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Report of the Department of Health

of

MONTREAL, P.Q. (Canada)

Year 1939

By DOCTOR AD. GROULX, M.P.H., F.R.S.I.(E.),
DIRECTOR

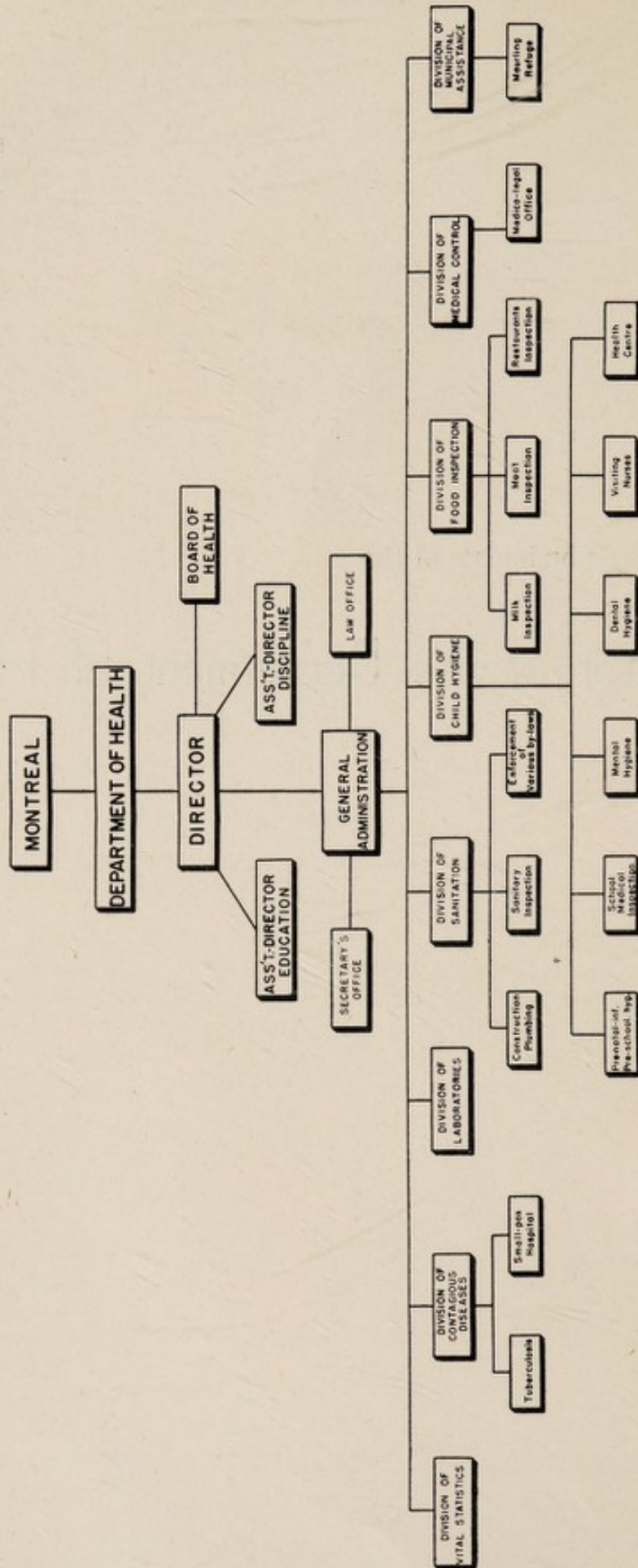


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With the compliments of the

Director of the Department of Health





Report of the Departement of Health

of

MONTREAL, P.Q. (Canada)

Year 1939

By DOCTOR AD. GROULX, M.P.H., F.R.S.I.(E.),
DIRECTOR

CITY OF MONTREAL

MAYOR:

His Worship CAMILLIEN HOUDE, C.B.E.

EXECUTIVE COMMITTEE:

Alderman J. M. SAVIGNAC, President,
Aldermen JANVIER COUPAL, HECTOR DUPUIS,
J. H. DELISLE, JOHN KERRY, Members.

HEALTH COMMISSION:

Alderman J. M. SAVIGNAC,
Aldermen Z. H. LESAGE, JANVIER COUPAL,
J. A. EDMISON, and Dr. AD. GROULX,
Dr. E. G. ASSELIN, Dr. B. G. BOURGEOIS,
Dr. A. GRANT FLEMING, Dr. FRANK G. PEDLEY, Members.

HEALTH DEPARTMENT:

Dr. AD. GROULX, M.P.H., Director,
Dr. ADRIEN PLOUFFE, Dr.P.H., Assistant Director,
Dr. EUG. GAGNON, Assistant Director.

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STAFF OF THE DEPARTMENT OF HEALTH Year 1939

DIRECTOR'S OFFICE:

Dr. AD. GROULX, M.P.H., F.R.S.I.(E.), Director,
 Dr. ADRIEN PLOUFFE, Dr.P.H., Assistant Director,
 Dr. EUG. GAGNON, Assistant Director,
 G. MENARD, Lawyer,
 1 Secretary and office chief,
 1 Office chief (general administration),
 1 Archivist,
 1 Clerk, 2nd grade,
 3 Stenographer clerks,
 1 Messenger,
 1 Storekeeper in charge and 1 Clerk 3rd grade.

DIVISION OF CONTAGIOUS DISEASES:

Dr. J. H. GERVAIS, D.P.H., Superintendent,
 1 Assistant Superintendent,
 1 Clerk, 3rd grade,
 2 Typist clerks,
 2 Clerks, 4th grade,
 3 Epidemiologists,
 1 Nurse (supervisor),
 10 Nurses,
 3 Disinfectors,
 1 Janitor (Smallpox hospital),
 1 Cook (Smallpox hospital).

Section of tuberculosis:

Dr. LEO LADOUCEUR,
 1 Nurse (supervisor),
 3 Nurses,
 1 Typist clerk,
 1 Technician.

DIVISION OF CHILD HYGIENE:

Dr. J. N. LAPORTE, Superintendent,
 1 Assistant superintendent,
 1 Medical chief inspector,
 1 Medical inspector district chief (Maisonneuve District),
 3 Stenographer clerks,
 4 Typist clerks,
 1 Clerk, 4th grade,
 1 Stationary engineer and caretaker (Laurier Clinic),
 21 Medical inspectors,
 1 Head nurse,
 6 Nurses (supervisors),
 97 Visiting school nurses,
 2 Nurses inspecting boarding houses for children,
 2 Nurses—Test of hearing.

Mental Hygiene Section:

4 Psychiatrists,
 1 Supervising nurse,
 3 Nurses (psychologists).

Dental Hygiene Section (Dental Clinics):

Dr. R. LALONDE, Chief of section,
 1 Dental inspector (protestant schools),
 5 Dentists at dental clinics,
 6 Nurses,
 5 Assistant-nurses,

Orthodontic Clinic:

Dr. PAUL GEOFFRION, Chief,
 1 Technician.

DIVISION OF FOOD INSPECTION:

Dr. A. J. G. HOOD, D.V.S., Superintendent,
 1 Assistant superintendent,
 1 Clerk, 1st grade,
 2 Stenographer clerks,
 2 Typist clerks.

Section No. 1—Milk Inspection:

1 Supervisor,
 8 Country inspectors,
 10 City inspectors.

Pasteurization Inspection:

1 Supervisor,
 7 Inspectors.

Section No. 2—Meat Inspection:

1 Supervisor,
 1 Clerk, 2nd grade,
 1 Typist clerk,
 1 Inspector of abattoirs in suburbs, and ice,
 7 District inspectors,
 6 Veterinary surgeons, meat inspection stations.

Section No. 3—Inspection of Dining-Rooms, Restaurants, etc:

1 Supervisor,
 1 Inspector.

DIVISION OF SANITATION:

Mr. AIMÉ COUSINEAU, C.E., Sanitary Engineer and Superintendent,
 1 Assistant superintendent,
 1 Clerk, 1st grade,
 2 Clerks, 3rd grade,
 1 Typist clerk,
 1 Supervisor of plumbing inspectors,

- 7 Plumbing inspectors,
- 1 Inspector of gas connections and appliances,
- 1 Supervisor of sanitary inspectors,
- 19 Sanitary inspectors (one for inspection of boarding houses for children, private maternities, etc.),
- 2 Laundries inspectors,
- 2 Inspectors for barber shops, etc.

DIVISION OF MEDICAL CONTROL:

- Dr. J. A. CHARRON, Superintendent,
- 4 Visiting physicians,
- 1 Typist clerk,
- 1 Clerk, 3rd grade.
- Medico-legal Section:**
- Dr. L. ROUX,
- 1 Nurse and secretary.

DIVISION OF LABORATORIES:

- Dr. A. BOLDUC, Superintendent and Bacteriologist,
- 2 Bacteriologists,
- 2 Chemists,
- 1 Analyst,
- 1 Technician,
- 3 Laboratory helpers,
- 1 Stenographer clerk.

DIVISION OF STATISTICS:

- Dr. EUGENE GAGNON, Superintendent,
- 1 Statistician,
- 4 Clerks, 3rd grade.

