicians

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

Communicable Diseases Division

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

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

Sanitary Inspections Division

Chief Inspector—A. Officer.
Supervising Inspector—A. Aitken.
" " —B. C. Brough.†
" " —J. Shepherd.*
Inspectors: F. C. Austin.
B. Davies.
G. W. Kelly.
E. Officer.

Housing and Supervising Inspector—
P. Pickering.
Inspectors: D. G. Johnson.
A. Cross.
A. Martin.
R. H. Keena**
R. Craig***

† Retired on Pension, August 1, 1937.

* Promoted September 1, 1937.

** Appointed February 3, 1937.

*** Appointed September 16, 1937.

STAFF—(Continued)

Dairy Division

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

Food Division

Chief Inspector—R. McQuillan.
Inspectors: G. R. Mines.
L. G. Williams.
* Retired on Pension, Feb. 1, 1937.
** Transferred from Sanitary Division,
February 1, 1937.

Bureau of Child Hygiene

Manager—A. G. Lawrence.
Nurses: Miss M. M. Wonnacott
Miss A. J. Attrill.
Miss L. Spratt.
Miss C. Maddin
Miss A. Moore.
Miss C. Munro
Miss L. A. Schwalm.
Miss E. A. Bennett
Miss M. M. Harper

Nurses: Miss A. M. Wilkins.
Miss H. A. Carter.
Mrs. C. E. Smith.
Miss M. B. Bowles
Dietitian—Miss M. A. Graham.
Asst. Dietitian—Miss M. Dick.
Senior Helper—Mrs. J. MacDonald.
Junior Helper—Mrs. H. Twist.
" " —Mrs. C. E. Grant.
Caretaker—F. C. White.

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

Division of Records and Statistics

Secretary—A. G. Lawrence.
Clerk—Miss V. Orr.

Junior Clerk—Miss P. Dorward.
" " —C. Rayment.

Street Cleaning Division

Chief of Division—E. A. Wood.
Supt. of Scavenging—J. Shannon.
Supt. of Street Cleaning—E. J. Pope*
Act. Supt. of Street Cleaning—
W. R. McAlpine**
Stable Foreman—G. T. Wood.
Yard Foreman—A. Knight.
Foreman—N. Jack.
" —G. Whitear.
" —D. Govitz***
" —S. H. Spooner****
4 Trailer Truck Drivers.
6 Truck Drivers.
19 Teamsters.
1 Single Horse Driver.

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

* Deceased July 1st, 1937.
** Promoted October 20th, 1937.
*** Pensioned November 1st, 1937.
**** Promoted November 1st, 1937.

Comfort Stations Division

8 Regular Men Attendants.
4 Part-time Men Attendants.

8 Regular Women Attendants.
4 Part-time Women Attendants.

Report of Medical Health Officer

City Health Department,
Winnipeg, Man., May 18th, 1938.

Chairman and Members of the
Committee on Health.

Madam and Gentlemen:

I have the honour to submit for your consideration, the 30th Annual Report of the Health Department for the year 1937. This includes the reports of the heads of divisions and a statement of the cost of the year's work.

SUMMARY OF VITAL STATISTICS

Corrected and Crude Figures

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

	1937	1936
Population (City Assessor's figures)	223,103	224,533
Persons per acre of land	15.00	15.10

Corrected*

Deaths, excluding stillbirths	1,641	1,746
Corrected rate per 1,000 population	7.35	7.77
Deaths of infants under 1 year	130	117
Corrected infant mortality rate per 1,000 live births	47.0	43.1
Deaths, measles, scarlet fever, whooping cough and diphtheria, combined	13	23
Corrected rate per 100,000 population	5.8	10.2
Births, excluding stillbirths	2,766	2,714
Corrected live birth rate per 1,000 population	12.40	12.08
Stillbirths	85	63
Corrected rate per 1,000 live births	30.7	23.2
Natural increase, excess of births over deaths	1,125	968
Corrected rate per 1,000 population	5.04	4.32

Crude

Deaths, excluding stillbirths	1,908	2,039
Rate per 1,000 population	8.55	9.08
Deaths of infants under 1 year	171	160
Infant mortality rate per 1,000 live births	46.4	44.4
Births, excluding stillbirths	3,686	3,599
Rate per 1,000 population	16.52	15.53
Stillbirths	102	97
Rate per 1,000 live births	27.67	26.95
Marriages	2,906	2,717
Rate per 1,000 population	13.02	12.05

* See page 67.

CONTROL AND PREVENTION OF DISEASE, 1937

Summary

(a) Personal Services	\$ 86,189.58
(b) Outside Services	4,918.39
(c) Material, supplies and repairs	10,398.86
(d) Equipment and replacements	138.55
(e) Fuel, water, light and power	1,054.59
(h) Auto expense	2,257.56
	\$104,957.53

Expenditure by Division

C - 1. Administration and Statistics	\$ 10,612.81
C - 2. Bacteriological Laboratory	6,145.46
C - 3. Treatment and Prevention of Communicable Diseases	17,236.57
C - 4. Sanitary Inspection	22,342.75
C-5-1. Dairy Inspection	7,746.46
C-5-2. Food Inspection	6,767.26
C - 6. Bureau of Child Hygiene	29,065.40
C - 7. Medical Relief	5,040.82
	\$104,957.53

Revenue

Fees for Laboratory work	\$ 84.60
Sale of Infants' Feedings at Milk Depot	267.35
	351.95
	\$104,605.58

Net Cost per Capital, 46.8c.

COMMUNICABLE DISEASES

The total number of reports of Communicable Diseases for the year ending December 31, 1937, was 4,713 cases and 103 deaths; included in this total are 220 cases and 28 deaths of non-resident patients.

The first columns of the following summary show the Winnipeg cases, deaths and rates, including those reported in outside institutions but excluding non-resident cases and deaths recorded in Winnipeg. The remaining columns give the crude totals of cases, deaths and rates, exclusive of Winnipeg citizens registered in outside institutions.

Corrected						Crude			
City Cases and Deaths, including Winnipeg citizens treated in Outside Institutions						Cases and Deaths recorded in Winnipeg, including Non-residents			
Diseases	Cases	Deaths	Deaths in outside institutions	Rate per 100,000 pop.	Rate per 100 cases	Cases	Deaths	Rate per 100,000 pop.	Rate per 100 cases
Chickenpox.....	954	.....	.....	.....	.....	958	.....	.....	.....
Diphtheria.....	47	3	.....	1.3	6.4	63	4	1.8	6.3
Diphtheria Carriers.....	15	.....	.....	.....	.....	16	.....	.....	.....
Encephalitis, Infectious.....	.....	2	.....	.9	.....	.....	2	.9	.....
Erysipelas.....	54	1	.....	.4	1.8	57	1	.4	1.7
Influenza.....	20	17	1	8.1	90.0	28	24	10.7	85.7
Measles.....	1,326	3	.....	1.3	.2	1,342	3	1.3	.2
Mumps.....	162	.....	.....	.....	.....	165	.....	.....	.....
Poliomyelitis.....	54	4	.....	1.8	7.4	77	6	2.7	7.8
Puerperal Fever.....	2	1	1	.9	100.0	2	1	.4	50.0
Scarlet Fever.....	647	2	1	1.3	.3	756	3	1.3	.4
Smallpox.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Tuberculosis, Pul.....	136	37	17	24.2	39.7	151	51	22.8	33.7
Tuberculosis, All Forms.....	.....	75	.....	33.6	.....	.....	78	34.9	.....
Typhoid Fever.....	3	1	.....	.4	33.3	8	1	.4	12.5
Undulant Fever.....	2	.....	.....	.....	.....	3	.....	.....	.....
Whooping Cough.....	1,067	3	1	1.8	.4	1,082	5	2.2	.5

Cerebrospinal Fever—The total number of cases reported was five, deaths two; these include a non-resident case and death. Of the four cases reported in the City, ages varied from a 3½ months old baby to a young adult.

The 3½ months old baby died and while it had been admitted to hospital as suspect Poliomyelitis, the post mortem examination proved it to be Cerebrospinal Fever.

Chickenpox—Chickenpox continued prevalent throughout the year, the colder months giving the largest number of cases. Total for the year was nine hundred and fifty-four cases, no deaths.

Diphtheria—Winnipeg cases totalled forty-seven, deaths three, as compared with ninety-two cases and three deaths for the preceding year.

The outstanding feature of our Diphtheria figures is the continued downward trend in number of cases reported.

The three deaths recorded all took place in January, we have not recorded a death from Diphtheria since.

The following table shows incidence of cases and deaths by wards for the last three years:

	1937		1936		1935	
	Cases	Deaths	Cases	Deaths	Cases	Deaths
Ward One	11	---	23	1	22	---
Ward Two	21	2	31	1	70	1
Ward Three	13	1	33	1	37	---
Institutional	2	---	5	---	9	---
Non-resident	16	1	31	3	28	5
Total	63	4	123	6	166	6

The number of females was double that of the males, namely, thirty-one as compared with sixteen males.

Age Incidence—Twenty cases are grouped four years and under; three cases, five to nine years; seven cases, ten to fourteen years and seventeen cases, fifteen years and over.

Of the total cases and deaths recorded not one of those who died had received Toxoid and only five of the total cases reported had previously received Toxoid treatment, one pre-school age; two school age and two adults.

All cases were hospitalized with the exception of four.

Diphtheria Prevention—Owing to the prevalence of Poliomyelitis we were unable to make an early start in this work, nevertheless we feel that the response in this field of endeavour should be better. It has been pointed out in previous reports that it may be necessary to further advertise the fact that this service is free to all who care to take advantage of it.

Particulars are set out in summarized form, in another part of this report, showing amount of Toxoid distributed, number treated and distribution by wards.

Diphtheria Carriers—The total number of Diphtheria Carriers recorded for the year was sixteen against twenty-two for the preceding year.

Encephalitis, Infectious—No new cases were reported during the year, but two deaths were recorded.

Influenza—A total of twenty-eight cases and twenty-four deaths were recorded for the year. Of this number City cases totalled twenty, deaths eighteen. All were recorded during the months of January to May, with the exception of four, all deaths were in age groups over forty-five years.

Measles—The total number of cases recorded for the year was one thousand three hundred and forty-two, deaths three. Of this number sixteen cases were non-resident, deaths none. This represents the remaining susceptibles from the previous year's epidemic. All wards were affected and the bulk of cases were recorded during the spring months.

Poliomyelitis—Total number of cases recorded for the year was seventy-seven, deaths six. Of this number twenty-three cases and two deaths are classified non-resident, leaving a corrected total for the city of fifty-four cases and four deaths. These have been summarized as well as

eighty-eight suspect cases and appear in tabulated form in another part of this report.

The outstanding feature in connection with this disease is its occurrence in definite outbreaks in two successive years. A complete analysis of cases and suspects recorded in the 1937 outbreak compared with those recorded in 1936 does not show much variation. The most noticeable change taking place is the outward swing of the disease and a falling off in number in the central part of the city. The first mile radius from the City Hall shows nineteen cases in 1937 compared with thirty-one cases and two deaths in the same area in 1936; the second mile radius, twenty cases and two deaths in 1937 against twenty-seven cases and one death in 1936; the third mile radius, eleven cases and two deaths in 1937, against seven cases and no deaths in 1936.

The outbreak reached its height in September in both years but subsided earlier this year.

Hospitalization and Treatment—All cases were admitted to hospital and subsequent discharge and condition checked. At the time of check-up, thirteen were reported as having residual paralysis.

Four suspect cases were reported in homes where a definite case developed, length of time after cases, as follows: one, three, seven and eight days respectively.

Secondary cases were reported in three homes, length of time between cases, 12 days, 9 days and 5 days respectively.

There were three groups of cases recorded in widely separated districts, house to house visits in the district did not reveal cases of sickness or any circumstance which would have a bearing on the bunching together, outside of contact on the street or at school.

Suspect cases totalled eighty-eight, of this number eleven were ruled out with a definite diagnosis other than Poliomyelitis.

Procedure followed by the department was identical to that of 1936 and we regret that we have added nothing to our knowledge of the nature of this disease either in mode of transmission, or seasonal prevalence.

Scarlet Fever—Total cases recorded for the year was seven hundred and fifty-six, deaths three. Of this number one hundred and nine cases and one death were non-resident, one death of a Winnipeg citizen who died in an outside hospital brings Winnipeg total deaths to four.

This represents a big improvement over the previous year's figures. The type remains mild, as is evidenced by the number of deaths.

Secondary cases totalled sixty-eight, return cases twelve, unrecognized cases thirty-two.

Suspect cases totalled one hundred and fourteen and of this number diagnosis in sixty cases remained unchanged.

Cases removed to hospital totalled five hundred and thirty-two; quarantined at home one hundred and fifteen.

In connection with an outbreak of Scarlet Fever in an institution early in March, nine cases and two suspect cases were removed to hospital. March 15th it was decided to Dick test and commence active immunization of susceptibles. The records of this institution show that of the seventy-four Dick tested the readings gave forty-eight negative and twenty-six positive.

The doctors who gave their services to this institution are to be complimented in this work. From the commencement of immunization no other cases developed.

Smallpox—Once more we are able to record a complete year without a case of smallpox being reported.

Pulmonary Tuberculosis—The crude total of cases of this disease was one hundred and fifty-one, deaths fifty-one. Corrected totals, city cases, one hundred and thirty-six, deaths fifty-four.

As will be seen by reference to table of diseases showing mortality rates, we have struck the remarkable low rate (corrected) of 24.2 per 100,000 population. Winnipeg's corrected rate for 1930 was 51.6. A sudden unexplained low drop to 32.9 was recorded the following year and with the exception of 1934 when the rate was 35.2, the remaining years continued to register low rates.

The cases and deaths reported for the year have been summarized as to sources of ascertainment, cases, length of time symptoms noted prior to department receiving report; deaths, length of time known to the department, age incidence in cases and deaths and distribution of cases in hospital and sanatorium at end of the year.

There has been no change in procedure with the various agencies interested in the control of tuberculosis. The department maintains constant touch with hospitals and sanatoria. Our visiting nurses continue to check closely in the follow-up work through clinics held at the King Edward Memorial Hospital and the Central Clinic. They also contact the various social agencies and assist in the necessary arrangements for the admission and discharge of patients to hospitals and sanatoria.

The total number of patients receiving free milk for all or part of the year was fifty-one, number of quarts supplied nine thousand nine hundred and forty-six.

Typhoid Fever—The total number of typhoid fever cases recorded was eight, deaths one. Of this number five cases were non-resident.

Age and sex incidence in the three cases recorded for the City was Male 13 years, Female 19 years, Male 27 years respectively; the thirteen year old boy died. We were unable to trace the source of infection. They were reported June, October and November.

Undulant Fever—Two cases of Undulant Fever were reported. Both were male adults, 25 and 27 years respectively. One gave history of contact with a Jersey cow and calf (privately owned). It is interesting to note that a Jersey herd was found to be affected four years ago. The original ownership of this cow was not traced.

Whooping Cough—The total number of cases of Whooping Cough reported was one thousand and eighty-two, deaths five. Of this number fifteen cases and two deaths were non-resident.

The mortality rates for city cases were exceptionally low. The type of the disease remained mild in character and was most prevalent from the month of April to August.

Medical Relief—Calls made by District Physicians totalled six hundred and fifty-nine. The Margaret Scott Nursing Mission also took care of one hundred and forty-four visits, while five hundred and forty-two calls were attended to from the office; such calls usually were made to clear diagnosis or to check reports from school visiting nurses and parents.

Medical Relief, Prescriptions and demand for other medical supplies continues to increase. There is now a monthly average expenditure of Two hundred Dollars.

Insulin was supplied to two hundred and seventeen persons for all or part of the year, of this number one hundred and fifty-seven were on the free list.

Other supplies distributed from the office include serums and vaccines used in the treatment and prevention of disease, medical supplies, disinfectant and supplies necessary in the work of tuberculosis prevention.

Vaccinations done at the City Hall totalled nine hundred and thirty-three. We distributed a total of one thousand five hundred and ninety-nine vaccine virus tubes including the above total.

School Certificates issued at the office totalled three thousand and ninety-five.

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

Part 3, Division 25, Regulations Respecting the Sanitary Control of Auto Trailer Houses:

1. For the purposes of these regulations "Auto Trailer House" hereinafter referred to as auto trailer, means a vehicle towed or drawn by an automobile or other means, and constructed and equipped for the occupation and comfort of persons while travelling from one destination to another.

2. Closets. Closets shall be of the removable receptacle type, fly-proof, provided with satisfactory means for ventilation and of such construction as will permit of proper cleansing and disinfecting. Receptacles or containers for the retention of excreta shall be of substantial water-tight metal construction, provided with strong handles so as to facilitate removal for cleansing. Contents of containers shall be treated with suitable disinfectant or deodorant.

3. Sinks and Wash Basins. Sinks or other fixtures used for washing or ablution purposes shall be provided with removable water-tight metal containers for the retention of all liquid waste.

4. Closets, Sinks, Wash Basins, or other Fixtures which will or may permit discharge of liquid or solid wastes on to the ground surface are strictly prohibited. All waste material including garbage, refuse, slops, closet contents, etc., shall be disposed of in such a manner as will prevent nuisance or offence or the fouling of any water course or water supply.

5. At tourist camps, summer resorts, or other locations where trailers are permitted to park, adequate provision shall be provided for the sanitary disposal of all solid and liquid waste from trailers by burning, or in such a manner as to prevent nuisance. The construction or use of a common collecting receptacle for the disposal of excreta or other waste is prohibited.

6. The use of closets, sinks, basins, or other fixtures in trailers, while parked in tourist camps or other locations in any city, town, or municipality, where plumbing fixtures and water supply are provided for use, is strictly prohibited.

7. No auto trailer shall be parked or located on any ground within the limits of any city, town, or municipality to be used as a permanent

or occasional place of residence. Any trailer so parked or used shall be subject to the provisions of all local by-laws and regulations, and the regulations under "The Public Health Act."

8. Notwithstanding anything contained in these regulations, all auto trailers and their occupants shall be subject to the provisions of the regulations respecting Disease Control and any other regulations under "The Public Health Act."

A new Sub-section (8) Added to Section 86, Division 2, Part 5 of the Consolidated Regulations Under "The Public Health Act":

86. (8) In all tourist, community, or other camps, locations or premises, where auto trailers are parked, adequate provision shall be provided for the removal and sanitary disposal of all solid and liquid waste from trailers. Night soil shall be burned or deposited in pits, located at sufficient distance from camp and not less than 150 yards from any water course or water supply, of sufficient depth and capacity, and to be immediately covered with not less than 12 inches of soil. Washing and cleansing of closet or other waste containers shall be done directly over the pit to prevent fouling of the ground surface. A liberal quantity of chlorinated lime or other solution shall be used for disinfecting purposes. In cities, towns, or municipalities having sewer and water services the methods of disposal of all waste shall be subject to the approval of the Medical Health Officer or the Minister.

New Regulations Respecting Workmen Employed in Certain Industries Where Silicosis may be Contracted, Regulations 241 to 253 both inclusive and Title to Division 2, Part 5 are Repealed and new Regulations and Title Substituted Therefor: As these regulations are somewhat lengthy and deal with the industry of mining and iron, steel and metal foundries and we are not likely to have occasion to enforce them, they are not inserted.

Amendments to Regulations Respecting Fumigation, Division 16, Part 3. This division, which regulates the use of Hydrocyanic Acid, any of its compounds, or derivatives is amended by: (a) including "any other fumigant which is or may be of a poisonous or dangerous nature" and "(b) including any other poisonous or dangerous substance or compound in its solid, liquid or gaseous state."

Section 199 is repealed and the following substituted therefor: "199. The Medical Health Officer or the Minister may in any case prohibit or postpone fumigation in any building or premises until he is satisfied that the requirements of these regulations, or any other measures which he may from time to time deem expedient in the interests of safety, have been or will be efficiently carried out. In all cases the fumigator shall specify clearly the substance to be used in fumigation and such other information as may be required."

