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CITY OF WINNIPEG

REPORT
of the
Health Department



The Royal Sanitary Institute
Library.

For the Two Years ending
31st December, 1933



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CITY OF WINNIPEG

REPORT
of the
Health Department

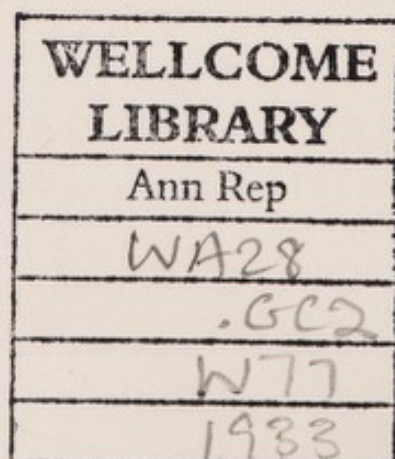


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For the Two Years ending
31st December, 1933

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COMMITTEE ON HEALTH

1932

Alderman W. B. Simpson,
Chairman.
Alderman W. A. Cuddy.
Alderman H. Andrews.
Alderman A. A. Ryley.
Alderman P. Bardal.
Alderman M. A. Gray.
His Worship Mayor R. H. Webb,
(Ex-officio).

1933

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

STAFF

Two Years Ending December 31st, 1933.

Medical Health Officer

A. J. Douglas, M.D.

Laboratory

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

District Physicians

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

Communicable Diseases Division

Chief Inspector—W. T. Watt.	Tuberculosis Nurse—Miss K. M. Vanetta.
Inspector—C. H. Hargrave.	“ “ —Miss H. Smyth.
“ —H. H. Marshall.	“ “ —Miss M. A. Simpson.
“ —H. Robinson.	Inspector's Clerk—G. Moore.
“ —A. Paull.†	Junior Clerk—L. G. Williams.*
	“ “ —W. S. Lang.**

†Retired on Pension May 1st, 1932.

*Transferred to Food Division Sept. 11th, 1932.

**Appointed September 17th, 1932.

STAFF (Continued)

Sanitary Inspections Division

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

Housing and Supervising Inspector—
P. Pickering.
Supervising Inspector—B. C. Brough.
Junior Clerk—S. Cameron.**
Inspectors: G. W. Kelly,
E. Officer,
D. G. Johnson,
A. Cross.

*Transferred to Dairy Division on November 1, 1932.

**Transferred to Street Cleaning Division on June 16, 1933.

Dairy Division

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

*Resigned October 31, 1932.

**Transferred from Sanitary Division
on November 1, 1932.

Food Division

Chief Inspector—A. W. Foote.*
" " —R. McQuillan.**
Inspectors: G. R. Mines,
L. G. Williams.***

*Retired on Pension Sept. 11, 1932.

**Promoted September 11, 1932.

***Transferred September 11, 1932, from
Communicable Diseases Division.

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 Physicians: 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—L. Woodhall.*

*Retired on Pension, June, 1932.

**Deceased, 1933.

***Transferred from Sanitary Division, June 16, 1933.

Clerk—J. J. Higgins.
" —J. McTavish.**
" —S. Cameron.***

Office Assistant—Miss N. Deering.

Public Baths Division

Under Supervision of Health Department in 1932, and in 1933 until May 31st.
Superintendent—G. A. Harrison.
Matron—Mrs. J. Harrison.
Life Saving Attendants: F. Barnes,
A. Dennis.
Engineers: A. Stiles,
H. Irons.
Office Attendant—Mrs. G. Baker.*

*Transferred to Comfort Stations' Staff on June 1st, 1933.

Report of the Medical Health Officer

City Health Department,

Winnipeg, Man., June 1, 1934.

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 reports of the Health Department for the years 1932 and 1933. This includes summaries of the reports of the heads of divisions for these years, together with a statement showing the cost of the services performed.

Statistics—The number of deaths, excluding stillbirths, was 1,711 in 1932, and 1,681 in 1933. Assuming the population to be, according to the City Assessor's figures, 215,768 for 1932, and 218,545 for 1933, these give gross death rates of 7.92 and 7.69 respectively per thousand population.

The corrected number of deaths, excluding stillbirths, was 1,515 for 1932, and 1,491 for 1933, giving corrected rates of 7.02 and 6.82 respectively.

The number of registered deaths in children under one year of age was 184 in 1932, and 173 in 1933, giving crude mortality rates of 44.8 and 45.4 per thousand living births, respectively.

The corrected number of infant deaths is 146, with a rate of 43.8 for 1932, and 134 deaths, with a rate of 44.2 for 1933.

Registered stillbirths numbered 133 for 1932, and 136 for 1933, giving rates of 32.4 and 35.7 per thousand live births, respectively.

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, concerned with refuse collection and disposal, and street-cleaning services; and the third, the operation of the comfort stations.

CONTROL AND PREVENTION OF DISEASE, 1932-1933

Summary

	1932	1933
(a) Personal Services	\$ 95,788.47	\$ 86,031.72
(b) Outside Services	9,439.78	7,812.18
(c) Material, Supplies and Repairs.....	8,112.13	6,661.64
(d) Equipment and Replacements	3,278.89	137.03
(e) Fuel, Water, Light and Power.....	1,195.14	1,076.72
(i) Interest	300.00	.....
	<u>\$118,114.41</u>	<u>\$101,719.29</u>

Expenditure by Divisions

	1932	1933
C - 1. Administration and Statistics.....	\$ 12,086.76	\$ 10,920.78
C - 2. Bacteriological Laboratory	7,134.37	6,352.86
C - 3. Treatment and Prevention of Communicable Diseases	22,458.07	16,038.71
C - 4. Sanitary Inspection	27,445.60	23,760.59
C-5-1. Dairy Inspection	9,005.81	7,670.91
C-5-2. Food Inspection	6,271.17	5,279.59
C - 6. Bureau of Child Hygiene	32,226.75	28,725.53
C - 7. Medical Relief	1,485.88	2,970.32

Gross Expenditure, Control and Prevention of Disease	<u>\$118,114.41</u>	<u>\$101,719.29</u>
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Revenue

Fees for Laboratory Work	110.00	103.00
Sale of Infants' Feedings at Milk Depot.....	187.10	79.90
Net Expenditure	<u>\$117,817.31</u>	<u>\$101,536.39</u>
Cost per Capita	.55c	.46c

Statement showing the expenditure of the City Health Department's share of each \$100 of Municipal taxation (Local Improvements and Water District taxes excluded) in 1933.

Preservation of Health and Sanitation:

Health Department	\$1.11
Administration and Statistics	.12c
Bacteriological Laboratory	.07c
Prevention of Communicable Diseases	.18c
Sanitary Inspection, Housing, Smoke Prevention	.26c
Dairy Inspection	.08c
Food Inspection	.06c
Babies' Milk Depot and Child Hygiene Nurses.....	.31c
Medical Relief	.03c
	\$1.11

Taxes Reduced Through Control of Communicable Diseases

The following is a table showing in condensed form the saving to the taxpayer in Municipal Hospitals and Health Department expenditures that has been made possible through the control of preventable diseases and care of children in their early infancy.

The combined saving for 1933 as compared with 1920, for the Municipal Hospitals controllable expenditure and Health Department expenditures, amounts to \$283,920. It is, of course, impossible to estimate the actual amount of money saved by citizens through the reduced amount of sickness which is indicated by the lower mortality shown in the table.

That the intensive child hygiene and communicable disease prevention work carried on by Winnipeg organizations has had a most beneficial effect upon the children and youth of our City is shown by the following figures:

	1920	1925	1933
Total deaths under 20 years of age.....	1,054	538	290

HEALTH DEPARTMENT IS ABLE TO REDUCE ITS EXPENDITURES THROUGH CONTROL OF COMMUNICABLE DISEASES. FEWER CASES OF COMMUNICABLE DISEASES ENABLES MUNICIPAL HOSPITALS TO REDUCE THEIR EXPENDITURES.

Year	Deaths from Measles, Scarlet Fever, Whooping Cough, Diphtheria	Deaths from Pulmonary Tuberculosis	Health Department Expenditures	Municipal Hospital Controllable Expenditures	Infant Deaths	Bureau of Child Hygiene Expenditures
1912	156	108	\$ 170,348	\$ 383,827	1,006	\$ 41,054
1920	217	138	161,937	336,467	625	38,888
1921	83	100	137,809	284,705	471	35,400
1922	71	105	134,420	277,141	500	33,355
1923	70	96	131,556	248,526	416	32,855
1924	44	87	126,256	234,850	323	31,461
1925	57	81	121,870	245,210	315	31,400
1926	45	88	121,896	251,303	314	31,438
1927	50	74	119,066	260,768	273	30,454
1928	36	73	124,809	259,226	284	32,973
1929	56	83	127,843	251,666	253	34,056
1930	37	97	125,381	237,358	269	33,837
1931	21	83	118,114	200,738	218	32,226
1932	15	61	101,719	168,536	184	28,725
1933	15	60			173	

1920 to 1925: Dental Clinic expenditures excluded.

Population: 1912—166,553; 1920—192,571; 1933—218,545.

**REFUSE COLLECTION AND DISPOSAL AND STREET CLEANING,
1932 AND 1933.**

Summary:

	1932	1933
(a) Personal Services	\$209,177.73	\$178,163.93
(b) Outside Services	37,409.00	34,727.30
(c) Material, Supplies and Repairs	27,501.50	25,435.81
(d) Equipment, Additions & Replacements	3,678.00	2,589.50
(e) Fuel, Water, Light and Power	2,966.77	2,685.30
(i) Interest	9,745.00	9,398.33
(ii) Sinking Fund	4,174.46	4,006.56
	<u>\$294,652.46</u>	<u>\$257,006.73</u>

Expenditure by Divisions.

C-8 Refuse Collection and Disposal—

C-8-1 Scavenging:	1932	1933
(a) Personal Services	\$114,241.41	\$102,690.65
(b) Outside Services	29,929.05	27,811.68
(c) Material, Supplies and Repairs	19,777.21	20,303.60
(d) Equipment, Additions & Replacements	978.00	659.50
(e) Fuel, Water, Light and Power	497.06	376.73
	<u>\$165,422.73</u>	<u>\$151,842.16</u>

C-8-3—Nuisance Ground Operating:

(a) Personal Services	\$ 3,984.53	\$ 3,328.80
(c) Material, Supplies and Repairs	16.10	.....
	<u>\$ 4,000.63</u>	<u>\$ 3,328.80</u>

C-8-6 Crematories, Operating and Maintenance:

(a) Personal Services	\$ 24,742.74	\$ 21,834.89
(b) Outside Services	1,352.47	1,343.50
(c) Material, Supplies and Repairs	2,746.46	2,954.51
(e) Fuel, Water, Light and Power	1,646.87	1,606.44
	<u>\$ 30,488.54</u>	<u>\$ 27,739.34</u>

C-8-11 Fixed Charges on Debenture Debt:

(i) Interest	\$ 9,745.00	\$ 9,398.33
(ii) Sinking Fund	4,174.46	4,006.56
	<u>\$ 13,919.46</u>	<u>\$ 13,404.89</u>

Total Refuse Collection and Disposal	<u>\$213,831.36</u>	<u>\$196,315.19</u>
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COMFORT STATIONS

1932-33

	1932	1933
(a) Personal Services	\$18,328.00	\$16,703.96
(b) Outside Services	36.00	11.55
(c) Material, Supplies and Repairs	1,996.60	1,778.70
(d) Equipment, Additions and Replacements	39.75	.....
(e) Fuel, Water, Light and Power	3,080.02	3,242.45
(i) Interest and Sinking Fund (Uncontrol- lable)	3,738.07	3,738.07
Totals	<u>\$27,218.44</u>	<u>\$25,474.73</u>

Expenditures

C-10-1. Comfort Stations (Operation and Maintenance)	\$23,480.37	\$21,736.66
C-10-4. Comfort Stations (Fixed Charges on Debenture Debt.)	3,738.07	3,738.07
Gross Expenditure	<u>\$27,218.44</u>	<u>\$25,474.73</u>

Revenue

Collections from Comfort Stations (June to December, 1933)	\$ 104.56
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Communicable Diseases.—The total number of reports of communicable diseases for 1933 was 3,594 cases and 135 deaths, as compared with 3,141 cases and 126 deaths for 1932.

There were 33 non-resident deaths for 1933, as compared with 20 for the preceding year.

Corrected deaths for the City numbered 108 in 1932, and 115 in 1933. This figure is arrived at by deducting non-resident deaths and adding deaths of Winnipeg citizens which occurred in St. Boniface Hospital, and Ninette and St. Boniface Sanitaria.

Cases, Deaths and Rates, 1932 and 1933

DISEASES	1932				1933			
	Cases	Deaths	Rate per 100,000	Rate per 100 Cases	Cases	Deaths	Rate per 100,000	Rate per 100 Cases
Anterior Poliomyelitis	2	...	...	...	1	...	...	...
Cerebro-Spinal Fever	6	...	...	...	6	3	1.3	50.0
Chickenpox	841	...	...	...	1,137	1	...	...
Diphtheria	246	7	3.2	2.8	262	5	2.3	1.8
Diphtheria Carriers	51	...	...	...	63	...	...	...
Erysipelas	45	4	1.8	8.6	29	1	.4	3.4
Influenza	20	11	5.1	55.0	35	23	10.4	65.7
Lethargic Encephalitis	...	2	.9	...	4	5	2.3	...
Measles	494	1	.5	.2	51	1	.4	1.9
Mumps	356	...	...	...	379	...	...	...
Puerperal Fever	8	8	3.7	...	3	3	1.3	...
Scarlet Fever	338	4	1.8	1.2	363	...	...	...
Smallpox	...	...	...	...	...	...	...	...
Tuberculosis, Pulmonary	178	61	28.3	34.2	169	60	27.4	35.7
T/b, Pulmonary corrected	160	68	31.5	42.5	149	71	32.4	47.6
Tuberculosis, all forms, cor.	...	82	38.0	...	...	70	32.0	...
Tuberculosis corrected	...	82	38.0	...	...	79	36.1	...
Typhoid Fever	20	2	.9	10.0	22	4	1.8	17.4
Typhoid Fever, corrected	...	1	.5	...	12	1	.4	...
Paratyphoid Fever	536	3	1.4	.6	1	1	.4	...
Whooping Cough	536	3	1.4	.6	1,366	9	4.1	.6

Diphtheria.—The total number of cases of Diphtheria reported for 1933 was 267, deaths 5, as compared with 246 cases and 7 deaths for 1932.

The following table shows distribution of cases and deaths by Wards:

	1932		1933	
	Cases	Deaths	Cases	Deaths
Ward One	52	1	32	..
Ward Two	102	4	128	3
Ward Three	46	2	58	..
Non-Residents	28	..	26	2
Institutional	18	..	18	..
	246	7	262	5

The City's corrected total cases for 1933 was 236, with three deaths, and for 1932, 218 cases and seven deaths.

Diphtheria carriers totalled 51 in 1932, and 63 in 1933. Diphtheria antitoxin distributed from this Department totalled 1,797,000 units, in 1932, and 1,310,000 units in 1933.

Toxoid.—Toxoid distributed during the past two years is as follows:

	Single Ampoules		Complete Series		Schick Test	
	1932	1933	1932	1933	1932	1933
1st Dose	230	185	476 (1 person)	856	314	107
2nd Dose	194	130	54 (6 person)	26	.....	.....
3rd Dose	172	131	290 (12 person)	123	.....	.....

Material used in pre-school age work is included in the above. Physicians received sufficient material for the complete treatment of 883 persons, while institutions received enough to give complete treatment to 266 persons in 1933.

In 1932, 3,701 children received the Schick Test in the City schools, of this number 3,036 gave a positive reading and 2,723 received complete immunization.

There was a fairly good response to the pre-school age campaign in 1932, compared with the preceding year but nothing like as much of this preventive work was carried out as we would like to have seen done. In order to attain best results, it is necessary to pursue this work very much further by means of an advertising and educational campaign, follow-up work the year after the birth of children by nurses visiting the homes and possibly the provision of centres where Toxoid can be administered the year round as has been done in some cities which have achieved the best results in Diphtheria control.

Seven hundred and thirty-two received complete treatments in 1932, as compared with 203 in 1931.

During the summer months of 1933, the nurses of the Child Hygiene Division co-operated with this Division in preparing lists of names and addresses of prospective families and submitted same to this office. The medical inspection department of public schools and some of the social agencies also co-operated with us. As in former years we got the use of schools on Saturdays, with this difference, that we were able to concentrate on the district where most consents had been received. Ten schools were north of the C.P.R. in Ward 3, five in Ward 2, one in Ward 1. The work commenced September 23rd and was carried on according to schedule until November 25th, two dates being necessary in December to take care of 133 incomplete cases.

A system of notification and follow up, by post card, necessitated

extra time and expense, nevertheless we feel sure that the effort put forth brought about the desired results, namely, to complete as many as possible those who had presented themselves for treatment. Eleven hundred and eighty-three received complete treatment, 70 received two doses and 175 received one dose.

The situation regarding Diphtheria still remains far from satisfactory. During the year a drive was put on with the object of urging parents and those having children in their charge, to employ the services of their family physician for the administration of preventive inoculation of toxoid. Talks were given over the radio, together with publicity in the newspapers and by other means. This campaign did not meet with the success that we anticipated as reference to preceding figures will show.

The Department was unable to carry on immunization work of children of the lower grades in the schools to the extent we would have desired, owing to limitation of our appropriation for this purpose, but was able to carry out a fair amount of preventive work among children of pre-school age.

We hope during the coming year to be able to put intensive effort on this important branch of disease prevention and with the aid of a larger appropriation, to immunize a much greater number of children. Diphtheria can be completely eliminated from a community if sufficient number of susceptibles receive preventive inoculation. This is the ideal we would like to attain.

Scarlet Fever—The number of cases of scarlet fever reported during 1933 was 363 with no deaths, as compared with 328 cases and four deaths in 1932. Of the 363 cases reported in 1933, 62 are classed as non-resident and 19 as institutional, as compared with 54 non-resident cases, and 17 institutional cases in 1932.

The four deaths in 1932 gave a mortality rate of 1.8 per 100,000 population, and 1.2 per 100 cases. The year 1932 passed without any special incident and there was no milk-borne infection. The disease appeared to be spread principally through contact and many suspect cases were recorded. In addition to 50 such cases, there were 24 definitely recorded unrecognized cases and 41 secondary cases. Return cases totalled 3. House to house check-ups in affected areas had to be undertaken in May and June and again in October and November.

In 1933, an outbreak of the disease occurred in one of our larger institutions early in the year, the source of the infection being an eight month old baby with suppurating glands. The total number of cases was nine and nine persons were removed to isolation under suspicion. It is interesting to note that the baby was not discharged from isolation until the middle of June, almost six months from the beginning of the outbreak.

The type remained mild; cases unrecognized totaled 24, while suspect cases totalled 27. Twenty-three secondary cases occurred in homes where patients had been removed to hospital or quarantined at home. Only one return case was notified during 1933. This is a highly creditable showing and is probably influenced by the mildness of the type. There was no milk-borne outbreak, contact being the means by which infection was spread.

Typhoid Fever—Twenty-two cases of typhoid fever were recorded during 1933, with four deaths, as compared with 20 cases and two deaths for the preceding year. These figures give mortality rates of 1.8 and .9 per 100,000 respectively, and 17.4 and 10.0 per 100 cases.

Of the 20 cases recorded in 1932, six were non-residents and of the remaining 14 cases, five received infection while travelling outside the City, leaving a balance of nine cases. The City cases were distributed by months as follows: January, 2; May, 1; July, 1; August, 3; September, 1; October, 1; November, 4, and December, 1. The two deaths occurred in July and September, the former being a City case and the latter a non-resident. One para-typhoid death occurred in April, a one-year-old City baby.