DIVISION OF MUNICIPAL ASSISTANCE:

- Mr. A. CHEVALIER, Superintendent,
- 1 Assistant superintendent,
- 1 Clerk, 1st grade,
- 2 Clerks, 2nd grade,
- 5 Clerks, 3rd grade,
- 2 Stenographer clerks,
- 1 Typist clerk,
- 1 Chief investigator,
- 13 Investigators,
- 1 Physician.

Social Service Exchange:

- 2 Clerks, 3rd grade,
- 1 Clerk, 4th grade,
- 1 Typist clerk.

Meurling Refuge:

- 1 Supervisor,
- 1 Clerk, 3rd grade,
- 2 Furnacemen,
- 1 Laundryman,
- 1 Cook,
- 5 Guards.

ANNUAL REPORT

1 9 3 9

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 1939.

I beg you to note that the fiscal year which was previously corresponding with the calendar year, now begins the 1st May of a given year to end on April 30th of the next year.

Consequently, the expenses mentioned in the following table correspond with the new fiscal year of the City, while the balance of this report: reports of the divisions, tables, etc., continue to remain, as previously, based on the calendar year.

Expenses

The total expenditure for 1939, in the Department of Health amounted to \$3,870,746.46, distributed as follows:

Hygiene.....	\$ 606,461.90
Municipal Assistance.....	2,559,237.81
Hospitalization of contagious.....	500,145.79
Grants to Universities.....	20,000.00
Technical School.....	75,000.00
Grants to charitable institutions.....	103,900.96
Ecoles Ménagères.....	4,000.00
Christmas Seals.....	2,000.00
	<hr/>
Total.....	3,870,746.46
	<hr/>
Expenses recovered.....	\$ 48,779.05
	<hr/> <hr/>

It should be noted that payment of grants to Universities, to charitable institutions, to the Ecoles Ménagères and to the Technical School should preferably come under another Service than the Health Department.

To establish the per capita expenditure, we are at the obligation to take as a basis the expenses of the new fiscal year and the evaluation of the population for 1939; consequently, the population having been estimated at 900,000 inhabitants, we arrive at the following result:

For hygiene properly speaking.....\$0.674 per capita.

For municipal assistance..... 2.84 per capita.

The following list shows the detail of expenditure during the fiscal year 1939-40:

Hygiene

GENERAL ADMINISTRATION EXPENSES:

General expenses.....	\$	74,806.17
-----------------------	----	-----------

DIRECTOR'S OFFICE:

Salaries.....	\$	34,335.10	
Administration.....		240.57	
		<hr/>	34,575.67

SANITATION:

Salaries.....		58,004.95	
Administration.....		985.92	
		<hr/>	58,990.87

CONTAGIOUS DISEASES:

Salaries.....		42,776.71	
Administration.....		6,715.32	
		<hr/>	49,492.03

FOOD INSPECTION:

Salaries.....	88,901.51	
Administration.....	1,643.98	
	<u> </u>	90,545.49

CHILD HYGIENE:

Salaries.....	224,581.03	
Administration.....	22,440.53	
	<u> </u>	247,021.56

MEDICAL CONTROL:

Salaries.....	20,498.70	
Administration.....	240.41	
	<u> </u>	20,739.11

STATISTICS:

Salaries.....	7,080.00	
Administration.....	197.08	
	<u> </u>	7,277.08

LABORATORIES:

Salaries.....	20,703.98	
Administration.....	2,309.94	
	<u> </u>	23,013.92

Municipal Assistance

Salaries.....	\$ 40,840.26	
Administration.....	1,645.11	
	<u> </u>	\$ 42,485.37

Art. 338a OF THE CITY CHARTER:

MEURLING REFUGE:

Salaries.....	\$	12,982.57
Food.....	}	43,903.05
Maintenance.....		
Linen.....		
	—————	\$ 56,885.62

OBLIGATORY EXPENSES:

Quebec's Statuts.....	\$2,084,424.24
Contracts and resolutions of the Executive Committee.....	375,442.58
	—————
	=====

Demographic Movement

POPULATION

On July 1st 1939, the population of the City of Montreal, computed by the Superintendent of the Division of Statistics of the Department of Health, is evaluated to 900,000 inhabitants.

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

BIRTH RATE

The number of births in 1939 amounted to 17,116; in 1938 it had been 17,062; showing therefore an increase of 54 over the preceding year and a decrease of 64 as compared to 1937.

The proportion of births per 1,000 inhabitants for 1939, based on the valuation of the population at 900,000, is 19.02 showing a decrease of 0.08 over the preceding year; it also represents a decrease of 0.83 over the average for the five years from 1934 to 1938 and a decrease of 3.17 as compared to the average for the ten preceding years.

Table I compare the number and the rate of births for the year 1939 with the ten preceding years, taken separately and in groups of five and of ten years.

Table I

BIRTHS

Period 1929-1933 (5 years)

Years	Population	Number of births	Proportion per 1,000 inhabitants
1929.....	775,800	20,415	26.32
1930.....	796,800	20,993	26.33
1931.....	818,577	20,699	25.29
1932.....	833,000	19,997	24.01
1933.....	847,000	18,431	21.76
Average.....	814,235	20,107	24.69

Period 1934-1938 (5 years)

1934.....	855,000	18,433	21.56
1935.....	863,000	17,361	20.12
1936.....	875,000	16,725	19.11
1937.....	885,000	17,180	19.41
1938.....	893,000	17,062	19.10
Average.....	874,200	17,352	19.85

Period 1929-1938 (10 years)

Average.....	844,217	18,730	22.19
--------------	---------	--------	-------

Year 1939

Year 1939.....	900,000	17,116	19.02
----------------	---------	--------	-------

MARRIAGE RATE

In 1939, there were 10,650 marriages, as against 8,608 in 1938 representing an increase of 2,042 over the preceding year.

The proportion per thousand of population is therefore 11.83 for 1939; it is an increase of 3.11 over the average of the five years 1934 to 1938, and of 3.53 over the average for the ten years 1929 to 1938.

Table II compares the rate and the number of marriages in 1939, with the preceding ten years taken separately and in group of five and ten years.

Table II

MARRIAGES

Period 1929-1933 (5 years)

Years	Population	Number of marriages	Proportion per 1,000 inhabitants
1929.....	775,800	7,332	9.45
1930.....	796,800	6,643	8.34
1931.....	818,577	6,196	7.57
1932.....	833,000	5,780	6.93
1933.....	847,000	5,964	7.04
Average.....	814,235	6,383	7.84

Period 1924-1938 (5 years)

1934.....	855,000	6,536	7.64
1935.....	863,000	7,035	8.14
1936.....	875,000	7,633	8.72
1937.....	885,000	8,305	9.38
1938.....	893,000	8,608	9.64
Average.....	874,200	7,623	8.72

Period 1929-1938 (10 years)

Average.....	844,217	7,003	8.30
--------------	---------	-------	------

Year 1939

Year 1939.....	900,000	10,650	11.83
----------------	---------	--------	-------

DEATH RATE

The number of deaths in 1939 amounted to 9,191, as against 9,125 in 1938; showing in consequence an increase of 66 deaths.

The proportion of deaths compared to the population is 10.21 per thousand, as against 10.22 in 1938, or a decrease of 0.01.

The 1939 death rate is 0.29 per thousand below the average for the five years from 1934 to 1938 and of 1.20 below the average of the ten preceding years.

Table III shows a statement of the mortality since 1929 for each year separately and by groups of five and ten years.

Table III

DEATHS

Period 1929-1933 (5 years)

Years	Population	Number of deaths	Proportion per 1,000 inhabitants
1929.....	775,800	10,604	13.67
1930.....	796,800	10,256	12.87
1931.....	818,577	9,886	12.08
1932.....	833,000	9,728	11.68
1933.....	847,000	8,975	10.60
Moyenne.....	814,235	10,090	12.39

Period 1934-1938 (5 years)

1934.....	855,000	8,955	10.47
1935.....	863,000	9,162	10.62
1936.....	875,000	8,934	10.21
1937.....	885,000	9,738	11.00
1938.....	893,000	9,125	10.22
Average.....	874,200	9,183	10.50

Period 1929-1938 (10 years)

Average.....	844,217	9,636	11.41
--------------	---------	-------	-------

Year 1939

Year 1939.....	900,000	9,191	10.21
----------------	---------	-------	-------

NATURAL INCREASE OF THE POPULATION

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

In 1939 the excess of births over deaths was 7,925 while the average for the ten years from 1929 to 1938 was 9,094, or a decrease of 1,169.

The natural increase of the population shows for the year 1939 a rate of 8.8 per thousand of population.

Table IV

Natural Increase of the Population

Years	Births	Deaths	Excess of births over deaths
1929-1933 (5 years).....	100,535	50,450	50,085
1934-1938 (5 years).	86,760	45,915	40,845
1929-1938 (average 10 years)	18,730	9,636	9,094
Year 1939.....	17,116	9,191	7,925

INFANT MORTALITY

The number of deaths registered in 1939, of children under one year, is 1,223 as against 1,320 in 1938, showing a decrease of 97.

The proportion per 1,000 births is 71.5 in 1939, as against 77.4 in 1938, representing a decrease of 5.9 per thousand.

If the proportion of deaths had been as high as the average rate of the past ten years, 513 more deaths would have been recorded.