Amendment to Regulations Respecting Smoke. The title or heading of Division 3 of Part 3 is repealed and the following title or heading substituted therefor: "Atmospheric Pollution, Smoke, Dust, etc." This amendment permits of our dealing not only with smoke nuisances, but also atmospheric pollution, dust, gases, etc.

Amendment to Regulations Respecting Hotels, Boarding Houses and Restaurants, Division 1, Part 5. Section 11 is amended by requiring "a continuous supply of hot and cold running water."

Amendments to Regulations Respecting Offensive Trades, Division 2, Part 3. Section 14 is amended by adding thereto the following sub-sections: "(3) No person, firm or corporation shall have, keep or receive

on any premises owned or occupied by him or them, any raw hides without the consent of the Health Officer. (4) No person, firm or corporation shall have, keep or receive on any premises owned or occupied by him or them, the pelt or hide of any animal which is offensive or may affect injuriously the health or comfort of individuals or the public."

By the City of Winnipeg—No by-laws relating to public health were passed during the year.

Outside Closets—There are 266 outside closets in use, being 4 less than last year. There were 10 removed during the year but 6 were added.

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

The following programme for the improvement of the staff was carried out for the winter season, 1937-38. The meetings were well attended.

1937

Nov. 27—Introductory Address—Dr. A. J. Douglas, Medical Health Officer, City of Winnipeg.

Dec. 4—Visit to Sewage Disposal Plant—Direction of Mr. D. L. McLean, Assistant Chief Engineer, Greater Winnipeg Sanitary District.

Dec. 11—Virus Infections—Dr. M. S. Lougheed, Bacteriologist, City Health Department.

Dec. 18—Geology of Water Supply—Prof. J. S. De Lury, Department of Geology, University of Manitoba.

1938

Jan. 8—Arthritis—Dr. F. F. Cadham, Bacteriologist, Province of Manitoba.

Jan. 15—Influenza—Dr. R. H. Fraser, Manitoba Medical College.

Jan. 22—Rats and Disease—Mr. J. A. McLeod, Lecturer, Department of Zoology, University of Manitoba

Jan. 29—A Model House—Mr. G. M. Ritchie, Architect, Designer of Winnipeg's Model Home.

Feb. 5—Address—Mr. D. R. P. Coates, Programme Director, CKY.

Feb. 12—Refuse Collection and Disposal—Mr. A. E. Wood, Chief, Street Cleaning Division, City Health Department.

Feb. 19—Mechanical Refrigeration as applied to Comfort, Air-Conditioning and Food Preservation—Mr. D. Brooking, Canadian General Electric.

Feb. 26—Address—Hon. I. B. Griffiths, Minister of Health and Public Welfare, Province of Manitoba.

Mar. 5—Accident Prevention—Mr. W. Trevor Davies, Bureau of Labor, Province of Manitoba.

Mar. 12—Good Whipping Cream—Mr. J. M. Jackson, Inspector, Dairy Division, City Health Department.

Mar. 19—Birth Control—Mrs. H. M. Speechly, President, Birth Control Society.

Mar. 26—Ventilation and Heating—Mr. Gordon Irwin, Irwin Sheet Metal Co.

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

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

Respectfully submitted,

A. J. DOUGLAS, .

Medical Health Officer.

Report of the Bacteriologist

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

Dear Sir:

I have the honor to submit a report on the work performed in the Bacteriological Laboratory for the year ending December 31st, 1937.

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

1937	Cultures for Diphtheria	Sputa for Tuberculosis Bacilli	Urethral Smears	Widals for Typhoid	Water	Milk and Cream	Urinalyses	Miscellaneous	Vaccinations	Total Examinations per Month
	Pos.	Pos.	Pos.	Pos.						
January.....	188— 0	17— 1	12— 3	5— 0	147	163	27	17	4	580
February.....	98— 1	6— 0	10— 3	0— 0	178	155	22	10	5	484
March.....	94— 2	27— 2	22— 7	0— 0	162	172	21	5	8	511
April.....	93— 3	21— 3	14— 5	1— 0	193	174	24	8	72	600
May.....	79— 2	9— 1	15— 0	0— 0	176	147	12	4	529	971
June.....	685— 0	14— 4	16— 2	0— 0	172	152	21	6	61	1127
July.....	1561— 7	9— 0	14— 3	6— 0	169	146	15	51	5	1976
August.....	1067— 0	13— 0	14— 1	5— 1	197	160	15	17	17	1505
September.....	133— 2	12— 0	25— 1	0— 0	205	153	26	79	42	675
October.....	127— 2	6— 0	18— 4	4— 0	167	158	21	13	92	606
November.....	142— 3	10— 0	21— 4	1— 0	181	76	38	5	82	556
December.....	75— 1	14— 8	12— 6	0— 0	207	147	17	4	16	492
1937 Totals.....	4342— 23	158— 19	193— 39	22— 1	2154	1803	259	219	933	10083
1936 Totals.....	4702— 19	162— 16	382— 40	22— 0	2089	1767	377	192	1222	10915
1935 Totals.....	4594— 10	217— 20	910— 81	10— 0	1964	1763	272	201	946	10869

Water Samples—During the year 2,154 samples of water were examined. This is a new high record for this laboratory. These were examined for the presence of *B. Coli* by the presumptive test and for the number of organisms per c.c. by agar plates.

Milk and Cream—The number of samples examined constitutes a new high record. The examination was made for butter fat and total solids. In addition there were 1,613 bacterial counts made.

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

	1937	1936
Dairy Inspectors	1,642	1,641
Bureau of Child Hygiene....	156	66
Private	5	59
Total	1,803	1,760
Bacterial Counts	1,613	1,612

Diphtheria Cultures—Cultures examined in 1937 numbered 4,302, the lowest number to be examined in many years and in keeping with the trend of this disease.

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

Approximately 80% were taken as a routine from the throats of children going to summer camps.

Medical Services—This includes a variety of services which have been increasing in number during recent years. These consist of making examinations and reports for the Social Welfare Commission, the Family Bureau, and other Welfare Organizations, with treatment for minor complaints; examination of individuals for the Unemployment Relief Commission and its various departments, chiefly in regard to the individual's fitness for work. Medical advice and treatment of minor complaints are also given to those on Old Age Pensions, Army Pensions and Allowances and those who, while not on relief, are not in a position to employ a private physician—the more serious cases being referred to the clinics at the hospitals.

This division has also given general supervision to hospitalization of cases for the cost of which the city is liable and has assisted in earlier transfer of cases requiring institutional care.

The examination of school children for freedom from contagious diseases with 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 the other members of this division, Miss M. Wilson and Mr. C. Van Engel, have fulfilled their respective duties.

Respectfully submitted,

M. S. LOUGHEED,

Assist. Medical Health Officer
and Bacteriologist.

Report of Chief Inspector, Division of Communicable Diseases

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

Dear Sir:

I have the honour of submitting for your consideration, report on work done by this Division, year ending December 31, 1937.

Brief comment is made on tabulations and summaries attached, bearing the following information, viz:

1. Communicable Diseases, Monthly cases and deaths.
2. Communicable Diseases, Wards, Institutional and Non-resident.
3. Communicable Diseases, Cases, by age and sex.
4. Communicable Diseases, Deaths, by age and sex.
5. Inspectors' and Nurses' Reports; Toxoid Administration.
6. Tuberculosis, summarized.
7. Tuberculosis, Living and sleeping accommodation.
8. Poliomyelitis, age, sex and Ward incidence.

Crude totals of all diseases recorded was four thousand seven hundred and thirteen, against seven thousand nine hundred and fifty-two for the preceding year. With the exception of Whooping Cough and Chickenpox most diseases show a favorable decrease in number.

Total number of all diseases recorded in Institutions for the year was one hundred and forty-four, deaths none.

Tables showing cases and deaths by age and sex only take care of City cases. Non-residents and citizens registered in outside institutions are excluded from these tables.

Inspectors' reports show a total of Five thousand eight hundred and seventy-seven visits and three thousand seven hundred and six premises placed under quarantine. One thousand three hundred and twenty calls were made outside of the calls recorded under specific headings.

Details regarding Toxoid Administration show comparative figures of those receiving treatment, also totals in each ward and total amount distributed.

Tuberculosis—The tabulation relating to Tuberculosis show sources of ascertainment of new cases recorded for the year, cases and deaths are summarized showing time known to department and age incidence.

A total of two hundred and twenty-one patients are registered in Hospital and Sanatorium at the end of the year.

Visiting Nurses made a total of six thousand one hundred visits and added one hundred and thirty-six new cases to their districts. The total number of homes on the visiting list is five hundred and one, non-visiting forty-two. Of the five hundred and one homes, one hundred and five are contact families and thirty-three are listed as suspects.

Winnipeg's corrected cases and deaths over the past five years is seven hundred and seventy-four cases, deaths three hundred and thirty-seven. Quite a number of cases are kept on our list as non-visiting, a review of the last ten years shows two hundred and three such cases and over the same period four hundred and eleven have moved and lost contact with the department.

The follow-up work and checking contacts continues to be a big part of the Visiting Nurses' duties.

Medical Relief—Office records over the past seven years show a large increase in this work, Social Welfare and other forms of Medical Relief being the principal factors.

Distribution of medical supplies, insulin, toxoid, antitoxin, vaccine, etc., as well as the issuing of school clearances and attending to the general office work has proceeded without interruption throughout the year.

The success of the work of this division does not entirely lie with the members of the staff. We continue to enjoy the close co-operation of the physicians and citizens of Winnipeg and we particularly wish to record our thanks to the staffs of the Hospitals and Sanatoria, to the Margaret Scott Mission nurses, to the Department of Medical Inspection of Public Schools, Social Welfare and other public institutions. Without this assistance and co-operation this work could not be accomplished.

Respectfully submitted,

WM. T. WATT,

Chief Inspector.

Division of Communicable Diseases.

COMMUNICABLE DISEASES BY WARDS—1937

	CASES						DEATHS							
	WARDS			Insti- tutions	Total City Cases	Non- Resi- dent Cases	WARDS			Insti- tutions	City	In Outside Hospitals & Sanitaria	Corrected City Totals	Non- Residents
	1	2	3				1	2	3					
Cerebrospinal Fever.....	2	1	1		4	1			1				1	1
Chickenpox.....	178	419	324	33	954	4								
Diphtheria.....	11	21	13	2	47	16			2	1			3	1
Diphtheria Carriers.....	1	11	2	1	15	1								
Encephalitis, Infectious.....	11	21	17	5	54	3				1			2	
Erysipelas.....	5	9	6		20	8			5	6			17	7
Influenza.....	305	590	399	32	1326	16				3			3	
Measles.....	26	122	9	5	162	3								
Mumps.....	16	22	16		54	23			2	1	1		4	2
Polioyelitis.....		1	1		2					1			2	
Puerperal Fever.....	190	201	204	52	647	109				2			3	1
Scarlet Fever.....														
Smallpox.....	39	54	41	2	136	15			9	12	16		37	14
Tuberculosis, Pul.....	1	1	1		3	5			1				1	
Typhoid Fever.....	1	1			2	1								
Undulant Fever.....	186	506	363	12	1067	15			1	1	1		3	2
Whooping Cough.....														
Totals.....	972	1980	1397	144	4493	220			19	26	30		75	96

CASES OF COMMUNICABLE DISEASES, BY AGE AND SEX—1937

	Under 1 Year		1 Year		2 Years		3 Years		4 Years		5-9 Years		10-14 Years		15-19 Years		20-24 Years		25-34 Years		35-44 Years		45-64 Years		65 Yrs. and over		All Ages			
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	T'tl	
Cerebrospinal Fever	1																													
Chickenpox	8	7	12	9	13	13	16	18	24	25	343	325	48	59	6	10	3	4	5	2	3	1						2	4	
Diphtheria	2	2	3	1	2	4	3		1		1	2	2	5	2	2	4	4	2	4		3					16	31	47	
Diphtheria Carriers											4	2	1	2			1	1				2					6	9	15	
Encephalitis, Infectious	1										1	1																		
Erysipelas	1										1	1																		
Influenza	1																													
Measles	20	16	46	30	49	52	65	56	64	60	394	336	25	39	9	21	5	25	3	11								28	26	54
Mumps	1										54	43	15	14	4	3	5	4	4	5	1							9	11	20
Poliomyelitis	1										10	9	6	6	1	5	1	1	2	1								29	25	54
Puerperal Fev.																														
Scarlet Fever	2	1	11	6	11	14	25	17	16	17	116	134	72	61	22	29	11	26	18	23	4	9	1	1	1		309	338	647	
Smallpox																														
Tuberculosis, Pul.																														
Typhoid Fever																														
Undulant Fever																														
Whooping Cough	39	36	35	33	49	54	53	58	48	66	257	297	14	21																
Total Cases	75	63	106	83	128	138	167	155	161	170	1180	1149	185	208	47	83	35	87	53	81	25	32	42	16	11	13	2215	2278	4493	

DEATHS FROM COMMUNICABLE DISEASES, BY AGE AND SEX—1937—CORRECTED

	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.	Tot
Cerebrospinal Fever.....	1																												1
Chickenpox.....																													
Diphtheria.....	1		1	1																									3
Diphtheria Carriers.....																													
Encephalitis, Infectious.....																					1								2
Erysipelas.....	1																												1
Influenza.....	1												1																1
Measles.....	2		1																										3
Mumps.....																													
Poliomyelitis.....																													
Puerperal Fever.....									1																				4
Scarlet Fever.....																					1								2
Smallpox.....									1																				3
Tuberculosis, Pul.....																													
Typhoid Fever.....																													
Undulant Fever.....														1															1
Whooping Cough.....	1	3																											4
Totals.....	6	4	1	1	1	1	1	1	1	1	2	1	1	1	1	1	1	3	7	8	7	5	16	8	7	6	54	42	
	10		1		2	1	1	2	2	2	2	2	2	2	2	2	10	15	12	24	13	96	96					96	

INSPECTORS' REPORT, 1937

	Totals 1937	Totals 1936
Number of Visits	5,877	9,761
Houses Quarantined	3,706	6,204
Quarantines Raised	415	1,172
Quarantines Inspected	436	839
Other Calls	1,320	1,546
New Cases Investigated	4,112	6,500
Bedding, etc., Disinfected	1,094	2,063
Rooms Sprayed	149	100
Houses Sprayed	3	3
School Certificates Issued	1,295	2,242

TUBERCULOSIS—VISITING NURSES' REPORT, 1937

	Totals 1937	Totals 1936
Number of Visits	6,100	5,815
To Old Cases	5,696	5,539
To New Cases	174	144
To Suspects	28	3
On Behalf of Patients	174	109
Other Calls	28	20
Patients sent to King Edward Memorial Hospital	7	12
Patients sent to Ninette Sanatorium .....	.....	4
Patients sent to St. Boniface Sanatorium	8	5
Patients sent to Central Clinic	3	11
New Cases added to Districts	136	124

TOXOID ADMINISTRATION PRE-SCHOOL CHILDREN,
1936-37

	1937	1936
Number receiving 1st treatment	1,497	1,932
Number receiving 2nd treatment	1,357	1,763
Number receiving 3rd treatment	1,162	1,616
Total number of treatments given	4,016	5,311

TOTAL TOXOID TREATMENTS—BY WARDS

	Ward 1	Ward 2	Ward 3	Total
1936	627	2,325	2,359	5,311
1937	419	1,533	2,064	4,016

TOXOID DISTRIBUTED FOR THE YEARS 1936-37

Toxoid	Single Ampoules		Complete Series		Schick Test	
	1937	1936	1937	1936	1937	1936
1st Dose	4	12 (1 person pkts.)	590	755	131	118
2nd Dose	7	6 (6 person pkts.)	22	11	.....	.....
3rd Dose	10	10 (12 person pkts.)	154	150	.....	.....

TUBERCULOSIS, 1937

Sources of ascertainment of cases recorded for 1937 and comparative figures
for the year 1936

	1937	1936
King Edward Memorial Hospital	37	29
Ninette Sanatorium	1	3
St. Boniface Sanatorium	33	23
Central Clinic	55	56
Doctors and others	5	5
Death Registration	5	8
Non-resident	15	29
Total	151	153

Summary showing length of time
symptoms noted prior to depart-
ment receiving report.

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

CASES		By Death Registration	
Under one month	33	Under One month	5
One month	24	One month	1
Two months	8	Two months	1
Three months	13	Three months	1
Four months	6	Four months	4
Five months	5	Five months	1
6 - 12 months	12	Six months	10
One year and over	25	Over six months	27
Total	136	Total	54

Age Incidence in Ten Year Periods

(for other classification see table Communicable Diseases)

CASES				DEATHS			
Age Incidence	M.	F.	Total	Age Incidence	M.	F.	Total
0-10 years	---	---	---	0-10 years	1	---	1
10-20 years	6	12	18	10-20 years	---	---	---
20-30 years	19	37	56	20-30 years	7	12	19
30-40 years	10	17	27	30-40 years	6	5	11
40-50 years	18	2	20	40-50 years	9	---	9
50-60 years	7	---	7	50-60 years	4	3	7
60-70 years	5	2	7	60-70 years	4	2	6
70 and over	1	---	1	70 and over	1	---	1
Total	66	70	136	Total	32	22	54

Distribution of Cases appearing on our records as
"in Hospital and Sanatorium," at end of the year 1937

	M.	F.	Total
King Edward Memorial Hospital	69	33	102
St. Boniface Sanatorium	37	27	64
Ninette Sanatorium	21	20	41
Central Clinic	6	7	13
St. Roch's Hospital	1	---	1
Total	134	77	221

**TUBERCULOSIS—1937—NEW CASES
LIVING ACCOMMODATION**

	PATIENTS			Total Number of Persons in Household		
	Males	Females	Total	Over 10 Years	Under 10 Years	Total
	1 Room.....	15	2	17	16	.....	16
2 Rooms.....	3	7	10	12	2	14
3 Rooms.....	3	5	8	8	5	13
4 Rooms and over.....	46	51	97	349	75	424
Institutional and Unclassified.....	1	3	4	1	.....	1
Totals.....	68	68	136	386	82	468

SLEEPING ACCOMMODATION

	PATIENTS				CONTACTS		
	With Room to Self	With Bed But Not Room to Self	With Neither Bed Nor Room to Self	Total	Sleeping in Same Bed as Patient	Sleeping in Separate Bed but in Same Room as Patient	Total
	1 Room.....	7	4	6	17	6	4	10
2 Rooms.....	.....	1	9	10	9	5	14
3 Rooms.....	1	.....	7	8	8	2	10
4 Rooms and over.....	53	7	37	97	40	9	49
Institutional and Unclassified.....	3	1	.....	4	.....	3	3
Totals.....	64	13	59	136	63	23	86

ANTERIOR POLIOMYELITIS, 1937 — Age Incidence

AGES	CASES	PER CENT.	AGES	SUSPECTS	PER CENT.
4 yrs. and under.....	13	23.6	4 yrs. and under.....	14	15.9
5 to 9 years.....	19	34.6	5 to 9 years.....	41	46.6
10 to 14 years.....	12	21.8	10 to 14 years.....	19	21.6
15 to 19 years.....	6	10.9	15 to 19 years.....	8	9.1
20 to 24 years.....	5	9.1	20 to 24 years.....	2	2.3
25 yrs. and over.....	.....	.....	25 yrs. and over.....	4	4.5
Totals.....	55		Totals.....	88	

SEX INCIDENCE

CASES			SUSPECTS		
Months	Male	Female	Months	Male	Female
July.....	.....	.....	July.....	1	.....
August.....	2	2	August.....	4	3
September.....	26	19	September.....	33	31
October.....	1	4	October.....	3	7
November.....	.....	1	November.....	3	3
Totals.....	29	26	Totals.....	44	44

