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, 1934

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CITY OF WINNIPEG

REPORT

of the

Health Department

For the Year ending
31st December, 1934

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COMMITTEE ON HEALTH

1934

Alderman W. B. Simpson, Chairman.
Alderman W. B. Lowe.
Alderman M. (Mrs. R. F.) McWilliams.
Alderman V. B. Anderson.
Alderman P. Bardal.
Alderman M. A. Gray.
His Worship Mayor R. H. Webb (ex-officio).

STAFF

(December, 1934)

Medical Health Officer

A. J. Douglas, M.D.

Laboratory

Bacteriologist—M. S. Lougheed, M.D.
Senior Laboratory Asst.—Miss M. Wilson
Junior Laboratory Asst.—J. R. Bentham

District Physicians

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

Communicable Diseases Division

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

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

*W. S. Lang transferred to Assessment Dept., March 1st, and replaced by W. Taylor.

STAFF—(Continued)

Sanitary Inspections Division

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

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

**Retired on pension May 31st.

Dairy Division

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

Food Division

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

Bureau of Child Hygiene

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

Nurses: Miss A. M. Wilkins
" Miss H. A. Carter
" Miss C. W. Thom
" Mrs. C. E. Smith
" Miss M. B. Bowles
Dietitian—Miss M. A. Graham
Senior Helper—Mrs. J. MacDonald
Junior Helper—Mrs. H. Twist
" " —Mrs. A. B. Gibson
Caretaker—G. Wade
Attending Physician—R. F. Rorke, M.D.
" " F. G. Schwalm, M.D.

Division of Records and Statistics

Secretary—A. G. Lawrence
Clerk—Miss E. S. Halliday

Junior Clerk—Miss E. Fraser
" " —Miss F. J. V. Orr

Street Cleaning Division

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

Clerk—J. J. Higgins
Junior Clerk—S. Cameron**
" " —E. W. Parker***
Office Assistant—Miss N. Deering.

*Promoted in October, 1934.
**Resigned in October, 1934.
***Appointed in October, 1934, replacing S. Cameron.

Report of the Medical Health Officer

City Health Department,
Winnipeg, Man., June 12, 1935.

Chairman and Members of the
Committee on Health.
Madam and Gentlemen:

I have the honor to submit for your consideration a summary of the annual report of the Health Department for the year 1934.

Statistics—The number of deaths, excluding stillbirths, was 1,683. Assuming the population to be 221,242 (City Assessor's figures) this gives a gross rate of 7.61 per 1,000 population. The rate for 1933 was 7.69. The corrected number of deaths, excluding stillbirths, was 1,473, giving a corrected rate of 6.66.

The number of registered deaths in children under one year of age was 174, giving a crude mortality rate of 46.4 per 1,000 living births. In 1933 the rate was 45.4

Registered stillbirths numbered 140, giving a rate per 1,000 live births of 37.34. In 1933 there were 136 stillbirths and the rate was 35.69.

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

FINANCIAL STATEMENT

This statement is divided into three parts, the first covering those services concerned with the control and prevention of disease; the second, the operation of the Comfort Stations; and the third, on pages 73 and 74, the refuse collection and disposal, and the street cleaning services.

CONTROL AND PREVENTION OF DISEASE, 1934

Summary

(a)	Personal Services	$ 84,722.12
(b)	Outside Services	5,434.24
(c)	Material, Supplies and Repairs	9,182.94
(d)	Equipment and Replacements	67.43
(e)	Fuel, Water, Light and Power	1,167.15
(h)	Auto Expense	1,647.76
		$102,221.64

Expenditure by Division

C - 1.	Administration and Statistics (controllable)	$ 10,869.31
C - 2.	Bacteriological Laboratory (controllable)	6,207.75
C - 3.	Treatment and Prevention of Communicable Diseases (controllable)	16,602.28
C - 4.	Sanitary Inspection (controllable)	22,889.68
C -5-1.	Dairy Inspection (controllable)	7,692.88
C -5-2.	Food Inspection (controllable)	5,552.75
C - 6.	Bureau of Child Hygiene (controllable)	28,803.64
C - 7.	Medical Relief (controllable)	3,603.35
	Gross Expenditure, Control and Prevention of Disease	$102,221.64

Revenue

Police Court Fines and Costs	$ nil	
Fees for Laboratory Work	62.00	
Sale of Infants' Feedings at Milk Depot	81.80	
		143.80
Net Expenditure		$102,077.84

Net Cost per Capita, 46.1c.

COMFORT STATIONS

Summary, 1934

(a)	Personal Services	$ 16,458.06
(c)	Material, Supplies and Repairs	1,021.86
(d)	Equipment, Additions and Replacements	4.90
(e)	Fuel, Water, Light and Power	2,834.77
(h)	Auto Expense	180.00
(i)	Interest and Sinking Fund (Uncontroll.)	3,738.07
		$ 24,237.66

Expenditures

C-10-1.	Comfort Stations—Operation and Maintenance	$ 20,499.59
C-10-2.	Comfort Stations—Fixed Charges on Debenture Debt	3,738.07
	Gross Expenditure	$ 24,237.66
	Revenue from Comfort Stations, 1934	166.31
	Net Expenditure	$ 24,071.35

Net Cost per Capita, 11c.

COMMUNICABLE DISEASES

The total number of reports of Communicable Diseases for 1934 was nine thousand and seventy-two cases and one hundred and fourteen deaths as compared with three thousand eight hundred and eighty-nine cases and one hundred and fifteen deaths for 1933.

Non-resident cases numbered one hundred and forty-eight, deaths twenty-one as compared with one hundred and forty-nine cases and thirty-three deaths for 1933.

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

DISEASES	1934				1933			
	Cases	Deaths	Rate per 100,000 Pop.	Rate per 100 Cases	Cases	Deaths	Rate per 100,000 Pop.	Rate per 100 Cases
Anterior Poliomyelitis	4	....	.....	.....	1	....	.....	.....
Amoebic Dysentry	1	....	.....	.....	....	....	.....	.....
Cerebro Spinal Fever	2	1	.45	50.	6	3	1.3	50.
Chickenpox	1,231	2	.90	.16	1,137	1	.....	.....
Diphtheria	336	10	4.52	2.9	262	5	2.3	1.8
Diphtheria Carriers	61	....	.....	.....	63	....	.....	.....
Erysipelas	50	2	.90	4.	29	1	.4	3.4
Influenza	13	13	5.87	100.	35	23	10.4	65.7
Lethargic Encephalitis	.....	1	.45	.....	4	5	2.3	.....
Measles	6,326	5	2.76	.08	51	1	.4	1.9
Mumps	197	....	.....	.....	379	....	.....	.....
Puerperal Fever	1	1	.45	100.	3	3	1.3	.....
Scarlet Fever	542	....	.....	.....	363	....	.....	.....
Smallpox	.....	....	.....	.....	.....	....	.....	.....
Tuberculosis, Pulmonary	151	75	33.9	49.6	169	60	27.4	35.7
Tuberculosis, Pul. corrected	134	78	35.25	58.2	149	71	32.4	47.6
Tuberculosis, all forms	.....	86	38.8	.....	.....	70	32.	.....
Tuberculosis, all forms cor.	.....	88	39.7	.....	.....	79	36.1	.....
Typhoid Fever	13	2	.90	15.3	22	4	1.8	17.4
Typhoid Fever, corrected	8	3	1.35	37.5	12	1	.4	8.5
Para Typhoid Fever	.....	....	.....	.....	1	1	.4	.....
Whooping Cough	144	2	.90	1.4	1,366	9	4.1	.6

Anterior Poliomyelitis—Four cases were reported for the year, one of which was non-resident. There were no deaths. Age incidence—4½, 18 and 20 years for city cases, non-resident case 28 years.

Cerebro Spinal Fever—Two cases and one death were recorded for the year. One city case, 15 year old girl, died. The remaining case was a non-resident child 3½ months old.

Chickenpox—One thousand two hundred and thirty-one cases and two deaths were reported as compared with one thousand one hundred and thirty-seven cases and one death for the preceding year. This was our second heavy year and the first year on record that two deaths occurred. This does not indicate, however, that the type of disease was severe as both cases were in babies under a year old, one from an institution, the other a non-resident.

Diphtheria—Three hundred and thirty-six cases and ten deaths were reported during the year as compared with two hundred and sixty-two cases and five deaths for 1933.

Diphtheria remains all together too prevalent in this city. There is no reason why its incidence should not be very greatly reduced if more people would avail themselves of the simple preventive measure of Toxoid treatment for their children. This is a department of public health endeavour that must be carried on with intensive vigor during the coming year.

It is to be noted that Diphtheria prevalence became markedly increased during the last three months of the year. Up to this time case incidence was about the same as during 1933.

The following table shows distribution of cases and deaths by wards.

	1934		1933	
	Cases	Deaths	Cases	Deaths
Ward One	57	4	32	..
Ward Two	144	5	128	3
Ward Three	83	..	58	..
Institutional	26	1	18	..
Non-residents	26	..	26	2
Total	336	10	262	5

One Winnipeg death recorded in St. Boniface increases our City total deaths to eleven and should be classified in Ward Two.

An outstanding feature of the Diphtheria situation is the low incidence in Ward Three and no fatal cases for the past two years in this Ward. Ward Two and the older settled district of Ward One contributed a total of seven deaths. Classification of deaths by age is as follows:—

One Year—3; Two Years—2; Four Years—2; Seven to Ten Years—4. This includes the death registered in St. Boniface.

Diphtheria Carriers totalled sixty-one as compared with sixty-three in 1933.

Secondary Cases—Cases occurring in homes within the period of incubation after quarantine had been established or case removed to hospital totalled thirty-four. Two return cases are recorded. This is a very satisfactory showing and demonstrates the care that is exercised in discharging patients from hospital and in lifting the quarantine from homes.

Fifty cases are listed as suspects and seven as unrecognized cases.

Diphtheria Prevention—Regarding Diphtheria prevention, the plan of campaign was somewhat different to that adopted during the previous year, in that during the late spring an endeavour was made to have Toxoid immunization done by private physicians. With this end in view, radio talks, newspaper advertising, distribution of circulars, etc., were carried on with the object of giving as much publicity to this work as possible. Unfortunately it did not meet with the response on the part of the public that we anticipated.

Later on in the year, the Department carried on an immunization campaign among children of pre-school age, where the Toxoid was administered by physicians employed by the Department, giving the treatment in the city schools. Added assistance was given by the Unemployment Relief Office, to which cards were distributed and returned to this office.

This met with a better response than the previous campaign and the number receiving treatment at this time was as follows:—

Total number receiving one treatment	2,593
" " " two treatments	2,246
" " " three treatments	2,030
Total number of inoculations	6,869

Ward One—836; Ward Two—3,229; Ward Three—2,804.

Erysipelas—Fifty cases and two deaths were reported as against twenty-nine cases and one death for 1933.

Influenza—As has been noted in former years the number of cases of Influenza reported do not in any sense represent the actual prevalence of the disease. There were thirteen Registered Deaths classified in the case column, in other words they were not reported as cases but transferred from the death sheet. Cases which recovered were evidently not reported. During the previous year we had thirty-five cases reported and twenty-three deaths; of this number four were non-resident but our corrected total added five deaths from St. Boniface making a total of twenty-four Winnipeg citizens.

Lethargic Encephalitis—We did not have a single case reported for the year as compared with one in 1933.

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

This epidemic was not unexpected as we had been running light for the two preceding years, in fact we recorded the lowest number of cases in 1933 over a period of thirty-five years and from this position we recorded the greatest number of cases for any one year in the same time.

January saw three well established outbreaks, one in each ward. There was a general increase in Wards One and Two in February, March saw an increase in all Wards and the peak of the epidemic was reached in April; May had a high average of cases reported and June saw a rapid decline to a complete subsidence in July.

The type was not severe as will be seen by the low mortality rate of .08 per 100 cases. The corrected rate, however, is .11 and includes two Winnipeg cases registered dead in St. Boniface.

Mumps—One hundred and ninety-seven cases were reported for the year as against three hundred and seventy-nine for 1933. Ward Two contributed one hundred and sixty-four cases out of the total one hundred and ninety-seven.

Scarlet Fever—The total number of cases reported for the year was five hundred and forty-two, deaths none as against three hundred and sixty-three cases and one death in 1933. Seventy-seven cases were treated as suspect cases, these are not included in the year's total cases. Of the seventy-seven cases treated as suspects, forty-six were sent to hospital under observation and thirty-one remained at home. Forty-two were reported by physicians, the remaining thirty-five through the department investigations.

Unrecognized cases, that is cases found in the convalescing stage, numbered twenty-five. Secondary cases totalled sixty and return cases seven.

The type continued mild throughout the year. There were occasional local outbreaks but at no time was the situation out of hand. House to house visits were instituted on several occasions with a view to checking up on missed cases and advising contacts in the affected neighbourhood.

In the fall of the year there was a noticeable increase in all wards and towards the end of the year the epidemic index continued high.

Smallpox—Once again we have got through another year without recording a case of Smallpox. This makes the third consecutive year.

Tuberculosis of the Lungs—One hundred and fifty-one cases of Pulmonary Tuberculosis were reported for the year and seventy-five deaths. Of this number seventeen cases and sixteen deaths were non-resident, thus leaving one hundred and thirty-four cases and fifty-nine deaths as having been registered in Winnipeg. Deaths of Winnipeg citizens registered in St. Boniface and Ninette Sanatorium totalled nineteen, thus our total corrected reads fifty-nine plus nineteen, equalling seventy-eight.

The sources from which these cases were reported, also totals for 1933, were as follows:—

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

Age incidence in Cases and Deaths is tabulated with other infections and appear with tables submitted in report of Communicable Diseases. The age incidence in ten year periods in Cases and Deaths is also submitted along with other tabulated information.

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

Cases		Age Incidence	M	F	Total
Under one month	42	0-10 years	1	2	3
One month	28	10-20 years	6	9	15
Two months	12	20-30 years	18	27	45
Three months	6	30-40 years	14	15	29
Four months	9	40-50 years	7	11	18
Five months	3	50-60 years	6	6	12
6-12 months	3	60-70 years	3	7	10
One year and over	31	70 and over	1	1	2
Corrected total	134	Corrected total	56	78	134

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

	Deaths	Age Incidence	M	F	Total
By Death registration	21	0-10	..	1	1
Under one month	11	10-20	2	3	5
One month	5	20-30	4	8	12
Two months	2	30-40	6	8	14
Three months	2	40-50	13	6	19
Four months	1	50-60	12	4	16
Five months	..	60-70	5	3	8
Six months	8	Over 70	2	1	3
Over six months	28				
Total	78	Total	44	34	78

Distribution of Cases appearing on our records as "in Hospital and Sanatorium," at end of the year 1934.

	M	F	Total
Ninette Sanatorium	23	24	47
St. Boniface Sanatorium	32	19	51
King Edward Mem. Hospital	61	24	85
Central Clinic	7	8	15
St. Rochs Hospital	2	..	2
Total	125	75	200

Typhoid Fever—Thirteen cases and two deaths were recorded for the year as compared with twenty-two cases and four deaths for 1933. Of the thirteen cases recorded, five were non-resident and three received their infection outside the City. Of the two fatal cases, one was classified as having received infection outside the City. The remaining five cases reported as City cases appear in different Wards and not two in any one month of the year.

Whooping Cough—The total number of cases reported for the year was one hundred and forty-four, deaths two as compared with one thousand three hundred and thirty-six cases and nine deaths for the preceding year

This drop was to be expected as it was on the decline during the last months of 1933 and continued this way until the month of July when only one case was recorded for that month.

Amoebic Dysentry—A young woman, age 30, was reported in December as suffering from amoebic dysentry. This patient had suffered previous attacks of inflamation of the bowels 10 years and 5 years previously. There was no known illness amongst associates.

Medical Relief, etc.—District Physicians made three hundred and eighty-nine calls as compared with seven hundred and ninety for the preceding year. Calls referred to the Margaret Scott Nursing Mission totalled seventy as compared with ninety-eight for the preceding year. Calls received in the office from school nurses, Margaret Scott Nursing Mission, parents, social agencies, etc., relating to sickness and clearance of diagnosis totalled eight hundred and fifty-seven.

Six hundred and ninety-six persons received medical attention in the office as compared with six hundred and seventy-eight during 1933.

Vaccinations totalled one thousand and thirty-six; these were performed at the City Hall.

Antitoxin distributed during the year totalled one million six hundred and thirty-seven thousand (1,637,000) units.

Insulin—One hundred and twenty-three persons received Insulin for all or part of the year. Of this number eighty-seven were on the free list.

School certificates issued from the office totalled three thousand three hundred and eighty-two

Five thousand three hundred and three quarts of milk were supplied free to homes of tuberculous patients during the year.

Legislation Enacted—By the Province of Manitoba—The Public Health Act of 1913 was repealed and a new Public Health Act passed and came into force on September 1st of this year. Under this Act, Consolidated Regulations of the Minister of Health and Public Welfare are promulgated on the advice of the Provincial Board of Health. These consolidated Regulations are divided into six parts as follows: Part 1, Interpretation and Personnel; Part 2, Disease Control; Part 3, Sanitation; Part 4, Food Control; Part 5, Businesses and Occupations; Part 6, Penalties and Repeal. These Regulations are based on our knowledge of present day public health, and can be amended from time to time.

Under "The Minimum Wage Act," Regulation 5, Governing the employment in Hotels, Restaurants, Clubs, Victualling Houses and Refreshment Stands. 1. Conditions of Labour. (1) Cleanliness—Every room and the floors, walls, ceilings, windows, and every other part thereof, and all fixtures therein, shall at all times be kept in a clean and sanitary condition. (2) Toilet Rooms—There shall be provided suitable and convenient toilets, separate ones for each sex, and the number shall not be less than one to twenty-five persons or fraction thereof employed at one time. Toilets must be thoroughly ventilated and open to the outside air and must be kept in repair and privacy assured at all times. (3) Temperature and Ventilation—A thermometer shall be placed and kept in each work room and the temperature shall be between sixty and eighty-five degrees Fahrenheit, except where the outdoor temperature exceeds eighty-five degrees Fahrenheit. Where there is not adequate ventilation mechanical appliances shall be installed.

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

Zoning—There were no new zoning schemes passed during the year. The Special Committee on Town Planning and Zoning Board report, presented to Council at the end of the year, shows that over 54% of the entire City is zoned. The Board has also done good work in the matter of provision for playgrounds within the City limits.

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

Staff—Inspector A. Barclay, of the Sanitary Inspections Division, retired on pension May 31st. W. S. Lang, Junior Clerk in the Communicable Diseases Division, was transferred to the Assessment Department on March 1st, and was replaced by W. Taylor from the City Clerk's office. In the Street Cleaning Division, E. J. Pope was promoted to Superintendent of Street Cleaning and E. W. Parker was appointed Junior Clerk in place of S. Cameron, who resigned. These changes took place in October, 1934.