Table V indicates the variations in infant mortality since 1929 for each year separately and in groups of five of and ten years.

Table V

Deaths from 0 to 1 year per 1,000 births

(Still-born not included)

Period 1929-1933 (5 years)

Years	Births	Deaths under one year	Proportion per 1,000 births
1929.....	20,415	2,701	132.3
1930.....	20,993	2,620	124.8
1931.....	20,699	2,345	113.3
1932.....	19,997	1,979	98.9
1933.....	18,431	1,817	98.6
Average.....	20,107	2,292	114.0

Period 1934-1938 (5 years)

1934.....	18,433	1,674	90.8
1935.....	17,361	1,602	92.2
1936.....	16,725	1,404	83.9
1937.....	17,180	1,547	90.0
1938.....	17,062	1,320	77.4
Average.....	17,352	1,509	86.9

Period 1929-1938 (10 years)

Average.....	18,730	1,900	101.4
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Year 1939

Year 1939.....	17,116	1,223	71.5
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DEATHS FROM 0 TO 1 YEAR PER 1,000 BIRTHS, BY PERIODS OF TEN YEARS

Table VI shows the average of deaths from 0 to 1 year, in periods of ten years from 1907 to 1938, and the mortality in the year 1939.

This table is certainly the one showing obviously the constant decrease occurring in infant mortality.

Indeed, its perusal shows that for each period of ten years there has been a constant decrease from 1907 to 1938; it may perhaps be slight from one period to another, but the particularly interesting feature is that it has been constant and regular, the average decrease being, for these 22 periods, 5.4 per thousand births.

Table VI

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

Years	Rate	Decrease
1907-1916.....	221.2	...
1908-1917.....	214.2	7.0
1909-1918.....	208.3	5.9
1910-1919.....	201.1	7.2
1911-1920.....	196.9	4.2
1912-1921.....	188.2	8.7
1913-1922.....	183.4	4.8
1914-1923.....	176.7	6.7
1915-1924.....	171.7	5.0
1916-1925.....	165.1	6.6
1917-1926.....	158.6	6.5
1918-1927.....	153.0	5.6
1919-1928.....	148.2	4.8
1920-1929.....	143.7	4.5
1921-1930.....	137.0	6.7
1922-1931.....	132.7	4.3
1923-1932.....	126.4	6.3
1924-1933.....	121.9	4.5
1925-1934.....	116.7	5.2
1926-1935.....	113.9	2.8
1927-1936.....	110.7	3.2
1928-1937.....	108.2	2.5
1929-1938.....	101.4	6.8
1939.....	71.5	...

Table VIa shows the difference which exists in infant mortality between legitimate and illegitimate children.

TABLE VIa
INFANT MORTALITY
LEGITIMATE AND ILLEGITIMATE
1939

Racial Origin	Births	Deaths 0 to 1 Year	Rate per 1,000 Births
LEGITIMATE:			
1 French.....	11,439	732	63.9
2 British.....	2,661	108	40.6
3 Jewish.....	826	17	20.6
4 Others.....	1,124	59	52.5
Total.....	16,050	916	57.1
ILLEGITIMATE:			
1 French.....	947	278	293.5
2 British.....	93	19	204.3
3 Jewish.....	3	0	0.0
4 Others.....	23	10	434.8
Total.....	1,066	307	288.2
Grand Total.....	17,116	1,223	71.5

INFANT DIARRHOEA

Table VII shows a statement of infant mortality from diarrhoea during the last ten years, of children from 0 to 1 year, as well as in periods of five years from 1929 and the averages for periods of five and ten years.

The percentage of deaths from diarrhoea for children from 0 to 1 year in 1939, as compared to the total of deaths among these children is 19.5, while the average for the ten years, from 1929-1938 has been 26.7, or a decrease of 7.2 as compared to the year 1939.

Table VII

Deaths from Diarrhoea, from 0 to 1 year

Period 1929-1933 (5 years)

Years	Total of Deaths 0 to 1 year	Deaths by Diarrhoea 0 to 1 year	Percentage of Deaths by Diarrhoea
1929.....	2,701	865	32.0
1930.....	2,620	877	33.5
1931.....	2,345	817	34.8
1932.....	1,979	614	31.0
1933.....	1,817	487	26.8
Average.....	2,292	732	31.9

Period 1934-1938 (5 years)

1934.....	1,674	428	25.6
1935.....	1,602	301	18.8
1936.....	1,404	184	13.1
1937.....	1,547	302	19.5
1938.....	1,320	194	14.7
Average.....	1,509	282	18.7

Period 1929-1938 (10 years)

Average.....	1,900	507	26.7
--------------	-------	-----	------

Year 1939

Year 1939.....	1,223	238	19.5
----------------	-------	-----	------

DEATHS FROM DIARRHOEA, FROM 0 TO 2 YEARS

Table VIII indicates the mortality from diarrhoea of children from 0 to 2 years. The percentage of deaths from these diseases in 1939 is 17.2 against 14.0 in 1938, which shows an increase of 3.2 per cent; the average for the ten preceding years from 1929 to 1938 is 25.3; 1939 indicates a decrease of 8.1 compared to this average.

Table VIII

Deaths from Diarrhoea, from 0 to 2 years

Period 1929-1933 (5 years)

Years	Total of Deaths 0 to 2 years	Deaths by Diarrhoea 0 to 2 years	Percentage of Deaths by Diarrhoea
1929.....	3,165	958	30.3
1930.....	2,985	966	32.4
1931.....	2,676	877	32.8
1932.....	2,267	664	29.3
1933.....	2,022	516	25.5
Average	2,623	796	30.4

Period 1934-1938 (5 years)

1934.....	1,893	463	24.5
1935.....	1,883	331	17.6
1936.....	1,606	204	12.7
1937.....	1,804	333	18.5
1938.....	1,482	208	14.0
Average.....	1,734	308	17.8

Period 1929-1938 (10 years)

Average.....	2,178	552	25.3
--------------	-------	-----	------

Year 1939

Year 1939.....	1,492	256	17.2
----------------	-------	-----	------

**PERCENTAGE OF DEATHS 0 TO 1 YEAR, COMPARED
WITH THE TOTAL OF DEATHS**

Table IX indicates the proportion of deaths from 0 to 1 year compared to the total of deaths; it has been 13.31 per cent in 1939, or a decrease of 1.16 as compared for the preceding year, and a decrease of 3.12 from the average for the five years 1934 to 1938.

Table IX

**Percentage of Deaths 0 to 1 year, compared with the
total of deaths**

Period 1929-1933 (5 years)

Years	Total deaths	Deaths from 0 to 1 year	Percentage
1929.....	10,604	2,701	25.47
1930.....	10,256	2,620	25.54
1931.....	9,886	2,345	23.72
1932.....	9,728	1,979	20.34
1933.....	8,975	1,817	20.25
Average.....	10,090	2,292	22.71

Period 1934-1938 (5 years)

1934.....	8,955	1,674	18.70
1935.....	9,162	1,602	17.48
1936.....	8,934	1,404	15.70
1937.....	9,738	1,547	15.89
1938.....	9,125	1,320	14.47
Average.....	9,183	1,509	16.43

Period 1929-1938 (10 years)

Average.....	9,636	1,900	19.71
--------------	-------	-------	-------

Year 1939

Year 1939.....	9,191	1,223	13.31
----------------	-------	-------	-------

**Percentage by groups of ages, of deaths under 1 year,
compared to the total of deaths from 0 to 1 year**

Table X allows us to compare the percentage, by groups of age of deaths under one year with the total of deaths from 0 to 1 year, since the year 1934.

This table shows, besides, the average for the five years 1934 to 1938, and the percentage for 1939.

Table X

**Percentage by groups of ages, of deaths under 1 year,
compared to the total of deaths from 0 to 1 year**

AGE	1934	1935	1936	1937	1938	Average 5 years	1939
Under 24 hours . . .	20.6	17.0	17.9	18.2	21.1	18.9	17.7
1 day to 1 week . .	13.3	13.9	12.4	12.4	13.9	13.2	13.0
1 week to 1 month	12.9	10.5	12.8	10.2	10.6	11.4	11.8
1 to 3 months	16.9	18.8	19.0	15.0	17.0	17.3	19.8
3 to 5 months	15.8	17.2	16.3	17.5	16.1	16.6	19.8
6 to 9 months	11.8	13.3	13.7	13.2	11.8	12.8	11.1
9 to 12 months . . .	8.7	9.3	7.9	13.5	9.5	9.8	6.8
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0

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

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 which were, since many years, the capital cause of deaths among children from 0 to 1 year, have diminished regularly, and are in 1939 only the second cause of deaths: the premature deaths being the capital cause. However they are increasing as compared the preceding year.

The diarrhoeal diseases for 1939 as compared from the average of the five years 1934 to 1938, indicate an increase of 1.12 per cent.