INCIDENCE BY WARDS

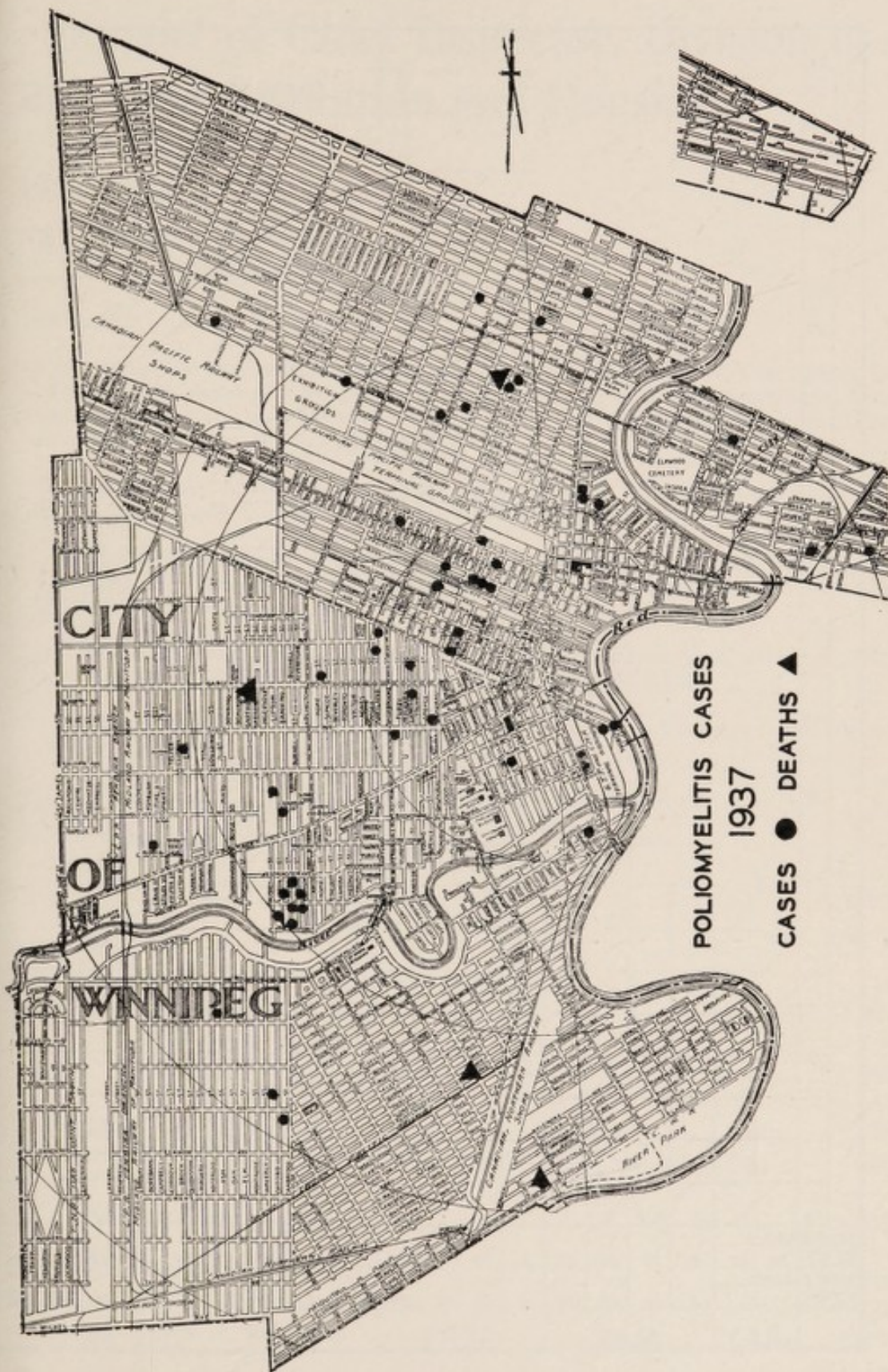
Wards	CASES					SUSPECTS					
	Aug.	Sept.	Oct.	Nov.	Total	July	Aug.	Sept.	Oct.	Nov.	Total
Ward One	1	15	..	..	16	1	2	17	..	2	22
Ward Two	2	19	2	..	23	.....	4	30	7	2	43
Ward Three	1	11	3	1	16	..	1	17	3	2	23
Totals	4	45	5	1	55	1	7	64	10	6	88

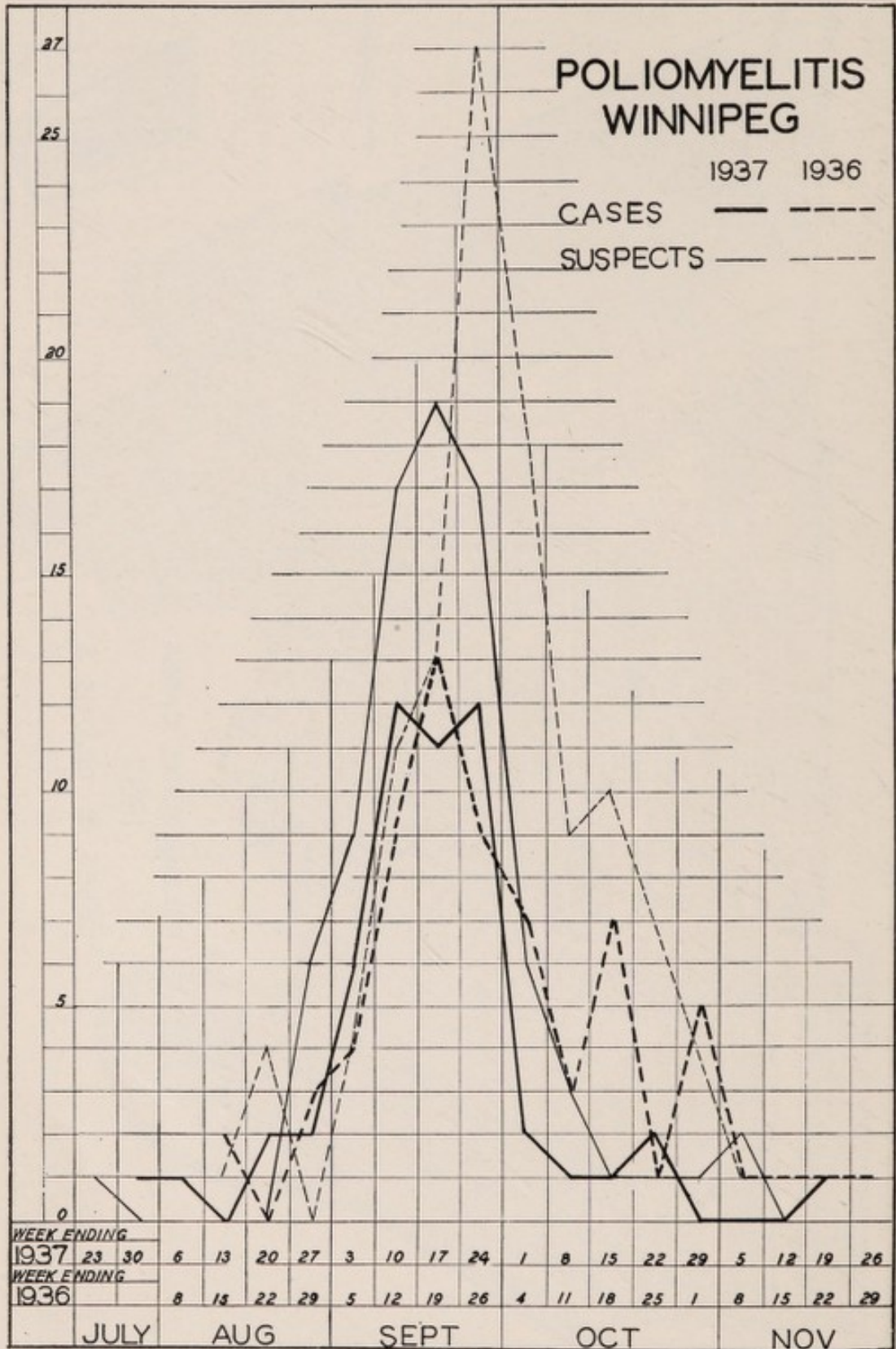
ANTERIOR POLIOMYELITIS SUSPECTS—1937

Length of Time in Hospital

Days	Month of July	Month of August	Month of Sept.	Month of Oct.	Month of Nov.	Total
1	1	.....	1	.....	1	3
2	6	.....	.....	6
3	10	2	2	14
4	17	.....	1	18
5	5	6	.....	11
6	9	.....	.....	9
7	1	.....	.....	1
8	2	.....	.....	2
9	5	.....	1	6
10	1	4	.....	.....	5
11	2	3	.....	.....	5
12	1	1	.....	.....	2
13
14	1	.....	1	.....	2
15	1	.....	.....	.....	1
16	1	.....	.....	.....	1
.....
26	1	1
Totals.....	1	7	64	9*	6	87

Note: *Add 1 Suspect quarantined at home.





Report of Chief Inspector, Division of Sanitation and Housing

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

Dear Sir:

I have the honor to submit for your consideration, the following report of the work accomplished by this Division of the Health Department, during the year 1937, as set forth in my own report; also those of the Housing Inspector and the Smoke Inspector.

Abatement of Nuisances—The total number of inspections and re-inspections made during the year was 25,643.

The total number of complaints received during the year was 1,962. Of these, 429 were unfounded, or the conditions complained of removed prior to inspection.

Notices served for abatement of nuisances were: written, informal, 563; written, statutory, 710; verbal notices and warnings, 9,307.

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

Complaints received at office	1,506
Complaints made to Inspectors	456
Total	1,962
Of above:	
Complaints re non-removal of garbage, etc.	138
Complaints re nuisances	1,824
Total	1,962
Complaints well founded	1,533
Complaints unfounded or conditions rectified prior to inspection.....	429
Total	1,962
Written notices (informal)	563
Written notices (statutory)	710
Verbal notices or warnings	9,307
Total	10,580

Inspections Made

Dwelling Houses	1,365
Tenements and apartment blocks	1,682
Hotels and lodging houses	238
Schools and public buildings	18
Workshops and factories	413
Offices	49
Stores	194
Stables, Feed and Sale	189
Stables (private)	466
Laundries (hand)	567
Laundries (steam)	9
Dog kennels	220
Theatres and places of amusement	131
Public bath houses	91
Public bath houses, water samples	246
Comfort stations, Public	203
Garage and filling stations	394
Markets, etc.	356
Bedding and upholstering factories	15
Lack of heat in dwellings	60
Wiping rags	8
Basements requiring permit of Health Officer	23
Common drinking cups and towels	70
Barber shops	121
Second-hand stores and junk yards	538
Foolrooms	291
Yards, sheds, areas, etc.	3,480
Vacant lots (nuisances)	774
Streets and lanes (nuisances)	4,400
Contractors' closets	338
Pit closets	389
Undertakers' premises	14
Tanneries and hide storage warehouses	82
Hydrocyanic Acid gas fumigations	194
<hr/>	
Total number of inspections	17,628
Re-inspections	8,015
<hr/>	
Total number of inspections and re-inspections	25,643

Defects and Nuisances Discovered and Abated

Drains, choked or defective	117
Sinks and washbasins, choked or defective	148
Waterclosets and fittings, choked or defective	205
Baths and fittings, choked or defective	19
Urinals and fittings, choked or defective	35
Soil-pipes, clean-outs, etc., choked or defective	113
Catch-basins and traps, choked or defective	111
Watercloset compartments, defective light and ventilation	23
Plumbing and water pipes, frozen	71
Vent stacks, frozen	11
Sewer connections, frozen	7
Water services, defective or shut off	92
Plumbing fixtures, insufficient	20
New plumbing, notices to instal	—
<hr/>	
Total plumbing defects	972

Dirty yards, courts, sheds, etc.	3,306
Poultry kept in or too close to dwelling	56
Pigeons kept in dwelling or not confined to coop	17
Animals kept in dwelling	14
Poultry kept under insanitary conditions	104
Cows or other cattle kept under insanitary conditions	53
Cows or other cattle kept too close to dwelling	2
Hogs, unlawfully keeping .....	...
Horses, insanitary stables	71
Garbage receptacles	1,784
Refuse receptacles	221
Manure bins, defective	115
Ash receptacles	88
Paper receptacles	80
Cellars and basements, defective	199
Dwellings, dilapidated and insanitary	156
Tenements, dilapidated and insanitary	163
Offices and workshops, dilapidated and insanitary	73
Dilapidated and insanitary, other buildings	35
Fly screens, lack of or defective	43
Overcrowding (day inspections)	211
Overcrowding (night inspections)	18
Rat-infested buildings	20
Cockroach-infested buildings	64
Bedbug-infested buildings	277
Chimneys or smoke pipes, defective	58
Roofs, defective	109
Eavestroughs and rain leaders, defective	137
Gas-fittings and piping, defective	12
Furnaces and heating apparatus, defective	60
Lighting, defective	23
Ventilation, defective	38
Pit closets, concrete or brick, defective	57
Contractors' closets, defective	54
Stagnant water on vacant lots	4
Other nuisances on vacant lots	640
Nuisances on lanes and streets	3,250
Unnecessary noises	48
Total defects discovered (including plumbing defects) ..	12,632

Smoke Nuisances

Chimneys and smoke stacks (observations)	191
Furnaces, boilers, fuels, etc., inspection of	80
Total	271
Notices, statutory	4
Notices, verbal	85
Total	89

Miscellaneous

Premises placarded insanitary	25
Water samples taken	1,474
Infractions of Zoning By-law	9
Re: Cross-connections, domestic water supplies	2
Cellars illegally occupied	2
Private hospitals and nursing homes	12
Re: Use of hydrocyanic acid gas (special inspections)	13

Frozen Water Pipes and Plumbing—We dealt with 82 cases of frozen water pipes and plumbing as against 191 last year. The reduction is due to the demolition of many old buildings; also improvements carried out in a great many others under instructions from this Department. There are many owners of rented property who will do nothing to keep their premises in a satisfactory state of repair until notified to do so. In many cases, structural conditions are responsible for the trouble—faulty construction of cellars, defects in foundations due to settlement; also neglect to provide adequate heat. The nuisances resulting from frozen plumbing are often very serious, and worse than one not conversant with them would expect.

Other Plumbing Defects—In last year's report, I indicated that the number of general plumbing defects was decreasing. There is a decrease this year again, the number of defects found being 890 as compared with 963 last year. The remarks above, relating to causes of frozen plumbing, are applicable here also. In addition, we are constantly coming across sinks and other fixtures unlawfully installed and either improperly connected, or discharging into catch basins. In the latter case, it is usually only a matter of time when intolerable nuisance is created and the conditions are reported to us. It should also be added that most of these fixtures are untrapped.

In taking our annual census of outside closets, we find that there are 266 houses and other premises without sewer and water connections. This is 4 less than last year and 9 less than the previous year. There were 10 outside closets removed during the year but 6 were added.

Defective Roofs, Eavestroughs and Rain Water Leaders—Here also, we find most of the defects in old rented property. The conditions are frequently brought to our attention through dampness in cellars and foundations. Defective and leaking roofs dealt with numbered 109; and faulty eavestroughs and rain leaders 137.

Garbage, Manure and other Receptacles—During the period May to October, we conducted our annual campaign for replacement of garbage cans. A total of 1,432 garbage cans were obtained.

Complaints relating to garbage removal numbered only 138. Systematic inspection, with the co-operation of the Scavenging Division, accounts for the small number of complaints. It should be noted, that this involves a great deal of work, all of which is necessary in dealing with conditions in regard to cleanliness about premises and the prevention and abatement of nuisances under this head, but good municipal housekeeping demands this.

Notices served during the year were as follows:

To provide garbage cans and covers	1,784
To provide receptacles for incombustible refuse	221
To provide or repair manure bins	115
To provide receptacles for ashes	88
To provide receptacles for paper	80
	2,288

Scavenging—The small number of complaints relative to non-removal of garbage and other refuse is evidence of the efficient work done by the Scavenging Division. Citizens are frequently to blame themselves, by reason of improper storage facilities and the mixing together of different classes of refuse.

Contractors' Closets—Only 120 permits were issued this year and 338 inspections were made; 59 notices were served, regarding defects and cleanliness of these conveniences.

Feed and Sale Stables—A total of 466 inspections were made. Several of these premises underwent considerable repair.

Private Stables—A total of 466 inspections were made. One stable was closed as insanitary, during the year.

Keeping of Animals—The keeping of horses, cows, sheep, goats and other animals in dilapidated or unsuitable sheds is sometimes discovered by us or brought to our notice. Action taken during the year was as under:

Cows and other cattle kept in insanitary sheds, etc.	53
Cows and other cattle kept too close to dwellings	2
Horses kept in insanitary sheds, etc.	71
Animals unlawfully kept in dwellings	14
	140

Poultry—Nuisances coming under this head are not so numerous as they were some years ago, due to the restrictions imposed by the Poultry By-law passed in 1920. Action taken during the year was as follows: insanitary conditions 104; poultry kept in, or too close to dwellings 56; pigeons kept in dwellings or not confined to coop 17.

Dog Kennels—A total of 220 inspections were made and 28 permits were issued. On the whole, the licensed premises were found in good condition.

Nuisances in Yards, Sheds, Lanes, Vacant Lots, etc.—To keep the City clean and free from nuisances under this head, takes up a very considerable amount of time. The depositing of garbage, ashes, manure, and other refuse on vacant lots and lanes is hard to control, as it is often difficult to ascertain where the refuse came from. The indiscriminate dumping of manure on vacant lots gave us more trouble this year than we have had for a number of years past. The following figures give some evidence of the nuisances dealt with:

Dirty yards, courts, sheds, etc.	3,306
Nuisances on streets and lanes	3,250
Nuisances on vacant lots	640
	7,196

Compulsory Sewer Notices—We have not served any Notices under this head during the past four years.

Overcrowding—Inspections made 229, of which 18 were at night. Overcrowding of rooms is not so prevalent as might be expected, although we find that many premises appear to be occupied to capacity.

Housing—The Twentieth Annual Survey of Vacant Dwellings and Vacant Suites was made, as usual, in December. The outstanding features are here set forth:

Dwelling Houses

The total number of vacant houses is 355. Last year the total number of vacant dwellings was 389. There are, therefore, 34 less vacant houses than a year ago.

We find there are 36,037 dwellings, including dwellings in connection with stores. The vacancies, therefore, represent less than 1.0% of the whole.

Suites

The total number of vacant suites in apartment blocks is 442 as against 305 last year. There are, therefore, 137 more vacant suites than a year ago.

There are 652 apartment blocks, containing a total of 10,656 suites. The vacancies, therefore, represent only 4.1% of the whole.

Of the vacant suites, 265 were in residential blocks, and 177 in mixed, business and residential blocks. The percentage of vacancies was 3.2% in the former and 6.7% in the latter.

Total Vacancies

Houses	355
Suites	442
	797

The total vacancies (Houses and Suites) was 694 last year, as against 797 this year.

New Houses and Demolitions

There were only 92 dwellings and 1 store and dwelling added to our list during the year, a total of 93 houses. But due to 130 demolitions; also 97 other changes and alterations, such as dwellings converted into stores, workshops and other business premises, dwellings in connection with stores discontinued, there are 134 less dwellings than a year ago.

During the year, we closed as insanitary, under the Public Health Act, 12 dwellings.

In last year's report, I pointed out that there were 78 dwellings less than the previous year. If we add 134 removed this year to that removed last year, we have 212 less dwellings than two years ago.

New Blocks and Demolitions

One new apartment block was constructed this year and 5 buildings were suitably altered into apartment buildings; also additional suites were constructed in present apartment buildings.

One small apartment block was closed and alterations were made in several others.

As a result of the above changes, we have an increase of 94 suites.

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

Year	Dwellings	Suites	Total	Marriages
1924	437	15	452	2,257
1925	551	97	648	2,237
1926	575	304	879	2,368
1927	812	357	1,169	2,441
1928	838	577	1,415	2,818
1929	719	754	1,473	2,781
1930	520	256	776	2,660
1931	419	254	673	2,452
1932	178	13	191	2,342
1933	124	31	155	2,246
1934	65	14	79	2,481
1935	60	37	97	2,596
1936	63	20	83	2,717
1937	93	94	187	2,906

During the past 5 years, the total dwellings and suites provided was 601, while during the same period, there were 12,946 marriages—one dwelling or suite for every 21 marriages. Of course many of the marriages are of people from outside the city, but if three-fourths of the marriages were of city people, the rate would be only one dwelling or suite provided for every 16 marriages. It should be noted that the dwellings and suites demolished or removed are not taken into account here.