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, 1934.

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

1934	Cultures for Diphtheria		Sputa for Tuberculosis Bacilli		Urethral Smears		Widals for Typhoid		Water	Milk and Cream	Urinalysis	Miscellaneous	Vaccinations	Total Examinations per Month
		Pos.		Pos.		Pos.		Pos.						
January	337	4	10	1	10	2	3	0	150	163	49	14	19	775
February	178	0	18	4	21	2	4	2	132	155	40	7	8	563
March	130	0	17	1	192	2	10	0	148	151	15	13	15	518
April	131	1	20	3	16	1	2	0	155	158	25	10	11	528
May	156	0	24	1	14	0	2	0	157	166	17	4	733	1273
June	785	1	28	4	15	3	0	0	168	152	11	7	51	1217
July	1884	2	8	0	9	1	1	0	187	145	8	9	2	2253
August	854	2	9	3	17	3	3	0	180	157	25	103	1	1349
September	261	0	16	2	13	2	4	1	161	135	13	3	40	636
October	297	6	17	1	3	4	6	0	152	137	11	4	76	703
November	608	19	18	5	17	7	0	0	169	102	14	11	73	1014
December	509	9	14	4	31	5	1	0	164	125	14	5	9	872
1934 Totals	6130	44	199	29	185	32	36	3	1923	1746	242	190	1038	11679
1933 Totals	7585	30	256	32	227	31	45	3	1888	1771	319	119	1490	13700
1932 Totals	6046	57	276	17	144	24	19	1	1879	1683	137	89	1169	11452

Water Samples—During the year 1,923 samples of water were examined. This establishes a new high record in the laboratory. In 1921 the total was 469.

The following table gives the source of the samples and a summary of the findings:

Source	No. of Samples	Average Pl. Count	Percentage Plate Counts over 100 per c.c.	Percentage Samples positive for Coli-aerogenes Presumptive Test
Drinking Water:				
Tap Water (Lab.)	365	15	2%	24%
Aqueduct	156	150	20%	13%
Reservoir	156	150	20%	20%
Royal Alex. Hotel (cold)	49	195	70%	30%
Royal Alex. Hotel (hot)	49	165	57%	2%
Mains Across River:				
Elmwood No. 1	104	155	53%	15%
Elmwood No. 2	104	175	62%	30%
Fort Rouge No. 1	104	175	55%	32%
Fort Rouge No. 2	104	160	52%	32%
River Heights No. 1	104	145	52%	24%
River Heights No. 2	104	150	52%	25%
St. James Bridge	104	140	50%	17%
Baths:				
Sherbrooke Street	52	155	67%	17%
Pritchard Avenue	21	135	43%	0%
Sargent Avenue	34	200	60%	9%
Winter Club	38	130	42%	2%
Y.M.C.A.	53	130	50%	33%
Y.W.C.A.	52	230	86%	20%
Sutherland Mission	34	185	65%	30%
Stella Mission	36	200	67%	20%

Milk and Cream—The number of samples examined totalled 1,746, not quite as large a number as in 1933 with 1,771. These were examined for butter fat content and the milk for water and solids. There were also 1,623 bacterial counts made as compared with 1,605 in 1933 and 800 in 1931. The source of the samples is shown in the following table:

	1934		1933	
	Milk	Cream	Milk	Cream
Dairy Inspectors	1,644	5	1,649	62
Bureau of Child Hygiene	34	17	35	17
King George Hospital	34		....	
Private	12		8	
	1,724	22	1,692	79
Total Milk and Cream	1,746		1,771	
Bacterial Counts	1,623		1,605	

Diphtheria Cultures—Cultures examined in 1934 numbered 6,130 as compared with 7,585 in 1933 and 6,046 in 1932, which was the lowest number recorded in many years. These cultures were made for doctors, nurses, health inspectors, school nurses, Margaret Scott Mission nurses, and others. During June, July and August, a large number—more than 50% of the total—were taken from the throats of children going to Summer Camps.

Dispensary Service—As was the case in previous years since 1929, the Medical Dispensary Services rendered by this division is quite extensive though no records are made of these services.

These consist in making examinations and reports for the Social Welfare Commission with treatment for minor complaints, examination of certain individuals for the Unemployment Relief Commission, giving medical advice and treatment of minor complaints to those who while not on relief are not in a position to employ a private physician.

The more serious cases are referred to the clinics at the Hospitals.

The examination of school children for freedom from contagious diseases and the issuing of certificates for return to school has been continued as formerly. Vaccinations totalled 1,038 for the year.

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

Respectfully submitted,

M. S. LOUGHEED,
Bacteriologist.

Division of Communicable Diseases

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

Medical Health Officer.

Dear Sir:—

I have the honour to submit herewith report on work done by the Division of Communicable Diseases, year ending December 31, 1934.

Summaries pertaining to the year's work are attached, these include tabulations of cases and deaths of all diseases reported monthly also totals by Ward.

The total number of cases reported for the year was nine thousand and seventy-two, deaths one hundred and fourteen.

Measles was epidemic for the first six months of the year. Scarlet Fever and Diphtheria both showed an increase in number of cases over the preceding year; Scarlet Fever did not show a fatal case, but Diphtheria doubled the number of deaths over 1933.

Close checking for discovery of unrecognized Scarlet Fever cases was instituted several times during the year, that is, by house to house visiting in affected areas.

The Diphtheria situation for the year is disappointing and while we increased our immunization total over the preceding year, this work will have to receive much greater support before the necessary beneficial results will be seen in the diphtheria records.

A summary of the work done by Inspectors of this Division is attached to this report and shows a total of twelve thousand three hundred and seven visits made by them for the year. Inspectors of the Sanitary Division assisted us during the Measles epidemic, attending to the release of three thousand and eighty-eight quarantined homes.

Toxoid Administration—The work of immunizing children against Diphtheria (pre-school age) was carried on during the fall months; for particulars re number receiving treatment and distribution by Wards see summary attached.

A comparative table showing immunized and non-immunized children in relationship to Diphtheria over the past five years is also appended.

Tuberculosis Visiting—Three nurses were engaged in this work throughout the year and show a total of five thousand seven hundred and eighty-two visits made. One hundred and forty-six first visits to new cases are recorded in this number.

New cases added to their districts totalled one hundred and twenty-six. Districts for 1934 show a visiting list for each district as follows:—

	District 1	District 2	District 3	Total
	130	222	191	543
Non-visiting cases on records	58	2	3	63

Classification of cases in districts:—

	Positive	Clin. Positive	Suspects	Contacts	Total
District 1	24	70	6	30	130
District 2	60	105	18	39	222
District 3	53	92	20	26	191

The following table dealing with Winnipeg's corrected deaths from Tuberculosis during the past five years is embodied in this report. It demonstrates the relationship of tuberculosis to the overcrowded and thickly populated part of the City.

The area of the district is not shown; the population whilst almost four times greater in districts one and four compared with districts two and three is proportionately spread over a much larger area.

	Death Rate per 1000 Population—Tuberculosis of the Lungs						
	10 year average population	Total Deaths 5 years end. 1929	Rate	Total Deaths 5 years end. 1934	Rate	Total Deaths 5 years end. 1934*	Rate*
District 1	81,741	81	.99	73	.89	97	1.18
District 2	27,828	51	1.83	40	1.43	65	2.33
District 3	21,944	61	2.77	65	2.95	89	4.05
District 4	79,013	139	1.75	103	1.30	142	1.90

*Includes Winnipeg Deaths registered in St. Boniface and Ninette Sanatorium.

District Three is the oldest settled part of Winnipeg which includes all of Point Douglas, and old Ward Two between C.P.R. tracks, Notre Dame and Sherbrook Street.

District Two includes old Hudson's Bay reserve and extends to the Assiniboine River, Sherbrook Street and Notre Dame Avenue.

Medical Relief—Much of our trouble with medical relief has been solved by the Unemployment Relief Department taking over all medical relief necessary to registered unemployed families.

Calls to those not so registered were attended to by District Physicians and include families on D.S.C.R. relief, Social Welfare, transient relief and families unable to pay for medical service but not registered relief cases.

The issuing of Medical Supplies, Antitoxin, Toxoid, Vaccine, etc., attending to the detail of medical relief prescriptions, etc., issuing of school certificates and filing of reports has proceeded smoothly throughout the year.

In conclusion we wish to record our sincere appreciation for the co-operation extended to us by the Margaret Scott Mission staff; the Medical Inspection staff of our City Schools; the Social Welfare Commission; the staff of the Municipal Hospitals, the General Hospital and all other agencies and institutions which have helped us to render service throughout the year.

Yours obediently,

WM. T. WATT,

Chief, Division of Communicable Diseases.

COMMUNICABLE DISEASES 1934

DISEASES	Jan.		Feb.		Mar.		Apr.		May		June		July		Aug.		Sept.		Oct.		Nov.		Dec.		Totals 1934		Totals 1933	
	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths
Anterior Poliomyelitis															1		1		1		1				4		1	
Amoebic Dysentry																							1		1			
Cerebro Spinal Fever			1																				1	1	2	1	6	3
Chickenpox	149		109		79		36		48		96		54		14		42		174	1	239		191	1	1231	2	1137	1
Diphtheria	36	2	9	2	14		11		10		17		16		16	1	9		54	1	86	1	58	3	336	10	262	5
Diphtheria Carriers	7		3				1		3		1		8		4				2		24		8		61		63	
Erysipelas	3		3		6		4		2		6		2		2		3		10		3		6	2	50	2	29	1
Influenza			4	4	1	2	3	2	1	1					1	1	1	2	1		1	1			13	13	35	23
Lethargic Encephalitis				1																						1	4	5
Measles	228	2	422		1367	1	1952	1	1647	1	587		75		6		3		4		14		21		6326	5	51	1
Mumps	12		12		23		24		55		31		1		1		3		1		12		22		197		379	
Puerperal Fever																							1	1	1	1	3	3
Scarlet Fever	30		40		37		34		46		33		47		24		22		59		84		86		542		363	
Smallpox																												
Tuberculosis, Pul.	9	4	9	4	12	2	16	6	15	12	30	12	6	8	10	6	10	6	19	5	10	7	5	3	151	75	168	60
Typhoid Fever							3								3	1	4		1				2	1	13	2	22	4
Whooping Cough	42		23		23	1	19		8		4		1		2		7		6		7	1	2		144	2	1366	9
Totals	516	8	635	11	1562	6	2103	9	1835	14	805	12	210	8	84	9	105	8	332	7	481	10	404	12	9072	114	3889	115

COMMUNICABLE DISEASES—1934

	CASES						DEATHS							
	WARDS			Non-Res.	Inst.	Total Cases	WARDS			Non-Res.	Inst.	Total Deaths	St. Boniface	Ninette Deaths
	1	2	3				1	2	3					
Anterior Poliomyelitis		2	1	1		4								
Amoebic Dysentry		1				1								
Cerebro Spinal Fever	1			1		2	1					1		
Chickenpox	214	521	474	9	13	1231				1	1	2		
Diphtheria	57	144	83	26	26	336	4	5			1	10	1	
Diphtheria Carriers	8	16	13	3	21	61								
Erysipelas	14	13	14	4	5	50	1	1				2		
Influenza	3	4	4	2		13	3	4	4	2		13		
Lethargic Encephalitis							1					1		
Measles	1374	2474	2333	17	128	6326		3	1		1	5	2	
Mumps	10	164	23			197								
Puerperal Fever				1		1				1		1		
Scarlet Fever	132	183	144	57	26	542								
Smallpox														
Tuberculosis, Pulmonary	44	49	38	17	3	151	16	23	20	16		75	15	4
Typhoid Fever	3	2	3	5		13	1	1				2	1	
Whooping Cough	35	85	19	5		144		1		1		2		
Totals	1895	3658	3149	148	222	9072	27	38	25	21	3	114	19	4

NOTIFIED CASES OF COMMUNICABLE DISEASES, BY AGE AND SEX, 1934

	Under 1 Year		1 Year		2 Years		3 Years		4 Years		5–9 Years		10–14 Years		15–19 Years		20–24 Years		25–34 Years		35–44 Years		45–64 Years		65 Yrs. and over		All Ages		
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	T't'l
Anterior Poliomyelitis										1						1		1	1								1	3	4
Amoebic Dysentry																				1								1	1
Cerebro-Spinal Fever		1														1												2	2
Chickenpox	23	12	17	20	31	26	28	26	27	33	421	374	69	79	6	9	4	3	6	5	1		1				634	597	1231
Diphtheria	5	3	22	6	10	12	19	7	7	10	42	30	22	21	15	18	8	20	6	27	7	9	4	5	1		168	168	336
Diphtheria Carriers	1	2	4	3	2	2	2	2	2	1	8	12	3	3		2		3	1	2		3	1	2			24	37	61
Erysipelas	1			1				1	1			1		2			1	4		1	2	4	8	19	3	1	16	34	50
Influenza	1		1									1										1	4	3	2		8	5	13
Lethargic Encephalitis																													
Measles	49	63	164	149	218	211	245	259	303	271	1984	1788	221	217	23	63	12	50	6	20	1	3	2	2		2	3228	3098	6326
Mumps			1		3		1		4	1	62	63	25	18	3	5		1	1	8			1				100	97	197
Puerperal Fever																		1										1	1
Scarlet Fever	1		7	5	12	11	9	13	18	13	140	117	52	59	14	21	6	17	5	12	4	5		1			267	275	542
Smallpox																													
Tuberculosis, Pulmonary				3							2	1	2	3	4	8	8	16	18	24	17	10	17	9	6	3	75	76	151
Typhoid Fever													1				1	1	3		4	1	1		1		11	2	13
Whooping Cough	7	9	4	6	10	11	3	13	11	5	23	35	3	2		1				1							63	81	144

NOTIFIED DEATHS OF COMMUNICABLE DISEASES, BY AGE AND SEX, 1934

	Under 1 Year		1 Year		2 Years		3 Years		4 Years		5–9 Years		10–14 Years		15–19 Years		20–24 Years		25–34 Years		35–44 Years		45–64 Years		65 Yrs. and over		All Ages		
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	T't'l
Anterior Poliomyelitis																													
Amoebic Dysentry																													
Cerebro-Spinal Fever																1												1	1
Chickenpox	1		1																								2		2
Diphtheria			2		1	2			1		2			1				1									6	4	10
Diphteria Carriers																													
Erysipelas																							1		1		2		2
Influenza	1		1								1			1							1		4	2	2		9	4	13
Lethargic Encephalitis											1																1		1
Measles	1		1	2							1																3	2	5
Mumps																													
Puerperal Fever																		1										1	1
Scarlet Fever																													
Smallpox																													
Pulmonary Tuberculosis				1		1							1	1	1	4	2	4	2	11	9	6	17	6	5	4	37	38	75
Typhoid Fever																			1						1		2		2
Whooping Cough		2																										2	2

INSPECTORS' REPORT, 1934

	Totals 1934	Totals 1933
Number of Visits	12,307	5,135
Houses Quarantined	6,632	2,931
Quarantines raised	1,386	212
Quarantines inspected	545	334
Other Calls	3,744	1,658
New Cases Investigated	7,119	3,295
Bedding, etc., Disinfected	1,030	627
Sanitary Defects Reported	4	8
Rooms Sprayed	180	195
Houses Sprayed	4	2
School Certificates Issued	4,385	1,144

TUBERCULOSIS—VISITING NURSES' REPORT, 1934

	Totals 1934	Totals 1933
Number of Visits	5,782	6,192
To Old Cases	5,500	5,824
To New Cases	146	151
To Suspects	24	13
On Behalf of Patients	94	140
Other Calls	18	44
Patients sent to King Edward Memorial Hospital	8	17
Patients sent to Ninette Sanatorium	1	5
Patients sent to St. Roch's Hospital	2	3
Patients sent to Children's Hospital	..	..
Patients sent to St. Boniface Sanatorium	1	3
Patients sent to Central Clinic	..	..
New Cases added to Districts	126	137

TOXOID ADMINISTRATION PRE-SCHOOL AGE CHILDREN, 1933-34

	1934	1933
Number receiving 1st treatment	2,593	1,428
Number receiving 2nd treatments	2,246	1,253
Number receiving 3rd treatments	2,030	1,183
Total number of treatments given	6,869	3,864

TOTAL TOXOID TREATMENTS—BY WARDS

	Ward 1	Ward 2	Ward 3	Total
1933	224	1,256	2,384	3,864
1934	836	3,229	2,804	6,869

TOXOID DISTRIBUTED FOR THE YEAR 1934

Toxoid	Single Ampoules 1934	Single Ampoules 1933		Complete Series 1934	Complete Series 1933	Schick Test 1934	Schick Test 1933
1st Dose	120	185	(1 person Pkts.)	790	856	136 pkts.	107 pkts.
2nd Dose	103	130	(6 person Pkts.)	19	26	.....	.....
3rd Dose	100	131	(12 person Pkts.)	221	123	.....	.....

DIPHTHERIA 1930—1934

Year	City		Deaths Wpg. Patients registered in St. Boniface	Non-Res.		Immunized Children		Immunized Pre-School Children		Non-Immunized Children 0-5 Years		Non-Immunized Children 6-12 Years		Total	Im'z'd
	Cases	Deaths		Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths	School	Pre-Scl.
1934	310	10	1	26	.....	13	.....	8	1	93	5	64	3	.....	2030
1933	236	3	.....	26	2	8	.....	6	.....	81	2	43	1	.....	1183
1932	218	7	.....	28	.....	3	.....	.....	.....	67	4	58	1	2723	732
1931	250	11	2	29	4	8	.....	.....	.....	73	8	56	5	1660	203
1930	295	8	.....	50	6	17	.....	.....	.....	76	3	61	2	1678	.....

1934—One Diphtheria death registered in St. Boniface. Age 4 years. Not immunized.

1934—Immunized group, over six years, includes two treated by private physicians.

Immunized group 0-5 years, includes three treated by private physicians. The death is included in this group.

TUBERCULOSIS—1934—NEW CASES
LIVING ACCOMMODATION

	Patients			Total Number of Persons in Household		
	Males	Females	Totals	Over 10 Yrs.	Under 10 Yrs	Totals
1 Room	9	2	11	2	2	4
2 Rooms	4	1	5	9	3	12
3 Rooms	7	10	17	29	3	32
4 Rooms and over	56	41	97	343	51	394
Institutional and Unclassified	.....	.....	2	.....	.....	.....
Totals	76	54	132	383	59	442

SLEEPING ACCOMMODATION

	PATIENTS				CONTACTS		
	With Room to Self	With Bed but Not Room to Self	With neither Bed nor room to self	Totals	Sleeping in Same bed as Patient	Sleeping in Separate Bed but in same room as Patient	Totals
1 Room	9	1	1	11	1	3	4
2 Rooms	.....	.....	5	5	5	3	8
3 Rooms	9	1	7	17	7	.....	7
4 Rooms	64	.....	33	87	34	16	50
Institutional and Unclassified	.....	.....	.....	3	.....	.....	.....
Totals	82	2	46	122	47	22	69

Report of Chief Inspector, Division of Sanitation and Housing

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

Medical Health Officer.

