CITY OF MONTREAL

Report of the Department of Health

OF

MONTREAL

1927

By DOCTOR S. BOUCHER, D.P.H.,
Director of the Department

MONTREAL

1928

Presented by

The Director of the Department of Health

October 1928

With the compliments of the

Director of the Department of Health

Please exchange.

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CITY OF MONTREAL.

Mayor:

HON. MEDERIC MARTIN, M.L.A.

EXECUTIVE COMMITTEE:

Alderman J. A. A. BRODEUR,* President; Aldermen J. H. BEDARD, A. A. DESROCHES, THOS. O'CONNELL, R. JARRY, Members.

Mr. A. A. DESROCHES, elected president of the Executive Committee, Nov. 28th 1927.

Mr. D. GENEREUX, M.V.,, elected member of the Executive Committee, Nov. 28th 1927.

HEALTH DEPARTMENT:

S. BOUCHER, M.D., D.P.H., Director.
T. A. REEB, Secretary.

*Deceased Nov. 16th 1927.

CONTENTS.

STAFF OF THE DEPARTMENT OF HEALTH

DIRECTOR'S OFFICE.

Dr. S. BOUCHER, Director.
Mr. T. A. A. REEB, Secretary.
Mr. Léo DeLONGCHAMPS, senior clerk.
Mr. GEORGES ROCHON, senior account clerk.
Miss H. SAINT-CYR, senior stenographer.
1 Messenger.

DIVISION OF CONTAGIOUS DISEASES.

Dr. J. E. LABERGE, superintendent.
1 Senior typist.
2 Junior typists.
2 Epidemiologists.
8 Nurses (one acting as temporary superintendent of Smallpox hospital).
3 Disinfectors.
1 Janitor (smallpox hospital).
1 Cook (smallpox hospital).

DIVISION OF CHILD HYGIENE.

Dr. EUG. GAGNON, superintendent.
1 Senior typist.
2 Junior clerks.
Dr. J. A. DAUTH, chief inspector for Medical Inspection of Schools.
11 Medical Inspectors of Schools (full time).
6 Medical Inspectors of Schools (part time) (*).
1 Dental Inspector of Schools.
1 Head Nurse.
33 Visiting school nurses (**).
1 Nurse inspecting children boarding houses.

DIVISION OF SANITATION.

Mr. J. E. DUROCHER, superintendent.
Mr. AIME COUSINEAU, C. E., Sanitary Engineer and Assistant-superintendant.
1 Plan examiner.
1 Chief Inspector.
2 Senior clerks.
2 Junior typists.
12 Plumbing inspectors.
23 Sanitary inspectors (***).
1 Sanitary inspector for children boarding houses, private maternities, etc.

(*) One position vacant.
(**) Six positions vacant.
(***) Two positions vacant.

DIVISION OF FOOD INSPECTION.

Dr. A. J. G. HOOD, M.V., superintendent.
3 Senior typists.
4 Food inspectors (veterinarians).
10 Food inspectors.
12 Milk and dairy inspectors.
1 Restaurants inspector.

DIVISION OF MUNICIPAL ASSISTANCE.

Mr. A. CHEVALIER, superintendent.
Mr. C. J. GAUTHIER, assistant-superintendent.
3 Senior clerks.
2 Senior stenographers.
1 Junior typist.
5 Investigators.
Mr. A. VALIQUETTE, Meurling Refuge supervisor.
1 Junior clerk.
2 Furnace-men.
1 Head laundryman.
1 Head-cook.
4 Watchmen.

DIVISION OF MEDICAL CONTROL.

Dr. E. P. CHAGNON, superintendent.
Dr. J. H. GERVAIS, medical visitor.
1 Senior stenographer.

DIVISION OF LABORATORIES.

Dr. A. BOLDUC, superintendent and bacteriologist.
Mr. E. GIGUERE, chemist.
2 Laboratory assistants.
1 Junior typist.
1 Laboratory helper.

DIVISION OF STATISTICS.

Dr. M. O'B. WARD, superintendent (*).
1 Senior clerk.
1 Junior clerk.

(*) Deceased 27th December 1927.

ANNUAL REPORT

1927.

To the Chairman and
Members of the Executive Committee.

Gentlemen,

I have the honour to submit the report of the Department of Health, for the year 1927.

Expenses.

The total expenditure for 1927 in the Department of Health amounted to $1,461,501.63 distributed as follows:

Hygiene..	$ 281,174.37
Municipal assistance..	1,064,232.01
Pensions and Annuities (Pensioners)	95,945.25
Allocations to Universities..	20,000.00
Official time (McGill University) .	150.00

It should be noted that payment of allocations to Universities, of Pensions and Annuities to pensioned employees, and payment for the Official Time should preferably come under another Service than the Health Department.

The City's population for 1927 having been estimated at 699, 500, the expenditure for the section of Hygiene is distributed at the rate of $0.402 per capita of population; the rate for the Municipal Assistance being $1.521.

The following list shows the detail of expenditure during the year.

Hygiene.

GENERAL ADMINISTRATION EXPENSES.

Library, Books and Reviews...	$ 136.76	
Lectures to the Public, to officials, and campaign against tuberculosis and infant mortality, through various means..	.....	
Auto service (Director's office)	.....	
		$ 136.76

DIRECTOR'S OFFICE.

Salaries	$ 12,200.00	
Employees' transportation allocation	150.00	
Supplies	67.47	
Casual	149.25	
		$ 12,566.72

SANITATION.

Salaries	66,020.00	
Employees' transportation allotions	4,459.31	
Supplies for plumbing tests, etc.	286.21	
Supplies for plumbers' examinations	.....	
Fees: plumbers' examiners	400.00	
Casual	99.89	
Uniforms	1,833.27	
		$ 73,098.68

CONTAGIOUS DISEASES.

Salaries	24,559.70	
Employees' transportation allocation	2,283.62	
Disinfectants	225.00	
Supplies	124.93	
Casual	145.00	
Vaccine	1,600.00	
Maintenance of smallpox hosp.	800.69	
Transportation of patients	64.00	
Houses quarantined	58.04	
Uniforms	365.84	
		$ 30,226.82

CHILD HYGIENE.

Salaries	$ 76,135.82	
Employees' transportation allotion	380.94	

Municipal Baby clinics and Maternal clinics	6,904.71	
Baby camps	.....	
Supplies	933.06	
Casual	100.00	
Uniforms	1,077.98	
Diphtheria immunization	1,724.63	
		$ 87,257.14

FOOD INSPECTION.

Salaries	45,157.29	
Employees' transportation allocation	3,798.06	
Special inspections	117.67	
Supplies	561.59	
Auto service (superintendent)	423.25	
Travelling expenses (milk inspectors in the country)	7,834.96	
Samples of food	9.12	
Casual	99.89	
		$ 58,001.83

MEDICAL CONTROL.

Salaries	5,954.93	
Employees' transportation allocation	300.00	
Supplies, casual, interpreter	50.00	
		$ 6,304.93

STATISTICS.

Salaries	4,800.00	
Supplies	67.00	
Casual	49.19	
		$ 4,916.19

LABORATORIES.

Salaries	6,621.38	
Material, apparatus, instruments	885.27	
Supplies	642.24	
Milk analysis	384.96	
Laundry	31.65	
Casual	99.80	
		$ 8,665.30
Total		$281,174.37

Municipal Assistance.

Salaries	19,475.02	
Employees' transportation allocation	1,105.12	
		$ 20,580.14

ADMINISTRATION.

Supplies	54.00	
Casual	99.06	
		$ 153.06

ASSISTANCE.

Burial of poor and unknown people	2,465.75	
Repatriation of strangers	846.23	
		$ 3,311.98

SUBSIDIES.

Institutions of charity	72,613.50	
Baby clinics (independent)	8,500.00	
		$ 81,113.50

CONTRACTS, STATUTORY OBLIGATIONS AND OTHERS.

Maintenance of Insane	247,394.57	
Destitute children in Industrial schools	75,479.20	
Juvenile Court	6,500.00	

Maintenance of children in Reform Schools	26,869.69	
Hospitalization of incurables . .	53,837.50	
Hospitalization of tuberculous. .	100,000.00	
Hospitalization of indigents (Quebec Public Charities Act)		
Paid to institutions.	76,195.03	
* Government's account	350,807.29	
		$937,083.28
MEURLING REFUGE: (Night Refuge):		
Salaries	13,194.76	
Food	4,419.95	
Maintenance	2,901.87	
Lingerie	1,473.47	
		$ 21,990.05
Total		$1,064,232.01

* This item is subject to revision, the Government's account having been transmitted too late to permit checking before publication of this report.

DEMOGRAPHIC MOVEMENT.

Population.

The population of Montreal, for 1927, is evaluated by the superintendent of the division of Statistics of the Department of Health, at 699,500 inhabitants.

The rates of births, marriages and deaths are consequently based on that figure.

Birth rate.

The number of births in 1927 has been 20,740; in 1926 it had been 21,098 which shows a decrease of 358. Comparison with the year 1925 when there were 21,976 births, shows a decrease of 1,236.

The proportion of births per 1,000 inhabitants, based on the valuation of the population at 699,500 is 29.65, being 5.18 per thousand less than the average for the five years 1917 to 1921 and 2.59 per thousand less than the average for the five years 1922 to 1926; it is 3.88 less than the average for the ten preceding years.

The birth rate continues therefore to decrease.

Table I is a comparison of the number and the rate of births for the year 1927 with the ten preceding years taken separately and in groups of five and ten years.

TABLE I. — BIRTHS.

Period 1917-1921 (5 years).

Years	Population	Number of births	Proportion per 1000 inhabitants
1917..	537.970	19.664	36.35
1918..	579.910	20.373	35.13
1919..	593.440	19.959	33.63
1920..	607.470	21.180	34.86
1921..	618.506	21.136	34.17
Average.	587.459	20.462	34.83

Period 1922-1926 (5 years).

1922	630.800	20.720	32.84
1923	642.650	20.527	31.94
1924	655.800	21.500	32.78
1925	669.800	21.976	32.81
1926	684.500	21.098	30.82
Average	656.710	21.164	32.24

Period 1917-1926 (10 years).

Average	622.084	20.813	33.53

Year 1927

1927	699.500	20.740	29.65

Marriage rate.

There were 6,320 marriages in 1927, which shows an increase of 187 over the year 1926.

The proportion per 1,000 inhabitants is 9.03; it is inferior to the average of the five years 1917 to 1921, by 1.04 and by 0.10 to the average for the five years 1922 to 1926.

It shows a decrease of 0.57 from the ten preceding years, but an increase of 0.08 over the average for 1926.

Table II compares the rate and the number of marriages in 1927 with the preceding years, taken separately and by groups of five and of ten years.

TABLE II. — MARRIAGES.

Period 1917-1921 (5 years).

Years	Population	Number of marriages	Proportion per 1000 inhabitants
1917	537.970	5.306	9.86
1918	579.910	4.757	8.20
1919	593.440	6.449	10.86
1920	607.470	7.142	11.75
1921	618.506	5.984	9.67
Average	587.459	5.928	10.07

	Period 1922-1926 (5 years).		
1922..	630.800	5.589	8.86
1923..	642.650	6.103	9.49
1924..	655.800	6.058	9.24
1925..	669.800	6.102	9.11
1926..	684.500	6.133	8.95
Average.	656.710	5.997	9.13
	Period 1917-1926 (10 years).		
Average.	622.084	5.962	9.60
	Year 1927		
1927..	699.500	6.320	9.03

Death rate.

The number of deaths in 1927 rose to 9,991 as against 9,660 in 1926; this shows in consequence, an increase of 331 deaths.

The proportion compared to the population is 14.28 per thousand as against 14.12 in 1926, or an increase of 0.16 per thousand.

The death rate for 1927 is 5.16 less than the average for the five years 1917 to 1921 and 0.65 less than the average for the five years 1922 to 1926, and 2.90 less than the average for the ten preceding years, in spite of the typhoid fever epidemic prevailing this year.

Table III shows a statement of the death rate since 1917.

TABLE III. — DEATHS.

Period 1917-1921 (5 years).

Years	Population	Number of deaths	Proportion per 1000 inhabitants
1917..	537,970	10,494	19.50
1918..	579,910	14,090	24.30*
1919..	593,440	10,617	17.89
1920..	607,470	12,012	19.77
1921..	618,506	9,740	15.74
Average.	587,459	11,391	19.44

* The epidemic of grippe contributed to the increase.

Period 1922-1926 (5 years).

1922..	630,800	8,945	15.76
1923..	642,650	10,074	15.67
1924..	655,800	9,752	14.87
1925..	669,800	9,549	14.26
1926..	684,500	9,660	14.12
Average.	656,710	9,596	14.93

Period 1917-1926 (10 years).

Average.	622,084	10,493	17.18

Year 1927

1927..	699,500	9.991	14.28

Natural increase of the population.

The natural increase of the population is represented by the surplus of births over deaths.

In 1927 the excess of births over deaths was 10,749 showing a decrease of 689 from the year 1926.

The average of the surplus of births over deaths for the last ten years was 10,320, being an increase of 287 over the average of 10,033 for the ten years from 1916 to 1925.

The natural increase of the population represents for 1927, a rate of 15.36 per thousand of population.

TABLE IV. — NATURAL INCREASE OF THE POPULATION.

Years	Births	Deaths	Excess of births over deaths
1917-1921..	102,312	56,953	45,359
1922-1926..	105,821	47,980	57,841
Average (10 years).	20,813	10,493	10,320
Year 1927.	20,740	9,991	10,749

Infant Mortality.

The registered number of deaths of children under one year, in 1927 is 2,424 as against 2,521 in 1926, showing consequently a decrease of 97 in the total.

The proportion per 1,000 births is 116.87 as against 119.49 in 1926; it indicates a decrease of 2.62 in the rate per thousand. This rate continues to decrease, and it is the lowest since the organization of the Division of Statistics.

Table V shows the variations of infant mortality during the course of the last ten years.

TABLE V. — DEATHS FROM 0 TO 1 YEAR PER 1,000 BIRTHS.

(Still-born not included).

Period 1917-1921 (5 years).

Years	Births	Deaths under one year	Proportion per 1,000 births
1917..	19,664	3,488	177.3
1918..	20,373	3,902	191.5
1919..	19,959	3,543	177.5
1920..	21,180	4,072	192.2
1921..	21,136	3,289	155.6
Average.	20,462	3,659	178.8
Period 1922-1926 (5 years).			
1922..	20,720	3,304	159.4
1923..	20,527	3,057	148.9
1924..	21,500	3,151	146.5
1925..	21,976	2,690	122.41
1926..	21,098	2,521	119.49
Average.	21,164	2,945	139.3
Period 1917-1926 (10 years).			
Average.	20,813	3,302	158.6
Year 1927			
1927..	20,740	2,424	116.87

Infantile Diarrhoea.

Table VI gives a statement of infant mortality from diarrhoea during the last five years, of children from 0 to 1 year, as well as for the years 1926 and 1927.

The percentage of deaths from diarrhoea is practically the same this year as in 1926, it is lower, however, than for the other five years taken separately. It is 5.8% lower than the average of the five years 1921 to 1925.

TABLE VI. — DEATHS FROM DIARRHOEA, FROM 0 TO 1 YEAR.

Period 1921-1925 (5 years).

Years	Total of deaths 0 to 1 year	Deaths by diarrhoea 0 to 1 year	Percentage of deaths by diarrhoea
1921..	3,289	1,361	41.3
1922..	3,304	1,380	41.8
1923..	3,057	1,158	37.9
1924..	3,151	1,086	34.5
1925..	2,690	1,014	37.7
Average.	3,098	1,199	38.7
Years 1926-27			
1926..	2,521	817	32.4
1927..	2,424	799	32.9

The percentage of deaths of children from 0 to 1 year from these diseases in 1927 is 32.9, and of children from 0 to 2 years it is 30.6; in spite of a certain decrease, these diseases still remain the principal cause of death of infants.

Table VII indicates the mortality from diarrhoea of children from 0 to 2 years.

TABLE VII. — DEATHS FROM DIARRHOEA FROM 0 TO 2 YEARS.

Period 1917-1921 (5 years).

Years	Total of deaths 0 to 2 years	Deaths by diarrhoea 0 to 2 years	Percentage of deaths by diarrhoea
1917..	4,206	1,626	38.7
1918..	4,770	1,702	35.7
1919..	4.142	1,485	35.8
1920..	4,735	1,918	40.5
1921..	3,711	1,432	38.6
Average..	4,313	1,632	37.8

Period 1922-1926 (5 years).

1922..	3,831	1,482	38.7
1923..	3,682	1,249	33.9
1924..	3,615	1,172	32.4
1925..	3,202	1,098	34.3
1926..	2,952	877	29.7
Moyenne.	3,456	1,176	33.8

Period 1917-1926 (10 years).

Average..	3,884	1,404	35.8

Year 1927.

1927..	2,846	870	30.6

Table VIII shows the average of deaths from 0 to 1 year, in periods of ten years since 1906 to 1926, and the mortality for the year 1927.

TABLE VIII

Deaths from 0 to 1 year per 1,000 births, and by periods of ten years.

	Deaths
1906-1915..	230.4
1907-1916..	221.2
1908-1917..	214.2
1909-1918..	208.3
1910-1919..	201.1
1911-1920..	196.9
1912-1921..	188.2
1913-1922..	183.4
1914-1923..	176.7
1915-1924..	171.7
1916-1925..	165.1
1917-1926..	158.6
1927..	116.87

Table IX indicates the proportion from 0 to 1 year compared to the total of deaths.

TABLE IX

Percentage of deaths from 0 to 1 year, compared with the total of deaths.

Years	Total of deaths	Deaths from 0 to 1 year	Percentage
1922..	9,945	3,304	33.22
1923..	10,074	3,057	30.34
1924..	9,752	3,151	32.31
1925..	9,549	2,690	28.17
1926..	9,660	2,521	26.10
Average (5 years) .	9.796	2,944	30.03
	Year 1927		
1927..	9,991	2,424	24.26

The proportion of deaths from 0 to 1 year compared to the total of deaths was 24.26 in 1927; this shows a decrease of 1.84 per cent from the 1926 figure and of 5.77 per cent from the average of the five years 1922 to 1926.

Table X shows the comparison of the percentage, by periods, of deaths under 1 year compared to the total of deaths from 0 to 1 year, ,since the year 1922.

TABLE X

Percentage by periods, of Deaths under 1 year compared to the total of deaths from 0 to 1 Year.

Age	1922	1923	1924	1925	1926	1927
1 day.	6.8	6.41	7.13	4.46	8.76	13.33
2 days to 1 week..	7.4	8.76	8.28	12.04	11.54	10.73
2 weeks to 1 month	14.9	16.12	17.55	14.27	12.73	14.03
2 months.	16.6	17.60	16.31	16.39	16.89	18.73
3 to 5 months.. ..	25.4	23.84	27.42	21.82	19.67	15.39
6 to 8 months.. ..	14.3	13.83	12.88	16.24	15.19	13.57
9 to 11 months. ..	14.6	13.41	12.06	14.76	15.19	14.23

Table XI indicates the percentage of deaths from certain causes, compared to the total of deaths from 0 to 1 year.

It will be noted that diarrhoeal diseases are still causing the greatest casualties, in spite of a decrease of 3.87% in 1927 on the average of the five preceding years.

TABLE XI

Percentage of deaths from certain causes, compared with the total of deaths from 0 to 1 year.

Causes of deaths	1922	1923	1924	1925	1926	Average 5 years	1927
Pneumonia	3.5	3.59	2.95	3.53	3.72	3.46	2.89
Broncho-pneumonia	7.8	8.47	8.18	8.33	9.28	8.41	7.84
Diseases of the stomach	1.1	1.17	4.22	4.31	1.51	2.46	2.19
Diarrhoea and enteritis	41.7	37.89	34.46	37.69	32.40	36.83	32.96
Malformation	3.1	2.97	2.95	3.31	3.88	3.24	2.92
Premature birth	6.2	5.92	6.31	6.58	7.77	6.56	9.32
Congenital debility	19.76	20.87	23.96	27.25	19.00	22.17	19.88
Meningitis (simple)	2.3	2.00	1.58	2.34	2.58	2.16	2.15
Syphilis	1.3	2.78	3.36	1.00	1.31	1.95	1.44
Contagious diseases	4.0	5.82	5.83	3.79	8.61	5.61	8.00
Others	9.2	8.50	6.15	1.89	9.92	7.13	10.40

MORTALITY FROM CERTAIN CONTAGIOUS DISEASES

Table XII shows the number of cases reported and of deaths from certain contagious diseases, in periods of five years 1921 to 1925, the average of these five years and separately for the years 1926 and 1927.

TABLE XII

Cases reported and deaths from certain contagious diseases.

Years		Diphtheria	Scarlet fever	Measles	Whooping cough	Erysipelas	Chicken-pox	Small-pox	Typhoid fever
1921	cases	1269	2152	1497	405	127	635	37	187
	deaths	158	60	34	77	23	0	0	62
1922	cases	1285	2113	2445	390	101	483	0	271
	deaths	153	98	36	75	25	0	0	63
1923	cases	1195	2035	1995	599	130	669	0	165
	deaths	160	71	55	142	18	1	0	47
1924	cases	753	3057	1328	538	103	818	9	150
	deaths	102	97	40	87	12	6	0	51
1925	cases	788	2371	3438	620	164	896	0	140
	deaths	100	58	59	93	21	1	0	52
Average	cases	1063.4	2345.6	2140.6	510.4	125	700	9.2	182.6
	deaths	134.6	76.8	44.8	94.8	19.8	1.6	0	55
1926	cases	1219	2119	1302	718	164	792	0	105
	deaths	139	48	27	129	31	1	0	34
1927	cases	1854	2058	2636	756	167	669	10*	5131
	deaths	219	38	47	106	42	3	0*	555

* Epidemic.

Table XIII shows the number of deaths from certain principal diseases, from 1920 to 1924, the average for these five years, and the number of deaths from the same causes, for 1925-1926 and 1927.

TABLE XIII.

A few principal causes of mortality.
Deaths from 1920 to 1927.

Period 1920-1924 (5 years).

Years	Cancer	Bright's disease	Organic diseases of the heart	Broncho-pneumo-nia	Pneumo-nia
1920.. ..	459	566	857	705	735
1921.. ..	462	542	747	543	567
1922.. ..	489	571	768	538	521
1923.. ..	539	618	687	580	542
1924.. ..	546	655	696	485	407
Average .	499	590	751	570	554

Years 1925-1926-1927.

1925.. ..	605	676	719	482	583
1926.. ..	609	738	727	507	454
1927.. ..	601	762	821	431	352

Table XIV indicates the proportion of deaths from diseases mentioned in table XIII from 1920 to 1927, compared to the total of deaths.

This table shows for 1927, a slight decrease from 1926 of the proportion of deaths from cancer, a stationery condition in that from Bright's disease, also quite a decrease in the proportion of deaths from broncho-pneumonia and from pneumonia, while there is an increase of 0.7% in the proportion of deaths from organic diseases of the heart.

TABLE XIV

Proportion of deaths from diseases mentioned in table XIII compared to the total of deaths.

Period 1920-1924 (5 years).

Years	Total of deaths	Cancer	Bright's disease	Organic diseases of the heart	Broncho-pneumonia	Pneumonia
1920	12,012	3.8%	4.7%	7.1%	5.9%	6.1%
1921	9,740	4.7%	5.6%	7.7%	5.6%	5.8%
1922	9,945	4.9%	5.7%	7.7%	5.4%	5.2%
1923	10,074	5.3%	6.1%	6.8%	5.7%	5.4%
1924	9.752	5.6%	6.7%	7.1%	5.0%	4.2%
Average .	10.304	4.8%	5.7%	7.3%	5.5%	5.4%
Years 1925-1926-1927						
1925	9,549	6.3%	7.1%	7.5%	5.0%	6.1%
1926	9,660	6.3%	7.6%	7.5%	5.2%	4.7%
1927	9,991	6.0%	7.6%	8.2%	4.3%	3.5%

Table XV shows the proportion of deaths per 100,000 population, from diseases mentioned in table XIII, for the five years from 1920 to 1924, the average for these five years and for 1925, 1926 and 1927.

A study of this table shows there is a slight decrease in the proportion of deaths from cancer, than in 1925 and 1926, but it is higher than the average for the five years from 1920 to 1924.

Deaths from Bright's disease have increased constantly since 1921; deaths from organic diseases of the heart have varied, but in 1927 they are practically the same as the average of the five years 1920-1924.

There is a considerable and fairly regular decrease in deaths from broncho-pneumonia and pneumonia.

TABLE XV

Deaths per 100,000 population, from diseases mentioned in table XIII from 1920 to 1927.

Period 1920-1924 (5 years).

Years	Cancer	Bright's disease	Organic diseases of the heart	Broncho-pneumonia	Pneumonia
1920	75.56	93.17	141.08	116.05	120.99
1921	74.69	87.63	120.77	87.77	91.67
1922	77.52	90.52	121.75	85.29	82.59
1923	83.87	96.16	106.90	90.25	84.34
1924	83.26	99.88	106.13	73.95	62.06
Average .	78.98	93.47	119.33	90.67	88.33

Years 1925-1926-1927.

1925	90.32	100.92	107.34	71.96	87.04
1926	88.97	107.81	106.21	74.07	66.32
1927	85.92	108.93	117.36	61.61	50.32

MORTALITY FROM TUBERCULOSIS

The number of deaths from tuberculosis, in all its forms during 1927 was 886, it was 954 in 1926; it has decreased therefore by 68 from the whole number.

The proportion per 100,000 of population which was 139.4 in 1926 is 126.6 in 1927, showing a decrease of 12.8.

Table XVI shows the number of deaths since ten years, pulmonary and other forms separately, the general total and also the proportion per 100,000 of population; it is divided in two parts and indicates the average of deaths in periods of five years, the average for ten years and also the number of deaths for the year 1927.

TABLE XVI

Deaths from tuberculosis

Years	Population	Pulmonary	Other forms	Total	Proportion per 100,000 inhabitants
Period 1917-1921 (5 years).					
1917	537,970	879	210	1,089	202.4
1918	759,910	1,021	212	1,233	212.6
1919	593,440	927	211	1,138	191.8
1920	607,470	912	192	1,104	181.7
1921	618,506	741	179	920	148.7
Average .	587,459	896	201	1,097	187.4
Period 1922-1926 (5 years).					
1922	630,800	761	179	940	149.0
1923	642,650	813	167	980	152.5
1924	655,800	807	171	978	149.0
1925	669,800	805	131	936	139.7
1926	684,500	796	158	954	139.4
Average .	656,710	796	161	957	145.9
Period 1917-1926 (10 years).					
Average .	622,084	846	181	1,027	166.7
Year 1927					
1927	699,500	763	123	886	126.6

THE TYPHOID FEVER EPIDEMIC

When, during the first days of the month of March, the number of reported cases of typhoid fever revealed the beginning of an epidemic, there were no previous indications allowing to foresee it.

The situation had been normal during preceding years, and this disease seemed about to disappear gradually; besides, there were good reasons to rely on the application of the new milk by-law, put in force on the 1st of May 1926, to see the disease eliminated still more completely.

The following table (No. 1) shows cases and deaths reported for each month during the years 1924, 1925 and 1926, and the totals for each year..

TABLE I

Typhoid Fever — Cases and Deaths.

1924-1925-1926.

Years	1924		1925		1926	
Population	655,800		669,800		684,500	
Months	Cases	Deaths	Cases	Deaths	Cases	Deaths
January..	20	3	20	4	0	0
February.	8	2	5	3	3	1
March...	8	8	14	6	1	0
April..	23	7	24	10	15	3
May..	9	2	5	1	8	3
June..	4	4	5	1	13	5
July..	8	4	10	6	8	4
August	18	8	18	4	10	2
September	12	4	15	4	27	8
October..	15	4	10	7	7	3
November	10	2	9	3	7	3
December	15	3	5	3	6	2
	150	51	140	52	105	34

In January and February 1927, the number of cases reported had been 14, five of which came from outside; the number of deaths had been 8, two of which occurring amongst the patients who had come from outside; this showed for Montreal during these two months 6 deaths and 9 cases reported.