Table XI

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

Causes of death	1934	1935	1936	1937	1938	Average 5 years	1939
Pneumonia (108-9).....	2.09	1.69	2.49	2.13	2.57	2.19	2.04
Br.-pneumonia (107)	11.71	15.54	20.09	16.87	17.35	16.31	14.39
Diseases of the stomach (117) ..	0.12	0.19	0.36	0.07	0.00	0.15	0.00
Diarrhoea and enteritis (119) ..	25.57	18.79	13.11	19.52	14.70	18.34	19.46
Malformation (157).....	6.87	8.93	7.76	7.82	8.41	7.96	8.34
(Premature births (159).....	22.34	19.73	23.08	20.62	22.04	21.56	20.28
Congenital debility	15.83	13.72	12.40	12.02	15.15	13.82	14.30
Meningitis (simple) (79)....	0.84	0.62	0.78	1.04	1.06	0.87	0.90
Syphilis (34).....	1.79	2.81	1.99	1.55	1.00	1.83	2.70
Contagious diseases	7.11	9.55	6.62	10.47	9.54	8.66	7.78
(Otitis).....	1.20	2.69	3.49	3.30	2.35	2.84	3.43
Others.....	4.53	5.74	7.83	4.59	5.83	5.47	6.38
Total.....	100.00	100.00	100.00	100.00	100.00	100.00	100.00

CASES REPORTED AND DEATHS FROM CERTAIN CONTAGIOUS DISEASES

Table XII shows the number of cases reported and of deaths from certain contagious diseases, for periods of five years from 1929 to 1933 and from 1934 to 1938, the average of these two periods of five and ten years and comparative figures for the year 1939.

Table XII
Cases reported and deaths from certain contagious
diseases

Period 1929-1933 (5 years)

Years		Diph- theria	Scarlet fever	Mea- sels	Whoop- ing cough	Erysi- pelas	Chi cken pox	Small pox	Ty- phoid
1929	Cases	1254	3135	2471	1993	223	1835	40	98
	Deaths	115	65	26	88	26	3	..	27
1930	Cases	930	2364	2077	2014	206	2723	5	196
	Deaths	83	41	21	76	35	2	..	40
1931	Cases	706	1730	7333	964	170	2501	..	129
	Deaths	71	20	30	29	20	5	..	34
1932	Cases	607	1840	3655	2219	216	2070	..	166
	Deaths	53	24	47	91	27	1	..	37
1933	Cases	297	1300	472	3271	183	4135	..	117
	Deaths	18	26	2	71	32	4	..	31
Average (5 yrs)	Cases	759	2074	3202	5092	200	2653	9	141
	Deaths	68	35	25	71	28	3	..	34

Period 1934-1938 (5 years)

1934	Cases	244	2114	5132	4250	173	3657	..	98
	Deaths	30	38	34	94	31	3	..	17
1935	Cases	183	3363	8791	1515	177	4102	..	113
	Deaths	21	48	54	87	17	2	..	24
1936	Cases	166	1742	4092	2342	177	4432	..	80
	Deaths	18	20	28	40	17	5	..	8
1937	Cases	249	1540	5310	4290	171	3276	..	115
	Deaths	26	17	84	99	17	2	..	16
1938	Cases	222	2039	2608	2351	202	4126	..	108
	Deaths	26	17	38	41	13	6	..	17
Average (5 yrs)	Cases	213	2159	5187	2950	180	3919	..	103
	Deaths	24	28	48	72	19	4	..	16

Period 1929-1938 (10 years)

Average (10 yrs)	Cases	486	2116	4194	4021	190	3286	5	122
	Deaths	46	31	36	71	23	3	..	25

Year 1939

1939	Cases	143	1374	8831	2313	153	3647	..	103
	Deaths	19	8	42	30	5	4	..	9

Year 1939—Deaths from 0 to 1 year—Class
 Table XIII indicates that deaths of nurslings hav
 1. In babies from 1 to 3 months and from 3 to 6 m
 2. During the months of March, May and Sept

Table
Year 1939—Deaths from 0 to 1 year—Cla

Mois		Under 24 hours		1 day to 1 week		1 week to 1 month	
		Sex	Total	Sex	Total	Sex	Total
January.....	M	12	18	11	16	6	11
	F	6		5		5	
February.....	M	14	22	9	16	11	16
	F	8		7		5	
March.....	M	11	19	12	20	10	20
	F	8		8		10	
April.....	M	4	8	7	11	13	20
	F	4		4		7	
May.....	M	12	27	10	15	10	18
	F	15		5		8	
June.....	M	9	18	5	5	3	5
	F	9				2	
July.....	M	17	29	6	9	7	12
	F	12		3		5	
August.....	M	12	18	11	17	6	10
	F	6		6		4	
September.....	M	10	14	7	15	2	4
	F	4		8		2	
October.....	M	10	17	8	12	7	11
	F	7		4		4	
November.....	M	3	12	3	10	7	9
	F	9		7		2	
December.....	M	9	14	6	13	5	8
	F	5		7		3	
Total.....	M	123	216	95	159	87	144
	F	93		64		57	
Monthly average.....		18.0		13.3		12.0	
Per cent %.....		17.7		13.0		11.8	

ified by month, sex and age categories.

e been more numerous:

onths and those under 24 hours.

ember.

XIII

ssified by month, sex and age categories.

1 to 3 months		3 to 6 months		6 to 9 months		9 to 12 months		TOTAL	
Sex	Total	Sex	Total	Sex	Total	Sex	Total	Sex	Total
10 4	14	9 12	21	9 5	14	3 5	8	60 42	102
4 9	13	9 14	23	13 5	18	5 4	9	65 52	117
10 10	20	16 12	28	5 4	9	5 5	10	69 57	126
8 8	16	19 10	29	6 9	15	6 4	10	63 46	109
10 7	17	14 5	19	6 11	17	3 8	11	65 59	124
11 5	16	9 2	11	9 1	10	3 1	4	49 20	69
16 6	22	7 6	13	8 1	9	3 3	6	64 36	100
12 8	20	10 11	21	5 5	10	4 3	7	60 43	103
21 13	34	15 20	35	8 7	15	2 5	7	65 59	124
24 20	44	12 7	19	4 4	8	2 2	4	67 48	115
6 3	9	8 3	11	1 3	4	1	1	29 27	56
11 6	17	7 5	12	4 4	8	4 2	6	46 32	78
143 99	242	135 107	242	78 59	137	41 42	83	702 521	1223
20.2		20.2		11.4		6.9		102.0	
19.8		19.8		11.1		6.8		100.0	

A FEW PRINCIPAL CAUSES OF GENERAL MORTALITY

Table XIV shows the number of deaths from certain principal causes, from 1929 to 1933, and the average for these five years, the number of deaths for 1934 to 1938, and the average for these five years. It shows, besides, the averages of deaths from the same causes for the 10 years from 1929 to 1938 and deaths during the year 1939.

Table XIV

A few principal causes of general mortality

Years	Cancer	Bright's disease	Organic diseases of the heart	Broncho pneu- monia	Pneu- monia
Period 1929-1933 (5 years)					
1929.....	749	794	1,204	465	346
1930.....	806	664	1,235	540	500
1931.....	808	741	1,322	452	328
1932.....	823	889	1,326	411	360
1933.....	931	787	1,362	339	305
Average.....	823	775	1,290	441	368
Period 1934-1938 (5 years)					
1934.....	907	851	1,435	354	253
1935.....	995	916	1,410	401	278
1936.....	990	1,003	1,551	469	259
1937.....	1,031	965	1,598	449	330
1938.....	1,099	975	1,631	382	278
Average.....	1,004	942	1,525	411	279
Period 1929-1938 (10 years)					
Average.....	913	858	1,407	426	323
Year 1939					
Year 1939.....	1,141	1,078	1,826	336	243

Proportion of deaths from diseases mentioned in Table XIV compared to the total of deaths

Table XV shows the proportion of deaths in periods of 5 years, the average for the five years from 1929 to 1933 and from 1934 to 1938, and the average for the ten years from 1929 to 1938, from the diseases mentioned in Table XIV, compared to the total of deaths, and deaths from the same diseases for the year 1939.

This table indicates for 1939 compared to 1938, an increase of 2.0 in the proportion of deaths from organic diseases of the heart.

There was a decrease of 0.4% in the proportion of deaths from pneumonia and also a decrease of 0.5% in those from broncho-pneumonia.

Table XV

Proportion of deaths from diseases mentioned in Table XIV compared to the total of deaths

Period 1929-1933 (5 years)

Years	Total of deaths	Cancer	Bright's disease	Organic diseases of the heart	Broncho-pneumonia	Pneumonia
1929.....	10,604	7.0	7.5	11.3	4.4	3.3
1930.....	10,256	7.9	6.5	12.0	4.3	3.4
1931.....	9,886	8.2	7.5	13.5	4.5	3.3
1932.....	9,728	8.5	9.1	13.6	4.2	3.7
1933.....	8,975	10.7	8.8	15.2	3.8	3.4
Average.	10,090	8.2	7.7	12.8	4.3	3.7

Period 1934-1938 (5 years)

1934.....	8,955	10.1	9.5	16.0	3.9	2.8
1935.....	9,162	10.8	10.0	15.4	4.3	3.3
1936.....	8,934	11.1	11.2	17.4	5.3	2.9
1937.....	9,738	10.6	9.9	16.4	4.6	3.4
1938.....	9,125	12.0	10.6	17.9	4.2	3.0
Average.	9,183	10.9	10.2	16.6	4.5	3.0

Period 1929-1938 (10 years)						
Average.	9,636	9.5	8.9	14.6	4.4	3.3
Year 1939						
Year 1939	9,191	12.4	11.7	19.9	3.7	2.6

**DEATHS PER 100,000 POPULATION, FROM DISEASES
MENTIONED IN TABLE XIV FROM
1928 TO 1938**

Table XVI indicates the proportion of deaths per 100,000 population, from diseases mentioned in Table XIV for the years 1929 to 1938, in periods of five years, the average for five years from 1929 to 1933 and from 1934 to 1938, the average for ten years from 1929 to 1938, as well as the average of deaths for the year 1939.