Dear Sir:

I have the honor to submit for your consideration the following report on the work accomplished by this Division of the Health Department during the year 1934, as set forth in my own report; also those of the Housing Inspector and the Smoke Inspector.

Abatement of Nuisances—The total number of inspections and re-inspections made during the year was 29,273.

The total number of complaints received during the year, was 2,128. Of these, 479 were unfounded, or the conditions complained of removed prior to inspection.

Notices served for the abatement of nuisances were: written, informal, 1,122; written, statutory, 577; verbal notices or warnings, 8,036.

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

Complaints received at Office	1,634
Complaints made to Inspectors	494
Total	2,128
Of above:	
Complaints re non-removal of garbage, etc.	260
Complaints re nuisances	1,868
Total	2,128
Complaints well founded	1,649
Complaints unfounded or rectified previous to inspection of same	479
Total	2,128
Written notices (informal)	1,122
Written notices (statutory)	577
Verbal notices or warnings	8,036
Total	9,735

Inspections Made

Dwelling houses	2,576
Tenements and apartment blocks	2,286
Hotels and lodging houses	290
Schools and public buildings	14
Abattoirs	8
Workshops and factories	458
Offices	102

Stores	577
Stables, Feed and Sale	160
Stables (private)	511
Laundries (hand)	584
Laundries (steam)	10
Dog kennels	198
Theatres and places of amusement	66
Public bath houses	117
Public bath houses, water samples	264
Comfort stations, Public	241
Garages and filling stations	450
Markets, etc.	204
Bedding and upholstering factories	9
Lack of heat in dwellings	57
Wiping rags	20
Refrigerators (chemical)	5
Basements requiring permit of Health Officer	28
Common drinking cups and towels	62
Barber shops	129
Second-hand stores and junk yards	451
Poolrooms	364
Yards, sheds, areas, etc.	3,705
Vacant lots (nuisances)	578
Streets and lanes (nuisances)	3,203
Contractors' closets	157
Pit closets	266
Undertakers' parlors	20
Communicable diseases inspections	3,088
Tanneries	3
Cross-connections (domestic water supply)	42
Hydrocyanic acid gas fumigations	115
Total number of inspections	21,418
Re-inspections	7,855
Total number of inspections and re-inspections	29,273

Defects and Nuisances Discovered and Abated

Drains, choked or defective	138
Sinks and wash-basins, choked or defective	123
Water-closets and fittings, choked or defective	199
Baths and fittings, choked or defective	8
Urinals and fittings, choked or defective	43
Soil-pipes, clean-outs, etc., choked or defective	114
Catch-basins and traps, choked or defective	128
Water-closet compartments, defective light and ventilation	12
Plumbing and water pipes, frozen	58
Vent stacks, frozen	1
Sewer connections, frozen	3
Water services, defective or cut off	140
Plumbing fixtures, insufficient	11
New plumbing, notice to install	13
Total plumbing defects	991

Dirty yards, courts, sheds, etc.	2,556
Poultry kept in or too close to dwelling	51
Pigeons kept in dwelling or not confined to coop	33
Animals kept in dwelling	18
Poultry kept under insanitary conditions	99
Cows or other cattle kept under insanitary conditions	34
Cows or other cattle kept too close to dwelling	4
Hogs, unlawfully keeping	2
Horses, insanitary stables	65
Garbage receptacles	1,337
Refuse receptacles	179
Manure bins, defective	111
Ash receptacles	120
Paper receptacles	127
Cellars and basements, defective	144
Dwellings, dilapidated and insanitary	62
Tenements, dilapidated and insanitary	10
Offices and workshops, dilapidated and insanitary	14
Dilapidated and insanitary other buildings	16
Overcrowding (day inspections)	150
Overcrowding (night inspections)	—
Overcrowding (notices)	31
Rat-infested buildings	70
Cockroach infested buildings	40
Bed-bug infested buildings	192
Chimneys, or smoke pipes, defective	44
Roofs, defective	86
Eavestroughs and rain-water leaders, defective	67
Gas-fittings and piping, defective	12
Furnaces and heating apparatus, defective	43
Refrigerators, defective	—
Lighting, defective	15
Ventilation, defective	18
Pit closets, concrete or brick, defective	51
Contractors' closets, defective	59
Chemical or patent closets, defective	1
Stagnant water on vacant lots	17
Nuisances on vacant lots	546
Nuisances on lanes and streets	2,853
Unnecessary noises	11
Total defects discovered (including plumbing defects)	10,279

Smoke Nuisances

Chimneys and smoke stacks (observations)	234
Furnaces, boilers, fuels, etc., inspections of	233
Total	467
Notices, statutory	3
Notices, verbal	194
Total	197

Miscellaneous

Premises placarded insanitary	15
Water samples taken	1,360
Cases reported for prosecution	—
Infractions of Zoning By-law	25

Frozen Water Pipes and Plumbing—There has been a considerable decrease in the number of instances in which we found water pipes and plumbing frozen. More coal and less wood has been used, and as a result, more continuous heat has been maintained. Only 59 instances came to our knowledge and these were mostly in very old buildings.

Other Plumbing Defects—There were also fewer defects in plumbing generally. We dealt with 909 instances as against 1,087 last year which had a low record. Most of these relate to choked or defective drains, water-closets, sinks, catch-basins, soil-pipes. Where fixtures were found to be illegally and improperly installed the Plumbing Inspector was informed.

We now have 278 houses without sewer and water connections—an increase of 2 over last year. In 1931 we reached the low mark of only 255 houses without plumbing. It is to be hoped that there will be no further increase in outside closets. A number of the houses without plumbing are occupied by owners who have been unable financially to make the connections, since the sewer and water mains were provided.

Defective Roofs, Eavestroughs, and Rain Water Leaders—Roofs defective and leaking, 84; eavestroughs and rain water leaders defective and leaking 67. This is a small increase over the past two years.

Garbage, Manure and Other Receptacles—The supervision of receptacles for household garbage and other refuse; manure bins, and containers for trade refuse, occupies considerable time. For a number of years, we have conducted an educational campaign having regard to the provision of proper and adequate storage facilities for all classes of refuse, but especially garbage and manure. Rats are on the increase in some sections of the city and this condition is attributable in some degree to the careless manner in which garbage and refuse is kept. Some time was spent during the summer, in an effort to remedy this condition, and as a result, 848 new garbage cans were provided. During recent years it has been increasingly hard to accomplish much in this direction. Many householders being on Unemployment Relief and unable to purchase garbage cans, burn their garbage during the greater part of the year. It is therefore, during warm weather that we receive most complaints and experience most difficulty, as it is manifestly impracticable to compel citizens to provide these receptacles.

We have not had so much trouble during the past year or two with regard to the storage of waste paper.

During the spring we receive many complaints relating to ditches and lanes being blocked by ashes, causing flooding of yards and cellars. We find it extremely hard to regulate the practice of many people who persist in dumping their ashes anywhere except in their own yard. However, this has been overcome to some extent by a more frequent service on removal of ashes by the Scavenging Division.

Notices served under the above heading were as follows:

To provide garbage cans and covers	1,337
To provide receptacles for incombustible refuse	179
To provide or repair manure bins	111
To provide receptacles for ashes	120
To provide receptacles for paper	127
	1,874

Scavenging—We received 260 complaints relating to non-removal of garbage or improper storing of same, which is considerably less than we have received for some years. The Scavenging Division gives good service, so that we frequently find householders are mostly to blame in not taking proper care of garbage and other refuse. The telephone is our most common means of requesting special service from the Scavenging Division. The following is a list of memos also sent:

Cleaning of contractors' closets	25
Removal of garbage	1
Removal of ashes	1
Removal of tins and other refuse	7
Cleaning of brick pit closets	4
	38

Contractors' Closets—Only 59 permits were issued; in 1933 there were 91 and in 1932, 161. Notices served to repair, clean or make fly-proof, 59.

Feed and Sale Stables—Number of permits issued 13 and inspections made 160.

Private Stables—The total number of inspections made was 511. Most of these stables are in fairly good structural condition but considerable supervision is necessary to see that they are kept clean and that manure is not allowed to accumulate, especially during warm weather. A total of 111 manure bins were repaired or rebuilt.

Keeping of Animals—It is not a policy of this Department to discourage the keeping of animals, but we are frequently called upon to regulate the conditions under which they are kept.

The undernoted is a summary of action taken under this head:

Cows and other cattle kept in insanitary sheds, etc.	34
Cows and other cattle kept too close to dwellings	4
Horses kept in insanitary sheds, etc.	65
Hogs, unlawfully keeping	2
Animals kept in dwellings	18
	123

Poultry—The following conditions were regulated:

Poultry kept in or too close to dwellings	51
Poultry kept in insanitary sheds, pens, etc.	99
Pigeons kept in dwellings or not properly confined	33
	183

Licensed Dog Kennels—Inspections made 198 and permits issued 31. We issued 25 permits in 1933 and 22 in 1932.

Nuisances in Yards, Sheds, Lanes, Vacant Lots, etc.—Despite our efforts to educate citizens in maintaining cleanly conditions around their premises, we are obliged to notify householders and others regarding insanitary conditions on their property, or dumping refuse on lanes and vacant land. Nuisances dealt with under this heading were as follows:

Dirty yards, courts, sheds, etc.	2,556
Stagnant water on vacant lots	17
Other nuisances on vacant lots	546
Nuisances on streets and lanes	2,853
	5,972

Compulsory Sewer Notices—None served this year. Six of the eight served during 1933 are still being held as the owners are unable to undertake this work.

Overcrowding—Inspections 150 and notices served 31. The overcrowding referred to is mostly in rooms rented out in tenements. During these hard times, whenever possible, leniency is shown, in case of dwellings occupied by a single family. In addition to the inspections recorded, we are frequently obliged to regulate the number of occupants, especially in the Lodging Houses.

Housing—A Special Survey on Housing Conditions was undertaken early in the year. This survey embraced four selected districts. In addition to progress reports, which were presented to the Special Committee on Housing, the final report was printed. The survey revealed conditions much worse than we anticipated—crowding together of families in illegal tenements, families living in attic rooms, insufficient plumbing fixtures, general disrepair of premises, etc.

Our annual survey of vacant houses and vacant suites was undertaken in December as usual.

As in previous years, this survey included all classes of premises occupied as dwellings. The procedure is to make a record each 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.

There were only 65 dwellings added to our list during this year. This is the smallest number added in any year since 1918. But the 65 dwellings added does not represent an increase, for 73 were removed or demolished, also a number of dwellings were converted into stores, workshops, etc. Last year there were 35,240 dwelling houses; this year there are 35,173. There are therefore 67 less dwelling houses.

I wish to point out also, that last year we recorded 26 dilapidated and insanitary dwellings; this year we closed and placarded as insanitary 20 additional.

There can be no doubt that the housing situation is becoming more acute. There are hundreds of dwellings rapidly deteriorating due to lack of repair. Many of these are in such condition, that if structural repairs are not soon undertaken, they will be past the period when repairs can profitably be carried out.

Of 971 houses found vacant, only 259 were of five rooms or less, and only 41 of these small houses were near the centre of the city. Indeed, about two-thirds of the total vacancies were distant from the centre of the city.

With regard to repairs, 382 were fit for occupation without repairs; and 365 with slight repairs. The explanation of this appears to be that many of these houses are being held for rent that is considered too high. Also, many are known to be hard to heat during winter.

There were 683 vacant suites this year, as against 1,173 last year. This is probably due mostly to reductions in rent. The dividing of large suites into smaller, also has a bearing on this. Besides, there are numerous instances of parents doubling up with married children and vice versa. I should also state that a number of suites are occupied by two families not related to each other.

As already stated, there were 971 vacant houses. At least 46 of these are dilapidated and beyond repair.

Probably many of the small houses will remain vacant until the average working man has wages sufficient to enable him to undertake the cost of heating as well as rent—unless of course the owners are willing to accept less revenue. At present there is little or no accommodation for the working man at rents of say $10.00 to $20.00 per month, without doubling up with other people.

With regard to the larger houses, these could be remodelled, altered and repaired so as to accommodate 2, 3, 4 or more families in each. Sufficient provision already exists for this under the Building By-law.

If and when money is available, the following points would be worth considering:

1. Owners of vacant houses should be given the opportunity of repairing, altering, re-modelling or re-conditioning such premises.

2. A suitable housing scheme providing small houses on city-owned property where sewer and water mains already exist, at low rental, with, if possible, the privilege of purchase.

3. Following the above, those premises presently occupied as tenements could be altered and converted into suites after the surplus families have moved out. I do not think anything should be done under this head until something has been done under 1 and 2.

Zoning—We dealt with 14 infractions of the Zoning By-law, mostly the establishment of business in Residential Districts.

The Town Planning and Zoning Board has continued its good work. In order that the Board may be acquainted of action taken by us under the By-law, copies of our intimations are sent to the Board; the Board reciprocates by keeping us informed of their decisions where classifications are varied.

Gas Stoves and Fittings—Only 12 instances of defective gas stoves and fittings were brought to our notice. At present there appears to be no provision for the compulsory removal of old stoves or the provision of proper piping. We are informed that the Gas Department of the Winnipeg Electric Company are sometimes called upon to connect up to defective old stoves, and on refusal, the work is often done by a handyman. We are also constantly coming across gas stoves and plates connected by means of rubber hose, metal hose with rubber connections and fixtures with lever handles that are quite loose. Some regulation is required dealing with the installation of gas fixtures.

Chemical and Mechanical Refrigerators—Our records show a total of 5,415 refrigerators of which 4,505 are multiple type, in apartment blocks. A list of the various blocks, with the name and type of refrigerator, was sent to the Provincial Bureau of Labor, also the City Electrician. No complaints were received during the year.

Cross Connections in Water Supplies—A close check is being kept on buildings in which there is a water supply alternative to that from the City mains. There are 34 privately owned wells, the water from which may be used as the domestic supply to the buildings concerned. It is recognized that the average well may become a potential hazard to health owing to the possibility of contamination from leaking sewers in cities, especially if the

sub-strata is of limestone formation with cracks or fissures. We therefore do not permit of connections from wells to pipes conveying City water. The new Regulations of the Public Health Act state as follows:

"A distributing system for a water supply for drinking and domestic purposes shall not be connected with the distributing system of another water supply unless such connection is approved by the health officer or the minister."

"No plumbing, plumbing fixture, construction device, valve fitting apparatus, or connection, shall be installed or permitted which will provide a cross connection between a distributing system of water for drinking and domestic purposes, and a plumbing and drainage system, in such a manner as to permit or make possible the back flow of sewage or waste water into the water supply system."

The Rules and Regulations governing mechanical refrigeration also states as follows: "No connection shall be made with the public water supply which will impair the purity thereof. Water used for removing heat from a refrigerating system shall not thereafter be used for drinking purposes."

We have no knowledge of any cross connections. We made 42 inspections during the year and samples of water were obtained from private wells. None of the samples showed evidence of contamination.

Factories, Workshops and Office Buildings—Inspections of factories and workshops 458, and office buildings 102. Defects and infractions discovered were mostly of a minor character.

Rats—We received 70 complaints relative to rat-infested premises. The bounty of five cents per rat tail is still being paid. This amounted to $277.65 for the year. Citizens are themselves frequently to blame for the prevalence of rats about their premises, by the improper care of garbage and other refuse, also these rodents find quarters for nesting under wooden floors of garages and other outbuildings.

Public Baths and Comfort Stations—The public baths and swimming pools at Sherbrook Street, Pritchard Avenue, Y.M.C.A., Y.W.C.A., All Peoples' Mission, Stella Avenue Mission and Winter Club, were regularly inspected, a total of 358 inspections having been made.

There were 241 inspections made of the Public Comfort Stations. These premises are kept clean and free from nuisance at all times.

Undertakers Establishments—Twenty inspections were made and 8 permits were issued. No insanitary conditions were found.

Common Drinking Cups and Towels—In this connection, we made 62 inspections. Mostly, changes are made without having to serve notice.

Chimneys and Furnaces—We were called upon to deal with 87 instances of defects in furnaces, chimneys and smoke pipes. Many of the defects in heating apparatus came to us through complaints of lack of heat, escape of smoke and gases, etc.

Billiard and Pool Rooms—Inspections made were 364 and permits issued 52. Checking up on renovations of these premises each year takes considerable time.

Second-Hand Premises and Junk Yards—A total of 451 inspections were made of these premises, and 145 permits were issued.

Wiping Rags—Twenty inspections were made to premises where wiping rags are distributed. In several instances the material was found to be improperly or insufficiently labelled as required by the Regulations governing same. It is important that these goods be properly sterilized and that certificates are provided indicating that such has been done.

Bedding and Upholstering Factories—We made only 9 inspections. We find that the requirements of the Regulations are being well observed.

Barber Shops—There were 129 inspections made, mostly to see that proper sanitary conditions are maintained.

Vermin—A total of 232 inspections were made of premises infested by bed-bugs or cockroaches, mostly the former. As considerable difficulty is experienced in placing responsibility, we are frequently obliged to notify both the owner and the occupier.

Theatres and Places of Amusement—There were 66 inspections made of this class of building. No serious defects were found.

Exhibition—During the first two weeks in August an exhibition was conducted in River Park. An Inspector was placed on duty during the whole period with the object of regulating all matters relating to sanitation. There were more than 100 animals with a large number of attendants, male and female, besides those in connection with the numerous side shows. This meant that special arrangements had to be made for frequent removal of manure and other refuse, also for provision of suitable lavatory accommodation for both sexes. There was considerable garbage and general refuse to be removed daily from living quarters and side shows. There were days when we had to provide for additional supervision in regulating matters so as to prevent nuisance. At the close of the exhibition we had the whole of the premises cleaned up.

Schools and Public Buildings—Fourteen inspections were made and a few minor defects remedied.

Laundries—A total of 584 inspections were made of hand laundries and 10 of steam laundries. The latter are also under the supervision of Inspectors acting under the Factories and Workshops Act. We issued 93 permits for hand laundries. Many of these are in old dwellings and other buildings that are becoming quite dilapidated and beyond repair and renovation.

Hotels—We made 176 inspections and issued 59 permits. The sanitary conditions of our hotels are well maintained.

Lodging Houses—Inspections made were 114 and permits issued 67. These premises are well kept, repairs and redecorating being carried out as required.

Markets—Inspections of these numbered 204. We find it necessary to make frequent inspection during warm weather and to serve notices regarding insanitary conditions.

Noise—Eleven inspections were made under the By-law governing noise. Informal notices to owners of dogs barking during the night and citizens who use radios at late hours constituted most of our actions under this head.

Hydrocyanic Acid—During the year 115 premises were fumigated for vermin. This work is done almost entirely during warm weather and our Inspectors are required to be on duty at all hours and sometimes on Sundays to see that the Regulations are complied with.