Of the 22 cases of typhoid fever reported in 1933, 10 were non-residents and one an institutional case, leaving 11 for the City. Of these, four received their infection while visiting at points outside the City; three were resident in close proximity to one another but extended over a period of three months. In this connection all stores and catering places were checked up and in the course of investigation we located a home from which milk was being peddled. It was known that typhoid had been reported in the Municipality where this milk came from, but owing to the fact that the business had been conducted without a license we were only able to establish proof of one family partaking of the milk. We have not had any more cases reported in this neighborhood since.

Three cases remained untraced and one a transient unemployed who had been ill prior to his arriving in the City. This man died. The remaining death was that of a woman who had been visiting for three weeks at one of the summer resorts and sickened with typhoid two weeks after her return to the City. She was probably infected outside the City. Of the 10 non-resident cases, two died.

Smallpox—No cases of smallpox were recorded during either 1932 or 1933. These are the first years for over thirty years that Winnipeg has been entirely free from this disease.

Tuberculosis of the Lungs—Cases of tuberculosis of the lungs reported for 1933, totalled 169, with 60 deaths, as compared with 178 cases and 61 deaths for 1932. Of the 60 deaths registered in 1933, 18 were non-residents, leaving 42 deaths registered for the City. Adding to these 23 deaths of Winnipeg citizens registered in St. Boniface, and six at Ninette Sanatorium, gives a corrected City total of 71 deaths. The crude death rate is 27.4 per 100,000 population; the corrected rate, 32.4. The crude case rate is 35.7 deaths per 100 cases; the corrected rate, 47.6.

Of the 61 deaths in 1932, 16 were non-residents, leaving 45 deaths of citizens. To these may be added 24 deaths of citizens in sanatoria outside the City, giving a corrected total of 69 deaths. The crude rate is 28.3 deaths per 100,000 population; the corrected, 31.5.

The following is a table showing how long symptoms were noted prior to the Department being notified of the case:

Months	1933	1932	Years	1933	1932
Less than 1 Month.....	25	26	1 - 2 Years.....	3	13
1 - 2 Months.....	57	23	2 - 3 ".....	4	9
2 - 3 ".....	4	19	3 - 4 ".....	1	5
3 - 4 ".....	11	12	4 - 5 ".....	3	2
4 - 5 ".....	5	7	5 - 6 ".....	1	.....
5 - 6 ".....	3	1	6 - 7 ".....	1	2
6 - 12 ".....	15	18	7 Years and over	6	6
			Total	139	143
			Unknown	6	13
			Institutional	4	4
			Non-Resident	20	18
			Total Cases	169	178

The 71 corrected deaths for 1933 were known to the Department for the following lengths of time:

By Death Registration	12
Under 1 Month	3
1 - 2 Months	5
2 - 3 "	1
3 - 4 "	1
4 - 5 "	5
5 - 6 "	3
Over 6 months	41
Total	71

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

	1933	1932
King Edward Memorial Hospital	29	27
Ninette Sanatorium	8	13
St. Boniface Sanatorium	32	34
Central Clinic	48	64
Death Registration	12	12
Doctors and others	20	10
Non-Resident	20	18
	169	178

The visiting nurses in 1933 made 6,192 visits to homes of patients, 151 of these being first visits to new patients. Fifty-six patients were on the free milk list for all or part of the year, the amount of milk supplied being 9,524 quarts.

In 1932, the visiting nurses made 6,167 visits to patients in their homes. Fifty-two cases were on the free milk list for all or part of the year, and 15,010 quarts of milk were supplied. All supplies necessary for the care of the patient in the home were furnished upon request as in previous years.

Measles—There were 51 cases and one death reported in 1933, as compared with 494 cases and one death in 1932. These figures give a mortality rate per 100,000, of .4 for 1933, and .5 for 1932.

In 1932 the cases appeared mostly in two districts which had remained comparatively free during the outbreak of the preceding year, and at the end of 1932, the disease had subsided in all wards.

In 1933, only three cases were reported between the months of June and November, but in December 19 cases were recorded.

Whooping Cough—In 1932, 536 cases were reported and three deaths, giving a death rate of 1.4 per 100,000 population and .56 per 100 cases. This was a large increase in number of cases, as compared with 1931, the increase occurring in all wards. Many of the cases treated in Wards 1 and 2, were reported as being atypical in character.

In 1933 the number of cases of whooping cough reported reached the record total of 1,366, the highest number yet reported in any one year. There were nine deaths, giving a mortality rate of 4.1 per 100,000 population, and .6 per 100 cases. As in 1932, diagnosis was often difficult owing to the fact that in many cases the characteristic symptoms were absent. The months of June, July and August provided the majority of the cases, the peak, 196 cases, occurring in July, 1933.

Chicken-pox—Eleven hundred and thirty-seven cases were reported, as compared with 841 for 1932. Over half of the latter year's total were reported in the last three months of the year, and the same condition prevailed in 1933. Many reports reached us through the school nurses.

In 1932, 72% of the cases occurred within the age period five to nine years; in 1933, 62%.

Mumps—The total cases of mumps reported in 1933 was 379, as compared with 356 in the previous year. Eighty-nine per cent of the 1933 cases were recorded during the first half of the year, the majority of cases being reported through schools and parents as is the case in most minor infections.

Erysipelas—Twenty-nine cases and one death were reported in 1933, and 46 cases and four deaths in 1932. One death in each year occurred amongst the non-residents.

Anterior Poliomyelitis—In 1933 one case was recorded, a child four years of age. Her history was that she sickened five days prior to her removal to hospital and that she was discharged three weeks later. There was no paralysis.

Two cases were recorded in 1932, one a young woman brought in from St. Jean, Man., and the other a child of seven years which was removed to St. Boniface Hospital where death occurred.

Cerebro-Spinal Fever—Six cases and three deaths were recorded in 1933, as compared with six cases and no deaths the previous year. Of the 1933 cases, five cases and all deaths occurred during the months of July to November.

In 1932 two cases occurred in April and four in September.

The age incidence was as follows:

	1933	1932
Under 1 year.....	2	1
1 year	2	2
2 years	1	1
4 years	1	....
7 years .....	....	2

Lethargic Encephalitis—Four cases and five deaths were reported in 1933, as compared with no cases for 1932. In the latter year, however, two patients which had been recorded in 1931 died.

Influenza—Thirty-five cases and 23 deaths were reported in 1933, as compared with 20 cases and 11 deaths the previous year. Of the 35 cases reported in 1933, 25 were recorded during the first three months of the year. When comparison is made with the number of deaths registered, it is obvious that only a few cases are reported.

Puerperal Fever—Three deaths were registered in 1933, as compared with eight in 1932. Two of the 1933 deaths and one of the 1932 deaths were non-residents. Cases of this disease are not reported, only those which terminate fatally being recorded.

Medical Relief—Total calls made by district physicians in 1933 was 790, as compared with 256 for the previous year, the increase being brought about through taking calls for the Unemployment Relief Department. Ninety-eight calls were referred to the Margaret Scott Nursing Mission in 1933, as compared with 107 for 1932. Calls put into the office by parents, school nurses, social agencies and other organizations, relat-

ing to sickness and clearing, totalled 870 in 1933 and 686 in 1932. Persons receiving attention in the office in 1933 totalled 678, as compared with 944 the previous year.

There were 1,481 vaccinations performed in 1933, as compared with 1,191 for the preceding year. It is difficult to impress upon people when a disease is absent, the necessity of prevention but the presence in a community of a large number of unvaccinated individuals greatly increases the liability for spread of smallpox, should this be introduced.

In 1933, 96 persons received Insulin for all or part of the year, 76 being on the free list. In the previous year 85 persons received Insulin.

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

Public Baths—During the year 1933 the administration of the Department of Public Baths was taken over by the Parks Board. Administration of the Comfort Stations still remains as a Division of the Health Department. A report concerning the workings of this Division is embodied with reports of sub-heads.

Outside Closets—The total number of outside closets in use at December 31st, 1933, was 276, as against 265 at the end of 1932.

Housing—Towards the end of 1933, a Special Committee on Housing Conditions was appointed by the City Council. This Committee instructed that a survey be made of certain selected districts with the view to obtaining information as to the present conditions. This matter will be referred to in next year's Report.

There were only 124 new houses constructed during 1933. This is 54 less than the previous year. Three new apartment blocks were built in 1933, consisting of 10 three-roomed suites and two four-roomed suites. Two other buildings were converted into apartment blocks, having a combined total of 19 suites. These figures do not, however, represent the actual increase as 56 old dwellings were removed or demolished.

There are 36,332 houses in the City, including dwellings in connection with stores; and 646 apartment blocks with 10,483 suites.

Further information relating to Housing will be found in the Reports of the Chief Inspector of the Division of Sanitation and the Housing Inspector.

Educational Work—A number of lectures on Public Health were given during both years. As in the past, we have received considerable assistance from the Press.

For the education of our own staff, the following syllabus was arranged for the Season of 1932-33:

1932

Nov. 19—Opening Address—Dr. A. J. Douglas, Medical Health Officer, followed by Dr. M. S. Loughheed, Bacteriologist.

Nov. 26—Dry Rendering Process in Abattoirs—Mr. R. McQuillan, Chief Food Inspector.

Dec. 3—Discussion on Above Subject, led by Messrs. B. C. Brough and L. G. Williams.

- Dec. 10—Housing—the Duties and Responsibility of a Municipality—Mr. A. Officer, Chief Inspector, Division of Sanitation and Housing.
- 1933
- Jan. 7—The Enforcement of Public Health Law—Mr. E. W. J. Hague, M.R. San. I.
- Jan. 14—Discussion on above subject, led by Messrs. F. Austin and G. Kelly.
- Jan. 21—Noxious Gases and Vapours—Mr. A. G. Phillips, Chemist, National Testing Laboratories.
- Jan. 28—Discussion on above subject, led by Messrs. B. Davies and A. Cross.
- Feb. 4—Milk Supply of Canadian Cities—Mr. E. C. Brown, Chief Dairy Inspector.
- Feb. 11—Discussion on above subject, led by Messrs. J. M. Jackson and T. J. Booth.
- Feb. 18—Sanitation Problems in Rural Districts—Mr. J. Foggie, Chief Sanitary Inspector, Province of Manitoba.
- Feb. 25—Discussion on above subject, led by Messrs. J. McHardy and A. Aitken.
- Mar. 4—Environment and its Relation to Infectious Diseases—Mr. W. J. T. Watt, Chief Communicable Disease Division.
- Mar. 11—Discussion on above subject, led by Messrs. H. H. Marshall and H. Robinson.
- Mar. 18—Lecture by Mr. A. Blackie, Consulting City Chemist, National Testing Laboratories.
- Mar. 25—Discussion on above subject, led by Messrs. E. Officer and A. G. Isaac.
- Mar. 31—Social Evening.

Staff—In 1932, Inspector Paull of the Communicable Diseases Division retired on pension. Inspector Lutley of the Dairy Division also retired. Mr. Isaac was transferred from the Division of Sanitation to fill the latter vacancy. As no one has been appointed in place of Mr. Isaac, the Division of Sanitation is one inspector short of 1932.

In June, 1933, Mr. and Mrs. G. S. Harrison, superintendent and matron, respectively, of the Public Baths, together with their staff, were transferred to the Public Parks Board. The only other change was the transfer of Mr. S. Cameron, clerk, from the Sanitary Division to the Scavenging and Street Cleaning Division.

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

Yours obediently,

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 31, 1933, and giving also the total for the year 1932.

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

1933	Cultures for Diphtheria	Sputa for T.B.	Urethral Smears	Widals for Typhoid	Water	Milk and Cream	Urinalyses	Miscellaneous	Vaccinations	Total Examinations per Month
	Pos.	Pos.	Pos.	Pos.						
January.....	180—7	15—4	7—0	2—0	153	169	18	6	9	559
February.....	206—4	18—4	14—2	2—0	139	157	17	6	46	605
March.....	209—3	25—2	16—2	6—0	157	189	20	6	19	647
April.....	3350—0	25—5	10—2	0	141	152	12	5	13	1708
May.....	143—0	29—3	18—5	6—0	157	175	20	10	936	1494
June.....	1048—3	14—1	14—0	2—0	173	165	35	3	78	1532
July.....	1579—3	24—0	15—6	8—2	167	171	38	55	2	2059
August.....	1097—0	21—3	72—5	4—1	181	157	35	9	12	1588
September.....	658—0	5—1	11—1	2—0	157	163	29	0	144	1169
October.....	405—6	22—3	29—4	2—0	159	136	25	3	184	965
November.....	440—1	21—4	12—3	8—0	151	81	36	5	42	796
December.....	270—3	37—2	9—1	3—0	153	56	34	11	5	578
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
1931 Totals.....	6706—33	341—26	247—28	68—11	1555	1649	197	65	753	11541

Water Samples—During the year, 1,888 samples of water were examined. This is a record number in this laboratory. However, the increase over last year is very small. In 1921, the total was 469.

Samples from eight swimming pools were examined weekly, while in operation. The results for 1933 are tabulated in this report.

Water Analyses

Source	No. of Samples	Daily Av. Plate Count, * *	Percentage Plate Counts over 100 per c.c.	Percentage Samples Positive for Coli-Aerogenes Presumptive Test
Drinking Water:				
Tap Water (Lab.)	365	55*	5%	1.4%
Aqueduct	153	140	36%	21%
Reservoir	155	120	35%	30%
Royal Alex. Hotel (cold) ..	55	96	31%	16%
Royal Alex. Hotel (hot)	53	77	24%	4%
Mains Across River:				
Elmwood No. 1	101	137	38%	26%
Elmwood No. 2	102	122	41%	18%
Fort Rouge No. 1	105	125	33%	23%
Fort Rouge No. 2	105	170	39%	14%
River Heights No. 1	105	135	41%	16%
River Heights No. 2	105	125	38%	14%
St. James Bridge	105	175	37%	10%
Baths:				
Sherbrooke Street	52	168	36%	8%
Pritchard	25	300	40%	4%
Sargent Avenue	33	433	60%	12%
Winter Club	35	74	35%	0
Y.M.C.A.	54	74	24%	5%
Y.W.C.A.	52	130	44%	24%
Sutherland Mission	49	645	85%	33%
Stella Mission	33	264	55%	10%

* Leaving out the month of July with its average daily average of 525, the average of daily plate counts was 11 organisms per c.c.

** Average of monthly averages.

Milk and Cream—The number of samples examined totalled, 1,771, also a record. These were examined for butter-fat content and the milk for water and solids. There were also 1,605 bacterial counts made as compared with 1,097 in 1932 and 800 in 1931. Ten years ago the total bacterial counts were less than 200. The source of the samples is shown in a table.

	1933		1932	
	Milk	Cream	Milk	Cream
Dairy Inspectors	1,649	62	1,529	83
Bureau of Child Hygiene	35	17	32	16
Private	8	0	12	11
Total	1,692	79	1,573	110
Total Milk and Cream	1,771		1,683	
Bacterial Counts	1,605		1,097	

Diphtheria Cultures—Cultures examined in 1933 numbered 7,585, as compared with 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 of cultures were taken from the throats of children going to Summer Camps.

Dispensary Service—During 1933, this service was extended considerably. The clinics at the Hospitals were closed and assistance had to

be given to Doctor Harvey, of the Unemployed Relief Department, and in addition we undertook the making of medical reports for the Social Welfare Commission, with treatment for minor complaints. There was also medical attention given to those on Single Men's Relief, Single Women's Relief and D.S.C.R. Relief. Special arrangements have been made for the medical care of those on Unemployment Relief, leaving to us only those on Social Welfare Relief, D.S.C.R. Relief, Single Women's Unemployment Relief and those who though not on relief are unable to employ a private physician.

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 1,490, as compared with 1,169 in 1932 and 753 in 1931.

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.

Communicable Diseases Division

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

Medical Health Officer,

Winnipeg.

Dear Sir:

I have the honour to submit herewith reports for the years ending December 31st, 1932 and 1933.

Report—1932

We were fortunate in passing through a comparatively healthy year.

The work did not differ from that of former years and the policy of preventive practice was carried out as far as funds and conditions allowed.

Table and summaries relating to Medical Relief, Tuberculosis, Diphtheria prevention, Inspectors' and Nurses' reports are appended hereto.

Cases and Deaths from all acute communicable diseases are tabulated by months, wards, age and sex.

Tuberculosis Visiting Nurses—The total number of visits made during the year was 6,167, against 5,370 for 1931.

One hundred and fifty-six cases were added to the districts during the year and including cases already on our records totalled 565.

Cases in Hospitals and Sanatoriums at end of the year:

King Edward Hospital	106
Ninette Sanatorium	64
St. Boniface Sanatorium	82
Central Clinic	10

Tables showing living and sleeping accommodation of patients are attached to this report.

As the Medical Relief operating with the registered unemployed is carried on independent of ordinary medical relief our work along this line was curtailed considerably.

Inspector A. Paull, who had served on this division since 1913, was retired on pension, April, 1932.

Stanley Lang was appointed to fill the place vacated by Lloyd Williams, transferred to the Food Division.

Report, 1933

As will be seen by a study of the review submitted and summaries attached, we experienced a good year with the exception of Whooping

Cough and Chickenpox, which increased in numbers over the previous year. Other diseases remained about normal or below.

Funds did not allow of Toxoid administration or Vaccination of the primary grades in the City Schools, however, there was a good response for children of pre-school age, chiefly through the canvass of homes by the nurses from the Bureau of Child Hygiene. This work was done in the City Schools. We received the co-operation of nurses from the Medical Inspection Department.

Tables and summaries relating to the work of this division are appended hereto.

Tuberculosis Visiting Nurses—The visiting lists show a total of 636 persons, summarized as follows: Open cases, 172; Clinically Positive, 297; Family contacts, 113; Suspects, 54. The total number on the visiting lists for the preceding year was 565.

Cases in Hospitals and Sanatoriums known to Nurses and included in our records are as follows:

	1933	1932
King Edward Memorial Hospital	98	106
Ninette Sanatorium	78	64
St. Boniface Sanatorium	72	82
Central Clinic	4	10
St. Rochs Hospital	6	0

Tables showing living and sleeping accommodation of the 143 cases in private homes added to our records during the past year; also showing members in the household and sleeping accommodation of contacts are attached to this report.

It is interesting to note that 53% of the total patients had room to self and 13%, while not using a separate room, had bed to self.

The distribution of supplies to needy patients, checking up contacts, arranging hospitalization, etc., was carried on in the usual manner.

Medical Relief—We experienced a heavy year for calls at the office and after office hours, also for visits made by District Physicians. This was brought about by the ever increasing needs for medical service on the part of those unemployed or only on part-time employment.

This problem had not reached a definite solution at the end of the year but improvement has been made and an organized form of medical service is in the making.

For particulars re distribution of Antitoxin, Toxoid, Insulin and other supplies a summary has been prepared and attached to this report.

We are pleased once again to acknowledge the assistance and splendid co-operation of Hospitals, Social Agencies, the Medical Inspection Department of Public Schools, Margaret Scott Nursing Mission and other institutions.

Respectfully submitted,

Yours obediently,

W. T. WATT,

Chief, Division of Communicable Diseases.