A study of this table shows that in 1939 the proportion of deaths from cancer has increased 3.7, compared to 1938; it is 25.7 higher than the average for the five years 1929 to 1933, 12.0 higher than the average for the five years 1934 to 1938; and 18.7 higher than the average for the ten years 1929 to 1938.

Consequently, the death rate per cancer is constantly increasing and corresponds with the observations gathered in a great number of countries.

Deaths from Bright's disease which were 975 in 1938 were 1,078 in 1939, an increase of 103. If we consider these deaths in relation with the population, we arrive at an average of 95.2 per 100,000 inhabitants for the period of 1929 to 1933, an average of 107.8 for the five following years; of 101.6 for the ten years and 119.8 for 1939.

This year there is an increase of 10.6 over 1938; it is also an increase of 24.6 for 1939, as compared to the period 1929-1933, and an increase of 12.0 as compared to the five year period 1934 to 1938. For the 10 year period the increase is 18.2.

Deaths from organic diseases of the heart have slightly increased in 1939, over 1938, since 10 years they are one of the highest causes of deaths.

Pneumonia, which in 1938 caused 278 deaths decreased this year to 243; broncho-pneumonia registered a slight decrease: in 1938, 382 deaths as compared to 336 in 1937.

Table XVI

Deaths per 100,000 population, from diseases mentioned
in Table XIV

Period 1929-1933 (5 years)

Years	Popu- lation	Cancer	Bright's disease	Organic diseases of the heart	Bron- cho- pneu- monia	Pneu- monia
1929.....	775,800	96.5	102.3	155.2	59.9	44.6
1930.....	796,800	101.2	83.3	155.0	67.8	62.7
1931.....	818,577	98.7	90.5	161.5	55.2	40.1
1932.....	833,000	98.8	106.7	159.2	49.3	43.2
1933.....	847,000	109.9	92.9	160.8	40.0	36.0
Average.	814,235	101.1	95.2	158.4	54.2	45.2

Period 1934-1938 (5 years)

1934.....	855,000	106.1	99.5	167.8	41.4	29.6
1935.....	863,000	115.3	106.1	163.4	46.5	32.2
1936.....	875,000	113.2	114.6	177.3	53.6	29.6
1937.....	885,000	116.5	109.0	180.6	50.7	37.3
1938.....	893,000	123.1	109.2	182.6	42.8	30.0
Average.	874,200	114.8	107.8	174.7	47.0	31.9

Period 1929-1938 (10 years)

Average	844,217	108.1	101.6	166.7	50.5	38.3
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Year 1939

Year 1939	900,000	126.8	119.8	203.0	37.3	27.0
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MORTALITY FROM TUBERCULOSIS

The number of deaths from tuberculosis, in all its forms, was 631 in 1939, as compared to 668 in 1938; it shows consequently a decrease of 37 on the whole number. The proportion per 100,000 population which in 1938 was 74.8 is 70.1 in 1939, showing a decrease of 4.7, 1939 shows a decrease of 24.9 as compared to the average for ten years, 1929 to 1938.

Table XVII shows the number of deaths since ten years, pulmonary and other forms separately, the general total as well as the proportion per 100,000 population; it is divided in two parts and indicates the average of deaths in periods of five and ten years and also the number of deaths for the year 1939.

Table XVII

**Deaths from tuberculosis
Period 1929-1933 (5 years)**

Years	Population	Pulmonary	Other forms	Total	Proportion per in 100,000 habitants
1929.....	775,800	823	190	1,013	130.6
1930.....	796,800	806	177	983	123.4
1931.....	818,577	766	121	887	108.3
1932.....	833,000	722	112	834	100.0
1933.....	847,000	670	141	811	95.8
Average.....	814,235	757	148	905	111.1

Period 1934-1938 (5 years)

1934.....	855,000	600	113	713	83.4
1935.....	863,000	546	101	647	74.9
1936.....	875,000	627	119	746	85.3
1937.....	885,000	615	111	726	82.0
1938.....	893,000	585	83	668	74.8
Average.....	874,200	595	105	700	80.1

Period 1929-1938 (10 years)

Average.....	844,217	676	126	802	95.0
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Year 1939

Year 1939.....	900,000	542	89	631	70.1
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MATERNAL MORTALITY

Table XVIII shows the rate of the maternal mortality for the last ten years per period of five years, from 1929 to 1933 and from 1934 to 1938, and the proportion for 1939.

The rate of maternal mortality in 1939, 3.16 per 1,000 live births, was the lowest ever recorded in Montreal.

Table XVIII

Maternal mortality

Period 1929-1933 (5 years)

Years	Births			No. of maternal deaths	Rate for 1,000 births	
	Live-births	Deaths	Total		Live-births	Live-births and still born
1929.....	20,415	597	21,012	85	4.16	4.04
1930.....	20,993	684	21,677	109	5.19	5.03
1931.....	20,699	751	21,450	90	4.34	4.20
1932.....	19,997	643	20,640	99	4.95	4.80
1933.....	18,431	565	18,996	92	4.99	4.84
Moyenne...	20,107	648	20,755	95	4.72	4.58

Period 1934-1938 (5 years)

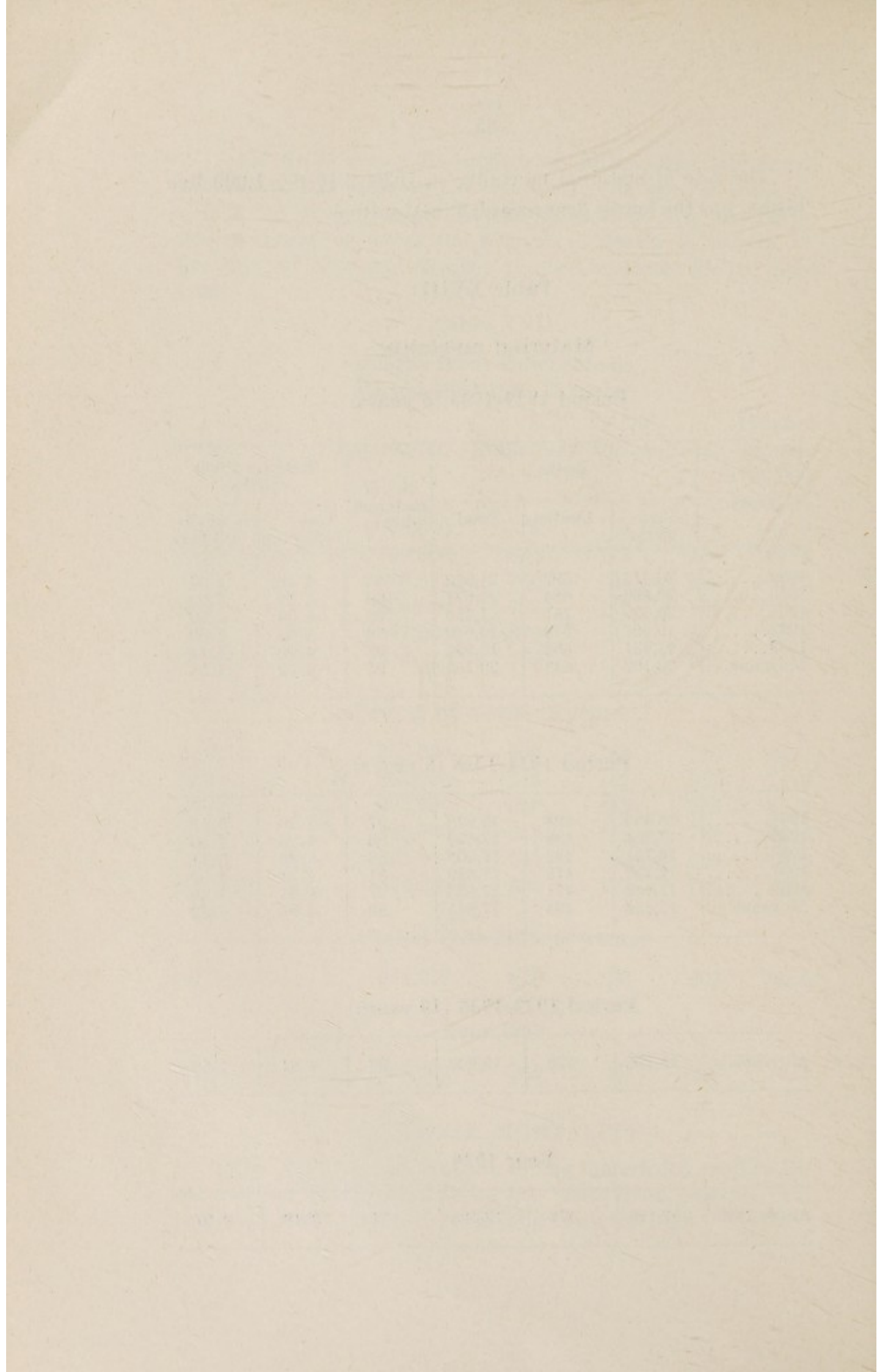
1934.....	18,433	495	18,928	97	5.26	5.12
1935.....	17,361	538	17,899	86	4.95	4.80
1936.....	16,725	483	17,208	88	5.26	5.11
1937.....	17,180	479	17,659	81	4.71	4.59
1938.....	17,062	471	17,533	77	4.51	4.39
Moyenne...	17,352	493	17,845	86	4.95	4.82

Period 1929-1938 (10 years)

Moyenne...	18,730	570	19,300	90	4.81	4.66
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Year 1939

Année 1939.	17,116	479	17,595	54	3.16	3.07
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Comments

THE MAISONNEUVE SANITARY DISTRICT

During the year 1939, the Department of Health organized the first city sanitary district in conformity with the project described and published in the 1938 annual report (page 37).