Cellar Occupation—We came across a number of instances during the year where cellars were being used for living and sleeping purposes by families. Few cellars are fit for occupation at any time, but where we find families living in cellar rooms that are damp and without sufficient natural light and ventilation, we order the cellar closed.

Smoke—As a separate report is being provided by the Smoke Inspector, it will not be necessary to discuss this subject except to say that a constant and vigorous campaign is being carried on at all times to keep our atmosphere free from smoke. On the whole, we have received a good deal of co-operation from the owners and managers of factories, apartment blocks, etc., although we have had considerable trouble with a few.

Insanitary Buildings—The table given below shows the number and class of premises for which notices were served on owners and occupants under Section 237, Division 21 of the Consolidated Regulations under "The Public Health Act" which section empowers the Health Officer to require that premises be put into a sanitary condition or else closed up.

Dwelling houses, general insanitary condition	32
Dwelling houses, overcrowding	2
Stores and dwellings, general insanitary conditions	6
Basements and cellar dwellings	2
Stores occupied as dwellings	1
Factories and workshops, lack of plumbing	8
Warehouses, etc., lack of plumbing	3
Club rooms, lack of plumbing	1
	55
Notices served on owners and agents	42
Notices served on occupants	56

Results:

Notices complied with (premises put into sanitary condition)	22
Premises closed and placarded	30
Cases still pending	3
Remaining closed on December 31st, 1933	103
Premises repaired or demolished during 1934	39
	64
Premises closed during 1934 (Dwellings 19, Stores and Dwellings 6, Cellar Rooms 1, Workshops 4)	30
Remaining closed on December 31st, 1934	94

It will be seen from the above that there are 94 premises remaining closed as insanitary at the end of the year.

Work Done for Other Departments—During the months of March, April, May and June, our Inspectors assisted the Communicable Disease Division by attending 3,088 cases of infectious disease.

Inspections were made and water samples taken at the various swimming pools and reports sent to the Y.M.C.A., Y.W.C.A., Winter Club, etc.

A considerable number of inspections were made and reports sent on request to the Social Welfare Commission, the Unemployment Relief Committee, various Divisions of the Department of Public Health and Welfare of the Manitoba Government, and others.

Miscellaneous—We were also called upon to deal with the following: cellars flooded by over-taxed sewer during heavy rainfall; trade refuse burned on vacant lots; family living in woodshed; defective oil burning furnace; stores occupied as dwellings; noxious gases from manufacturing in cellar of a dwelling, etc.

Prosecutions—There were no prosecutions during the year.

Staff—The members of the staff have been loyal and faithful in the discharge of their duties, and have given many hours service in evenings and on Sundays, when called upon.

Respectfully submitted,

ALEXR. OFFICER,

Chief Inspector,

Division of Sanitation and Housing.

Report of the Housing Inspector

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

Medical Health Officer.

Dear Sir:

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

Dwellings—Depreciation in the structural condition of dwellings generally is very noticeable. Attention to minor repairs and repainting does not receive the interest by the owner as it did some years ago. Admittedly, rents are lower and the interest on the investment is much smaller than in years past. In many instances no doubt, where interest is still being paid on mortgages, there is not sufficient revenue to cover the expenses. It is not surprising therefore, that the number of dilapidated dwellings are increasing and that the time is not very far distant when a considerable number of such buildings will not be suitable for human habitation.

It must be noted however, that the dilapidated appearance of a building is not sufficient cause for action by this Department. Section 237 of the Regulations of the Provincial Public Health Act, definitely defines the various nuisances for which premises may be declared insanitary. The section referred to is as follows: "Where nuisance or insanitary condition is found to exist in any dwelling or other occupied building, due to dampness, dirt, filth, or vermin, inadequate lighting or ventilation, overcrowding, lack of plumbing, drainage or water supply, or where the plumbing and drainage system is defective, leaking or frozen, or if from any other cause, the health officer shall serve notice on the owner, person in charge, or on the occupants, or any of them, requiring the premises to be put in proper sanitary condition or if he sees fit requiring the occupants to vacate the premises within such time as he may deem reasonable."

Although at the present time there exists no justification for closing the dwellings referred to, we know by practical experience that a neglected structure very soon causes one or more of the nuisances defined in the section quoted.

Complaints made to the Department have, as usual, been varied in character and referred to defective plumbing, damp cellars, over-crowding, bed-bug infestation, etc., all of which were satisfactorily dealt with.

It is very satisfactory to note that there has been an increase in the number of dwellings converted into duplex houses. The work was done in accordance with the Building and Plumbing By-laws.

Lodging Houses—Very few complaints relating to nuisances or overcrowding were received. This is due to the annual inspections before permit for license is issued and re-inspections by the district inspectors during the year. Any insanitary condition existing at the time of inspection is rectified, and cards are posted in the bedrooms to denote the number of persons who may occupy such rooms. General sanitary conditions have been satisfactory.

Apartment Blocks—The apartment blocks generally were maintained in a very satisfactory condition, and with the exception of complaints referring to carelessness in storing of garbage, the majority of nuisances

existed in the older type of building. Some of these blocks were constructed thirty and forty years ago, previous to the present regulations pertaining to construction, plumbing requirements, the provision of direct natural light and means for ventilation, etc. There are buildings which were originally occupied as offices only and later converted into apartment blocks. In such premises there are rooms with "borrowed" light only.

Only extensive alterations could make them comply with present requirements and then only at a prohibitive cost. In one instance, where a portion of the block was only two storeys high, suitable ventilated skylights were installed, to be followed later with the construction of a light-well or court to the three storey section.

At the present time, four floors are being removed from another building of a similar type. The suites were seldom occupied, principally owing to the unsatisfactory conditions prevailing especially in regard to the number of dark rooms.

The use of sanitary fixtures in common, and the consequent lack of cleanliness due to the indifference of the owner in the older type of building, is a common source of complaint.

Tenements—There is no improvement in these illegally converted dwellings. In fact, there are indications that this type of occupation is on the increase.

As a general rule, the lessees are not profiting materially by the manner of occupation, suggesting that, in many instances, the lower rental is the predominating factor. Owners on the other hand, are not receiving sufficient revenue to allow for the general expenses on the property. It is not necessary to elaborate on the objectionable features pertaining to this method of housing, as detailed information has repeatedly been given in previous annual reports, etc.

There is no doubt that many of these houses could be converted into desirable residences for two and three families to the advantage of the owners. Many of the dwellings, however, due to the general planning or dilapidated condition, could not be converted excepting at a prohibitive cost.

General—As regards the present housing conditions, it is evident that the construction of cheaper houses is necessary. Whether this is possible, in order to allow for the rental which the lower paid worker could afford, is problematical, unless a portion of the rent or original cost of construction was subsidized by some governing body. Small dwellings are absolutely necessary, in order to relieve the unsatisfactory housing situation prevailing.

Winnipeg is unfortunate in-so-far as the severe winter conditions are concerned. Construction must be substantial, particular attention being given to insulation which is of great importance as affecting the cost of heating and consequent comfort of the occupants. These circumstances prevent the substitution of cheaper material, consequently, any economy must apply only to reducing the size of the dwelling. This may be done in two ways, viz: (a) by limiting the size of the dwelling to say four rooms; (b) by reducing the width of the building lot. In reducing the area of the dwelling however, a satisfactory standard of cubic capacity must be maintained in all rooms. The plan arrangement should also provide for the provision of good natural light which would be from the front and rear.

This summary would, therefore, suggest the construction of dwellings in terrace form but, from the aesthetic viewpoint, the length of a terrace should comprise of not more than six houses.

There are many arguments for and against the terrace type dwellings. Houses of this type may be constructed more cheaply, the taxes on land, sewers, streets and sidewalks are thereby reduced and the heating costs are less owing to the reduced outside wall exposure.

It should be quite possible to construct four-roomed houses of the detached type to rent for about twenty dollars per month.

If slum conditions are to be prevented, I am of the opinion that, (a) a number of suitable houses will have to be erected. This will probably encourage the repair or demolition of those structures at present in poor repair; (b) Where the new dwellings are erected they should be in a location with a satsfactory environment; (c) Definite areas should be decided upon where the construction of new buildings would be regulated by the City. This would embrace all areas where old dwellings predominate. All new buildings in these areas should be constructed in accordance with a plan previously prepared by the authorities; (d) Broader powers should be obtained to regulate the repair or demolition of property, other than from the viewpoint of safety.

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:

Hereinunder is respectfully submitted a report on the smoke nuisances and their abatements during the year 1934.

Smoke Inspections

	January	February	March	April	May	June	July	August	September	October	November	December	Total
Observations:													
Chimneys and Smoke Stacks	37	15	15	25	15	24	5	5	21	25	24	23	234
Inspections of Furnaces, Boilers, Fuel, etc.	28	26	40	24	20	21	3	4	16	16	17	18	233
Total	65	41	55	49	35	45	8	9	37	41	41	41	467
Notices:													
Statutory						1	1	1					3
Verbal	28	15	15	24	20	20	2	3	16	16	17	18	194
Total	28	15	15	24	20	21	3	4	16	16	17	18	197

The main causes of smoky chimneys are improper methods of stoking or lack of sufficient boiler capacity. Home owners, as well as plant operators, either through ignorance or indifference, do not exercise sufficient care in firing. The man who is willing to be careful in the management of a hand-firing plant can operate efficiently, economically, and practically smokelessly.

One of the biggest handicaps that coal has to contend with as a fuel is inefficient firing, for it is here the human element comes in, resulting, in many cases, in having a periodic nuisance.

Smoke not only shuts out the light and soils with soot, but it also irritates the mucous membranes of the respiratory passages. It is a nuisance that can and should be stopped.

One of our worst offenders in this respect is the garbage incinerator, installed in many of the Apartment Blocks within the City. Owing to utter carelessness of the operator, many of these incinerators fail to accomplish the purpose for which they were intended.

The object of an incinerator is to destroy garbage and other waste matter by burning. This process can, and should be carried out without the emission of dense smoke, bad odours and partly burned scraps of paper flying from the stack, all, or any one of which can give good cause for complaint.

In order to accomplish this desirable end, a temperature should be maintained in the furnace by the aid of coal, sufficiently high to give complete combustion as speedily as possible. We generally find by experience, however, that an incinerator is loaded cold, and the slow fire is expected to do its work without aid from any source whatsoever. Instead of incineration, we find a slow smoldering fire, owing to the pressure of green vegetable matter in the garbage, with the results already outlined.

The burning of trade wastes and old automobile tires still gives the Department trouble, and this practice often is the cause of much annoyance to citizens.

District heating is still holding its own. As an eliminator of smoke trouble this service is perfect. We append the number of such services within the City at the end of 1934:

City Hydro (steam) customers on line	224
Northern Public Service—North side of River (steam and hot water) customers on line	800
Northern Public Service—South side of River, West of Waterloo St. (steam and hot water) customers on line	500
Winnipeg Heating—Fort Rouge, East of Waterloo St. (steam) customers on line	1,350
Total	2,650

Special inspections throughout the year were also made of Hotels, Undertaking Parlours, Public Baths, Comfort Stations and Swimming Pools.

Respectfully submitted,

DOUGLAS LITTLE,

Smoke and Supervising Inspector.

Report of the Chief Dairy Inspector

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

Medical Health Officer.

Dear Sir:

I herewith take pleasure in submitting for your consideration the Annual Report relating to the City of Winnipeg milk supply, and covering the observations, policies and activities of the Dairy Division for the year 1934.

Generally speaking most farming conditions showed a fair improvement over those pertaining to the two previous years, and the majority of our dairy farms had nice fodder crops and in many cases a fair crop of marketable grain, thus while the price received for the product showed very little improvement, the plentiful supply of feed had the effect of lightening direct production costs, and allowing the farmer a little more margin towards providing the necessities of his existence, which during recent years has been based on a very frugal standard with a somewhat precarious foundation.

Many factors have tended towards an improvement in the quality of milk supplies shipped in to our city plants, among which may be mentioned: 1. Improved road transport facilities enabling supplies to be quickly and conveniently picked up and rapidly transported, thus avoiding long waits and exposure which may be detrimental to the product. 2. Dairy Farm Inspection service carried out through the medium of the Provincial Health Department, which body also reviews all tests on plant receipts, taking suitable action whenever deemed necessary, and this combined with a certain amount of educative measures has undoubtedly assisted in eliminating many shipments of undesirable milk.

Milk sales and conditions under which they may be effected are controlled by the Public Utility Board in the Greater Winnipeg area, and the main policy of the Board has been to maintain a fair relationship between producer, distributor and consumer, without allowing any one party or class to obtain or hold an advantage to the detriment of the others. The Board has also endeavoured to mould its policy in such a manner as to avoid increases in shipments of market milk until such time as an outlet is provided, or in other words they try to avoid setting a price which would attract milk from manufacturing and other channels into the market milk quota. Another somewhat difficult problem is that involved in an effort to preserve equitability between the various services engaged in handling milk, and also to preserve such equitability as regards different kinds of milk, cream, etc., offered to the consumer. In the early summer of 1934, the summer price was set at 9c per quart delivered. In the fall the winter price was set at 10c. At the end of the year an amended order allowed raw milk to be sold at 9c and dipped milk at 12 quarts per dollar.

The number of Licensed Dairy Herds shows a slight drop, three herds having been dispersed during the year, and many of those left in business now keep a smaller number of cows, while the number of private cows kept inside the City shows twenty less in the past two years. Private cows and dairy herds are all tuberculin tested by the Federal Department of Agriculture—Health of Animals Branch under the "Supervised Herd Plan"

with the exception of two or three pure bred herds under the "Accredited Herd Plan." The number of reactors found is small and quite normal indicating that the disease of tuberculosis can be eliminated, but that constant guardianship is necessary in order to preserve this condition.

The city and suburban Milk Plants pasteurize all crude shipments of milk and cream, and any Special, Certified or Raw milk handled is on a distribution service only; this milk being bottled on the farms where produced, such farms being subject to special supervision and inspection. We are glad to note a steady increase in the percentage of pasteurized products consumed and we are satisfied that the use of the term "pasteurized" is correctly interpreted, and that the process is based on sound scientific and practical principles.

Milk Grading continues to show the way towards improvement in retail milk, and the competitive spirit engendered amongst the vendors gives valued assistance. The action of the Relief Committee early in the year when they issued a warning to all purveyors of low grade milk, had a most wholesome effect, as previously it looked as if some of these vendors were taking advantage of those of their customers who were of the unfortunate, and were issuing a low grade supply, and collecting the same price as those supplying the higher grades.

It is now evident that the peak of consumption was reached in 1932 during the so-called milk war, when prices were slashed and milk thrown on the bargain counter; but the falling off has been very slight, from 0.66 to 0.65 and possibly to 0.64 pints p.c. daily; or from 1 to 3% i.e., from 180 to 540 gallons per day.

Low prices for farm products are responsible for many cases of attempted boot-legging of milk and cream, more especially the latter. Producers and others anxious to get hold of a little hard cash are especially subjected to such temptation, and for this reason it has been necessary to keep on eye on public markets, and on the streets for peddlers, etc., making the odd sale. Owners of private cows and a few truckers of farm produce are also liable to quietly supply relatives or acquaintances.

The general quality of our milk supply is good, and our examinations and grading tests reveal that the average milk is cleaner and has a lower plate count year by year. As regards richness and quality, there are undoubtedly a few herds of dairy cows producing milk which is only just able to reach up to the minimum standard set for fat and solid content.

Compared with other Canadian and American cities the price schedules here are reasonable, and with the principle of price control spreading throughout the English speaking world, we may well hope that the same moderate policies will continue.

	Canada Retail Prices		U.S. Retail Prices		
	Summer	Winter	Summer	Winter	
Under 10c	8	1	5	2	Under 10c
At 10c	5	9	9	9	At 10c
Over 10c	5	8	4	7	Over 10c
Number of Cities	18	18	18	18	Cities

Control of Milk Prices

Manitoba—The Municipal and Public Utility Board was authorized by Statute amendment to set up a price schedule for Greater Winnipeg by the 1932 Legislature. The first order was issued September, 1932. Summer and winter schedules have been adopted in regular succession since that date.

Charges—Producers 1c per 100 lbs. Distributors 1c per 100 lbs. Producer-distributors—not decided.

Alberta—The Public Utility Board was authorized to set prices commencing 1933, and since that date prices to producer and consumer in the cities of Calgary and Edmonton have been under control, and suitable schedules maintained.

Saskatchewan—The Milk Control Board consisting of a Chairman and two other members all serving full time was appointed in June, 1934, following the report of a special commission which investigated the whole situation. The first order of this board set prices for the winter 1934-35 for the cities of Saskatoon, Moose Jaw, Regina, Prince Albert, and Yorkton. Retail prices 8 and 9 cents in the two smaller cities and 10 cents in others. Purchases per lb. Butter Fat 40 cents to 52 cents, varying with local conditions. Charges—Producers and Distributors each 0.4c lb. B.F. Producer-distributor 0.8c lb. B.F.

British Columbia—The Lower Mainland Dairy Products Board set up under the Federal Marketing Act issued its first order and price schedule for Vancouver in January, 1935, this being an initial attempt to alleviate the somewhat chaotic conditions whch have existed there for a few years.

Ontario—The Ontario Milk Control Board appears to have authority to render assistance in arriving at agreements between producer and distributor and to confirm or approve of same.

Great Britain—The Milk Administration Board, after operating for two years, fall 1932-34, was able in October, 1934, to set up a twelve months schedule expiring September 30th, 1935, for England and Wales, providing for a six cent spread on all retail milk, which in many centres has at the request of distributors been reduced to five cents.

The effect of this large spread has apparently been to reduce consumption in the home, and to offset this condition the Board out of its accumulated funds subsidizes local authorities so as to enable them to supply one-third pint bottles of milk to school children at a cost to the child of one cent. In some instances the local authority itself pays the one cent charge but as a rule where able, the children each pay for their own bottle of milk.

United States—The A.A.A. Agricultural Adjustment Administrator, acting under authority of the N.R.A., assists in negotiating regional or local agreements between producer and distributor, but does not directly set or control the price at which milk shall be sold to the consumer.

In addition to ensuring a fair or higher price to the producer, they also endeavour to ensure higher or standard wages in plants, and more employees engaged. The more common complaint appears to be that all direct benefits have gone to the producer and plant workers and that indirect benefits supposed to accrue to the credit of the distributor and consumer have not materialized.