COMMUNICABLE DISEASES 1933

DISEASES	Jan.		Feb.		Mar.		Apr.		May		June		July		Aug.		Sept.		Oct.		Nov.		Dec.		Totals 1933		Totals 1932	
	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths
Anterior Poliomyelitis	1												1	1	1	1	1	1	1	1	1	1	1	1	1	2		
Cerebro S. Fever	126												27	1	18	1	33		117		249		166		6	3	6	
Chickenpox	19		104		71		64		83		79		22		20		28		42		36		29		1137	1	841	7
Diphtheria	1		9		3				4		5		3		2		15		9		6		6		63	51	246	
Diphtheria Carriers	2		1		4		2		5		1		1		3		3		2		1		4		29	1	46	
Erysipelas	16	9	4	2	5	3	1	1			1	1	2		1	1			1	2	2	2	3	3	35	20	11	
Influenza																										5	2	
Leth. Encephalitis																												
Measles	3				4		12		10	1										2		19		51	1	494	1	
Mumps	68		56		50		55		69		41		7		3		2		5		13		10		379	356		
Puerperal Fever							1		1		1	1									1	1		3	3	8		
Scarlet Fever	32		36		31		29		15		23		31		22		44		32		36		32		363	338	4	
Smallpox																												
Tuberculosis, Pul.	10	6	23	2	21	5	15	9	16	7	19	4	14	6	14	5	8	5	4	6	16	2	9	3	169	60	178	61
Typhoid Fever			5		1				2		1		3	1	2		5	2	1	1	2				22	4	20	2
Whooping Cough	83		98		125		87		149		171	1	196		153	2	126	2	57		78	2	43	2	1366	9	536	3
Totals	361	15	347	4	334	8	278	11	369	11	349	7	308	8	239	10	266	10	273	12	443	8	322	11	3890	115	3142	103

COMMUNICABLE DISEASES—1933

	CASES						DEATHS					
	WARDS			Non-Res.	Inst.	Total Cases	WARDS			Non-Res.	Inst.	Total Deaths
	1	2	3				1	2	3			
Anterior Poliomyelitis.....		1				1						
Cerebro Spinal Fever.....		1	3			6			1	2		3
Chickenpox.....	193	560	350	2	32	1137		1				1
Diphtheria.....	32	128	58	26	18	262		3		2		5
Diphtheria Carriers.....	10	16	14	10	13	63						
Erysipelas.....	7	8	7	4	3	29				1		1
Influenza.....	8	13	11	3		35	8	7	4	4		23
Lethargic Encephalitis.....	1	2		1		4	3	2				5
Measles.....	10	14	24		3	51			1			1
Mumps.....	146	190	29	1	13	379						
Puerperal Fever.....		1		2		3		1		2		3
Scarlet Fever.....	76	132	74	62	19	363						
Smallpox.....											1	
Pulmonary Tuberculosis.....	33	51	62	20	3	169	6	18	18	18		60
Typhoid Fever.....	2	7	2	10	1	22	1	1		2		4
Whooping Cough.....	356	549	449	6	6	1366	2	3	2	2		9
Totals.....	874	1674	1083	149	110	3890	20	36	26	33		115
											29	6

St. Boniface
Deaths
Ninete

NOTIFIED CASES OF COMMUNICABLE DISEASES, BY AGE AND SEX, 1933

	Under 1 Year		1 Year		2 Years		3 Years		4 Years		5-9 Years		10-14 Years		15-19 Years		20-24 Years		25-34 Years		35-44 Years		45-64 Years		65 Yrs. and over		All Ages		
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	T'tl
Anterior Poliomyelitis.....										1																		1	1
Cerebro-Spinal Fever.....	1	1	2			1			1																			2	6
Chickenpox.....	21	17	20	16	27	21	27	23	36	35	362	339	81	81	10	5	2	3	4	3	3	1					593	544	1137
Diphtheria.....	5	3	14	8	12	18	7	7	8	8	23	27	12	24	10	15	11	13	12	12	4	4	2	3			120	142	262
Diphtheria Carriers.....	1	2	2	2	2				4	1	3	11	5	8	2	3		8	2	6	1						22	41	63
Erysipelas.....	2	1	1						1	1		3						1			5	3	6	5	1		13	16	29
Influenza.....	1	3	1							1	1	1						3	1	1	2	2	1	2	4	11	11	24	35
Lethargic Encephalitis.....																											3	1	4
Measles.....	1	1	1	2	4	1	2	2	1	2	10	14	1	2	1		2	2	3	1							24	27	51
Mumps.....	4	1	8	2	3	1	7	6	11	4	126	101	32	37	7	8		8	4	5	1	2		1			203	176	379
Puerperal Fever.....																				2	1							3	3
Scarlet Fever.....	1	3	3	13	4	13	9	13	11	11	71	72	43	37	12	15	6	16	5	9	3	3	1				183	180	363
Smallpox.....																													
Pulmonary Tuberculosis.....	2		2		2	1	2			3			2	3	3	6	8	22	23	21	20	10	29	7	1	2	94	75	169
Typhoid Fever.....													1	2	3	1	1	3	1	3	2	1	2	2			12	10	22
Whooping Cough.....	47	69	67	66	69	73	79	78	84	85	292	300	28	20	2	2		1		2				1	1		669	697	1366

INSPECTORS' REPORT, 1932

	Totals 1932	Totals 1933
Number of Visits	5,898	5,135
Houses Quarantined	2,444	2,931
Quarantines Raised	604	212
Quarantines Inspected	382	334
Other Calls	2,468	1,658
New Cases Investigated	2,653	3,295
Bedding, etc., Disinfected	578	627
Rooms Sprayed	222	195
Houses Sprayed	8	2
School Certificates Issued	1,321	1,144

TUBERCULOSIS—VISITING NURSES' REPORT, 1932

	Totals 1932	Totals 1933
Number of visits	6,167	6,192
To Old Cases	5,818	5,824
To New Cases	169	151
To Suspects	7	13
On behalf of Patients	131	140
Other Calls	42	44
Patients sent to King Edward Memorial Hospital	3	17
Patients sent to Ninette Sanatorium	4	5
Patients sent to St. Roch's Hospital	1	3
Patients sent to Children's Hospital	6	1
Patients sent to St. Boniface Sanatorium	2	3
Patients sent to Central Clinic	2	1
New Cases added to Districts	156	137

TOXOID ADMINISTRATION, SCHOOL CHILDREN, 1932

	Ward 1	Ward 2	Ward 3	Totals
Schick Tests	913	1,242	1,546	3,701
Positive Schick Tests	735	1,122	1,179	3,036
Completed Toxoid	628	1,004	1,091	2,723

TOXOID ADMINISTRATION, PRE-SCHOOL AGE CHILDREN, 1932

	Ward 1	Ward 2	Ward 3	Totals
Completed Toxoid	153	301	278	732
Not Completed Toxoid	17	35	41	93

TOXOID ADMINISTRATION PRE-SCHOOL AGE CHILDREN, 1933

Total number of children receiving Toxoid	1,428
Number receiving one treatment	175
" " two treatments	70
" " three treatments	1,183
Total number of treatments given	3,864

TUBERCULOSIS 1932-1933 NEW CASES
LIVING ACCOMMODATION

Districts 1, 2 and 3

Table Number One

	PATIENTS					TOTAL NUMBER OF PERSONS IN HOUSEHOLD			
	Males		Females		Totals	Over 10 Yrs.		Under 10 Yrs.	
	1932	1933	1932	1933	1932 1933	1932	1933	1932	1933
1 Room.....	17	10	1	2	18	10	10	3	2
2 Rooms.....	2	16	7	4	9	13	17	7	13
3 Rooms.....	13	4	14	3	27	47	9	19	6
4 Rooms and over.....	59	61	43	52	102	274	462	108	87
TOTALS.....	91	91	65	61	156	364	498	137	108
					143			501	606

Table Number Two

	SLEEPING ACCOMMODATION					CONTACTS			
	PATIENTS		PATIENTS		Totals	Sleeping in same bed as Patient		Sleeping in Separate Bed But in same room as patient	
	With Room to self	With Bed But not room to self	With Neither Bed nor room to self	1932 1933	1932 1933	1932	1933	1932	1933
1 Room.....	9	6	2	2	18	7	4	9	4
2 Rooms.....	3	2	1	4	9	5	10	4	17
3 Rooms.....	7	2	1	2	27	20	4	16	9
4 Rooms and over.....	66	66	5	11	102	28	37	10	13
Totals.....	85	76	9	19	156	60	55	39	43
					143			99	98

Report of Chief Inspector, Division of Sanitation and Housing

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

Dear Sir:

I have the honor to submit for your consideration the following report of the work accomplished by this Division of the Health Department during the years 1932 and 1933, 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 during 1932 was 28,765 and during 1933, 30,423.

Complaints received during 1932 were 2,459 and during 1933, 2,358. Of the 1932 complaints, 567 were unfounded or the conditions complained of remedied previous to inspection, while in 1933 the number was 495.

Notices served for the abatement of nuisances were: 1932—written notices, informal, 1,241; written notices, statutory, 841; verbal notices or warnings, 10,535; a total of 12,617. During 1933—written notices, informal, 1,345; written notices, statutory, 641; verbal notices or warnings, 10,251; a total of 12,237.

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

	1932	1933
Complaints received at office	1,773	1,671
Complaints made to Inspectors	686	687
Totals	2,459	2,358
Of above:		
Complaints re non-removal of garbage, etc.	376	376
Complaints re nuisances, etc.	2,083	1,982
Totals	2,459	2,358
Complaints well founded	1,892	1,863
Complaints unfounded or rectified previous to inspection	567	495
Totals	2,459	2,358
Written notices (informal)	1,241	1,345
Written notices (statutory)	841	641
Verbal notices or warnings	10,535	10,251
Totals	12,617	12,237
Inspections Made		
Dwelling houses	1,164	1,314
Tenements and apartment blocks	1,638	1,947
Hotels and lodging houses	429	462

Schools and public buildings	19	10
Abattoirs	4	4
Workshops and factories	608	543
Offices	92	104
Stores	493	629
Stables, Livery, feed and sale	107	216
Stables (private)	992	699
Laundries (hand)	648	681
Laundries (steam)	9	10
Dog kennels	137	186
Theatres and places of amusement	71	83
Public bath houses	64	115
Public bath houses, water samples	108	140
Comfort stations, Public	225	252
Garages and Filling stations	476	569
Markets, etc.	84	396
Bedding and Upholstering factories	55	43
Lack of heat in dwellings	82	76
Wiping rags	63	53
Refrigerators (chemical) .....	.....	1
Basements, requiring permit of M.H.O.	38	37
Common drinking cups and towels	89	80
Barber shops	136	157
Second-hand stores and junk yards	372	434
Pool rooms	352	416
Yards, sheds, areas, etc.	4,513	4,695
Vacant lots (nuisances)	738	614
Streets and lanes (nuisances)	3,134	5,274
Contractors' closets	277	179
Pit closets	264	381
Undertakers' premises	9	12
Cross-connections (domestic water supply)	64	9
Hydrocyanic acid gas fumigations .....	.....	49
Total number of inspections	17,554	20,870
Re-inspections	11,211	9,553
Total number of inspections and re-inspections	28,765	30,423

Defects and Nuisances Discovered and Abated

	1932	1933
Drains, choked or defective	151	151
Sinks and wash-basins, choked or defective	176	150
Water-closets and fittings, choked or defective	270	256
Baths and fittings, choked or defective	23	15
Urinals and fittings, choked or defective	23	32
Soil-pipes, clean-outs, etc., choked or defective	99	103
Catch-basins and traps, choked or defective	100	112
W. C. Compartments, defective light and ventilation	10	13
Plumbing and water pipes, frozen	104	123
Vent stacks, frozen	6	3
Sewer connections, frozen	4	3
Water services, defective or cut off	201	205
Plumbing fixtures, insufficient	22	25
New plumbing, notice to install	14	19
Total plumbing defects	1,203	1,210

Dirty yards, courts, sheds, etc.	3,448	3,145
Poultry kept in or too close to dwelling	71	73
Pigeons kept in dwelling or not confined to coop.....	23	34
Animals kept in dwelling	22	21
Poultry kept under insanitary conditions	125	148
Cows or other cattle kept under insanitary conditions....	78	53
Cows or other cattle kept too close to dwelling.....	12	3
Hogs, unlawfully keeping	1	3
Horses, insanitary stables	92	92
Garbage receptacles	1,935	1,412
Refuse receptacles	326	217
Manure bins, defective	201	153
Ash receptacles	176	167
Paper receptacles	148	149
Cellars and basements, defective	165	167
Dwellings, dilapidated and insanitary	76	83
Tenements, dilapidated and insanitary	12	6
Offices and workshops, dilapidated and insanitary.....	19	19
Dilapidated and insanitary other buildings	61	31
Overcrowding (day inspections)	237	180
Overcrowding (night inspections)	8	.....
Overcrowding (notices)	66	34
Rat-infested buildings	64	53
Cockroach infested buildings	106	53
Bed-bug infested buildings	211	226
Chimneys, or smoke pipes, defective	36	48
Roofs, defective	72	69
Eavestroughs and rain-water leaders, defective	97	96
Gas fittings and piping, defective	7	14
Furnaces and heating apparatus, defective	66	69
Refrigerators, defective	1	.....
Lighting, defective	26	27
Ventilation, defective	34	31
Pit closets, concrete or brick, notices	28	38
Contractors' closets, notices	171	111
Chemical or patent closets	1	14
Stagnant water, vacant lots	30	33
Other nuisances, vacant lots	688	617
Nuisances on lanes or streets	2,896	3,593
Unnecessary noises	34	18

Total defects discovered (including plumbing defects)	13,073	12,510
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Smoke Nuisances

	1932	1933
Chimneys and smoke stacks (observations)	262	376
Furnaces, boilers, fuels, etc., inspections of	276	356
Totals	538	732
Notices, statutory	15	6
Notices, verbal	264	307
Totals	279	313

Miscellaneous

	1932	1933
Premises placarded insanitary	6	8
Water samples taken	1,466	1,437

Cases reported for prosecution	5	.....
Time attending court (hours)	18	.....
Infractions of Zoning By-law	18	17
Fumigations—Hydrocyanic acid gas	18	116
Insanitary premises	21	20

Frozen Water Pipes and Plumbing—There has been a slight but continuous increase during the past few years of frozen water pipes and plumbing. This is no doubt due to a desire to conserve on fuel, but we get many repeaters from old houses that are gradually becoming dilapidated and not worth radical repairs. Also, many families on Unemployment Relief use only wood for fuel and therefore have difficulty in maintaining adequate heat during the night. During 1932 we dealt with 114 cases, as against 59 the previous year; in 1933 there were 123.

Other Plumbing Defects—The number of instances in which we dealt with defective plumbing was 1,089 in 1932 and 1,087 in 1933. We have had to deal with an unusually large number of fixtures illegally and improperly installed, such as sinks installed without permit and in many cases the wastepipes discharging over the cellar drainage trap. These, and many other defects were of sufficient importance to be referred to the City Engineer's Department.

Only 178 new dwellings were built during 1932 and of these, 159 were on streets where sewer and water mains were available. In 1933 there were only 124 new dwellings built and 113 of these were on streets where sewer and water were available. We now have 276 houses without plumbing. This is an increase, in two years, of 21. The following amendment to By-law 13060, the Zoning By-law, passed during 1933, reads, "The overall width of any residence which may be erected on any lot not served with sewer and water shall be at least twenty-five feet less than the width of such lot." In effect, this means, that the width of any lot built upon cannot be less than fifty feet and will probably prevent the building of houses on streets where water and sewer connections are not available. Future construction of new dwellings will therefore be restricted to streets where these services are available. This is very desirable from our point of view as we do not wish to see any further increase in the number of outside closets.

Defective Roofs, Eavestroughs, and Rain Water Leaders—Defective eavestroughs and rain water leaders are a frequent cause of dampness in and around dwellings. We were called upon to deal with 72 instances in 1932 of defective roofs and 69 cases in 1933. Defective eavestroughs and rain water leaders were 97 in 1932 and 96 in 1933.

Garbage, Manure and other Receptacles—Frequent inspection and re-inspection is required to insure that proper and adequate receptacles are provided for waste of various kinds; otherwise, yards, lanes, and streets would be strewn with refuse. Besides, where proper containers are not in use, service in collection and removal is retarded. There is also a tendency to deposit ashes so close to lanes that these overflow into the ditches and obstruct the flow of water from melting snow in Spring, with consequent backing-up on to low lying yards and flooding of cellars. It may be advisable to adopt some means of informing citizens and requesting co-operation with the view to remedying this condition.

Notices served under the above heading were as follows:

	1932	1933
To provide garbage cans or covers	1,935	1,412
To provide receptacles for incombustible refuse	326	217
To provide or repair manure bins	201	153
To provide receptacles for ashes	176	167
To provide receptacles for paper	148	149
	2,786	2,098

Scavenging—During 1932 we received 376 complaints regarding the non-removal of garbage and in 1933 the number of complaints received was the same—376. Citizens are themselves frequently at fault in not providing suitable and adequate receptacles or for carelessness in other respects. The Scavenging Division continues to give good service and co-operates with us in all matters brought to their attention. In addition to 'phone calls, the following is a list of memos sent to the Scavenging Division:

	1932	1933
Cleaning of contractors' closets	72	51
Removal of garbage	12	1
Removal of dead animals	1	.....
Removal of ashes	9	1
Cleaning of brick pit closets	7	7
Removal of manure from streets and lanes	1	.....
Removal of tins and other incombustible refuse	17	2
	119	62

Contractors' Closets—Only 161 permits were issued in 1932 and 91 in 1933. Inspections made during 1932, 277; during 1933, 179. Notices served during 1932, 171; during 1933, 111. The number of notices served appears excessive in relation to the number of closets but it indicates the tendency on the part of several contractors to be consistently careless in keeping these conveniences clean and fly-proof.

Feed and Sale Stables—Permits issued during 1932, 11 and during 1933, 10. Inspections made during 1932, 107; during 1933, 216. During the fly season a close check is maintained with regard to the storage and removal of manure.

Private Stables—Inspections made during 1932, 992; during 1933, 699. During the Summer of 1932, a survey was made of all the stables in the City, their sanitary condition noted, and a census taken of the animals housed therein. Previous surveys were made in 1912, 1916 and 1920. The number of animals found at each census was as follows: 1912, horses 7,726, cows 970; 1916, horses 4,758, cows 665; 1920, horses 3,804, cows 621; 1932, horses 1,250, cows 460. It will be seen that at each census since 1912, there has been a considerable reduction in the number of horses. With regard to the number of cows, it should be pointed out that these include a few herds in dairy premises situated on the outskirts of the City; indeed this accounts for the majority of the cows. There are fewer cows owned by private individuals than formerly. It was the custom, until a few years ago, for persons to buy a cow in Spring, keep it on the prairie all Summer, and in Winter put it into a woodshed. The enforcement of the law regarding proper stables, and requiring a permit to keep a cow, has had the effect of materially reducing the number of privately owned animals.

An abstract of particulars, from the survey of stables, in each Ward of the City, is here given:

	Ward 1	Ward 2	Ward 3	Totals
Construction:				
Frame	48	53	260	361
Brick	3	9	7	19
Brick and stone .....	....	3	1	4
Stone .....	....	1	1	2
Concrete	1	....	2	3
	<u>52</u>	<u>66</u>	<u>271</u>	<u>389</u>
Sewer connections:				
With	19	50	177	246
Without	33	16	94	143
	<u>52</u>	<u>66</u>	<u>271</u>	<u>389</u>
Floors:				
Concrete	38	51	204	293
Wood	13	13	67	93
Stone .....	....	2	....	2
Earth	1	....	....	1
	<u>52</u>	<u>66</u>	<u>271</u>	<u>389</u>
Natural light:				
Good	23	22	135	180
Fair	29	44	136	209
	<u>52</u>	<u>66</u>	<u>271</u>	<u>389</u>
Roof ventilators:				
With	37	46	170	253
Without	15	20	101	136
	<u>52</u>	<u>66</u>	<u>271</u>	<u>389</u>
Eavestroughs and rain water leaders:				
With	6	39	129	174
Without	46	27	142	215
	<u>52</u>	<u>66</u>	<u>271</u>	<u>389</u>

Keeping of Animals.—In addition to the regulating of stables for horses and cows, we are frequently called upon to correct conditions where horses, cows and other animals are unlawfully kept, as under:

	1932	1933
Cows and other cattle kept in insanitary sheds, etc.....	78	53
Cows and other cattle kept too close to dwellings	12	3
Horses kept in insanitary stables	92	92
Animals kept in dwellings .....	....	21
Hogs, unlawfully keeping .....	....	3

Poultry—Complaints relating to the keeping of poultry and pigeons

have increased during the past few years. We dealt with the following:

	1932	1933
Poultry kept in dwellings	71	73
Poultry kept in insanitary pens, sheds, etc.....	125	148
Pigeons kept in dwellings	23	34
	<u>219</u>	<u>255</u>

Licensed Dog Kennels—Inspections made—1932, 137; 1933, 186. Permits issued—in 1932, 22; 1933, 25. In several of these premises extensive repairs have been carried out during the past two years.