As already stated, we gained 94 suites, but lost 134 dwellings during the year. There were 2,906 marriages with a shrinkage of 40 domiciles.

Total Housing Accommodation

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

Dwelling houses	34,982
Dwellings in connection with stores	1,055
Suites in apartment blocks	10,656
	<hr/>
	46,693
	<hr/>

General Remarks

As in previous years, this survey included all classes of premises occupied as dwellings. The procedure is to make a record during the year of all such premises by streets between blocks. By this means we obtain the number of dwelling houses, dwellings in connection with stores, and suites in apartment blocks. New premises since the previous survey are added and premises demolished are removed from the list. This record is made and checked throughout the year and during December a survey is made to ascertain the number and class of premises found vacant. Needless to say, this involves a great amount of field work that has to be performed in addition to other special, as well as routine duties.

Taking the gross total of 355 vacant dwellings, the records show that only 104 are of five rooms or less—the accommodation most in demand. But as 10 of these are dilapidated and 27 require extensive repairs, only 67 are available. Several reasons may be given why these latter are vacant; held for sale, rent too high; distant from centre of city; hard to heat in winter, etc.

After deducting the 104 dwellings referred to above, we have 251 vacant dwellings of 6 rooms and larger, but when we come to a consideration of condition and repair, we find that 67 are unfit for occupation. The others are vacant for the reason that they are too large, or for one or more of the reasons already stated.

There is little that I can say here that has not been said in previous reports. I have been pointing out for years the deficiency in housing accommodation for our low-wage earners; that bad housing is unprofitable to the community; that our sub-standard housing is increasing in area and even invading some of our better class residential districts; that we are finding more and more single family dwellings occupied as tenements, many families having only one room; etc.

The serious shortage of dwellings for the low-wage earning class becomes more acute each year. During the seven year period, 1924-1930 inclusive, 6,812 dwellings and suites were provided—an average of 973 per year. During the seven year period, 1931-1937 inclusive, 1,464 dwellings and suites were provided—an average of 209 per year. In neither of these periods, was the provision of dwellings and suites commensurate with the number required—and no account is taken of demolitions; but if even the rate of the former period had been maintained during the past seven years, there would have been provided, 6,812 dwellings and suites, instead of only 1,464. It will be seen that only the accommodation provided is set forth; it is only in recent years that a record has been made of that lost by demolition and other changes. During the past 5 years there were 609 dwellings and suites demolished or otherwise removed. Deducting 609 lost from 1,464 provided, we have a net gain of 855 units (perhaps less) in the immediate past 7 year period.

In conclusion, reference should be made to the commendable publicity given to the question of Housing by our local press, clergymen, and others. As a result, the interest of the community is being awakened. And since this appears to be true of the country as a whole, we may, in the near future, find that the Federal Government will take suitable action.

Zoning—Only 5 infractions of the Zoning By-law were dealt with during the year. Two of these were factories established in R. 1 Districts. The unlawful conditions were corrected in each case.

Defective Furnaces and other Heating Apparatus—Each winter we are called upon to investigate complaints alleged to be due to nuisances caused by the above. This year action was taken in 60 instances. It is not uncommon to discover conditions that are fire hazards, and in such cases we inform those responsible of the changes necessary.

Gas Stoves and Fittings—Defects dealt with under this head numbered only 12 but all of these were sufficiently serious to warrant action. As yet, we have no By-law governing the installation of these appliances, and action can only be taken under the Regulations passed under the Public Health Act, which states, "Gas stoves, water heaters and other gas appliances shall be provided with effective means for the removal of the products of combustion by suitable pipes or flues. All such appliances shall be kept in proper state of repair, and in efficient working order." Defective gas mains were responsible for illness in two dwellings. In one of these instances, several members of the family were removed to hospital. In the other case, medical attention was given at home.

Chemical and Mechanical Refrigerators—The annual survey of the above shows that there are 1,220 single unit refrigerators in 95 apartment blocks, and 4,620 units in connection with multiple systems in 208 apartment buildings. Following our custom of former years, we sent copies of the detailed information to the City Hydro and the Provincial Bureau of Labor. No defects came to our notice during the year.

Cross Connections in Water Supplies—Two instances of cross connections between well and city water services were dealt with and conditions rectified.

Factories, Workshops and Office Buildings—We made 452 inspections during the year. Matters regarding which action was taken included: ammonia from a refrigerator repair shop discharged adjacent to windows of an apartment block; separate plumbing fixtures for the sexes not provided; dust from a shoe factory discharged close to a dwelling; lack of plumbing; plumbing frozen; fumes from a dry-cleaning plant discharged close to an apartment block.

Rats—Twenty complaints were received regarding rat infested premises. The bounty of five cents per rat tail was continued and the amount paid for the year was \$437.55. The heaviest months were May, June and July.

Public Baths and Comfort Stations—Inspection of the public baths and swimming pools at Sherbrook Street, Pritchard Avenue, Y.M.C.A., Y.W.C.A., All People's Mission, Stella Avenue Mission and the Winter Club, numbered 91. In addition, 246 samples of pool water were taken. Inspections of public comfort stations, 203. The premises were at all times found clean and the sanitary conditions good.

Undertakers' Establishments—Fourteen inspections were made of 8 premises which were approved for licenses.

Common Drinking Cups and Roller Towels—There were 70 infractions discovered, all of which were rectified.

Billiard and Pool Rooms—Inspections made 291, and permits issued 59. These premises are carefully checked each Spring for repairs and renovations.

Second Hand Stores and Junk Yards—A total of 538 inspections were made and 142 permits issued. A reasonable standard of cleanliness is

demanded in the former. We note a tendency to store large quantities of old auto bodies and parts in some of the yards. Conditions are often unsightly and such material affords good harborage for rats.

Wiping Rags—Only 8 inspections were made. The regulations are apparently being complied with. No complaints were received.

Bedding and Upholstering Factories—Fifteen inspections were made of premises where this class of work is carried on, mostly of small workshops as the larger premises are under the supervision of the Bureau of Labor.

Barber Shops—Inspections made 21. We have been requested on a number of occasions, by certain members of the trade, to advocate the passing of a By-law relating to various aspects of the business. We are of opinion, however, that if regulations are necessary, these could best be promulgated by the Provincial Board of Health, in which case they would be effective throughout the Province. Meantime, action taken by us relate to general sanitary conditions, such as provision and maintenance of water supply, light, ventilation, and general cleanliness.

Vermin—A total of 341 premises were found verminous, mostly bed-bug infestation. Frequently it is difficult to place the responsibility, the occupier stating that his bedding and furniture were free of vermin when he moved into the premises, and the owner contending that the premises were not verminous when the occupier took possession. In such cases we notify both parties and usually joint action is obtained.

Theatres and Places of Amusement—There were 131 inspections made. The few defects found were of a minor nature.

Schools and Public Buildings—Only 18 inspections were made, and one serious defect dealt with—odors of gasoline finding access to the basement of a church, due to defective drains; conditions were remedied.

Laundries—Inspections made, 576; and permits issued, 82. Most of our hand laundries are in rented premises and a number are becoming so dilapidated for want of repair and upkeep that we may soon have to order them closed. On the other hand, many of these premises are in good structural and sanitary condition.

Hotels—We made 101 inspections and issued 58 permits. With few exceptions, our hotels are in splendid condition. Extensive improvements were made in several.

Lodging Houses—There are only 29 licensed of which 137 inspections were made. One was closed by the Department during the year as being no longer suitable and fit for occupation; soon afterward the building was demolished. On the whole, these premises are well kept.

Markets—A total of 356 inspections were made, mostly of open-air premises. Close supervision is necessary, especially during warm weather when nuisances are likely to arise from improper storage, collection and disposal of refuse.

Noise—48 inspections were made. These related mostly to indiscriminate use of radios. We experienced a good deal of trouble in regulating noise from a machine in a pop-corn factory, recently established in close proximity to a number of dwellings. The business was discontinued

temporarily during the winter but at time of writing, we are again receiving complaints; the matter is still in hand.

Hydrocyanic Acid—A total of 193 premises were fumigated for bed-bug infestation—47 more than last year. This work is undertaken only during warm weather, often at week-ends. The risk attending these fumigations is so great that an Inspector is always assigned to see that all precautions are observed when the gas is liberated and when the premises are opened; also that the regulations are complied with. The first fatality in many years in this city, occurred this year, when a fumigator was himself asphyxiated. The victim, apparently having another appointment, opened the premises about an hour earlier than that arranged, consequently our Inspector was not present at the time. Moreover, the unfortunate man had entered the premises without his gas mask and was overcome before he had time to dispose of the residue material and open the windows.

Cellar occupation—Several instances came to our knowledge of cellars occupied for living and sleeping purposes. Notices were served and complied with in each case.

Smoke—As a separate report is provided by the Smoke Inspector, it will not be necessary to discuss this subject at length. We are not seriously troubled with smoke nuisance, although of course the burning of certain classes of coal in house furnaces contributes a fair share. But even this latter source of smoke is being controlled by judicious and careful firing as householders learn that it is economical to do so.

Miscellaneous—Matters dealt with under this head included: the receiving of raw hides in a store; insanitary methods in a tannery; stable occupied as a dwelling; the dumping of manure and other refuse on vacant land; cellars flooded during heavy rainfall; repairs to and cleaning out of pit closets; basements requiring permit of Health Officer.

Work Done for Other Departments—At the request of the Provincial Department of Health, a number of sanitary surveys were made of private institutions and copies of the reports mailed to the Department.

We continued our inspections of the dining hall on Princess Street used by the Single Men's Unemployment Relief Committee; also various places where unemployed single men are housed. Reports relating to conditions found were sent to the Commission in charge.

At the request of the Social Welfare Commission, a number of dwellings were inspected and copies of the reports sent.

Inspections were made of premises occupied by unemployed transient men.

The examination of drawings relating to changes proposed to be made in dwellings and other premises, respecting light, ventilation, plumbing, etc., took up considerable time and not infrequently this involved inspection of the premises.

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

Dwellings—general insanitary condition	52
Cellar occupation	2
Dwellings—illegally occupied as tenements	19
Workshops, etc.—general insanitary condition	9
Offices, etc.—lack of toilet facilities	2
Stores and dwellings, attics	4
Lodging houses	2
Stable	1
	91

Notices served on owners and agents	80
Notices served on occupants	85

Results:

Notices complied with (premises put into sanitary condition)	59
Premises closed and placarded	16
Cases still pending	16
Remaining closed on December 31st, 1936	88
Premises repaired or demolished during 1937	40
	48
Premises closed during 1937 (12 dwellings, 2 cellar rooms, 1 stable, 1 office)	16
Remaining closed on December 31st, 1937	64

Prosecutions—There were no prosecutions during the year. Rather, we have continued our policy of indicating our powers of legal action and then having our requirements complied with through persuasion and co-operation.

Staff—The members of the staff have given loyal and faithful service. Extra time has been given outside of the usual hours of duty, when necessary, and this quite frequently on weekends and evenings during June, July, August and September when fumigations with hydrocyanic acid were undertaken and supervision required.

Respectfully submitted,

ALEX. OFFICER,

Chief Inspector,

Division of Sanitation and Housing.

Report of the Housing Inspector

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

Dear Sir:

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

Dwellings

The construction of new dwellings is still much below the number necessary to replace those demolished each year. There is, however, a little satisfaction in noting a gradual increase in the number of houses converted for two and three family occupation. During the year, permits were issued for the conversion of 109 dwellings to duplex occupation and 22 other buildings were altered to accommodate 3 or more families. Last year, 55 houses were converted for 2 families and 12 were arranged for 3 or more families.

There were two instances where cellars were found occupied as dwellings. Partitions had been erected in one case providing five rooms. Three of the rooms had no window. The occupation of rooms in cellars for living or sleeping purposes is contrary to the Regulations of the Public Health Act of the Province. Closing notices were served and complied with. The partitions forming the rooms were removed. In two other cases small outbuildings were occupied as dwellings which we immediately closed.

The complaints received were, as usual, varied in character and referred to vermin infestation, defective plumbing, leaking roofs, damp cellars, choked house drains, etc. They were all dealt with and rectified either by Statutory Notice or otherwise declaring the responsibility on the owner or tenant.

More interest is being taken by owners of property in the eradication of vermin by the use of Hydrocyanide gas applied by licensed fumigators. This insecticide would appear to be the only available substance to effectively cause the destruction of bed-bugs, etc. The Regulations of the Public Health Act now are such, that the use being restricted to licensed fumigators only and adherence to the technique required, there is no risk entailed in the use of this gas. Unfortunately, as in many other instances where risk of lives are involved, there is the human element to consider which at times is liable to err and neglect ordinary safety precautions.

In many instances, neglect of the owner to effect minor repairs resulted in structural defects which necessitated extensive repairs. Defective roofs, eavestroughs and rainwater leaders are responsible for a great majority of the dilapidated dwellings and the lack of paint is another cause.

Justified complaints of room overcrowding have been comparatively few but action was taken when advisable. In many instances, a rearrangement of the bedroom accommodation was sufficient.

Apartment Blocks

Very few complaints related to insanitary conditions due to structural defects. They generally referred to the unsatisfactory storage of both organic and inorganic refuse. There are a number of blocks, however, which require constant supervision. These are the older buildings constructed during a period when the Regulations and By-laws were not so stringent. Many of them contain rooms without direct natural light, the plumbing is used in common, and there is not adequate remuneration for a full-time caretaker. This type of building fortunately is in the minority and the number will probably be reduced in the near future.

Tenements

Very few of the larger dwellings which house several families comply with the minimum requirements of the By-law. The owners, for some reason, are averse to making the necessary improvements. Many of these houses are suitably planned for the conversion to multiple dwellings at comparatively little expense. The present time is not opportune to compel the installation of necessary improvements owing to the dearth of small houses. There are many instances where the owners claim they would prefer to have the premises vacant rather than incur additional expenditure.

It is needless to elaborate on reports of previous years which have dealt fully with the objectionable features in some of these buildings. The proposed legislation to give the City power to regulate the installation of gas ranges, would help considerably in checking the occupancy of these illegally occupied dwellings and prevent their increase in number.

Lodging Houses

Only 29 permits were issued last year and the number is decreasing each year. Farm work has absorbed the majority of transient single men and the remainder are taken care of temporarily by the Single Men's Unemployment Relief Commission. Very few complaints were received. In one instance we declared the premises insanitary, and the building was demolished.

General

Owing to the demolition of old houses and the lack of interest in the construction of new ones, there is a gradual decrease in the number of dwellings available. Although the conversion of present buildings for dual or multiple occupation does, to some extent, provide additional housing accommodation, not more than fifty per cent of them could be economically rented for less than thirty dollars per month. The dwellings converted are generally of seven or more rooms and the changes are made from the economic viewpoint. Many applications for permission to convert various types of buildings for multiple occupation are refused for the reason, that the applicants do not want to execute the work required in accordance with the By-laws of the City and the Regulations of the Public Health Act of the Province. In other instances, the buildings are already in such a defective structural condition that permit for the work could not conscientiously be given, unless very extensive repairs were carried out. If additional housing has to be provided, it should be in a manner commensurate with reasonable living standards. Any temporary suspension of the present By-laws would only result in hastening the time when actual slum conditions would exist, and which may involve the City in considerable expenditure especially if a slum clearance project was decided upon.

Whether or not the Federal Government will eventually subsidize the construction of dwellings remains to be seen. At the present time they have invited competitive plans from Architects for dwellings to cost not more than \$3,000.00, except in British Columbia where the cost must not exceed \$2,500.00.

There is no better way for a Government to encourage patriotism than by showing interest in the housing of its people. It creates a satisfaction born of contentment and high ideals. The moral and social obligations are, to its citizens paramount. The present housing situation can but lead to the moral and social degradation of many of its people and dissatisfaction generally. The monetary cost to the country in services, etc., has already reached astounding proportions, and there is no doubt that unless a suitable housing scheme is instituted, conditions will gradually become worse.

Many people are under the impression, that under such housing schemes any person may occupy the homes. Generally, the dwellings are for families with a low income and whose character will bear investigation. Although in some instances, there is a Government subsidy of about one half the rental over a period of years and a definite maximum income for the occupants of such homes is stipulated, there does not appear to be any legislation to regulate wages generally. It is doubtful if a housing scheme could be entirely satisfactory under the circumstances noted above, unless other legislation was promulgated to ensure that the scheme did not encourage a wage inadequate for reasonable sustenance. There is always a direct expense to the community in the form of management and other incidental expenses.

For many years past, other countries have had considerable experience in the construction of homes for the low paid worker, in addition to slum clearance projects and housing for those who are able to meet their monetary obligations. The result of their experiences is available and in consequence, any scheme adopted need not be experimental.

If the present housing situation was studied from an unprejudiced viewpoint there is no doubt, that within a comparatively short period, there would be more homes and less expense attributed to the lack of decent living conditions and environment.

Your obedient servant,

P. PICKERING,

Housing and Supervising Inspector.

Report of the Smoke Inspector

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

Dear Sir:

Herewith is respectfully submitted a report on Smoke Nuisances and their abatement during the year 1937.

Smoke Inspections

1937	January	February	March	April	May	June	July	August	September	October	November	December	Totals
Observations:													
Chimneys and Smoke Stacks.....	30	2	14	.....	10	12	7	3	17	22	39	37	191
Inspections of Furnaces, Boilers, Fuels, etc.....	18	1	10	.....	7	3	3	1	5	1	14	17	80
Totals.....	48	3	24	.....	17	15	8	4	22	23	53	54	271
Notices:													
Statutory.....										3	1	.....	4
Verbal.....	14	1	11	.....	6	3	4	.....	5	10	15	16	85
Totals.....	14	1	11	.....	6	3	4	.....	5	13	16	16	89

Judging by the reduction in the number of complaints received and personal observations, the policy of education during the past years has been justified.

Clean air is no less important to the citizen than clean food, and now that modern science has devised the means whereby undue pollution of the atmosphere may be prevented and incidentally promote economy in the consumption of fuel, there is no valid reason why the Regulations should not be adhered to.

Surveys carried out in other cities show that domestic furnaces as a whole contribute considerably more smoke to the atmosphere than many of the large units. However, the smoke generally is of a lower density and practically free from fly ash. During periods of high relative humidity, smoke from comparatively low chimneys remains at a low level, resulting in annoyance to the public generally.

The various District Heating Systems have, of course, been responsible for reduction of the smoke from dwellings and apartment blocks within their areas.

Smoke nuisances which now mostly emanate from the small industrial and residential properties are caused, not so much by using unsuitable fuel, but by improper methods of stoking. In small factories the fireman generally has additional duties, and in small business and residential properties it is common practice for one person to have charge of a number of furnaces. The result is that too long an interval is allowed between stoking, and the furnaces are overloaded with fuel, resulting in the emission of dense smoke.

Garbage and Refuse Incinerators—These are installed in most of the modern apartment blocks, and while the use of these has eliminated to some extent the nuisances due to improper storage of garbage, they have contributed somewhat to atmospheric pollution. Garbage having a high moisture content is often placed in the incinerator and packed solid, thus retarding dehydration and obstructing the draft. This causes the material to smoulder and give off dense smoke and objectionable odors, which is often an annoyance to nearby residents.

The inverse to this is the placing of highly combustible refuse in the incinerator. If there is too much draft and the grid guard situate on top of the flue is defective, or too large in the mesh, lighter portions of partly burned refuse is emitted from the chimney.

A verbal notice and instructions as to the proper method of operating, is generally sufficient to remedy any nuisance arising from the above conditions.

In addition to the above, special inspections were made of Hotels, Undertakers' Parlors, Public Baths, Comfort Stations, Swimming Pools, Bedding Factories, and other premises during the year.

Respectfully submitted,

J. SHEPHERD,

Smoke and Supervising Inspector.