I have the honor to be, Sir,

Your obedient servant,

E. C. BROWN,
Chief Dairy Inspector.

Milk and Dairy Inspection, 1934

	1932	1934
Inspections inside City	4,797	4,934
Inspections outside City	1,844	1,449
Notices and Instructions	925	693
Samples and Examinations	5,145	4,813
Pints of milk for Grading	1,000	1,534
Brands Graded in Detail	66	115
Brands partially Graded	49	0
Crude Plant runs Graded	8	9
Percentage Supply Graded	85%	100%
Milk condemned, pounds	2,230	1,432
Cream condemned, pounds	340	0
Sickness investigated, cases	10	3
Mileage outside City	16,095	8,041
Thermographs inspected weekly	1,040	1,248
Thermograph records daily	7,300	8,760

Cattle in Licensed Dairy Herds

Milking Cows	2,278	1,784
Dry Cows and Springers	570	424
Herd Bulls	90	70
Feeding Steers and Cows	88	56
Heifers two year old	514	512
Yearlings and calves	420	424
Total Cattle	3,960	3,270*

Private Cow-Keepers

Stables under Inspection	213	222
Stables unoccupied	68	96
Stables with one cow only	120	106
Stables with two cows	25	20
Private cows—North Winnipeg	125	108
Private cows—Elmwood	33	24
Private cows—Centre Winnipeg	8	4
Private cows—South Winnipeg	4	10
Total cows and calves	170	146

Note:—For the past 3 years there has been a small but steady decline in the number of cattle on dairies and in private stables.

*300 head on 3 Special Milk farms not now included.

Milk Vendors Licenses, 1934

	1930	1932	1934
Dairy Licenses issued	99	99	96
Dairy Licenses active	97	97	93
Plant Licenses issued	5	9	11
Total Licenses issued	104	108	107
Total Licenses active	102	106	105

Revenue amounted to $2,393.00 as against $2,476.00 for 1933.

	1933	1934
Dairy License Fees	$1,468.00	$1,367.00
Plant License Fees	1,008.00	1,026.00
	$2,476.00	$2,393.00

City Revenue $471.00.

Raw Milk Dairies	$ 118.00	$ 75.00
Pasteurizing Plants	388.00	396.00
	$ 506.00	$ 471.00

Outside Revenue $1,922.00.

Dairies in municipalities	$1,350.00	$1,292.00
Plants in St. Boniface	620.00	630.00
	$1,970.00	$1,922.00

Basis of Revenue

First 10 milch cows on 96 Dairies	943	@ $1.00	$ 943.00
Second 10 or more milch cows	848	@ .50	424.00
Plant del. routes business tax paid	193	@ 2.00	386.00
Plant del. routes no business tax	64	@ 10.00	640.00
Total Revenue from Licenses			$2,393.00

Consumption and Distribution

	Gals. Daily	Pints per cap.	Routes	C.C. Stores	Past'd %
1929	16,750	0.65	355	155	62.6
1930	17,000	0.65	350	650	65.0
1931	17,250	0.65	350	775	68.0
1932	18,000	0.66	375	770	73.5
1933	18,000	0.66	375	765	75.0
1934	18,000	0.65	380	765	77.0

	1930	1932	1934
Pasteurized milk consumed daily	11,050	13,230	13,860
Raw T. Tested, special, private supply	5,950	4,770	4,140
Gallons per day	17,000	18,000	18,000

Winnipeg's Milk Supply, 1934—Gallons per Day

	1932	1934
Pasteurized Milk, bottled	12,600	13,300
Pasteurized Milk, in bulk	630	560
Raw Milk—Certified	36	25
Raw Milk—Special	720	440
Raw Milk—Bottled	1,440	1,650
Raw Milk—Dipped	2,340	1,800
Raw Milk—Private Cows	234	225
Total gallons daily	18,000	18,000

Percentage Classification

	1928	1930	1932	1934
Pasteurized Milk	60.0	65.0	73.5	77.00
Certified Milk	1.5	0.5	0.2	0.15
Raw Milk T. Tested	37.0	33.0	25.0	21.60
Raw—Private Cows	1.5	1.5	1.3	1.25
	100.0	100.0	100.0	100.00

Grade Classification

Brands		Grade	% Perfect	Gallons	%	Totals Gallons	Totals %
19	A1	High	90-95	10,980	61		
31	A2	High	85-90	4,500	25	15,480	86.00
35	B1	Medium	80-85	1,440	8		
15	B2	Medium	75-80	405	2.25	1,845	10.25
15	C1	Low	70-75	360	2		
9	C2	Low	60-70	90	0.5	450	2.50
			Private Cows	225	1.25	225	1.25
124			Totals	18,000	100.00	18,000	100.00

Daily per Capita Consumption

Fluid Milk only—Imperial Measure	0.65 pints
Milk and Cream basis—Imperial Measure	0.90 "
Fluid Milk only—U.S. Measure	0.81 "
Milk and Cream basis—U.S. Measure	1.20 "

Milk Consumption—Greater Winnipeg
Gallons per Day

	% Past'd	Past'd	Raw	P. Cows	Total	Pints p.c.
Winnipeg	77.0	13,860	3,915	225	18,000	0.65
Suburbs	55.0	2,475	1,800	225	4,500	0.60
Greater Winnipeg	72.6	16,335	5,715	450	22,500	0.64

Milk Grading, 1934

	High	Medium	Low	Totals
Gallons per day—sales	15,840	1,845	450	17,775
No. of Brands retailed	50	48	17	115
Crude Plant Runs	0	2	7	9
Total supplies graded	50	50	24	124
No. samples off-Grade	3	1	4	8
Total pints examined	678	570	286	1,534

Percentage of Perfection

Formula applied to average tests over twelve month period covering cleanliness, keeping qualities, fat and solid contents, taste, flavor, odor, plate count, with suitable bonus or deduction for special features or special failings respectively.

		Perfect	Retail Brands	Crude Runs
High Grade	A. 1.	90 to 100%	19	0
" "	A. 2.	85 to 90%	31	0
Medium Grade	B. 1.	80 to 85%	35	0
" "	B. 2.	75 to 80%	13	2
Low Grade	C. 1.	70 to 75%	12	3
" "	C. 2.	60 to 70%	5	4
			115	9

For obvious reasons we use a variation in methods in grading Pasteurized, Crude and Raw Milk, but at some stage they all come under the same formula. Pasteurized and Raw samples reflect the condition in which milk reaches the consumer. Crude Milk samples are taken as delivered by the producer at the plant. The system has been evolved and built up to suit and cope with conditions existing in the Winnipeg area, stimulating competition and improvement in supplies by visualizing faults in a simple manner. For five years 1927 to 1931 we experimented with, and amended the system annually, placing greater emphasis on the major faults until now we find that having eliminated all inequalities, and co-ordinated the relationship of all the most desirable factors, we find no difficulty in placing each brand of milk in its relative position on the grade scale, and that fair and correct comparisons may be made or inferred from the percentage of perfection so established.

Milk Grading, 1934

Sediment Tests Applying to All Grades

	Distribution of Sediment Evidence of removal	Rating of each pint sample High	Med.	Low	Total	%
No. 1	Perfect white or cream	499	210	51	760	50
No. 1–	Slight stain or specks	101	124	40	265	17.5
No. 1.5	Traces of sediment	72	166	96	334	21
No. 2	General light sediment	6	62	86	154	10
No. 3	General heavy sediment	0	8	13	21	1.5
	Total Sediment Tests	678	570	286	1,534	100

Average Sediment Tests

Showing how these affect the Grade of Brands.

Ave.		High	Med.	Low	Total	%
1.0	No. 1 at all times	17	2	0	19	15.3
1.1	No. 1 90% of times	17	2	1	20	16.1
1.2	No. 1 75% of times	11	7	0	18	14.4
1.3	May Grade High	5	16	0	21	17.0
1.5	Gr. Med. B.1 or lower	0	17	4	21	17.0
1.7	Gr. Med. B.2 or lower	0	6	11	17	13.7
2.0	Must Grade Low	0	0	8	8	6.5
		50	50	24	124	100.0

Sediment Tests of Crude Milk

Samples taken receiving-room-run at Plants

Appx. No. Shippers	Plant No.	No. 1	No. 1–	No. 1.5	No. 2	No. 3	Total
250	1	2	4	11	4	0	21
250	2	0	0	13	7	1	21
200	3	0	2	8	9	2	21
50	4	0	1	6	4	0	11
50	5	1	0	6	4	0	11
50	6	1	3	4	3	0	11
25	7	0	4	6	2	0	12
15	8	1	5	4	1	0	11
10	9	0	4	5	1	1	11
900	9	5	23	63	33	4	130

No. 1 or 1–	Crude Milk 20%		Retail milk 67%	
No. 1.5	"	50%	"	21%
No. 2 or 3	"	30%	"	12%

Note: These Percentages apply to samples and not to quantities of milk.

Average Plate Counts, 1934

One years average per c.c.	High G. Brands	Med. G. Brands	Low G. Brands	Total Brands	%
5.000 to 10.000	11	1	0	12	10
11.000 to 20.000	33	19	9	61	49
21.000 to 35.000	5	27	4	36	29
36.000 to 50.000	1	3	3	7	
51.000 to 75.000	0	0	3	3	
76.000 to 100.000	0	0	2	2	12
101.000 to 250.000	0	0	3	3	
	50	50	24	124	100

From the above we see that 88% of all brands averaged under 35.000. We had several individual counts under 5.000 and some less than 1.000 but these are offset by high counts in setting averages.

Comparisons in High Grade

Sediment Tests—Plate Counts—Perfection.

Pasteurized Milk				Raw Milk			
No.	S.T.	P. Count	Perfect	No.	S.T.	P. Count	Perfect
2	1	10.000	93.4%	1	1.1	8.000	94.4%
3	1	15.000	92.4	4	1	9.000	92.0
6	1	15.000	92.0	5	1	10.000	92.0
8	1.1	15.000	92.0	7	1	20.000	92.0
10	1.3	15.000	91.4	9	1	10.000	91.4
14	1.1	20.000	91.0	11	1	20.000	91.2
16	1	22.000	90.4	12	1	16.000	91.0
17	1	15.000	90.0	13	1.1	8.000	91.0
18	1	20.000	90.0	15	1.1	11.000	90.9
19	1	20.000	90.0	20	1	15.000	89.0
23	1.1	10.000	88.6	21	1	15.000	89.0
24	1.1	12.000	88.6	22	1	20.000	89.0
31	1.1	35.000	87.0	25	1.2	12.000	87.8
36	1.1	35.000	86.0	26	1.2	15.000	87.8
37	1.1	45.000	86.0	27	1.2	10.000	87.7

Note: Where the percentage arrived at does not look equitable, it will be remembered that here we are only visualizing two of the major factors utilized in establishing this standing and that all other factors have been determined and made use of.

Milk Prices and Spreads

30 Years Trend, 1905-1934

Years	Spread Low	Spread High	Retail Quart Low	Retail Quart High	Producer Low	Producer High
1905-06-07	4	4½	7	8	1.20	1.60
1908-09-10	4½	5	8	10	1.50	2.00
1911-12-13	5	5½	9	11	1.80	2.50
1914-15-16	5	6	10	12½	2.00	2.75
1917-18	6½	7	12½	14	2.40	3.15

	Quart Spread	Average Spread	Delivered Quart Low	Delivered Quart High	Producer at Plant Low	Producer at Plant High
1919	7¼	7¼	14	16	2.85	3.45
1920	7	7	14	15	2.75	3.15
1921	6½	6½	12	13	2.15	2.45
1922	6½	6½	12	13	2.15	2.45
1923	6½	6½	12	13	2.15	2.45
1924	6¼	6¼	12	12	2.15	2.30
1925	6¼	6¼	12	12	2.15	2.30
1926	6¼	6¼	12	12	2.15	2.30
1927	6¼	6	12	13	2.15	2.45
1928	6¼	6	12	13	2.15	2.45
1929	6¼	6	12	13	2.15	2.45
1930	6¼	5½	11	12	1.85	2.15
1931	6¼	5½	10	11	1.40	1.80
1932	6	5	8	10	1.00	1.54
1933	5½	4½	9	10	1.30	1.68
1934	5½	4½	9	10	1.31	1.71

The delivered quart spread and the average spread were on an equality basis until 1927 as the premium on 20% pints offset the discount on 8 to 10% wholesale.

In 1930 the full weight of chain store selling had the effect of widening the gap from ¼ to ¾ cents and finally the requirements for relief and welfare rapidly increased the gap to one cent where it has remained for the past two years.

Previous to 1929, stores were charged the full retail price in most cases, and they in turn charged a premium of 1-2 cents, handling milk as an accommodation and not as a regular service.

Notes on Milk Prices in Canada

Summer 1934—18 Cities

In 4, including Winnipeg, the distributor pays $1.30 per cwt.
In none is less paid, while in 14 more is paid.
In 7, including Winnipeg, the delivered quart is 9c.
In 1 it is at a lower figure, in 10 it is higher.

Winter 1934-35—18 Cities

In 5, including Winnipeg, the distributor pays $1.68-$1.75 per cwt.
In 3 less is paid, while in 10 more is paid.
In 9, including Winnipeg, the delivered quart is 10c.
In 1 it is at a lower figure, in 8 it is higher.

Price to Producer

	Min.	Max.	Ave.
Basic Price Summer 1934	$1.30	$1.81	$1.54
Basic Price Winter 1934-35	1.40	2.20	1.82

Price to Consumer

	Min.	Max.	Ave.
Delivered Quart Summer 1934	8c	12c	9.8c
Delivered Quart Winter 1934-35	9	12	10.5

Notes on Milk Prices in U.S.

Summer 1934—18 Cities

In 4, including Indianapolis, distributor pays $1.68-$1.75 per cwt.
In 5, including Minneapolis, is less paid, in 9 more.
In 3, including Minneapolis, the delivered quart is 9c.
In 2 it is a lower figure and in 13 higher.

Winter 1934-35—18 Cities

In 5, including Minneapolis, distributor pays $1.70-$1.85 per cwt.
In 2 less is paid, while in 11 more is paid.
In 9, including Indianapolis, the delivered quart is 10c.
In 2 it is at a lower figure and in 7 higher.

Price to Producer

	Min.	Max.	Ave.
Basic Price Summer 1934	$1.30	$2.50	$1.84
Basic Price Winter 1934-35	1.40	2.83	2.00

Price to Consumer

	Min.	Max.	Ave.
Delivered Quart Summer 1934	7c	12c	9.8c
Delivered Quart Winter 1934-35	8	12	10.3

Milk Prices in Canadian Cities

Producers Price per cwt. F.O.B. City. Consumers Price per Quart del.

	Summer 1934		Winter 1934-35	
	Per 100 lbs.	Quart	Per 100 lbs.	Quart
Victoria, B.C.	$1.57	11c	$1.57	11c
Vancouver, B.C.	1.30	9	1.72	10
Calgary, Alta.	1.55	9	1.95	10
Edmonton, Alta.	1.48	9	1.85	10
Saskatoon, Sask.	1.68	10	1.68	10
Moose Jaw, Sask.	1.57	10	1.82	10
Regina, Sask.	1.57	10	1.75	10
Brandon, Man.	1.30	9	1.50	10
Winnipeg, Man.	1.31	9	1.71	10
Fort William, Ont.	1.80	10	2.20	11
Windsor, Ont.	1.37	11	2.20	12
Kitchener, Ont.	1.41	9	2.00	11
Brantford, Ont.	1.65	10	1.90	11
Hamilton, Ont.	1.81	11	2.00	11½
Toronto, Ont.	1.81	11	2.10	12
Verdun, Que.	1.40	9	1.40	10
Sherbrooke, Que.	1.30	8	1.80	9
Halifax, N.S.	1.75	12	1.75	12

Milk Prices in United States Cities

Seattle, Wash.	$1.65	10c	$1.93	11c
Portland, Ore.	1.71	10	1.93	11
Salt Lake City	1.68	10	1.79	10
Butte, Mont.	1.92	10	1.92	10
Bismarck, N.D.	.....	....	2.20	11
Grand Forks, N.D.	1.30	8	2.00	10
Aberdeen, S.D.	1.45	7	.....	....
Sioux Falls, S.D.	1.75	10	1.75	10
Minneapolis, Minn.	1.60	9	1.70	9
Milwaukee, Wis.	1.85	9	2.15	10
Detroit, Mich.	2.25	11	2.25	11
Grand Rapids, Mich.	1.85	10	2.10	10
Kalamazoo, Mich.	1.85	10	1.85	8
Springfield, Ill.	1.40	10	1.40	10
Indianapolis, Ind.	1.70	9	1.53	10
South Bend, Ind.	1.83	10	1.83	10
Cleveland, Ohio	2.33	11	2.33	11
Buffalo, N.Y.	2.45	12	2.45	12
Manchester, N.H.	2.50	11	2.83	12

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 summary of the activities of the Food Division for the year 1934.

Premises under inspection for the year total two thousand and eighty-nine, an increase since previous report of fourteen.

There was an increase in the number of complaints regarding so-called food poisoning compared with 1933, there being only five in 1933 and eight in 1934. Two of these cases reported were very unusual. One was in regard to sugar. The sugar was submitted to Mr. A. Blackie, Consulting City Chemist, and on analysis he found it contained 1.68 grains per pound of arsenic (Arsenous oxide As^2O^3), far exceeding the tolerance allowed in any foodstuff under the Food and Drugs Act. Follow up investigation failed to elicit any information as to the source of this adulteration. The other was regarding pork and beans and on being submitted to Mr. A. Blackie for analysis, he reported a quantity of ground glass therein. Analysis of other tins of the same code number from the same store, failed to show any such extraneous matter. The other complaints were two regarding meat, one regarding veal, and one each re sausage, butter and honey respectively. Nineteen samples were submitted to Mr. A. Blackie, Consulting City Chemist, for analysis and apart from the two outstanding ones, were given an OK. One hundred and fifty-seven (157) samples of food and aerated waters were submitted to Doctor M. S. Lougheed, City Bacteriologist, for bacteriological test and all but a few showed no gas forming organisms, none showed pathogenic organisms. These few were in the aerated water group and after suggestions for improvement in the method of handling, made to the manufacturer, and his adoption of same, further samples showed the gas forming organisms were eliminated.

A total of four hundred and sixty-five phone calls were made to the office and registered as complaints. Of these calls three hundred and four were calls to inspect new premises or premises changing ownership and invariably they were licensed premises (i.e.) premises licensed to do victualling. Forty-six of these calls were requests to inspect food and forty-four were complaints that food was unsound and unfit for sale. Inspection of these foodstuffs resulted in forty seizures and of several lots being taken off the market. Fifty complaints were made to the Department that premises occupied as food stores were insanitary. Inspections were made and if conditions warranted it, notices served to remedy any contravention of regulations. Ten of those received were concerning bad odours, one of which was regarding an abattoir. Notices were given and nuisances rectified. Three complaints concerned the Farmers Market; these were mainly about the handling and sale of fresh meat. Three others were in respect to business being started and carried on in a zoned area Residential 1 district. Two such businesses complied with notice "To cease business and remove all stock, signs, etc." from premises. One appealed to Town Planning and Zoning Board Committee and had time extended for one year for disposal of stock.