Nuisances in Yards, Sheds, Lanes, Vacant Lots, etc.—The supervision of outside conditions continues to occupy considerable time. There are many people lacking in civic pride, who deposit garbage, manure, and discarded material, on vacant lots, streets and lanes. The following indicates the amount of work under this head:

	1932	1933
Dirty yards, courts, sheds, etc.	3,448	3,145
Stagnant water on vacant lots	30	33
Other nuisances on vacant lots	688	617
Nuisances on streets and lanes	2,896	3,593
	<u>7,062</u>	<u>7,388</u>

Compulsory Sewer Notices—Eight notices were served during 1932. Only two of these were complied with, the remainder being held over until 1933 and still being held as the owners are not in a position to comply with same.

Overcrowding—Inspections made during 1932, 237; during 1933, 180. During 1932, 66 notices were served and during 1933, 34. The overcrowding referred to here, relates to room overcrowding and does not deal with the crowding of families into dwellings originally built for one family only. The latter condition, however, not infrequently, has a distinct bearing on the former. We have had to use a good deal of discretion in order to avoid hardship, as many families have had to "double up" with others, a little overcrowding of rooms being the result.

Housing—Only 178 new houses were built during 1932 and 124 during 1933. In the two-year period, 57 old dwellings were demolished. It is not my purpose at this time to make extended remarks or observations on our housing conditions. The subject has been fully discussed in previous reports. There is no improvement, but on the contrary, we now have houses unlawfully occupied as tenements, in districts that only a few years ago were almost entirely free from this class of premises.

On December 4th, 1933, the City Council appointed a Special Committee on Housing. This Committee instructed that a special survey be made of selected districts to ascertain housing conditions. This will be referred to in next year's report.

Zoning—We dealt with 18 infractions of the Zoning By-law during 1932 and 17 during 1933. Most of these referred to business premises established in Residential Districts.

Gas Stoves, Fittings, etc.—Only seven cases came to our notice in 1932 and 14 during 1933. Early in 1933 we received a complaint of offensive odors from gas in a dwelling and found on inspection that a

family consisting of a man, wife and child had been removed to hospital suffering from gas poisoning. The premises consisted of a small frame cottage on wood sill foundation. The building had sunk considerably. The escaping gas was due to a leak in the gas main in the street. Repairs were made, but as there was an old dug-out cellar without means of ventilation, the earth under the house became impregnated with the gas. The family gave a history of sickness prior to their removal to hospital.

Chemical and Mechanical Refrigerators—The rules and regulations governing these appliances are being enforced by the Bureau of Labor. Since they came into effect in 1932, we have made two surveys of the number and class of refrigerators in our apartment blocks and sent copies to the Bureau of Labor. We dealt with one complaint in 1932 but had none in 1933.

Cross Connections in Water Supplies—We are not now aware of any cross connections, but inspections are made from time to time of premises where there is any suspicion; also samples are taken where alternative supplies are available.

Factories, Workshops and Office Buildings—A total of 628 inspections were made of factories and workshops during 1932 and 543 during 1933. Inspections of office buildings numbered 92 during 1932 and 104 during 1933. Some of the matters we were called upon to regulate were: defective plumbing, dirty lavatory compartments, common drinking cups, roller towels, excessive dust, etc.

Rats—We received 64 complaints relating to rat-infested premises during 1932 and 53 during 1933. The bounty of five cents per rat tail was continued. During 1932 this amounted to \$287.45 for 5,749 tails and \$315.65 for 6,313 tails during 1933. The giving of rat poison free to citizens was discontinued in 1932.

Public Baths and Comfort Stations—Regular inspections were made of the public baths and swimming pools at Sherbrook Street, Pritchard Avenue, Y.M.C.A., Y.W.C.A., All People's Mission, Stella Avenue Mission, and Winnipeg Winter Club. These numbered 65 in 1932 and 115 in 1933. Samples of water were regularly obtained from swimming pools. A total of 225 inspections were made of comfort stations during 1932 and 252 during 1933.

Undertakers' Establishments—Nine inspections were made and eight permits issued during 1932 and 12 inspections made and eight permits issued during 1933. Conditions were found satisfactory.

Common Drinking Cups and Towels—We made 89 inspections during 1932 and 80 inspections during 1933. In a number of instances we had to serve statutory notices.

Chimneys and Furnaces—We dealt with 36 defective chimneys and 66 defective furnaces and heating apparatus during 1932 and 48 defective chimneys and 69 defective furnaces, etc., during 1933. Complaints relating to lack of heat, also smoke and gases, brought most of these to our attention.

Billiard and Pool Rooms—Inspections made during 1932, 352 and permits issued 56; during 1933 416 inspections and 58 permits issued. A considerable amount of renovation was done and in several instances extensive alterations were carried out. A few old premises were closed.

Second-Hand Premises and Junk Yards—During 1932 inspections made were 352 and 56 permits issued; 434 inspections were made during

1933 and 124 permits issued. Our attention has been drawn to the sale of second-hand bedding and furniture, alleged to be verminous. Although we dealt with the cases that were brought to our attention, we find it difficult to regulate such conditions.

Wiping Rags—Inspections numbered 35 in 1932 and 53 in 1933. The firms importing this class of goods appear to be living up to the regulations. We have only two firms in the City engaged in the preparation, sterilization and laundering of wiping rags.

Bedding and Upholstering Factories—Inspections of these numbered 35 during 1932 and 43 during 1933. In certain classes of material, especially that used as "filler," we require the production of a certificate that they have been sterilized. A number of small firms, doing furniture upholstery, have gone out of business. On the whole, our regulations are being well-observed.

Barber Shops—Inspections during 1932, 136; during 1933, 157. These were mostly a check up on general sanitary conditions.

Vermin—We made 317 inspections during 1932 and 332 during 1933. Complaints are becoming more numerous each year. On account of the difficulty in placing responsibility, we have frequently had to notify both owner and occupier, in order that by co-operative effort, disinfection may be accomplished.

Theatres and Places of Amusement—Seventy-one inspections were made during 1932 and 83 during 1933. Such defects as were found were of a minor character.

Schools and Public Buildings—During 1932, 19 inspections were made and 10 during 1933, mostly of private schools. The sanitation of our public schools is well and properly cared for by officials of the School Board.

Laundries—A total of 648 inspections were made of hand laundries during 1932 and nine of steam laundries. During 1933, 681 inspections were made of hand laundries and 10 of steam laundries. There were 94 permits issued for hand laundries during 1933, as compared with 95 in 1932 and 97 in the previous year.

Hotels—We made 97 inspections and issued 59 permits during 1932. During 1933, 125 inspections were made and 58 permits issued. A considerable number of specifications were issued for renewal of equipment, also extensive cleaning and decoration.

Lodging Houses—There were 332 inspections made during 1932 and 337 inspections in 1933. The number of permits issued was, in 1932, 88 and in 1933, 89. A fairly high standard of cleanliness is maintained in these premises and there appears to be little overcrowding.

Markets—Inspections during 1932 numbered 84 and during 1933, 396. These inspections do not include routine visits to open air premises, especially during the warm weather.

Noise—Thirty-four inspections were made during 1932 and 18 during 1933. A number of these were due to excessive volume from radios, late at night, especially in residential blocks. It is only after considerable trouble that such nuisances are stopped.

Hydrocyanic Acid—There are only three licensed fumigators in the City. During 1932, 18 premises were fumigated. In 1933, the number of fumigations was 116. This took considerable time, especially as the bulk

of this work was done during Summer. At each fumigation an Inspector is present to see that the premises are properly prepared and closed and a guard placed on duty. During the process another call is made to see that the guard is on duty; also at the time the premises are opened. Inspectors are instructed to see that the regulations are complied with. It should be stated here that much of this work has to be done in evenings and on Sundays.

Cellar Occupation—Notwithstanding the general knowledge that cellars may not be occupied for day or night occupation, we come across cases where cellars are occupied as sleeping quarters, sometimes by a family in a rooming house. In all such cases the cellars are ordered vacated.

Smoke—A separate report on smoke abatement and prevention is submitted by the Smoke Inspector. We are having considerably less trouble than in former years and this is very largely due to the energetic work performed by our Smoke Inspectors, past and present.

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

	1932	1933
Dwelling houses, general insanitary condition	19	41
Dwelling houses, overcrowding	2	2
Dwelling houses, unlawful conversion of same to tenements	1	1
Tenement houses	1	3
Basement and cellar dwellings	—	5
Stores occupied as dwellings	4	5
Factories and workshops	7	4
Stables	5	2
Other buildings	4	4
	43	67
Notices served on owners and agents	42	64
Notices served on occupants	38	63

	1932	1933
Results:		
Notices complied with (premises put into sanitary condition)	30	49
Premises closed and placarded insanitary	9	13
Cases still pending	4	5
	43	67
Remaining closed on December 31st, 1931	126	104
Premises repaired or demolished	31	14
	95	90
Premises closed	9	13
Remaining closed on December 31st	104	103

It will be seen from the above, that there were only 104 insanitary premises at the end of 1932 and 103 at December 31st, 1933. A number

of old insanitary buildings have been demolished, while several old dwellings have been repaired and made habitable.

Work Done for Other Departments—A considerable number of inspections were made and reports written for the Social Welfare Commission, The Unemployment Relief Committee, License Department, and various Departments of the Manitoba Government. Written reports on water samples from the swimming pools were prepared for the Winter Club, Y.M.C.A., Y.W.C.A., etc.

Prosecutions—Only five cases were taken to court during 1932. Two of these were for overcrowding, two for infractions of the Zoning By-law, and one for occupying premises condemned and placarded insanitary. There were no prosecutions during 1933.

Staff—Mr. A. G. Isaac was transferred to the Dairy Division in November, 1932. The vacancy caused by this transfer has not yet been filled. Mr. Stewart Cameron, Junior Clerk, was transferred to the Street Cleaning Division during 1933. In view of the enormous amount of work that this Division is called upon to perform, the low ebb has been reached, and any further curtailment in staff would be unfortunate. The Inspectors and Clerk have all given loyal and faithful service and have at all times been ready to give some of their own time in order to perform special duties.

Respectfully submitted,

ALEX. OFFICER,

Chief Inspector,

Division of Sanitation and Housing.

Report of the Housing Inspector

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

Medical Health Officer.

Dear Sir:

I respectfully submit herewith a report on housing inspection and general information relating to housing conditions, during 1932 and 1933.

Apartment Blocks—The complaints received regarding alleged nuisances in apartment blocks were comparatively few but varied in character. They referred principally to plumbing defects, lack of heat, keeping of dogs and irregular storage of garbage. Other complaints referred to the presence of vermin (bed-bugs and roaches) and over-crowding.

The majority of complaints, as usual, originated from the older type of apartment block where supervision and maintenance is generally poor.

Vermin, especially bed-bugs, are hard to eradicate once they infest an apartment block. The larvae are not easy to destroy and fumigation by Hydro-cyanic acid gas is really the only effective remedy. The use of this gas, owing to its poisonous character is prohibited, except in instances where the premises are vacated during the period required for fumigation and thorough ventilating of the building before re-occupation. It is obvious, therefore, that this method of fumigation in an apartment block is not practicable. Generally, the owner attributes the presence of bugs to the occupants of the suites affected. Although this may be the cause of infestation, one must remember that the presence of such vermin is not necessarily an indication of neglect or carelessness as is often thought. Bed-bugs may gain access to a building in many ways. They are even quite capable of migrating from other premises. It behoves every person responsible therefore, to immediately take all precautions to eradicate the vermin once they make an appearance.

Another complaint was in reference to the presence of insects, a specimen of which we submitted to the University of Manitoba. They were identified as the Black Carpet Beetle. This beetle frequently attacks stored rugs and blankets and are often found in floor cracks, under carpets, in neglected trunks, etc. In habits, they are similar to clothes moths but are generally considered less destructive. They may be destroyed by the use of flake naphthalene. The thorough cleaning of rugs and carpets on both sides is advocated.

There have been very few plumbing defects and over-crowding which has taken place, has occurred in the cheaper type of apartment block. Such instances have been few and not of a serious nature.

Generally speaking, the apartment blocks were maintained in excellent condition, excepting a few of the older type which require constant supervision.

Lodging Houses—Sanitary conditions existing in the licensed lodging houses during the past year were satisfactory. Very few complaints were received. The annual inspections previous to the issuing of permit

and routine inspections during the year, serve to ensure the satisfactory maintenance of the premises.

Dwellings—The majority of the complaints received referred to vermin infestation. Other complaints in numerical comparison, were in reference to overcrowding and lack of water supply owing to the water being turned off for non-payment. In the majority of cases, the latter condition occurred just prior to the occupants of the premises going on Unemployment Relief.

There were several instances of cellars being occupied for living and sleeping purposes. These were dealt with in the usual manner by compelling the occupants to vacate and requesting the removal of the partitions erected.

Due to the increased number of vacant lock-up stores, there has been a tendency on the part of owners to rent them as dwellings. The average lock-up store, as a general rule, cannot be converted into a desirable dwelling. Partitions are often erected to form rooms where windows cannot be installed, and adequate provision for "through" ventilation is prevented owing to the absence of sash windows at the frontage. In many instances, due to the arrangement of the adjoining buildings, we have been able to arrange such premises for dwelling purposes.

At the present time, we are compelled to exercise a certain amount of judgment as the circumstances warrant. We also co-operate with the Unemployment Relief Department; generally to the satisfaction of the persons affected and the elimination of unsatisfactory housing conditions.

Tenements—The number of houses illegally converted into tenements are on the increase. This is due to the present unemployment situation and consequent "doubling up" of families. Generally speaking, the tenement house as at present operated is far from desirable. Families are often housed in one room, gas stoves are installed without provision for venting them and the rooms are generally poorly ventilated. The necessary plumbing fixtures are not available and excepting for the cheaper rental they have not one redeeming feature. We prevent the occupation of attic rooms by families directly the conditions are known to us, which may be by complaint or otherwise.

For some years past, we have emphasized the need of the smaller type of dwelling at a cheaper rental than the present average and at a purchase price within the means of the moderate wage earner.

It is quite apparent that private enterprise cannot be persuaded to finance the undertaking. Whether this is solely on account of existing financial conditions or because henceforth the profits accruing from the speculative construction of dwellings are liable to be smaller than in former years is a matter of opinion.

Relief from the present unsatisfactory housing conditions, will apparently have to come through the channels of some governing body. It is only a matter of time when a decision will have to be made, in order to remove conditions which are conducive to ill-health, and consequent increase in hospitalization and other public expenses incidental thereto.

Yours obediently,

P. PICKERING,

Housing and Supervising Inspector.

Report of the Smoke Inspector

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

Dear Sir:

I beg to submit the following report on smoke nuisances and their abatement during the years 1932 and 1933.

Smoke Inspections		1932	1933
Observations of chimneys and smoke stacks		262	376
Inspections of furnaces, boilers, fuel, etc.		276	356
		<u>538</u>	<u>732</u>
Notices served (written)		15	6
Notices served (verbal)		264	307
		<u>279</u>	<u>313</u>

Health authorities and citizens generally, have been maintaining a constant agitation against pollution of the atmosphere. No element is of greater importance than pure air. It should therefore be kept as pure as possible. Smoke and gases have also an injurious effect upon plant life, trees, shrubs, buildings, etc. Smoke also obscures the beneficial rays of the sun.

Education is our best method for successfully overcoming the smoke nuisance, and this applies to domestic and industrial plants. Owners of industrial plants and the public generally must come to see, sooner or later, that apart from fouling the atmosphere, there is considerable economic loss where smoke is produced.

The burning of trade wastes in the furnaces of factories and stores has given us considerable trouble. We received numerous complaints about this, and on investigation found that in most cases the nuisance was caused through carelessness.

Low chimneys in close proximity to buildings of greater height are frequently another source of complaint. While we sometimes have difficulty in getting the nuisance abated, we usually succeed in having the conditions complained of removed.

Careless firing on the part of caretakers of apartment blocks is frequently a cause of complaint, especially in the burning of garbage in incinerators. Under ordinary circumstances the nuisance is removed by having the firing done more carefully, more frequently, and in many cases in accordance with wind direction. In some instances extension of the chimney is the only remedy.

District Central Heating—In eliminating smoke, district heating has

accomplished a great deal. The following are the figures for this service during 1933:

City Hydro (steam) customers on the line	224
Northern Public Service—North side of Assiniboine River (steam and hot water) customers on the line	800
Northern Public Service—South side of Assiniboine River, West of Waterloo Street (steam and hot water) cus- tomers on the line	500
Winnipeg Heating—Fort Rouge, East of Waterloo Street (steam) customers on the line	1,350
Total	<u>2,874</u>

Special inspections were also made of hotels, undertakers' premises, public baths, comfort stations, swimming pools, etc.

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 submit an abstract of information contained in the Annual Report covering the observations and activities of the Dairy Division during the years 1932 and 1933.

General Observations, 1932—The conditions regarding production and milk prices as outlined in our 1931 Report gradually becoming more acute, the Manitoba Legislature early in the year amended the Public Utility Act whereby the Chairman upon receiving a complaint which appeared to be justified would be authorized to hold a Public inquiry and to issue such orders as would control the price paid to the producer, and the conditions under which milk might be distributed and sold to the consumer.

Early in the year Pasteurized milk was selling presumably at 10c but in many cases at 8c or 9c, while stores were selling at 6c to 7c. In the month of May, the price to the consumer was reduced to 8c flat, and to the producer from \$1.40 to \$1.00 basic, or \$1.34 to 93c average; the majority of the stores remaining at 6c but some at 5c.

The producers meeting in Winnipeg threatened to strike and predicted a milk shortage, eventually applying to the Utility Board for a hearing which was granted.

A public inquiry was opened in July and was followed by several group discussions in which the Chairman of the Board endeavoured to co-ordinate the various interests with a view to a mutual understanding; this being finally effected, an order was issued and put into force early in September, setting the basic price to the producer at \$1.55 per 100 pounds F.O.B. Winnipeg, and to the consumer 10c per quart delivered, 8c from stores cash and carry, 25c per gallon bulk wholesale, and allowing for the usual competitive contracts for hospitals and institutions, and also allowing for the usual discounts as may be agreed upon on all milk for social welfare, unemployment relief, etc., together with a suitable range of prices on cream bottled or bulk, delivered or at stores.

The arrangement thus effected has apparently been successful, its future depending on the manner in which the Board approaches the various problems. Little if any complaint has been heard, and there are indications that the Legislature will be requested to consider the desirability of extending such control for another year.

Milk Prices and Spreads—The average price to the consumer in 30 Canadian Cities, and in 30 American Cities of the adjoining States was 2c per quart less in 1931 than in 1930, and 1c per quart less in 1932 than in 1931. The total average reduction in two years being 3c per quart.