These figures indicate that typhoid fever cases are not generally reported, particularly if consulting Table No. 2 one notes the number of cases reported in March, which started during the month of February; however, we are satisfied that during the epidemic the cases have been sufficiently well reported, and that the proportion of unreported cases was not large.

In order to obtain more approximately the date of the beginning of the epidemic and its course, it is better to base ourselves on the dates of onsets of the cases, than on the

dates of declarations; for that reason the following table (No. 2) which shows the number of reported cases by dates, indicates also the dates of onsets.

A fairly large number of cases reported from the second week of March had begun in February; and perusal of the table indicates that the infection had started to spread right at the beginning of that month and even sooner; in reality the epidemic had its start in the month of February, it reached right at the beginning of March a development which persisted till the end of the month, it decreased gradually in April and showed a considerable recrudescence afterwards, reaching its culmination from the 8th to the 16th of May; its following decrease has been fairly regular, but a typhoid epidemic takes time before disappearing completely, and particularly when it has been of such importance, one should expect it to be protracted, owing to the many cases of contact infections.

The epidemic was therefore divided in two distinct phases; the first one extending from the beginning of February to the end of the third week in April, the second one from the fourth week in April till the beginning of June.

Cases occurring afterwards were mostly due to infection by contact; ~~where~~ contamination occurred in the first place during ~~the last week of~~ March, the first weeks of February and in the second place during the first weeks of April, it decreased or had almost disappeared during the last week of March and the first week of April.

The number of deaths from the 1st of February to the 31st of August was 533, distributed as follows: (Table No. 3).

TABLE No. 2.

Typhoid Fever from 1st February to 31st August 1927. Dates of Declarations and of onsets.

	February		March		April		May		June		July		August	
	Décla-ration	Onset	Décla-ration	Onset	Décla-ration	Onset	Décla-ration	Onset	Décla-ration	Onset	Décla-ration	Onset	Décla-ration	Onset
1			2	85	101	42		73	45	25	2	19	1	4
2				60	61	30	21	63	46	16	3	3	4	1
3		2	2	39	24	21	9	51	4	11		2	6	3
4		1	1	43	100	25	16	43	33	16	18	7	3	2
5			3	47	59	18	25	67	1	10	10	5	2	2
6		1		49	63	14	22	51	27	12	9	4		2
7			11	57	83	14	13	67	23	10	4	4		
8		1	26	61	30	11		90	25	6	1	2	10	3
9		1	43	47	27	10	45	109	18	5	10	6	3	
10		4	44	87	6	18	39	107	23	17	0	4	4	3
11			45	41	52	9	66	62	11	6	9	2	3	2
12			35	69	33	9	79	115		5	16	2		
13				57	39	14	88	63	19	5	6	3	1	2
14		1	83	62	19	10	50	86	14	7				5
15		5	59	112	6	20	16	117	16	16	5	8	1	3
16			75	57	20	9	156	70	9	7	3	2	3	3
17		2	62	67		8	133	56	13	8		3	2	
18	1	3	64	104	9	7	129	62	15	12	4	3	2	2
19		3	40	72	46	9	155	30		10	1	3	5	
20		6		98	12	16	108	61	15	11	5	3	1	3
21	1	7	114	52	14	5	73	29	22	6	5			
22		8	111	77	33	36	11	26	12	3	5	13	3	
23		6	83	51	11	14	123	26	15	4	2	1	1	1
24	1	11	90	70		17	41	34	1	3		1	2	
25		17	104	88	24	16	73	16	10	7	3	3	2	
26		29	66	60	18	17	13	18		5	6			3
27		21	18	53	7	18	61	15	14	13	3	1	1	
28		25	137	95	25	19	31	22	18	7	2	3	6	3
29			161	138	20	18	9	17	16	2	4	5		1
30			92	50	11	12	49	24	13	5	5		3	
31			80	18			53	9				3	9	
	3	154	1651	2066	953	486	1707	1679	478	270	141	115	78	48

Total 4,818
Cases of which onsets are unknown. 184

Grand total. 5,002

TABLE No. 3
Deaths from typhoid fever
From February 1st to August 31st

From February 1st to 5th				0
Week ending February 12th				1
"	"	"	19th	2
"	"	"	26th	0
"	"	March	5th	1
"	"	"	12th	4
"	"	"	19th	15
"	"	"	26th	28
"	"	April	2nd	42
"	"	"	9th	42
"	"	"	16th	39
"	"	"	23th	43
"	"	"	30th	22
"	"	May	7th	18
"	"	"	14th	16
"	"	"	21th	29
"	"	"	28th	41
"	"	June	4th	38
"	"	"	11th	42
"	"	"	18th	21
"	"	"	25th	23
"	"	July	2nd	20
"	"	"	9th	6
"	"	"	16th	5
"	"	"	23th	8
"	"	"	30th	10
"	"	August	6th	7
"	"	"	13th	3
"	"	"	20th	4
"	"	"	27th	3
			Total of deaths	533
From 28 to 31 August				0

The following table (No. 4) is only a compilation of the preceding ones; it shows the number of cases (by dates of onsets) per week from the 1st of February till the 31st of August, the daily average for each week and the weekly total of death; its purpose is to give a clearer insight of the whole epidemic.

TABLE No. 4

Compilation of tables 2 and 3.

				Number of cases (onset)	Average per day	Deaths
From February 1st to 5th:				3	0.6	0
Week ending	February		12th:	7	1	1
"	"	"	19th:	14	2	2
"	"	"	26th:	84	12	0
"	"	March	5th:	320	45.7	1
"	"	"	12nd:	411	58.7	4
"	"	"	19th:	531	75.8	15
"	"	"	26th:	496	70.8	28
"	"	April	2nd:	426	60.8	42
"	"	"	9th:	113	16.1	42
"	"	"	16th:	89	12.7	39
"	"	"	23rd:	95	13.6	43
"	"	"	30th:	117	16.7	22
"	"	May	7th:	415	59.3	18
"	"	"	14th:	632	90.3	16
"	"	"	21st:	425	60.7	29
"	"	"	28th:	157	22.4	41
"	"	June	4th:	118	16.8	38
"	"	"	11th:	66	9.4	42
"	"	"	18th:	60	8.6	21
"	"	"	25th:	44	6.3	23
"	"	July	2nd:	54	7.7	20
"	"	"	9th:	30	4.3	6
"	"	"	16th:	21	3	5
"	"	"	23rd:	26	3.7	8
"	"	"	30th:	13	1.8	10
"	"	August	6th:	17	2.4	7
"	"	"	13th:	10	1.4	3
"	"	"	20th:	16	2.3	4
"	"	"	27th:	4	0.6	3
"	"	"	31st:	4	1	0
Onsets unknown:				184		
TOTAL.....				5,002		533

The distribution of cases for the City's area is indicated by wards, in the following table (No. 5) as well as their distribution in the two areas of both aqueducts: the municipal aqueduct and the aqueduct of the Montreal Water & Power Co.; the Montreal Water & Power Co., was an independent concern, the aqueduct of which supplied its water to a certain part of the City's population and at the same time to some contiguous municipalities; this aqueduct is to be purchased by the City soon.

TABLE No. 5

Distribution of cases by wards and by Aqueducts.
Proportion of cases per 1,000 inhabitants.
POPULATION

NAME OF WARD	Supplied by Municipal Aqueduct	Supplied by Montreal Water & Power Co.	Total	Number of Cases	Proportion per 1,000 inhabitants
St-Joseph	11,490	.....	11,490	136	11.8
St-Gabriel	18,832	.....	18,832	494	26.2
Ste-Anne	15,540	.....	15,540	142	9.1
St-André	21,670	.....	21,670	46	2.1
St-Georges	33,130	.....	33,130	34	1.0
N. D. de Grâces	33,234	.....	33,234	34	1.0
St-Laurent	11,332	.....	11,332	88	7.7
Ville-Marie	6,771	.....	6,771	59	8.7
Papineau	16,020	.....	16,020	142	8.8
Bourget	23,604	.....	23,604	112	4.7
Ste-Marie	9,748	.....	9,748	122	12.5
St-Eusèbe	17,365	.....	17,365	173	9.9
Hochelaga	18,487	.....	18,487	296	16.0
Préfontaine	15,165	.....	15,165	309	20.3
Mercier	11,743	.....	11,743	136	11.5
Rosemont	22,997	.....	22,997	102	4.4
St-Jean-Baptiste	30,165	.....	30,165	93	3.0
Villeray	32,247	.....	32,247	83	2.5
Ahuntsic	9,420	.....	9,420	59	6.2
Crémazie	11,390	.....	11,390	53	4.6
St-Louis	24,180	.....	24,180	35	1.4
Lafontaine	9,521	.....	9,521	26	2.7
St-Jacques	21,137	.....	21,137	150	7.0

POPULATION

NAME OF WARD	Supplied by Municipal Aqueduct	Supplied by Montreal Water & Power Co.	Total	Number of Cases	Proportion per 1,000 inhabitants
Ste-Cunégonde	.....	18,235	18,235	243	13.3
Mont-Royal	.....	4,959	4,959	14	2.8
Maisonneuve	.....	24,354	24,354	211	8.6
St-Denis	.....	22,604	22,604	109	4.8
Laurier	.....	15,706	15,706	49	3.1
St-Michel	.....	25,479	25,479	35	1.3
St-Paul—Emard	14,351	7,175	21,526	239	11.1
St-Henri	3,454	24,183	27,637	666	24.0
Delorimier	29,003	9,667	38,670	233	6.0
Montcalm	8,200	1,138	9,338	109	11.6
St-Edouard	21,891	7,296	29,187	127	4.3
St-Jean	10,809	10,808	21,617	43	1.9
TOTAL	512,896	171,604	684,500	5,002	

The preceding table shows that cases were distributed fairly evenly in the territories of both aqueducts, this being a first indication that the water supply should not be suspected of being the cause of the epidemic, otherwise both aqueducts would have been equally involved, which would have been very surprising, all the more that in the adjacent municipality of Verdun, a town of 42,247 inhabitants, possessing its own aqueduct, there were 317 cases of typhoid fever from the 1st of February to the 31st of August, according to the reports, which represents 7.5 cases per 1,000 inhabitants, while in Montreal the 5.002 cases in a population of 584,500 represents 7.3 cases per 1,000 population. Besides, investigations made at both aqueducts have given no indication leading to suspicion from that source.

In the following table (No. 6), the distribution of cases by ages was made by periods of five years, and the number of cases was distributed by months according to dates of onsets.

TABLE No. 6

Monthly distribution of cases by periods of 5 years of age (According to dates of onsets).

MONTHS	All ages	0-4 years	5-9 years	10-14 years	15-19 years	20-24 years	25-29 years	30-34 ans	35-39 years	40-44 years	45-49 years	50-54 years	55-59 years	60-64 years	65-69 years	70-74 years	75-79 years
February	152	18	35	27	29	13	12	4	6	4	2	..	1	..	..	1	..
March	1948	256	431	364	280	214	130	82	69	49	29	20	9	7	2	5	1
April	456	48	81	71	59	67	43	27	19	18	9	4	8	1	1	..	..
May	1651	156	311	342	251	178	132	68	75	48	27	36	5	11	7	3	1
June	268	21	45	59	34	30	23	16	14	9	6	4	2	3	2	..	..
July	102	8	15	11	9	12	10	9	10	9	3	2	1	3	..	..	..
August	48	5	9	11	7	4	4	5	2	1	..	..	..	..	..	..	..
	4625	512	927	885	669	518	354	211	195	138	76	66	26	25	12	9	2
Unknown: ...	377																
Total	5002																
Proportion ...	.....	11.07	20.04	19.13	14.46	11.20	7.65	4.56	4.21	2.98	1.64	1.42	0.56	0.54	0.25	0.19	0.04

Perusal of this table will show that the epidemic prevailed mostly amongst people under 25 years, as from the total of 5,002 cases, 3511 cases were under 25 years, and 1114 over that age;the ages and dates of onset were not ascertained well enough, in 377 cases, for classification.

It is to be noted that the highest figures were between 5 and 14 years of age; under 5 years, from 15 to 19 years and from 20 to 24 years, the figures correspond but they are still very high, while notably lower; from the age of 25 on, the decrease is regular and generally quite pronounced from one period to another as the age is higher.

The infection having prevailed principally amongst those of the age when milk is more generally consumed, and as those who suffered most from the disease were the ones whose principal nourishment is milk, it is only just to think that it spread amongst them through its medium.

Before going further, it will be interesting to consider deaths by months and by ages, which were compiled in the following table (No. 7).

TABLE No. 7

DEATHS BY AGES PER MONTH

	Total	Sex		6 months to 1 year	1 to 2 years	2 to 3 years	3 to 4 years	4 to 5 years	Total under 5 years	5 to 9 years	10 to 14 years	15 to 19 years	20 to 29 years	30 to 39 years	40 to 49 years	50 to 59 years	60 to 69 years	70 to 79 years
		M	F															
February	3	2	1		1				1		1	1						
March	81	36	45		1	1	1		3	5	8	16	18	16	5	8	1	1
April	160	99	61	1	1	1	2	4	9	14	17	24	54	20	15	5	1	1
May	126	59	67	1	5	1	2		9	7	7	23	34	20	10	12	2	2
June	108	63	45	1		2	2	2	7	6	15	8	33	15	13	5	4	2
July	38	19	19		1	2		1	4	2	4	5	9	5	6	3		
August	17	7	10	1		1			2	1	1		7	2	2		2	
Total. . .	533	285	248	4	9	8	7	7	35	35	53	77	155	78	51	33	10	6

The following table (No. 8) was compiled in order to give a better idea of the proportion of deaths at the different periods of ages.

TABLE No. 8

Proportion of deaths by periods of ages, and general percentage.

	Cases	Deaths	Proportion per 100
0-4 years	512	35	6.8
5-9 "	927	35	3.7
10-14 "	885	53	5.9
15-19 "	669	77	11.5
20-24 "	518	155	17.5
25-29 "	354		
30-34 "	211	78	19.2
35-39 "	195		
40-44 "	138	51	23.8
45-49 "	76		
50-54 "	66	33	35.8
55-59 "	26		
60-64 "	25	10	27.0
65-69 "	12		
70-74 "	9	6	54.5
75-79 "	2		
Unknown.....	377		
TOTAL.....	5,002	533	10.65

The lowest mortality rate is shown in the group from 5 to 9 years, it is still fairly low in the group from 10 to 14 years, it is higher in the group under 5 years; it rises from the group of 15 to 19 years of age, and it increases then considerably in each period of 10 years, to go beyond one third of the cases after 50 years.

The mortality average having been 10.65 per cent leads to believe that the virulence of the infection was of ordinary intensity and that consequently the power of resistence against this disease is greater with children up to the age of 14, and that from 15 years on, the resistence decreases regularly as the age increases.

The following table (No. 9) shows the number of families or of dwellings where there have been cases of typhoid fever, it also indicates the number of cases per family or dwelling.

TABLE No. 9

Number of cases by family.

Number of families	Number of cases by family	Total number of cases
2776	1	2776
583	2	1166
176	3	528
71	4	284
27	5	135
8	6	48
1	7	7
5	8	40
1	9	9
1	10	10
Total : 3,649 families.		5,002 cases

The number of stricken families reached 3,649; 23.8 per cent of the families had more than one case, and in some families all or nearly all the members had typhoid, as is shown in the following table (No. 10).

TABLE No. 10

Proportion of members affected in a certain number of families.

	Number of families	Number of members in the families	Number of cases	Percentage of members sick
Whole families sick:	6	30	30	100%
Families almost all sick.....	17	90	73	81.1%
Total.....	23	120	103	85.8%

In 23 families including 120 members, there were 103 cases, showing a proportion of 85.8% of members who were sick.

The quantity of milk sold per day by the Montreal dairies figures to approximately 58,000 gallons; this corresponds to about 2/3 (0.67) of a pint per head of the population evaluated at 684,500.

The pasteurized proportion of the supply represents 95% of the total and therefore only 5% of the milk is not pasteurized and is sold under the name of special milk, by 33 dairies; the number of pasteurizing plants is 41.

In the following table (No. 11) each dairy which sold per day 1,000 gallons or more during the epidemic, is designated by a number, the other dairies being grouped together under the designation "other dairies".

All dairies mentioned by a number are pasteurizing plants; number 4A comprises a group of distributing dealers formed in association and who sold milk supplied by plant No. 4.

At the beginning of the epidemic, dairy No. 4 pasteurized an average of 6,000 gallons of milk per day; during the first part of the epidemic, February, March and the first half of April, the average was 5,600 gallons, and since the middle of April to the 10th of June it was 3,700 gallons.

TABLE No. 11

DAILY MILK OUTPUT BY DAIRY

Dairy	Daily output (Gallons)	Percentage of Total
No 1	11,500	19.7
" 2	7,750	13.4
" 3	6,300	10.9
" 4 } " 4A }	6,000	10.3
" 5	3,500	6.0
" 6	3,000	5.2
" 7	2,100	3.7
" 8	1,600	2.8
" 9	1,500	2.6
" 10	1,100	1.9
Other dairies	13,650	23.5
Total	58,000	100.%

The preceding table, besides designating dairies with numbers, shows their total output and its percentage compared to the quantity of milk sold per day in Montreal.

In the following tables the percentage will be used in preference to the complete figure; it should be remembered, however, that the output of dairy No. 4, 4A has gradually decreased during the course of the epidemic.

The following table (No. 12) indicates for the different dairies, the number of cases which occurred amongst the consumers of their products; generally milk was bought directly and delivered at the home, sometimes it was bought at the grocery or at a restaurant, other times it was consumed in a restaurant.

The table is based on reports of investigations made by the nurses detailed for each case.

TABLE No. 12

Number of cases of typhoid fever by dairy.
1st February to the 31st August.

NUMBER OF CASES

Dairy	Daily output percentage	Only supplier	Jointly with dairy other than 4, 4A	Jointly with dairy 4, 4A
No 1	19.7	275	69	207
" 2	13.4	108	16	39
" 3	10.9	129	25	77
" 4 } " 4A }	10.3	1755		
" 5	6.0	14	0	9
" 6	5.2	47	3	43
" 7	3.7	22	0	5
" 8	2.8	13	0	0
" 9	2.6	18	2	6
" 10	1.9	9	3	2
Other dairies together.....	23.5	1133	51	290
Dairy unknown		632		
Total.....	100.%	4155	169	678

The following table (No. 13) shows the number of cases for each dairy during February (the first month of the epidemic); this table is based on dates of onset.

TABLE No. 13

Number of cases by dairies during February, (1st month of the epidemic.)

Dairy	Daily output percentage	Only supplier	Jointly with dairy other than 4, 4A	Jointly with dairy 4, 4A
No. 1	19.7	10	1	4
" 2	13.4	1	2	1
" 3	10.9	4	1	7
" 4	10.3	49		
" 4A		47		
" 5	6.0	0		2
" 6	5.2	1		1
" 7	3.7	2		
" 8	2.8	1		
" 9	2.6	0		
" 10	1.9	2		
Other dairies together.....	23.5	16		
Dairy unknown		2		
Total.	100.%	135	4	15

Total of cases in February, by dates of onset: 154

The two preceding tables show that right from the start, and during the whole course of the epidemic, most of the people infected had consumed milk from dairy No. 4, 4A; indeed(see table No 13) during the first month, in February, when the output of this dairy represented 10.3 of the total milk supply in the City, there were 62 per cent of the cases amongst its patrons, counting only those who bought no other milk but its own, and over 72 per cent counting those who received its milk jointly with another dairy.

For the whole duration of the epidemic (see table 12) cases occurring amongst its clients represent 35 per cent of the total when this dairy was the only supplier, and over 48 per cent when supplying jointly with another dairy.

The study of these two tables confirms well the already expressed opinion that the water of the two aqueducts was not concerned, as otherwise the number of cases amongst the clients of the other dairies would have been in proportion with their output, which is not at all the case; the disproportion between the number of cases attributable to dairy No 4, 4A which distributed less than 10 per cent of the supply, and those attributable to the other dairies which distributed a much larger percentage, is so considerable that it seems fair to draw the immediate conclusion that it was the source of the epidemic.

The following table (No 14) shows the number of cases which occurred at the dairymen themselves, at the dairy employees and in their families; figures showing the number of cases amongst the numbers of the family do not include the dairyman or the dairy employee, cases occurring amongst them having been entered in a separate colum.

TABLE No. 14

Number of cases among dairymen, dairy employees and in their families.

Dairy	Daily output (percentage)	Number of cases amongst dairymen and employees	Number of cases in families	Number of families affected
No 1	19.7	2	4	3
" 2	13.4		7	4
" 3	10.9		3	1
" 4 } " 4A }	10.3	23	94	56
" 5	6.0			
" 6	5.2			
" 7	3.7			
" 8	2.8			
" 9	2.6			
" 10	1.9	1		
Other dairies together. . . .	23.5			

		Percentage
Total number of cases.	134	
Number of cases, dairy 4, 4A	117	87.3
Number of families affected.	64	
Number of families affected, Dairy 4, 4A	56	87.5

We find in the preceding table that amongst dairymen, dairy employees and in their families, there were 134 cases of typhoid fever and that of this number 117 cases representing 87.3 per cent occurred amongst those of dairy No. 4, 4A; and that on 64 families contaminated, 56 or 87.5 per cent were from the same dairy.

The number of cases in the other dairies is so small when compared to dairy 4, 4A that the difference not only strengthens the opinion that it was the source of the epidemic, but also leads to think that it may have been the only one.

Investigations made in 94 institutions comprising orphanages, homes, colleges, convents, etc., yielded the information given in the following table (No. 15).

TABLE No. 15.

TYPHOID FEVER IN THE INSTITUTIONS

Number of institutions.	Population	Number of cases	Gallons of milk per day	Dairy
81	13,908	0	1,008	Several: (27)
2	462	0	9	No 4, 4A.
6	744	48 (32 in one)	67	No. 4,4A, and others.
5	1,550	19	135	In these institutions cases came from outside or were out pupils.
Total: 94	16,664	67	1,219	

Amongst the 83 institutions showing no cases, the milk supply was provided by the following dairies. (Table No. 16).

TABLE No. 16.

Dairies supplying institutions having had no cases.

Number of institutions	Population	Gallons of milk per day	Dairy
17	2522	158	No. 1
8	555	40	" 2
6	433	41	" 6
40	8262	632	Other dairies (22)
10	2136	137	Having their own cows.
2	462	9	No 4, 4A
Total : 83	14,370		

It should be noted that, as shown in the two preceding tables (No. 15 and No. 16), of 94 institutions with a population of 16,664, 83 of them with a population of 14.370 did not have a single case, and that 11 institutions with a population of 2,296 had together 67 cases distributed as follows:

In 5 institutions of 1,550 population, there occurred 19 cases, but all these cases comprised people who had been infected outside and who had been taken to the institutions afterward, or who went to the institutions as day-pupils or out-patients.

In 6 institutions with a population of 744, there were 48 cases (including 32 cases in a single one) but they received part of their milk supply from dairy No. 4, 4A.

In the two institutions supplied by dairy No. 4, 4A which had no case, the amount of milk received was only 9 gallons per day for a population of 462.

Some of the institutions are situated in the municipal aqueduct area, and others in that of the Montreal Water & Power Company.

SERO-REACTION TEST.

Agglutination test (Widal) was made at the municipal laboratory, for cases treated at home, when requested by the physicians; the number of examinations rose to 1,064 amongst which 531 gave a positive result and 533 gave a negative result.

This large proportion of negative results is explained by the fact that quite frequently, physicians had the Widal test made too soon after the beginning of the disease, and also because during the epidemic their attention was concentrated towards the detection of a typhoid infection every time the diagnostic of another disease was not absolutely clear.

Besides the verification of diagnostics, sero-reaction has enabled to ascertain the characteristics of infection, as indicated in the following table.

TABLE No. 17.

Widal Test.

	Number of positive examinations	Proportion p. %	Number of negative examinations
Eberth	501	94.35	
Para A.	12	2.26	
" B.	18	3.39	
Total..	531		533

Amongst the tests showing a positive result, eleven were positives for Eberth as well as for one of the paras; they were included with the positives Eberth or paras A. or B. according to whether they were stronger positives for one or the other.

The following table shows the reactions.

TABLE No. 18.

NUMBER OF MIXED POSITIVE RESULTS.

Positives	Eberth & Para A	3
"	" & " B	6
"	Paras A & B	2

Cases of infection by contact:—The number of cases by direct contact was 213; this figure includes cases occurring in a family or in a dwelling 15 days or over, after a preceding case; cases having developed during the first 15 days were not counted, as they must have been infected at the same time as the first case from the same source. The following table shows the distribution by months.

CASES OF CONTACT INFECTION, BY MONTHS.

(From February 1st to August 31st).

February	March	April	May	June	July	August	Total
7	17	12	98	73	3	7	213

These figures give only a very vague idea of the number of cases infected by contact, as they are only taking account of cases arising in a same house; there were obviously a certain number of cases amongst people who did not live in the same dwelling. However, the high proportion of hospitalized patients has quite likely prevented the danger of infection by contact to a considerable degree.

Hospitalization: — Apart from the regular hospitals who organized to admit the largest possible number of typhoid patients, the City opened, with the co-operation of the Red Cross Society, of the hospital physicians and of the medical and nurses staff of the Health Department, emergency hospitals providing a total of 800 beds, so that it became possible to hospitalize a very considerable proportion of patients.

From the 1st of February to the 31st of August, 2328 typhoid patients were hospitalized, distributed as follows:

TABLE No. 19.

Patients hospitalized from January 1st to December 31st 1927.

Name of hospital	Feb.	March	April	May	June	July	Aug.	Total
Hôtel-Dieu.	..	40	24	30	14	1	..	109
Notre-Dame.	..	46	24	17	8	5	5	105
Ste-Justine.	2	38	18	13	5	4	..	80
Montreal General.	..	20	6	10	3	..	1	40
Royal Victoria ..	..	65	22	26	3	..	..	116
Children's Memorial.	..	55	11	3	8	2	3	82
Western..	..	10	3	3	..	..	..	16
St-Mary's..	..	17	4	8	1	..	..	30
Ste-Jeanne d'Arc (Français)	..	13	4	34	6	1	2	60
Providence (Montréal-Est) .	..	30	9	47	27	..	..	113
Homeopathic.. . .	..	4	3	1	1	1	1	11
Dupont.	..	8	..	6	3	..	..	17
Chaussé.	..	1	..	..	1	2	..	4
Children's Hospital.	..	21	6	14	..	..	..	41
Women's Hospital.	..	1	..	..	..	..	..	1
Miséricorde... . .	..	..	1	5	3	3	..	12
St-Laurent.	..	..	..	5	..	..	..	5
St-Jean-de-Dieu ..	..	..	1	..	..	..	1	2
St-Joseph de Lachine..	..	2	..	10	..	..	..	12
St-Paul..	..	4	42	47	16	13	..	122
Alexandra.	..	13	7	..	1	..	..	21
Civique No. 1 (Moreau)	..	63	48	56	23	41	29	260
Civique No. 2 (Notre-Dame) ..	..	..	..	122	16	4	..	142
Civique No. 3 (Meurling)	..	..	..	106	73	1	..	180
Croix-Rouge (Mountain)	..	44	139	188	23	..	..	394
Sacré-Coeur... . .	..	116	39	99	65	18	16	353
Total.	2	611	411	850	300	96	58	2,328

The proportion of cases hospitalized was then 46.52 per cent.

EXAMINATION OF PATIENTS BEFORE THEIR DISCHARGE.

Examinations of feces and urines were made systematically in some regular hospitals and in the emergency hospitals before discharging the patients, so as to let go only those who were not passing germs; these examinations were made in the laboratories of the regular hospitals for their patients, and in the municipal laboratory for the emergency hospital patients; were considered as steriles, patients whose examinations at over two days' intervals did not show the presence of germs.

A convalescent hospital was opened for the hospitalization of patients from hospitals who still were showing a positive reaction, so as to discharge them finally, only after complete sterilization.