Report of the Chief Dairy Inspector

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

Dear Sir:

I have the honor and pleasure of presenting herewith a Report concerning the varied activities and observations of the Dairy Division for the year 1937.

The chief fact of importance was the passing of Provincial Legislation authorizing the appointment of a Milk Control Board for Manitoba giving wide powers so that such Board could control prices and conditions under which milk may be marketed from producer to consumer in any designated area. Early in the summer the three member board was appointed and opened a head office in the City of Winnipeg and immediately commenced to exercise control in the Greater Winnipeg area.

The Manitoba Milk Control Board took over from the Municipal and Public Utility Board and immediately arranged a system of bonding and licensing for the Milk Industry. Later on in the fall the Board decided on a flat price to the consumer of 10c per quart wherever purchased thus eliminating the cash and carry store differential, while raising the producer price from \$1.65 to \$1.98 per 100 lbs.

The present milk supply of Winnipeg is now derived from approximately 900 farms of which 10% or 90 are classed as producer-distributors, the balance shipping fluid milk to the nine Milk Depots or Plants licensed by the City. The furthest away shipping point is 90 miles from Winnipeg while the majority of shippers are approximately inside the 50-mile radius. The producer-distributors are located in the adjacent municipalities with a maximum of 10 to 15 miles distance away but the majority 5 to 10 miles away. The Milk Plants are located, six in the City of Winnipeg and three in the City of St. Boniface.

There are still many problems in connection with our city milk supply which will require solution, if not immediately at least in the very near future.

First, a larger percentage of our supply should be pasteurized. At present, 79% is pasteurized as at the end of 1937, but we commence 1938 with 80% pasteurized. By constant pressure during the past 15 years we have reduced the number of raw milk producer-distributors from 130 to 90 but in these days of bottled milk we still have many who are undesirable as distributors, but whose proper place is in the producer class only.

A relatively safe milk may soon become unsafe if handled and bottled by those not properly equipped for such processes and it is only a waste of time to expect much improvement from those who in the past few years have shown little or no desire to improve. Therefore, the second problem may well be, "The elimination of the undesirable producer-distributor."

The third problem is the private cow keeper of whom we still have approximately 100 and we estimate that probably 75% of these sell milk to friends and neighbors under cover—another dangerous practice.

The fourth problem concerns the cleanliness and wholesomeness of the crude supplies as received at the plants and our tests indicate that there is still a large quantity of milk received containing an undesirable amount of sediment and showing evidence of careless handling during production.

The fifth problem concerns pasteurization itself and has to do with the securing of assurance that this is carried out in a scientific, conscientious manner at all times and that defects due to the human element are not allowed.

We must not forget that there have been epidemic outbreaks caused by raw milk and also on a larger scale by improperly pasteurized milk, and while pasteurizing would eliminate the former, we would still be open to the latter danger were not sufficient safeguards erected around the process itself and the human element kept under very close and efficient supervision.

In our 1919 Report we emphasized the advantages of pasteurization, and after an interval of 9 years we again, in 1928, discussed the problem from all angles. Now, at the end of a second 9 year interval, we once more draw attention to this factor for assuring safe milk to the consumer. The same arguments as held in 1919 - 1928 hold good in 1937, and nothing has happened in the intervals to alter our opinion on the value of pasteurization.

The Grading of all milk supplies as carried on by the Department indicates that 40% of the brands, comprising 80% of the supply, may be considered high grade; that all pasteurized milk is high grade; while, of the raw milk, approximately one-third is high, one-third medium and one-third low grade.

Grading of crude supplies indicates that 5 plants receive fairly satisfactory shipments most of the time but the others occasionally receive shipments containing objectionable sediment, which seriously depreciates the value of the entire receipts for pasteurizing purposes.

Dairy Inspection—1937

Inspections conducted inside the City	7,100
Inspections conducted outside the City	1,737
Notices issued and instructions given	729
Pints of milk purchased for Grading	1,660
Total Examinations and Tests applied	4,867
Milk and Cream condemned and destroyed, lbs.	97
Cases of sickness reported and investigated	21
Special inquiries and investigations	13
Miles travelled outside the City	9,789
Dairy Licenses issued—Producer-distributors	90
Milk Depot Licenses issued—Plants	10
Revenue from 100 Vendor's licenses	\$2,336
Producer-distributors contributed, revenue	1,284

Milk Depots and Plants contributed, revenue	1,052
Producer-distributors inside city contributed	\$108.50
Milk Depots and Plants inside city	402.00
Total City Revenue	\$ 510.50
Producer-distributors outside City contributed	\$1,175.50
Milk Depots and Plants outside City	650.00
Total outside Revenue	\$1,825.50
Total daily consumption of fluid milk, gallons	18,000
Producer-distributor daily sales, raw	3,548
Plant sales of raw milk	52
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Total sales of raw milk	3,600
Privately owned cows produce approximately	180
Total consumption of raw milk	3,780
Pasteurized milk, daily sales by plants	14,100
Pasteurized milk sales by producer-distributors	120
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Total consumption of pasteurized milk	14,220
Pasteurized milk consumed, June, 1937	79.0%
Pasteurized milk consumed, October, 1937	79.5%
Pasteurized milk consumed, March, 1938	80.0%
Daily per capita consumption in pints:	
Fluid milk only	Imperial measure—0.64; U.S.—0.80
Milk and Cream basis	Imperial measure—0.80; U.S.—1.00

Cleanliness of Crude Supplies

Five Year Comparisons

Plant	Samples	1933	1934	1935	1936	1937
1	24	1.7	1.5	1.7	1.3	1.3
2	24	1.7	2	1.7	1.7	2
3	24	1.7	2	1.7	1.5	1.5
4	12	2	1.7	1.7	1.7	1.7
5	12	2	1.7	2	1.6	1.4
6	12	1.7	1.5	1.5	1.6	1.3
7	12	2	1.7	1.7	1.5	1.6
8	12	2	1.7	1.5	1.5	1.5
9	12	1.5	1.7	1.7	1.5	2
<hr/>						
Sample Averages		1.80	1.75	1.70	1.55	1.6
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Highly satisfactory		16%	20%	33%	52%	42%
Fairly satisfactory		44	50	35	32	38
Doubtful quality		40	30	32	16	20
Aggr. Ave. Sed. Test		1.75	1.7	1.6	1.55	1.5

Tables indicate a slight falling off in highly satisfactory shipments in 1937 and this was due almost entirely to excessive sediment found in samples from Plants No. 2 and No. 9. Plants Nos. 1, 5 and 6 each provided an average sediment test under 1.5 while Nos. 3 and 8 had an average of 1.5. Under present conditions we are fairly satisfied with crude milk tests of 1.5 or better but we believe the day approaches when this will not be considered good enough and even 1.5 will not be considered satisfactory for pasteurization purposes.

I have the honor to be, Sir,

Your obedient servant,

E. C. BROWN,

Chief Dairy Inspector.

MILK GRADING, 1937 — BASIC AVERAGES

Score over 90%—Very Good

	Sed. Test	P. Count	B. Fat	T. Solids
1. Raw	1	10.000	4.0	13.0
2. Raw	1	12.500	3.9	12.6
3. Pasteurized	1	10.000	3.7	12.2
4. Raw	1	10.000	3.6	12.0
5. Raw	1	10.000	3.75	12.2
6. Pasteurized	1	15.000	3.75	12.3
7. Pasteurized	1-	20.000	4.9	14.0
8. Pasteurized	1	15.000	3.5	12.2
9. Pasteurized	1	15.000	3.6	12.25
10. Pasteurized	1	15.000	3.7	12.4
11. Raw	1	20.000	3.5	12.2
12. Pasteurized	1	15.000	3.8	12.4
13. Pasteurized	1-	10.000	3.6	12.25
14. Raw	1	15.000	3.6	12.4
15. Raw	1	15.000	3.9	12.6
16. Pasteurized	1	15.000	3.6	12.4
17. Raw	1-	20.000	3.8	12.7
18. Raw	1	15.000	3.7	12.3
19. Raw	1	25.000	4.8	14.2
20. Pasteurized	1	20.000	3.8	12.3
21. Raw	1-	15.000	3.8	12.5
22. Raw	1	20.000	3.5	12.2
23. Raw	1	15.000	3.4	12.2
24. Raw	1	15.000	3.6	12.0

Milk Grading, 1937—Basic Averages (Continued)

Score 88 to 90%—Good

	Sed. Test	P. Count	B. Fat	T. Solids
25. Pasteurized	1	25.000	4.4	13.0
26. Raw	1	20.000	3.4	12.0
27. Raw	1-	20.000	3.6	12.4
28. Raw	1-	12.500	3.8	12.7
29. Raw	1	30.000	3.6	12.3
30. Raw	1	20.000	3.6	12.3
31. Raw	1-	15.000	3.6	12.3
32. Raw	1-	20.000	3.8	12.5
33. Raw	1	30.000	4.0	12.75
34. Raw	1-	15.000	3.5	12.2
35. Raw	1-	15.000	3.6	12.0
36. Raw	1	25.000	3.6	12.4
37. Raw	1-	20.000	3.6	12.4
38. Raw	1-	15.000	3.6	12.4
39. Raw	1-	18.000	3.5	12.25
40. Raw	1-	25.000	4.0	12.75
41. Raw	1-	15.000	3.5	12.25
42. Pasteurized	1	20.000	3.6	12.3
43. Pasteurized	1	25.000	3.75	12.25
44. Raw	1	25.000	3.5	11.9
45. Pasteurized	1-	15.000	4.0	12.0
46. Raw	1-	20.000	3.5	12.0
47. Raw	1	25.000	3.5	11.9
48. Raw	1-	20.000	3.6	12.4

Milk Grading, 1937—Basic Averages (Continued)

Score 84 to 88%—Very Fair

	Sed. Test	P. Count	B. Fat	T. Solids
49. Raw	1-	20.000	3.5	12.0
50. Pasteurized	1	25.000	3.7	12.2
51. Raw	1-	10.000	3.4	12.0
52. Raw	1-	15.000	3.5	12.0
53. Raw	1.3	15.000	3.6	12.2
54. Raw	1-	15.000	3.6	12.1
55. Raw	1-	15.000	3.6	11.9
56. Raw	1	15.000	3.2	11.8
57. Raw	1	15.000	3.3	11.8
58. Raw	1-	20.000	3.4	12.0
59. Raw	1-	25.000	3.4	12.0
60. Raw	1-	25.000	4.1	13.0
61. Raw	1-	20.000	3.7	12.5
62. Raw	1.3	15.000	3.6	12.0
63. Raw	1-	35.000	4.4	13.4
64. Raw	1-	25.000	3.4	12.0
65. Raw	1-	20.000	3.4	12.0
66. Raw	1-	25.000	4.0	13.0
67. Raw	1.5	30.000	3.8	12.7
68. Raw	1.3	35.000	4.2	13.2
69. Raw	1.5	20.000	3.8	12.5
70. Raw	1.5	20.000	3.4	12.0
71. Raw	1-	30.000	3.5	12.0
72. Raw	1-	35.000	3.5	12.0

Milk Grading, 1937—Basic Averages (Continued)

Score 80 to 84%—Only Fair

	Sed. Test	P. Count	B. Fat	T. Solids
73. Raw	1-	20.000	3.7	12.3
74. Raw	1.5	25.000	3.5	12.0
75. Raw	1.5	25.000	3.6	12.4
76. Raw	1.5	20.000	3.5	12.0
77. Raw	1.3	30.000	3.6	12.2
78. Raw	1.5	20.000	3.8	12.5
79. Raw	1.5	20.000	3.5	12.25
80. Raw	1.5	15.000	3.5	12.25
81. Raw	1.5	12.500	3.6	12.2
82. Raw	1-	30.000	3.3	12.0
83. Raw	1-	30.000	3.4	12.0
84. Raw	1-	20.000	3.3	11.8
85. Raw	1-	25.000	3.5	12.0
86. Raw	1.5	25.000	3.8	12.7
87. Raw	1.5	35.000	3.8	12.7
88. Raw	1.5	25.000	3.6	12.2
89. Raw	1-	40.000	3.4	12.0
90. Raw	1.5	35.000	3.6	12.4
91. Raw	1.5	20.000	3.7	12.3
92. Raw	1.5	40.000	3.7	12.3
93. Raw	1.5	25.000	3.5	12.0
94. Crude	1.3	40.000	3.5	12.0
95. Raw	1.5	12.500	3.5	12.0
96. Raw	1.5	25.000	3.7	12.3

Milk Grading, 1937—Basic Averages (Continued)

Score under 80%—Poor

	Sed. Test	P. Count	B. Fat	T. Solids
97. Raw	1.5	35.000	3.5	12.0
98. Raw	1.5	50.000	4.0	12.5
99. Raw	1.5	35.000	3.6	12.2
100. Raw	1.5	15.000	3.4	11.7
101. Raw	1.5	35.000	3.5	12.0
102. Crude	1.4	35.000	3.4	12.0
103. Raw	1-	35.000	3.2	11.8
104. Raw	1.5	25.000	3.5	12.0
105. Crude	1.5	40.000	3.6	12.4
106. Raw	1.5	30.000	3.4	12.0
107. Crude	1.3	60.000	3.5	12.0
108. Raw	1.5	25.000	3.4	11.8
109. Raw	1.5	15.000	3.25	11.5
110. Raw	1.5	75.000	4.2	13.3
111. Crude	1.5	50.000	3.5	12.0
112. Raw	1.5	35.000	3.5	12.0
113. Raw	1.5	50.000	3.5	12.5
114. Raw	1.5	50.000	3.6	12.0
115. Crude	1.7	50.000	3.5	12.0
116. Crude	1.6	60.000	3.4	12.0
117. Raw	2	35.000	3.9	12.5
118. Raw	2	50.000	---	---
119. Crude	2	45.000	3.5	12.0
120. Crude	2	50.000	3.5	12.0

Report of the Chief Food Inspector

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

Dear Sir:

I have the honour to submit herewith a report on the activities of the Food Inspection Division for the year 1937 together with comments on some phases of the work.

Premises under inspection now total two thousand, one hundred and forty-seven, making an increase of fifteen for the year.

The number of complaints registered in office numbered five hundred and twenty-eight, this is ninety-two less than in year 1936. Twelve of aforesaid complaints were made regarding alleged food poisoning, in all cases of such complaints residue or left over portions were procured and submitted to the City Chemist and City Bacteriologist. Out of the twelve samples submitted to the City Bacteriologist, three showed gas forming organisms. Dr. M. R. Elliott, Acting City Bacteriologist, reported staphylococcus aureus and albus present under microscope in two of the three samples. There is no longer doubt in the minds of prominent investigators that some strains of staphylococcus do cause food poisoning. Staphylococcus organisms have been recovered from milk that was obtained from cows suering from mastitis. Although methods are available for testing the gastroenterotoxic properties of staphylococcus, it is generally agreed by research workers that food poisoning strains cannot be differentiated with certainty from other types of staphylococci. For this reason, preliminary diagnosis of staphylococcus food poisoning depends upon finding this organism in increased numbers in suspected food or vomitus. The samples submitted to Mr. A. Blackie, City Chemist, for analysis were reported free from suspicion.

Calls by phone to inspect premises for victualling to be carried on therein or for a transfer of license for such business totalled 58.7% of all calls to inspect.

There were seventy-eight complaints regarding unsound food, twenty-two of these were brought to the office for examination. There were thirty-three seizures resulting from above complaints and in fifteen instances adjustment or refund of money was obtained.

There were twenty-six complaints laid that plumbing was defective and out of order or water cut off for non-payment. Bad odours, smoke, nuisance, accounted for nine additional, while unnecessary noise was responsible for three more. Inspection for manufacturing and other businesses made a total of twenty-one, while calls to inspect regarding alterations and conversions of part of premises into living quarters totalled fourteen. Dirty and vermin infested premises complained of, aggregated fifteen, these together with complaints regarding contravention of Zoning By-law, North End Market, exposing foodstuffs on sidewalks and in open doorways of stores, sleeping in premises where food was held for sale, ventilation of stores and cafes, leaking roofs, chipped and cracked dishes being used in restaurants, slaughtering of animals in other than a properly equipped and licensed abattoir, serving unsound food in cafe, make up

some of the remainder of complaints attended to by your inspectors with a view to rectifying such.

Abattoirs—These establishments number three, are well conducted and kept as clean as it is possible to keep them bearing in mind the nature of the business being conducted therein. One complaint was received regarding lack of ventilation on the killing floor of one of these premises. The management was notified and alterations are in order to obviate this condition. We have not as yet observed in any of these abattoirs in their cold storage rooms any indication of the new method of tenderizing meats, namely by means of the ultra-violet ray lamp known as the sterilamp. It is claimed by the Westinghouse Lamp Co. that such lamps diffusing their rays throughout the storage chambers will kill all growths of molds or bacteria. Storage chamber temperatures can be increased sufficiently to tenderize meat in from four to six days instead of the usual four to six weeks. The thought arises what action (if any) the irradiation of such meat will have on the vitamin D content.

Bakeries—The number of such premises listed shows a decrease since the previous report, four having closed and no new ones opening up. 33% of such businesses had their premises renovated or remodelled, Foodstuffs, flour, fruit, shortening, eggs, etc., are all examined by your inspectors when visiting these premises on their periodic visits to make sure no deleterious material may be used in bread making.

Bottling Plants—There are now eighteen persons or firms in this class of business but not all in the carbonated beverage line. As in former years, samples of these beverages totalling one hundred and forty-six were taken and submitted to Dr. M. S. Lougheed, City Bacteriologist, for test, and any samples that showed a larger proportion of gas forming organisms than the tolerance allowed for potable water was re-checked, management interviewed, usually with the result that with care in pre-cooling the water and syrup and careful handling and washing of bottles, their product could be brought down below the tolerance. Three new premises were opened, one was remodelled and six renovated.

Butcher Shops—Two hundred and eight premises are listed as selling fresh meats, this is a decrease of five from last year. Seven new premises opened for this class of business, ten others had their premises remodelled and one hundred and five renovated their stores. Very few butchers doing business cling to the ice box as a refrigerator medium. The majority have either installed electric refrigeration counters or air conditioned storage and they are fully aware that anything in the way of carelessness in handling their product to give rise to even a suspicion of food poisoning would reflect to the detriment of the trade as a whole.

Condemnations—During the past twelve months your inspectors were responsible for the seizure and condemnation of four thousand, nine hundred and nineteen and three-quarter pounds of various foodstuffs. Veal headed the list, poultry was the next highest item with canned goods in third place. Additional to that condemned by your Inspectors there was a considerable quantity sent to the incinerator either voluntary or at the suggestion of the Inspectors. In this category pickles take the lead with a total of 43,230 lbs.; fruit totalling 38,240 lbs.; fish, 17,350 lbs., canned goods, 8,350 lbs.; candies, 4,740 lbs.; vegetables, 4,900 lbs.; cheese, 3,300 lbs. and eggs, 1,900 lbs., making a total of 122,140 lbs. If there were some way of converting this waste food into a suitable fertilizer so that the chemicals removed from the soil by the growth of part of this food could be returned to it for future plant life the loss to the citizens as a whole would not be so glaring.

Confectioners — There are one hundred and eighty-seven premises listed under this class of business. Several samples of ice cream were analyzed by the City Chemist and found to be well above the standard for butter fat content. But there is another phase of this business it might be well to discuss here, namely, the bacterial count that should be allowed as a tolerance in ice cream, also the counter ice cream freezer. These machines are on the increase thereby taking the business out of the hands of those established firms where a semblance of control could be exercised. What conditions should be fulfilled to have an efficient control, from a health point of view. There are two factors which must be taken cognizance of; first, the assurance of efficient and complete pasteurization of ice cream mix as a public health safeguard; second, the subsequent safeguarding of ice cream mix, once pasteurized, until frozen. There is a possibility that pasteurization of the mix may be, and frequently is nullified through rehandling of the product. These conditions could best be obviated by an amendment to the Public Health Act regulations which would make it compulsory to have a direct flow of ice cream mix from the pasteurizer to the freezer, and that no ice cream should have a higher bacterial count than that allowed in certified milk.