1930	Canada		City Prices per Quart	United States		
	1931	1932		1930	1931	1932
25	10	5	Over 10c	25	5	1
5	12	13	At 10c	5	20	9
0	8	12	Under 10c	0	5	20

Winnipeg basic spread on the delivered quart is 6c but the average spread is approximately 5c, this being due to the lower spread of 4c on welfare and relief milk, 3½c on store milk, and a still lower spread on bulk milk. These spreads compare very favorably with those pertaining in other Canadian and American Cities.

Milk Inspection and Grading—For the past six years the Department has been working on a system of grading which has been amended from year to year as weaknesses were discovered, and now we believe we have evolved a scheme which is fair, constant and equitable. During the past year we graded over 80% of the entire supply in detail. Commencing 1933, we proposed to grade 100% in detail, so that every brand of milk sold will be placed in its proper category, thus demonstrating that we still have a small quantity of low grade dipped raw milk which should not be allowed.

With the advent of large milk plants equipped with all conveniences for sampling and testing, there has been a tendency in many parts of the world to drift from "Dairy Inspection" at the farm to "Milk Inspection;" that is, inspection of the product on arrival at the City. Much could be said in favor of each of these schemes; but when measures of economy are in order, "Milk Inspection" can be fairly effective, and for these reasons, the Department has endeavoured to evolve a scheme of grading and inspection within the City, which with the minimum of outside inspection will enable us to ensure such quality and safety as may be considered essential.

General Observations, 1933—The year just concluded was very similar to 1932 in general conditions: abundance of milk, low prices, grasshopper plague, threatened feed shortage, etc. Fortunately the Summer ended with a spell of balmy weather and sufficient precipitation which not only gave a renewed lease of life to pastures but also improved certain late fodder and root crops so as to make quite a material difference in the feed situation. Low prices of all primary farm products prevailed over the entire year, even butter fat going right into the Winter at a record low level. We are glad to note that in this respect 1934 starts out with more promising prospects indicating higher prices for butter fat, pork, veal, etc.

The Utility Board continues to set the price which the producer shall receive for his milk quota and they also set the price which the consumer shall pay for milk and cream wholesale and retail, delivered, or called for at stores (cash and carry). The Board made two main adjustments during the year, introducing the Summer price schedule in June, and the Winter price schedule in September. Following the latter adjustment, the Board found it necessary to take disciplinary action against a number of distributors who were underselling by means of secret rebates, unauthorized discounts, etc. Bills of costs were assessed as penalties and promptly settled on the understanding that there would be no repetition.

The Utility Board has provided the funds for the suitable inspection of farms with the object of ensuring a clean wholesome supply to be shipped into the City for pasteurization purposes.

The Tuberculin Test as administered by the Dominion Government Department of Agriculture under the M.T.O. Regulations, was cancelled in July, 1933, after 11 years operation, during which period the Federal Department has applied the test to all dairy herds selling raw milk for consumption in the City, and to all private cows kept or owned by citizens for family use, and they have paid out by way of compensation for animals condemned, the huge sum of \$386,062.31.

The owners of the dairy herds concerned were all advised to sign up under the Supervised Herd Plan, which provides similar testing services, without any cash compensation and reactors must be destroyed.

The Federal authorities very graciously agreed to include any or all herds formerly tested, under this scheme, and applied similar privileges to the private or family cow owner.

Milk Grading or Milk Inspection as a substitute for Dairy Inspection was carried out on a regular plan and produced an equitable classification of vendors.

Out of 115 Brands graded (as supplied to the consumer) 50 were Grade A, 29 Grade B, 29 Grade C, and 7 below Grade. It is interesting to note that the 7 No Grade Brands comprise 0.8% of our supply and that the 29 Grade C comprise 5.0% of our supply so that the elimination of the entire 36 would only affect 5.8% of the regular supply. The vendors of this low Grade milk have all been warned and it is our opinion that an example should be made of some half-dozen or so, who apparently do not recognize that the sale of raw milk for consumption is in itself a privilege, and that abuse of this privilege should not be tolerated.

Pasteurized Milk now totals 75% of our total consumption and all pasteurized milk is in Grade A. The Department makes special effort to see that all milk sold as or labelled "pasteurized" is properly treated, and that no false sense of security should be in evidence. Temperatures and records are carefully watched and checked, and by a judicious examination of the milk, both before and after treatment, we are enabled to judge as to the efficiency of the process.

We believe that the pasteurized milk in Winnipeg will compare favorably with that of any community, and it is difficult to understand why some consumers continue to patronize the vendor of low grade raw milk, which is of poor quality and not too safe.

Milk consumption remains at about two-thirds of a pint per capita daily (0.66) and there are apparently very few cities exceeding that figure.

Leading United States Cities have a daily per capita consumption of 0.62 pints, wine measure, which is about one-half pint of our measure.

Canadian Cities run from five-tenths to seven-tenths of a pint daily per capita.

The Increased Per Capita Consumption of milk in recent years is due to: 1. Confidence of the consumer in milk. 2. Increase in Pasteurization. 3. Improved Quality. 4. Advertising and publicity on nutrition and food values.

Milk Prices in Winnipeg compare favorably with those in other Canadian and American cities. Taking the delivered quart now at 10c, of 36 Canadian cities, 20 are at 10c, seven over 10c and nine under.

In 33 United States Cities in States adjacent to Canada, 12 are at 10c, nine over 10c and 12 under; for a 32-oz. quart as compared with our 40-oz. Imperial quart.

The price paid the producer this Winter per 100 pounds F.O.B. City in 33 Canadian Centres, runs as follows: Where three including Winnipeg pay \$1.65 to \$1.70, 11 pay higher and 19 a lower figure.

In 33 United States Centres adjoining or adjacent to Canada, four

including Minneapolis pay \$1.65 to \$1.70 per 100 pounds F.O.B. City, 20 pay higher and nine lower.

An examination of the prevailing prices as quoted indicates that the gross spread on the delivered quart of 32-oz. in United States Centres is equally as large as the gross quart spread in Canadian Centres, each running from 5 to 6 cents.

For comparative purposes, in normal times, the delivered quart is the most suitable standard for determining spread but just now less than 50% of our plant milk is distributed at the normal price of 10c, Relief and Social Welfare Milk is 9c, to stores 8c, wholesale bulk 25c per gallon. Thus while we have a delivered quart spread of 5½c the average spread is reduced to 4½c.

We believe that Legislation will be enacted continuing Price Control for another year and both the producer and distributor appear to agree that an arbitrator with power to act is necessary to adjust their differences on an equitable basis. The public must also receive adequate protection and we trust that the consumer will be featured in all future negotiations.

I have the honor to be, Sir,

Your obedient servant,

E. C. BROWN,

Chief Dairy Inspector.

Milk and Dairy Inspection

	1932	1933
Inspections inside City	4,797	5,769
Inspections outside City	1,844	1,629
Notices and Instructions	925	657
Samples and Examinations	5,145	4,887
Pints of Milk for Grading	1,000	1,640
Brands Graded in detail	66	115
Brands partially Graded	49	.....
Supply Graded in detail	85%	100%
Milk Condemned, lbs.	2,230	1,150
Cream Condemned, lbs.	340	87
Sickness Investigated	10	5
Country Mileage	16,095	11,430

Cattle in Licensed Dairy Herds

Milking Cows	2,278	1,968
Dry Cows and Springers	570	488
Herd Bulls	90	80
Feeding Steers and Cows	88	80
Heifers, two year old	514	564
Yearlings and Calves	420	520
	<u>3,960</u>	<u>3,800</u>

Private Cow-Keepers

Stables under Inspection	213	215
Stables unoccupied	68	85
Stables occupied	145	130
Stables with one Cow only	120	104
Stables with two animals	25	26
Private Cows—North Winnipeg	125	112
Private Cows—Elmwood	33	29
Private Cows—Centre Winnipeg	8	7
Private Cows—South Winnipeg	4	8
Total Cows and Calves	<u>170</u>	<u>156</u>

The above tabulations indicate a falling off in Dairy Inspection, but a gain in Milk Inspection (100% Graded).

A decrease in the number of cows on the Licensed Dairies and in private stables, corresponding to the decrease in consumption of un-pasteurized milk.

Milk Vendors, 1933

A total of 109 Permits authorizing issue of licenses were granted during the year, including 98 raw milk dairies and 11 milk plants. One Dairy herd was dispersed, leaving 97 in active operation, of which 94 distribute direct to the consumer.

Of the Depot Licenses, three are for pasteurizing plants with a combined daily capacity of 15,000 gallons, five others with a combined capacity of 5,000 gallons, and three small plants. The total combined capacity is well over 20,000 gallons, capable of handling the entire City supply.

	1930	1932	1933
Dairy Licenses issued	99	99	98
Dairy Licenses active	97	97	97
Plant Licenses issued	5	9	11
Plant Licenses active	5	9	11
Total issued	104	108	109
Total active	102	106	108

Revenue amounted to \$2,477.00 as against \$2,624.50 for 1932.

	1932	1933
Dairy License Fees	\$1,628.00	\$1,468.00
Plant License Fees	994.00	1,008.00
Inspection Fees	2.50	1.00
	<u>\$2,624.50</u>	<u>\$2,477.00</u>

City Revenue \$560.00.

Dairies	\$ 124.00	\$ 119.00
Milk Plants	394.00	388.00
	<u>3 518.00</u>	<u>\$ 506.00</u>

Country Revenue \$1,970.00.

Dairies	\$1,507.00	\$1,350.00
Milk Plants	600.00	620.00
	<u>\$2,107.00</u>	<u>\$1,970.00</u>

Basis of Revenue.

Milch cows @ \$1.00.....	978—	\$ 978.00	968—	\$ 968.00
Milch cows @ .50.....	1,305—	652.50	1,002—	501.00
Vehicles @ 2.00.....	192—	384.00	184—	368.00
Vehicles @ 10.00.....	61—	610.00	64—	640.00
		<u>\$2,624.50</u>		<u>\$2,477.00</u>

The Tuberculin Test

Under the Municipal Tuberculosis Order, testing commenced in July, 1922, and was discontinued July 15, 1933, after which date the testing has been conducted under Federal Regulations with no compensation.

	Reactors	Compensation
July, 1922 to March, 1923.....	3,970	\$158,037.33
April, 1923 to March, 1924.....	1,568	63,049.33
" 1924 " " 1925.....	952	38,479.00
" 1925 " " 1926.....	901	28,802.16
" 1926 " " 1927.....	616	19,211.00
" 1927 " " 1928.....	568	17,450.00
" 1928 " " 1929.....	584	20,906.66
" 1929 " " 1930.....	471	16,554.83
" 1930 " " 1931.....	130	5,522.00
" 1931 " " 1932.....	233	8,354.00
" 1932 " " 1933.....	290	7,836.00
" 1933 to July, 1933.....	63	1,860.00
Total for 11 years	10,346	\$386,062.31

Year Ending	Dairy Herds	Private Cow-Keepers	Cattle Tested	Tested for First Time
March 31, 1923.....	105	225	7,974	7,974
" " 1924.....	115	216	7,650	4,457
" " 1925.....	125	208	7,656	4,334
" " 1926.....	129	200	7,003	3,419
" " 1927.....	125	192	6,594	2,924
" " 1928.....	122	186	6,695	3,076
" " 1929.....	116	180	6,503	2,714
" " 1930.....	110	175	7,269	2,335
" " 1931.....	104	175	10,187	5,421
" " 1932.....	99	170	5,606	1,607
" " 1933.....	99	170	6,134	1,638
July 15, 1933.....	98	156	3,118	364
Total animals tested				40,263

From the above it will be seen that in order to keep up around 100 dairy herds and 200 private cows, totalling just over 4,000 cows, that over 2,000 additions had to be tested annually, and that in 11 years over 40,000 animals including additions and natural increases were subject to test.

The Winnipeg Milk Supply—Gallons per Day

	1932	1933
Pasteurized Milk, bottled	12,600	12,900
Pasteurized Milk in bulk	630	600
Raw Milk—certified	36	36
Raw Milk—special	720	500
Raw Milk—bottled	1,440	1,500
Raw Milk—dipped	2,340	2,248
Raw Milk—private cows	234	216
	<u>18,000</u>	<u>18,000</u>

Percentage Classification

	1928	1930	1932	1933
Pasteurized Milk	60.0	65.0	73.5	75.0
Certified Milk	1.5	0.5	0.2	0.2
Raw Milk T. Tested.....	37.0	33.0	25.0	23.6
Raw—Private Cows	1.5	1.5	1.3	1.2
	<u>100.0</u>	<u>100.0</u>	<u>100.0</u>	<u>100.0</u>

Grade Classification

Grade	Brands	1932 Gallons	%	Brands	1933 Gallons	%
A	34	13,400	74.5	50	15,390	85.5
B	27	2,260	12.5	29	1,350	7.5
C	36	1,506	8.4	29	900	5.0
No	18	600	3.3	7	144	0.8
Private .....	....	234	1.3	....	216	1.2
	<u>115</u>	<u>18,000</u>	<u>100.0</u>	<u>115</u>	<u>18,000</u>	<u>100.0</u>

Daily Per Capita Consumption

Fluid Milk only—Imperial Measure	0.66	pints
Milk and Cream basis—Imperial Measure	0.96	pints
Fluid Milk only—U. S. Measure	0.825	pints
Milk and Cream basis—U. S. Measure	1.20	pints

Daily Gross Consumption—Milk and Cream

Winnipeg City	20,000 gallons	.....	200,000 lbs.	.....	100 tons
Greater Winnipeg	25,000 gallons	.....	250,000 lbs.	.....	125 tons

Consumption and Distribution

	Gallons per day	Pints per Capita	Delivery Vehicles	Cash and Carry Stores	% Past'd.
1924	15,250	0.62	315	.....	54.0
1925	15,250	0.62	330	.....	54.0
1926	15,500	0.63	335	.....	57.0
1927	16,000	0.64	345	.....	58.0
1928	16,500	0.65	355	.....	60.0
1929	16,750	0.65	355	155	62.6
1930	17,000	0.65	350	650	65.0
1931	17,250	0.65	350	775	68.0
1932	18,000	0.66	375	770	73.5
1933	18,000	0.66	375	765	75.0

Distribution to Consumer

	1930	1932	1933
Delivered direct to Consumer	13,250	13,000	13,500
Indirectly to the Consumer	1,000	1,000	900
Accommodation Stores	250	100	100
Cash and Carry Stores	2,500	3,900	3,500
Total Gallons per day	17,000	18,000	18,000
Pasteurized Milk consumed	11,050	13,230	13,500
Raw Milk consumed	5,950	4,770	4,500
Gallons per day	17,000	18,000	18,000

Fluctuations in Pasteurization

1906	3%	1914	60%	1926	57%
1907	6%	1915-18	50%	1927	58%
1908	12%	1919	55%	1928	60%
1909	25%	1920	66%	1929	62.6%
1910	33%	1921	62%	1930	65%
1911	40%	1922	60%	1931	68%
1912	50%	1923	58%	1932	73.5%
1913	66%	1924-25	54%	1933	75%

The present standing of 75% pasteurization has been achieved gradually during the past ten years, gaining step by step, and this method appears to provide more solidity than did those two previous spectacular jumps to 66% in 1913 and 1920, which being without foundation, fell away almost immediately.

1933

Percentage Pasteurization in 64 Canadian Cities
Population 1,000,000 down to 10,000

	%		%
Montreal, Que.	95.6	Guelph, Ont.	65
Toronto, Ont.	100	Moncton, N.B.	5.5
Vancouver, B.C.	91.2	Port Arthur, Ont.	82
Winnipeg, Man.	75	Niagara Falls, Ont.	100
Hamilton, Ont.	100	Lachine, Que.	95
Quebec, Que.	42	Sudbury, Ont.	100
Ottawa, Ont.	98	Sarnia, Ont.	82
Calgary, Alta.	75	Stratford, Ont.	75
Edmonton, Alta.	79.5	New Westminster, B.C.	55
London, Ont.	81	Brandon, Man.	30
Windsor, Ont.	100	St. Boniface, Man.	55
Verdun, Que.	98	North Bay, Ont.	100
Halifax, N.S.	90	St. Thomas, Ont.	50
Regina, Sask.	96.8	Shawinigan Falls, Que.	35
St. John, N.B.	90	Chatham, Ont.	90
Saskatoon, Sask.	100	East Windsor, Ont.	100
Victoria, B.C.	30	Galt, Ont.	100
Trois Rivieres, Que.	56.5	Belleville, Ont.	75
Kitchener, Ont.	90.3	Lethbridge, Alta.	60
Brantford, Ont.	98	St. Hyacinthe, Que.	15
Hull, Que.	90	Owen Sound, Ont.	85
Sherbrooke, Que.	25	Charlottown, P.E.I.	25
Outrement, Que.	95	Levis, Que.	0
Fort William, Ont.	90	Valleyfield, Que.	0
St. Catherines, Ont.	100	Woodstock, Ont.	89
Westmount, Que.	100	St. Jean, Que.	0
Kingston, Ont.	60	Joliette, Que.	0
Oshawa, Ont.	100	Welland, Ont.	100
Sydney, N.S.	11	Thetford Mines, Que.	0
Sault Ste. Marie, Ont.	45	Granby, Que.	20
Peterborough, Ont.	70	Sorel, Que.	0
Moose Jaw, Sask.	60	Medicine Hat, Alta.	50

100%—13; 90% or over—28; 75% or over—35; 25% or less—12.

Canadian Milk Prices, 1933

	Summer		Winter	
	Producer Cwt. at City	Retail Qt. Del.	Producer Cwt. at City	Retail Qt. Del.
Victoria, B.C.	45c lb. BF.	10c	45c lb. B.F.	10c
Vancouver, B.C.	30c lb. BF.	9	35c lb. BF.	9
New Westminster, B.C.	30c lb. BF.	9	34c lb. BF.	9
Calgary, Alta.	\$1.60	9	\$1.95	10
Edmonton, Alta.	1.35	10	1.85	10
Saskatoon, Sask.	44c lb. BF.	10	48c lb. BF.	10
Moose Jaw, Sask.	45c lb. BF.	10	45c lb. BF.	10
Regina, Sask.	basis BF.	10	basis BF.	10
Winnipeg, Man.	\$1.30	9	\$1.66	10
Fort William, Ont.	1.80	10	1.80	10
Brantford, Ont.	1.35	9	1.35	9
Hamilton, Ont.	1.45	10	1.80	11
Kitchener, Ont.	1.40	9	1.40	9
London, Ont.	1.00	7	1.00	7
Ottawa, Ont.	1.20	9-10	1.40	9-10
Windsor, Ont.	1.37½	10	1.37½	10
St. Catherines, Ont.	1.60	10	1.85	11
Toronto, Ont.	1.45	10	1.80	11
Kingston, Ont.	1.20	8	1.60	10
Oshawa, Ont.	1.80	10	1.80	10
Peterborough, Ont.	1.25	9	1.25	9
Sault Ste. Marie, Ont.	1.45	10	1.75	11
Montreal, P.Q.	1.35	9	1.50	10
Verdun, P.Q.	1.40	9	1.40	10
Outremont, P.Q.	1.35	9	1.50	10
Quebec, P.Q.	1.35	8	1.65	10
Sherbrooke, P.Q.	1.30	8	1.30	8
Hull, P.Q.	1.20	9	1.40	10
St. John, N.B.	\$1.30-\$1.60	10	1.85	12
Moncton, N.B.	1.25	8	1.25	8
Halifax, N.S.	\$1.94-\$2.53	10-12	\$1.94-\$2.53	10-12
Sydney, N.S.	2.13	11	1.94	11

U. S. Milk Prices, 1933.

	June		December	
	per 100 lbs. Producer	Qt. Del. Retail	per 100 lbs. Producer	Qt. Del. Retail
Seattle, Wash.	\$1.44	9-10c	\$1.65	10c
Portland, Ore.	1.40	9	1.40	9
Butte, Mont.	1.75	10	1.75	10
Salt Lake City	1.40	7-10	1.79	10
Lincoln, Neb.	1.26	8	1.52	9
Grand Forks, N.D.	1.30	8	1.30	8
Aberdeen, S.D.	1.45	9	1.45	7
Sioux Falls, S.D.	1.00	7	1.75	10
Minneapolis, Minn.	1.15	7	1.70	9
Winona, Minn.	2.07	8	2.32	9
Milwaukee, Wis.	1.76	8	2.00	9
Racine, Wis.	1.75	9	2.05	10
Wasau, Wis.	1.05	7	1.23	8
Detroit, Mich.	1.50	9	1.85	10
Lansing, Mich.	1.40	8	1.50	9
Grand Rapids, Mich.	1.25	7-8	1.70	9-10
Kalamazoo, Mich.	1.34	8	1.75	10
Chicago, Ill.	2.10	10	2.45	11
Peoria, Ill.	1.65	9-10	1.65	9-10
Rockford, Ill.	1.25	8	1.50	9
Indianapolis, Ind.	.95	8	1.33	9
South Bend, Ind.	1.83	10	1.83	10
Dayton, Ohio.	1.12	7-8	1.60	9
Cincinnati, Ohio	1.37	9	1.84	11
Cleveland, Ohio	1.30	8	2.00	10
Altoona, Pa.	1.70	10	2.26	11
Pittsburg, Pa.	1.55	9	1.90	10
Albany, N.Y.	1.88	10	2.23	11
Buffalo, N.Y.	1.88	10	2.23	11
Manchester, N.H.	2.05	10	2.51	11
Portsmouth, N.H.	1.62	10	2.05	11
Boston, Mass.	2.74	11	2.97	11-12

**1932 Prices of Pasteurized Milk in 32 Canadian Cities.
Delivered Bottled to the Consumer.**

(Cents per 40-oz. Quart.)