It has not been possible to get enough informations to establish the proportion of patients remaining germ carriers; however, from reports of some regular hospitals and of emergency hospitals, the number of patients who remained germ carriers was 10, on 997 patients, giving a proportion of 1.003 per cent.

VACCINATION.

Preventive vaccination was done on the staffs of all hospitals, in some of the institutions for aged and crippled people, in orphanages, etc., and amongst the civil population; big companies employing a large number of people had them vaccinated by their physicians.

The City distributed vaccine free; it was given to all physicians and to all institutions upon their request; besides, an insurance company established four vaccination centres, where 37,708 people received two injections.

Generally the number of doses was three, and the vaccine used was the anti-typhoid composed: Eberth, Para A. & Para B.

The method employed was by injections, but some people were vaccinated per os (Besredka's biliated entero vaccine).

It has not been possible to gather data allowing to indicate the exact number of persons vaccinated, but our figures allow us to evaluate it to about 105,000, including 15,000 (about) vaccination per os.

Amongst vaccinated persons, 29 developed typhoid fever; the following table (table No. 20) shows the method of vaccination, the number of doses of vaccine given, and the length of time between vaccination and the onset of the disease.

TABLE No. 20

NUMBER OF CASES ARISING AFTER VACCINATION.
(Period from March 1st to December 31st 1927).

Number of cases	NUMBER OF DOSES		Number of days between last dose and onset.
	Through injection	Through ingestion	
1	1	.....	15
2	.....	3	15
2	.....	3	16
1	.....	3	19
2	1	.....	21
1	3	.....	32
1	3	.....	33
1	.....	3	34
1	.....	3	36
1	.....	3	37
2	2	.....	38
1	1	.....	39
1	2	.....	40
1	.....	3	41
1	3	.....	45
1	2	.....	49
1	1	.....	54
1	.....	3	58
1	1	.....	60
1	.....	3	66
1	.....	3	69
1	3	.....	73
1	3	.....	117
1	3	.....	5 months
1	3	.....	6 "

CAUSES OF THE EPIDEMIC.

The Provincial Board of Health having intrusted an expert with the task of making a complete study of the causes of the epidemic, of its recrudescence and of all the circumstances attending it, I am bound to let him expose and analyse all the facts we could possibly gather with regard to the origin of the infection and its propagation.

Two principal facts in connection with the possible origin of the epidemic may however be mentioned; they are: 1o the discovery of a germ carrier, 2o the receiving of milk coming from an establishment situated in the country.

1o. **Germ carrier:** A germ carrier was detected amongst the employees of dairy No. 4; he was foreman in the pasteurizing plant, his occupation bringing him in contact with the various implements.

He occupied that position since the 30th January 1927, therefore, a few days before the dates of onsets of the first cases (see table No. 4).

Before that, he had been employed for 6 years in another plant of the same company, used for the wholesale trade in milk, cream the manufacture of butter and ice cream, and in which he was doing duty as milk and cream receiver; the pasteurized milk and cream were sold in cans to large institutions, restaurants and grocers.

This man was 33 years old, had had typhoid fever of an average form, when about 13 years old, consequently about twenty years before; after his typhoid fever his health had always been excellent.

None of the people who lived with him had ever typhoid fever; he was married during 11 months and a widower since 7 years; his wife died owing to child birth, the child dying at the age of 1½, from burns.

Before and after his marriage, he always resided with his father and his mother; other people lived in the same dwelling, an aunt during 28 years, up to the year 1920, an uncle during some fifteen years, a boarder during one year, another one only for about fifteen days; 4 rooms of their dwelling had been rented during 2 years, and occupied by one or two persons.

On the 2nd of April 1927, he had started to take biliated vaccine (entero-vaccine) against typhoid fever, having taken 3 doses, one per day.

Specimens of his feces which showed the presence of typhoid bacillae (Eberth) were taken on the 8th of April and on the 19th of April; several specimens taken at later dates showed positive results.

2o—Milk received from a plant situated in the country. This plant was used for condensing milk and for skimming; milk was shipped to dairy No. 4 on several occasions from the 18th January 1927, in quantities varying between 100 to 150 cans of 8 gallons each; there were two water distribution systems in that plant; one, by means of a pipe and a tap, supplied water from the municipal aqueduct for the personnel (staff), the other one supplied water pumped from the river, opposite; that water was not subjected to a purifying process and was used for boiling, for cleaning and for the general use of the plant.

Division of Contagious Diseases

DIVISION OF CONTAGIOUS DISEASES.

Dr. S. BOUCHER,

Director of the Department of Health.

Dear Sir:—

I beg to submit the report of the Contagious Diseases Division for the year 1927.

The Superintendent of the Contagious Diseases Division.

J. E. LABERGE.

SMALL-POX HOSPITAL.

In the hospital, Jan. 1st 1927	0
Admitted during the year	8
Results : Cured	8
Dead	0
In the hospital, Jan. 1st 1928	3
Maximum number of patients treated in one day	6
Minimum number of patients treated in one day	1
Number of nursing days	91
Average number of days per patient	11

Varieties:

Confluent small-pox	0
Coherent small-pox	0
Discreet small-pox	8
Hemorrhagic small-pox	0
Contagion unknown	0
" direct	8
" indirect	0
Patients never vaccinated	7
Patient having been vaccinated since 35 years	1
Sex male	7
Sex female	1
Adults	7
Children	1

Age of patients:

1 to 5 years	1
15 to 20 years	3
21 to 30 years	1
31 to 40 years	1
41 to 50 years	1
51 to 60 years	1

SMALL-POX HOSPITAL

Occupations :

Laborer	5
Housekeper	1
Worker	1

Nationalities :

French-Canadians	8

N. B.—Two other patients have been treated in the Alexandra Hospital, during August 1927; the Smallpox Hospital being then, filled to capacity with typhoid patients. Those two patients, strangers to Montreal, were not vaccinated; both arrived in Montreal, already sick vith smallpox. One came from Europe, the other from the United States.

ALEXANDRA AND ST. PAUL HOSPITALS.

Table 1—Fluctuation of Patients and Death rate.

Diseases	In hospital Jan. 1st 1927	Admitted	Total number of patients	Percentage of cases	RESULTS			In hospital December 31st 1927	TOTAL
					Cured	Dead	Percentage of deaths		
Diphtheria	91	1128	1219	37.1%	965	148	12.1%	106	1219
Scarlet Fever	138	1404	1542	46.9%	1384	26	1.6%	132	1542
Measles	.....	152	152	4.6%	144	8	5.2%	.....	152
Erysipelas	3	139	142	4.3%	123	13	9.1%	6	142
Chicken-pox	.....	21	21	0.6%	20	1	5%	.....	21
Mumps	.....	19	19	0.5%	19	.....	.....	.....	19
Whooping-cough	4	35	39	1.1%	32	6	15%	1	39
Infantile Paralysis	.....	1	1	.....	1	.....	.....	.....	1
Typhoid Fever	.....	144	144	4.3%	132	12	8%	.....	144
Scabies	.....	1	1	.....	1	.....	.....	.....	1
Smallpox	.....	2	2	.....	2	.....	.....	.....	2
TOTAL	236	3046	3282	.....	2823	214	6.5%	245	3282

ALEXANDRA and ST-PAUL HOSPITALS

Table 2 — Duration of sojourn of patients.

Patients hospitalized	3,045
Number of days of hospitalization	87,354
Mean Sojourn for each patient	28
Maximum hospitalization (1)	273
Minimum hospitalization	100
Mean hospitalization	187

DEATHS AND DEATH RATE.

Deaths during the first 48 hours	87
Real Mortality (2)	127
Total of deaths	214
Percentage of deaths	7%
Percentage of real mortality	4%
Proportion of deaths during the first 48 hours to the total of deaths (3)	40.65%

MISCELLANEOUS

Ambulance Calls	2,127
Microscopical examinations	23,218
Urine analysis	25,295

(1) Maximum hospitalization indicates the greatest number of patients treated anyone day; minimum hospitalization, the smallest; mean hospitalization the average number of patients received each day of the year.

(2) By real mortality, we understand all deaths, less those which occurred in the first 48 hours following their admission in the hospital.

(3) The proportion of deaths in the 48 hours following the admission shows a criminal neglect, either on the part of the parents or on the part of the doctors. They wait too long before giving the proper treatment to the children. If these children had received a proper treatment at the beginning of their illness they would probably all have been cured. Even in doubtful cases, the consciencious physicians should administer this treatment immediately and not wait until diagnosis be confirmed.

ALEXANDRA AND ST. PAUL HOSPITALS.

Table No. 3 — Intubations and results.

Ages	Intubations	Cured	Deaths	Percentage of Deaths
Under 1 year	3	1	2	66.66%
1 to 2 years	19	8	11	58%
2 to 3 years	24	13	11	45%
3 to 4 years	22	15	7	31%
4 to 5 years	15	11	4	26%
5 to 6 years	9	7	2	22%
6 to 7 years	6	6	.....	.....
7 to 8 years	2	2	.....	.....
9 to 10 years	1	.....	1	.....
Total	101	63	38	37%

Table No. 4 — Nationality and Religion of patients admitted during the year.

Nationalities	Total	Percentage	Religion	Total	Percentage
French-Canadians	1579	51%	R. Catholics	1669	54%
English-Canadians	808	26%	Protestants	969	31%
Jews	378	12%	Jews	378	12%
Other Nationalities	280	9%	Other Religions	29	0.9%
	3045			3045	

CLASSIFICATION OF CONTAGIOUS DISEASES BY MONTHS, 1927.

	January	February	March	April	May	June	July	August	September	October	November	December	Total
Diphtheria	151	84	138	135	124	117	101	88	145	233	274	236	1826
Scarlet Fever	220	205	245	197	162	114	116	93	110	151	189	204	2006
Typhoid Fever	11	4	1649	953	1707	478	141	77	56	34	10	12	5132
Measles	109	220	605	527	348	130	74	34	21	67	207	265	2607
German Measles	6	123	140	112	103	32	8	9	4	10	4	3	554
Chicken-pox	78	103	58	39	53	20	22	9	16	32	78	154	662
Whooping-cough	136	161	120	66	58	19	37	38	35	24	42	13	749
Pulmonary Tuberculosis	72	101	95	122	97	71	62	81	94	107	86	99	1087
Tuberculosis other forms	49	67	77	41	72	55	29	41	46	53	42	26	598
Mumps	71	102	105	96	70	29	5	5	12	23	33	24	575
C. S. Meningitis	5	....	2	2	....	1	3	...	...	3	2	....	18
Smallpox	...	....	....	....	....	....	...	2	...	...	1	7	10
Erysipelas	18	16	15	15	21	11	13	11	8	8	15	15	166
Poliomyelitis	...	....	....	....	....	....	...	1	1	1	1	....	4
Purulent Ophthalmia	...	....	....	....	2	....	...	...	...	...	....	....	2
Influenza	13	25	16	10	11	3	5	3	2	8	10	12	118
Scabies	...	16	11	5	1	1	11	2	13	11	19	5	95
Total	939	1227	3276	2320	2829	1081	627	494	563	765	1013	1075	16209

CLASSIFICATION OF THE CONTAGIOUS DISEASES BY WARD, 1927.

	Abuntsic	Bourget	Cremazie	Delorimier	Hochelaga	Lafontaine	Laurier	Maisonneuve	Mercier	Montcalm	Mont-Royal	Notre Dame de Graces	Papineau	Prefontaine	Rosemount	St. Andrew	St. Anne	St. Cunegonde	St. Denis	St. Edouard	St. Eusebe	St. Gabriel	St. George	St. Henry	St. James	St. John	St. Jean Bte	St. Joseph	St. Lawrence	St. Louis	St. Michael	St. Mary	St. Paul	Ville Marie	Villeray	Total
Diphtheria	34	70	21	115	40	11	47	36	65	30	7	42	63	24	96	48	44	63	71	58	50	112	9	133	52	28	95	29	50	42	25	27	50	21	118	1826
Scarlet Fever	66	59	34	127	62	16	92	105	56	41	13	137	24	45	105	80	50	27	41	41	21	57	47	48	33	38	108	28	53	124	40	26	37	20	95	2006
Typhoid Fever	56	159	42	264	279	37	67	206	100	150	13	44	187	337	100	48	218	235	107	97	118	422	50	664	121	24	100	151	78	67	23	97	253	89	129	5132
Measles	59	53	40	167	153	8	60	210	64	35	4	168	47	198	150	52	43	34	62	92	21	99	40	66	90	31	92	25	49	76	23	28	75	33	160	2607
German Measles	5	1	13	4	10	3	25	18	3	2	6	71	2	20	16	7	5	15	7	6	5	4	3	10	4	11	100	2	29	92	18	14	7	9	7	554
Chicken-pox	12	17	8	62	24	1	30	22	23	40	3	12	7	18	81	10	4	4	19	18	12	4	7	16	6	31	23	10	...	11	3	25	9	13	77	662
Whooping-cough	22	16	4	24	48	...	15	48	47	25	6	59	2	57	26	9	16	11	9	28	19	35	12	16	10	27	8	9	16	14	10	20	7	9	65	749
Pulmonary Tuberculosis	28	39	21	49	65	8	22	59	34	12	11	16	48	27	46	18	27	30	32	29	31	16	11	43	52	24	35	17	37	34	14	32	22	39	59	1087
Tuberculosis other forms	12	5	10	30	23	2	20	31	7	7	3	12	7	16	20	12	21	20	18	21	12	26	18	38	25	17	30	16	17	25	14	13	18	13	19	598
Mumps	49	6	21	27	24	...	49	38	5	6	3	34	7	22	15	25	7	3	3	10	5	11	18	7	4	23	35	4	13	18	25	20	3	15	20	575
C. S. Men'ngitis	1	1	...	...	...	...	...	...	...	...	1	2	1	1	...	...	...	...	1	3	...	1	...	....	1	2	1	...	...	...	...	1	...	...	1	18
Smallpox	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	....	...	...	1	...	8	...	...	...	...	...	...	10
Erysipelas	9	4	4	5	5	3	7	1	3	3	2	7	5	0	4	15	4	3	6	6	1	8	6	1	1	2	7	4	15	11	4	1	1	3	5	166
Poliomyelitis	...	...	...	...	...	...	...	...	...	...	...	3	...	...	...	1	...	...	...	...	...	...	...	....	...	...	...	...	...	...	...	...	...	...	...	4
Purulent Ophthalmia	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	...	...	...	...	...	...	...	...	....	...	...	...	...	...	...	...	...	...	...	...	2
Total	353	430	218	874	733	89	434	774	407	351	72	607	400	765	661	325	439	445	386	409	295	795	222	1042	399	258	635	295	365	514	199	304	482	264	755	15996

CLASSIFICATION OF THE CONTAGIOUS DISEASES BY AGES, 1927.

	Under 1 year	1 to 5 years	6 to 10 years	11 to 20 yrs	21 to 30 yrs	31 to 40 yrs	41 to 50 yrs	51 to 60 yrs	61 to 70 yrs	71 to 80 yrs	81 to 90 yrs	91 to 100 yrs	Total
Diphtheria	45	862	658	190	46	15	6	3	1	...	....	....	1826
Scarlet Fever	31	750	724	387	66	36	10	2	...	...	....	....	2006
Typhoid Fever	31	763	1056	1593	906	457	201	84	32	9	....	....	5132
Measles	236	1111	1048	180	27	4	1	...	...	...	....	....	2607
German Feasles	14	109	264	150	13	4	...	...	...	...	....	....	554
Chicken-pox	51	241	330	28	7	4	1	...	...	...	....	....	662
Whooping-cough	152	345	221	25	3	2	1	...	...	...	....	....	749
Pulmonary tuberculosis	6	36	72	251	250	211	128	88	31	13	1	....	1087
Tuberculosis other forms	12	49	57	117	154	112	55	32	8	1	1	....	598
Mumps	16	148	284	99	18	9	1	...	...	...	....	....	575
C. S. Meningitis	5	9	1	3	....	....	...	...	...	...	....	....	18
Smallpox	...	1	....	3	3	1	2	...	...	...	....	....	10
Erysipelas	16	23	5	18	24	19	26	15	9	8	3	....	166
Poliomyelitis	...	3	1	....	....	....	...	...	...	...	....	....	4
Purulent Ophthalmia	1	1	....	....	....	....	...	...	...	...	....	....	2
Total	616	4451	4721	3044	1517	874	432	224	81	31	5	....	15996

CLASSIFICATION OF CONTAGIOUS DISEASES BY NATIONALITIES, 1927.

	French-Canadians	English-Canadians	Jews	Other Nationalities	Total
Diphtheria	1262	353	103	108	1826
Scarlet Fever	773	811	336	86	2006
Typhoid Fever	3736	947	69	380	5132
Measles	1182	1155	184	86	2607
German Measles	105	193	231	25	554
Chicken-pox	314	262	55	31	662
Whooping-cough	350	340	18	41	749
Pulmonary tuberculosis	875	120	19	73	1087
Tuberculosis other forms	328	160	17	93	598
Mumps	177	288	80	30	575
C. S. Meningitis	14	1	.....	3	18
Smallpox	8	2	.....	.....	10
Erysipelas	79	58	21	8	166
Poliomyelitis	.....	3	1	.....	4
Purulent Ophthalmia	.....	.....	.....	2	2
Total	9203	4693	1134	966	15996

CONTROL OF CONTAGIOUS DISEASES, 1927.

Diseases	Control Visits			
	Diagnosis	Supervision of quarantined houses	Disinfections	Placards
Diphtheria	98	1995	1410	661
Scarlet Fever	164	3803	1573	756
Typhoid Fever	161	5943	1755	.....
Measles	507	3287	113	1552
German Measles	336	726	6	368
Chicken-pox	273	741	11	.....
Whooping-cough	194	623	66	.....
Tuberculosis	8	162	665	.....
C. S. Meningitis	2	3	16	2
Scabies	52	67	1	.....
Influenza	8	17	2	.....
Smallpox	13	2	10	.....
Erysipelas	11	81	72	.....
Skin diseases	59	29	.....	.....
Poliomyelitis	1	38	.....	.....
Purulent ophthalmia	.....	1	.....	.....
Mumps	197	783	5	.....
No infection	108	109	.....	.....
Total	2192	18410	5705	3339

Besides their work, the epidemiologists vaccinated 3081 persons and issued 3774 vaccination certificates.

Division of Child Hygiene

Dr. S. Boucher,

Director, Department of Health.

Sir:—

I have the honour to submit the Report of the Division of Child Hygiene for the year 1927.

The Superintendent of the Division
of Child Hygiene.

Sig:—EUG. GAGNON, M.D.

ANNUAL REPORT OF THE DIVISION OF CHILD HYGIENE.

Staff

The medical staff of the Division of Child Hygiene was sorely tried, during the year 1927, through the demise of three colleagues.

Dr. P. Barrette, sick since the beginning of the year, died on the 2nd, of June, after 8 years' service.

Dr. L. A. Lacombe, also suffering from a serious illness at the end of January, died on the 14th. of October.

He was one of the oldest employees of the Division, and he had always done his work with great devotedness.

Dr. L. P. deGranpré died on the 22nd, of December, after 15 years service, from an illness which lasted only a few weeks.

These three physicians gave good and faithful services to the City, and we offer to their families the expression of our deep sympathy and of our regrets.

Positions which became vacant, following these deaths, were filled by the appointments of Doctors Serres, Gadoury and Laporte.

A few positions became also vacant in the nurses' staff during the year.

They have all been filled, and our personnel was complete at the end of December.

MEDICAL INSPECTION OF SCHOOLS

In previous reports, a fairly detailed outline was given of the organization and work of the medical inspection of schools, and it is useless to dwell on the same subject again this year.

I would mention, however, that the division's work was hindered, in a certain measure, by the typhoid fever epidemic. At the beginning of March, the inspecting officer in chief was called to another division, in order to replace a physician who had taken charge of an emergency hospital, and eight nurses who were to replace employees having resigned from this division, were also detailed to that hospital.

In the middle of May, we undertook the organization of another emergency hospital, and transferred thereto the greater part of this division's employees.

The work in the schools stopped therefore one month before official closing of the school year, and it was impossible to establish statistics as complete as we would have liked.

THE CHIEF-MEDICAL-INSPECTOR AND THE HEAD-NURSE.

These two officials have done the work stated below, during the school year:

Chief Medical inspector, from 1st, September to 6th, March.

Visits to schools	381
Visits to baby clinics	70

Head-nurse, from 1st. September to 13th, May:

Visits to schools	353
Visits to baby clinics	41

DUTIES OF INSPECTING STAFF

For the ends of school inspection, the City is actually divided into 15 districts. A physician is detailed to assume the responsibility of the work in each one, and he is assisted by two or three nurses, with whom he works at days and hours set down by the office.

The number of children entrusted to each inspecting physician varies between 8 and 11,000 for full-time physicians, and between 6 to 6,500 for part-time inspectors.

The result of the work of medical inspectors in the schools is given in the five following tables:

TABLE I — Generalities.

School year 1926-27

Number of schools inspected..	255
Number of physicians' visits to the schools..	5,631
Number of pupils registered..	126,000
Number of pupils examined (complete examination)..	65,228
Number of pupils examined (special examination)..	21,041
Proportion of pupils registered examined..	51,77%
Number of pupils found not vaccinated.. ..	745
Number of notices to School Commissioners relating to the sanitary conditions of premises	8
Number of notices to parents..	59,150

Physical Defects.

Statistics of defects are classified under three different sections.

The first one comprises the number and the proportion of children considered as healthy and those who show from 1 to 5 and over 5 different defects, dental defects excluded (Table II.)

The second one comprises the same information with regard to the dental condition. (Table III.)

Finally, the third one indicates the number and the nature of the defects classified according to the principal organs or organic systems. (Table IV.)

These three sections enable us to know not only the number of defective children, or the number of defects discovered during examinations, but also the proportion of those more seriously affected, according to the number of ailments discovered.

The three following tables show the detail of these three different sections:

MEDICAL SCHOOL INSPECTION

Year 1926-1927

TABLE II

Proportion of normal and defective pupils, dental decay excluded.

	Number	Proportion per 1,000
Children considered normal	37,537	575.48
" having 1 defect	20,186	309.47
" " 2 "	6,015	92.21
" " 3 "	1,328	20.36
" " 4 "	153	2.34
" " 5 "	7	0.11
" " more than 5 defects	2	0.03
Total	65,228	1,000.00

TABLE III

Dental Decay

	Number	Proportion per 1,000
Children without dental defects	31,211	478.49
" having 1 tooth decayed	7,087	108.60
" " 2 teeth decayed	9,049	138.73
" " 3 " "	6,029	92.44
" " 4 " "	5,120	78.49
" " 5 " "	2,553	39.14
" " more than 5 decayed teeth.	4,179	64.06
Total	65,228	1,000.00

TABLE IV

Number and nature of Defects.

	Number	Proportion per 1,000
Number of children having diseases of the:		
Skin.	3,189	48.89%
Teeth	34,017	521.51%
Lymphatic system, nose and throat . .	14,472	221.87%
Eyes	6,465	99.11%
Ears	1,384	21.22%
Nutrition	8,307	127.35%
Lungs	520	7.97%
Heart	1,593	24.42%
Nervous system	473	7.25%
Skeleton and articulations	456	6.99%

TABLE V

Proportion of children treated for various defects.

Skin	90.51%
Teeth	47.80%
Lymphatic system	45.86%
Eyes	56.17%
Ears	62.84%
General state	56.12%
Lungs	85.50%
Heart	36.70%
Nervous system	76.27%
Skeleton and articulations	60.63%

Full-time medical inspectors, besides their regular school work, attend the several baby clinics between 3 and 5 o'clock. These clinics are at the same time vaccination stations at the disposal of the public throughout the year. During the summer vacation special hours are set aside in the forenoon for vaccination, so as not to interfere with the work of the clinics, which is more active during that season.

The number of vaccinations performed by the inspecting physicians in 1927 amounted to 10,473. Verifications amounted to 5,159.

Visiting Nurses.

Visiting nurses fill a very important part in the schools; they are liaison-agents between the medical- inspector, the teaching staff and the families.

Their supervision of school children allows the detection of a great number of contagious diseases and assists in keeping away from school, children who may become a source of contagion.

Table VI gives a summary of the work done by the school visiting nurses during the year.

TABLE VI

School work of Visiting Nurses.

Number of visits to schools	10,487
" of visits to homes	9,057
" of examination of children	407,829
" of treatments of all kind	23,229
" of children sent home from school	4,333
" of children re-admitted	7,507

DENTAL HYGIENE

Only one dentist is doing duty with the Division of Child Hygiene. He solely teaches prophylactic dental care by giving in the schools, lectures on the care of teeth, and on the importance of preserving them in good health. He visited the schools 275 times during the year.

INFANTS' HYGIENE

Infant Hygiene and fight against infant mortality form quite an important part of the work of the Division of Child Hygiene. Fourteen baby clinics have been maintained during the entire year at the public's disposal. The greatest part of our staff was, however, taken away during the summer in 1927, to fight typhoid fever.

Temporary clinics could not therefore be opened as usual in districts which are deprived of them.

This involved consequently a fairly large decrease in the number of our operations compared with the year 1926.

The comparison of the two years is shown as follows:

Year	Clinics	Weighing	Visits to Homes
1926	27026	3661	16465
1927	22175	3746	11846
Difference	— 4851	+ 85	— 4619

We also continued to receive reports from independent french and english clinics. These reports have been compiled for each month of the year, and we give in Table VII a summary of the work done in all the clinics in the City.

TABLE VII.

GENERAL REPORT OF THE BABY CLINICS FOR THE YEAR 1927

Name of Clinics	Entries		Deaths		Weighing	Consultations		Visits		
	New	(1)	Number	%	Nurse	Physician	Average per child	Children entered	New entries	Total
Ste-Cunégonde	403	308.4	.....	.....	1141	11489	37.2	1972	933	2905
Ste-Catherine	339	279.7	12	4.3	4.93	4018	14.4	4100	410	4510
St-Sanislas	326	449.4	10	2.2	159	7402	16.5	1669	350	2019
Imm. Conception	300	545.3	5	0.9	6.35	5318	9.8	1468	485	1953
Hochelaga	288	639.0	5	0.7	293	10225	16.0	622	1468	2090
St-Vinc. de Paul	252	369.0	8	2.2	.....	6824	18.5	1978	331	2309
Emard	228	355.7	4	1.1	200	3403	9.6	689	569	1258
Sacré Coeur	226	316.5	6	1.9	755	3030	9.6	1550	2152	3702
Ste-Brigide	222	332.9	7	2.1	144	4360	13.1	633	642	1275
St-Eusèbe	217	327.2	20	6.1	248	4453	13.6	870	301	1171
Enfant-Jésus	204	284.2	7	2.4	20	4466	15.7	124	266	390
St-Alph. d'Youv	154	194.3	1	0.5	.....	3450	17.8	60	423	483
St-Jean-Baptiste	150	126.0	3	2.4	.....	3608	28.6	209	248	457
Ste-Jeanne-d'Arc	148	149.6	3	2.0	9	3651	24.4	201	1299	1500
St-Pierre	115	96.0	7	7.3	126	1924	20.0	905	375	1280
St-Joseph	111	166.0	8	4.8	245	2856	17.2	882	367	1249
St-Frs. d'Assises	91	267.3	2	0.7	16	2825	10.6	123	1115	1238
Ste-Cécile (2)	25	12.5	.....	.....	62	39	3.1	.....	6	6
Total	3799	5219.0	108	2.07	4546	83341	15.9	18055	11740	29795
Average	211.0	289.9	60	2.07	252.6	4630.0	15.9	1003.0	6522	1655.3

(1) Figures in this column indicate the average number of children brought each month of the year before the clinic.

(2) Open November and December only.

GENERAL REPORT OF THE BABY CLINICS FOR THE YEAR 1927. — Suite.