Abattoirs—There is no increase in the number of abattoirs located within the City proper, there being a total of three. These abattoirs on the whole are well conducted and being under Federal Inspection makes the work of this Division light in their supervision. Only one complaint being received at office in respect to such premises during the year, but more onerous duties were entailed in checking up on meat canvassers or itinerant merchants who buy some of their stock from the abattoirs and also go into the country and buy up one day old calves from the farmers, kill them on the premises and return to the City with a truck load, disposing of the immature and poorest grade to some butchers, etc., and keep the best ones on their truck and proceed to an abattoir and have them inspected and passed by a Government Inspector. If the Marketing Act carries it may do away with such business, as all animals marketed would then have to be sold through a central selling agency. Failing it being carried by a majority of producers, it may be necessary to establish a clearing house for all meat other than Government inspected; but again the cost of such a building and having an inspector in attendance would make it practically prohibitive.

Sausage Manufacturers—There is a reduction in the number of merchants classified under this heading for the year, there being twenty-four listed last year and eighteen this year. Under the new Regulations of the Public Health Act, it is now compulsory for persons, firms, or corporations selling sausage or sausage meat wholesale, to be licensed, and several who do a large volume of business by retail are listed as butchers only. One firm amalgamated with another and the premises they occupied were closed down. A new building, modern in all respects, was built and opened for the manufacture of Kosher sausage. These premises are under Government Inspection by a lay inspector. One complaint regarding foreign matter in sausage was made to the office. A large four inch wire nail was shown imbedded in sausage by complainant. On inspection of the premises and machinery and the process of manufacture, conclusion arrived at was that it was an utter impossibility for a nail to have gone through the grinders and cutters and filling machine to be in condition it was in as shown. Several samples were tested out for excess cereal filling and found to comply with tolerance set by Food and Drugs Act.

Bakeries—There is a slight increase in the number of such premises under inspection during the year compared with 1933, namely, 83 as against 81. This may be accounted for by the fact of several opening, more as pastry shops than for bread baking. Forty-five per cent. of these premises have been painted and renovated during the year. This compares very favourably with past years, when it is taken into consideration that there was a bread war (price cutting) and that at the time bread was being sold so cheaply in Winnipeg, the average price of bread in Canada was 6.5 cents per pound (International Labour Review, September). In the U.S.A. it was 8.5 cents per pound, and in Germany it was 13¼ cents per pound, Belgium being the lowest, 2¾ cents per pound. All flour and other ingredients used in the baking of bread, cakes and pastry is examined at time of inspection of premises and is usually found to be good and sound. The question arises, is this enough? Or should samples of the baked product be secured and analysed to see if it conforms to the name. For example, "whole wheat" might be a mixture of whole wheat and flour or "Rye Bread" may be a mixture of rye and wheat flour. One firm selling a large volume of bread has tried to eliminate the handling of bread in open containers, by the public, by installing a covered receptacle, of a hopper variety, where there is little likelihood of the bread being handled.

Bottling Plants—The number of these premises under inspection remains fairly constant. Samples of all aerated waters were taken from all premises engaged in such business and submitted to Doctor M. S. Lougheed for bacteriological examination. Several showed gas forming organisms. This

matter was discussed with the separate manufacturers and on further samples being taken, this aspect cleared up. One firm made extensive alteration and renovations during the year which proved of material benefit in the handling of their product.

Butcher Shops—There are now two hundred and twenty-four premises listed in this category and with the exception of a very few, their business is conducted in a cleanly manner. The number of complaints received in office, five in all, speaks well for the trade. Mention was made in former report regarding refrigeration. The number who cling to the old method is getting smaller and smaller. A considerable number have installed the latest method of refrigeration (i.e., conditioned air) during the year.

Complaints—There were fewer complaints during the year 1934 than in 1933, the decrease being approximately 4%. A great amount of time is taken up in the investigation of some of these complaints, which somewhat hampers the routine inspection work. Often these complaints appear more in the nature of spite work rather than someone imbued with the idea ot having conditions made better, but the division was instrumental in having numerous refunds of purchase price made, where complaints were found authentic.

Condemnations—During the year your inspectors were responsible for seizure and condemnation of 11,650¾ pounds of food-stuffs. Of this amount the greater portion was veal, there being 69% more condemned during 1934 than in 1933. There is a large decrease in the amount of vegetables seized, 8,780 pounds less. The quantity of poultry condemned remains fairly uniform, the number of birds condemned for T.B. being approximately 7% of the total, the remainder being seized owing to putrefaction having set in; this is largely due to carelessness in handling and shipping before all body heat has escaped properly. In addition to the amount seized, there was a total of 176,870 pounds of foodstuffs voluntarily sent to incinerator to be destroyed. Outstanding in this regard were fruit 61,440 pounds, pickles 36,950 pounds, fish 30,410 pounds, eggs 14,830 pounds, canned goods 20,650 pounds; the latter shows a large increase. The possibility of this increase in canned goods being sent to be destroyed, might be traced to the incessant educational work being carried on, in pointing out to the trade, the dangers of blown cans, notwithstanding the canning industry publicity to the contrary. The contamination of foodstuffs by the corrosion and dissolving of their "tin" containers is probably not seriously harmful, but it is inadvisable to continue the consumption of the products of corrosion or tarnishing indefinitely. It is best to remove foods from cans immediately upon opening them, as the tin (and lead which may be present) corrodes or dissolves at a greatly increased rate in the presence of air. Definitely questionable canned goods should not even be tasted, as minute amounts may be sufficient to cause sickness from a toxin arising from the bacteria Cl. Botulinum. Food poisoning and infection are unlikly to occur if all cans with swells or leaks, and canned foods which are in the least degree off odour, mushy, stringy, soft, slimy, milky or mouldy, are discarded; unfortunately, however, the characteristic odour of the poison is at times disguised by that of the food.

Fruit and Vegetables—There is a decided drop to a new low in the amount of fruit and vegetables seized and condemned, the total for the year being only 3,820 pounds. This amount was practically all composed of small lots of potatoes, sold by farmers to householders and after they had been delivered, purchasers found that they had been frozen before and during delivery. In every instance restitution was made of purchase price or an equal amount of good sound stock to replace those unfit for use. Imported leafy vegetables and celery are always examined wherever it is found exposed for sale, for spray residue, arsenous oxide (as^2o^3), lead and also

fluorine. Apples, pears, peaches and cherries should be carefully washed before ingesting as there is no direct relationship between the amount of arsenic on the fruit and the visibility of spray residue. Much of the residual arsenic and lead is concentrated at the calyx and stem. The tolerance enforced by the states to the south, 1/100 grams per pound of fruit, is kept to well below, seldom if ever over, by the exporters of such produce, as the seizure for excess of spray residue of a car load lot might run into hundreds of dollars.

Grocery Stores—There are at present three hundred and fifty-two premises classified under this heading. We have been endeavouring to have a better classification of what constitutes a grocery store and what may be classified as a general store, so that in the former we have added forty-five and reduced the latter by thirty-four, total now stands at six hundred and seventy-four, giving a total combined increase of thirteen for the year. Three opened up in new buildings and ten others in remodelled and renovated premises. Fewer blown cans are being found displayed on shelves of such premises than formerly. This we take as being all to the good for the safety of the consumers, in preventing an outbreak of food infection or food poisoning.

Confectioners—There are only one hundred and nineteen such premises listed under this heading compared with three hundred and six last year, the decrease being accounted for by deleting all those licensed to do victualling from this category. Confections that have nuts as part of their ingredients are always examined for the larva of the nut moth. Ladles and scoops are also examined to see if kept free from verdigris. Some of these caterers are careless in this regard and this matter requires constant supervision. The bulk of the food value of candy is furnished by its sugar, which gives it a high caloric or energy content, but candy supplies scarcely any of the body building or maintaining elements. Like sugar, candy is one of the poorest of all foods. Because it is so satisfying, candy displaces other indispensable foods. A large percentage of the candies or confections on the market contain artificial flavours and colouring. Surely the time is opportune to have a standard set by the Food and Drugs administration in regard to these matters. The wrapping of chocolate in lead foil should also be investigated, as to the probability of the product containing excess quantity of lead.

Hawkers—There were eighty-eight vehicles inspected for license during the year. Complaints regarding this class of merchant were very few. Possibly this may be accounted for by the wholesale fruit merchants not purchasing excess stock and being able to dispose of it all to the trade proper, thereby saving having to have it picked over, besides taking a loss on the wholesale price. Wagons are stopped on the street and contents inspected to see that fruit and vegetables are sound and fresh. Several complaints were received regarding the itinerant egg vendor, but constantly there is no name or address obtainable from complainant and the Department can do nothing. During the year a new grading act came in force in regard to such produce. Eggs are now sold as A, B or C grade.

Markets—There is only one market operating at present, except the one conducted on Market Square be so classified, as it is practically only garden produce. It has not been included. The market operated by the Manitoba Vegetable and Potato Growers' Association on Main Street between Stella and Flora, has to have constant supervision, especially in regard to the sale of fresh meat, fruit and cream.

Under the regulation of the Public Health Act, Division 3, Producers Markets, the sale of fresh meat is confined to the months of December, January and February unless in the opinion of the Medical Health Officer, weather conditions warrant the extension of the period from November

15th to March 15th inclusive, and it is unlawful unless under special permit from the Health Officer for any person to sell in a Producers Market, any cooked meats, minced meats, sausage, jellied meats, head cheese or any other meat products. It is found on inspection of this market that the regulations laid down in the Public Health Act are more observed in the breach than in the abstract, as we find meat being cut up into roasts, etc., instead of being sold in the quarter, side or carcass; that sweet cream is sold although the vendor has no license, also that fruit is exposed to dust, dirt and flies. In the latter regard, notice upon notice has been served on the stall-holders vending this product, without much success in having conditions remedied. Another feature in respect to this, is that parties who own property across the lane, did let space to a number of hawkers, etc., who also set up fruit stalls without proper protection from dust, dirt or flies. Owners were notified and a written guarantee has been given, that if space is again rented, that regulations will be strictly observed.

Prosecutions—There was only one prosecution instituted during the year. This was only undertaken after over a year of notices and warnings had been given to party concerned. The regulation in question was regarding exposure of foodstuff in open doorway of store. Party was convicted and fined. The magistrate made it clear to defendant that under the Act no foodstuffs of any kind could be so exposed.

Restaurants, Clubs, Hotels—There is a large increase in the number of premises listed under this heading as the word "Restaurant" as defined under the new Public Health Act includes every building, or part thereof, structure, tent, or other erection used as a restaurant, cafe, lunch counter, ice cream parlor, or other place of refreshment where food or drink is sold to the public, so all premises licensed to do victualling have been included under this heading of which there are at present five hundred and ninety-nine. This class of business requires close supervision owing to persons whose ideas of hygiene are more or less hazy having taken it up. Their idea of cleanliness and storage of left over foodstuff and a danger of food infection is meagre in the extreme. Of the number of calls to inspect such premises, totalling over three hundred, 66% of them were regarding changes of proprietor. Usually when a business changes hands, alterations are made; sometimes these are made before inspector is called and do not always comply with regulations. This often means added expense to new owner which could be avoided if all parties opening premises or taking over those already opened were forced to apply for a permit so to do. Clubs and hotels are also inspected and found to be universally well conducted and kept reasonably clean. Dining halls for unemployed and transient men, located on Princess and Water Streets respectively, were visited regularly and foodstuffs examined and regularly found to be fresh, sound and palatable.

In conclusion I wish to express my appreciation and thanks to Mr. A. Blackie, Consulting City Chemist and Doctor M. S. Lougheed, for their help and unfailing courtesy; also to Inspectors Mines and Williams for their willing co-operation in endeavouring to overtake all the duties that devolve on the Department.

Respectfully submitted,

R. McQUILLAN,

Chief Food Inspector.

Bureau of Child Hygiene

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

Medical Health Officer.

Dear Sir:

I have the honour to submit my sixteenth annual report, covering the year 1934, on the work of the Bureau of Child Hygiene.

Infant Mortality—The final figures for the year showed a rate slightly higher than for the previous year, due to an increase in deaths from diseases of early infancy. The following table shows the crude and corrected figures for the year, together with rates for some preceding years:—

	CRUDE			CORRECTED	
Year	Infant Deaths	Rate	Year	Infant Deaths	Rate
1934	174	46.4	1934	134	45.6
1933	173	45.4	1933	134	44.2
1930	269	57.9	1930	210	57.9
1925	315	68.0	1925	252	66.6
1920	625	101.2			
1915	619	106.3			
1912	1,006	206.6			

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

Stillbirths—The stillbirth rate is also slightly higher for 1934 than for 1933, the figures being 114 stillbirths with a rate of 38.8 per 1,000 live births for 1934, against 111 stillbirths and a rate of 36.6 for 1933.

The combined infant death rate and stillbirth rate per 1,000 total births for 1934 is 81.3, corrected, against 77.9 for 1933.

Visiting Nurses—Call to babies' homes by the thirteen visiting nurses in 1934 numbered 35,518, and the visits to infants' boarding homes totalled 14. The attendance at the Well-Baby Centres was 17,634, distributed as follows:—

	1934		
Station	Afternoons	Attendance	Average
Crescent United Church (Nurse Smith)	51	1,601	31
Holy Trinity Church (Nurse Schwalm)	51	1,274	25
Home Street United Church (Nurse Maddin)	46	2,299	50
First Lutheran Church (Nurse Wilkins)	51	2,564	50
Maclean United Church (Nurse Bowles)	49	1,218	25
Weston Salvation Army Home (Nurse Bowles)	22	570	26
St. Andrew's Church (Nurse Thom)	51	1,805	35
All People's Mission (Nurse Carter)	51	1,190	23
Robertson House (Nurses Bennett and Munro alternately)	51	1,675	33
Milk Depot (Nurse Wonnacott)	51	1,426	28
St. Paul's Lutheran Church (Nurse Moore)	51	2,012	39
Totals and Average	525	17,634	33

The members of the Junior League continued their clerical assistance at the Home Street Well-Baby Centre and have offered assistance at the other centres when it is required. This assistance is much appreciated.

New cases visited by the nurses at homes numbered 2,543, the majority of these being single visits made to ascertain the condition of the child and home. Sick calls totalled 819; cases referred to private physicians, 414; and cases referred to the Milk Depot Clinic, 237. There was no serious outbreak of disease amongst infants during the year.

It should be mentioned that of the 2,543 new cases visited by the nurses, no less than 1,015 were births to unemployed families and 133 to part-time employees and pensioners.

Milk Depot Clinic—Dr. R. F. Rorke and Dr. F. G. Schwalm continued conducting the morning clinics for infants requiring modified feedings, the number of cases attending being 557, practically all of which were infants of unemployed families.

Milk Dispensary—There were 29,810 feedings prepared, for which $81.80 was received from parents able to pay the whole or part of the charges. In addition, 1,083 feedings were prepared for the Children's Hospital, for which $163.55 was credited the Hospital's account against the City for Public Ward patients. During the year the strictest economy has been practised in the preparation of feedings, and the attending physicians at the Clinic have fully co-operated in lessening the cost of the feedings whenever possible without interfering with the well-being of the infants concerned.

General Remarks—The number of births attended by midwives again declined, there being only 21 such births against 40 in 1933. The number of births in hospitals also increased, and now 91% of the births registered in Winnipeg occur in hospitals. Deaths from puerperal causes totalled 17, giving a crude rate of 4.5 per 1,000 live births as compared with 3.4 in 1933. Of the 17 deaths, 5 were non-residents, as one puerperal death occurred amongst Winnipeg mothers in St. Boniface Hospital, our corrected total is 13, giving the corrected rate of 4.4.

The visiting nurses continued co-operating with the Communicable Diseases Divison in its anti-diphtheria campaign, and compiled 1,880 names of children whose parents were willing for them to receive toxoid treatment. Further particulars regarding this phase of disease prevention appears in the report of the Chief of the Division of Communicable Diseases.

There were no changes in the staff during the year. Nurse Spratt continued in charge of the Milk Depot Clinic and Nurses Carter, Thom and Bowles relieved Miss Graham, dietitian, in the dispensary. The nursing dispensary and recording staffs have carried out their duties in their usual efficient manner, and I wish to place on record my appreciation of their co-operation in the various phases of child hygiene work.

Respectfully submitted,

A. G. LAWRENCE,

Manager, Bureau of Child Hygiene.

Statistician's Report

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

Dear Sir:

I have the honor to submit herewith the report on Vital Statistics for the year 1934. As in previous years, copies of the birth and death registrations have been furnished the Department by the courtesy of the Winnipeg Registrar, the late Mr. Magnus Peterson.

This report shows both crude and corrected totals and rates, the corrected figures being obtained by eliminating non-residents and including residents of Winnipeg who died in the adjoining City of St. Boniface, the St. Boniface Sanitarium and the Ninette Sanitarium.

Respectfully submitted,

A. G. LAWRENCE,
Secretary.

SUMMARY OF VITAL STATISTICS

Corrected and Crude Figures

Area of City: Land, 14,865 acres; water, 622 acres; total, 15,287 acres. (23.9 square miles).