Fruit and Vegetables—Apart from the quantity sent voluntarily by the fruit wholesale houses to be destroyed, your Inspectors seldom have to condemn any large consignments, but all such imported fruit and vegetables are closely inspected for spray residue. A case developed and was brought to our attention, where some imported celery was fed to a parrot, the parrot almost immediately died. Samples were obtained and the City Chemist reported a trace of arsenic, but this was well within the tolerance set by the country from which the celery was imported.

Grocery Stores—There are now listed six hundred and two carrying on this class of business, the increase here is accounted for in that eighteen have been transferred from the General Store list and are now classified as Grocery only; this leaves fifty-six that are classified as General Stores. Seven new buildings were opened as grocery stores during the year. Eighteen were remodelled and one hundred and ninety-eight were renovated; two had new plumbing installed. A large number had new frigidaire counters installed, principally to take care of fresh and cooked meats and milk. Thirteen such places closed during the year.

Hawkers—A considerable increase in the number of permits issued for this class of business has to be reported. This would indicate that business conditions had improved somewhat and that citizens were patronizing this class of merchant more liberally. No complaints were made regarding any produce sold by these vendors of merchandise, but one was laid that two of these Meat Canvassers were buying up day old calves and slaughtering same in the country, at the farms, and bringing the carcasses into the City for sale to butcher trade. As previously pointed out, it is practically impossible to stamp out this business and very little can be done to even check it unless with a large increase in staff to cover all roads leading into City.

Ice—Numerous inspections were carried out in regard to ice not only in the City but also at the ice fields where harvesting was in progress. It might be thought that with the advance in electric refrigeration the sale of natural ice would be on the decline. The advent of the Cash and Carry system in this business had checked such decline and it might be argued that as much, if not more, ice is sold today as was sold before electric refrigeration came into vogue; the reason being, cash and carry has brought ice within the reach of householders who could not afford to

pay for delivery service. There are at present close to twenty cash and carry depots located throughout the City.

New regulations under the Public Health Act governing this class of business were approved and passed by the Provincial Board of Health on December 8th, 1937.

Markets—There were three public markets in operation during the season; one, located between Stella and Flora Avenues, fronting on Main Street, is kept open practically all year; one at Colony Street between Portage and Ellice Avenues; and the other on Portage Avenue, corner of McGee. This last market was allowed to open on the understanding that lavatory accommodation would be installed to the Market proper. Business did not materialize to any great extent and the permit holder withdrew before September 1st; thereafter stallholders paid their dues to the owner of land and no lavatory accommodation was provided, other than that on adjacent lot. Stallholders carried on until freeze-up.

Prosecutions—There were no prosecutions during the year. Several very flagrant breaches of the Public Health Act regulations were noted and notices served, particularly in regard to exposure of foodstuff on sidewalks and in open doorways of stores. Notices or warnings are of no avail in these instances. Court proceedings appear to be the only thing understood by some nationalities.

Restaurants—There were five hundred and thirty-one licenses issued during the year 1937 to do victualling. Looking back on records kept by the Department for 1927, or just ten years ago, there were four hundred and ninety-seven licenses issued that year. If these were to be taken on a population basis, it means that in 1927 there was one license to do victualling for every 401 of population and in 1937 one victualling license for every 415. To put it another way, victualling licenses have only increased 8.05% during the past ten years while the population has increased 12.1%.

There were three hundred and seven calls to inspect premises for this business during the year. These inspections are all additional to the periodic inspections carried out by your Inspectors. There appears to be a lot of unrest or dissatisfaction amongst some people in this business judging by the number of inspections carried out with a view to granting permit for transfer of license or for new premises. There were thirty-four such premises where additional water closet accommodation was provided, a larger number of these were in premises opening up for this class of business. We finished the year with five less premises listed as restaurants than in 1936. Only eighteen of above premises are classified as "Grade A," six certificates having been withdrawn during the year owing to the management being unable to do certain work so as to make their premises comply and reach the minimum number of points. It is astonishing what a good paint job will do to improve the appearance of even the cleanest of restaurants. Cleanliness should be the watchword of everyone engaged in the restaurant business but more so, those who hold a certificate of "Grade A" standing. Clean floors, clean tables or counters, clean linen, clean crockery and clean sparkling glassware that has been thoroughly washed and sterilized should be their endeavor. Sterilization of glassware in restaurants is a problem but relief is in sight with few breakages, etc. It is claimed that an ultra-violet lamp, the sterilamp, will, if used, sterilize glasses at the rate of twenty-four per minute when passed under the rays from above lamp. One complaint was received that food served in a restaurant had caused sickness. It is surprising that such complaints are not more numerous when it is remembered that prepared foods unless

kept at a temperature below 50° F. will not inhibit the growth of *Clostridium Botulinum* and the formation of toxin; and for protection against the *Salmonella* group of micro-organisms, a temperature of 39° F. must be maintained. In the food poisoning literature relating to meat is a report by Kelly and Dack, 1936, that for food-poisoning strains of staphylococcus, broth, bread, and ham served as a favorable media for the production of an enterotoxic substance. Another potential danger point to the public who depend on the restaurateur for sustenance is the use of fresh frozen food. The use of such foodstuffs is very much on the increase and unless those handling such frozen foods are aware that freezing storage of food does not bring about sterilization there is always a latent bacterial hazard. The only way to avoid possible development of dangerously high microbial content or contamination with harmful organisms in handling or storage of frozen food is to have it cooked or eaten immediately upon thawing or defrosting, otherwise the micro-organisms that are ever present will grow and multiply enormously in a few hours. Types persisting after storage treatment for months are usually soil types of bacteria, yeasts and molds.

Dining Halls—Maintained by the Federal Government for unemployed and transient men were also given periodic inspection in company with Inspector Pickering. Foodstuffs in stock were examined as to soundness and wholesomeness and invariably found to be fair quality and good and wholesome. One Dining Hall was closed during the year, leaving only one operating at present. These premises are kept clean. The menu is varied from day to day and those under the care of physician are given special dishes according to the doctor's instructions.

Sausage Manufacturers—The same number are operating in this business as last year. Practically all those engaged in this business try to carry out the regulations not only of the Manitoba Public Health Act but also the Food and Drugs Act regulations regarding cereal, moisture and sulphide content of their product. It must be remembered that the adulteration of meat products is easiest with sausage. In recent years the addition of proteins other than meat proteins makes it very difficult to detect such practice. Owing to convenience and sales efforts by manufacturers, soy bean flour and skim milk seem to have predominated in this field. A report by Kerr, 1936, describes in detail procedures for detecting these substances and also the limitations of the methods.

Zoning—We had to deal with several applications to start home industries in zoned areas, most of these were referred to the Zoning Committee for a decision. The case held in abeyance from 1936 was brought to a satisfactory solution by the party finding a suitable location for his business outside a zoned area where he is now established.

In conclusion, may I be permitted to thank Dr. M. R. Elliott, Acting City Bacteriologist, and Dr. M. S. Lougheed, City Bacteriologist, and Mr. A. Blackie, City Chemist, for all their willing co-operation at all times in the many questions regarding food that is brought to our attention; also to my colleagues, Messrs. Mines and Williams, for their active help in our many duties.

Respectfully submitted,

R. McQUILLAN,

Chief Food Inspector.

Comfort Stations Division

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

Dear Sir:

The eight Comfort Stations, in five buildings, operated by the City continued during the year under the supervision of this Department. The expenditures on this service in 1937 were as follows:

(a) Personal Services	\$18,113.53
(c) Material, Supplies and Repairs	976.03
(e) Fuel, Water, Light and Power	2,895.94
(h) Auto Expense	180.00
(i) Interest and Sinking Fund (Uncontr.)	3,738.07

Gross expenditures	\$25,903.57
Revenue collected	181.45

Net expenditures	\$25,722.12
Net Cost per Capita	11.5c.

Respectfully submitted,

A. G. LAWRENCE,

Secretary.

Bureau of Child Hygiene

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

Dear Sir:

I have the honor to submit my nineteenth annual report covering the work of the Bureau of Child Hygiene during the year 1937.

Infant Mortality—For the second year in succession, the infant deaths showed an increase in number both for crude and corrected figures, the corrected rate being 47.0 per 1,000 live birth as compared with 43.1 for 1936 and 41.9 for 1935. The corrected rate is based on live births and infant deaths to Winnipeg mothers and includes those attending St. Boniface Hospital. The crude rate, based on live births and infant deaths as registered in Winnipeg, was 46.4 for 1937, as compared with 44.4 for 1936 and 43.0 for 1935.

The following table shows the causes of death for 1937 and 1936, corrected figures:

	Corrected Totals			
	1937		1936	
	Deaths	Rate	Deaths	Rate
Diseases of Early Infancy and				
Malformations	76	27.5	75	27.6
Diseases of Digestive System	8	2.9	13	4.8
Diseases of Respiratory System	18	6.5	15	5.5
All other Diseases	28	10.1	14	5.2
	—	—	—	—
	130	47.0	117	43.1

The 1937 mortality rate for diseases of the digestive system, 2.9 deaths per 1,000 live births, is the second lowest recorded and the mortality rate from diseases of early infancy, 27.5, is also one of our lowest rates. The increased rate is due to 14 more deaths under the classification "All other Diseases," the increase being principally made up of four more deaths from acute communicable diseases, three from other forms of tuberculosis, and two from syphilis.

The classification of ages of infants at death shows a slight decrease in the number of infants dying within seven days of birth, 67 of the 130 Winnipeg decedents coming within this classification as compared with 70 out of 117 in 1936. However, there were 15 deaths in the period over 1 week to 1 month in 1937 as compared with 4 the previous year.

Infant Mortality According to Sections of the City

The infant death rate ranged from 1.9 to 7.6 per 100 live births in the various sections of the City, the highest rate occurring in a section largely populated by foreign-born citizens rather than in a boarding-house area as in 1936. The figures for each section are as follows:

Nursing Section	Live Births	Infant Deaths	Death Rate per 100 Births
A Fort Rouge, west of Pembina	216	5	2.3
B Fort Rouge, east of Pembina	145	5	3.4
C Red River to Spence Street	312	21	6.7
C1 Young to Sherbrook, south of Ellice	78	4	5.1
C2 Young to Sherbrook, north of Ellice	72	3	4.2
D Assiniboine River to Ellice Ave.	308	6	1.9
E Ellice Ave. to Notre Dame Ave.	238	11	4.6
F Notre Dame to C.P.R. Tracks, west of Sherbrook	212	13	6.1
G Notre Dame to C.P.R. Tracks, east of Sherbrook	232	14	6.0
H Tracks to Manitoba Ave., east of Nos. 500....	223	17	7.6
J Tracks to Manitoba Ave., west of Nos. 500....	189	7	3.7
K Magnus Ave. to North Limits, west of Nos. 500	193	6	3.1
L Magnus Ave. to North Limits, east of Nos. 500	206	13	6.3
M Elmwood	142	5	3.5
City Residents, corrected figures	2,766	130	4.7
Non-Residents (excluded above)	1,273	52	4.1
St. Boniface Registrations (included)	353	11	3.1

Housing Status of Family

	Families in Rooms		Families in Self Contained 2-room Suites or Houses	Families in 3 Rooms or over		Total Known Conditions	Unknown	Total	Percentage of Known Families in 1 or 2 Rooms
	1	2		Sharing House	Self Contained House or Suite				
A	---	14	7	15	172	208	8	216	10%
B	2	21	1	2	102	128	17	145	19%
C	89	80	15	17	71	272	40	312	68%
C1	23	12	---	2	30	67	11	78	52%
C2	9	16	7	24	14	70	2	72	46%
D	17	49	4	10	204	284	24	308	24%
E	8	38	12	35	116	209	29	238	28%
F	10	34	2	56	90	192	20	212	24%
G	29	79	16	14	68	206	26	232	60%
H	15	77	6	69	37	204	19	223	48%
J	3	54	41	31	59	188	1	189	52%
K	5	13	---	38	132	188	5	193	9%
L	5	14	5	61	115	200	6	206	12%
M	1	13	2	17	103	136	6	142	12%
Total	216	514	118	391	1,313	2,552	214	2,766	29%

It is interesting to compare the infant mortality rates of the various sections with the percentages of families living in 1 or 2 rooms. Generally speaking, a high infant mortality rate goes with a high percentage of families living in 1 or 2 rooms, and a low rate with a low percentage. A notable exception is section L where the number of families occupying 1 or 2 rooms is only 12%, but the infant death rate is 6.3 per 100 live births. This high rate is due to the fact that of the 13 infant deaths, 11 were of babies less than 2 weeks old.

The 214 unknown births consist of illegitimate births and births not visited either because the infant died in hospital or could not be located.

Stillbirths and Infant Deaths, 1 to 14 Days, In Hospital

Hospitals	Live Births	Still-births	Rate per 1,000 Live Births		
			Infant Deaths 1-14 days	Still-births	Infants 1-14 days
General	912	24	16	26	17
Misericordia	841	30	24	36	27
Grace	710	16	11	22	15
St. Joseph's	512	16	9	31	17
Victoria	331	10	15	30	45
Concordia	159	1	8	6	50
Children's	—	—	2	—	—
King George	1	—	—	—	—
St. Boniface*	353	11	5	31	14
<hr/>					
All Hospitals	3,819	108	90	28	23
Private Homes	220	5	12	23	54
<hr/>					
Total Births**	4,039	113	102	28	25
Non-Residents	1,273	28	29	21	22
<hr/>					
Winnipeg Residents— Corrected Totals...	2,766	85	73	31	26

*Winnipeg Residents only.

**Including St. Boniface registrations of Winnipeg residents.

The above figures show that of the 2,766 live births to Winnipeg mothers, 2,546, or 92.0%, occurred in hospitals; in 1930, the percentage was 82.5; in 1926, 70.9%; in 1917, 36.3%, and in 1912, 31.5%.

Twelve obstetricians attended 1,060 out of the 2,760 live births to Winnipeg mothers, the remaining 1,700 being attended by over 200 physicians. In the first group, 17 deaths of babies under 2 weeks of age occurred amongst Winnipeg births, giving a rate of 16.0 per 1,000 live births; in the second group, 56 deaths of babies under 2 weeks of age occurred, giving a rate of 32.9 per 1,000 live births.

In 1937, 6 live births were attended by midwives; in 1930, 83; and in 1918, stillbirths included, 1,159.

Stillbirths—The year 1936 gave us the record breaking corrected still-birth rate of 23.2 per 1,000 live births, but 1937 gave us a rate of 31.0, which is somewhat under the normal. There were 85 stillbirths to City residents in 1937, as compared with 63 the previous year. The corrected combined infant death rate and stillbirth rate shows a considerable increase over the 1936 rate as both the infant mortality rate and the still-

birth rate are higher individually. The figures are 77.7 per 1,000 total births for 1937 and 66.3 for 1936.

Puerperal Mortality—The puerperal death rate for Winnipeg mothers again showed an increase, the rate being 5.8 per 1,000 live births as compared with 5.5 for 1936 and 3.5 for 1935. The deaths are classified as follows:

	1937	1936	1935
Puerperal septicemia (145a)	2	4	2
Abortion (140-141)	7	2	4
Other puerperal causes	7	9	4
Total puerperal deaths	16	15	10
Winnipeg live births	2,766	2,714	2,862
Rate per 1,000 live births	5.8	5.5	3.5

Visiting Nurses — The Child Hygiene nursing staff remained at 13, twelve visiting babies in their homes and one attending the Sick Baby Clinic in the Milk Depot.

The number of calls made to babies' homes totalled 30,974 and visits to infants' boarding homes, 20. New cases visited by the nurses numbered 2,121; sick calls totalled 633; cases referred to private physicians, 649; and cases referred to the Milk Depot Clinic, 274. These totals are much the same as those for the previous year, the number of sick calls for nurses being again below the average for the years prior to the City's paying for medical relief for the unemployed.

Of the 2,322 new births visited by the nurses, 662 were births to unemployed families and 86 to part-time employees and pensioners. In 1936, the figures were 2,289, 691 and 71.

The Child Hygiene nurses compiled a list of 1,222 names of children whose parents desired them to receive protection against diphtheria. Particulars of this campaign are given in Mr. W. T. Watt's report for the Communicable Diseases Division.

Ten Well Baby Centres and the Milk Depot continued to operate, there being no change in the stations. The attendance totalled 15,895, distributed as follows:

Section	Station	1937		
		Afternoons	Attendance	Average
A	Crescent United Church	50	969	19
C	Holy Trinity Church	50	1,336	26
D	Home Street United Church	47	1,501	32
E	Maryland United Church	51	3,323	65
F	Macleau United Church	50	869	17
F	Weston Salvation Army Home	24	526	21
G	St. Andrew's Church	50	1,903	38
H	All People's Mission	49	1,140	23
J	Robertson House	48	2,296	48
L	Milk Depot	50	511	10
M	St. Paul's Lutheran Church	50	1,521	30
Totals and Average		519	15,895	31

Sick Baby Clinic—Sick babies attending the Milk Depot Clinic numbered 447, nearly all being infants of unemployed families. Last year sick cases numbered 454. The attendance totalled 5,736, ranging from 312 in January to 568 in August. In 1936 the attendance was 5,651. This Clinic is for feeding cases only, Drs. R. F. Rorke and F. G. Schwalm being the attending part-time physicians.

Milk Dispensary—Number of feedings prepared at the Milk Depot totalled 23,983, these being prepared on physicians' prescriptions and delivered to sub-stations for ailing infants, it being cheaper to provide such feedings than to send the patient to hospital. The majority of feedings were for infants of unemployed families but \$267.35 were collected from parents in a position to pay from 10c to 25c a day for the feedings. In 1936, 25,250 feedings were prepared and \$280.55 collected. Feedings totalling 728 were also prepared for the Children's Hospital, for which \$114.30 were paid.

As in the past the nursing, dispensary and recording staffs have loyally and conscientiously carried out their duties and I wish to place on record my appreciation of their efficient service.

Respectfully submitted,

A. G. LAWRENCE,

Manager, Bureau of Child Hygiene.

Statistician's Report

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

Dear Sir:

I have the honour to submit herewith my twenty-fifth report on Vital Statistics, covering the year 1937. Through the courtesy of the Winnipeg Registrar, Mr. G. F. Bentley, City Clerk, we have received copies of the birth and death registrations filed in his department, and through the courtesy of the St. Boniface Registrar, Mr. E. A. Poulain, City Clerk and Treasurer, we have been permitted to make copies of the birth and death registrations of Winnipeg residents who were born or died in St. Boniface Hospital.

In calculating the corrected totals and rates, the aim has been to show, as accurately as possible, the benefits our citizens derive from the many health services available in the City, and, on the other hand, to indicate the hazards they are subject to through certain disadvantages inseparable from city life.

The following rules have therefore been observed:

- Included**—
- (1) Residents dying in the City, except (a) those who contracted an acute communicable disease at an outside point, or (b) those injured in an accident outside the city limits.
 - (2) Residents, with the above two exceptions, dying in hospitals in the adjoining City of St. Boniface.
 - (3) Infants born of Winnipeg mothers in St. Boniface Hospital.
 - (4) Tubercular Winnipeg residents dying in the Sanatoria at Ninette and St. Vital.
 - (5) Non-residents killed in the City by accident.
 - (6) Non-resident decedents contracting an acute communicable disease in the City.
 - (7) Members of staffs of City institutions dying in the City.
 - (8) Residents committing suicide in adjoining municipalities.
 - (9) Winnipeg residents dying within three months of their entering the St. Boniface Old Folk's Home.
 - (10) Decedents whose residence is unknown.

- Excluded**—(11) Non-residents dying in the City, with the exceptions mentioned in Nos. 5 and 6.
- (12) Residents dying in the City from accidents sustained beyond the City limits.
- (13) Residents dying of an acute communicable disease contracted at an outside point.
- (14) Residents dying at outside points other than those mentioned, whose death certificates are not received by this Department.

Respectfully submitted,

A. G. LAWRENCE,

Secretary.