Name of Clinics	Entries		Deaths		Weighing	Consultations		Visits		
	New	(1)	Number	%	Nurse	Physician	Average per child	Children entered	New entries	Total
Mt. Royal	299	362.3	.....	.....	412	3124	8.6	1649	157	1806
Gen. Health League	271	399.8	31	7.7	250	2801	7.0	5841	283	6124
Mtl. Maternity	255	252.8	.....	.....	167	1393	5.5	1141	189	1330
Amherst-Park	246	253.3	.....	.....	263	2195	8.6	1965	286	2251
Mtl. Found & BHC	206	234.3	.....	.....	153	1155	4.9	664	86	750
Maisonneuve No 1	177	228.7	.....	.....	227	1508	6.6	1857	140	1997
Mtl. Gen. Hospital	172	141.9	.....	.....	463	1604	11.3	1619	176	1795
Maisonneuve No 2	163	220.4	1	0.4	805	1673	7.6	1268	69	1337
Pte-St-Charles	163	187.2	.....	.....	495	2054	10.9	2412	117	2529
St-Paul	146	164.4	.....	.....	447	1400	8.5	1450	167	1617
Park Extension	144	138.3	.....	.....	86	1696	12.3	1224	131	1355
Rosemont	139	164.3	.....	.....	485	1426	8.7	1750	108	1858
N. Dame de Grâces	128	164.3	1	0.6	393	941	5.7	1499	87	1586
St-Ann's	103	141.0	1	0.7	496	949	6.7	1660	123	1783
Mtl. Day Nusery	72	45.7	.....	.....	50	693	15.1	474	44	518
Iverley Settlement	66	68.0	1	1.5	63	1157	17.0	789	115	904
Côte-des-Neiges	64	66.7	.....	.....	47	415	6.2	250	21	271
Ahuntsic (3)	14	46.5	.....	.....	1	156	3.3	122	25	147
Total	2828	3279.9	35	1.07	5303	26340	8.0	27634	2324	29958
Average	1571	182.2	1.9	1.07	294.6	1463.3	8.0	1535.2	129.1	1664.3

(3) Open 5 months only.

GENERAL REPORT OF THE BABY CLINICS FOR THE YEAR 1927. — Suite.

St-Henri	228	250.9	8	3.2	62	2352	9.4	921	392	1313
St-Edouard	216	226.7	.....	.....	623	2015	8.9	232	684	916
Villeray	207	299.0	.....	.....	601	2106	7.0	212	607	819
St-Gabriel	201	255.3	2	0.8	265	3268	12.8	1005	498	1503
St-Arsène	186	266.3	5	1.9	768	1515	5.6	432	454	886
Baril	183	251.2	3	1.2	439	1324	5.3	672	570	1242
Maisonneuve	147	158.6	1	0.6	416	649	4.1	2.74	220	494
St-Jacques	146	217.7	3	1.4	281	2049	9.4	262	375	637
Rosemont	136	93.4	2	2.1	.....	1061	11.3	357	444	801
St-Zotique	132	167.5	5	2.9	50	2207	13.2	556	436	992
DeLorimier	106	161.7	3	1.8	14	670	4.1	343	166	509
Ste-Hélène	102	196.4	1	0.5	166	2051	10.4	583	222	805
St-Denis	84	174.2	1	0.6	49	719	4.1	246	479	725
Tétreaultville	38	51.7	.....	.....	14	189	3.6	97	107	204
Total	2112	2770.6	34	1.22	3748	22175	8.0	6192	5654	11846
Average	150.9	197.9	2.4	1.22	267.7	1583.9	8.0	442.3	403.9	846.1
Grand total	8739	11269.5	177	1.6	13597	131856	11.7	51881	19718	71599
Average	174.8	225.4	3.5	1.6	271.9	2637.1	11.7	1037.6	394.4	1432.0

Table VIII gives a comparative statement of the work of the clinics for each of the last three years.

TABLE VIII

Comparative statement of the work of the Baby Clinics 1925-27.

	1925	1926	1927
Number of committees.....	53	55	50
Babies registered.....	11,367	11,457	11,269
Number of deaths.....	253	237	177
Proportion of deaths.....	2.22%	2.06%	1.6%
Number of consultations....	144,186	128,997	131,856
Average per infant.....	12.7	11.3	11.7
Visits to homes.....	63,674	71,531	71,599
Municipal subsid'es.....	$8,500.00	$8,500.00	$8,500.00

Baby Camps in Parks.

In 1927, baby camps at Park Lafontaine and at St. Helen Island were not opened, for the reason that our staff was engaged in hospital work.

Supervision of Children's Boarding Homes of Private Maternities and Adopted Children.

The supervision of these establishments is intrusted to a nurse who devotes her fulltime to this work, the detail of which is shown below:

	Number of:		
	Visits	Investigations	Actions taken
Children's Boarding homes..	1515	55	3
Private maternities.....	138	2	.....
Adopted children.....	133	14	.....
Total	1786	71	3

Applications for permits were disposed of as follows:

Applications for permits..		38
Permits granted..	33	
Permits refused..	4	
Permits pending December 31st.. ..	1	
Total..	38	38

The number of children's boarding homes has decreased by 8 during the year. The following figures show this difference:

Number of permits on January 1st 1927	121		
Permits granted..	33		
Permits discontinued in 1927..		41	
Total..	154	41	
Balance on January 1st 1928..			113

Movement of Children in Children's Boarding Homes

Legitimate Children:

In Boarding homes, January 1st. 1927..	294		
Admitted in 1927..	214		
Discharged in 1927..		206	
Died in 1927..		3	
Total..	508	209	
Balance 1st. January 1928..			299

The monthly average was 306 children, the proportion of deaths from this average is below 1 per cent.

Illigitimate Children.

In boarding homes January 1st. 1927..	98		
Admitted in 1927..	116		
Discharged in 1927..		104	
Died..		12	
Total..	214	116	
Balance 1st. January 1928..			98

The monthly average has been 112 children, and the number of deaths figured therefrom was 10.7 per cent.

Private Maternities.

The number of private maternities at the beginning of 1927 was 19, eight permits were granted during the year, and three ceased to operate. There were therefore 24 maternities under supervision in December 1927.

599 Legitimate children were born in these maternities and 269 illegitimate children, or a total of 868 births.

Adopted Children.

Children are fairly frequently deserted in children's Boarding Homes, and it is not always possible to place these children in institutions.

A good number of them can be adopted by families, and it is right that a family be chosen for them, offering sufficient guarantees that the child will receive a good social and moral education.

On the other hand, people who keep children's Boarding Homes are not well enough prepared, nor have they the time for investigation in such cases, and besides these children being a burden to them, they are keen to place them and their judgement may be at fault. We therefore took upon ourselves to carry out the investigations in such cases.

Our informations are taken from the very people who wish to adopt a child, from neighbours, from the tradesmen supplying them, from employers, and from clergymen, and when all the informations are satisfactory, we give our consent to the adoption. These families are visited at more or less close intervals, to ascertain if the children are given all the proper care.

Every year a certain number of families move out of our jurisdiction, and we loose sight of them.

At the beginning of 1927 there were 26 families under supervision, 13 new families adopted a child during the year, and 3 moved. We therefore had 36 families under supervision at the end of the year.

The Superintendent of the Division
of Child Hygiene.
Signed: EUG. GAGNON, M.D.

Division of Sanitation

DIVISION OF SANITATION.

Doctor S. Boucher, M.D., D.H.P.,
Director, Department of Health.

Dear Sir:—

We have the honour to submit the annual report of the Division of Sanitation for 1927, in which the totals of the year are only given. The statistics by months and weeks being available in the reports that are being submitted to you weekly.

The regular work of the Division of Sanitation is divided into four parts:—

I—Examination of plans and specifications of new constructions and of buildings which are intended to be modified.

II—Sanitary records of dwellings.

III—Sanitary inspection and investigation of nuisances

IV—Inspection of plumbing and drainage.

I

Examinations of plans and applications for permits.

(a)	New buildings	4506
(b)	Modified buildings	1532
(c)	Plumbing and drainage (Permits granted)	4074

II

Sanitary records of dwellings.

The following statistics give a summary of this work during 1927:—

Number of dwellings visited in 1927	12,266
Number of dwellings visited since 1921	131,631
Notices served:—Suppression of dark rooms	548
Notices served:—Vacating of inhabitated cellars.	46
Notices served:—Vacating of other unsanitary dwellings	27
Execution:—Dark rooms suppressed	1,336
" " " occupation forbiden	332
" Delays granted	258
" Cellars and other dwellings vacated.	82

III

(a) Sanitary Inspections.

(a) Complaints:—

Total number	10,005
Founded	7,164
Not founded	2,841

The measures ordered and executed after investigation are the following:—

Plumbing and drainage	1,552
Constitutional insalubrity	655
Acquired insalubrity (dwellings)	1,404
Acquired insalubrity (yards and out-houses)	3,553
Total number of complaints founded	7,164
Water leakage	2,483

(b) Regular Inspections.

The following table gives the total number of inspections in each class of buildings and the defects found therein.

	Inspections (1)	Plumbing and Drainage	Light and ventilation	Inhabited cellars	Other Defects	Unclean
Dwellings	32258	3198	467	52	390	475
Boarding houses	352	.....	.....	...	.....	.....
Boarding houses for children (4)	81	4	.....	....	.....	2
Public buildings, stores and other establishments	1441	88	.....	....	35	49
Educational establishments (5)	515	7	.....	...	....	3
Industrial establishments	1397	139	.....	....	.....	192
Theatres, moving pictures, houses	320	54	.....	....	.....	39

(1) These figures include the number of dwellings, public buildings, stores, etc. visited in 1927 exclusive of second visits. 12226 records of dwellings have been filed, revised and indexed. This work serves as basis for the establishment of the sanitary record of housing.

(2) In many places defects were found after a smoke or oil test which was necessary in 35 cases; 24 smoke and 11 oil of mint tests.

(3) Rooms not lighted directly from the exterior.

(4) The supervision of this work is under the jurisdiction of the Division of Child Hygiene. The inspections before granting permits only are made by this Division.

(5) A general inspection of all schools is made at the end of the School year in order to permit the execution of the ordered repairs during the holidays. The inspection of schools, during the year is made by the Division of School Hygiene, and when necessary the help of this Division is called.

(c) Inspections of lanes, yards, cellars and out dwellings.

This work can be summarized as follows:—

	Number of inspections
Lanes	2,481
Yards	24,991
Vacant lots	3,985
Sheds	29,119
Cellars or basements	12,765
Drains	36,439
Manure boxes (nuisances)	144
Stables	1,755

(d) Privy vaults and cesspools.

There are at present in the City of Montreal 1052 privy vaults and cesspools, nearly all of which are located in the wards annexed to the City in the last few years.

The construction of public sewers only would cause these vaults and cesspools to be removed.

IV

Drainage and Plumbing

(New or modified buildings.)

		Number of inspections
1.	Drains	1,396
2.	Piping (before instalation of fixtures)	3,913
3.	Piping (after installation of fixtures)	1,436
4.	Smoke tests	195
5.	Oil of mint tests	1,348
6.	Water tests	3,807
7.	Works completed and tested	2,244
8.	Calls for inspection	4,873

V

Bureau of examiners for plumbers.

(a)	Number of sittings	18
(b)	Total number of plumbers examined	97
(c)	New licences granted to masters-plumbers	16
(d)	New licences granted to journeymen-plumbers	53
(e)	Licences renewed to master-plumbers	565
(f)	Licences renewed to journeymen-plumbers	455

VI

Notices.

Official notices served	4,479
Second notices	993
Notices given by inspectors	28,709

Proceedings.

Actions taken (Recorder's Court)	60
Convictions	55
Judgment pending	2
Discontinued cases	3

VII

Supervision (number of visits)	645

Superintendent,

J. E. DUROCHER,

Sanitary Engineer,

AIME COUSINEAU.

Food Inspection Division

FOOD INSPECTION DIVISION

Dr. S. Boucher,

Director of Health Department.

Dear Sir,

I have the honor of submitting to you the report of the Food Inspection Division for the year 1927.

A. J. G. HOOD,

Superintendent of Food.

DEPARTMENT OF HEALTH

Dr. S. Boucher, M.D., D.H.P. Director.

FOOD INSPECTION DIVISION

Dr. A. J. G. Hood, M.V., Superintendent.

General Food Inspection Section

2 Districts, 2 Inspectors
Places visited and duties

Bakeries	142
Pastry shop and confect.	145
Bread depots	23
Bread waggons	935
Sundry mfrs	73
Cold storages	2
Ice merchants	7
Weighing of bread	
Special inspections	

Inspectors:

P. E. Provost,
L. W. Bissonnette.

Meat and Inspection (Special) Section

7 Districts, 11 Inspectors
Places visited and duties

Private abattoir	1
Markets	11
Butcher stalls	1131
Rest. cafés, hôtels	3844
Cold storages	9
Commission stores	64
Frts and veg. dealers	253
Poultry dealers	75
RR. depots and boats	12
Delicatessen stores	36
Carbonated beverages	40
Sundry mfrs	47
Ice merchants	31
Groceries	1050
Special inspections	

Inspectors:

H. S. Masterman
J. L. Nault,
O. Legault,
M. Roberts,
H. Provost,
Dr. A. Sicard, M.V.,
A. C. Théoret,
P. St-Jean,
T. McCall,
P. N. Carie,
Dr. R. L. St-Jean.

City Milk Inspection Section

7 Districts 7 Inspectors
Places visited and duties

Dairies	148
Groceries	2185
RR. depots and boats	9
Milk depots	5
Pasteurizing plants	44
Cow stables	23
Milk waggons	860
Milk Cows	825
Empty cans insp.	
Special insp	
Samples collected for chemical and bacteriological analysis.	
Supervision of pasteurization, cleanliness.	

Inspectors:

Dr. R. G. Mayotte, M.V.,
L. J. E. Leduc,
J. E. Emard,
J .A. A. Seguin,
A. E. Marleau,
G. A. West,
J. A. Marotte (from january to september inc. and replaced by:
L. G. Forté.

Milk and Dairy Farms Inspection Section

5 Districts, 7 Inspectors
Places visited and duties

Regular inspections	2458
Special inspection.	
Insp. of milk cows.	
Insp. of dairies.	
Insp. of cow stables.	
Insp. of milk cans.	
Insp. of utensils.	
Score cards.	
Collection of samples.	
Country and City.	

Inspectors:

J. N. T. Laberge
J. E. Bourbonnière,
Dr. J. L. Gauthier, M.V.,
Dr. E. C. Legault, M.V.,
Dr. J. P. Doutre, M.V.,
Dr. Jos. Piché, M.V.,
Dr. E. Richer, M.V.,

DIVISION OF FOOD INSPECTION.

Inspection of milk in city, 1927.

COLLECTION OF SAMPLES FOR CHEMICAL ANALYSIS

Milk									Cream					
On the street.	At Railway stations.	In groceries.	In dairies.	In various places.	Submitted by citizens.	TOTAL.	Centrifugal (Babcock) and Lacto-densim. (Quevenne).	Fat, density, solids (non-fat).	On the street and in stores.	Submitted by citizens.	TOTAL.	Centrifugal (Babcock) and acidity (Dornic).	Foreign fats and preservatives.	TOTAL.
3796	63	65	196	33	173	4326	4326	51	3	49	52	52	0	52

Collection of samples for bacteriological analysis.

Milk before pasteurization..	188
Milk after pasteurization..	3,738
Cream (sundries ice cream mixed)..	440
Certified milk..	65
Special milk..	575
Rincing water Re: washing of dairy utensils.. ..	85
	5,091
Submitted to the Provincial Laboratory..	3,521
" " " Provincial Laboratory..	775
" " " McGill University..	795
	5,091

EXAMINATION OF MILK AND CREAM

in the city.

Milk:

Research of acidity..	74
" " sediments (discs)..	15,669
" " preservatives..	138
Temperatures taken..	6,880
Total number of gallons examined..	180,984

Cream:

Centrifugal (Babcock) tests..	51
Research of foreign matters..	1

Confiscation:

Milk (in gallons)..	13,183

AVERAGE QUALITY OF THE MILK ACCORDING TO THE (BABCOCK) CENTRIFUGAL APPARATUS AND THE (QUEVENNE) LACTO-DENSIMETER AT 60° F.

1927 MONTHS	Density			Butter Fat			Number of samples
	Minimum	Maximum	Mean	Minimum	Maximum	Mean	
January	1.0285	1.0335	1.0314	2.5%	5.2%	3.5%	388
February	1.028	1.033	1.0311	2.5	4.5	3.4%	366
March	1.026	1.033	1.0309	2.4	4.6	3.41	1080
April	1.0285	1.032	1.0306	2.9	3.8	3.38	893
May	1.0285	1.032	1.0308	2.7	3.8	3.33	506
June	.....	.....	.....	.....	.....	.....	.....
July	.....	.....	.....	.....	.....	.....	.....
August	1.028	1.032	1.03026	2.5	4.0	3.52	243
September	1.027	1.0325	1.03045	3.1	5.7	3.57	303
October	1.028	1.032	1.03032	3.0	4.2	3.63	104
November	1.026	1.032	1.03034	2.9	6.0	3.56	205
December	1.028	1.032	1.03044	3.0	6.0	3.52	238
Average	1.026	1.0335	1.0306	2.4	6.0	3.48	

TOTAL: 4326

INSPECTIONS IN THE CITY.

At the Railway stations	254
In dairies	2,611
In groceries	4,647
In dining-rooms	91
In restaurants	944
In markets	60
In stables	341
In private houses	34
In various places	394
Special	693
Total	10,069

Milk cows examined	2,570
Empty cans examined	13,947
Empty cans confiscated	56
Can tops (lids) confiscated	50
Notices for poor milk	27
Written notices (various)	326
Actions taken	13
Condemnations	13

INSPECTION IN THE COUNTRY

1927.

Inspections:

Dairy Score Cards	3,312
Special	6,153
At Railway Stations	157
Total	9,622
Country abattoirs	17

Examination of milk:

Total of gallons examined	10,790
Temperature above 60° Fah	538
Temperature below 60° Fah	1,208
Temperature at 60° Fah	154
Cleanliness (Lacto-filtrator)	

Cows:

Number examined	49,913
Clean	44,526
Tuberculin tested	41,027

Stables:

Number	3,312
Clean	2,999
With concrete floor	2,295
With 400 cubic feet of air space per head of animal	2,840
With one foot of light area per head	2,899
White washed entirely	2,691
White washed (walls only)	86
Withe washed (walls only)	86

Dairies:

Number	2,988
Clean	2,371

Refrigeration:

With ice	2,678
With spring water	153

Miscellaneous:

Empty cans examined	13
Written notices	416
Written notices by letter from the Office	554
Producers interdicted	203

OBSERVATIONS AND IMPROVEMENTS, 1923 to 1927.

Inspection of farms.

	1923	1924	1925	1926	1927
Number of producers visited	2640	2567	2717	2458	3312
Cows examined	40663	39975	44789	41220	49913
Cows found cleaned	35728	35479	40671	37769	44526
Stables with cement floor	1408	1464	1620	1671	2295
Stables with 400 cubic feet of air per cow	2340	2336	2258	2196	2840
Stable with one square foot of glass per head of cattle	1978	1986	2337	2075	2899
Whitewashed stables	2115	2187	2512	2117	2691
Clean stables	2272	2356	2489	2233	2999
Producers owning a dairy	2111	2121	2289	2214	2988
Producers whose dairy is cleanly maintained	1622	1684	1915	1744	2371
Producers having ice	1885	1753	1947	2024	2678
Producers cooling milk in spring water	174	190	184	151	153
Notices in writing	182	234	232	326	416
Notices (letter from office)	.....	.....	792	666	554
Producers interdicted	38	41	73	234	203

PROGRESS IN THE METHODS AND EQUIPMENT OF MILK PRODUCERS, 1923 - 1927

	1923	1924	1925	1926	1927
Cows:					
Clean	87.86%	88.75%	90.8%	91.62%	89.41%
Stables:					
Whitewashed	80.11%	85.19%	92.45%	89.66%	83.84%
Clean	86.06%	91.77%	91.60%	90.84%	90.54%
With concrete floors	53.03%	57.03%	59.62%	67.98%	69.29%
Milk rooms:					
Number	79.96%	82.23%	84.21%	90.07%	90.21%
Clean	76.83%	79.39%	83.66%	78.75%	79.35%
Refrigeration:					
With ice	71.4%	68.28%	71.66%	82.34%	80.85%
With spring water	6.59%	7.40%	6.75%	6.14%	4.61%

DIVISION OF FOOD INSPECTION

Recapitulation

1927

Total number of establishments	5,727
" " " inspections	19,691
" " " cows examined	52,483
" " " samples, of milk, cream and ice-cream collected for chemical analysis	4,378
Total number of various examinations of milk, cream and icecream	28,039
Total number of gallons of milk examined	191,774
Total number of gallons of milk confiscated	13,183
Complaints	47
Actions taken	13
Condemnations	13
Written notices	1,323

DIVISION OF FOOD INSPECTION

Private Abattoir.

N.B.—The inspection at the Public Abattoirs is performed by the Federal Government

INSPECTIONS :				CONFISCATIONS :				
Cattle	Calves	Sheep	Hogs	Cattle	Calves	Sheep	Hogs	Portions (lbs)
492	1845	7490	1502	2	2	3	.....	(1341)-11702
Railway Stations (C. N. R. and C. P. R.)								
74	8680	1508	4882	.....	11	.....	2	.....

Other Meats

Deer	Baskets of meat	Barrels of meat	Deer	Baskets of meat	Barrels of meat
143	124	6	.....	2	.....

DIVISION OF FOOD INSPECTION

	Number of establishments	Number of inspections
Private abattoir	1	473
Publics Markets	11	1384
Butcher stalls	1131	18684
Fish stalls	92	1620
Restaurants and dining-rooms	3844	12513
Cold storages	9	201
Commission stores	64	4886
Fruits and vegetables	253	1742
Poultry stores	75	750
Railway stations and Boats	12	670
Delicatessen stores	36	229
Mfrs of non-alcoholic beverages and syrups	40	72
Sundry manufacturers	47	1097
Ice merchants	31	280
Bakeries	142	1755
Pastry shops and confectioneries	146	1011
Bread depots	23	237
Bread waggons	935	421
Inspection re: weight of bread	.....	102
Special inspections—groceries	1050	4577
Sundry inspections	.....	2641
	7942	55345

	Actions entered	52
(*)	Convictions	51
	Complaints	133
	Sundry samples collected	23
	Written notices	384
(*)	Sentences suspended and cases dismissed	2

DIVISION OF FOOD INSPECTION

Markets, butcher stalls, sausage manufacturers and Commission stores

Carcases inspected (cattle, calves, sheep, hogs, deer)	85,177
Carcases confiscated (cattle, calves sheep, hogs, deer)	413

Foods condemned

Beef	20,119
Veal	29,952
Mutton	1,100
Pork	9,351
Poultry	1,491
Fish	20,246
Horse meat	.....
Venison	449
Sundry meats	3,782
Fruits	5,294
Vegetables	82,387
Candies and preserves	2,335
Sundry merchandise	5,316
Total	181,822

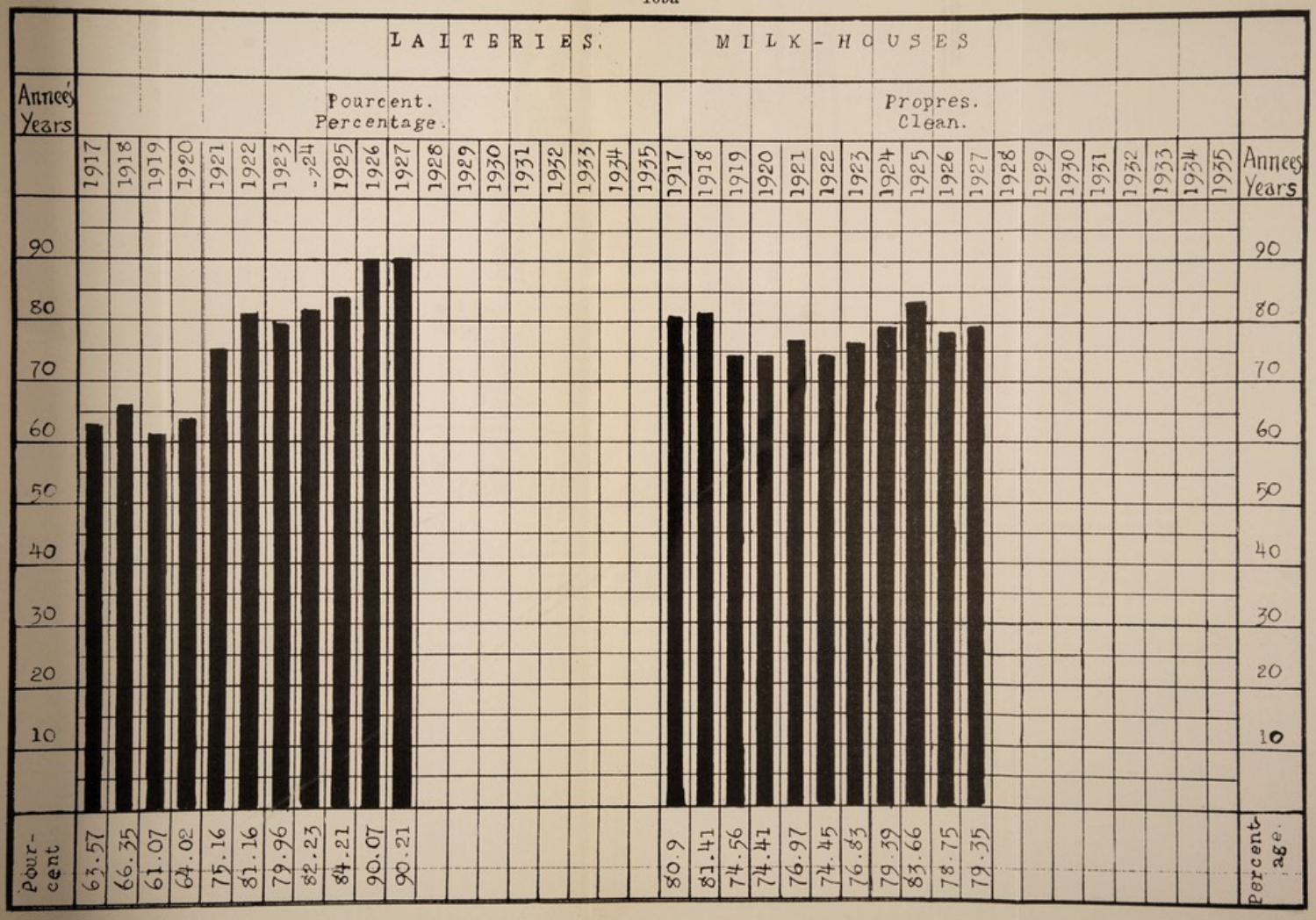
Ice: ..... 183 Tons

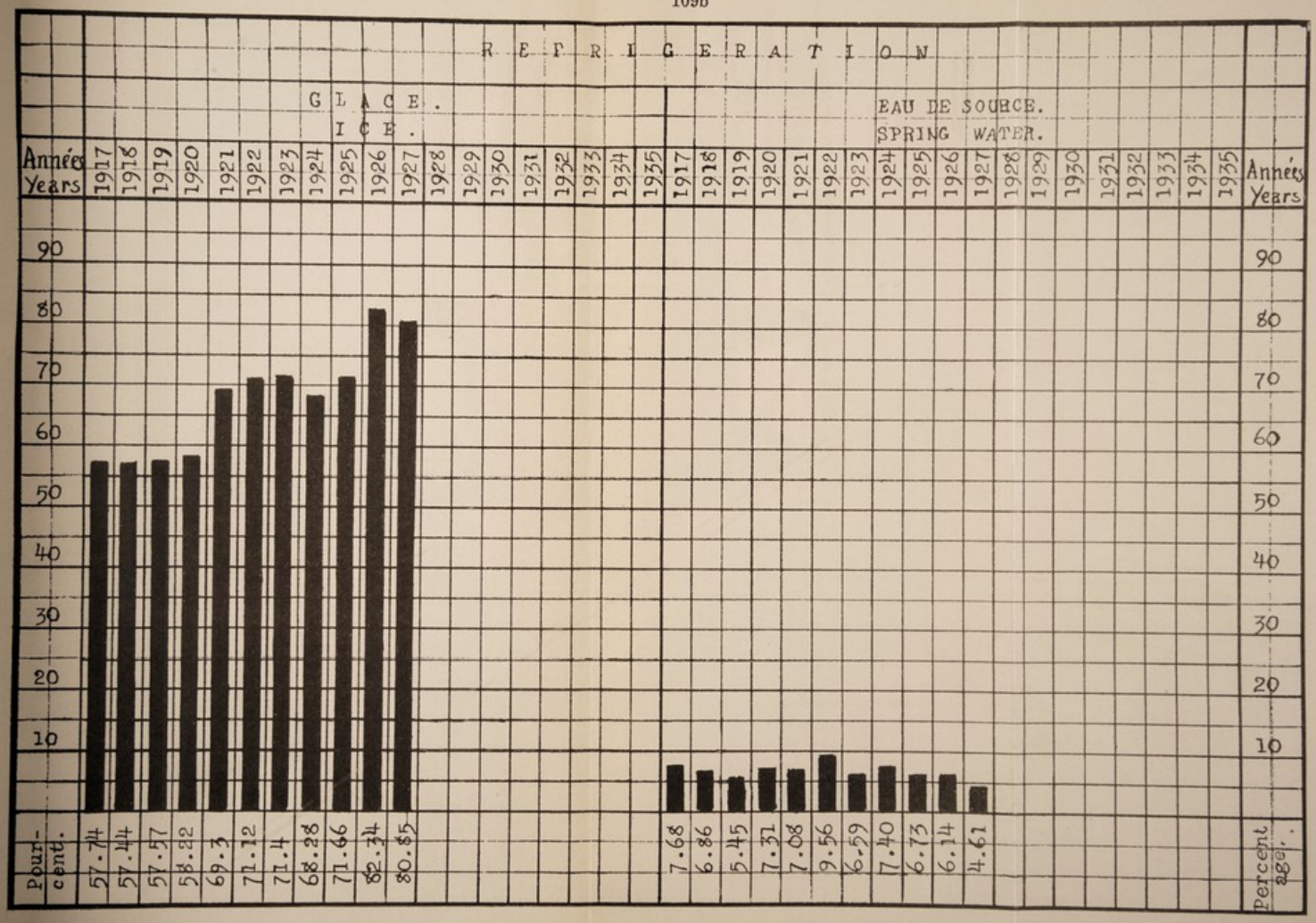
"The above mentioned foodstuffs have been confiscated "for the following reasons: for being spoiled, heated, moud- "ly, bruised, sour, dirty, diseased, and immature calves".