The objective aimed at in organizing a sanitary district is to entrust to a specially trained staff the direct supervision over a section of the City's territory from the point of view of health. This innovation is in the nature of a decentralization of certain functions of the Department of Health permitting the establishment of a closer contact with the population; making possible a more effective study of the causes of infant mortality and maternal deaths; allowing closer supervision over morbidity and mortality caused by tuberculosis and other contagious diseases; in fine, obtaining a better result from closer and better co-ordinated co-operation between the Department of Health, the medical profession and the various organizations which deal with social problems.

Organization

The organization of sanitary districts is entrusted to the Child Hygiene Division of which it becomes a section. It is accomplished under the direction of Dr. J. N. Laporte, D.H.P., superintendent and of Dr. C. A. Bourdon, M.P.H., assistant superintendent of the Child Hygiene Division. The district head physician is Dr. J. A. Landreville, M.P.H. These three doctors hold diplomas in public health.

Staff.

The staff is made up of: three inspecting physicians, of whom one is head physician;
a dentist;
sixteen visiting nurses, of whom one is supervisor;
a nurse's assistant;
a stenographer. In all, 22 employees.

Territory included.

The sanitary district comprises the municipal wards of Hochelaga, Prefontaine, Maisonneuve and Mercier. It is known under the name of "Maisonneuve Sanitary District".

The physician in chief has his offices at No. 4298 Adam street where the administration is centered and which is known as the "health centres". There have been provided offices for the staff as well as accomodation for the various clinics.

The total area of this district is 6,403,42 acres. It is bounded on the west by the Canadian Pacific Railway, on the north by the southern limits of Rosemount ward and by the municipality of St. Leonard, on the east by the western limits of the Town of Montreal East and, on the south, by the St. Lawrence River.

Population.

The population, estimated at July 1st, 1939, is 101,241, spread as follows:

Wards	Population
Hochelaga.....	24,208
Préfontaine.....	21,418
Maisonneuve.....	33,207
Mercier.....	22,408
“Maisonneuve District”..	101,241
City of Montreal.....	900,000

Churches and Schools.

From the religious point of view the territory is divided into 12 French Catholic parishes. There are also an Irish Catholic parish and nine Protestant churches of which 3 are Anglican, one Baptist, 2 Presbyterian and 3 United Church. There are altogether 22 churches belonging to organized religious groups.

There are also 39 schools: 30 Catholic (28 French and 2 English), 6 Protestant and 3 Independent.

These schools are attended by 19,259 pupils divided among 602 classes. There are 17,475 children in Catholic schools and 1,784 in Protestant schools.

Dispensaries and baby clinics, social service.

1. Bruchesi Institute maintains an antituberculosis dispensary at 2031 Nicolet street, in the very centre of the workers' of Hochelaga, Préfontaine and Maisonneuve.

2. Baby clinics number 11 of which 7 depend on the Department of Health, 3 on the infants' health federation, and one on the Child Welfare Association. This last named is located in Maisonneuve ward and serves the Protestant population in the sanitary district. The other ten serve the population of as many parishes. Those connected directly with the Department of Health are at the service of the population of St. Redempteur (Baril), St. Nom de Jesus (Maisonneuve), St. Jean Baptiste de LaSalle, St. Clement, Notre Dame des Victoires, Ste. Claire and St. Bernard parishes.

Those in charge of the infants' health federation serve the people of Nativity, Ste. Jeanne d'Arc and St. Francis of Assissi parishes.

The Baby clinic of the St. Nom de Jesus parish is located in the health centre, 4298 Adam street, and there is also a clinic for children of preschool age, a psychological clinic and a dental clinic.

3. Other organizations:

a) Office of the visiting nurses of the Metropolitan Life Assurance Company, at No. 4279 Adam street;

b) The Radium Institute, centre of scientific research and cancer treatment and that of other growths;

c) Pasteur Hospital, of a 300-bed capacity, for care of persons suffering from contagious diseases;

d) The Civic Hospital, exclusively for the care of persons who might contract small-pox (quarantine hospital);

e) Grace Dart Home, with 121 beds for tuberculous patients;

f) Notre Dame de Lourdes Hospital, 273 beds for women suffering from incurable diseases;

g) L'Aide a la Femme—combining services of a hospital, home, foundling institute, refuge and orphanage;

h) Old People's Home, a home for Protestant old men and women.

The statistics of births and deaths in this district for 1939 show the following facts:

1939	Maisonneuve District	Whole City
Number of births.....	2,087	17,116
Birth rate per 1,000 population.....	20.6	19.02
Number of deaths.....	924	9,191
General mortality rate per 1,000 population.....	9.13	10.21
Maternal mortality (per 1,000 births).....	1.44	3.15
Infant mortality (per 1,000 live-births).....	76.66	71.5
Mortality from 1st age diseases (0-1 year).....	30.66	31.37
Mortality from diarrhoea (0-2 years).....	11.55	14.96
Mortality from tuberculosis per 100,000 pop....		
a) pulmonary.....	67.17	60.22
b) other forms.....	12.84	9.89
Total.....	79.99	70.11

In the following table are shown deaths from certain causes in the four wards of the sanitary district, as well as the rates per 100,000 of population for each malady, for 1939.

Causes	Wards				Total	Rate per 100,000 pop.	Rate for the City
	Hoche-laga	Prefon-taine	Maison-neuve	Mer-cier			
Typhoid.....							
Measles.....		1	1		2	1.97	1.00
Scarlet-fever... ..		3	2	1	6	5.92	4.67
Whooping-cough.....							0.89
Diphtheria.....	2		2	1	5	4.95	3.33
Pulmonary T.B.	1		1		2	1.97	2.11
T.B. other forms	19	17	22	10	68	67.17	60.22
Enteritis (0 to 2 yrs) ..	4	4	3	2	13	12.84	9.89
P u e r p e r a l septicaemia ..	6	4	8	6	24	23.71	28.44
1st age diseases	19	14	18	13	64	63.22	46.89
Total.....	51	44	57	35	187	184.71	163.44
Other forms....	189	136	258	154	737	727.97	857.78
Grand total....	240	180	315	189	924	912.68	1021.22

The number of deaths for certain age groups is indicated thus:

Age group	Deaths	Percentage		
		District	City (less district)	City
0-1.....	159	17.2	12.9	13.3
1-4.....	35	3.8	2.8	2.9
5-14.....	28	3.0	2.4	2.4

The number of cases of contagious diseases reported in 1939 per ward, for the Maisonneuve District and for the whole city, is as follows:

Diseases	Wards				Total	Total for City	% of cases in the district
	Hoche-laga	Pre-fon-taine	Mai-son-neuve	Mer-cier			
Diphtheria.....	3	1	4	1	9	143	6.29
Scarlet-fever.....	21	43	30	35	129	1374	9.39
Measles.....	195	266	290	438	1189	8831	13.46
German measles....	1	1	2	4	8	118	6.78
Whooping-cough....	50	55	104	85	294	2313	12.71
Mumps.....		10	29	26	65	912	7.13
Chicken-pox.....	47	65	161	93	366	3647	10.04
Small-pox.....					0	0	0.00
Erysipelas.....	7	2	7		16	153	10.46
Typhoid fever.....	2		13		15	103	14.56
C. S. Meningitis.....					0	12	0.00
Poliomyelitis.....					0	21	0.00
Letharg. encephalitis.....					0	1	0.00
Puerp. septicaemia..		1			1	19	5.26
Purulent ophthalmia	2	3	1		6	34	17.65
Amoebic dysentery..					0	2	0.00
Leprosy.....					0	0	0.00
Undulant fever.....					0	1	0.00
Bacillary dysentery..	1				1	5	20.00
Influenza*.....					0	195	0.00
Scabies*.....					0	90	0.00
*Unclassified cases ..							
Total.....	329	447	641	682	2099	17974	11.67
Pul. tuberculosis....	43	28	40	29	140	1264	11.08
Tuberc. (other forms)	5	5	3	4	17	127	13.39
Grand total.....	377	480	684	715	2256	19365	11.65

Note that the Maisonneuve sanitary district has 11.25 per cent of the population of the whole city and that there is in the district 11.65 per cent of all cases of contagious diseases reported in 1939.