	March	June	Sept.	Dec.	June Price to Producer.	Dec.
Victoria, B.C.	12½	12½	12½	11	\$.50	\$.45 B.F.
Calgary, Alta.	9	9	9	9	1.50	1.50
Edmonton, Alta.	9	9	10	10	1.45	1.75
Moose Jaw, Sask.	10	10	10	10	.45	.45 B.F.
Regina, Sask.	10	10	10	10	.45	.45 B.F.
Saskatoon, Sask.	10	10	10	10	.45	.45 B.F.
Brandon, Man.	10	9	9	10	1.25	1.40
Winnipeg, Man.	10	8	10	10	1.00	1.55
Fort William, Ont.	11	11	11	11	2.00	2.00
Brantford, Ont.	9	9	9	9	1.40	1.40
Guelph, Ont.	10	10	10	10	1.50	1.50
Hamilton, Ont.	10	10	10	10	1.45	1.45
Kingston, Ont.	8	8	8	8	1.20	1.20
Kitchener, Ont.	9	9	9	9	1.40	1.40
London, Ont.	9	9	8	6	1.30	0.90
Oshawa, Ont.	10	10	10	10	1.10	1.00
Ottawa, Ont.	10	8	8	10	0.90	1.30
Peterborough, Ont.	9	9	9	9	1.30	1.30
St. Catharines, Ont.	10	10	10	10	1.60	1.60
Toronto, Ont.	10	10	10	10	1.45	1.45
Windsor, Ont.	12	10	10	10	1.37	1.33
Montreal, Que.	10	10	10	11	1.35	1.60
Outremont, Que.	11	10	10	11	1.35	1.60
Quebec, Que.	12	10	10	10	1.35	1.75
Sherbrooke, Que.	7	7	7	7	1.40	1.40
Trois Rivières, Que.	9	....	....	6	1.30	1.30
Verdun, Que.	11	10	10	11	1.35	1.60
Hull, Que.	9	8	8	10	0.90	1.30
Moncton, N.B.	8	8	8	8	1.25	1.25
St. John, N.B.	12	12	12	12	1.80	1.50
Halifax, N.S.	11½	11½	11½	11½	2.50	2.50
Sydney, N.S.	11	11	11	11	2.15	2.15

Note:—B.F. Base, Ontario 3.4; Manitoba, Alberta, Nova Scotia, 3.5.

1932

Pasteurization in 34 Canadian Cities
Population 20,000 and Over, 1931 Census.

	%	Population
Saskatoon, Sask.	100	43,291
Hamilton, Ont.	100	155,547
Oshawa, Ont.	100	23,439
St. Catherines, Ont.	100	24,753
Toronto, Ont.	100	631,207
Windsor, Ont.	100	63,108
Verdun Que.	100	60,745
Westmount, Que.	100	23,245
Ottawa, Ont.	98	126,872
Regina, Sask.	97	55,209
Brantford, Ont.	96	30,107
Kitchener, Ont.	95	30,793
Outremont, Que.	95	28,641
Montreal, Que.	95	818,577
Vancouver, B.C.	91.25	246,593
Hull, Que.	90	29,433
Halifax, N.S.	90	59,275
St. John, N.B.	88.8	47,514
Fort William, Ont.	88	26,277
London, Ont.	84	71,148
Calgary, Alta.	77.9	83,761
Peterborough, Ont.	75	22,327
Winnipeg, Man.	73.5	218,785
Edmonton, Alta.	70	79,197
Guelph, Ont.	65	21,075
Kingston, Ont.	60	23,439
Moose Jaw, Sask.	58.63	21,299
Trois Rivieres, Que.	53.31	25,450
Quebec, Que.	40	130,594
Victoria, B.C.	30	39,082
Sault Ste. Marie, Ont.	30	23,082
Sherbrooke, Que.	25	28,933
Moncton, N.B.	18	20,689
Sydney, N.S.	12.5	23,089

1932

Pasteurization in Canadian Cities and Municipalities.

Population from 10,000 to 20,000, 1931 Census.

East Windsor, Ont.	100	14,251
Galt, Ont.	100	14,006
Niagara Falls, Ont.	100	19,046
North Bay, Ont.	100	15,528
Sudbury, Ont.	100	18,518
Welland, Ont.	100	10,709
Lachine, Que.	95	18,630
Chatham, Ont.	90	14,569
Stratford, Ont.	90	17,742
Woodstock, Ont.	89	11,395
Owen Sound, Ont.	85	12,839
Port Arthur, Ont.	82	19,818
Sarnia, Ont.	82	18,191
Belleville, Ont.	75	13,790
N. Westminister, B.C.	65	17,524
Lethbridge, Alta.	60	13,489
St. Boniface, Man.	55	16,305
Medicine Hat, Alta.	50	10,300
St. Thomas, Ont.	50	15,430
Brandon, Man.	30	17,082
Charlottetown, P.E.I.	25	12,361
Granby, Que.	20	10,587
St. Hyacinthe, Que.	15	13,448

St. Jean; Sorel; Levis; Thetford Mines, P.Q. report no pasteurization, all milk from tuberculin tested herds.

Shawinigan Falls; Valleyfield; Joliette, P.Q. not reported.

Municipalities with population under 10,000 having compulsory pasteurization of all milk:

- | | |
|-------------------------|------------------------|
| 1. Unity, Sask. | 6. Ford City, Ont. |
| 2. Kerrobert, Sask. | 7. Iroquois, Ont. |
| 3. Richmond Hill, Ont. | 8. Leamington, Ont. |
| 4. Kirkland Lake, Ont. | 9. Carlton Place, Ont. |
| 5. Iroquois Falls, Ont. | 10. St. Lambert, Que. |

1932 Prices of Pasteurized Milk in 32 U. S. Cities

Delivered Bottled to the Consumer.

(Cents per 32-oz. Quart.)

	Price to Producer					
	March	June	Sept.	Dec.	June	Dec.
Seattle, Wash.	10	10	10	9	\$1.47	\$1.71
Everett, Wash.	8	8	8	8	.....	.....
Portland, Ore.	9	9	9	8	1.50	1.50
Lewiston, Mont.	9	9	9	9	.....	.....
Grand Forks, N.D.	10	9	9	9	1.65	1.65
Bismarck, N.D.	9	.....	.....	.....	.....	.....
Aberdeen, S.D.	10	9	9	9	1.45	1.45
Sioux Falls, S.D.	10	10	9	9	1.50	1.40
Minneapolis, Minn.	8	8	8	8	B.F.	B.F.
Winona, Minn.	8	8	6	8	.....	.....
Milwaukee, Wis.	9	8	8	8	1.75	1.60
Madison, Wis.	10	.....	8	.....	.....	.....
Wasau, Wis.	8	8	8	8	0.95	1.09
Detroit, Mich.	10	9	9	9	.....	1.60
Lansing, Mich.	10	10	10	8	.....	1.00
Battle Creek, Mich.	10	10	10	10	.....	.....
Kalamazoo, Mich.	10	10	10	8	1.80	1.34
Chicago, Ill.	12	11	11	9	2.20	1.80
Peoria, Ill.	10	10	10	10	1.65	1.65
Rockford, Ill.	9	9	9	6	1.50	0.90
Indianapolis, Ind.	10	10	8	9	1.40	B.F.
South Bend, Ind.	10	10	10	10	1.83	1.83
Columbus, Ohio	9	9	.....	8	.....	.....
Cincinnati, Ohio	12	10	10	10	1.50	1.50
Cleveland, Ohio	9	9	8	8	1.65	1.30
Scranton, Pa.	12	10	10	10	.....	.....
Pittsburg, Pa.	9	9	9	8	1.70	1.30
Albany, N.Y.	12	12	12	10	2.22	1.60
Buffalo, N.Y.	7	10	10	10	1.60	1.60
Manchester, N.H.	10	10	.....	.....	2.29	2.51
Portsmouth, N.H.	12	12	12	12	.....	2.05
Burlington, Vt.	10	.....	.....	10	.....	2.22

Note:—Prices quoted pertain to States practically adjacent to or adjoining Canada and from the Pacific to the Atlantic comparisons may be made.

Report of the Chief Food Inspector

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

Medical Health Officer.

Dear Sir:

I have the honor to submit herewith an abstract of the activities of the Food Division for the years 1932-33.

The number of premises under inspection for the two years has increased from 2,050 in 1931 to 2,073. With the reduction in Hawker's premises listed, this gives an increase of 89 stores.

Complaints regarding cases of supposed food poisoning, namely, fourteen for the two years, show an increase of 40 per cent per year. An outstanding case occurring in 1932 was regarding "Herring in Tomato Sauce." The City Chemist reported 318 milligrams of tin (Stannium Salts) per kilo; while the United States Government allows a tolerance of 300 milligrams of tin per kilo, pending further investigation, the amount in excess of this tolerance is infinitesimal, yet one of the parties ingesting the fish was very sick for several days. The matter was taken up with owners of stores having these on sale, also with the wholesaler and they immediately withdrew stock from market. Another occurring in 1933 re steak and kidney pie, Dr. M. S. Loughheed, City Bacteriologist, reported extensive contamination. Probably this latter case was one of food intoxication, possibly from a Gartner enteridis strain of bacilli. The other cases were from various sources, fish, cooked and roasted chicken, headcheese, tinned corned beef, beef stew, popcorn, cheese, Brussels sprouts (imported)—the latter was analysed by Mr. A. Blackie, City Chemist, for arsenic or lead spray residue, but no evidence of spray residue was found. In all cases, where any of these products were put up for sale by a firm or individual, the matter was taken up with the management or owner and the need for the greatest care and cleanliness on the part of those handling such was stressed.

Abattoirs—There is no change in the number of abattoirs doing business within the city proper. Periodical inspection is made of all such premises. Yards and appurtenances are also inspected, as well as abattoir proper. These abattoirs are all under Federal Inspection regarding meats, etc., and are conducted in an efficient manner. The fact that these premises are all under Federal supervision makes the work of your Inspectorate very light, as Government Inspectors see to it that all requirements are strictly adhered to. In addition to these abattoirs, there are three packers, one of which is under Federal Inspection, where export business is done. The others require constant supervision to see that all meats used in the plant are free from disease and that premises are kept in a thoroughly clean condition. There are several abattoirs and packers located in outside municipalities. Abattoirs are under Federal Inspection with one exception. None of the packers located outside city limits have any inspection apart from that given by local sanitary inspector and probably an occasional visit from the Food Controller of the Province. This is a very unsatisfactory condition so far as Winnipeg is concerned, as practically 60% of the business done by such packers, etc., is within the City proper. Some regulative measure should be in force, by way of license, that would give your inspectors the right of entry to inspect

such premises, where business is carried on and to inspect animals or animal parts. There are nineteen persons or firms engaged in the business of meat canvassers. Most of these buy government inspected meat from the abattoirs, but there is always the exception to any rule, and it is the exception that gives most trouble. Several complaints were received that a number of these canvassers were buying bob veal from farmers, slaughtering same at farm and bringing it into city and selling to individual butchers. An attempt was made to check up on this during the latter part of '33 but being hampered for the lack of quick transportation, it was very difficult to get results. One party was caught with the goods, seizure was made and party warned that any future contravention would result in court proceedings. Let it be reiterated that there is need of some supervision in regard to abattoirs by the city not having federal inspection or an ordinance passed whereby all dead meat shipped into city would first have to go through a clearing house.

Sausage Manufacturers—There are now twenty-four sausage factories operating within the city plus the abattoirs. Three new businesses opened in 1932, two of these started in premises already built but were renovated and fitted up to comply with regulations, and one was a new building erected to plan and specifications approved by this division. Two businesses are under Federal inspection so that export trade can be done; this assures the customers of these firms that nothing but Government Inspected meats are used in the product. The same cannot always be said for the remainder, as the price quoted to the trade would indicate that an inferior grade of meat was used or else a larger amount of cereal and moisture content than the law allows. Samples of sausage meat as supplied to Dining Halls, from two firms, were submitted to Mr. A. Blackie, City Chemist, for analysis, and report showed that sausage contained practically double the amount of cereal as allowed under Food and Drugs Act. Firms were warned that further contravention would result in court proceedings.

Bakeries—This class of business has increased from 68 to 81 during the years 1932-33. It is difficult to account for the increase as those who have been in the business for years claim there is nothing to be made in bread making. When 16-oz. loaves of bread are being sold at three for ten cents and flour is practically two cents per pound, together with yeast, shortening, milk, sugar and salt, adding their quota to the price, together with wages of workmen, bakers and delivery man, is it not to be wondered at if some fail under such conditions. In 1932, a new biscuit factory was opened for business, in the early part of the year. This factory is one of the more up-to-date, in the way of machinery, light and ventilation and sanitary conveniences in Canada. The worst features of cheap bread from our point of view, is the way it is handled by some class of stores, namely, left in large delivery baskets in the stores for all and sundry to take their choice. This is a very unsatisfactory way of handling such product. If some sort of container, of a hopper variety, were installed in these stores, that would only allow one loaf to be delivered to the purchaser at a time and prevent the remainder from being handled; it would be all to the good and safeguard the public. The majority of premises are conducted on good clean and hygienic methods and the ingredients used are always found to be sound and edible stock.

Bottling Plants—The number of such businesses remain practically the same, one having closed early in 1932, viz, closed to date. Samples of aerated waters were taken for bacteriological tests from all manufacturers and submitted to Dr. M. S. Loughheed, City Bacteriologist, whose findings in 1932 showed that samples (44) were all free from coli-aerogenes organisms. One sample showed innumerable organisms, some of which were capable of fermenting lactose. Samples obtained in 1933

were not so free from gas forming organisms. The matter was taken up with manufacturers and by increasing the volume of Carbon Dioxide, thoroughly pre-cooling the water so that it would take a larger volume of gas, the gas forming organisms were eliminated to within the tolerance for potable water. One manufacturer is now pasteurizing his product which makes it satisfactory.

Butcher Shops—This class of business shows a slight decrease for the two years, namely, four less than 1931, 227 to 223. More and more of the butchers are having their stores equipped with latest refrigeration methods. While the initial cost is a large factor, this cost is saved in a short time by the saving in waste, and the cost of providing ice for the old method. Meat kept under these newer methods present a more appetizing appearance and enhance sales. According to By-law No. 4274, these stores should be visited weekly from May to November. With the small staff, it is an impossibility to visit such premises as frequently as laid down for guidance under the By-law.

Complaints—There were a total of 1,017 phone calls to the office during the two years, 1932-33, of these the greater number were to inspect premises where new businesses were to be opened up. The advice of the inspectors in such instances is always tendered with a view towards having the premises comply with regulations with the least cost to those entering business. This service is appreciated, but is not taken advantage of as much as it ought to be; if it were it would often save considerable expense to the owner and occupier. If a small license fee were charged for each and every business of this nature operated, then those wishing to commence business would make enquiry before doing so. This would doubtless mean more calls on our time but would in the long run save those entering business considerable money. There were one hundred and sixty-four calls re unsound food and on inspection invariably resulted in seizure and condemnation and in numerous instances in having the purchase price refunded. The other complaints were re smoke nuisances, bad odours, water cut off and plumbing out-of-order, dirty premises; several were regarding persons suffering from contagious diseases. All of the latter were investigated and Doctor's certificates obtained showing there was no danger from contagion. Four complaints were regarding new businesses opened up in zoned areas. These were all investigated and notices served requesting occupants to cease business and remove all stock, advertising, etc. These notices were appealed by owners or agents appearing before the Committee of the Zoning Board. All appeals were refused but one party was given three months extension to get rid of stock.

Condemnations—During the two years 1932-33, a total of 69,824½ pounds of foodstuffs were condemned. Of this amount the greater part was fruit and vegetables, next in order veal, poultry and canned goods. Since both large Departmental stores have ceased having shipments of dressed poultry and meat brought in by express or freight, this has tended to veal, poultry, etc., being shipped alive, the former being killed and dressed in the abattoirs and the latter in poultry slaughter-houses. This has reduced the amount condemned for putrefaction to an infinitesimal amount. Another factor entering into the situation is the large quantity of poultry shipped by the Poultry Pool to the British Market during the past two years, a total of over 700 tons having been sent from this Province. The whole-hearted co-operation of the brokers and wholesalers in sending goods of a doubtful character to the incinerator to be destroyed is to be highly commended, for if some of these goods were once distributed to the trade, it would mean endless work and expense in tracing it and having it taken off the market.

Fresh Fruit and Vegetables—There was a decided decrease in the amount of fresh fruit and vegetables condemned during 1933 in comparison with 1932, namely, 24,000 pounds less. Complaints were numerous re frozen potatoes in the fall months. On investigation and inspection it was invariably found that complainant had bought produce from farmers. In several instances, the Department was instrumental in having restitution made. All imported leafy vegetables and celery is examined for spray residue, but with the lowering of the tolerance in all States to the South, the consignor is careful to see that their produce complies or is well within the tolerance from arsenous oxide or lead spray residue, but vigilance is the watchword in regard to this matter.

Grocery Stores—Stores so classified show a gain of thirty-five for the two years. A number of new stores were built and opened for business. These are fitted in a most up-to-date method. Several combine grocery and meats and where this is the case, the latest equipment in refrigeration has been installed. Educational work is carried on incessantly amongst this class of merchants. It is not that some of them are ignorant of the facts, regarding blown tins of foodstuffs, but there seems to be a rather indifferent method of checking over their stock and it is a frequent occurrence to find blown tins exposed for sale on their shelves. The danger of any of this class of goods being sold to the public is pointed out to them.

Confectioners and Ice Cream Parlors—There is a decrease shown in the number of premises listed under this heading. Fifty per cent of these confectionery stores are licensed for food to be consumed on the premises and in most cases have premises complying with regulations regarding running hot water. Some evade this regulation by providing straws and paper cups and paper holders in ice cream containers. The larger establishments all have the more modern method of refrigeration. Some of the small stores still cling to the old method. Scoops or ladles are always inspected at times of visit of inspection, to see that they are thoroughly clean and free from verdigris. Carelessness is shown in many instances and moral suasion has often to be resorted to, to get co-operation from owners.