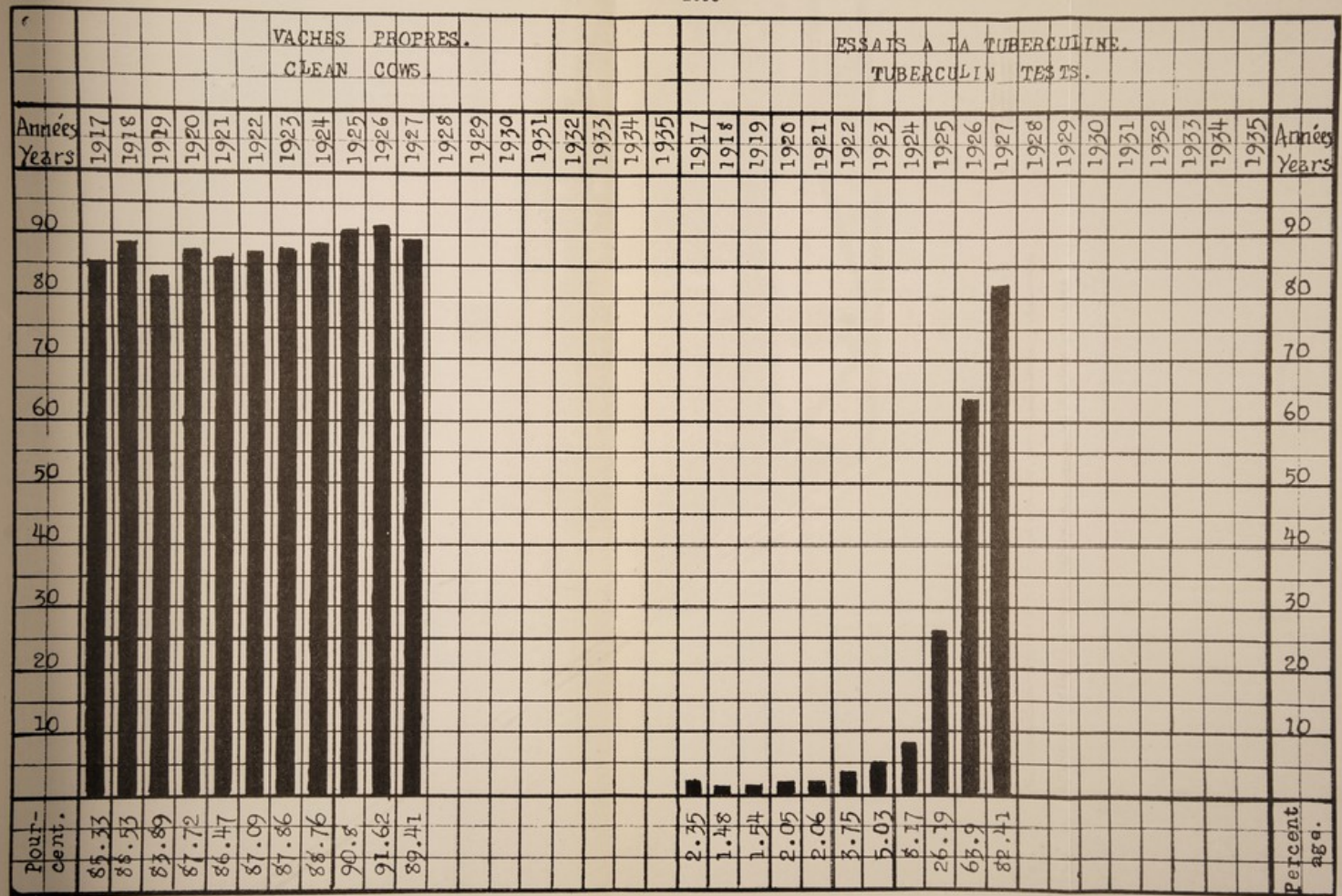
DIVISION OF FOOD INSPECTION

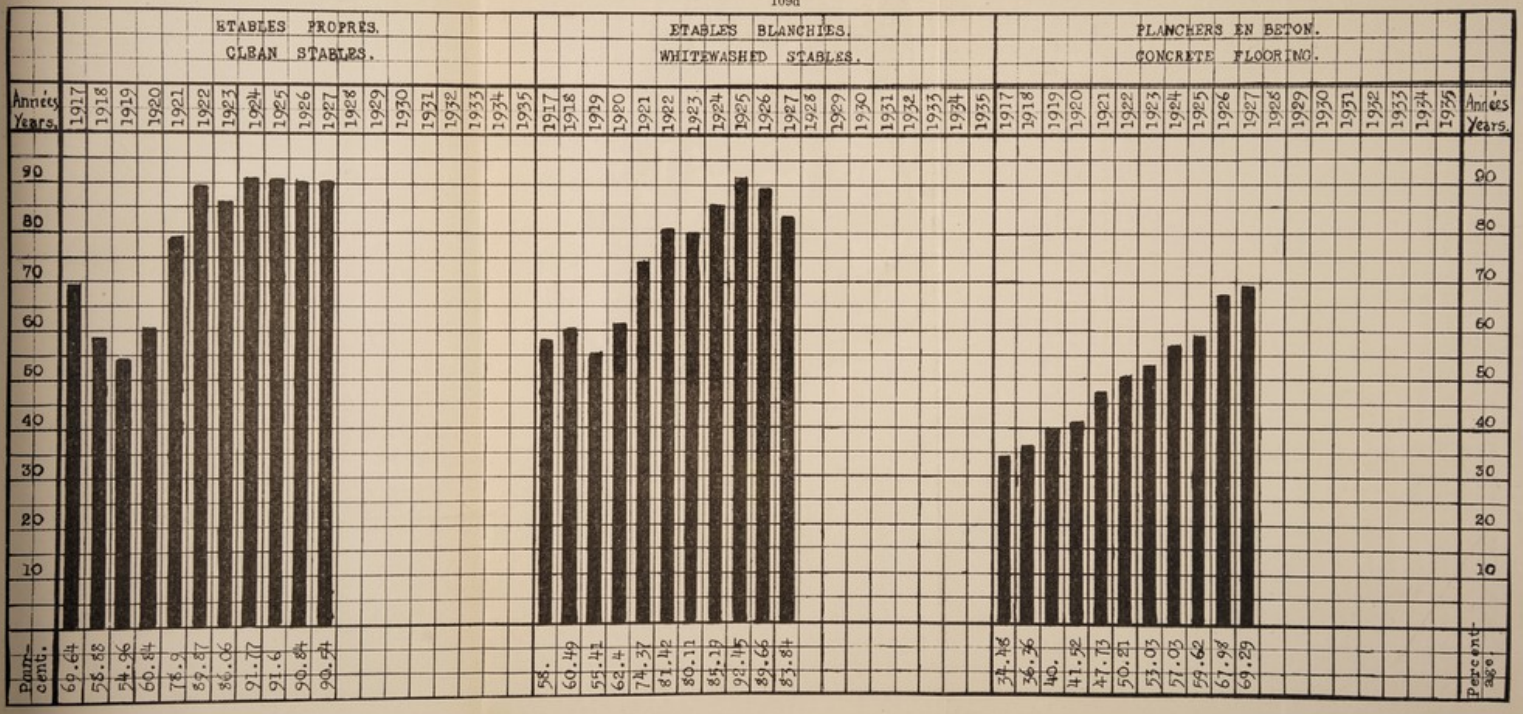
Recapitulation

Total number of establishments	7,942
" " " inspections	55,345
" " " carcases inspected	85,177
" " " carcases condemned	423
Miscellaneous foods condemned (pounds)	193,524
Ice condemned (number of tons)	183
Actions entered	143
Convictions	124
Complaints	87
Sundry samples collected	12
Written notices	1,949


LAITERIES.
MILK-HOUSES
Annees Years
Pourcent. Percentage.
Propres. Clean.
1917 1918 1919 1920 1921 1922 1923 1924 1925 1926 1927 1928 1929 1930 1931 1932 1933 1934 1935
90 80 70 60 50 40 30 20 10
Pour-cent
63.57 66.35 61.07 64.02 75.16 81.16 79.96 82.23 84.21 90.07 90.21
80.9 81.41 74.56 74.41 76.97 74.45 76.83 79.39 83.66 78.75 79.35
Percentage.


REFRIGERATION
GLACE.
ICE.
EAU DE SOURCE.
SPRING WATER.
Années
Years
1917 1918 1919 1920 1921 1922 1923 1924 1925 1926 1927 1928 1929 1930 1931 1932 1933 1934 1935
90 80 70 60 50 40 30 20 10
Pour-cent.
57.74 57.44 57.57 58.22 69.3 71.12 71.4 68.28 71.66 82.34 80.85
7.68 6.86 5.45 7.31 7.08 9.56 6.59 7.40 6.73 6.14 4.61
Percent age.


VACHES PROPRES.
CLEAN COWS.
ESSAIS A LA TUBERCULINE.
TUBERCULIN TESTS.
Années Years
1917 1918 1919 1920 1921 1922 1923 1924 1925 1926 1927 1928 1929 1930 1931 1932 1933 1934 1935
90 80 70 60 50 40 30 20 10
Pour-cent.
85.33 88.53 83.89 87.72 86.47 87.09 87.86 88.76 90.8 91.62 89.41
2.35 1.48 1.54 2.05 2.06 3.75 5.03 8.17 26.19 63.9 89.41
Percent age.


ETABLES PROPRES.
CLEAN STABLES.
ETABLES BLANCHIES.
WHITEWASHED STABLES.
PLANCHERS EN BETON.
CONCRETE FLOORING.
Années. Years.
1917 1918 1919 1920 1921 1922 1923 1924 1925 1926 1927 1928 1929 1930 1931 1932 1933 1934 1935
90 80 70 60 50 40 30 20 10
Pour-cent.
69.64 58.88 54.96 60.84 78.9 89.87 86.06 91.77 91.6 90.84 90.54
58. 60.49 55.42 62.4 74.37 81.42 80.11 85.19 92.45 89.66 83.84
34.48 36.36 40. 41.52 47.73 50.21 53.05 57.05 59.62 67.98 69.29
Percent-age.

Division of Municipal Assistance

STAFF OF THE DIVISION OF MUNICIPAL ASSISTANCE FOR THE YEAR 1927.

ALBERT CHEVALIER	Superintendent.
C. J. GAUTHIER	Asst.-Superintendent and Secretary.
G. LAPROTTE	Clerk.
J. A. DONATO	"
J. DEGUISE	"
Mrs. C. SAURIOL	"
Miss Y. LEBLANC	"
Miss M. CLEMENT	Steno typist clerk.
E. DAIGNAULT	Accountant.
J. A. BEAUDOIN	Investigator.
A. BRABANT	"
J. BIRON	"
A. BERNIER	"
D. LAVOIE	"
J. ANGRIGNON	"
A. BEDARD	Refuge clerk.
A. VALIQUETTE	Supervisor.
A. HENUSET	Fireman.
J. BRUNET	"
G. FILION	Laundryman.
J. BURON	Cook.
S. BOILY	Guardian.
N. LATRAVERSE	"
J. R. ROBITAILLE	"
J. A. MAROTTE	"

ANNUAL REPORT OF THE DIVISION OF MUNICIPAL ASSISTANCE

For the Year 1927.

Dr. S. BOUCHER,

Director of the Department of Health.

Sir:—

I beg to transmit the twenty-third Annual Report of the Division of Municipal Assistance, for the year 1927.

Our Division has concerned itself during the year with 27,489 cases, which necessitated 17,968 investigations and the hospitalization of 22,931 persons at the expense of the City. These figures do not include the work done at the Meurling Municipal Refuge, which during the year 1927 has supplied 80,142 sleeping accommodation to 3,785 individuals and given 167,612 meals to said individuals.

On the 31st of December 1927, there remained 288 inquiries in abeyance, 19 of which for neglected children, 15 for current cases of insanity, 46 for young delinquents, 1 for an incurable, 1 for a tuberculous, 19 for deportation and 187 for hospitalization under the Quebec Public Charities Act.

The City of Montreal has spent in 1927 for assistance to its rate-payers a sum of $1,156,491.04, as folows:—

Help of various kind..		$1,190,062.62
Remittance of real-estate tax to charitable institutions..		394,729.44
		$1,584,792.06
Less the money collected for maintenance tax..	$21,635.33	
Less the money collected from amusements tax..	406,665.69	
		428,301.02
		$1,156,491.04

Or: $48,111.47 more than in 1926.

OPERATIONS OF THE MUNICIPAL ASSISTANCE FOR THE YEAR 1927.

ITEMS	Hospitalized at City's expense	Number of investigations	Number of cases	Expenditure	Sums collected
Neglected children	583	1,437	1,456	75,489.20	155.07
Juvenile delinquents	762	701	762	26,921.69	161.39
Juvenile Court	.....	.....	.....	6,500.00	
Insane	709	874	665	246,611.42	19,419.75
Incurables	99	334	335	53,837.50	
Tuberculous	379	505	506	100,000.00	1,531.31
Assistance to the poor	.....	1,139	1,139		
Beggars and Street Vendors	.....	222	222		
Burial of poor persons	.....	218	218	2,465.75	70.91
Deportation of immigrants	.....	82	82		
Repatriation of strangers	.....	133	133	846.23	14.90
Pensions and Annuities	.....	48	48	95,945.27	243.00
Tag-Days	.....	60	60		
Special Cases	.....	61	61		39.00
Water Tax	.....	12	12		
Charitable institutions having registered (By-Law 626)	.....	177	177		
Persons authorized to collect gifts for said institutions (By-Law 626)	.....	31	31		
Quebec Public Charity Act	20,399	11,934	21,582	438,525.12	406,665.69
Total	22,931	17,968	27,489		
In 1926	21,644	16,060	25,666		

Meurling Municipal Refuge, Free night lodging	80,142	27,870.86
Grants		94,763.50
Administration expenditure of general office: Salaries	$19,081.90	
Transportation	1,105.12	
Contingent, etc.	99.06	20,286.08
Total money disbursed for assistance purposes		1,190,062.62
To be added: exemption of taxes to charitable institutions ($28,194,960 at 1.40%)		394,729.44
Grand total		1,584,792.06 428,301.02
In 1926		1,510,891.62 402,512.05

20,000 tickets for St. Helen's Island ferry were distributed.

Superintendent of the Municipal Assistance Division, A. CHEVALIER.

In the following table will be found a brief statement of the operations of the Municipal Assistance for the year 1927.

Placing of neglected children in schools of industry.

1,456 applications for placing or discharging neglected children were to be settled during 1927. These applications necessitated 1,437 investigations, 19 of which remained in abeyance on the 31st of December 1927.

The results of the said investigations were as follows—

Accepted	803
Refused	263
Procedure discontinued	136
Applications for release (granted)	152
Special cases	83
Total	1,437

Children were placed as follows:—

Children in schools of industry, on the 1st. day of January, 1927	1,088
Children placed	583
Total	1,671
Discharged, etc	602
On the 31st of December, 1927	1,069

Distributed as follows:—

At Maison Ste-Domitille	528
At Notre-Dame de-Montfort	299
At Huberdeau	242

All these children were placed at joint expense with the Provincial Government.

The cost of maintenance of these children was $75,489.-20 in 1927. (Paid by the City of Montreal for transportation: $879.05, and to the Provincial Government: $74,610.15).

Parents having been found able to pay for the maintenance of their children have been called to refund to the City the amount of $155.07.

Juvenile delinquents.

762 cases of juvenile delinquents were reported in the following institutions' monthly statements:—St-Vincent-de-Paul reform school 507, Bon-Pasteur 207, Shawbridge 20 and Girls' Cottage 28.

701 investigations were completed during the year, with following results:—

Investigations closed	685
Objections to payment	12
Procedure discontinued	2
Parents to refund maintenance cost to the City	2
Total	701
Under investigation on December 31st, 1927	46

$161.39 were collected in 1927 from the responsible parties.

There were, on the 31st. December, 1927, in the reform schools at the City's expense, 264 juvenile delinquents.

St. Vincent-de-Paul	127
Bon-Pasteur	72
Shawbridge	48
Girls' Cottage	17
Total	264

The City paid in 1927 $6,500 for the maintenance of the Juvenile Court.

The City paid in 1927 for maintenance expenses $26,869.69 and for transportation cost $56 or a total of $26,921.69.

Insane

There were in the asylums, at the City's expenses, 2,314 patients on the 1st. of January, 1927. During the year, 709 were admitted: at St-Jean-de-Dieu 507, at Verdun 91, at Hospice Ste-Anne of Baie St-Paul 50 and at Bordeaux (for the criminal insane) 61.

568 having either been discharged from the asylums or having died, there remained 2,455 on the 31st of December, 1927, distributed as follows:—

At St-Jean-de-Dieu	1,756
At Verdun	382
At Hospice Ste-Anne (Baie St-Paul)	206
At Bordeaux (criminal insane)	90
At St-Ferdinand-d'Halifax	11
At Beauport (St-Michel-Archange)	10

There was shown an increase of 105 admissions over the year 1926.

Mental cases in 1927 required 874 investigations, the results of which were as follows:—

Investigations closed	523
Parents having to refund costs of maintenance to the City	151
Special investigations for Quebec Government	61
Objections to payment	65
Insane deported	10
Procedures discontinued	60
Repatriated	3
Special case	1

On the 31st of December, 1927, there remained 15 investigations to be made.

The City has received from the parents of patients for the latter's board in 1927 $19,419.75.

Maintenance of inmates in hospitals has cost the City, during 1927:—

For repatriation and transportation of insane	$ 1,341.69
For maintenance of patients in hospitals	245,269.73
Total	$246,611.42

46 prisoners of the Recorder's Court, declared insane, were committed to mental hospitals, in 1927. Since the 6th of August last, prisoners remanded for mental examination are examined by the physicians of the Bordeaux Jail Asylum.

INCURABLES AND TUBERCULOUS

Applications for hospitalization of incurable patients during 1927 amounted to 335, or 60 less than last year.

These applications required 334 investigations, resulting as follows:

Cases recommended	136
Cases not recommended	110
Procedures discontinued	83
Parents having to refund cost of maintenance to the City	5
Under investigation on the 31st of December, 1927	1

In this same year, 99 patients were hospitalized:—

At the Sacred Heart Hospital	95
At Grey Nuns (25 St. Mattew)	4

The total of patients at the City's expenses, on the 31st of December, 1927, was 129, placed as follows:—

Sacred Heart Hospital..	100
At Grey Nuns..	29

There was one vacant place at the Grey Nuns on December 31st, 1927.

The amount paid for the maintenance of incurables in 1927 was $53,837.50:—

To the Sacred Heart Hospital..	$45,625.00
To the Grey Nuns..	8,212.50

Tuberculous.

There were 506 applications for hospitalization of indigent tuberculous during 1927, or 4 less than last year.

Said 506 applications called for 505 investigations, with following results:—

Cases recommended..	412
Cases not recommended..	18
Procedures discontinued..	64
Parents having to refund costs of maintenance..	11

Under investigation, December 31st, 1927:—1

The number of tuberculous hospitalized during the year was 379. 198 tuberculous patients were at the Sacred Heart Hospital on the 31st. of December 1927, at the City's expense. There were 2 vacant places at the same date.

The amount paid for maintenance of tuberculous in 1927 was $100,000.00.

The sum of $1,531.31 was refunded to the City by parents of incurables or tuberculous patients.

Assistance to indigents.

In 1927, 1,139 requests for help of various kind were filed with our Division. Most of these cases were referred to charitable institutions.

Tickets for the St. Helen Island Ferry.

20,000 tickets were distributed among various charitable institutions for the benefit of poor children, to give them an outing in that municipal park.

Mendicants and Street Vendors.

222 applications for street vendor's licenses were made at our office during the year, requiring 222 investigations resulting as follows:—

Applications recommended upon payment of the $10 license	81
Applications recommended free of charge	98
Applications not recommended	34
Applications discontinued	9

Special Cases.

61 requests for researches or information were made through this Division in 1927; we answered every one.

A sum of $39 was refunded to the City by parents of a patient who had been treated at the Meurling Emergency Hospital, during the typhoid fever epidemy.

Water Tax.

12 requests for deferred payment of water tax were received; 10 were recommended and 2 refused.

Burial of Indigents.

218 requests for burial of poor persons at the City's expenses were made in 1927, which called for 218 investigations resulting as follows:

Persons buried at the City's expenses	207
Responsible parties having been called upon for reimbursement of whole or part of expenses incurred	6
Requests refused or discontinued	5

The amount collected from the responsible parties in 1927, for burial expenses, was $70.91.

The amount paid by the City for burial expenses in 1927 was $2,465.75.

Deportation.

Cases of deportation of immigrants figured at 82 in 1927. After investigation, these cases were disposed of as follows:—

Immigrants deported	37
Proceedings discontinued	24
Cases refused by the department of Immigration	2
Under investigation at Ottawa, on the 31st of December, 1927	19

Repatriation.

133 requests for repatriation came before this office in 1927. The amount spent by the City for this end was $846.23. The 148 requests were disposed of as follows:—

113 persons were repatriated at City's expenses:
6 requests were refused;
12 requests were discontinued, after investigation;
2 persons were repatriated at their family's expenses.

Repatriation reimbursed to the City in 1927: $14.90.

Pensions and annuities.

During the year 1927, 48 cases of pensions or annuities for City employees were dealt with.

35 employees have been granted pensions;
10 pensioners died;
3 pensions expired.

On the 31st of December, 1927, 229 persons were drawing a pension or an annuity from the City.

Expenditure for this purpose in 1927 was $95,945.27.

Registration of institutions of charity and of persons authorized to solicit gifts or alms on behalf of said institutions.

Complying with Municipal By-law No. 626, 177 institutions soliciting or collecting gifts or alms have registered in 1927 (in 1926: 176) and 31 persons were authorized to solicit such gifts or alms (in 1926: 96).

TAG-DAYS IN 1927.

No.	Date		ASSOCIATIONS	Receipts	Expenses	Surplus	% of expenses
1	Mar.	17	St. Patrick Orphan Asylum	14,242.46	1,626.54	13,615.92	.104
2	Mar.	23	Soeurs du Bon-Pasteur	3,230.00	533.65	2,696.35	.165
3	April	2	School for Crippled Children	7,828.35	427.91	7,400 44	.054
4	April	7	Hôpital Notre-Dame	7,625.05	126.89	7,498.16	.016
5	April	16	Colonie de Vacances de Jeanne-d'Arc	2,851.00	771.51	2,079.49	.270
6	April	23	Catholic Social Service Guild	2,890.07	308.09	2,581.98	.106
7	April	30	Colonie de Vacances des Grèves	4,107 45	292.71	3,814.74	.071
8	May	7	Foyer du Sacré-Coeur et Notre-Dame de la Garde	1,920.85	178.88	1,741.97	.093
9	May	14	Hervey Institute	2,179.42	158.50	2,020.92	.072
10	May	21	Salvation Army	4,176.21	269.63	3,906.58	.064
11	May	24	Assistance publique	1,864.31	895.29	969.02	.480
12	June	4	Institution des Sourds-Muets	3,320.26	127.50	3,192.76	.036
13	June	11	Orphelinat Italien Saint-Joseph	4,563.80	620.89	3,942.91	.136
14	June	24	Fédération Nationale Saint-Jean-Baptiste	1,980.28	113.40	1,866.88	.057
15	June	30	Association du Bien-Etre de la Jeunesse	1,886.57	985.83	900.74	.522
16	July	23	Association catholique féminine	535.33	248.34	286.99	.463
17	Aug.	1	Young Hebrew Malbish Arumiun Society	1,177.83	289.30	888.53	.245
18	Aug.	13	Hospice de la Providence	376.00	60.00	316.00	.015
19	Aug.	16	Hebrew Consumptive Aid Association	2,031.37	454.85	1,576.52	.022
20	Aug.	22	Montefiore Hebrew Orphans Home	3,215.32	1,165.00	2,050.32	.036
21	Sept.	3	Greek Ladies Benevolent Society	954.62	103.80	850.82	.108
22	Sept.	10	Montreal Chinese Hospital	193.08	29.96	163.12	.155
23	Sept.	17	Hospice Saint-Antoine (Vestiaire des Pauvres)	1,543.60	252.37	1,291.23	.163
24	Sept.	24	Soeurs Missionnaires de Marie	3,412.20	.....	3,412.20	.000
25	Oct.	1	C. S. P. C. to Animals	8,247.74	823.86	7,423.88	.097
26	Oct.	8	Salve Regina Protectorate for Boys	2,719.21	199.76	2,519.45	.073
27	Oct.	15	Union Nationale Française	848.08	229.27	618.81	.270
28	Oct.	22	Navy League of Canada	3,013.16	1,048.57	1,964.59	348
29	Oct.	29	Alverna Catholic Association	1,451.96	271.21	1,180.75	.186
30	Nov.	5	Société nationale de Colonisation	1,279.15	730.70	548.45	.571
31	Nov.	11	Tuberculous Veterans' Association	10,318.08	5,453.56	4,864.52	.528
32	Nov.	14	Hebrew Maternity Hospital	4,000.00	328.50	3,671.50	.082
				110,982.81	19,126.27	91,856.54	.172

"Tag-Days"

60 applications for permission to hold "tag-days" in compliance with above mentioned by-law were made to the City in 1926.

We made the following recommendations to the Mayor with regard to these requests:—

34 favourable (for "Tag-days"):
15 favourable (for "Guignolees").
11 unfavorable.

32 permits were granted by the Mayor. The results of these "Tag-days" were as follows:—

Quebec public charities act.