THE FIGHT AGAINST TUBERCULOSIS

During the year 1939, the Department of Health gave assurance of its complete collaboration with the Provincial Committee for the Prevention of Tuberculosis in the fight against this disease which was carried on with great vigor in the City of Montreal.

The tuberculosis section.

To carry out the plans enunciated and published in the annual report of the Department of Health for the year 1938 there was created in October of that year a "Tuberculosis section" in this division of contagious diseases and its organization was completed in the course of the year 1939.

Its offices are located in the premises of the Laurier health centre, Mount Royal east.

The duties of this section of the Department of Health are:

1. To work in conjunction with Bruchesi and Royal Edward Institutes and other organizations fighting against tuberculosis;
2. To exert a better control over tuberculosis;
3. To secure better reporting of cases of tuberculosis on the part of doctors;
4. To keep a central system of records;
5. To supervise developing cases and contact cases;
6. To make epidemiological investigations and to seek out sources of infection;
7. To enforce the measures necessary to protect the patient and those around him;

8. To supervise hospital care of tuberculosis cases in institutions.

The staff of this section is made up of (for 1939):

- a) a chief of section, Dr. Léo Ladouceur;
- b) a group head nurse;
- c) three visiting nurses;
- d) a stenographer.

Here in brief is a summary of the work of the tuberculosis section accomplished during the year 1939.

Number of cases of tuberculosis declared.....		1,391
Number of contacts and suspect cases examined.....		1,316
a) in anti-tuberculosis institutes.....	1,073	
b) by physicians.....	243	
Number of positive cases.....		26
Number of deaths due to tuberculosis.....		686
a) pulmonary tuberculosis.....	624	
b) other forms.....	62	
Number of home visits by nurses.....		3,518

For further details concerning the work of this section I refer the reader to page 115 of this report.

Propaganda.

The propaganda campaign against tuberculosis, inaugurated on October 12, 1938, by a great "night of attack" at the Plateau Auditorium, has been continued by similar reunions in various parishes in Montreal.

The first gathering was held in St. Edward on December 16, 1938. On December 31, 1939, the Department of Health had organized 76 of which 18 were public and 58 were educational campaigns in schools.

During these gatherings sketches and monologues were given which were composed by some of our colleagues, including Dr. Adrien Plouffe, Dr. Chabot and others. The program consisted of a short address on tuberculosis delivered by a doctor; at the end of the evening two interesting films were shown: "Health and Happiness" and "In the Shadow of Tuberculosis".

The addresses were delivered by invited speakers, specialists in the problem of tuberculosis, and by doctors in the department engaged in the child hygiene division and in charge of organizing these meetings in their respective districts.

In the organization of public entertainments the Department of Health secured the gracious assistance of the school commissions, of teachers and pupils, of professors of elocution and of their students, in particular that of Mrs. Aadet, Miss S. Paquette, Miss de Pocas, etc.

To facilitate the organization of these campaign gatherings, especially in the schools, the Department of Health has acquired a sound-film movie apparatus and several educational films.

At each public reunion or those held in schools illustrated posters entitled "Let us Fight Tuberculosis" are posted, and two circulars, one "Tuberculosis", and the other, "Diet" are distributed by the thousand.

The success of these meetings is due to the collaboration of the parish priests, the teaching staffs, and of the whole population, and, to the devotedness of the doctors and staff of the Department of Health.

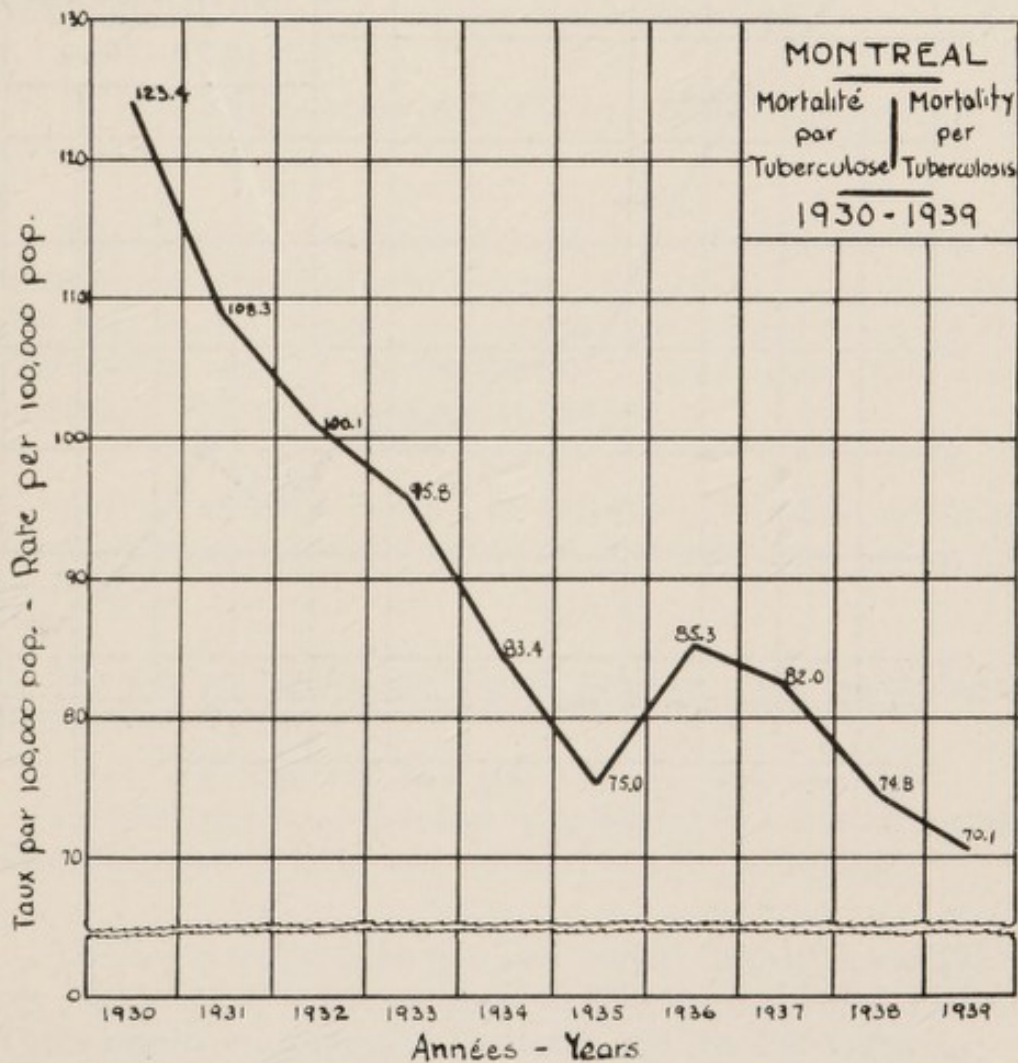
The press and the radio have also given their generous aid, either through the publication of press releases and articles, or by transmission of talks on tuberculosis given under the auspices of clubs or social work organizations.

Addresses were also delivered, moreover, before the members of service clubs, etc., including the Kiwanis Club, Knights of Columbus, the Family Welfare, Ionic Masonic Lodge, Civic

Improvement League, medical associations, both English and French, universities, etc.