Infant Mortality, 1912-37

	CORRECTED			CRUDE		
	Live Births	Infant Deaths	Rate per 1,000 Births	Live Births	Infant Deaths	Rate per 1,000 Births
1937	2,766	130	47.0	3,686	171	46.4
1936	2,714	117	43.0	3,599	160	44.4
1935	2,862	120	41.9	3,791	163	43.0
1934	2,935	134	45.6	3,749	174	46.4
1933	3,032	134	44.2	3,810	173	45.4
1932	3,335	146	43.8	4,106	184	44.8
1930	3,627	210	57.9	4,645	269	57.9
1925	3,781	252	66.6	4,632	315	68.0
1920 .....	.....	.....	.....	6,174	625	101.2
1915 .....	.....	.....	.....	5,823	619	106.3
1912 .....	.....	.....	.....	4,870	1,006	206.6

TYPHOID FEVER MORTALITY RATES PER 100,000 POPULATION, 1904-1937

Year	1904	1914	1915	1916	1917	1918	1919	1920	1921	1922	1923	1924	1925	1926	1927	1928	1929	1930	1931	1932	1933	1934	1935	1936	1937
248.3	7.9	3.5	9.5	8.2	7.6	10.3	5.7	5.1	1.5	2.5	3.1	3.1	4.0	3.0	1.0	2.4	.0	1.4	.9	1.8	.9	1.8	.4	1.8	.4
Corr. Rate City	7.5	6.0	6.5	7.4	.0	.0	.0	.0	1.0	1.0	1.5	.0	.5	.5	1.9	.5	.9	1.3	.4	.0	.4	.0	.4	.0	.4

CRUDE MORTALITY RATES PER 100,000 POPULATION FOR LEADING CAUSES OF DEATH, 1919-1937

Year	Population	Tuberculosis of Lungs (23)	Tuberculosis, other forms (24-32)	Cancer (all forms) (45-53)	Meningitis (79)	Cerebral Hemorrhage (82a)	Diseases of the Heart (90-95)	Acute and Chronic Bronchitis (106)	Pneumonia, all forms (107-109)	Appendicitis and Typhlitis (121)	Hernia, Intestinal Obstruction (122)	Acute and Chronic Nephritis (130-131)	Puerperal Deaths (140-150)	External Causes (163-214)
1937	223,103	22.8	12.1	144.3	2.7	71.3	204.4	4.9	52.4	10.3	10.7	18.8	9.9	54.7
1936	224,533	28.5	7.6	156.0	4.0	50.8	184.4	2.7	57.9	14.7	13.4	28.5	8.9	73.9
1935	223,017	27.8	9.4	148.0	2.2	55.2	167.7	2.2	48.0	12.5	15.7	24.2	7.6	52.9
1934	221,242	33.9	5.0	125.2	2.2	44.8	152.8	5.0	50.2	14.0	14.0	27.6	7.7	50.2
1933	218,545	27.4	4.6	136.3	4.6	49.9	152.4	4.6	44.8	17.8	12.8	25.2	5.9	52.6
1932	215,768	28.3	8.3	129.7	4.6	51.9	149.7	4.6	49.1	11.6	8.3	32.0	11.6	59.8
1931	212,815	39.0	10.8	128.3	1.9	51.2	110.9	7.5	48.4	16.4	15.0	27.7	10.3	55.4
1930	209,286	46.3	16.2	113.2	6.7	52.6	122.8	3.3	54.0	17.7	11.5	33.9	10.0	59.2
1929	205,083	40.5	16.1	120.9	4.9	55.1	117.5	4.9	71.7	9.3	12.7	38.0	13.6	64.8
1928	202,377	36.1	20.3	105.2	6.4	48.9	129.0	5.9	62.3	15.8	15.8	34.1	11.4	65.2
1927	198,932	37.2	9.5	102.5	5.0	38.1	112.6	5.5	75.5	16.1	11.1	30.7	12.6	57.8
1926	197,125	44.6	14.2	100.4	7.6	39.1	105.5	4.0	70.5	15.7	12.2	32.5	12.7	62.9
1925	195,148	41.5	11.8	95.3	7.2	41.5	84.0	7.2	68.1	20.0	9.2	33.8	12.8	57.9
1924	194,850	44.6	16.9	88.8	8.7	42.6	96.5	7.7	80.6	13.8	6.7	20.5	13.3	43.6
1923	199,300	48.2	16.0	82.3	6.0	28.6	87.8	5.5	77.3	9.5	9.5	28.6	13.0	52.2
1922	199,129	52.7	11.0	93.4	6.0	45.2	87.4	5.0	87.4	19.1	9.5	29.1	12.5	40.7
1921	196,947	50.8	26.4	87.3	8.1	32.0	91.9	4.6	84.8	14.2	4.6	18.3	10.7	46.7
1920	192,571	71.7	20.8	79.4	13.0	45.7	68.6	13.5	132.9	14.0	9.9	25.3	28.0	47.3
1919	183,378	72.0	24.5	73.1	10.9	30.5	72.0	18.0	105.2	17.4	13.6	33.3	15.3	57.2
1918	183,595	86.6	26.7	80.6	7.6	32.1	78.5	10.9	117.6	19.1	10.9	38.7	19.1	49.0

STILLBIRTHS, LIVEBIRTHS AND DEATHS, CRUDE AND CORRECTED FIGURES, BY MONTHS AND SEX, 1937

1937	STILLBIRTHS						LIVEBIRTHS						DEATHS					
	As REGISTERED			Non-Res. Dedc't'd	Res. Added	Cor-rected Totals	As REGISTERED			Non-Res. Dedc't'd	Res. Added	Cor-rected Totals	As REGISTERED			Non-Res. Dedc't'd	Res. Added	Cor-rected Totals
	M.	F.	T.				M.	F.	T.				M.	F.	T.			
				M.	F.	T.												
Jan.....	3	4	7	3	1	5	73	98	171	53	19	137	127	93	220	52	19	187
Feb.....	3	5	8	1	1	8	130	119	249	77	28	200	119	82	201	41	13	173
Mar.....	2	10	12	4	.....	8	169	169	338	101	33	270	88	75	163	41	16	138
April.....	5	5	10	3	.....	7	146	156	302	101	22	223	81	64	145	32	14	127
May.....	3	10	13	4	1	10	164	134	298	101	29	226	96	50	146	27	17	136
June.....	8	2	10	3	4	11	176	171	347	132	41	256	74	56	130	27	10	113
July.....	4	1	5	2	.....	3	175	138	333	98	27	262	80	48	128	38	11	101
Aug.....	4	4	8	3	.....	5	172	166	338	133	33	238	84	63	147	39	9	117
Sept.....	2	3	5	.....	1	6	176	181	357	138	35	254	92	69	161	29	18	150
Oct.....	6	2	8	1	1	8	153	167	320	130	26	216	93	75	168	39	12	141
Nov.....	5	2	7	1	.....	6	130	93	223	81	33	175	87	69	156	40	10	126
Dec.....	5	4	9	3	2	8	211	200	411	128	27	310	81	62	143	26	15	132
	50	52	102	28	11	85	1875	1811	3686	1273	353	2766	1102	806	1908	431	164	1641

Year	Population	STILLBIRTHS				LIVE BIRTHS				DEATHS			
		CRUDE		CORRECTED		CRUDE		CORRECTED		CRUDE		CORRECTED	
		Totals	*Rate	Totals	*Rate	Totals	†Rate	Totals	†Rate	Totals	†Rate	Totals	†Rate
1937	223,103	102	27.6	85	30.7	3,686	16.52	2,766	12.40	1,908	8.55	1,641	7.35
1936	224,533	97	26.9	63	23.2	3,599	15.53	2,714	12.08	2,039	9.08	1,746	7.77
1935	223,017	122	32.3	98	34.2	3,791	17.00	2,862	12.83	1,841	8.25	1,580	7.08
1934	221,242	140	37.3	114	38.8	3,749	16.94	2,935	13.27	1,683	7.61	1,473	6.66
1933	218,545	136	35.7	111	36.6	3,810	17.43	3,032	13.87	1,681	7.69	1,491	6.82

*Per 1,000 Live Births.

†Per 1,000 Population.

DEATHS BY MONTHS, SEX AND AGE PERIOD, 1937

	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		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.	M.	F.	
Totals, 1937.....	102	69	18	14	15	7	16	5	20	27	52	46	49	51	87	98	181	129	256	123	204	155	93	73	9	18	9	1,102	806
Crude Totals.....	171		32		22		21		47		98		100		185		310		379		359		166		18		18	1,908	
Non-Res. Deducted.....	52		13		9		11		24		31		37		47		67		74		47		18		1		1	431	
Residents Added.....	11		3		1		1		5		16		17		24		30		28		17		11		.....		.....	164	
Corrected Totals.....	130		22		14		11		28		83		80		162		273		333		329		159		17		17	1,641	
Crude, per cent.....	9.0		1.7		1.1		1.1		2.5		5.1		5.2		9.7		16.2		20.0		18.8		8.7		.9		.9	100%	
Corrected per cent.....	7.9		1.3		.8		.7		1.7		5.0		4.8		9.8		16.6		20.3		20.4		9.7		1.0		1.0	100%	

Nativity of Decedents, 1937

(Deaths as Registered)

	Deaths		Per Cent. of Total	
	1937	1936	1937	1936
Canada	881	940	46.2	46.2
British Isles	534	590	28.0	28.9
Europe (excluding British Isles)	411	422	21.5	20.7
United States	59	60	3.1	2.9
Asia	11	11	.6	.5
Other Countries	4	13	.2	.6
Unknown	8	3	.4	.2
	<u>1,908</u>	<u>2,039</u>	<u>100.0</u>	<u>100.0</u>

Attendant at Birth

(As Registered)

	1937		1936		1918*	
	Number	Per Cent.	Number	Per Cent.	Number	Per Cent.
Physicians	3,674	99.7%	3,587	99.7%	4,707	80.2%
Midwives	11	.3%	12	.3%	1,159	19.8%
Unattended	1					
Unknown						

*Includes Stillbirths.

Stillbirths According to Nationality of Mothers, 1937

	Rates per 1,000 Live Births			
	1937		1936	
	Stillbirths	Rate	Stillbirths	Rate
Canadian	60	16	56	15
British	16	43	16	44
Southern and Central European	21	57	19	54

Order of Live Births, 1937

(Corrected Figures)

	1937		1936	
	Number	Per Cent.	Number	Per Cent.
First Children	1,291	46.6%	1,187	43.7%
Second Children	700	25.3%	717	26.4%
Third Children	348	12.6%	368	13.6%
Fourth Children	160	5.8%	181	6.7%
Fifth to 18th Children	262	9.5%	261	9.6%
Unknown	5	.2%	.....	.....
Totals	<u>2,766</u>	<u>100.0%</u>	<u>2,714</u>	<u>100.0%</u>

Infant Mortality—Cause of Death—1937, 1936

(Number of Deaths, Corrected)

	1937	1936
Acute communicable diseases	8	4
Other general diseases	12	4
Of nervous system and of organs of special sense	6	3
Of respiratory system	18	14
Of digestive system	8	13
Malformations and diseases of early infancy	76	76
All other diseases	2	3
Totals	130	117

Rates Per 1,000 Live Birth, Corrected

	1937	1936
Acute communicable diseases	2.9	1.4
Other general diseases	4.3	1.4
Of nervous system and of organs of special sense	2.2	1.1
Of respiratory system	6.5	5.1
Of digestive system	2.9	4.8
Malformations and diseases of early infancy	27.5	28.2
All other diseases .....	.7	1.1
Totals	47.0	43.1

Per Cent. of Total, Corrected

	1937	1936
Acute communicable diseases	6.2	3.4
Other general diseases	9.2	3.4
Of nervous system and of organs of special sense	4.6	2.6
Of respiratory system	13.8	12.0
Of digestive system	6.2	11.1
Malformations and diseases of early infancy	58.5	64.9
All other diseases	1.5	2.6
Totals	100.0	100.0

Classification of Ages of Decedents Under One Year of Age— 1937

	CORRECTED			CRUDE		
	No. of Deaths	Rate per 1,000 Births	Per Cent. of Total	No. of Deaths	Rate per 1,000 Births	Per Cent. of Total
Minutes to 1 week	67	24.2	51.6	90	24.4	52.6
Over 1 to 2 weeks	6	2.2	4.6	7	1.9	4.1
Over 2 to 3 weeks	3	1.0	2.3	5	1.3	2.9
Over 3 weeks to 1 month	6	2.2	4.6	6	1.6	3.5
Minutes to 1 month	82	29.6	63.1	108	29.2	63.1
Over 1 to 2 months	7	2.5	5.4	10	2.7	5.9
Over 2 to 3 months	9	3.3	6.9	9	2.5	5.3
Minutes to 3 months	98	35.4	75.4	127	34.4	74.3
Over 3 to 6 months	17	6.1	13.1	16	4.4	9.4
Over 6 to 9 months	9	3.2	6.9	18	4.9	10.5
Over 9 and under 12 months	6	2.2	4.6	10	2.7	5.8
	130	47.0	100.0	171	46.4	100.0

Infant Mortality According to Nationality of Mothers—1937

	1937			1936		
	Live Births	Infant Deaths	Rate per 1,000 Births	Live Births	Infant Deaths	Rate per 1,000 Births
Canadian	2,469	116	47	2,276	106	45
English and Welsh	239	11	46	294	8	27
Irish	54	2	37	46	4	87
Scotch	120	4	33	144	6	42
American (U.S.A.)	120	6	50	114	6	53
Scandinavian	33	1	30	46	2	43
Southern and Central European	636	30	47	663	25	35
All others	15	1		16	3	

Infant Mortality Statistics

For further particulars regarding infantile mortality, see report of the Manager, Bureau of Child Hygiene, pages 61 to 66.

1937

CAUSE OF DEATH BY AGE AND SEX
CORRECTED FIGURES
(Non-Residents excluded; St. Boniface, Ninette and St. Boniface Sanitarium Registrations of Winnipeg Residents inc.)

CAUSE OF DEATH BY AGE AND SEX CORRECTED FIGURES (Non-Residents excluded; St. Boniface, Ninette and St. Boniface Sanitarium Registrations of Winnipeg Residents inc.)	SEX		AGE IN YEARS												Totals		
	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
			1	2	1	2	1	1	1	1	1	1	1	1		1	1
1. Typhoid Fever (1)	1	1															1
4. Measles (7)	3		2	1													3
5. Scarlet Fever (8)	2	1		2													3
6. Whooping Cough (9)	2	2															4
7. Diphtheria (10)	1	2															3
8. Influenza (11)	9	9	1														18
10. Tuberculosis of the respiratory system (23)	33	21					18	14	7	8	5	2					54
11. Other forms of tuberculosis (24, 25, 26, 30, 32)	16	5	3	3	1	1	5	1	2	4							21
12. Syphilis (34)	12	1	2						1	4	5						13
14. Other infectious and parasitic diseases (15, 16, 17, 18, 36, 39)	8	4	3	1	1	1	2	2			1	1	1				12
15. Cancer and other malignant tumors (45, 46, 47, 48, 49, 50, 51, 52, 53)	137	136			1		1	4	8	37	62	79	63	17	1		273
16. Tumors, nonmalignant, or of which the nature is not specified (54, 55)	4	5	1		1		1	1	1	3	1	1					9
18. Diabetes Mellitus (59)	6	6							1	3	6	2					12
19. Alcoholism (acute or chronic) (75)	3	1					1		2		1						4
20. Other general diseases and chronic poisonings (56, 63, 66, 67, 68, 69, 71, 72, 73, 76)	25	16	3			1	6	5	1	6	4	9	6				41
21. Progressive locomotor ataxia and general paralysis of the insane (80, 83)	5	1								4			1	1			6
22. Cerebral hemorrhage, cerebral embolism and thrombosis (82)	67	78	3				1	1	8	13	22	29	44	22	2		145

23. Other diseases of the nervous system and of the organs of special sense (78, 79, 81, 84, 85, 86, 87, 89)	22	4	3	2	1	2	3	1	5	5	3	1	26
24. Diseases of the heart (91, 92, 93, 94, 95)	261	169				2	8	11	34	78	118	118	430
25. Other diseases of the circulatory system (96, 97, 98, 99, 102)	28	16				1		1	4	7	8	19	44
26. Bronchitis (106)	9	1	1	1					1	1	3	1	10
27. Pneumonias (107, 108, 109)	55	47	16	6	1	1	2	1	8	15	13	20	102
28. Other diseases of the respiratory system (tuberculosis excepted) (105, 110, 111, 112, 113, 114)	13	14	1		1			3	4	2	2	7	27
29. Diarrhoea and enteritis (119, 120)	9	3	6	5					1				12
30. Appendicitis (121)	9	7			1	2	3	3	3	3		1	16
31. Diseases of the liver and biliary passages (124, 125, 126, 127)	14	8					1	1		8	6	6	22
32. Other diseases of the digestive system (115, 117, 118, 122, 123, 128, 129)	28	20	2		1	1	1	4	8	7	8	11	48
33. Nephritis (130, 131, 132)	24	17				1	1		4	7	10	10	41
34. Other diseases of the genitourinary system (133, 134, 135, 136, 137, 138, 139)	20	11				1	2	3	1	7	7	6	31
35. Puerperal Septicemia (140, 145)		5				1	3	1					5
36. Other diseases of pregnancy, childbirth, and the puerperal state (141, 142, 143, 144, 146, 148)		11					7	4					11
37. Diseases of the skin and cellular tissue, and of the bones and organs of locomotion (153, 154, 156)	3	2			1	1				1			5
38. Congenital debility and malformations, premature birth and other diseases of early infancy (157, 158, 159, 160, 161)	37	40	76		1						2	10	77
39. Senility (162)	9	5											14
40. Suicide (163, 164, 165, 166, 167, 168, 169, 170)	25	6				1	5	7	5	10	3		31
41. Homicide (173, 175)	1	1			1		1						2
42. Violent and accidental deaths (suicide and homicide excepted) (178, 179, 181, 183, 186, 188, 191, 193, 203, 205, 209, 210, 211, 212)	43	20	1	2	4	2	1	8	7	8	10	6	63
43. Cause of death not specified or ill-defined (200)	2		1							1			2
Corrected Totals	946	695	130	22	14	11	28	83	80	162	273	333	1641

1937

CAUSE OF DEATH BY AGE AND SEX
CRUDE FIGURES
(As Registered; Non-Residents included)

CAUSE OF DEATH BY AGE AND SEX CRUDE FIGURES (As Registered; Non-Residents included)	SEX		AGE IN YEARS												Totals		
	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
			1	2	1	2	1	2	3	4	1	2	3	4		1	2
1. Typhoid Fever (1)	1		1														1
4. Measles (7)	3		2	1													3
5. Scarlet Fever (8)	1	2			2				1								3
6. Whooping Cough (9)	4	1	5														5
7. Diphtheria (10)	2	2	1	2					1								4
8. Influenza (11)	13	11	2	2				2	1	2	6	6	2	1	2		24
10. Tuberculosis of the respiratory system (23)	33	18					3	14	10	7	9	6	2				51
11. Other forms of tuberculosis (24, 25, 26, 30, 32)	20	7	4	4	3	2	2	6	2	1	3						27
12. Syphilis (34)	11									2	4	4		1			11
14. Other infectious and parasitic diseases (15, 16, 17, 18, 36, 39, 44)	14	8	4	2	1	2	3	4	1	1	1	1	2				22
15. Cancer and other malignant tumors (45, 46, 47, 48, 49, 50, 51, 52, 53)	169	153			2	2	3	5	13	46	70	96	66	18	1		322
16. Tumors, nonmalignant, or of which the nature is not specified (54, 55)	4	8	1		1			1		5	2	1	1				12
18. Diabetes mellitus (59)	6	8					1	1		1	3	6	2				14
19. Alcoholism (acute or chronic) (75)	3	1					1			2		1					4
20. Other general diseases and chronic poisonings (56, 63, 66, 67, 68, 69, 70, 71, 72, 73, 76)	26	23	4			1	5	3	2	9	8	11	6				49
21. Progressive locomotor ataxia and general paralysis of the insane (80, 83)	4	1									3		1	1			5
22. Cerebral hemorrhage, cerebral embolism and thrombosis (82)	77	82	5				3	7	15	23	33	49	22	2			159