The revenue from "Amusement Tax", applied to the working of the Quebec Public Charities Act, is shown as follows during the year 1927:—

Amount received from 1st of January to 31st of December, 1927	$813,331.38
Provincial Government's share	406,665.69
City of Montreal's share	406,665.69

The City's expenditure for the application of the said Act amounted to $11,617.48.

(Salaries of inspectors, transportation, theatre admission, printing, etc.)

The above expenses were at the City's charge, exclusively.

The City disposed as follows of its share in the revenue:

Transportation of patients	$ 336.85
To maternities, infants' homes	75,763.50
To the Provincial Government, for maintenance of patients in hospitals, homes, orphanages, asylums, etc. (*)	350,807.29
Expenditure for the collection of the tax	11,617.48
Grand total	$438,525.12

The City has consequently spent $31,859.43 more than

(*) The verification of this account is not completed at time of issue of this report.

the revenue of said tax. This amount was taken out of the general fund.

The number of requests for hospitalization forwarded to our Department by the Institutions during the year was as follows:—

Requests for hospitalization in hospitals, sanatoriums; homes and orphanages..	11,140
Requests for reconsideration..	227
Transfers to other institutions..	330
Under investigation on January the 1st, 1927..	154
Total..	12,121

Investigations made during the year..	11,934
Under investigation on December the 31st, 1927.	187

The results of our investigations were as follows:—

Accepted.. .. ..10,751 — Refused.. 1,183

To these 10,751 cases accepted after investigation must be added 9,648 cases accepted without investigation, for maternities, day-nurseries, etc., making a total of 20,399 persons hospitalized and 21,582 cases. (Refused: 1,183, under investigation: 187).

SUBSIDIES.

Subsidies and grants awarded by the City of Montreal in 1927 amounted to $94,763.50, distributed as follows:—

Hospital Ambulance Service:	
Notre-Dame Hospital	$ 1,500.00
Montreal General Hospital	1,500.00
Hôtel-Dieu Hospital	500.00
Western Hospital	500.00
Ste. Justine Hospital	500.00
Education and Assistance:	
Royal Life Saving Society	300.00
Patronages and Working Girl's Homes:	
St. Anthony's Guild	500.00
St. Vincent de Paul Patronage	500.00

Maison d'Oeuvres Jean-le-Prévost	200.00
Montreal Boy's Home	200.00
Salve Regina Boys' Home	500.00

Fraternal Societies:

Conseil fédéré du Travail	200.00
Union mutuelle des Employés civiques	100.00
Montreal Sailors' Institute	200.00
Catholic Sailors' Club	200.00
Syndicat catholique et national des Fonctionnaires municipaux	100.00

Children's Welfare:

Montreal Parks and Playgrounds Association	900.00
Colonie de vacances des Grèves	900.00
Colonie de vacances Jeanne-d'Arc	300.00
Association du Bien-Etre de la Jeunesse	900.00

Educational:

Victorian Order of Nurses	850.00
University Settlement	300.00
Fédération Nationale St-Jean-Baptiste	400.00
Ecoles ménagères de Montréal	2,000.00
Conseil des Arts et Manufactures	3,000.00
Ecole d'Hygiène sociale appliquée	5,000.00
Child Welfare Association	1,000.00

Protection of Animals:

Society for the Prevention of Cruelty to Animals	2,500.00

General Clinics:

Montreal Dispensary	500.00
Herzl Dispensary and Hospital	500.00

Dental Clinics:

Montreal General Hospital	1,000.00
Hôpital dentaire Laval	2,200.00

Diet Clinic:

Montreal Diet Dispensary	200.00

Clinic (Eyes, ears, nose, teeth):

St. Luke Hôspital	2,000.00

Anti-Tuberculosis Clinics:

Institut Bruchési	7,500.00
Royal Edward Institute	7,500.00

Homes, Orphanages and Asylums:

Assistance publique	6,000.00
Orphelinat St-Arsène	1,000.00
Asile de Providence (for the aged)	300.00
Asile des Vieillards des Petites Soeurs des Pauvres	500.00
Hospice Auclair	200.00
Hospice St-Joseph	200.00
Bon-Pasteur (penitents)	500.00
Sheltering Home (temporary shelter for women)	250.00

Homes' Relief:

Protestant Relief Committee	300.00
Baron de Hirsch Institute	700.00
Catholic Social Service Guild	700.00
Hospice St-Antoine (range)	200.00

Assistance (women and children):

Assistance maternelle	3,000.00
St. Ann's Day Nursery	100.00

General Relief:

Salvation Army	500.00
Family Welfare Association	1,500.00
Société catholique de Protection et de Renseignements	1,500.00

Education and Assistance:

Institut des Aveugles "Nazareth"	600.00
Montreal Association for the Blind	100.00
Institution des Sourdes-Muettes	250.00

Night Refuges, Shelters:

Protestant House of Industry and Refuge	1,500.00
Union nationale française	450.00
Old Brewery Mission	700.00

Societies for the Protection of Women and Children:

Society for the Protection of Women and Children	800.00
Montreal Humane Society	200.00

Special Grants:

Montreal Tourist and Convention Bureau	2,000.00
Radium Hospital	3,613.50
McGill University (for the time)	150.00
Université de Montréal	10,000.00
McGill University	10,000.00
Total	$94,763.50

The value of the real estate owned by charitable institutions and exempt from taxes in 1927 was $28,194,960.00. The real estate tax at $1.40% amounts to $394,729.44.

Meurling Municipal Refuge.

Summary of expenses incurred by the City for the service of the Meurling Municipal Refuge during 1927:—

Salaries	$13,267.96
Salaries (physician)	393.31
Heating	2,455.00
Lighting	779.19
Gas stove	92.76
Motive power (elevator)	200.51
Motive power (laundry plant)	186.84
Food	4,419.95
Maintenance	2,901.87
Linen, etc	1,473.47
Repairs to building	1,700.00
Total	$27,870.86

(In 1927: $34,991.85).

There were 80,292 entries for sleeping accommodation in the Refuge, in 1927, 150 of which were refused for good cause, leaving thus 80,142 beds supplied. These beds were given to 3,785 individuals, or an average of 21 times each.

7,885 refugees have been given work or positions.

The average age of men sheltered in 1927 was 45 years.

Men sheltered in the Refuge represented 36 different nationalities.

The number of refugees found sick after examination by our physician was 13,299 and the number of diseases 41.

167,612 meals were given in 1927 and the cost of each of these meals was .0344 cents.

275,035 pieces were washed in the Refuge's laundry. Of this number, 1,125 pieces belonged to various departments of the City Hall, 2,495 to the refugees, 211, 351 to the Refuge, and 60,064 to Emergency Hospitals (typhoid fever epidemy)—Moreau 7,030, Meurling 49,484 and ex-Notre Dame Hospital 3,550.

Expenses incurred for the laundry in 1927 figured as follows:—

Machinery upkeep	$ 174.91
Acid, soap, etc	424.63
Mangle cover	63.82
Power	186.84
Laundryman's wages	1,320.00
Total	$2,170.20

Or $0.00861 per piece (in 1926: $0.0114).

Co-operation with the police department.

During the year 1927, the Police Department, through its representative, detective sergeant Finel, looked after the following cases:—

Cases reported for medical examination at the Recorder's Court: 227.

Result:—

Committed at St-Jean-de-Dieu	57
Committed at Verdun	14
Committed at Bordeaux	27

Handed over to their parents..	127
Deceased at the Jail..	2
Repatriated under escort to Ottawa, Ont., North Bay, Ont., Mille Roches, Ont., St-Jean, P. Q. and Maniwaki, P. Q..	5
Escaped and reconducted to insane asylum.	6
Idiots committed to Baie-St-Paul..	48
Girls..	20
Boys..	28
Brought back from Baie-St-Paul and handed over to their parents..	5
Girls..	3
Boys..	2
Indigent persons repatriated and escorted to railway stations..	81
Sick persons escorted from their domicile to the Sacred Heart Hospital, using the Police Department's cars..	9
Patients transferred from the Sacred Heart Hospital to the St. Jean de Dieu Asylum	2
Patients transferred from the female jail to the Grey Nuns' Institution..	2
Old persons transferred from Bordeaux jail to the Sacred Heart Hospital..	2
	96
Investigations at the Bordeaux Jail (men)	36
Investigations at the female jail..	18
	54

Insane Chinaman handed over to the Immigration Department..	1	
Prisoners kept at the jail by order of the Recorder's Court, pending their deportation.		
Women	8	
Man..	1	
	—	
		9

Number of investigations and visits necessitated by the aforesaid cases 425

Respectfully submitted,

A. CHEVALIER,

Superintendent of the

Municipal Assistance Division.

Division of Medical Control

DIVISION OF MEDICAL CONTROL

Doctor S. Boucher,

Director, Health Department,

City Hall.

Sir,

I beg to transmit the report of the work done by the DIVISION OF MEDICAL CONTROL in 1927, which is as follows:—

Municipal Employees ——— 769

Sick referred for examination	724
Applicants for positions referred for examination	14
Applicants for superannuation	31

Neglected Children ——— 851

Referred for examination before being sent to industrial schools	439
Referred after coming out of industrial schools	412

Incurables ——— 681

Referred for examination who were disposed of as follows:—

Suffering from incurable diseases	92
Suffering from tuberculosis	391
Suffering from cancerous diseases	79
Suffering from acute diseases for hospital treatment	14
Suffering from acute diseases for sanatorium treatment	5
Suffering from chronic diseases for treatment in homes	47
Suffering from mental diseases for treatment in Asylums	3
Gone to hospital before examination	2
Dead before examination	14
Patient absent from home	8
Application withdrawn	13
Patients gone to the country	2
Patients not at home, moved	4
Not sick	1
Cared for under the Quebec Public Charities Act	6

Meurling Municipal Refuge

Number of refugees examined during the year 1927 67034
Number of sick refugees during the year 1927 15344

(June and July the building was occupied for typhoid fever).

Vendors of Smallware ——— 3

Referred for examination who were classified as follows:—

Suffering from arterio sclerosis	1
Suffering from pulmonary tuberculosis	1
Suffering from heart disease and chronic rhumatism	1

Insane ——— 354

Referred for examination	354

Recorder's Court ——— 109

Prisoners remanded for examination and dealt with as follows:—	
Found insane and committed to hospitals	47
Found responsible. Placed at Court's disposal	33
Recommitted to hospital	2
Committed to the charge of their families	5
Repatriated or deported	4
Died	1
Discharged and placed as voluntary commitment	3
Discharged and committed as private patients	3
Discharged and placed in a Home	1
Discharged before examination	2
Transferred (August 1927) to the Superintendent of Bordeaux Hospital	8

Medico-Legal Reports ——— 456

Experts' reports for various services:—	
Accidents	71
Labor accidents	336
State of health	9
Pensions	31
Applications for sick leave	2
Fees' appraisal	7

E.-P. CHAGNON,

Superintendent of the Division

of Medical Control.

Division of Laboratories

DIVISION OF LABORATORIES

Doctor S. Boucher, D.P.H.,

Director of the Department of Health,

City Hall (Annex)

Dear Sir:—

I beg to submit the report of the Municipal Laboratories for the year 1927.

Yours truly,

A. BOLDUC, M.D.

Superintendent of the
Municipal Laboratories.

ANALYSIS FOR THE DEPARTMENT OF HEALTH.

Division of Food Inspection.

Candies	1	
Preserves	1	
Milk and cream specials, density, fat	1,586	
Meat extracts	1	
Milk, summary analysis, (inspectors), density, lacto-densimeter, "Quevenne" fat "Babcock"	1,980	
Milk, complete analysis, density, fat, solid fat and solid non fat, water, etc.	55	
Examinations for preservatives	299	
Milk (Bacteriological Anal. (see page 2)	5,934	
Fermented milk	1	
Fish	1	
Apples	1	
Insecticide powder	1	
Total	9,861	9,861

Clinical analysis.

(Exterior).

Sputum. (examination for Koch Bacillus)	42	
Diphtheria (After sowing)	155	
Mother's milk	18	
Pus. (Neisser)	9	
Nasal Secretions	1	
Sero-Diagnosis. (Agglutination for typhosus bacillus, and paras A and B. bacilli		
In blood (Widal's tests)	1,135	
In stools	2,514	
In urines	2,196	
Stools (Special examinations)	3	
Urine (Histo-Bacteriological examinations)	6	
Tenia (examination for)	1	
Urines. (Chemical and microscopic examinations)	7,983	
Total	14,063	14,063

Police Department.

Drugs	89	
"White Pine" Syrup	1	
Medical drops	1	
	91	91
Grand Total	24,015	24,015

BACTERIOLOGICAL ANALYSIS OF FOOD AND BEVERAGES

Analysis of milk	Bacteria count	2,201
" " cream	Bacteria count	6
" " ice cream	Bacteria count	11
Pasteurization control	Bacteria count	130
Washing of utensils	Bacteria count	64
Other analysis qualitative and quantitive, Waters, Oysters, etc.		42
Research of B. Coli; qualitative analysis		3,480
Total of analysis		5,934

Division of Laboratories,

A. BOLDUC, M.D.,

Superintendent.

Division of Statistics

DIVISION OF STATISTICS

Dr. S. Boucher,

Medical Officer of Health.

Dear Sir:—

I have the honour of submitting to you the report on Vital Statistics for the year 1927.

M. O'B. WARD, M.D., *

Superintendent.

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* Deceased 27th December 1927.

DIVISION OF THE STATISTIC.

ANNUAL REPORT FOR THE YEAR 1927.

Population.

French Canadian	433,690
British Canadian	159,483
Jews	51,095
Other nationalities	55,232
Total	699,500

Births. (*)

	Sex M	Sex F	Total	Proportion per 1,000
French Canadians	7,764	7,318	15,082	34.54
British Canadians	1,831	1,931	3,762	23.59
Jews	409	497	906	17.73
Other nationalities	524	466	990	17.92
Total	10,528	10,212	20,740	29.65

Deaths.

	Sex M	Sex F	Total	Proportion per 1,000
French Canadians	3,783	3,532	7,315	16.87
British Canadians	972	862	1,834	11.50
Jews	157	147	304	5.95
Other nationalities	323	209	532	9.63
Unknown	2	4	6	
Total	5,237	4,754	9,991	14.28

(*) Births and marriages are computed from the Civil Status registers deposited in the Archives Office, and deaths from the certificates deposited in the Department of Health.

Marriages.

	Total	Proportion per 1,000
French Canadians	3,624	8.35
British Canadians	2,021	12.73
Jews	453	8.37
Other nationalities	222	4.02
Total	6,320	9.03

Births and Marriages.

(By place of registration).

Catholic churches.

	Births M	Births F	Total	Marriages
French Canadians	7,764	7,318	15,082	3,624
Others	1,071	1,032	2,103	706
Total	8,835	8,350	17,185	4,330
Protestant churches:				
Anglicans	565	531	1,096	614
Presbyterians	122	145	267	246
United Churches	409	498	907	593
Baptists	34	33	67	49
Others	50	40	90	13
Total	1,180	1,247	2,427	1,515
Oter denominations:				
Synagogues	409	497	906	453
Orthodox churches	41	43	84	22
Catholic Apostolic (Divers)		1	1	
Births registered at the City Hall	63	74	137	
Total	10,528	10,212	20,740	6,320

Deaths by civil status.

Married	3,237
Single	1,471
Widowers	556
Widows	830
Unknown	63
Children under 15 years	3,834
Total	9,991

Comparative table of births and deaths.

	Births	Deaths	Excess of births over deaths	Natural increase per 1,000
French Canadians	15,082	7,315	7,767	17.91
British Canadians	3,762	1,834	1,928	12.09
Jews	906	304	602	11.78
Other nationalities	990	532	458	8.29
Unknown		6		
Total	20,740	9,991	10,755	15.38

Deaths of children under 1 year.

	Deaths	Proportion per 1,000 births
French Canadians	2,009	139.96
British Canadians	241	65.58
Jews	48	54.08
Other nationalities	121	127.70
Unknown	6	
Total	2,425	121.85

Illegitimate births.

There were 847 illegitimate births reported to the Bureau of Statistics or entered intered in the various church registers during the year 1927. Of these 435 were boys and 412 girls. The mothers came from:

Montreal City	324
The Province of Quebec	266
The Province of Ontario	35
The Province of New Brunswick	7
The Province of Nova Scotia	3
The Province of Manitoba	2
United States	41
Parts unknown	169
	847

Ages of unmarried mothers.

Ages		Ages	
13 years	1	29 years	9
14 "	10	30 "	4
15 "	17	31 "	6
16 "	30	32 "	8
17 "	69	33 "	3
18 "	71	34 "	1
19 "	77	35 "	4
20 "	73	36 "	2
21 "	78	37 "	1
22 "	46	38 "	2
23 "	51	39 "	1
24 "	38	40 "	1
25 "	25	41 "	1
26 "	10	42 "	2
27 "	17	43 "	1
28 "	10	44 "	1
		45 "	1
		Ages not specified	176
		Total	847

Mean ages of mothers: 21.20

BIRTHS, MARRIAGES AND DEATHS.

From 1872 to 1927 inclusively.

Years	Population	Deaths	Proportion per 1000	Births	Proportion per 1000	Marriages	Proportion par 1000
Average from:							
1872 to 1883.....	134,505	4,131	30.71	6,057	45.29	1,327	9.88
1884 to 1888.....	180,951	5,589	30.88	7,653	42.29	1,826	10.09
1889 to 1893.....	219,802	5,527	25.14	9,292	42.27	2,143	9.75
1894 to 1898.....	244,794	6,010	24.55	9,796	40.05	2,033	8.30
1899 to 1903.....	272,603	6,873	25.21	9,925	36.41	2,483	9.11
1904 to 1908.....	339,158	7,782	22.94	12,481	36.80	3,503	10.33
1909 to 1913.....	459,281	9,937	21.63	17,705	38.50	4,930	10.73
1914 to 1918.....	533,501	11,103	20.81	20,373	38.18	5,128	9.61
1919 to 1923.....	618,561	10,477	16.96	20,704	33.48	6,864	10.12
1924	655,800	9,752	14.87	21,500	32.78	6,058	9.23
1925	669,800	9,549	14.25	21,976	32.81	6,102	9.01
1926	684,500	9,660	14.12	21,098	30.81	6,133	8.96
1927	699,500	9,991	14.28	20,740	29.65	6,320	9.03

STILL-BORNS AND PREMATURES, LEGITIMATE AND ILLEGITIMATE.

Still-borns	
Boys	583
Girls	334
Sex undetermined.	38
Total	955

Period of gestation	
3 mois	25
4 "	63
5 "	95
6 "	100
7 "	80
8 "	73
9 "	4
At full term	231
Not stated	284
Total	955

Premature-born	
Boys	128
Girls	98
Total	226

Period of gestation	Duration of life						
	6 hours	12 hours	1 day	2 days	3 days	1 week	Total
From 5th to 6th month.	40	1	11	9	6	1	68
From 6th to 7th month.	25	10	12	6	3	3	59
From 7th to 8th month.	18	2	6	3	5	1	35
From 8th to 9th month.	4	1	2	2	5	1	15
Duration not stated	19	6	13	6	1	4	49
Total	106	20	44	26	20	10	226

DEATHS BY AGES — YEAR 1927.

Ages	Legitimates						Illegitimates						Sex			
	French-Canadians	British-Canadians	Jews	Other nationalities	Unknown	Total	French-Canadians	British-Canadians	Jews	Other nationalities	Unknown	Total	Male	Female	Grand Total	Percentage of total deaths
Premature children (viable)	165	23	11	13	....	212	14	....	....	....	....	14	128	98	226	2.26
From 0 to 1 month	480	63	14	32	....	589	87	9	....	1	1	98	415	272	687	6.87
From 1 mth. to 6 mths.	581	83	13	42	....	719	228	12	....	2	5	247	496	470	966	9.66
From 6 mths. to 1 year.	419	50	8	34	....	511	35	....	....	....	....	35	305	241	546	5.47
Total under 1 year	1645	219	46	121	....	2031	364	21	....	3	6	394	1344	1081	2425	24.26
From 1 year to 2 years.	344	38	5	24	....	411	10	....	....	....	....	10	213	208	421	4.21
From 2 years to 3 years.	157	20	2	8	....	187	2	....	....	....	....	2	97	92	189	1.90
From 3 years to 4 years.	108	13	6	12	....	139	1	....	....	....	....	1	81	59	140	1.40
From 4 years to 5 years.	75	8	5	6	....	94	1	....	....	....	....	1	56	39	95	0.95
Total under 5 years	2329	298	64	171	....	2862	378	21	....	3	6	408	1791	1479	3270	32.72
From 5 yrs. to 9 yrs.	238	54	6	16	....	314	1	....	....	....	....	1	173	142	315	3.15
From 10 yrs. to 14 yrs.	199	31	5	12	....	247	....	....	....	....	....	....	140	107	247	2.47
From 15 yrs. to 19 yrs.	249	46	11	24	....	330	....	....	....	....	....	....	142	188	330	3.30
From 20 yrs. to 29 yrs.	515	105	22	39	....	681	....	....	....	....	....	....	316	365	681	6.82
From 30 yrs. to 39 yrs.	474	125	21	52	....	672	....	....	....	....	....	....	321	351	672	6.73
From 40 yrs. to 49 yrs.	514	177	29	67	....	787	....	....	....	....	....	....	417	370	787	7.88
From 50 yrs. to 59 yrs.	568	245	45	65	....	923	....	....	....	....	....	....	523	400	923	9.24
From 60 yrs. to 69 yrs.	710	325	54	39	....	1128	....	....	....	....	....	....	621	507	1128	11.29
From 70 yrs. to 79 yrs.	759	246	30	30	....	1065	....	....	....	....	....	....	542	523	1065	10.66
From 80 yrs. to 89 yrs.	339	137	13	13	....	502	....	....	....	....	....	....	216	286	502	5.02
From 90 yrs. to 99 yrs.	44	22	1	....	....	67	....	....	....	....	....	....	27	40	67	0.67
From 100 yrs. and over.	3	....	1	....	....	4	....	....	....	....	....	....	2	2	4	0.04
Total over 5 years	4612	1513	238	357	....	6720	1	....	....	....	....	1	3440	3281	6721	67.27
Grand total	6941	1811	302	528	....	9582	379	21	....	3	6	....	5234	4757	9991	.....

DEATHS BY AGES, NATIONALITIES AND MONTHS.

	January		February		March		April		May		June		July	
	Deaths	Proportion per 100	Deaths	Proportion per 100	Deaths	Proportion per 100	Deaths	Proportion per 100	Deaths	Proportion per 100	Deaths	Proportion per 100	Deaths	Proportion per 100
French-Canadians:														
Under 5 years.....	224	33.83	196	37.76	215	34.90	219	30.97	267	34.49	246	35.44	218	37.71
Over 5 years.....	438	66.17	323	62.24	401	65.10	488	69.03	507	65.51	448	64.56	360	62.29
British-Canadians:														
Under 5 years.....	26	18.44	19	12.33	34	19.10	28	14.36	29	16.86	21	15.91	25	19.45
Over 5 years.....	115	81.56	135	87.67	144	80.90	167	85.64	143	83.14	111	84.09	103	80.55
Jews:														
Under 5 years.....	4	21.05	6	31.58	7	21.21	7	21.90	7	20.60	1	4.35	7	26.92
Over 5 years.....	15	78.95	13	68.42	26	78.79	25	78.10	27	79.40	22	95.65	19	73.08
Other nationalities:														
Under 5 years.....	16	37.21	10	34.48	20	37.03	11	20.75	11	23.40	18	34.61	19	46.34
Over 5 years.....	27	62.79	19	65.52	34	62.97	42	79.25	36	76.60	34	65.39	22	53.66
Unknown:														
Under 5 years.....	...	.....	2	.....	...	.....	...	.....	...	.....	...	.....	...	.....
Over 5 years.....	...	.....	...	.....	...	.....	...	.....	...	.....	...	.....	...	.....
Total:														
Under 5 years.....	270	31.21	233	32.22	276	31.33	265	26.84	314	30.57	286	31.74	269	34.80
Over 5 years.....	595	68.79	490	67.78	605	68.67	722	73.16	713	69.43	615	68.26	504	65.20
	865		723		881		987		1027		901		773	

DEATHS BY AGES, NATIONALITIES AND MONTHS. — Continued.

	August		September		October		November		December		Total	
	Deaths	Proportion per 100	Deaths	Proportion per 100	Deaths	Proportion per 100	Deaths	Proportion per 100	Deaths	Proportion per 100	Deaths	Proportion per 100
French-Canadians:												
Under 5 years.....	289	46.00	255	45.61	212	39.00	171	33.60	192	36.29	2704	36.95
Over 5 years.....	339	54.00	304	54.39	330	61.00	338	66.40	337	63.71	4613	63.05
British-Canadians:												
Under 5 years.....	41	27.51	32	21.33	20	16.26	28	18.18	18	11.39	321	17.50
Over 5 years.....	108	72.49	118	78.67	103	83.74	126	81.82	140	88.61	1513	82.50
Jews:												
Under 5 years.....	7	30.43	4	22.22	3	12.50	6	22.22	8	29.63	67	21.97
Over 5 years.....	16	69.57	14	77.78	21	87.50	21	77.78	19	70.37	238	78.03
Other nationalities:												
Under 5 years.....	14	29.17	13	31.71	10	26.83	15	38.46	15	35.71	172	32.51
Over 5 years.....	34	70.83	28	68.29	30	73.17	24	61.54	27	64.29	357	67.49
Unknown:												
Under 5 years.....	...	.....	2	.....	1	.....	1	.....	...	.....	6	.....
Over 5 years.....	...	.....	...	.....	...	.....	...	.....	...	.....	....	.....
Total:												
Under 5 years.....	351	41.39	306	39.74	246	33.70	221	30.27	233	30.82	3270	32.73
Over 5 years.....	497	58.61	464	60.26	484	66.30	509	69.73	523	69.18	6721	67.26
	848		770		730		730		756		9991	

DEATHS BY AGES AND SEASONS.

Ages	Spring				Summer				Autumn				Winter				
	March	April	May	Total Spring	June	July	August	Total Summer	September	October	November	Total Autumn	December	January	February	Total Winter	Grand total
From 0 to 1 month...	67	77	94	238	76	69	75	220	89	70	78	237	71	72	72	215	910
From 1 mth to 6 mths.	70	51	66	187	68	93	151	312	116	88	59	263	72	77	57	206	968
From 6 mths to 1 years	61	55	53	169	49	43	65	157	49	34	25	108	26	44	42	112	546
From 1 year to 2 years	38	39	54	131	50	29	24	103	29	28	25	82	31	36	38	105	421
From 2 years to 3 years	22	18	18	58	20	14	16	50	10	13	13	36	12	22	12	46	190
From 3 years to 4 years	11	12	16	39	13	14	8	35	7	7	15	29	18	12	7	37	140
From 4 years to 5 years	7	13	13	33	10	7	12	29	6	6	6	18	3	7	5	15	95
Under 5 years.....	276	265	314	855	286	269	351	906	306	246	221	773	233	270	233	736	3270
Over 5 years.....	605	722	713	2040	615	504	497	1616	464	484	509	1457	523	595	490	1608	6721
Total	881	987	1027	2895	901	773	848	2522	770	730	730	2230	756	865	723	2344	9991

DEATHS BY WARDS AND CIVIL STATUS.