Hawkers—There has been a large falling off in the number of licenses issued for this class of merchant, from one hundred and thirty-three in 1931 to only a very few in 1933. There were fewer complaints re fruit and vegetables in 1933 than in 1932 but complaints were numerous regarding men peddling eggs especially in the Fall and Winter months. While the eggs were edible, they were usually sold as "new laid" whereas they were storage seconds. This class of fraud is difficult to check especially if not licensed.

Markets—There were four such in operation as in January, 1932, whereas there is only one in operation December, 1933. This is the open-air market located on Main Street between Flora and Stella Avenue. This seems to meet the need of the residents in this part of the City. Numerous complaints re the foodstuffs sold were made to this Department. Complaints consisted in the main about pork, fruit, fish and potatoes. Two of the vendors had to be taken to court before redress could be obtained for goods sold. It is only as a last resort, after all other measures have failed, that the Department takes the matter to court, but this appears the only measure that some of these people will obey or understand. The new regulations regarding markets passed by the Board will be of considerable assistance in regulating the vendors of small fruits, etc., as those operating the market as well as stall holders can be held responsible if regulations re protection from dust, dirt and flies is not complied with.

Prosecutions—There were four prosecutions during the year 1933. One for failure to keep plumbing in order. The others were for selling fruit and vegetables, unfit for food. Convictions were obtained in all cases, but only one was fined. Two got off with costs of court and witness fee and one was reprimanded, but restitution was made before court opened. The thanks of this Department is due to Dr. W. A. Shoults, Food Controller for the Provincial Board of Health, in the latter case as the party lived in the country and proceedings had to be before the Provincial Magistrate and it was through Doctor Shoults' co-operation that we were able to institute proceedings and bring the matter to a satisfactory conclusion.

Restaurants—There are fewer of such premises listed in this category than for the past two years. There have been five hundred and forty licenses issued by the License Department, who classify all premises where food is consumed on the premises as restaurants, whereas over a hundred and fifty of the above are only listed as confectioners by this Division. This class of business changes hands very frequently especially amongst the smaller premises. The checking up for transfer of license takes up a considerable part of our time. An innovation in this class of business has sprung up during the past two years, namely, "Dine for a Dime" snack shops, eleven new places having opened up during the past few months. It is not uncommon on visiting restaurants of the second and third rate variety, on looking over their stock to find dozens of blown tins, bought from some jobber. Such stock is seized and owner warned. If there were some classification of these premises into grades A, B and C, somewhat similar to what has been done regarding dairies, and a certificate issued to the proprietor that he could have displayed in his premises if he so desired. This would help considerably in improving status of poorer premises. There were five Dining Halls for Unemployed single men, but this number has been reduced to two at close of 1933. These premises are visited regularly and are conducted in a very satisfactory manner. In addition to restaurants, etc., inspections were carried out of all Beer Parlors and Clubs, re washing and sterilizing of glasses. Several instances were found where only cold water was used for rinsing glasses. These conditions were remedied on it being taken up with the management.

In conclusion, I wish to express my appreciation to Inspector Mines and Williams for their willing co-operation to overtake all the multifarious duties during the year.

Yours respectfully,

R. McQUILLAN,

Chief Food Inspector.

Bureau of Child Hygiene

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

Medical Health Officer.

Dear Sir:

I have the honor to submit a summary of my fourteenth and fifteenth annual reports, covering the years 1932 and 1933, on the work of the Bureau of Child Hygiene.

Infant Mortality.—The crude and corrected infant mortality rates for 1933, while slightly higher than our record 1932 rates, are well below 50, and may therefore be regarded with satisfaction, as the following figures show:

Crude			Corrected		
Year	Infant Deaths	Rate	Year	Infant Deaths	Rate
1933.....	173.....	45.4	1933.....	134.....	44.2
1932.....	184.....	44.8	1932.....	146.....	43.8
1931.....	218.....	49.3	1931.....	185.....	52.5
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			

In calculating the above rates per 1,000 live births, the crude figures include the births of non-residents, while the corrected rates exclude these but include live births and infant deaths to Winnipeg mothers confined in hospital in the adjoining City of St. Boniface.

Our present low rates were brought about mainly by a reduction in deaths from malformations and diseases of early infancy, and to a lesser extent by fewer deaths from respiratory diseases. Infant deaths from communicable diseases jumped from four, corrected, in 1932, to ten, corrected, in 1933, seven of the ten deaths being caused by whooping cough and three by influenza.

Stillbirths.—In former years, a low infant mortality rate frequently meant a high stillbirth rate, but this no longer holds true. The number of stillbirths totalled 111, corrected, giving a rate of 36.6 per thousand live births for 1933, as compared with 106, corrected, and 31.8 for 1932. These are the lowest corrected stillbirth rates so far recorded.

The combined infant death and stillbirth rate per 1,000 total births for 1933 is 77.9, corrected, as compared with 73, in 1932, 90 for 1931, and 106 for 1927.

Fewer Deaths amongst Children and Young Adults.—That the intensive child hygiene and communicable disease prevention work carried on by Winnipeg organizations has had a most beneficial effect upon the children and youth of our City is shown in the following table:

Crude Totals	1920	1925	1932	1933
Total deaths under 20 years of age....	1,054	538	304	290
Infant deaths under one year of age..	625	315	184	173
Deaths from Measles, Scarlet Fever, Whooping Cough and Diphtheria	217	57	15	15
Deaths from Pulmonary Tuberculosis	138	81	61	60

In considering reduction in deaths of young people under twenty years of age from 1,054 in 1920 to 290 in 1933, it is difficult to estimate the great saving in expense to the community but some idea may be gained of the saving to taxpayers in one branch alone by examining the Municipal Hospitals operating costs for 1920 and 1933, the totals being \$383,827 and \$168,536, respectively, or a reduction of \$215,291.

Visiting Nurses.—The thirteen visiting nurses, in 1933, made 38,097 calls to babies' homes and 39 to infant's boarding homes. The Well-Baby Centres drew an attendance of 16,794 for the ten stations, giving a total of 54,930 contacts of nurses with their cases, the highest yet recorded. This figure, plus the 6,517 attendance of sick babies at the Milk Depot Clinic, gives a total for 1933 of contacts with infants and pre-school children of 61,447, or 1,182 a week.

New cases visited numbered 2,572, or 85% of the corrected live births to Winnipeg mothers, the majority of these being single visits made to ascertain the condition of the child and home. Sick calls totalled 1,121, against 870 for 1932; cases referred to private physicians totalled 389, against 513 for 1932; and cases referred to Milk Depot Clinic totalled 298, against 362 for 1932. No serious outbreak of disease occurred amongst babies during either 1933 or 1932.

Well-Baby Centres.—The Visiting Nurses form our first line of defense in the war against disease, and the Well-Baby Centres are our second line of defense. The following is a summary showing the attendance at these Centres, at which only nurses attend:

STATION	Afternoons		Attendance		Average	
	1933		1932		1932	
Crescent United Church (Nurse Smith)	51	1,644	32	52	1,347	26
Holy Trinity Church (Nurse Schwalm)	52	784	15	9	71	8
Home Street United Church (Nurse Maddin) 47		2,574	55	48	2,822	59
First Lutheran Church (Nurse Wilkins).....	50	2,375	47	26	702	27
Maclean United Church (Nurse Bowles)	52	1,312	25	50	810	16
St. Andrew's Church (Nurse Thom)	51	1,751	34	49	1,424	29
All People's Mission (Nurse Carter).....	50	1,544	31	52	1,271	24
Robertson House (Nurses Bennett and Munro alternately)	52	1,598	31	51	1,329	26
Atlantic United Church (Nurse Attrill).....				26	187	7
Milk Depot (Nurse Wonnacott)	52	1,243	24	25	606	24
St. Paul's Lutheran Church (Nurse Moore)..	51	1,969	39	52	1,808	35
Totals and Averages	508	16,794	33	440	12,377	28

During 1932, five new Centres were opened up in various church rooms without cost to the Department. St. Andrew's Church Centre was opened on January 27th; the Babies' Milk Depot Centre on July 5th; the Atlantic United Church Centre on July 6th; the First Lutheran Church Centre on July 7th; and the Holy Trinity Church Centre on November 3rd. No new Centres were opened in 1933.

At the Home Street Well-Baby Centre, which has the heaviest attendance, sometimes exceeding 100 babies in an afternoon, we have

received valuable clerical assistance from members of the Junior League. This service has relieved a nurse of indexing and entering cards, permitting her to carry on her educational work in the home or visit sick children. The assistance rendered by the Junior League is gratefully acknowledged.

Sick Baby Clinic.—Our third line of defense against infant sickness is the feeding clinic at the Babies' Milk Depot, conducted on alternate mornings by Dr. R. F. Rorke and Dr. F. G. Schwalm. Nurse L. Spratt acted as clinic nurse as in past years, and the visiting nurses attended the clinic for one week each every three months in order to keep in touch with the clinic's work.

The number of cases which attended the sick babies' clinic was 548 in 1933, and 708 in 1932. In the prosperous year of 1928, only 424 new cases attended the clinic.

Milk Dispensary.—Feedings for sick babies are prepared at the Babies' Milk Depot only when the feeding is too complicated for the mother to make up, or the mother, through illness or otherwise, is not in a position to prepare the feedings. Feedings are also prepared for the Children's Hospital.

In 1932, there were 30,351, and in 1933, 27,235 feedings issued, for which \$650.55 was received in 1932 and \$352.25 in 1933. This is the lowest receipts collected since the Milk Depot was opened and is, of course, due to economic circumstances.

Attendants at Birth.—In 1932, of the 4,106 live births registered in Winnipeg, 4,059, or 98.8%, were attended by physicians; 45 were attended by midwives and two were unattended. In 1933, 3,767, or 98.9%, were attended by physicians, 40 by midwives, and three were unknown as to the attendant.

In 1918, 1,159 live and stillbirths were attended by midwives, or 19.8%.

In 1932, 3,524, or 86%, of the births registered in Winnipeg, occurred in hospitals and maternity homes; in 1933, 3,367, or 88%. In 1917, the percentage was 36, and in 1912, 31.

Maternal Mortality.—Deaths from puerperal causes numbered 13 in 1933 as compared with 25 for 1932. These figures give crude rates of 3.4 per thousand live births and 6.1, respectively.

Of the 13 deaths in 1933, three were non-residents and as no puerperal deaths occurred amongst Winnipeg mothers in St. Boniface Hospital, the corrected rate for the City is 3.3 per thousand live births.

Of the 25 deaths in 1932, seven were non-residents. One puerperal death amongst Winnipeg mothers occurred in St. Boniface Hospital, so that the corrected rate for the City for 1932 is 5.7.

The rate of 3.3 is the lowest yet recorded for Winnipeg, but it is too early to predict that the present reduced rate indicates that the trend of puerperal mortality is on the downward grade as, in 1921, the crude rate was 3.5 but this proved an exceptional year.

Conclusion.—There has been a persistent demand for Well-Baby Centres in River Heights and Riverview, Ward I, but so far it has not been possible to open up Centres in these districts.

During 1933, the Child Hygiene nurses gathered a list of over two

thousand names of infants and young children whose parents desired them to be protected from diphtheria, and in the fall the nurses served in the various schools where toxoid was publicly administered. Complete details of this phase of communicable disease prevention are given in the report of the Chief of the Communicable Diseases Division.

There were no changes in the staff during 1932 or 1933. The nursing, dispensary, and recording staffs have carried out their duties in their usual conscientious manner and I wish to place on record my appreciation of their devoted co-operation.

Yours respectfully,

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 years 1932 and 1933. As in previous years, copies of the birth and death registrations have been furnished the Department by the courtesy of the Winnipeg Registrar, Mr. Magnus Peterson.

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

Respectfully submitted,

A. G. LAWRENCE,

Secretary.

SUMMARY OF VITAL STATISTICS

Corrected and Crude Figures

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

	1933	1932
Population (City Assessor's figures)	218,545	215,768
Persons per acre of land	14.70	14.51

Corrected

Deaths, excluding stillbirths	1,491	1,515
Corrected rate per 1,000 population	6.82	7.02
Deaths of infants under 1 year	134	146
Corrected infant mortality rate per 1,000 live births	44.2	43.8
Deaths, measles, scarlet fever, whooping cough, and diphtheria, combined	15	14
Corrected rate per 100,000 population	6.9	6.5
Births, excluding stillbirths	3,032	3,335
Corrected live birth rate per 1,000 population.....	13.87	15.46
Stillbirths	111	106
Corrected rate per 1,000 live births	36.6	31.8
Natural increase, excess of births over deaths	1,541	1,820
Corrected rate per 1,000 population	7.05	8.43

Crude

Deaths, excluding stillbirths	1,681	1,711
Rate per 1,000 population	7.69	7.92
Deaths of infants under 1 year	173	184
Infant mortality rate per 1,000 living births....	45.4	44.8
Births, excluding stillbirths	3,810	4,106
Rate per 1,000 population	17.43	19.02
Stillbirths	136	133
Rate per 1,000 live births	35.69	32.39
Marriages	2,246	2,342
Rate per 1,000 population	10.28	10.85

Infant Mortality, 1912-33

	Corrected			Crude		
	Live Births	Infant Deaths	Rate per 1,000 Births	Live Births	Infant Deaths	Rate per 1,000 Births
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, 1904-1933

	1904	1910	1911	1912	1913	1914	1915	1916	1917	1918	1919	1920	1921	1922	1923	1924	1925	1926	1927	1928	1929	1930	1931	1932	1933
248.3	31.6	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
Corrected Rate for City					4.3	3.9	2.0	7.5	6.0	6.5	7.4	.0	.0	.0	.5	1.0	1.0	1.0	1.5	.0	.5	.0	1.9	.5	.9

CRUDE MORTALITY RATES PER 100,000 POPULATION FOR LEADING CAUSES OF DEATH, 1915-1933

Year	Population	Tuberculosis of Lungs (23)	Tuberculosis, other forms (24-32)	Cancer (all forms) (45-53)	Meningitis (79)	Cerebral Haemorrhage (82)	Diseases of the Heart (90-95)	Acute and Chronic Bronchitis (106)	Pneumonia, all forms (107-109)	Appendicitis and Typhilitis (121)	Hernia, Intestinal Obstruction (122)	Acute and Chronic Nephritis (130-131)	Puerperal Deaths (140-150)	External Causes (163-214)
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
1915	201,981	79.2	16.8	48.5	17.3	20.8	59.9	21.8	91.1	13.4	11.4	28.2	12.9	52.9

STILLBIRTHS, LIVEBIRTHS AND DEATHS, CRUDE AND CORRECTED FIGURES, BY MONTH AND SEX—1933

1933	STILLBIRTHS						LIVEBIRTHS						DEATHS					
	As REGISTERED			Non-Res. Ded'ctd	Res. Added	Cor-rected Totals	As REGISTERED			Non-Res. Ded'ctd	Res. Added	Cor-rected Totals	As REGISTERED			Non-Res. Ded'ctd	Res. Added	Cor-rected Totals
	Mth.		T.				Mth.		T.				Mth.		T.			
	M.	F.		T.	M.	F.	T.	M.		F.	T.	M.	F.	T.				
Jan.	6	3	9	2	1	8	160	171	331	96	31	266	93	72	165	30	14	149
Feb.	8	13	21	6	.....	15	173	142	315	83	22	254	87	55	142	18	13	137
Mar.	8	3	11	1	.....	10	188	185	373	113	28	288	66	61	127	32	17	112
April	7	2	9	2	2	9	157	148	305	91	34	248	91	66	157	27	15	145
May	7	3	10	4	1	7	184	171	355	107	33	281	80	50	130	25	12	117
June	8	6	14	4	1	11	206	153	359	114	24	269	70	54	124	26	16	114
July	7	3	10	5	1	6	181	153	334	103	43	274	68	63	131	34	9	106
Aug.	6	9	15	4	.....	11	146	150	296	91	30	235	73	47	120	31	11	100
Sept.	4	7	11	2	3	12	162	135	297	79	46	264	85	69	154	28	11	137
Oct.	6	6	12	3	2	11	154	131	285	101	32	216	79	66	145	26	11	130
Nov.	1	7	8	2	2	8	165	132	297	96	18	219	71	62	133	30	6	109
Dec.	4	2	6	3	.....	3	136	127	263	74	29	218	77	76	153	34	16	135
Totals	72	64	136	38	13	111	2012	1798	3810	1148	370	3032	940	741	1681	341	151	1491

Year	Population	STILLBIRTHS			LIVE BIRTHS			DEATHS		
		CRUDE		CORRECTED	CRUDE		CORRECTED	CRUDE		CORRECTED
		Totals	*Rate		Totals	†Rate		Totals	†Rate	
				*Rate			†Rate			†Rate
1933	218,545	136	35.7	36.6	3,810	17.43	13.87	1,681	7.69	6.82
1932	215,768	133	32.4	31.8	4,106	19.02	15.46	1,711	7.92	7.02
1931	212,815	169	38.2	41.7	4,422	20.78	16.57	1,709	8.03	7.04
1930	209,286	201	43.3	44.7	4,645	22.19	17.33	1,806	8.63	7.66
1929	205,083	225	49.8	46.7	4,515	22.01	17.54	1,817	8.86	7.71
1928	202,377	182	40.7	38.5	4,475	22.11	17.69	1,806	8.92	7.71
1927	198,932	200	44.8	45.4	4,463	22.44	17.92	1,650	8.29	7.71
1926	197,125	156	35.1	38.2	4,444	22.54	17.91	1,698	8.61	7.71

*Per 1,000 Live Births.

†Per 1,000 Population.