23. Other diseases of the nervous system and of the organs of special sense (78, 79, 81, 84, 85, 86, 87, 89)	31	10	4	3	1	2	5	6	5	4	6	3	2	58	5	41
24. Diseases of the heart (91, 92, 93, 94, 95)	271	185				1	4	8	13	32	88	127	120	58		456
25. Other diseases of the circulatory system (96, 97, 98, 99, 102)	28	19				1	1	2	1	3	7	8	20	5		47
26. Bronchitis (106)	10	1	1	1						1	1	3	1	2		11
27. Pneumonias (107, 108, 109)	60	57	18	8	2	1	1	2	3	7	19	12	24	19	1	117
28. Other diseases of the respiratory system (tuberculosis excepted) (104, 105, 110, 111, 112, 113, 114)	18	16	3	1		1		1	2	3	5	3	9	5	1	34
29. Diarrhoea and enteritis (119, 120)	15	5	10	6	1					1		1				20
30. Appendicitis (121)	13	10		1	3	2	2	4	3	3	4			1		23
31. Diseases of the liver and biliary passages (124, 125, 126, 127)	16	13	1					1	1	1	11	5	9			29
32. Other diseases of the digestive system (115, 116, 117, 118, 122, 123, 128, 129)	37	23	2			1	1	2	6	10	8	13	12	4	1	60
33. Nephritis (130, 131 132)	32	17					3	3		5	7	13	10	7	1	49
34. Other diseases of genitourinary system (133, 134, 135, 137, 139)	23	14						1	2	4	6	9	9	4		37
35. Puerperal Septicemia (140, 145)		8						1	5	1	1					8
36. Other diseases of pregnancy, childbirth, and the puerperal state (141, 142, 143, 144, 146, 147, 148, 150)		14						6	8							14
37. Diseases of the skin and cellular tissue, and of the bones and organs of locomotion (152, 153, 154, 156)	6	3			1	2	1	1			1	2	1			9
38. Congenital debility and malformations, premature birth and other diseases of early infancy (157, 158, 159, 160, 161)	54	47	100		1									2	10	2
39. Senility (162)	9	5														14
40. Suicide (163, 164, 165, 166, 167, 168, 169, 170)	27	6					1	5	8	6	10	3				33
41. Homicide (173, 175)	1	2				1		2								3
42. Violent and accidental deaths (suicide and homicide excepted) (178, 179, 181, 183, 184, 185, 186, 188, 191, 193, 203, 205, 206, 209, 210, 211, 212)	58	25	3	3	4	3	6	9	8	9	10	12	8	7	1	83
43. Cause of death not specified or ill-defined (200)	2	1	1								1		1			3
Crude Totals	1102	806	171	32	22	21	47	98	100	185	310	379	359	166	18	1908

DOMINION CENSUS—June 1, 1936
Abstract of tables relating to Winnipeg

Occupied Buildings

Population	215,814
Total buildings	34,664
Single	32,244
Apartments	1,479
Semi-detached	759
Row or terrace	182
Apartments and flats	1,479
1-2 Dwellings	611
3-6	381
7-10	115
11-14	99
15 & over	273

Dwellings and Households

Total dwellings	46,995
Occupied dwellings	45,782
Vacant dwellings	1,213
Single	588
Apartment	511
Semi-detached	54
Row or terrace	60
Total households	53,552
Persons in households	212,045
Families in households	51,093
Households with two or more families	2,509
Households reporting rooms	53,411
Number of rooms	249,646

**Households according to Tenure with
sub-tenants or lodgers**

Total households	53,552
Owner households	20,638
Without sub-tenants or lodgers	17,317
With sub-tenants	*1,509
With lodgers	1,812
Tenant households	32,672
First tenants without sub-tenants or lodgers	19,822
First tenants with sub-tenants	*2,679
First tenants with lodgers	2,401
Sub-tenants without lodgers	7,413
Sub-tenants with lodgers	357
Those not stated	242

**Households according to Tenure by
type of dwelling**

Total households	53,552
Owners, total	20,638
Single	20,187
Apartments	186
Semi-detached and row	262
Tenants, total	32,672
Single	18,295
Apartments	11,229
Semi-detached and row	3,143

*Includes households with both sub-tenants and lodgers. Hotels, institutions, tents, etc., excluded in all tables. All figures are subject to revision.

DOMINION CENSUS—June 1, 1936

Abstract of tables relating to population of Winnipeg

Population by Sex and Age

	Total	Male	Female
Under 5 years	12,969	6,631	6,338
5-9 years	15,108	7,702	7,406
10-14 "	18,193	9,156	9,037
15-19 "	20,548	9,650	10,898
20-24 "	24,405	10,331	14,074
25-29 "	20,564	9,017	11,547
30-34 "	15,984	7,649	8,335
35-39 "	14,876	7,146	7,730
40-44 "	14,885	7,227	7,658
45-49 "	15,693	8,214	7,479
50-54 "	14,377	7,864	6,513
55-59 "	10,524	5,939	4,585
60-64 "	6,923	3,821	3,102
65-69 "	4,559	2,433	2,126
70-74 "	3,176	1,533	1,643
75-79 "	1,804	863	941
80-84 "	803	351	452
85-89 "	294	150	144
90-94 "	61	23	38
95-99 "	9	4	5
100 and over	5	2	3
Not given	54	24	30
All ages	215,814	105,730	110,084

Conjugal Condition

	Total	Male	Female
Single	112,067	55,853	56,214
Married	92,972	46,808	46,164
Widowed	10,263	2,848	7,415
Divorced	502	215	287
Not specified	10	6	4
Totals	215,814	105,730	110,084

Birthplace

	Total
Canada, Manitoba	103,425
Other Canadian Provinces	29,942
England	22,628
Ireland	4,901
Scotland	12,701
Wales	714
Lesser British Isles	176
British Possessions	533
Poland	15,220
Russia	8,872
Roumania	1,612
Austria	1,361
Sweden	1,081
Iceland	1,034

Birthplace—(continued)

	Total
Germany	1,009
Italy	608
Hungary	574
Norway	518
Czechoslovakia	439
Denmark	416
Yugoslavia	384
Holland	289
Lithuania	289
Belgium	212
France	204
Switzerland	146
Finland	213
Other European Countries	242
China	630
Japan	18
Other Asiatic Countries	104
United States	5,348
Other Countries	71
Totals	215,814

Racial Origin

	Total
English	62,048
Irish	24,590
Scottish	39,959
Welsh	1,931
Other British	93
French	5,498
Austrian	605
Belgian	402
Czech and Slovak	863
Danish	881
Dutch	1,782
German	14,426
Greek	165
Hebrew	16,888
Hungarian	811
Icelandic	3,607
Italian	1,640
Norwegian	1,275
Polish	9,780
Roumanian	375
Russian	1,926
Swedish	2,720
Ukrainian	21,217
Yugo-Slavic	103
Other European Races	532
Chinese	681
Japanese	29
Syrian	229
Other Asiatic Races	29
Negro	406
Other and not stated	323
Totals	215,814

Street Cleaning and Scavenging Division

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

Dear Sir:

I have the honor to submit herewith the report of the Street Cleaning and Scavenging Division for the year 1937.

Scavenging

The organic matter collected during the year averaged 205.4 lbs. per capita as against 204.4 lbs. for 1936. The total collected for the year showed an increase of 120,430 lbs. compared with the collection for 1936.

The Annual Spring Clean-up commenced May 10th, and was completed June 5th, at a total cost of \$15,502.20.

In June a White truck, Model 704K, was purchased, replacing a Sterling truck which had been in service since 1920.

Incinerators

The tonnage destroyed at the Incinerators during the year 1937 showed an increase of 29 tons as compared with the previous year. The revenue earned showed a decrease of \$120.70. Operating costs in 1937 showed an increase of \$511.73.

The gross cost per ton for destruction amounted to \$1.25 or an increase of 2c per ton compared with the costs for 1936.

Street Cleaning

During the Street Cleaning year a total of 33,584 cubic yards of sweepings were collected and removed, or an average of 126 cubic yards per mile of paved streets. The 1937 collection figure showed an increase of 9,006 cubic yards over the year 1936. This was due to the fact that a considerable number of men were used for street sweeping under the Dominion Works Plan.

The mileage cost for 1937 was \$262.72 compared with \$223.82 for 1936.

The motor driven power flusher used 8,180,019 gallons of water in 1937 as compared with 6,486,302 gallons for 1936.

Wood Camp Operations

During the Wood Camp year, which ended April 30th, 1937, the total wood receipts amounted to 43,746 cords.

Miscellaneous

During the year 1937, employees of this Division were involved in 105 accidents, with a total loss of 1,299 days, or an average of 12.3 days per accident.

I regret to record the death of two employees during the year. One employee retired on Pension.

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

Respectfully submitted,

E. A. WOOD,

Chief, Street Cleaning and
Scavenging Division.

REFUSE COLLECTION AND DISPOSAL AND STREET CLEANING, 1937

Summary

(a) Personal Services	\$251,641.16
(b) Outside Services	1,125.57
(c) Material, Supplies and Repairs	18,924.08
(d) Equipment, Additions, and Replacements	1,092.00
(e) Fuel, Water, Light and Power	3,543.06
(f) Other Expenses	163.20
(h) Truck and Auto Expense	16,732.07
(i) Interest	5,175.00
(ii) Sinking Fund	2,117.33
	\$300,513.47

Expenditure by Divisions

C 8 REFUSE COLLECTION AND DISPOSAL.

C 8-1 Scavenging and Ash Removal:

(a) Personal Services	\$148,128.41
(b) Outside Services	319.25
(c) Material, Supplies and Repairs	13,477.65
(d) Equipment, Additions and Replacements	1,040.00
(e) Fuel, Water, Light and Power	326.76
(h) Truck and Auto Expense	14,227.81
	\$177,519.88

C 8-2 Nuisance Ground Operating:

(a) Personal Services	\$ 4,256.48
(b) Outside Services	
(c) Material, Supplies and Repairs	17.91
(d) Equipment, Additions and Replacements	52.00
(f) Other Expenses	163.20
	4,489.59

C 8-3 Crematories, Operation and Maintenance:

(a) Personal Services	\$ 24,893.27
(b) Outside Services	11.00
(c) Material, Supplies and Repairs	4,100.39
(e) Fuel, Water, Light and Power	1,450.69
	30,455.35

C 8-4 Fixed Charges on Debenture Debt:

(i) Interest	\$ 5,175.00
(ii) Sinking Fund	2,117.33
	7,292.33

Total, Refuse Collection and Disposal \$219,757.15

D STREET CLEANING AND FLUSHING.**D 1-1 Administration:**

(a) Personal Services	\$ 6,007.67	
(b) Outside Services	43.32	
(c) Material, Supplies and Repairs	282.88	
(d) Equipment, Additions and Replacements		
(h) Truck and Auto Expense	318.10	
		\$ 6,651.97

D 4 Asphalt Pavement Cleaning:

(a) Personal Services	\$ 65,086.44	
(b) Outside Services	32.00	
(c) Material, Supplies and Repairs	1,004.55	
(e) Fuel, Water, Light and Power	1,574.65	
(h) Truck and Auto Expense	2,186.16	
		69,883.80

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

(a) Personal Services	\$ 2,763.92	
(c) Material, Supplies and Repairs	9.60	
		2,773.52

D 5-4 Yards Maintenance:

(a) Personal Services	\$ 504.97	
(b) Outside Services	720.00	
(c) Material, Supplies and Repairs	31.10	
(e) Fuel, Water, Light and Power	190.96	
		1,447.03

Total, Street Cleaning and Flushing	80,756.32
Total, Refuse Collection and Disposal	219,757.15

GRAND TOTAL	\$300,513.47
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GARBAGE COLLECTION, 1937

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.....	927	2,562,210	135	288,170	41	112,580	1103	2,962,960
Feb.....	900	2,421,970	128	286,760	39	104,560	1067	2,813,290
Mar.....	1022	2,790,990	141	322,760	46	129,120	1209	3,242,870
Apr.....	985	3,066,260	131	332,130	43	122,330	1159	3,520,720
May.....	962	3,313,250	151	402,230	44	144,880	1157	3,860,360
June.....	986	3,555,100	171	467,070	44	158,040	1201	4,180,210
July.....	1022	3,657,630	156	400,080	51	186,550	1229	4,244,260
Aug.....	1015	4,065,380	162	430,600	50	200,360	1227	4,696,340
Sept.....	1011	4,353,680	155	443,790	45	185,020	1211	4,982,490
Oct.....	966	3,636,020	147	400,220	47	165,860	1160	4,202,100
Nov.....	974	3,185,240	145	388,580	49	149,750	1168	3,723,570
Dec.....	1032	3,144,560	159	423,090	44	124,960	1235	3,692,610
	11802	39,752,290	1781	4,585,480	543	1,784,010	14126	46,121,780

Table Showing Average Weight per Load

	Number of Loads	Total Weight	Average Wgt. per Load (Lbs.)	Percentage of Total Weight
Trucks & Trailers.....	11,802	39,752,290	3,367	86.17%
City Teams and Singles.....	1,781	4,585,480	2,574	10.75%
Hired Teams.....	543	1,784,010	3,285	3.08%
	14,126	46,121,780		

COLLECTION OF INCOMBUSTIBLE REFUSE, 1937

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.....	1719	6,394,050	45	85,100	1279	5,369,020	3043	11,848,170
Feb.....	2061	8,121,660	38	91,830	1319	5,441,940	3418	13,655,430
Mar.....	1630	6,845,010	127	497,100	1637	6,472,240	3394	13,814,350
April ..	2728	16,241,700	203	557,580	1394	6,469,030	4325	23,268,310
May.....	5967	25,645,310	163	584,230	897	3,757,230	7027	29,986,770
June....	2874	11,564,310	188	711,680	387	1,828,010	3449	14,104,000
July....	1670	6,686,040	203	467,250	221	1,251,240	2094	8,404,530
August	1603	5,573,480	148	350,440	287	1,422,130	2038	7,346,050
Sept. ...	1623	5,804,000	116	288,010	257	1,446,950	1996	7,538,960
Oct.....	2120	7,771,220	176	407,470	479	2,211,210	2775	10,389,900
Nov. ...	2516	8,325,410	209	474,330	303	989,950	3028	9,789,690
Dec.....	1469	6,116,850	230	759,550	141	452,770	1840	7,329,170
	27,980	115,089,040	1,846	5,274,570	8,601	37,111,720	38,427	157,475,330

Table Showing Average Weight per Load

	Number of Loads	Total Weight Lbs.	Average Wgt. per Load Lbs.	Percentage of Total Weight
Trucks & Trailers ..	27,980	115,089,040	4,113	80.87%
City Teams & Singles.....	1,846	5,274,570	2,851	3.51%
Hired Teams.....	8,601	37,111,720	4,314	15.62%
	38,427	157,475,330		

REPORT OF REFUSE DEPOSITED ON ELMWOOD NUISANCE GROUND, 1937

Month	Tins and Ashes Hauled by City		Street Sweepings		Privately Hauled Refuse		Combined Totals	
	No. Loads	Weight	No. Loads	Weight	No. Loads	Weight	No. Loads	Weight
Jan.	382	1,521,260			135	378,720	517	1,899,980
Feb.	492	1,968,580			122	356,030	614	2,324,610
Mar.	356	1,357,550	96	668,510	154	450,790	606	2,476,850
April ..	518	1,755,830	569	3,826,390	159	459,630	1246	6,041,850
May	2000	7,598,840	363	2,367,650	211	602,520	2574	10,569,010
June	1130	3,846,890	290	1,794,800	186	512,470	1606	6,154,160
July	429	1,319,150	201	1,028,990	162	442,880	792	2,791,020
Aug.	374	1,129,260	171	912,940	149	437,500	694	2,479,700
Sept. ...	374	1,194,520	206	1,038,230	145	396,660	725	2,629,410
Oct.	394	1,299,340	350	1,458,200	151	434,950	895	3,192,490
Nov.	468	1,558,120	404	1,248,080	143	417,820	1015	3,224,020
Dec.	227	803,610			147	422,310	374	1,225,920
	7144	25,352,950	2650	14,343,790	1864	5,312,280	11658	45,009,020

REPORT OF REFUSE DEPOSITED ON SASKATCHEWAN NUISANCE GROUND, 1937

Month	Tins and Ashes Hauled by City		Street Sweepings		Privately Hauled Refuse		Combined Totals	
	No. Loads	Weight	No. Loads	Weight	No. Loads	Weight	No. Loads	Weight
Jan.	1325	4,684,710			259	622,000	1584	5,306,710
Feb.	1619	6,293,250			241	652,600	1860	6,945,850
Mar.	1313	5,142,690			277	814,020	1590	5,956,710
April ..	1276	4,371,390	456	3,720,800	329	871,250	2061	8,963,440
May	3902	15,619,680	216	1,723,500	346	940,330	4464	18,283,510
June	1606	5,873,790	126	783,250	308	896,610	2040	7,553,650
July	914	2,362,530	44	200,360	419	901,050	1377	3,463,940
Aug.	1008	2,363,420	146	657,950	311	823,900	1465	3,845,360
Sept. ...	854	2,168,610	230	993,000	303	788,680	1387	3,950,290
Oct.	963	2,640,270	387	1,510,590	266	749,630	1616	4,900,490
Nov.	1528	4,663,830	80	335,060	267	735,050	1875	5,733,940
Dec.	1610	5,554,360			247	689,010	1857	6,243,370
	17918	61,738,530	1685	9,924,510	3573	9,484,220	23176	81,147,260

These figures do not include Ashes and Street Sweepings deposited on private fills.

MISCELLANEOUS DATA

Month	Lbs. Str. Swpgs. Deposited on City Dumps	Lbs. Str. Swpgs. Deposited on Private Fills	Gallons of Water used in Flushing Streets
January			
February			
March	668,510		
April	7,547,190	4,819,700	160,380
May	4,091,150	1,515,500	1,327,036
June	2,578,050	1,578,000	1,799,402
July	1,229,350	3,493,500	1,813,187
August	1,570,890	2,277,680	1,709,340
September	2,031,230	2,124,600	1,349,092
October	2,968,790	3,301,500	
November	1,583,140	513,900	
December			
	24,268,300	19,624,380	8,180,019

Figures for Street Sweepings are included in Table of Total Collection of Incombustible Refuse.

COMPARATIVE TABLES

Garbage Collection and Incombustible Refuse

Year	No. Loads Collected	Pounds of Garbage	No. Loads Collected	Pounds of Incombustible Refuse
1926	11,550	40,479,180	6,034	15,894,150
1927	13,826	42,325,430	6,682	18,579,020
1928	13,313	43,896,090	9,571	24,877,715
1929	13,048	43,374,665	11,094	28,719,945
1930	13,557	45,814,030	11,396	33,189,930
1931	13,611	50,098,730	13,147	36,291,661
1932	13,222	48,329,450	14,237	49,928,030
1933	13,561	46,236,370	19,942	70,734,590
1934	15,776	49,211,690	18,849	66,773,120
1935	15,764	49,733,270	22,126	82,268,400
1936	14,083	46,001,350	24,287	86,042,760
1937	14,126	46,121,780	27,980	157,475,330

REFUSE COLLECTED

Month	Incinerator No. 2	Incinerator No. 3	Sale of Steam	Total
January	\$ 23.67	\$100.70	.....	\$124.37
February	24.32	50.11	.....	74.43
March	101.03	105.21	\$600.00	806.24
April	26.04	100.76	.....	126.80
May	33.13	163.56	600.00	796.69
June	85.35	120.73	.....	206.08
July	28.73	180.40	.....	209.13
August	40.32	122.67	.....	162.99
September	73.89	87.96	.....	161.85
October	63.34	83.89	147.23
November	95.53	50.52	146.05
December	60.01	85.21	145.22
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	\$655.36	\$1,251.72	\$1,200.00	\$3,107.08
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