Wards	Males	Females	Married	Single	Widowers	Widows	Unknown	Total	Deaths of prematurely born children legitimate and illegitimate		Total	Grand Total Sex		Total
									M	F		M	F	
Ahuntsic-Bordeaux	99	81	62	96	8	14	.....	180	2	1	3	101	82	183
Bourget	133	119	93	122	12	25	.....	252	4	2	6	137	121	258
Crémazie	94	74	65	79	12	10	2	168	.....	2	2	94	76	170
Delorimier	199	181	132	202	14	31	1	380	9	4	13	208	185	393
Hochelaga	176	145	78	210	13	18	2	321	5	2	7	181	147	328
Lafontaine	71	60	56	48	14	12	1	131	1	3	4	72	63	135
Laurier	121	108	97	92	12	27	1	229	3	.....	3	124	108	232
Maisonneuve	214	208	159	217	20	25	1	422	5	7	12	219	215	434
Mercier	93	108	70	108	9	13	1	201	3	6	9	96	114	210
Montcalm	47	47	35	49	2	8	.....	94	1	2	3	48	49	97
Mount Royal	33	23	17	34	2	3	.....	56	1	1	2	34	24	58
N.-D. de Grâces	129	108	103	73	24	35	2	237	3	6	9	132	114	246
Papineau	206	166	120	200	25	26	1	372	3	7	10	209	173	382
Préfontaine	104	130	57	158	8	9	2	234	5	1	6	109	131	240
Rosemount	145	168	97	168	17	29	2	313	4	2	6	149	170	319
St. Andrew	116	92	67	92	19	29	1	208	1	2	3	117	94	211
St. Ann	115	96	86	97	16	11	1	211	4	.....	4	119	96	215
Ste. Cunégonde	109	101	73	114	7	15	1	210	2	1	3	111	102	213
St. Denis	204	175	132	193	18	35	1	379	3	1	4	207	176	383
St. Edward	144	135	100	132	14	32	1	279	4	1	5	148	136	284
St. Eusèbe	129	117	70	143	10	22	1	246	3	3	6	132	120	252
St. Gabriel	166	149	120	144	20	31	.....	315	1	1	2	167	150	317
St. George	92	58	63	58	11	15	3	150	.....	2	2	92	60	152
St. Henry	310	284	193	335	24	41	1	594	10	4	14	320	288	608
St. James	165	148	119	144	18	30	2	313	4	4	8	169	152	321
St. John	106	108	58	131	10	14	1	214	5	6	11	111	114	225
St. Jean-Baptiste	195	187	136	172	21	49	4	382	6	2	8	201	189	390
St. Joseph	121	96	88	98	12	17	2	217	2	.....	2	123	96	219
St. Lawrence	158	104	96	123	22	20	1	262	5	2	7	163	106	269
St. Louis	135	129	112	99	18	29	6	264	2	1	3	137	130	267
St. Mary	128	113	63	138	19	19	2	241	3	3	6	131	116	247
St. Michael	63	72	59	59	6	11	.....	135	4	2	6	67	74	141
St. Paul	166	155	126	158	14	19	4	321	9	2	11	175	157	332
Ville Mary	104	69	64	78	17	12	2	173	.....	.....	....	104	69	173
Villeray	201	193	124	218	20	29	3	394	3	4	7	204	197	401
Unknown	23	9	10	15	2	2	3	32	1	.....	1	24	9	33
Institutions	297	349	37	493	46	63	7	646	5	2	7	302	351	653
Total	5111	4665	3237	5090	556	830	63	9776	126	89	215	5237	4754	9991

DEATHS BY WARDS.

Wards	Deaths from all causes	Infantile Mortality				Deaths from certain contagious diseases							Deaths at all ages, Diarrhoeal diseases.
		From 0 to 1 yr	Percentage of all Deaths	From 0 to 5 yrs	Percentage of all Deaths	Typhoid fever	Measles	Scarlet fever	Whooping cough	Diphtheria	Pulmonary Tuberculosis	Other forms of Tuberculosis	
Ahuntsic-Bordeaux ..	183	42	23.0	60	32.8	5	.....	4	2	4	19	5	12
Bourget	258	61	23.6	85	33.3	12	1	1	2	9	21	1	25
Crémazie	170	28	16.5	41	24.1	1	1	....	1	6	22	4	11
Delorimier	393	95	24.2	137	34.9	31	4	3	10	12	36	5	22
Hochelaga	328	76	23.2	105	32.0	25	2	2	6	7	21	2	26
Lafontaine	135	23	17.0	28	20.7	3	.....	....	1	1	7	1	17
Laurier	222	43	18.5	56	24.2	4	1	....	1	4	18	3	17
Maisonneuve	434	99	22.8	147	34.0	29	3	3	5	6	40	9	31
Mercier	210	58	27.6	76	36.2	11	2	....	4	3	17	1	16
Montcalm	97	34	35.1	44	45.4	7	1	....	1	3	5	...	13
Mount Royal.....	57	15	26.3	24	42.1	2	.....	....	2	...	3	...	7
N.-D. de Grâces	246	30	12.2	43	13.4	8	.....	....	2	4	11	...	6
Papineau	382	110	28.8	139	36.4	23	1	3	2	5	37	3	49
Préfontaine	240	63	26.2	99	41.2	26	.....	1	...	13	20	2	29
Rosemount	319	88	27.6	134	42.0	8	.....	2	5	17	23	6	23
St. Andrew	211	25	11.8	31	14.7	6	1	....	...	1	13	1	11
St. Ann.....	215	47	21.9	62	28.9	16	1	....	1	1	17	7	17
Ste. Cunégonde.....	213	50	23.5	78	36.6	16	5	2	1	9	14	2	26
St. Denis	383	76	19.8	117	30.5	18	3	....	1	10	35	8	30
St. Edward.....	284	70	24.6	93	32.7	8	.....	....	4	9	14	4	29
St. Eusèbe	252	76	30.0	104	41.3	12	1	....	7	7	20	3	38
St. Gabriel.....	317	55	17.3	82	25.9	43	2	....	8	10	16	5	15
St. George.....	152	13	8.6	19	12.5	4	1	1	1	...	13	...	1
St. Henry.....	608	153	25.2	211	34.7	93	3	3	8	15	39	4	72
St. James.....	321	62	19.3	88	27.4	14	3	2	3	8	28	4	29
St. John.....	225	83	36.9	105	46.7	2	.....	1	4	3	24	2	29
St. Jean Baptiste.....	390	71	18.2	100	25.6	14	2	1	2	8	29	6	24
St. Joseph.....	219	31	14.2	46	21.0	21	.....	....	2	3	21	3	14
St. Lawrence.....	269	44	16.4	64	23.8	12	.....	....	3	5	29	3	18
St. Louis.....	267	32	12.0	46	17.2	6	1	....	2	5	27	1	6
St. Mary.....	247	61	34.8	95	38.5	13	1	4	4	12	19	7	26
St. Michael.....	142	23	16.2	32	22.5	2	.....	....	2	2	16	1	6
St. Paul.....	332	92	27.7	116	34.9	29	6	2	1	4	16	4	36
Ville Mary.....	173	22	12.7	29	16.8	11	.....	....	...	2	23	1	9
Villeray	401	115	28.7	154	38.4	16	1	3	5	8	23	6	33
Unknown	33	11	33.3	12	39.3	.....	.....	....	...	...	2	1	....
Institutions	653	347	53.3	368	57.9	4	.....	....	3	3	25	8	160
Total.....	9991	2424	24.3	3270	32.7	555	47	38	106	219	763	123	933

DEATHS FROM CONTAGIOUS DISEASES BY MONTHS.

	January	February	March	April	May	June	July	August	September	October	November	December	Total
Typhoid fever	6	3	81	160	126	108	38	17	6	3	3	4	555
Small-pox	...	...	...	...	...	...	...	...	...	...	...	....	....
Measles	4	7	4	6	4	5	2	3	1	1	4	6	47
Scarlet fever	7	3	1	3	2	2	1	5	1	3	2	8	38
Diphtheria	22	12	14	16	25	20	12	17	13	22	25	21	219
Whooping cough	12	13	7	11	14	12	7	8	8	6	2	6	106
Meningitis C.S.	5	...	2	1	...	1	2	1	...	3	2	....	17
Erysipelas	6	3	6	5	4	3	3	1	1	1	5	4	42
Poliomyelitis	1	1	1	...	...	...	...	...	...	...	...	....	3
Mumps	...	...	...	...	...	1	...	...	...	...	...	1	2
Varicella	...	...	...	...	1	...	...	...	1	1	...	....	3
German Measles	...	...	...	...	...	...	...	...	...	...	...	....	....
Tuberculo. of the lungs	57	77	75	94	84	61	63	55	53	50	44	50	763
Tuberculosis other forms	8	9	11	11	13	12	13	11	8	13	6	8	123
Enteritis	46	36	43	45	61	80	120	195	136	82	45	44	933
Influenza	11	12	16	9	12	3	7	3	2	5	10	13	103
Total	185	176	261	361	346	308	268	316	230	190	148	165	2954

DETHS FROM TUBERCULOSIS IN ALL ITS FORMS, BY NATIONALITIES.

	Sex		Total
	M	F	
French Canadians	297	347	644
Irish	24	25	49
English	39	39	78
Scotch	18	11	29
Italians	15	9	24
Jews	11	10	21
Chinese	6	1	7
French	3	.....	3
Germans	.....	1	1
Syrians	1	1	2
Belgians	.....	3	3
Rumanians	2	.....	2
Finns	1	1	2
Greeks	2	1	3
Ukranians	1	2	3
Russians	4	2	6
Negroes	.....	1	1
Lithuanians	.....	1	1
Poles	2	2	4
Swiss	1	.....	1
Hungarians	2	.....	2
Total	429	457	886

Deaths by groups.

	Total	Per 1,00 of their population
French Canadians	644	1.48
British Canadians	156	0.98
Jews	21	0.41
Other nationalities	65	1.18
Total	886	1.27

MEAN OF DEATHS FROM CERTAIN DISEASES.

By periods of 5 years and by 100,000 of population.

	1876 to 1880	Per 100,000 of the population	1881 to 1885	Per 100,000 of the population	1886 to 1890	Per 100,000 of the population	1891 to 1895	Per 100,000 of the population	1896 to 1900	Per 100,000 of the population	1901 to 1905	Per 100,000 of the population	1906 to 1910	Per 100,000 of the population	1911 to 1915	Per 100,000 of the population	1916 to 1920	Per 100,000 of the population	1921 to 1925	Per 100,000 of the population	1926	Per 100,000 of the population	1927	Per 100,000 of the population
Small-pox . .	510	376.10	634	413.05	15	7.48	...	.....	5	1.96	3	1.04	....	.	1	0.20	1	0.18	.....	.....	....	.....	.....	.....
Measles . . .	30	22.12	42	27.36	59	29.48	40	17.44	47	18.40	68	23.70	85	21.81	66	13.36	63	11.42	45	6.93	27	3.94	47	6.07
Scarlatina . .	35	25.81	38	24.75	15	7.48	155	67.58	62	24.27	70	24.40	67	17.19	90	18.24	69	12.51	78	12.10	48	7.01	38	5.40
Diphtheria. .	173	127.58	214	139.42	304	151.91	114	49.70	182	71.26	89	31.02	114	29.25	157	31.83	174	31.54	134	20.83	139	20.31	219	31.31
Typhoid F. .	81	59.73	95	61.89	82	40.97	50	21.80	68	26.62	91	31.72	156	40.03	108	21.89	89	16.13	55	8.51	34	4.96	554	79.20
Darrhhoea. .	492	362.83	523	340.73	699	349.28	806	351.41	663	359.61	1070	372.99	1822	467.59	2249	455.95	1844	334.32	1382	214.70	951	138.93	933	133.38
Cancers . . .	46	33.27	58	40.75	84	42.42	106	46.21	163	63.48	181	63.09	247	63.39	341	69.13	422	76.51	532	82.64	609	88.97	601	85.92
Phthisis . .	417	307.52	134	282.74	513	256.34	547	238.49	680	266.27	616	214.73	683	175.28	969	176.17	929	168.43	785	122.00	796	116.29	763	109.08
Other forms of tuberculosis..	...	.....	...	.....	...	.....	...	.....	....	.....	168	56.98	186	47.73	183	37.10	194	35.17	165	25.63	158	23.08	123	17.58
Brights disease	...	.....	...	.....	...	.....	...	.....	....	.....	126	42.73	232	59.54	402	81.50	509	92.18	612	95.17	738	107.82	762	108.94

DEATHS OF STRANGERS.

	French-Canadians		British-Canadians		Jews		Other nationalities		Unknown		Total		Grand total
	M	F	M	F	M	F	M	F	M	F	M	F	
January	15	8	10	2	...	...	2	...	...	...	27	10	37
February	11	11	3	1	...	...	1	...	1	...	16	12	28
March	8	13	7	3	1	...	2	2	1	...	19	18	37
April	13	9	6	6	...	...	1	1	...	...	20	16	36
May	8	7	8	3	...	...	...	...	1	...	17	10	27
June	10	9	1	2	...	...	1	2	...	...	12	13	25
July	9	10	9	3	1	...	3	...	1	...	23	13	36
August	16	7	11	4	1	...	3	...	...	1	31	12	43
September	14	8	11	3	...	...	1	...	...	...	26	11	37
October	15	10	8	5	...	...	...	2	...	...	23	17	40
November	15	13	11	4	2	...	2	...	...	...	30	17	47
December	15	11	11	5	...	...	2	...	...	...	28	16	44
Total	149	116	96	41	5	...	18	7	4	1	272	165	437

Number of permits issued for the removal out of the City, of the bodies of persons dying in the City:

Men	624
Women	544
Total	1168

DEATHS FROM ALL CAUSES, DURING THE YEAR.

	Total	SEX		0 to 6 months	6 mths to 1 yr.	1 yr. to 2 yrs.	2 yrs. to 3 yrs.	3 yrs. to 4 yrs.	4 yrs. to 5 yrs.	Total under 5 yrs	5 yrs. to 9 yrs.	10 yrs. to 14 yrs.	15 yrs. to 19 yrs.	20 yrs. to 29 yrs.	30 yrs. to 39 yrs.	40 yrs. to 49 yrs.	50 yrs to 59 yrs.	60 yrs. to 69 yrs.	70 yrs. to 79 yrs.	80 yrs. to 89 yrs.	90 yrs. to 99 yrs.	100 yrs. and over
		Male	Female																			
I—Epidemic and endemic diseases.																						
1. Typhoid Fever	553	292	261	....	4	9	8	8	7	36	37	53	81	159	80	53	33	14	7	...	...	..
A. Paratyphoid fever	2	1	1	....	...	...	...	...	...	....	...	1	...	...	...	1	...	....	....	...	...	...
2. Typhus	....	....	....	....	...	...	...	...	...	....	...	...	...	...	...	...	...	....	....	...	...	...
3. Relapsing fever	....	....	....	....	...	...	...	...	...	....	...	...	...	...	...	...	...	....	....	...	...	...
4. Intermittent fever	....	....	....	....	...	...	...	...	...	....	...	...	...	...	...	...	...	....	....	...	...	...
5. Small-pox	....	....	....	....	...	...	...	...	...	....	...	...	...	...	...	...	...	....	....	...	...	...
6. Measles	47	26	21	2	16	21	2	1	1	43	3	...	...	1	...	...	...	....	....	...	...	...
7. Scarlatina	38	19	19	1	1	6	6	6	3	23	9	1	2	1	...	1	1	....	....	...	...	...
8. Whooping cough	106	45	61	23	43	28	8	3	1	106	...	...	...	...	...	...	...	....	....	...	...	...
9. Diphtheria	219	119	100	5	9	31	36	36	21	138	63	13	1	2	2	...	...	....	....	...	...	...
10. Influenza with pulmonary complications	47	21	26	7	7	9	3	2	1	29	2	...	3	...	1	2	4	2	1	3	...	...
A. Influenza without complications	56	29	27	7	4	3	1	2	...	17	3	1	3	2	2	6	4	5	8	3	2	...
11. Miliary fever	....	....	....	....	...	...	...	...	...	....	...	...	...	...	...	...	...	....	....	...	...	...
12. Mumps	2	1	1	....	1	...	...	...	...	1	1	...	...	...	...	...	...	....	....	...	...	...
13. Asiatic cholera	....	....	....	....	...	...	...	...	...	....	...	...	...	...	...	...	...	....	....	...	...	...
14. Cholera nostras	....	....	....	....	...	...	...	...	...	....	...	...	...	...	...	...	...	....	....	...	...	...
15. Dysentery	....	....	....	....	...	...	...	...	...	....	...	...	...	...	...	...	...	....	....	...	...	...
16. Plague	....	....	....	....	...	...	...	...	...	....	...	...	...	...	...	...	...	....	....	...	...	...

DEATHS FROM ALL CAUSES, DURING THE YEAR.—Continued.

	Total	SEX		0 to 6 months	6 mths to 1 yr.	1 yr. to 2 yrs.	2 yrs. to 3 yrs.	3 yrs. to 4 yrs.	4 yrs. to 5 yrs.	Total under 5 yrs	5 yrs. to 9 yrs.	10 yrs. to 14 yrs.	15 yrs. to 19 yrs.	20 yrs. to 29 yrs.	30 yrs. to 39 yrs.	40 yrs. to 49 yrs.	50 yrs to 59 yrs.	60 yrs. to 69 yrs.	70 yrs. to 79 yrs.	80 yrs. to 89 yrs.	90 yrs. to 99 yrs.	100 yrs. and over
		Male	Female																			
17. Yellow fever	....	....	....	....	...	...	...	...	...	....	...	...	...	...	...	...	...	....	....	...	...	...
18. Leprosy	....	....	....	....	...	...	...	...	...	....	...	...	...	...	...	...	...	....	....	...	...	...
19. Erysipelas	42	15	27	17	5	3	2	...	...	27	...	1	...	...	4	2	3	3	1	1	...	...
20. Poliomyelitis	3	1	2	1	...	...	...	...	...	1	1	...	...	...	...	1	...	....	....	...	...	...
21. Lethargic encephalitis	6	3	3	....	...	...	...	1	1	2	1	...	...	2	...	1	...	....	....	...	...	...
22. Cerebro-spinal meningitis	17	10	7	1	3	4	4	2	..	14	2	...	1	...	...	...	...	....	....	...	...	...
23. Chicken-pox	3	....	3	....	1	1	1	...	..	3	...	...	...	...	...	...	...	....	....	...	...	...
A. German measles	....	....	....	....	...	...	...	...	..	....	...	...	...	...	...	...	...	....	....	...	...	...
B. Others	....	....	....	....	...	...	...	...	..	....	...	...	...	...	...	...	...	....	....	...	...	...
24. Glanders, farcy	....	....	....	....	...	...	...	...	..	....	...	...	...	...	...	...	...	....	....	...	...	...
25. Malignant pustule, charbon	2	....	2	....	...	...	...	...	...	....	...	...	1	...	...	1	...	....	....	...	...	...
26. Rabies	....	....	....	....	...	...	...	...	..	....	...	...	...	...	...	...	...	....	....	...	...	...
27. Tetanus	3	2	1	....	...	...	...	...	...	....	1	...	...	...	...	...	...	1	1	...	...	...
28. Mycosis	....	....	....	....	...	...	...	...	...	....	...	...	...	...	...	...	...	....	....	...	...	...
29. Tuberculosis of the lungs	763	363	400	5	4	12	2	2	1	26	8	14	97	204	164	119	83	34	12	2	...	...
30. Tuberculosis of the meninges	54	28	26	6	7	5	4	8	1	31	11	4	2	2	2	1	...	1	....	...	...	...
31. Intestinal tuberculosis	22	14	8	....	...	1	3	...	...	4	1	1	5	3	2	3	3	....	....	...	...	...
32. Tuberculosis of the spine	9	5	4	....	...	...	...	...	1	1	2	1	1	2	...	...	2	....	....	...	...	...

33. Tuberculosis of the joints	....	....	....	....	...	...	...	...	...	....	...	...	...	...	...	...	...	....	....	...	...	...
34. Tuberculosis of other organs	28	14	14	....	...	...	...	2	...	2	1	2	5	2	6	3	2	3	1	1	...	...
35. Generalized tuberculosis	10	5	5	2	...	1	...	1	...	4	2	1	1	1	...	...	...	....	1	...	...	...
36. Syphilis	56	28	28	30	5	1	...	1	...	37	...	...	...	2	6	3	4	3	1	...	...	...
37. Gonococcus infection	1	....	1	1	...	...	...	...	...	1	...	...	...	...	...	...	...	....	....	...	...	...
38. Septicemia, pyoemia	45	27	18	8	2	2	1	4	1	18	3	...	...	2	6	7	2	3	4	...	...	...
39. Other infectious diseases	2	1	1	....	1	...	...	...	...	1	...	...	...	1	...	...	...	....	....	...	...	...
Total	2136	1069	1067	116	113	137	81	79	39	565	151	93	203	386	275	204	141	69	37	10	2	...
II—Other general diseases.																						
40. Cancer, buccal	13	10	3	....	...	...	...	...	...	....	...	...	...	...	...	1	3	4	3	2	...	...
41. " stomach and liver	198	111	87	....	...	...	...	...	...	....	...	...	...	...	4	24	46	69	41	14	...	...
42. Cancer, intestines	73	36	37	....	...	...	...	...	...	....	...	1	...	2	3	5	14	23	19	6	...	...
43. Cancer of the female genital organs	81	....	81	....	...	...	...	...	...	....	...	...	...	1	11	18	26	15	8	2	...	...
44. Cancer of the breast	49	....	49	....	...	...	...	...	...	....	...	...	...	1	4	12	9	12	7	4	...	...
45. Cancer of the skin	2	2	....	....	...	...	...	...	...	....	...	...	...	...	...	...	...	2	....	...	...	...
46. " of other organs	185	110	75	....	1	...	1	...	1	3	...	1	1	2	6	32	52	47	31	10	...	...
47. Other tumors (non cancerous)	20	11	9	....	...	...	1	...	...	1	...	...	1	...	3	3	8	2	2	...	...	...
48. Acute rheumatism	39	17	22	....	1	1	...	...	...	2	4	13	3	2	2	2	3	5	3	...	...	...
49. Chronic rheumatism gout	17	7	10	....	...	...	...	...	...	....	...	...	...	...	...	1	3	5	4	4	...	...
50. Scurvy	....	....	....	....	...	...	...	...	...	....	...	...	...	...	...	...	...	....	....	...	...	...
51. Pellagra	....	....	....	....	...	...	...	...	...	....	...	...	...	...	...	...	...	....	....	...	...	...
53. Rickets	18	12	6	7	3	5	1	1	1	18	...	...	...	...	...	...	...	....	....	...	...	...
54. Diabetes	98	33	65	....	...	...	1	...	...	1	...	2	1	1	3	5	21	44	15	4	1	...

DEATHS FROM ALL CAUSES, DURING THE YEAR.—Continued.

	Total	SEX		0 to 6 months	6 mths to 1 yr.	1 yr. to 2 yrs.	2 yrs. to 3 yrs.	3 yrs. to 4 yrs.	4 yrs. to 5 yrs.	Total under 5 yrs	5 yrs. to 9 yrs.	10 yrs. to 14 yrs.	15 yrs. to 19 yrs.	20 yrs. to 29 yrs.	30 yrs. to 39 yrs.	40 yrs. to 49 yrs.	50 yrs to 59 yrs.	60 yrs. to 69 yrs.	70 yrs. to 79 yrs.	80 yrs. to 89 yrs.	90 yrs. to 99 yrs.	100 yrs. and over
		Male	Female																			
55. Anemia ,chlorosis ...	8	4	4	1	1	1	...	...	...	3	1	...	...	...	...	...	...	2	2	...	...	...
A. Pernicious anemia.	23	8	15	....	...	1	...	...	...	1	...	...	1	2	...	6	3	4	5	1	...	...
56. Pituitary gland disease	....	....	....	....	...	...	...	...	...	....	...	...	...	...	...	...	...	....	....	...	...	...
57. Thyroid gland disease	2	1	1	1	...	...	...	...	...	1	...	...	...	...	...	...	...	1	....	...	...	...
58. Exophtalmic goître ..	11	4	7	....	...	...	...	...	...	....	...	...	1	1	2	2	...	2	3	...	...	...
A. Thymus gland disease	5	3	2	4	...	1	...	...	...	5	...	...	...	...	...	...	...	....	....	...	...	...
59. Addison's disease (adrenals)	4	2	2	....	...	...	...	...	...	....	...	...	...	...	2	...	1	....	1	...	...	...
60. Diseases of the spleen	3	1	2	....	...	...	1	...	...	1	1	...	...	...	1	...	...	....	....	...	...	...
61. Leukemia	7	6	1	....	...	...	1	...	...	1	...	...	1	1	1	1	...	1	1	...	...	...
62. Alcoholism	14	12	2	....	...	...	...	...	...	....	...	...	...	...	3	7	3	1	....	...	...	...
63. Saturnism	2	2	....	....	...	...	...	...	...	....	...	...	...	...	1	...	1	....	....	...	...	...
64. Other occupational diseases	4	2	2	....	...	...	...	...	...	....	...	...	...	3	1	...	...	....	....	...	...	...
65. Other general diseases	1	1	....	....	...	...	...	...	...	....	...	...	...	1	...	...	...	....	....	...	...	...
Total	877	395	482	13	6	9	6	1	2	37	6	17	9	17	47	119	193	239	145	47	1	...

III—Diseases of the Nervous System.																						
66. Encephalitis	16	9	7	2	...	...	1	...	1	4	1	1	...	...	3	1	2	2	1	1	...	...
67. Simple meningitis	125	61	64	28	24	16	6	5	5	84	11	6	6	8	5	3	...	1	1	...	...	...
68. Locomotor ataxia	11	8	3	....	...	...	...	...	...	....	...	...	...	...	2	1	2	4	2	...	...	...
69. Other diseases of the spine	9	6	3	....	...	...	...	...	...	....	...	...	...	...	1	1	2	2	3	...	...	...
70. Hemorrhage of the brain apoplexy	249	130	119	2	...	...	1	...	...	3	...	...	...	5	12	30	46	60	65	26	2	...
A. Thrombosis, embol.	18	8	10	....	...	...	...	...	...	....	...	...	...	1	1	1	2	4	7	2	...	...
71. Paralysis	59	24	35	....	...	...	...	...	...	....	...	...	1	2	...	4	8	12	21	11	...	...
A. Hemiplegia	63	20	43	....	...	...	...	1	...	1	...	...	...	...	2	2	8	17	20	12	1	...
72. General paralysis	50	31	19	....	...	...	...	...	...	....	1	...	...	2	1	5	4	18	15	4	...	...
73. Other forms of insanity	8	4	4	....	...	...	...	...	...	....	...	...	...	1	1	2	2	2	....	...	...	...
74. Epilepsy	20	9	11	1	...	...	...	...	...	1	...	1	...	5	2	5	...	3	3	...	...	...
75. Convulsions (5 years and over)	3	2	1	....	...	...	...	...	...	....	2	...	...	...	...	1	...	....	....	...	...	...
76. Convulsions (under 5 years)	49	29	20	15	16	11	6	...	1	49	...	...	...	...	...	...	...	....	....	...	...	...
77. Chorea	1	....	1	....	...	...	...	...	...	....	...	1	...	...	...	...	...	....	....	...	...	...
78. Neuralgia and neuritis	2	1	1	....	...	...	...	...	...	....	...	...	...	...	...	...	...	....	1	...	1	...
79. Softening of the brain	8	5	3	....	...	...	...	...	...	....	...	...	...	...	...	1	...	2	4	1	...	...
80. Other diseases of the nervous system	21	13	8	....	1	...	...	1	...	2	3	1	1	2	2	3	2	....	5	...	...	...
81. Diseases of the eye and annexa	1	....	1	1	...	...	...	...	...	1	...	...	...	...	...	...	...	....	....	...	...	...
82. Diseases of the ear	21	15	6	8	6	2	1	...	...	17	1	...	...	1	...	1	...	....	1	...	...	...
A. Diseases of the mastoid process	29	14	15	7	9	3	1	1	...	21	...	1	1	3	1	1	1	....	....	...	...	...
Total	763	389	374	64	56	32	16	8	7	183	19	11	9	30	33	62	79	127	149	57	4	...

DEATHS FROM ALL CAUSES, DURING THE YEAR.—Continued.