	1934	1933
Population (City Assessor's figures)	221,242	218,545
Persons per acre of land	14.88	14.70

Corrected

Deaths, excluding stillbirths	1,473	1,491
Corrected rate per 1,000 population	6.66	6.82
Deaths of infants under 1 year	134	134
Corrected infant mortality rate per 1,000 live births	45.6	44.2
Deaths, measles, scarlet fever, whooping cough, and diphtheria, combined	19	15
Corrected rate per 100,000 population	8.6	6.9
Births, excluding stillbirths	2,935	3,032
Corrected live birth rate per 1,000 population	13.27	13.87
Stillbirths	114	111
Corrected rate per 1,000 live births	38.8	36.6
Natural increase, excess of births over deaths	1,463	1,541
Corrected rate per 1,000 population	6.61	7.05

Crude

Deaths, excluding stillbirths	1,683	1,681
Rate per 1,000 population	7.61	7.69
Deaths of infants under 1 year	174	173
Infant mortality rate per 1,000 living births	46.4	45.4
Births, excluding stillbirths	3,749	3,810
Rate per 1,000 population	16.94	17.43
Stillbirths	140	136
Rate per 1,000 live births	37.34	35.69
Marriages	2,481	2,246
Rate per 1,000 population	11.21	10.28

Infant Mortality, 1912-34

	Corrected			Crude		
	Live Births	Infant Deaths	Rate per 1,000 Births	Live Births	Infant Deaths	Rate per 1,000 Births
1934	2,935	134	45.6	3,749	174	46.4
1933	3,032	134	44.2	3,810	173	45.4
1932	3,335	146	43.8	4,106	184	44.8
1931	3,526	185	52.5	4,422	218	49.3
1930	3,627	210	57.9	4,645	269	57.9
1929	3,579	211	58.6	4,515	253	56.0
1928	3,580	236	65.9	4,475	284	63.4
1927	3,566	232	65.0	4,463	273	61.2
1926	3,530	252	71.4	4,444	314	70.6
1925	3,781	252	66.6	4,632	315	68.0
1924	3,880	278	71.6	4,762	323	67.8
1923	.....	.....	.....	5,214	416	79.8
1922	.....	.....	.....	5,629	500	88.8
1921	.....	.....	.....	6,029	471	78.1
1920	.....	.....	.....	6,174	625	101.2
1919	.....	.....	.....	5,254	562	106.9
1918	.....	.....	.....	5,621	516	91.8
1917	.....	.....	.....	5,446	545	100.1
1916	.....	.....	.....	5,980	700	117.0
1915	.....	.....	.....	5,823	619	106.3
1914	.....	.....	.....	5,789	729	125.9
1913	.....	.....	.....	5,577	947	169.8
1912	.....	.....	.....	4,870	1,006	206.6

TYPHOID FEVER MORTALITY RATES PER 100,000 POPULATION, 1904-1934

1904	1911	1912	1913	1914	1915	1916	1917	1918	1919	1920	1921	1922	1923	1924	1925	1926	1927	1928	1929	1930	1931	1932	1933	1934
248.3	17.1	10.8	9.7	7.9	3.5	9.5	8.2	7.6	10.3	5.7	5.1	1.5	2.5	3.1	3.1	4.0	3.0	1.0	2.4	.0	1.4	.9	1.8	.9
Corrected Rate for City				3.9	2.0	7.5	6.0	6.5	7.4	.0	.0	.0	.5	1.0	1.0	1.0	1.5	.0	.5	.5	1.9	.5	.9	1.3

CRUDE MORTALITY RATES PER 100,000 POPULATION FOR LEADING CAUSES OF DEATH, 1916-1934

Year	Population	Tuberculosis of Lungs (23)	Tuberculosis, other forms (24-32)	Cancer (all forms) (45-53)	Meningitis (79)	Cerebral Haemorrhage (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)
1934	221,242	33.9	5.0	125.2	2.2	44.8	152.8	5.0	50.2	14.0	14.0	27.6	7.7	50.2
1933	218,545	27.4	4.6	136.3	4.6	49.9	152.4	4.6	44.8	17.8	12.8	25.2	5.9	52.6
1932	215,768	28.3	8.3	129.7	4.6	51.9	149.7	4.6	49.1	11.6	8.3	32.0	11.6	59.8
1931	212,815	39.0	10.8	128.3	1.9	51.2	110.9	7.5	48.4	16.4	15.0	27.7	10.3	55.4
1930	209,286	46.3	16.2	113.2	6.7	52.6	122.8	3.3	54.0	17.7	11.5	33.9	10.0	59.2
1929	205,083	40.5	16.1	120.9	4.9	55.1	117.5	4.9	71.7	9.3	12.7	38.0	13.6	64.8
1928	202,377	36.1	20.3	105.2	6.4	48.9	129.0	5.9	62.3	15.8	15.8	34.1	11.4	65.2
1927	198,932	37.2	9.5	102.5	5.0	38.1	112.6	5.5	75.5	16.1	11.1	30.7	12.6	57.8
1926	197,125	44.6	14.2	100.4	7.6	39.1	105.5	4.0	70.5	15.7	12.2	32.5	12.7	62.9
1925	195,148	41.5	11.8	95.3	7.2	41.5	84.0	7.2	68.1	20.0	9.2	33.8	12.8	57.9
1924	194,850	44.6	16.9	88.8	8.7	42.6	96.5	7.7	80.6	13.8	6.7	20.5	13.3	43.6
1923	199,300	48.2	16.0	82.3	6.0	28.6	87.8	5.5	77.3	9.5	9.5	28.6	13.0	52.2
1922	199,129	52.7	11.0	93.4	6.0	45.2	87.4	5.0	87.4	19.1	9.5	29.1	12.5	40.7
1921	196,947	50.8	26.4	87.3	8.1	32.0	91.9	4.6	84.8	14.2	4.6	18.3	10.7	46.7
1920	192,571	71.7	20.8	79.4	13.0	45.7	68.6	13.5	132.9	14.0	9.9	25.3	28.0	47.3
1919	183,378	72.0	24.5	73.1	10.9	30.5	72.0	18.0	105.2	17.4	13.6	33.3	15.3	57.2
1918	183,595	86.6	26.7	80.6	7.6	32.1	78.5	10.9	117.6	19.1	10.9	38.7	19.1	49.0
1917	182,848	74.4	24.1	62.4	14.2	24.6	72.2	13.7	114.8	14.2	4.9	31.2	19.7	41.0
1916	200,090	79.5	24.4	63.5	20.5	25.0	71.5	21.0	129.4	12.5	9.0	29.0	20.5	41.5

STILLBIRTHS, LIVEBIRTHS AND DEATHS, CRUDE AND CORRECTED FIGURES, BY MONTH AND SEX, 1934

1934	STILLBIRTHS						LIVE BIRTHS						DEATHS					
Mth.	As Registered			Non-Res. Ded'ctd	Res. Added	Corrected Totals	As Registered			Non-Res. Ded'ctd	Res. Added	Corrected Totals	As Registered			Non-Res. Ded'ctd	Res. Added	Corrected Totals
	M.	F.	T.				M.	F.	T.				M.	F.	T.			
Jan.	3	2	5	1		4	179	162	341	91	29	279	83	69	152	31	10	131
Feb.	6	4	10	3		7	163	137	300	78	25	247	79	50	129	27	10	112
Mar.	4	4	8	3	1	6	159	167	326	100	32	258	66	58	124	23	6	107
April	9	11	20	4		16	163	161	324	97	29	256	67	49	116	20	10	106
May	4	7	11	2		9	150	154	304	100	27	231	78	69	147	22	12	137
June	7	5	12	3	3	12	150	158	308	101	37	244	73	59	132	25	13	120
July	8	9	17	2		15	169	146	315	96	22	241	73	60	133	25	7	115
Aug.	2	5	7	2		5	172	194	366	112	27	281	69	76	145	34	7	118
Sept.	6	7	13	8	2	7	143	148	291	80	33	244	70	59	129	23	17	123
Oct.	4	7	11	4	3	10	185	118	303	118	33	218	79	78	157	34	16	139
Nov.	4	8	12	2		10	141	141	282	96	20	206	81	67	148	37	11	122
Dec.	7	7	14	3	2	13	147	142	289	89	30	230	93	78	171	36	8	143
Totals	64	76	140	37	11	114	1921	1828	3749	1158	344	2935	911	772	1683	337	127	1473

Year	Population	STILLBIRTHS				LIVE BIRTHS				DEATHS			
		Crude		Corrected		Crude		Corrected		Crude		Corrected	
		Totals	*Rate	Totals	*Rate	Totals	‡Rate	Totals	‡Rate	Totals	‡Rate	Totals	‡Rate
1934	221,242	140	37.3	114	38.8	3,749	16.94	2,935	13.27	1,683	7.61	1,473	6.66
1933	218,545	136	35.7	111	36.6	3,810	17.43	3,032	13.87	1,681	7.69	1,491	6.82
1932	215,768	133	32.4	106	31.8	4,106	19.02	3,335	15.46	1,711	7.92	1,515	7.02
1931	212,815	169	38.2	147	41.7	4,422	20.78	3,526	16.57	1,709	8.03	1,499	7.04
1930	209,286	201	43.3	162	44.7	4,645	22.19	3,627	17.33	1,806	8.63	1,602	7.66

*Per 1,000 Live Births.

‡Per 1,000 Population.

DEATHS BY MONTHS, SEX AND AGE PERIOD, 1934

	Under 1		1 to 2		3 to 4		5 to 9		10 to 19		20 to 29		30 to 39		40 to 49		50 to 59		60 to 69		70 to 79		80 to 89		90 to 99		Over 100		Totals	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
Totals, 1934	102	72	21	15	9	6	14	10	28	23	37	38	47	54	85	97	161	92	185	135	160	142	57	79	4	8	1	1	911	772
Crude Totals	174		36		15		24		51		75		101		182		253		320		302		136		12		2		1,683	
Non-Res. Deducted	51		8		5		10		16		30		33		36		43		50		40		14		1		.....		337	
Residents Added	11		7		2		.....		4		17		13		23		20		15		12		3		.....		.....		127	
Corrected Totals	134		35		12		14		39		62		81		169		230		285		274		125		11		2		1,473	
Crude, per cent	10.4		2.1		.9		1.4		3.0		4.5		6.0		10.8		15.0		19.0		18.0		8.1		.7		.1		100.0%	
Correct., per cent	9.1		2.4		.8		1.0		2.6		4.2		5.5		11.5		15.6		19.4		18.6		8.5		.7		.1		100.0%	

Nativity of Decedents, 1934, 1933

(Deaths as Registered)

	Deaths		Per Cent. of Total	
	1934	1933	1934	1933
Canada	793	767	47.1	45.6
British Isles	472	486	28.0	28.9
Europe (excluding British Isles)	347	363	20.6	21.6
United States	51	45	3.0	2.7
Asia	9	7	.6	.4
Other Countries	5	3	.3	.2
Unknown	6	10	.4	.6
Totals	1,683	1,681	100.0	100.0

Attendant at Birth (As Registered)

	1934		1933		1918*	
Physicians	3,726	99.4%	3,767	98.9%	4,707	80.2%
Midwives	21	.6%	40	1.1%	1,159	19.8%
Unattended	1		....			
Unknown	1		3			

*Includes Stillbirths.

Stillbirths According to Nationality of Mothers, 1934, 1933

	Rates per 1,000 Live Births			
	1934		1933	
	Stillbirths	Rate	Stillbirths	Rate
Canadian	67	31	56	36
British	35	56	26	46
Southern and Central European	30	37	23	31

Order of Live Births, 1934, 1933

(Corrected figures)

	1934	1933	1934	1933
First Children	1,239	1,255	42.2%	41.4%
Second Children	775	790	26.4%	26.1%
Third Children	415	413	14.1%	13.6%
Fourth Children	187	212	6.4%	7.0%
Fifth to Nineteenth Children	319	362	10.9%	11.9%
Totals	2,935	3,032	100.0%	100.0%

Infant Mortality—Cause of Death—1934, 1933

(Number of Deaths, Corrected)

	1934	1933
Acute communicable diseases	2	10
Other general diseases	9	5
Of nervous system and of organs of special sense	5	7
Of respiratory system	17	13
Of digestive system	12	15
Malformations and diseases of early infancy	86	78
All other diseases	3	6
Totals	134	134

Rates per 1,000 Live Births, Corrected

	1934	1933
Acute communicable diseases	.7	3.3
Other general diseases	3.0	1.6
Of nervous system and of organs of special sense	1.7	2.3
Of respiratory system	5.8	4.3
Of digestive system	4.1	5.0
Malformations and diseases of early infancy	29.3	25.7
All other diseases	1.0	2.0
Totals	45.6	44.2

Per Cent. of Total, Corrected

	1934	1933
Acute communicable diseases	1.5	7.5
Other general diseases	6.7	3.7
Of nervous system and of organs of special sense	3.7	5.2
Of respiratory system	12.7	9.7
Of digestive system	9.0	11.2
Malformations and diseases of early infancy	64.2	58.2
All other diseases	2.2	4.5
Totals	100.0	100.0

Classification of Ages of Decedents Under One Year of Age—1934

Ages of	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	69	23.5	51.5	97	25.9	55.7
Over 1 to 2 weeks	8	2.7	6.0	9	2.4	5.2
Over 2 to 3 weeks	5	1.7	3.7	5	1.3	2.9
Over 3 weeks to 1 month	2	.7	1.5	3	.8	1.7
Minutes to 1 month	84	28.6	62.7	114	30.4	65.5
Over 1 to 2 months	11	3.8	8.2	10	2.7	5.7
Over 2 to 3 months	8	2.7	6.0	9	2.4	5.2
Minutes to 3 months	103	35.1	76.9	133	35.5	76.4
Over 3 to 6 months	11	3.7	8.2	14	3.7	8.1
Over 6 to 9 months	12	4.1	8.9	19	5.1	10.9
Over 9 and under 12 months	8	2.7	6.0	8	2.1	4.6
	134	45.6	100.0	174	46.4	100.0

Infant Mortality According to Nationality of Mothers—1934, 1933

	1934			1933		
	Live Births	Infant Deaths	Rate per 1,000 Births	Live Births	Infant Deaths	Rate per 1,000 Births
Canadian	1,648	88	53	1,559	71	46
English and Welsh	257	8	31	309	12	39
Irish	51	1	20	58	3	52
Scotch	186	7	38	198	6	30
American (U.S.A.)	92	4	43	106	7	66
Scandinavian	33	1	30	38	1	26
Southern and Central European	658	25	38	747	33	44
All others	10	....	....	17	1	59

Infant Mortality Statistics

For further particulars regarding infantile mortality, see report of the Manager, Bureau of Child Hygiene, pages 58-59.

1934

CAUSE OF DEATH BY AGE AND SEX

CRUDE FIGURES

(As Registered; Non-Residents included)

		SEX		AGE IN YEARS														
		Male	Female	Under 1	1 to 2	3 to 4	5 to 9	10 to 19	20 to 29	30 to 39	40 to 49	50 to 59	60 to 69	70 to 79	80 to 89	90 to 99	100 to 109	Totals
1.	Typhoid fever (1)	2								1			1					2
4.	Measles (7)	3	2	1	3		1											5
6.	Whooping-cough (9)		2	2														2
7.	Diphtheria (10)	6	4		5	1	2	1	1									10
8.	Influenza (11)	7	6	1	1		1			1	1	5	2	1				13
10.	Tuberculosis of the respiratory system (23)	37	38		2			7	12	14	18	10	7	5				75
11.	Other forms of tuberculosis (24, 25, 27, 30, 32)	7	4		1	1	1	2	3	1		2						11
12.	Syphilis (34)	10	6	1		1	1			3	4	3	2	1				16
14.	Other infectious and parasitic diseases (13, 15, 17, 18, 36, 43, 44)	13	4	3	2		1	3	1	1	3	1	1		1			17
15.	Cancer and other malignant tumors (45, 46, 47, 48, 49, 50, 51, 53)	135	142		1	1	1	1	1	17	42	68	74	57	13	1		277
16.	Tumors, nonmalignant, or of which the nature is not specified (54, 55)	2	8					1		1	4	1	2		1			10
17.	Chronic rheumatism (57)		3										1	1	1			3
18.	Diabetes mellitus (59)	11	15								2	6	7	10	1			26
19.	Alcoholism (acute or chronic) (75)	2									2							2
20.	Other general diseases and chronic poisonings (56, 63, 66, 67, 70, 71, 72)	24	15	5	1			4	3	1	3	6	9	3	4			39
21.	General paralysis of the insane (83)	1	1								2							2

22.	Cerebral hemorrhage, cerebral embolism and thrombosis (82)	43	56	....	....	1	....	1	1	1	11	15	23	37	9	....	....	99
23.	Other diseases of the nervous system and of the organs of special sense (78, 79, 81, 85, 87, 89)	23	7	4	2	1	3	5	2	1	3	6	2	1	....	....	....	30
24.	Diseases of the heart (90, 91, 92, 93, 94, 95)	181	157	1	1	....	....	3	5	15	26	59	88	91	42	7	....	338
25.	Other diseases of the circulatory system (96, 97, 98, 99, 100, 102)	36	25	....	....	....	....	....	1	1	5	6	13	19	13	2	1	61
26.	Bronchitis (106)	10	2	....	....	....	....	1	1	1	1	1	4	2	1	....	....	12
27.	Pneumonias (107, 108, 109)	60	51	22	4	2	2	5	2	7	5	9	16	28	8	1	....	111
28.	Other diseases of the respiratory system (tuberculosis excepted (104, 110, 111, 112, 113, 114)	8	9	....	1	....	....	1	2	2	2	....	5	1	3	....	....	17
29.	Diarrhea and enteritis (119, 120)	7	8	8	2	....	1	1	....	....	1	2	....	....	....	....	....	15
30.	Appendicitis (121)	18	13	....	....	2	4	2	7	6	4	3	2	1	....	....	....	31
31.	Diseases of the liver and biliary passages (124, 125, 126, 127)	13	14	....	....	....	....	....	2	1	5	5	7	4	3	....	....	27
32.	Other diseases of the digestive system (115, 117, 118, 122, 123, 129)	37	27	8	3	....	....	1	5	5	5	12	12	8	5	....	....	64
33.	Nephritis (130, 131, 132)	42	28	....	....	....	....	2	5	1	8	13	16	14	11	....	....	70
34.	Other diseases of the genitourinary system (133, 134, 135, 137, 139)	23	9	1	....	....	....	....	....	1	3	5	11	8	3	....	....	32
35.	Puerperal septicaemia (140, 145)	....	8	....	....	....	....	1	2	5	....	....	....	....	....	....	....	8
36.	Other diseases of pregnancy, childbirth and the puerperal state (146, 147, 148, 149)	....	9	....	....	....	....	....	5	2	2	....	....	....	....	....	....	9
37.	Diseases of the skin and cellular tissue, and of the bones and organs of locomotion (152, 153, 154, 156)	8	5	....	1	....	1	3	1	....	2	....	4	....	1	....	....	13
38.	Congenital debility and malformations, premature birth and other diseases of early infancy (157, 158, 159, 160, 161)	62	54	113	1	1	1	....	....	....	....	....	....	....	....	....	....	116
39.	Senility (162)	3	6	....	....	....	....	....	....	....	....	....	....	2	5	1	1	9
40.	Suicide (163, 164, 165, 166, 167, 170)	19	8	....	....	....	....	....	5	6	8	7	....	1	....	....	....	27
41.	Homicide (173, 175)	1	2	....	1	....	1	....	....	1	....	....	....	....	....	....	....	3
42.	Violent and accidental deaths (suicide and homicide excepted) (178, 179, 180, 181, 183, 185, 186, 188, 190, 193, 194, 202, 203, 207, 209, 210, 211, 212)	57	24	4	4	4	3	6	8	5	10	8	11	7	11	....	....	81
Crude Totals		911	772	174	36	15	24	51	75	101	182	253	320	302	136	12	2	1683

1934
CAUSE OF DEATH BY AGE AND SEX
CORRECTED FIGURES

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

		SEX		AGE IN YEARS														
		Male	Female	Under 1	1 to 2	3 to 4	5 to 9	10 to 19	20 to 29	30 to 39	40 to 49	50 to 59	60 to 69	70 to 79	80 to 89	90 to 99	100 to 109	Totals
1.	Typhoid fever (1)	3								1	1		1					3
4.	Measles (7)	4	3	1	5		1											7
6.	Whooping-cough (9)		1	1														1
7.	Diphtheria (10)	6	5		5	2	2	1	1									11
8.	Influenza (11)	6	5		1					1	1	5	2	1				11
10.	Tuberculosis of the respiratory system (23)	44	34		1			5	12	13	21	13	9	4				78
11.	Other forms of tuberculosis (24, 25, 26, 30, 32)	6	4		2	2	1	1	1	1		2						10
12.	Syphilis (34)	10	6	2		1	1			2	4	3	2	1				16
14.	Other infectious and parasitic diseases (13, 15, 17, 18, 36, 43, 44)	9	2	2			1	3			2	1	1		1			11
15.	Cancer and other malignant tumors (45, 46, 47, 48, 49, 50, 51, 53)	101	126			1			1	10	39	61	58	45	12			227
16.	Tumors, nonmalignant, or of which the nature is not specified (54, 55)	1	7					1		1	2	1	2		1			8
17.	Chronic rheumatism (57)		3										1	1	1			3
18.	Diabetes mellitus (59)	9	15								3	5	6	9	1			24
19.	Alcoholism (acute or chronic) (75)	2									2							2
20.	Other general diseases and chronic poisonings (56, 63, 66, 67, 70, 71, 72)	21	13	5				4	2	1	3	6	7	3	3			34
21.	General paralysis of the insane (83)	2	2							1	2	1						4