STILLBIRTHS, LIVEBIRTHS AND DEATHS, CRUDE AND CORRECTED FIGURES, BY MONTH AND SEX—1932

1932	STILLBIRTHS							LIVEBIRTHS							DEATHS						
	As REGISTERED			Non-Res. Ded'ct'd	Res. Added	Cor-rected Totals	As REGISTERED			Non-Res. Ded'ct'd	Res. Added	Cor-rected Totals	As REGISTERED			Non-Res. Ded'ct'd	Res. Added	Cor-rected Totals			
	M.	F.	T.				M.	F.	T.				M.	F.	T.						
Mth.	6	4	10	1	....	9	194	165	359	110	33	252	71	68	139	20	17	136			
Jan.	6	4	10	3	....	7	191	188	379	99	39	319	85	67	152	31	12	133			
Feb.	2	5	7	2	2	7	183	170	353	101	45	297	70	66	136	23	8	121			
Mar.	10	4	14	5	1	10	192	138	330	96	17	251	91	75	166	24	7	149			
Apr.	5	4	9	4	1	6	170	178	348	114	43	277	91	53	144	30	8	122			
May	5	2	7	4	1	4	185	140	325	92	29	262	57	59	116	27	14	103			
June	8	3	11	4	1	8	177	171	348	92	32	288	78	49	127	29	9	107			
July	9	6	15	2	2	15	203	183	386	118	44	312	77	69	146	34	14	126			
Aug.	5	4	9	2	2	9	148	136	284	78	37	243	77	73	150	33	12	129			
Sept.	7	3	10	5	....	5	191	196	387	127	30	290	83	63	146	30	13	129			
Oct.	10	6	16	3	....	13	151	139	290	73	18	235	72	60	132	26	10	116			
Nov.	9	6	15	3	1	13	151	166	317	80	42	229	84	73	157	20	7	144			
Dec.																					
Totals	82	51	133	38*	11	106	2136	1970	4106	1180	409	3335	936	775	1711	327	131	1515			

DEATHS BY MONTHS, SEX AND AGE PERIOD, 1932-1933

	Under 1	1 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.	1932 M. F.	M. F.	M. F.	M. F.	M. F.	M. F.	M. F.	M. F.
Totals, 1932	106 78	11 17	13 11	25 35	53 60	51 51	120 67	143 112	184 141	152 143	68 59	6 10	1 2	936 775
Crude Totals	184	28	24	54	88	111	187	255	325	295	127	16	3	1,711
Non-Res. Dedtd.	56	9	13	15	18	36	38	36	57	39	7			327
Residents Add.	18	1	2	3	13	13	25	23	17	13	2			131
Corrected Totals	146	20	13	42	83	88	174	242	285	269	122	16	3	1,515
Crude, per cent.	10.8	1.6	.8	3.2	5.1	6.5	10.9	14.9	19.0	17.3	7.4	.9	.2	100%
Corrected, per cent.	9.6	1.3	.8	2.8	5.5	5.7	11.5	16.0	18.8	17.7	8.1	1.1	.2	100%
Totals, 1933	111 62	15 77	7 11	28 30	48 41	58 50	96 81	160 122	173 119	164 121	73 71	7 5	2	940 741
Crude Totals	173	22	14	58	89	108	177	282	292	285	144	12	2	1,681
Non-Res. Dedtd.	52	10	6	25	30	28	46	35	50	44	5			341
Residents Add.	13	1	2	6	13	20	27	26	24	13	6			151
Corrected Total	134	13	10	39	72	100	158	273	266	254	145	12	2	1,491
Crude, per cent.	10.3	1.3	.8	3.4	5.3	6.4	10.5	16.8	17.4	17.0	8.6	.7	.1	100%
Correct, per cent.	9.0	.9	.7	2.6	4.8	6.7	10.6	18.3	17.9	17.0	9.7	.8	.1	100%

Nativity of Decedents, 1933-1932

(Deaths as Registered)

	Deaths		Per Cent. of Total	
	1933	1932	1933	1932
Canada	767	754	45.6	44.1
British Isles	486	495	28.9	28.9
Europe (excluding British Isles) ..	363	382	21.6	22.3
United States	45	55	2.7	3.2
Asia	7	10	.4	.6
Other Countries	3	1	.2	.1
Unknown	10	14	.6	.8
Totals	1,681	1,711	100.0	100.0

Attendant at Birth

(As Registered)

	1933		1932		1918*	
Physicians	3,767	98.9%	4,059	98.8%	4,707	80.2%
Midwives	40	1.1%	45	1.2%	1,159	19.8%
Unattended .....	.....		2			
Unknown	3		.....			

*Includes Stillbirths.

Stillbirths According to Nationality of Mothers—1933-1932.

	Stillbirths	Rates per 1,000 Live Births		Stillbirths	Rate
		1933	Corrected		
Canadian	56	36		52	31
British	26	46		28	42
Southern and Central European	23	31		20	22

Order of Live Births, 1933-1932

(Corrected Figures.)

	1933	1932	1933	1932
First Children	1,255	1,424	41.4%	42.7%
Second Children	790	827	26.1%	24.8%
Third Children	413	428	13.6%	12.8%
Fourth Children	212	231	7.0%	6.9%
Fifth to 19th Children	362	425	11.9%	12.8%
Totals	3,032	3,335	100.0%	100.0%

Infant Mortality—Cause of Death—1933-1932

Number of Deaths, corrected.

	1933	1932
Acute communicable diseases	10	1.4
Other general diseases	5	12
Of nervous system and of organs of special sense	7	11
Of respiratory system	13	13
Of digestive system	15	18
Malformations and diseases of early infancy	78	86
All other diseases	6	2
Totals	134	146

Rates per 1,000 Live Births, Corrected

	1933	1932
Acute communicable diseases	3.3	1.2
Other*general diseases	1.6	3.6
Of nervous system and of organs of special sense	2.3	3.3
Of respiratory system	4.3	3.9
Of digestive system	5.0	5.4
Malformations and diseases of early infancy	25.7	25.8
All other diseases	2.0	.6
Totals	44.2	43.8

Per Cent. of Total, Corrected.

	1933	1932
Acute communicable diseases	7.5	2.8
Other general diseases	3.7	8.2
Of nervous system and of organs of special sense	5.2	7.5
Of respiratory system	9.7	8.9
Of digestive system	11.2	12.3
Malformations and diseases of early infancy	58.2	58.9
All other diseases	4.5	1.4
Totals	100.0	100.0

Classification of Ages of Decedents Under One Year of Age—1933-1932

	1933			Corrected			1932		
	No. of Deaths	Rate per 1,000 Births	Per Cent. of Total	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	22.8	51.5	75	22.5	51.4			
Over 1 to 2 weeks....	2	.7	1.5	6	1.8	4.1			
Over 2 to 3 weeks....	4	1.3	3.0	2	.6	1.4			
Over 3 wk's to 1 m'th..	1	.3	.7	1	.3	.7			
Minutes to 1 month..	76	25.1	56.7	84	25.2	57.6			
Over 1 to 2 months..	7	2.3	5.2	10	3.0	6.8			
Over 2 to 3 months..	9	3.0	6.7	9	2.7	6.2			
Minutes to 3 months	92	30.4	68.6	103	30.9	70.6			
Over 3 to 6 months..	21	6.9	15.7	19	5.7	13.0			
Over 6 to 9 months..	10	3.3	7.5	14	4.2	9.6			
Over 9 and under 12 months	11	3.6	8.2	10	3.0	6.8			
	134	44.2	100.0	146	43.8	100.0			

Infant Mortality According to Nationality of Mothers—1933-1932.

	1933			Corrected			1932		
	Live Births	Infant Deaths	Rate Per 1,000 Births	Live Births	Infant Deaths	Rate per 1,000 Births	Live Births	Infant Deaths	Rate per 1,000 Births
Canadian	1,559	71	46	1,593	68	43			
English and Welsh ..	309	12	39	354	9	25			
Irish	58	3	52	76	3	39			
Scotch	198	6	30	238	9	38			
American (U.S.A.)	106	7	66	102	5	49			
Scandinavian	38	1	26	49	1	20			
Southern and Central European	747	33	44	915	51	56			
All others	17	1	59	8	....	....			

Infant Mortality Statistics.

For further particulars regarding infantile mortality, see report of the Manager, Bureau of Child Hygiene, pages 65 to 68.

1932		AGE IN YEARS												Totals		
SEX																
		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	
Male	Female	1	2	1	1	1	1	1	1	1	1	1	1	1	1	3
1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
4	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
5	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6	1	2	1	2	1	1	1	1	1	1	1	1	1	1	1	1
7	2	5	1	2	2	1	1	1	1	1	1	1	1	1	1	1
8	3	8	2				1		1		3	2	2			7
10	33	28				5	17	9	18	4	5	3				11
11	12	6	1	3	2	4	2	1	2	1	1	3				61
12	17	3	4	1	1	1	1	1	8	4	1	1				18
14	6	5	1		1				3	3	1	1	1			20
15	155	125		1	2		3	14	42	74	76	52	13	2	1	11
16																280
17	2	8			2			4	2	1	1					10
18	3	7							2	1	4	2	1			10
19	7	17				1		2		3	8	10				24
20	4	1					2	1	1	1						5
21	27	21	6	3	1	3	5	5	4	6	9	1	2			48
	2											2				2

1932		AGE IN YEARS												SEX				
CAUSE OF DEATH BY AGE AND SEX CORRECTED FIGURES (Non-Residents excluded; St. Boniface, Ninette and St. Boni- face Sanitarium Registrations of Winnipeg Residents inc.)		Male	Female	Under 1	1 to 2	3 to 4	5 to 9	10 to 19	20 to 29	30 to 39	40 to 49	50 to 59	60 to 69	70 to 79	80 to 89	90 to 99	100 to 109	Totals
1.	Typhoid and paratyphoid fever (1, 2).....		2		1			1										2
4.	Measles (7).....		1	1														1
5.	Scarlet fever (8).....	1	2	1			1		1									3
6.	Whooping-cough (9).....	1	2	1	2													3
7.	Diphtheria (10).....	2	5	1		2	2	1						1				7
8.	Influenza (11).....	3	8		2				1		1		3	2	2			11
10.	Tuberculosis of the respiratory system (23).....	38	31		1			4	21	13	17	7	4	2				69
11.	Other forms of tuberculosis (24, 26, 29, 30, 31, 32).....	11	2	3	1			2	2	1	3		1					13
12.	Syphilis (34).....	19	4	6						1	9	5	1	1				23
14.	Other infectious and parasitic diseases (15, 16, 17, 36).....	7	3		1		1				1	3	1	2	1			10
15.	Cancer and other malignant tumors (45, 46, 47, 48, 49, 50, 51, 52, 53).....	132	101			1	1		3	14	35	68	53	43	12	2	1	233
16.	Tumors, nonmalignant, or of which the nature is not specified (54, 55).....																	
17.	Chronic rheumatism (57).....	4	5							2	3	2	2					9
18.	Diabetes mellitus (59).....	1	7								1	1	3	2	1			8
19.	Alcoholism (acute or chronic) (75).....	7	18					1		2	2	4	7	9				25
20.	Other general diseases and chronic poisonings (56, 66, 67, 70, 71, 72, 73).....	3	1						2	1	1							4
21.	Progressive locomotor ataxia and general paralysis of the insane (80, 83).....	22	16	3	2		2	3	2	4	5	7	7	1	2			38
		3											3					3

22. Cerebral hemorrhage, cerebral embolism and thrombosis (82)	47	62	1							1	13	28	36	15	1	109
23. Other diseases of the nervous system and of the organs of special sense (78, 79, 81, 84, 85, 86, 87, 89)	22	20	10	2	1					4	5	4	4	2		42
24. Diseases of the heart (91, 92, 93, 94, 95)	163	141								6	8	77	79	39	6	304
25. Other diseases of the circulatory system (96, 97, 98, 99, 100)	33	17										8	14	8		50
26. Bronchitis (106)	3	5										1	2	3		8
27. Pneumonias (107, 108, 109)	54	40	12	5	1	1	1			4	8	14	18	12	2	94
28. Other diseases of the respiratory system (tuberculosis excepted) (104, 110, 111, 112, 113, 114)	13	4	1							1	2	6	3	4		17
29. Diarrhea and enteritis (119, 120)	12	12	18	2							1		2	1		24
30. Appendicitis (121)	16	7			1	1	5			2	3	4	1			23
31. Diseases of the liver and biliary passages (124, 125, 126, 127)	7	13									2	5	3	1		20
32. Other diseases of the digestive system (115, 117, 118, 122, 123, 128, 129)	24	12								1	8	12	7	5	2	36
33. Nephritis (130, 131, 132)	47	21			1	1	4			2	7	9	15	8		68
34. Other diseases of the genitourinary system (133, 134, 137, 139)	12	7	1							1	3	4	8	2		19
35. Puerperal septicemia (140, 145)		8					1			4	2	1				8
36. Other diseases of pregnancy, childbirth and the puerperal state (142, 143, 144, 146, 147, 149, 150)										4	6	1				11
37. Diseases of the skin and cellular tissue, and of the bones and organs of locomotion (151, 153, 154)	7	4	1			1				4	1	1	2			11
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)	2	6											1	4	3	8
40. Suicide (163, 164, 165, 166, 167, 168, 169, 170)	33	8					3			6	9	8	5	4		41
41. Homicide (173, 175)	1	3					1			2	1					4
42. Violent and accidental deaths (suicide and homicide excepted) 178, 179, 181, 183, 185, 186, 193, 194, 203, 207, 209, 210, 211)	48	21		1	4	2	5	6		6	10	9	10	11	3	69
Corrected Totals	848	667	146	20	12	13	42	83	88	174	242	285	269	122	16	3 1515

1933		AGE IN YEARS													Totals		
CAUSE OF DEATH BY AGE AND SEX		SEX															
CRUDE FIGURES		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
(As Registered; Non-Residents included)																	
1.	Typhoid (1)	2	2					1	2	1							4
4.	Measles (7)		1		1												1
6.	Whooping-cough (9)	3	6	8			1										9
7.	Diphtheria (10)	2	3		1	1	1	2									5
8.	Influenza (11)	7	16	2					1	3	2	1	4	4	5	1	23
10.	Tuberculosis of the respiratory system (23)	38	22		1	2	1	2	10	15	14	7	5	3			60
11.	Other forms of tuberculosis (24, 25, 27, 30, 31,)	3	7		2	2		2	3	1		1	1				10
12.	Syphilis (34)	12	4	1						3	3	5	4				16
14.	Other infectious and parasitic diseases (15, 17, 18, 35, 36, 44)	11	3	5	2				2	2							14
15.	Cancer and other malignant tumors (45, 46, 47, 48, 49, 50, 51, 52, 53)	155	143					4	8	21	43	78	76	50	18		298
16.	Tumors, nonmalignant, or of which the nature is not specified (54, 55)	2	6								5	2			1		8
17.	Chronic rheumatism (57)		3					1				1		1			3
18.	Diabetes mellitus (59)	9	10									5	6	7	1		19
19.	Alcoholism (acute or chronic) (75)		1									1					1
20.	Other general diseases and chronic poisonings (56, 66, 67, 68, 71, 72, 74)	16	17		1			2	3	3	2	11	7	4			33
21.	General paralysis of the insane (83)	2										1	1				2
22.	Cerebral hemorrhage, cerebral embolism and thrombosis (82)	55	68						1		12	22	31	34	23		123

[illegible]

1933		CAUSE OF DEATH BY AGE AND SEX CORRECTED FIGURES (Non-Residentsexcluded; St. Boniface, Ninette and St. Boni- face Sanitarium Registrations of Winnipeg Residents inc.)														SEX		AGE IN YEARS											Totals
		Male	Female	Under 1	1 to 2	3 to 4	5 to 9	10 to 19	20 to 29	30 to 39	40 to 49	50 to 59	60 to 69	70 to 79	80 to 89	90 to 99	100 to 109												
1.	Typhoid and paratyphoid fever (1, 2)	1	2						2	1								3											
4.	Measles (7)		1	1														1											
5.	Scarlet fever (8)	1								1								1											
6.	Whooping-cough (9)	3	4	7														7											
7.	Diphtheria (10)	2	1		1	1	1											3											
8.	Influenza (11)	9	16	3	1				1	3	3	1	3	4	5	1		25											
10.	Tuberculosis of the respiratory system (23)	40	31		1		1	4	17	16	17	8	4	3				71											
11.	Other forms of tuberculosis (24, 25, 30, 31)	3	5			1		2	2			2	1					8											
12.	Syphilis (34)	14	4	2						2	4	5	5					18											
14.	Other infectious and parasitic diseases (17, 18, 35, 36, 44)	10	1	3	1				2	2	3							11											
15.	Cancer and other malignant tumors (45, 46, 47, 48, 49, 50, 51, 52, 53)	140	128					2	6	20	38	75	66	43	18			268											
16.	Tumors, nonmalignant, or of which the nature is not specified (54, 55)	1	4							1	2	1			1			5											
17.	Chronic rheumatism (57)		3					1				1		1				3											
18.	Diabetes mellitus (59)	11	8							1		6	7	4	1			19											
19.	Alcoholism (acute or chronic) (75)		1									1						1											
20.	Other general diseases and chronic poisonings (56, 66, 67, 68, 71, 72, 74)	15	16					1	2	2	4	9	9	4				31											
21.	General paralysis of the insane (83)	2																2											
22.	Cerebral hemorrhage, cerebral embolism and thrombosis (82)	55	66					1			12	22	30	33	23			121											

[illegible]

Comfort Stations Division

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

Dear Sir:—

As a matter of record, I may mention that in February, 1931, the Public Baths and Comfort Stations were transferred to the Health Department, but owing to a change in policy, the Baths were, in June, 1933, placed under the jurisdiction of the Public Parks Board. The Comfort Stations were placed in my charge.

There are eight Stations, staffed by sixteen attendants, and housed in five buildings in various parts of the City. The annual cost of operating the Stations has averaged over \$25,000, plus capital charges.

During the year the five buildings were repaired and repainted, store rooms were built in several of the Stations, and improvements made in the plumbing which remedied defects which had been in existence for many years.

Through the above improvement and changes made in the system of purchasing, I anticipate that operating expenses will be reduced about \$1,000 a year.

Respectfully submitted,

A. G. LAWRENCE,
Secretary.

Street Cleaning and Scavenging Division

Dr. A. J. Douglas,
Medical Health Officer,
City Hall.
Dear Sir:—

I have the honor to submit herewith an abbreviated report of the operations of the Street Cleaning and Scavenging Division, for the years 1932 and 1933.

D—STREET CLEANING AND FLUSHING

	1932	1933
D-1-1. Administration:		
(a) Personal Services	\$ 6,259.40	\$ 5,499.57
(b) Outside Services	103.15	131.13
(c) Material, Supplies and Repairs.....	618.61	554.04
	<u>\$ 6,981.16</u>	<u>\$ 6,184.74</u>

Cleaning and Flushing

D-4-1. Asphalt Pavement Cleaning:		
(a) Personal Services	\$ 56,887.74	\$ 42,990.24
(b) Outside Services	5,157.90	4,535.45
(c) Material, Supplies and Repairs	4,302.62	1,509.68
(d) Equip., Additions and Replacements	2,700.00	1,930.00
(e) Fuel, Water, Light and Power	492.87	373.10
	<u>\$ 69,541.13</u>	<u>\$ 51,338.47</u>

Miscellaneous:

D-5-3. Cutting Noxious Weeds:		
(a) Personal Services	\$ 2,544.86	\$ 1,329.16
(b) Outside Services	146.43	185.54
(c) Material, Supplies and Repairs	7.58	70.54
	<u>\$ 2,698.87</u>	<u>\$ 1,585.24</u>

D-5-4. Yards Maintenance:		
(a) Personal Services	\$ 517.05	\$ 490.62
(b) Outside Services	720.00	720.00
(c) Material, Supplies and Repairs	32.92	43.44
(e) Fuel, Water, Light and Power	329.97	329.03
	<u>\$ 1,599.94</u>	<u>\$ 1,583.09</u>

Total, Street Cleaning and Flushing.....	\$ 80,821.10	\$ 60,691.54
Total, Refuse Collection and Disposal.....	213,831.36	196,315.19
Grand Total	\$294,652.46	\$257,006.73

ELMWOOD INCINERATOR OPERATIONS

Year	Number of Loads Collected	Weight in Pounds
1932	6,049	20,808,400
1933	5,635	18,975,760

SASKATCHEWAN AVENUE INCINERATOR OPERATIONS

Year	Number of Loads Collected	Weight in Pounds
1932	10,230	30,368,440
1933	10,133	29,266,078

REPORT OF REFUSE DEPOSITED ON ELMWOOD NUISANCE
GROUNDS

Year	Number of Loads Collected	Weight in Pounds
1932	10,084	36,913,690
1933	8,203	28,493,800

REPORT OF REFUSE DEPOSITED ON SASKATCHEWAN AVE.
NUISANCE GROUNDS

Year	Number of Loads Collected	Weight in Pounds
1932	15,496	50,557,400
1933	17,877	61,504,060

MISCELLANEOUS DATA

Year	Cubic Yards Street Swpgs. Collected	Cubic Yards of Ashes Collected	Gallons of Water used in Flushing Street
1932	21,984	56,223	2,630,334
1933	23,635	65,392	2,483,553

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

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

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

Revenue Collected

Year	Incin. No. 2	Incin. No. 3	Ash Boxes and Garbage Cans	Sale of Steam	Total
1932	\$1,020.24	\$1,582.20	\$11.65	\$1,200.00	\$3,814.09
1933	645.45	1,374.69	.....	1,200.00	3,220.14

Your obedient servant,

E. A .WOOD,

Chief, Street Cleaning and
Scavenging Division.