	Total	SEX		0 to 6 months	6 mths to 1 yr.	1 yr. to 2 yrs.	2 yrs. to 3 yrs.	3 yrs. to 4 yrs.	4 yrs. to 5 yrs.	Total under 5 yrs	5 yrs. to 9 yrs.	10 yrs. to 14 yrs.	15 yrs. to 19 yrs.	20 yrs. to 29 yrs.	30 yrs. to 39 yrs.	40 yrs. to 49 yrs.	50 yrs to 59 yrs.	60 yrs. to 69 yrs.	70 yrs. to 79 yrs.	80 yrs. to 89 yrs.	90 yrs. to 99 yrs.	100 yrs. and over
		Male	Female																			
IV.—Diseases of the Circulatory System																						
83. Pericarditis	14	9	5	....	...	...	...	...	...	....	3	2	...	1	...	1	2	1	3	1	...	...
84. Endocarditis, acute myocarditis	113	61	52	5	1	3	2	3	2	16	6	5	13	9	5	5	12	16	9	15	2	...
85. Angina pectoris	77	49	28	....	...	...	...	...	...	....	...	1	...	1	4	6	18	20	19	8	...	...
86. Other diseases of the heart	617	323	294	3	1	2	1	2	1	10	7	13	9	36	31	74	100	129	147	55	6	...
87. Aneurism	7	7	....	....	...	...	...	...	...	....	...	...	...	...	...	...	2	4	1	...	...	...
A. Arterio-sclerosis	154	88	66	....	...	...	...	...	...	....	...	...	...	...	...	3	15	38	59	37	2	...
B. Other diseases of the arteries	12	6	6	....	1	...	...	...	...	1	...	...	...	...	2	2	4	1	1	1	...	...
88. Embolism and thrombosis (not cerebral)	22	15	7	....	...	...	1	...	...	1	...	...	...	...	3	...	9	7	1	1	...	...
89. Diseases of the veins	4	....	4	....	...	...	...	...	...	....	...	1	...	...	1	...	...	1	1	...	...	...
90. Diseases of the lymphatic system	1	....	1	....	...	...	...	1	...	1	...	...	...	...	...	...	...	....	....	...	...	...
91. Hemorrhages	5	2	3	1	...	...	1	...	...	2	...	...	...	...	1	...	...	2	....	...	...	...
92. Other diseases of the circulatory system	....	....	....	....	...	...	...	...	...	....	...	...	...	...	...	...	...	....	....	...	...	...
Total	1026	560	466	9	3	5	5	6	3	31	16	22	22	47	47	91	162	219	241	118	10	...

V—Diseases of the respiratory system.																						
93. Diseases of the nasal fossae and annexa.	4	2	2	3	...	1	...	...	...	4	...	...	...	...	...	...	...	....	....	...	...	...
94. Diseases of the larynx	18	8	10	3	1	4	2	1	2	13	5	...	...	...	...	...	...	....	....	...	...	...
95. Acute bronchitis	34	18	16	7	4	4	2	1	...	18	2	...	...	1	1	...	2	3	5	2	...	...
A. Chronic bronchitis.	34	14	20	1	...	1	...	...	...	2	...	...	1	...	1	1	5	9	11	4	...	...
96. Broncho-pneumonia .	404	219	185	118	72	81	29	8	5	313	7	4	3	7	9	5	8	13	22	12	1	...
A. Capillary bronchitis	27	12	15	9	5	5	1	1	2	23	...	...	...	...	...	...	1	1	1	1	...	...
97. Pneumonia	252	131	121	33	23	25	6	7	4	98	13	2	8	14	14	15	24	28	20	13	3	...
A. Lobar	100	55	45	6	8	8	2	...	1	25	4	1	...	7	5	10	15	11	17	4	...	1
98. Pleurisy	36	17	19	3	1	...	2	2	1	9	3	1	2	4	6	4	3	3	....	1	...	...
99. Congest. of the lungs.	74	38	36	7	5	1	3	1	...	17	2	...	1	4	2	6	10	11	10	11	...	...
100. Gangrene of the lungs	5	5	....	....	...	...	...	...	...	....	...	...	...	...	1	...	2	2	....	...	...	...
101. Asthma	9	5	4	....	...	...	...	...	...	....	...	...	...	...	...	1	1	3	4	...	...	...
102. Emphysema	10	8	2	....	...	1	...	...	...	1	...	...	...	...	...	3	2	2	2	...	...	...
103. Other diseases of the respiratory system (tuberculosis excepted)	7	4	3	....	...	2	1	1	...	4	...	...	1	1	...	1	...	....	....	...	...	...
Total	1014	536	478	190	119	133	48	22	15	527	36	8	16	38	39	46	73	86	92	48	4	1
VI—Diseases of the digestive system.																						
104. Diseases of the mouth and annexa	....	....	....	....	...	...	...	...	...	....	...	...	...	...	...	...	...	....	....	...	...	...
105. Diseases of the pharynx and of the tonsils	26	11	15	4	4	4	1	2	1	16	4	1	2	1	1	1	...	....	....	...	...	...
106. Diseases of the oesoph.	1	1	....	....	...	...	...	...	...	....	...	...	...	...	...	...	...	1	....	...	...	...
107. Ulcer of the stomach.	13	8	5	....	...	...	...	...	...	....	...	...	...	1	...	4	2	3	2	...	1	...
A. Ulcer of the duode.	5	4	1	....	...	...	...	...	...	....	...	...	...	...	1	3	...	....	....	1	...	...

DEATHS FROM ALL CAUSES, DURING THE YEAR.—Continued.

	Total	SEX		0 to 6 months	6 mths to 1 yr.	1 yr. to 2 yrs.	2 yrs. to 3 yrs.	3 yrs. to 4 yrs.	4 yrs. to 5 yrs.	Total under 5 yrs	5 yrs. to 9 yrs.	10 yrs. to 14 yrs.	15 yrs. to 19 yrs.	20 yrs. to 29 yrs.	30 yrs. to 39 yrs.	40 yrs. to 49 yrs.	50 yrs to 59 yrs.	60 yrs. to 69 yrs.	70 yrs. to 79 yrs.	80 yrs. to 89 yrs.	90 yrs. to 99 yrs.	100 yrs. and over
		Male	Female																			
108. Other diseases of the stomach	167	89	78	41	12	6	4	2	2	67	4	1	...	2	8	14	19	23	21	8	...	...
109. Diarrhoea (under 2 years) enteritis	870	466	404	603	196	71	...	...	...	870	...	...	...	...	...	...	...	...	...	...	...	...
110. Diarrhoea (over 2 years) enteritis	63	33	30	...	...	...	14	4	7	25	7	2	2	2	1	3	4	5	8	4	...	...
111. Intestinal parasites	1	1	...	...	...	...	...	1	...	1	...	...	...	...	...	...	...	...	...	...	...	...
112. Appendicitis and typhlitis	77	44	33	...	1	...	1	...	1	3	13	9	15	17	9	3	3	5	...	...	...	...
113. Hernia	23	14	9	...	...	...	1	...	...	1	...	...	...	...	...	2	5	7	4	4	...	...
A. Intestinal obstruct.	37	16	21	2	2	1	...	...	...	5	...	...	2	1	3	3	4	6	8	5	...	...
114. Other diseases of the intestines	15	4	11	...	...	...	...	...	...	...	...	...	1	5	2	5	...	1	1	...	...	...
115. Ac. yellow atrophy of the liver	3	2	1	...	...	...	...	...	...	...	1	...	...	1	...	...	...	1	...	...	...	...
116. Hydatid tumor of the liver	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
117. Cirrhosis of the liver.	58	35	23	...	...	...	...	...	...	...	...	...	...	...	2	16	19	12	9	...	...	...
A. Alcoholic cirrhosis.	2	2	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	1	...	...	...	...
118. Biliary calculi	27	9	18	...	...	...	...	...	...	...	...	...	...	...	4	2	8	9	3	1	...	...
119. Other diseases of the liver	40	18	22	2	...	...	...	...	...	2	...	3	1	2	2	9	7	5	7	2	...	...

120. Diseases of the pancreas	11	6	5	....	...	...	...	...	...	....	...	...	...	1	5	1	2	2	....	...	...	...
121. Simple peritonitis	61	25	36	....	2	2	...	2	2	8	6	4	3	7	14	6	6	5	2	...	...	...
122. Other diseases of the digestive system	5	2	3	1	...	...	...	1	...	2	...	...	...	1	1	...	1	....	....	...	...	...
Total	1505	790	715	653	217	84	21	12	13	1000	35	20	26	41	53	73	80	86	65	25	1	...
VII—Diseases (non venereal) of the gen.-urinary system.																						
123. Acute nephritis	79	43	36	6	3	2	5	1	1	18	4	4	...	5	4	1	13	8	12	9	1	...
124. Chronic nephritis	683	323	360	....	...	...	...	...	...	....	3	2	7	24	50	94	93	182	159	65	4	...
125. Chyluria	....	....	....	....	...	...	...	...	...	....	...	...	...	...	...	...	...	....	....	...	...	...
126. Other diseases of the kidneys	30	14	16	....	1	1	...	...	...	2	1	...	...	...	5	9	3	4	4	1	1	...
127. Urinary calculi	3	3	....	....	...	...	...	...	...	....	...	...	...	1	...	1	...	1	....	...	...	...
128. Diseases of the bladder	9	8	1	....	1	1	...	...	...	2	...	...	...	1	...	1	1	2	1	1	...	...
129. Diseases of the urethra, abcess	2	2	....	....	...	1	...	...	...	1	...	...	...	...	...	...	1	....	....	...	...	...
130. Diseas. of the prostate	27	27	....	....	...	...	...	...	..	....	...	...	...	..1	...	...	3	9	12	2	...	...
131. Non venereal diseases of the male genital organs	....	....	....	....	...	...	...	...	...	....	...	...	...	...	...	...	...	....	....	...	...	...
132. Cysts of the ovary	10	....	10	....	...	...	...	...	...	....	...	...	...	2	3	1	2	1	1	...	...	...
133. Salpingitis	12	....	12	....	...	...	...	...	...	....	...	...	1	3	6	1	...	....	....	1	...	...
134. Tumor of the uterus.	8	....	8	....	...	...	...	...	...	....	...	...	...	...	3	2	1	1	1	...	...	...
135. Hemorrhage of the uterus (non puerperal	2	....	2	....	...	...	...	...	...	....	...	...	...	...	...	1	1	....	....	...	...	...
136. Other diseases of the female genital organs	6	....	6	....	...	...	...	...	...	....	...	...	...	2	3	...	...	....	1	...	...	...
137. Diseases of the breast, non puerperal	....	....	....	....	...	...	...	...	...	....	...	...	...	...	...	...	...	....	....	...	...	...
Total	871	420	451	6	5	5	5	1	1	23	8	6	8	39	74	111	118	208	191	79	6	...

DEATHS FROM ALL CAUSES, DURING THE YEAR.—Continued.

	Total	SEX		0 to 6 months	6 mths to 1 yr.	1 yr. to 2 yrs.	2 yrs. to 3 yrs.	3 yrs. to 4 yrs.	4 yrs. to 5 yrs.	Total under 5 yrs	5 yrs. to 9 yrs.	10 yrs. to 14 yrs.	15 yrs. to 19 yrs.	20 yrs. to 29 yrs.	30 yrs. to 39 yrs.	40 yrs. to 49 yrs.	50 yrs to 59 yrs.	60 yrs. to 69 yrs.	70 yrs. to 79 yrs.	80 yrs. to 89 yrs.	90 yrs. to 99 yrs.	100 yrs. and over
		Male	Female																			
VIII—The Puerperal State																						
138. Accidents of pregrancy	2	....	2	....	...	...	...	...	...	....	...	...	1	1	...	...	...	....	....	...	...	...
A. Abortion	3	....	3	....	...	...	...	...	...	....	...	...	1	1	1	...	...	....	....	...	...	...
B. Ectopic gestation	6	....	6	....	...	...	...	...	...	....	...	...	...	3	2	1	...	....	....	...	...	...
139. Puerper. hemorrhage	14	....	14	....	...	...	...	...	...	....	...	...	...	5	8	1	...	....	....	...	...	...
140. Other accidents of labor	1	....	1	....	...	...	...	...	...	....	...	...	...	...	...	1	...	....	....	...	...	...
A. Cesarean section	2	....	2	....	...	...	...	...	...	....	...	...	...	...	1	1	...	....	....	...	...	...
141. Puerperal septicemia	35	....	35	....	...	...	...	...	...	....	...	...	4	14	17	...	...	....	....	...	...	...
142. Puerp. phlegmasia alba dolens, embolus, sudden death	5	....	5	....	...	...	...	...	...	....	...	...	...	2	3	...	...	....	....	...	...	...
143. Puerperal albuminuria and convulsions	12	....	12	....	...	...	...	...	...	....	...	...	1	5	6	...	...	....	....	...	...	...
144. Others	3	....	3	....	...	...	...	...	...	....	...	...	...	1	2	...	...	....	....	...	...	...
145. Puerperal diseases of the breast	....	....	....	....	...	...	...	...	...	....	...	...	...	...	...	...	...	....	....	...	...	...
Total	83	....	83	....	...	...	...	...	...	....	...	...	7	32	40	4	...	....	....	...	...	...

IX—Diseases of the Skin																						
146. Gangrene	25	15	10	....	...	...	...	...	...	....	...	...	...	...	...	...	3	2	11	9	...	...
147. Furuncle	9	5	4	2	...	3	...	1	...	6	...	...	1	...	...	...	1	....	1	...	...	...
148. Acute abcess	15	7	8	6	2	1	...	...	...	9	1	...	...	2	...	...	...	....	3	...	...	...
149. Other diseases of the skin	18	11	7	7	3	3	...	...	...	13	...	...	...	1	1	...	1	1	....	1	...	...
Total	67	38	29	15	5	7	...	1	...	28	1	...	1	3	1	...	5	3	15	10	...	...
X—Diseases of the Bones and of the Organs of Locomotion.																						
150. Diseases of the bones.	6	4	2	....	...	...	...	1	1	2	1	...	1	1	...	...	...	....	1	...	...	...
151. Diseases of the joints.	4	2	2	....	...	...	...	...	...	....	...	...	...	1	...	...	...	1	2	...	...	...
152. Amputations	....	....	....	....	...	...	...	...	...	....	...	...	...	...	...	...	...	....	....	...	...	...
153. Others	....	....	....	....	...	...	...	...	...	....	...	...	...	...	...	...	...	....	....	...	...	...
Total	10	6	4	....	...	...	...	1	1	2	1	...	1	2	...	...	...	1	3	...	...	...
XI—Malformations.																						
154. Hydrocephalus	4	....	4	2	2	...	...	...	...	4	...	...	...	...	...	...	...	....	....	...	...	...
A. Congential malformations of the heart	48	32	16	44	1	2	...	1	...	48	...	...	...	...	...	...	...	....	....	...	...	...
B. Other malformations	23	12	11	22	...	...	...	...	...	22	...	...	...	1	...	...	...	....	....	...	...	...
Total	75	44	31	68	3	2	...	1	...	74	...	...	...	1	...	...	...	....	....	...	...	...
XII—Early Infancy.																						
155. Debility, icterus and sclerema	483	300	183	476	6	...	1	...	...	483	...	...	...	...	...	...	...	....	....	...	...	...
156. Premature birth: injury and debility	226	128	98	226	...	...	...	...	...	226	...	...	...	...	...	...	...	....	....	...	...	...
157. Other diseases peculiar to early infancy	32	17	15	28	1	2	...	1	...	32	...	...	...	...	...	...	...	....	....	...	...	...

DEATHS FROM ALL CAUSES, DURING THE YEAR.—Continued.

	Total	SEX		0 to 6 months	6 mths to 1 yr.	1 yr. to 2 yrs.	2 yrs. to 3 yrs.	3 yrs. to 4 yrs.	4 yrs. to 5 yrs.	Total under 5 yrs	5 yrs. to 9 yrs.	10 yrs. to 14 yrs.	15 yrs. to 19 yrs.	20 yrs. to 29 yrs.	30 yrs. to 39 yrs.	40 yrs. to 49 yrs.	50 yrs to 59 yrs.	60 yrs. to 69 yrs.	70 yrs. to 79 yrs.	80 yrs. to 89 yrs.	90 yrs. to 99 yrs.	100 yrs. and over
		Male	Female																			
158. Lack of care	....	....	....	....	...	...	...	...	...	....	...	...	...	...	...	...	...	....	....	...	...	...
Total	741	445	296	730	7	2	1	1	...	741	...	...	...	...	...	...	...	....	....	...	...	...
XIII—Old Age.																						
159. Senility	213	102	111	....	...	...	...	...	...	....	...	...	...	...	...	...	2	9	68	95	37	2
XIV—External Causes																						
160. Suicide, poison	5	5	....	....	...	...	...	...	...	....	...	...	...	...	...	1	2	1	1	...	...	...
161. Suicide by corrosive substances	2	2	....	....	...	...	...	...	...	....	...	...	...	...	1	...	1	....	....	...	...	...
162. Suicide by poisonous gas	11	6	5	....	...	...	...	...	...	....	...	...	...	2	2	...	3	3	1	...	...	...
163. Suicide by hanging or strangulation	4	2	2	....	...	...	...	...	...	....	...	...	...	1	3	...	...	....	....	...	...	...
164. Suicide by drowning	1	1	....	....	...	...	...	...	...	....	...	...	...	...	...	...	1	....	....	...	...	...
165. Suicide by firearms	10	10	....	....	...	...	...	...	...	....	...	...	...	1	1	4	2	....	2	...	...	...
166. Suicide by cutting instruments	3	3	....	....	...	...	...	...	...	....	...	...	...	1	...	...	...	1	1	...	...	...
167. Suicide by jumping from high places	2	2	....	....	...	...	...	...	...	....	...	...	...	...	...	...	1	....	1	...	...	...
168. Suicide by crushing	....	....	....	....	...	...	...	...	...	....	...	...	...	...	...	...	...	....	....	...	...	...
169. Other suicides	....	....	....	....	...	...	...	...	...	....	...	...	...	...	...	...	...	....	....	...	...	...
170. Poisoning by food	....	....	....	....	...	...	...	...	...	....	...	...	...	...	...	...	...	....	....	...	...	...

171.	Other acute accid. poisonings	11	7	4	1	...	2	...	...	...	3	2	...	...	1	3	1	1	....	....	...	...	...
172.	Conflagration	6	5	1	....	...	...	...	...	...	....	...	5	1	...	...	...	...	....	....	...	...	...
173.	Burns and scalds	26	10	16	....	...	6	1	3	4	14	1	1	3	...	2	...	...	2	2	1	...	...
174.	Accid. mech. suffocat.	1	1	....	....	...	...	...	...	...	....	...	...	...	...	...	1	...	....	....	...	...	...
175.	Acc. absorption of irrespir. or poison. gas.	69	43	26	1	1	...	...	...	1	3	13	24	7	3	8	4	3	3	1	...	...	...
176.	Accidental drowning	27	24	3	....	...	...	...	...	2	2	5	4	6	3	1	4	...	1	1	...	...	...
177.	Accidental traumatism by firearms	5	4	1	....	...	...	...	...	...	....	...	1	...	...	1	1	2	....	....	...	...	...
178.	Accidental traumatism by cut. or pierc. inst.	3	3	....	....	...	...	...	...	...	....	...	...	...	...	1	1	1	....	....	...	...	...
179.	Accid. traumatism by fall	46	39	7	....	1	3	...	1	1	6	...	...	1	5	7	8	3	6	5	4	1	...
	A. Accid. traumatism in mines and quarries	1	1	....	....	...	...	...	...	...	....	...	...	...	...	1	...	...	....	....	...	...	...
180.	Ac. trau. by machines	....	....	....	....	...	...	...	...	...	....	...	...	...	...	...	...	...	....	....	...	...	...
181.	Accidental traumatis. by railways	14	13	1	....	...	...	...	...	...	....	1	1	1	4	3	1	1	2	....	...	...	...
	A. Street car accidents	11	8	3	....	...	...	...	...	1	1	...	1	...	...	1	2	3	1	1	1	...	...
	B. Automobile accid.	79	56	23	....	...	...	...	1	4	5	12	9	3	11	11	7	9	6	4	2	...	...
	C. Injuries by other vehicles	9	5	4	....	...	...	...	1	...	1	2	2	2	1	...	1	...	....	....	...	...	...
182.	Starvation	1	....	1	....	...	...	...	...	...	....	...	...	...	...	...	...	...	....	1	...	...	...
183.	Excessive cold	....	....	....	....	...	...	...	...	...	....	...	...	...	...	...	...	...	....	....	...	...	...
184.	Excessive heat	1	1	....	....	...	...	...	...	...	....	...	1	...	...	...	...	...	....	....	...	...	...
185.	Lightning	....	....	....	....	...	...	...	...	...	....	...	...	...	...	...	...	...	....	....	...	...	...
186.	Other acc. elec. shock	3	3	....	....	...	...	...	...	...	....	...	...	1	...	...	2	...	....	....	...	...	...
187.	Homicide by firearms	1	1	....	....	...	...	...	...	...	....	...	...	...	...	1	...	...	....	....	...	...	...
188.	Homicide by cutting or pier. instruments	2	2	....	....	...	...	...	...	...	....	...	...	...	...	1	1	...	....	....	...	...	...
189.	Hom. by other means	3	3	....	....	...	...	...	...	...	....	...	...	...	1	...	1	1	....	....	...	...	...
190.	Fracture, causes specified	21	19	2	....	...	...	...	...	1	1	...	1	2	1	1	6	4	4	1	...	...	...
	A. Fracture, cause not																						

DEATHS FROM ALL CAUSES, DURING THE YEAR.—Continued.

	Total	SEX		0 to 6 months	6 mths to 1 yr.	1 yr. to 2 yrs.	2 yrs. to 3 yrs.	3 yrs. to 4 yrs.	4 yrs. to 5 yrs.	Total under 5 yrs	5 yrs. to 9 yrs.	10 yrs. to 14 yrs.	15 yrs. to 19 yrs.	20 yrs. to 29 yrs.	30 yrs. to 39 yrs.	40 yrs. to 49 yrs.	50 yrs to 59 yrs.	60 yrs. to 69 yrs.	70 yrs. to 79 yrs.	80 yrs. to 89 yrs.	90 yrs. to 99 yrs.	100 yrs. and over
		Male	Female																			
specified	23	16	7	....	...	...	...	...	1	1	...	...	1	...	3	2	3	3	7	3	...	...
191. Other extern. violence	36	24	12	....	...	...	...	...	...	....	8	19	3	2	2	...	...	....	2	...	...	...
A. Capital punishment	1	1	....	....	...	...	...	...	...	....	...	...	...	1	...	...	...	....	....	...	...	...
Total	438	320	118	2	2	11	1	6	15	37	44	69	31	38	54	48	41	33	31	11	1	...
XV—Ill-Defined Causes																						
192. Sudden death	131	93	38	....	...	1	...	...	...	1	...	...	1	4	6	23	29	42	23	2	...	...
193. Cause of death ill def.	40	23	17	8	8	2	2	...	2	22	1	...	...	3	2	4	1	5	1	1	...	...
194. Cause of death not sp.	5	1	4	2	1	...	...	...	...	3	...	...	...	...	...	1	...	....	1	...	...	...
Total	176	117	59	10	9	3	2	...	2	26	1	...	1	7	8	28	30	47	25	3	...	...
Grand Total.....	9991	5234	4757	1879	546	421	189	140	95	3270	315	247	330	681	672	787	923	1128	1065	502	67	4

METEOROLOGIGAL SERVICE OF CANADA.

Abstract for year 1927.

Observations made at McGill Observatory, Montreal Can. Lat. 45° 30' N. Long 75° 35' W. Height above sea level 187'.

Month	Thermometer					*Barometer				‡ Mean relative humidity	Wind		Per cent possible sunshine	Precipitation						
	† Mean	(a) Deviation from years means	Maximum	Minimum	Mean daily range	† Mean	Max	Min	Mean daily range		Resultant direction	Mean velocity M.P.H.		Inches Rain	No. of days on which rain or sleet fell	Inches snow	Inches of rain melted snow	No of days on which snow fell	No of days on which rain & snow fell.	No of days on which ra'n or snow fell
January	16.63	† 3.75	44.5	16.0	14.55	30.099	30.98	29.26	.310	75.6	.....	7.95	21.7	0.76	5	19.4	2.65	15	3	16
February	18.23	† 3.27	40.0	8.4	13.44	30.030	30.71	29.36	.401	75.5	.....	7.95	30.0	T	0	34.7	3.45	15	0	15
March	31.56	† 5.77	51.8	8.1	12.19	30.075	30.49	29.21	.243	68.7	.....	7.66	49.9	1.12	5	5.8	1.72	3	0	8
April	43.12	† 2.20	78.2	18.8	19.11	30.028	30.46	29.40	.221	62.5	.....	7.45	63.6	1.06	8	0.3	1.11	2	1	9
May	52.53	_ 2.22	76.2	37.0	15.35	29.874	30.47	29.41	.186	73.5	.....	6.54	29.0	4.79	16	.....	4.79	....	....	16
June	61.38	_ 3.00	85.8	43.7	18.37	29.925	30.24	29.42	.190	71.2	.....	6.82	54.5	4.34	19	.....	4.34	....	....	19
July	68.33	_ 0.80	84.7	47.4	16.70	29.916	30.28	29.61	.163	77.3	.....	6.20	48.8	3.94	14	.....	3.94	....	....	14
August	64.08	_ 2.48	83.2	48.5	15.96	29.947	30.44	29.65	.140	75.9	.....	5.95	51.5	3.02	14	.....	3.02	....	....	14
September	60.07	† 1.53	80.2	44.0	15.36	29.957	30.48	29.44	.186	75.4	.....	7.22	44.9	2.52	14	.....	2.52	....	....	14
October	49.85	† 3.34	80.0	32.8	12.52	29.933	30.42	29.06	.272	75.6	.....	7.14	30.1	3.70	11	.....	3.70	....	....	11
November	36.30	† 3.24	67.0	19.3	11.02	30.004	30.66	29.04	.342	81.0	.....	6.84	11.1	11.35	19	6.9	12.35	8	5	22
December	22.98	† 3.62	48.0	1.0	12.94	29.997	30.92	29.06	.415	78.8	.....	11.03	13.2	2.37	8	34.4	5.59	11	3	16
Sums for 1927	.....	....	.....	.....	.....	.....	.....	.....	....	.....	.....	.....	.....	38.97	133	101.5	49.18	54	12	174
Means for 1927	.....	† 1.52	68.30	22.85	14.79	29.982	30.55	29.33	.256	74.25	.....	7.40	37.36	.....	.....	.....	.....	....	....	....
Means for 53 years ending. Dec. 31 1927.	.....	....	66.28	18.89	.....	29.982	.....	.....	.232	74.17	.....	.....	44.20	29.15	.....	116.6	41.12	....	....	....

* Barometer reading reduced to sea level and 32° Fahrenheit.

‡ The monthly Thermometer and Barometer means are from bi-hourly readings from self recording instruments. (a) "+" indicates that the temperature has been higher, "—" that it has been lower than average for 53 years. ‡ Humidity relative, saturation being 100. Means of readings every four hours from recording hygrometer. ¶ For years only. § For 46 years only. The anemometer and wind vane are exposed at the summit of Mount Royal, 54 feet above the ground and 807 feet above sea level.

The greatest heat was 85.8 (Fah.) above zero, on June 10th, the greatest cold was 16.0° below zero on January 26th. The extreme range of temperature was therefore 101.8 degrees. The greatest temperature range in one day was 31.7° on April 17th; the least range was 2.0° on November 3rd. The warmest day was July 1st when the mean temperature was 74.4° above zero. The coldest was January 26th. when the mean temperature was 11.1° below zero.

The minimum relative humidity observed was 27 on April 11th. Hail on 0 days. Fog on 9 days. Thunderstorms on 14 days. Auroras observed on 3 nights. Lunar halos on 7 nights. Solar halos on 9 days. First trace of snow on November 6th. First appreciable snowfall on November 6th. First sleighing on November 25th. First zero weather on December 4th. Navigation season approximate dates April 10th—Dec. 8th. The total wind mileage was . The resultant mileage was . Resultant direction . The greatest velocity in one hour was 30 on January 16th., December 8th. The greatest rainfall in one day was 3.32 inches on November 17th. The heaviest snowfall was on December16th. 16. inches fe.l in 18 hours.

Note : Yearly means are averages of Monthly means.