22.	Cerebral hemorrhage, cerebral embolism and thrombosis (82)	40	55			1		1	1		11	15	22	36	8			95
23.	Other diseases of the nervous system and of the organs of special sense (78, 79, 81, 87, 89)	16	5	4	2		3	2	2		2	5	1					21
24.	Diseases of the heart (90, 91, 92, 93, 94, 95)	173	151	1	1			3	10	12	25	51	87	87	40	7		324
25.	Other diseases of the circulatory system (96, 97, 98, 99, 100 102)	38	24							1	5	6	15	18	14	2	1	62
26.	Bronchitis (106)	8	2					1		1	1	1	3	2	1			10
27.	Pneumonias (107, 108, 109)	52	48	17	6	1	1	3	2	7	3	9	16	27	7	1		100
28.	Other diseases of the respiratory system (tuberculosis excepted), (104, 110, 111, 112, 113)	5	5		1					3	1		3		2			10
29.	Diarrhea and enteritis (119, 120)	4	6	5	2						1	2						10
30.	Appendicitis (121)	9	6			1	1	2	2	2	1	2	3	1				15
31.	Diseases of the liver and biliary passages (124, 125, 126, 127)	12	12						1	1	3	6	6	4	3			24
32.	Other diseases of the digestive system (115, 117, 122, 123, 129)	34	21	7	3			2	5	3	5	9	8	7	6			55
33.	Nephritis (130, 131, 132)	37	23					1	4	3	8	10	13	13	8			60
34.	Other diseases of the genitourinary system (133, 134, 135, 136, 137, 139)	14	6						1		2	5	6	5	1			20
35.	Puerperal septicemia (140)		6					1	1	4								6
36.	Other diseases of pregnancy, childbirth and the puerperal state (146, 147, 148, 149)		7						4	1	2							7
37.	Diseases of the skin and cellular tissue, and of the bones and organs of locomotion (152, 153, 154, 156)	7	2					2			2		4		1			9
38.	Congenital debility and malformations, premature birth and other diseases of early infancy (157, 158, 159, 160, 161)	50	37	86	1													87
39.	Senility (162)	3	6											2	5	1	1	9
40.	Suicide (163, 164, 165, 166, 167, 170)	20	9					1	5	6	9	7		1				29
41.	Homicide (173, 175)	1	2		1		1			1								3
42.	Violent and accidental deaths (suicide and homicide excepted), (178, 179, 180, 181, 183, 185, 186, 190, 193, 194, 203, 207, 209, 210, 211, 212)	45	22	3	4	3	2	5	7	5	8	4	9	7	10			67
	Corrected Totals	792	681	134	35	12	14	39	62	81	169	230	285	274	125	11	2	1473

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 1934.

Scavenging—In the month of August overalls, smocks, mitts and slickers were issued to the premanent employees of the Scavenging Section, this being the first clothing to be supplied by the City to men in this Division.

The trailers were overhauled in the City Machine Shop and later painted in the Department's own shop.

Extensive repairs were made to the City Stable, corner of Pacific Avenue and Tecumseh Street, to prevent the horses from being cold in the winter.

The organic matter collected during the year averaged 213.9 lbs. per capita, or an increase of 2.4 lbs. per capita compared with last year.

Incinerators—The tonnage destroyed at the Incinerators during the year showed an increase of 485 tons as compared with the previous year. The revenue earned during the year showed a decrease of $187.25. Operating costs increased $108.38 as compared with 1933. Gross cost per ton in 1933 was $1.15. Net cost $1.01, as compared with the 1934 figures of gross costs $1.13 and net cost $1.00 per ton.

Street Cleaning—During the street cleaning season a total of 26,724 cubic yards of sweepings were picked up and removed, or an average of 101.6 cubic yards per mile of paved street. This was an increase of 11.8 cubic yards per mile compared with 1933.

The mileage cost for 1934 was $224.70 as compared with $195.20 in 1933.

Wood Camp Operations—During the Wood Camp year, which ended May 31st, 1934, one Relief Wood Camp was operated at which a total of 3,900 cords was cut. 43,954 cords were purchased out-right and advances were paid on 3,719 additional cords. The total cordage brought to the City during the year amounted to 56,466.

Miscellaneous—We regret to record that during the year death claimed two of the permanent employees in the persons of the late William Burr and Walter Pate. Three of the permanent force left the service of their own accord, and three were retired on pension.

In conclusion I again wish to express my appreciation of the faithful work of the employees of this Division, and of the splendid co-operation exisiting between this and all other departments of the Civic Service.

Respectfully submitted,

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

REFUSE COLLECTION AND DISPOSAL AND STREET CLEANING, 1934

Summary

(a)	Personal Services	$218,269.74
(b)	Outside Services	1,082.20
(c)	Material, Supplies and Repairs	17,209.82
(d)	Equipment, Additions and Replacements	500.00
(e)	Fuel, Water, Light, and Power	2,577.44
(f)	Other Expenses	456.00
(h)	Truck and Auto Expense	12,881.28
(i)	Interest	9,225.00
(ii)	Sinking Fund	3,922.62
		$266,124.10

Expenditure by Divisions

C 8 Refuse Collection and Disposal.

C 8-1 Scavenging and Ash Removal:

(a)	Personal Services	$129,041.12	
(b)	Outside Services	210.50	
(c)	Material Supplies and Repairs	12,063.12	
(d)	Equip. Additions and Replacements	500.00	
(e)	Fuel, Water, Light and Power	326.80	
(h)	Truck and Auto Expense	9,805.33	
			$151,946.87

C 8-3 Nuisance Ground Operating:

(a)	Personal Services	$ 3,863.63	
(b)	Outside Services		
(c)	Material Supplies and Repairs	35.40	
(f)	Other Expenses	456.00	
			4,355.03

C 8-6 Crematories, Operation and Maintenance:

(a)	Personal Services	$ 22,179.28	
(b)	Outside Services	16.50	
(c)	Material Supplies and Repairs	3,994.09	
(e)	Fuel, Water, Light and Power	1,657.85	
			27,847.72

C 8-11 Fixed Charges on Debenture Debt:

(i)	Interest	$ 9,225.00	
(ii)	Sinking Fund	3,922.62	
			13,147.62
	Total, Refuse Collection and Disposal		$197,297.24

D Street Cleaning and Flushing.

D 1-1 Administration:

(a)	Personal Services	$ 5,196.62	
(b)	Outside Services	44.15	
(c)	Material Supplies and Repairs	298.23	
(h)	Truck and Auto Expense	1,200.71	
			$ 6,739.71

D 4-1 Asphalt Pavement Cleaning:

(a)	Personal Services	$ 56,085.06	
(b)	Outside Services	87.50	
(c)	Material Supplies and Repairs	719.82	
(a)	Fuel, Water, Light and Power	329.76	
(h)	Truck and Auto Expense	1,875.24	
			59,097.38

Miscellaneous.

D 5-3 Cutting Noxious Weeds:

(a)	Personal Services	$ 1,397.65	
			1,397.65

D 5-4—Yards Maintenance:

(a)	Personal Services	506.38	
(b)	Outside Services	723.55	
(c)	Material Supplies and Repairs	99.16	
(e)	Fuel, Water, Light and Power	263.03	
			1,592.12

Total, Street Cleaning and Flushing	$68,826.86
Total, Refuse Collection and Disposal	197,297.24
Grand Total	$266,124.10

GARBAGE COLLECTION, 1934

Month	Trucks and Trailers		City Teams and Singles		Hired Teams		Combined Totals	
	No. of Loads	Weight in lbs.	No. of Loads	Weight in lbs.	No. of Loads	Weight in lbs.	No. of Loads	Weight in lbs.
Jan.	1,026	3,017,660	134	342,530	45	140,450	1,205	3,500,640
Feb.	899	2,539,100	107	276,830	36	101,970	1,042	2,917,900
Mar.	971	2,739,120	120	299,460	52	141,980	1,143	3,180,560
Apr.	937	3,112,160	112	314,510	39	120,150	1,088	3,546,820
May	1,018	3,638,610	129	359,360	42	138,040	1,189	4,136,010
June	961	3,870,390	137	404,660	44	164,420	1,142	4,439,470
July	986	3,661,670	141	390,280	46	172,410	1,173	4,224,360
Aug.	1,025	4,144,580	141	410,170	48	186,640	1,214	4,741,390
Sept.	927	4,038,250	131	420,560	41	169,020	1,099	4,627,830
Oct.	1,025	4,011,390	144	426,490	46	163,830	1,215	4,601,710
Nov.	978	3,376,630	127	348,060	42	123,070	1,147	3,847,760
Dec.	970	3,067,170	145	353,250	49	141,780	1,164	3,562,200
	11,723	41,216,730	1,568	4,346,160	530	1,763,760	13,821	47,326,650

Table Showing Average Weight per Load

	Number of Loads	Total Weight	Average Weight Per Load (lbs.)
Trucks and Trailers	11,723	41,216,730	3,516
City Teams and Singles	1,568	4,346,160	2,772
Hired Teams	530	1,763,760	3,328
	13,821	47,326,650	3,205

Table Showing Percentage of Collection by Units

	Weight in Lbs.	Percentage of Total Weight
Trucks and Trailers	41,216,730	86.89%
City Teams and Singles	4,346,160	9.18%
Hired Teams	1,763,760	3.93%
	47,326,650	100%

COLLECTION OF INCOMBUSTIBLE REFUSE, 1934

Month	Trucks and Trailers		City Teams and Singles		Hired Teams		Combined Totals	
	No. of Loads	Weight in lbs.	No. of Loads	Weight in lbs.	No. of Loads	Weight in lbs.	No. of Loads	Weight in lbs.
Jan.	1,325	5,120,470	200	672,770	30	110,510	1,555	5,903,750
Feb.	1,265	5,121,460	171	571,510	158	549,480	1,594	6,242,450
Mar.	1,290	5,300,970	173	599,700	31	98,130	1,494	5,998,800
Apr.	1,610	6,703,780	208	513,370	31	100,810	1,849	7,317,960
May	2,066	8,608,010	220	652,730	295	952,070	2,581	10,212,810
June	1,348	4,987,180	222	646,350	118	424,090	1,688	6,057,620
July	1,131	3,673,030	222	508,210	28	105,470	1,381	4,286,710
Aug.	1,167	3,551,480	217	493,620	47	166,210	1,431	4,211,310
Sept.	1,087	3,537,130	205	506,880	35	98,670	1,327	4,142,680
Oct.	1,269	3,969,010	144	426,490	36	93,940	1,449	4,489,440
Nov.	1,314	4,194,820	234	518,520	39	100,490	1,587	4,813,830
Dec.	768	2,768,390	119	252,130	26	75,240	913	3,095,760
	15,640	57,535,730	2,335	6,362,280	874	2,875,110	18,849	66,773,120

Table Showing Average Weight per Load

	Number of Loads	Total Weight	Average Weight Per Load (lbs.)
Trucks and Trailers	15,640	57,535,730	3,678
City Teams and Singles	2,335	6,362,280	2,724
Hired Teams	874	2,875,110	3,276
	18,849	66,773,120	3,226

Table Showing Percentage of Collection Units

	Weight in Lbs.	Percentage of Total Weight
Trucks and Trailers	57,535,730	86.13%
City Teams and Singles	6,362,280	9.52%
Hired Teams	2,875,110	4.35%
	66,773,120	100%

ELMWOOD INCINERATOR OPERATIONS, 1934

Month	City Garbage		Private Garbage		Animals		Total		Revenue Earned
	No. Loads	Weight	No. Loads	Weight	No.	Weight	No. Loads	Weight	$ c
Jan.	412	1,126,260	11	18,160			423	1,144,420	32.10
Feb.	332	852,140	14	25,150			346	877,290	44.66
Mar.	371	1,002,960	10	16,940			381	1,019,900	32.68
Apr.	442	1,427,140	11	25,300			453	1,452,440	45.64
May	386	1,339,380	10	16,730			396	1,356,110	33.08
June	489	1,958,000	15	20,020			504	1,978,020	37,73
July	503	1,904,310	22	37,050			525	1,941,360	70.74
Aug.	518	2,135,200	27	35,910			545	2,171,110	69.16
Sept.	468	2,016,720	15	13,210			483	2,029,930	23.73
Oct.	561	2,173,890	15	35,930			576	2,209,820	70.05
Nov.	533	1,835,530	14	28,850			547	1,864,380	56.10
Dec.	401	1,199,040	5	10,230			406	1,209,270	20.46
	5,416	18,970,570	169	283,480			5,585	19,254,050	$ 536.13

SASKATCHEWAN AVENUE INCINERATOR OPERATIONS, 1934

Month	City Garbage No. Loads	City Garbage Weight	Private Garbage No. Loads	Private Garbage Weight	Animals No.	Animals Weight	Total No. Loads	Total Weight	Revenue Earned $ c
Jan.	793	2,374,380	124	116,420			917	2,490,800	106.65
Feb.	712	2,064,760	116	108,090			828	2,172,850	88.40
Mar.	772	2,177,600	146	116,150			918	2,293,750	106.55
Apr.	646	2,119,680	167	167,730			813	2,287,410	196.90
May	803	2,796,630	180	158,890			983	2,955,520	172.70
June	653	2,481,470	205	171,050			858	2,652,520	148.40
July	670	2,320,050	169	142,850			839	2,462,900	120.45
Aug.	696	2,606,190	169	171,360			865	2,777,550	131.15
Sept.	631	2,611,110	131	122,780			762	2,733,890	89.60
Oct.	654	2,427,820	143	117,490			797	2,545,310	84.65
Nov.	614	2,012,230	129	122,320			743	2,134,550	91.05
Dec.	763	2,363,160	105	87,430			868	2,450,590	49.60
	8,407	28,355,080	1,784	1,602,560			10,191	29,957,640	$1,386.10
							Sale of Steam		1,200.00
									$2,586.10

REPORT OF REFUSE DEPOSITED ON ELMWOOD NUISANCE GROUNDS, 1934

Month	Tins Hauled by City		Ashes Hauled by City		Street Sweepings		Privately Hauled Refuse		Combined Totals	
	No. Loads	Weight	No. Loads	Weight	No. Loads	Weight	No. Loads	Weight	No. Loads	Weight
Jan.	209	856,700	74	313,790			158	509,400	441	1,679,890
Feb.	342	1,135,240	72	337,310			140	459,640	554	1,932,190
Mar.	188	639,140	114	543,030			155	505,950	457	1,688,120
Apr.	317	1,082,920	50	87,830	570	2,520,020	153	483,900	1,090	4,174,670
May	1,990	6,076,860	48	107,160	183	1,037,440	192	592,810	2,413	7,814,270
June	461	1,554,410	64	148,620	51	238,650	202	558,760	778	2,500,440
July	282	890,770	64	121,970	54	301,950	150	432,970	550	1,747,660
Aug.	327	963,960	70	135,120	67	342,030	153	455,730	617	1,896,840
Sept.	273	794,230	68	134,460	60	328,300	142	398,100	543	1,655,090
Oct.	204	588,380	75	154,950	79	420,660	165	446,190	523	1,610,180
Nov.	361	1,035,740	93	287,110	12	70,930	157	413,130	623	1,806,910
Dec.	124	348,230	44	128,190			143	389,220	311	865,640
	5,078	15,966,580	836	2,499,540	1,076	5,259,980	1,910	5,645,800	8,900	29,371,900

REPORT OF REFUSE DEPOSITED ON SASKATCHEWAN AVE. NUISANCE GROUND, 1934

Month	Tins Hauled by City		Ashes Hauled by City		Street Sweepings		Privately Hauled Refuse		Combined Totals	
	No. Loads	Weight	No. Loads	Weight	No. Loads	Weight	No. Loads	Weight	No. Loads	Weight
Jan.	411	1,207,060	861	3,726,200			220	557,700	1,492	5,490,960
Feb.	343	1,033,250	837	3,636,650			189	490,850	1,369	5,160,750
Mar.	381	1,131,630	811	3,685,000			177	472,630	1,369	5,289,260
Apr.	701	2,276,710	781	3,870,500			233	670,370	1,715	6,817,580
May	1,166	4,178,700	1,029	4,694,730			314	910,430	2,509	9,783,860
June	904	3,054,540	259	1,300,500			282	820,150	1,445	5,175,190
July	822	2,288,170	213	985,800			397	861,440	1,432	4,135,410
Aug.	825	2,174,570	209	931,780			309	813,300	1,343	3,919,650
Sept.	766	2,127,490	220	1,086,500			247	626,030	1,233	3,840,020
Oct.	939	2,472,000	325	1,466,000			305	684,650	1,569	4,622,650
Nov.	804	2,050,980	329	1,440,000			254	663,640	1,387	4,154,620
Dec.	391	935,340	354	1,684,000			225	550,860	970	3,170,200
	8,453	24,930,440	6,228	28,507,660			3,152	8,122,050	17,833	61,560,150

MISCELLANEOUS DATA

Month	Cubic Yards Street Swps. Collected	Cubic Yards of Ashes Collected	Gallons of Water used in Flushing Streets
January		9,997	
February		12,105	
March		11,861	
April	7,037	7,339	
May	3,703	7,610	
June	2,814	72	356,572
July	2,501	220	530,263
August	2,353	179	525,668
September	2,559	267	245,373
October	4,259	721	
November	1,399	2,098	
December	99	3,993	
	26,724	56,462	1,657,876

COMPARATIVE TABLES

Garbage Collection

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

Collection of Incombustible Refuse

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

Ash Removal

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

REVENUE COLLECTED, 1934

Month	Incin. No. 2	Incin. No. 3	Ash Boxes and Garbage Cans	Sale of Steam	Total
January	$ 18.74	$ 53.98		$ 600.00	$ 672.72
February	19.81	70.99			90.80
March	37.32	116.49			153.81
April	85.96	104.24			190.20
May	35.80	116.69		600.00	752.49
June	59.50	146.94			206.44
July	40.43	119.14			159.57
August	61.68	75.56			137.24
September	102.64	108.44			211.08
October	17.35	101.45			118.80
November	67.38	111.33			178.71
December	54.23	59.99			114.22
	$600.84	$1,185.24		$1,200.00	$2,986.08