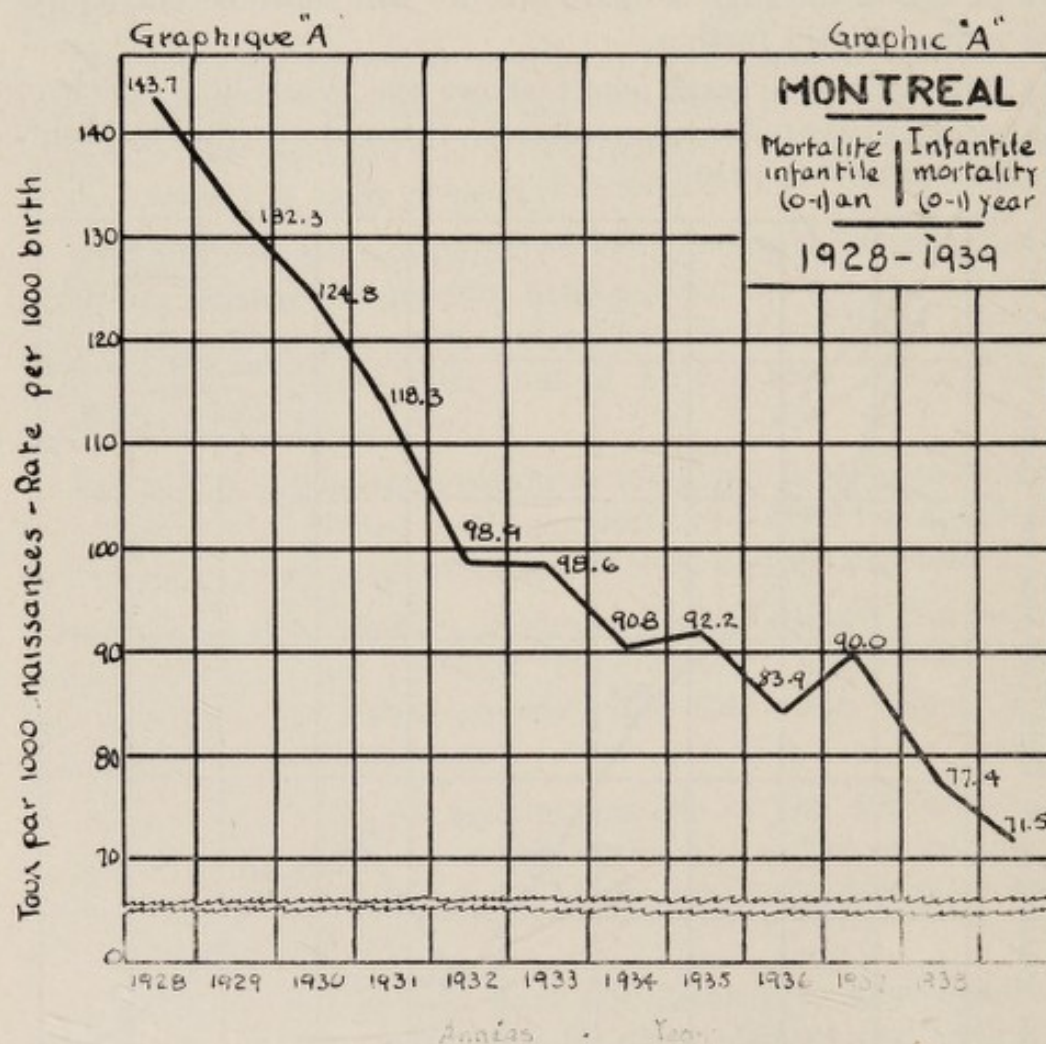
These measures have contributed to the success already obtained and which is exemplified by the following improvement in the rate of mortality from tuberculosis in 1939, the lowest ever recorded in Montreal, that is, 70.1 per 100,000 of population. When we compare this rate with the average rate for the period 1876-80 which was 307.5, we can easily realize what progress has been achieved: a decrease of 237.4 or of 77.2%. Twenty-five years ago this rate was still above 200, exactly 205.8; ten years ago it was still 123.3 and in 1939 it was only 70.1%. Even this is too high a figure and we will continue our efforts to reduce it still further.

The following graph chart shows the descending curve of the mortality rate for tuberculosis in the past 10 years in Montreal, from 1930 to 1940.



INFANTILE MORTALITY

In 1939, the rate of infantile mortality dropped to 71.5 per 1,000 births from 77.4 in the preceding year. This is a decrease of almost 8% in a single year. If we go back over 12 years we can note magnificent progress since, in that short space of time, mortality has been reduced by one-half. This can be seen in the following graph chart:



The Montreal Department of Health has made a special study of this problem of infantile mortality for a number of years. It has left nothing undone to solve the problem and the efforts put forth are to be continued with redoubled energy because there is still room for more progress.

We can more readily understand the great importance of this problem if we but stop to think that it is a question not only of saving the lives of a number of children but also of forming a strong and healthy race which is the richest capital of a country.

Among us the birth rate is still high and so long as it remains at this level it is a guarantee of survival. But it must not be forgotten that here as elsewhere the rate has suffered a very serious drop. In 1913, the birth rate was 39.73 and it was only 19.02 in 1939. This is a decrease of more than 52%.

In 1930, the number of births was 20,993; last year it fell to 17,116.

The decrease was gradual and it would appear that the number has a tendency to become stabilized at around 17,000. We can gain a clearer idea of the great importance of this decrease by adding up the annual deficits since 1930 which in these 9 years make up a total of 25,937.

The causes and factors of infantile mortality are much the same everywhere; however, they may vary from one locality to another.

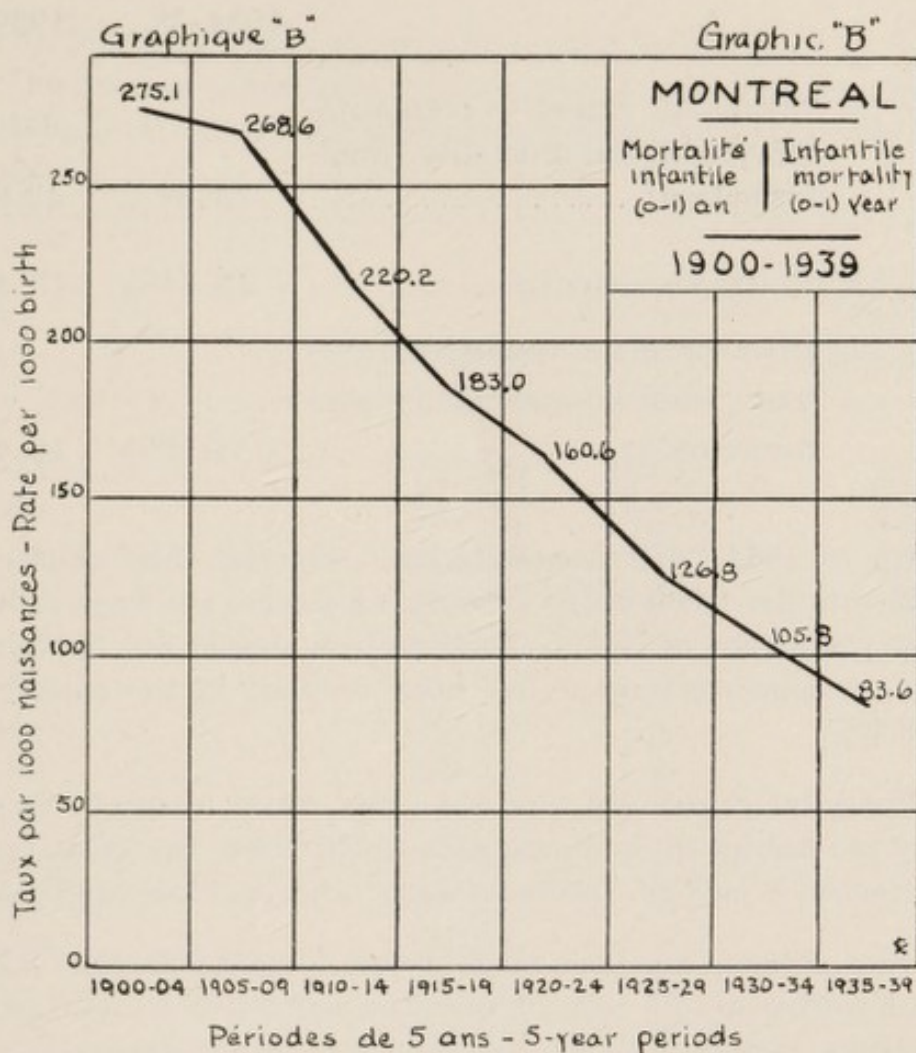
Poverty and ignorance remain the two great psychological and economic factors.

In 1900, the rate of infant mortality per 1,000 births between the time of birth and one year of age was 301.05.

The mean rate for the five-year period 1900-1904 was 275.05 per 1,000 births; it has dropped to 83.6 for the period 1935-39. These results are shown in the table and chart B following:

Table showing population, births, number of births per 1,000 inhabitants, deaths 0-1 year and number of deaths per 1,000 live-births—1900-1939.

Year	Population	Births—Deaths 0-1 year			
		Number	Rate per 1000 inh.	Number	Rate per 1000 births
1900	288,658	9,892	34.26	.....	301.05
1	297,317	9,646	32.44	.....	282.08
2	277,829	9,907	35.65	.....	258.50
3	286,163	10,326	36.08	.....	267.67
4	294,748	10,601	35.90	.....	265.95
Average 5 yrs	288,943	10,075	34.87	.....	275.05
1905	303,590	10,872	35.81	3,095	284.49
6	350,538	13,094	37.35	3,549	271.
7	366,915	13,230	36.05	3,581	270.06
8	380,000	14,606	38.43	3,787	259.20
9	395,000	14,678	37.15	3,845	261.95
Average 5 yrs	359,209	13,296	37.01	3,572	268.6
1910	455,800	16,616	36.45	4,104	247.
1	470,480	17,637	37.48	4,278	242.6
2	484,400	19,107	39.44	3,978	208.2
3	515,700	20,490	39.73	4,412	215.2
4	540,000	21,386	39.60	4,201	196.71
Average 5 yrs	493,276	19,048	38.62	4,195	220.2
1915	560,000	20,692	36.95	3,779	182.63
6	575,000	19,759	34.40	3,672	185.80
7	590,000	19,664	33.33	3,488	177.3
8	640,000	20,373	31.83	3,902	191.5
9	670,000	19,959	29.79	3,543	177.5
Average 5 yrs	607,000	20,090	32.77	3,677	183.03
1920	607,470	21,180	34.86	4,072	192.2
1	618,506	21,136	34.17	3,289	155.6
2	630,800	20,720	32.84	3,304	159.4
3	642,650	20,527	31.94	3,057	148.9
4	655,800	21,500	32.78	3,151	146.5
Average 5 yrs	631,046	21,013	33.30	3,375	160.6
1925	669,800	21,976	32.81	2,690	122.4
6	684,500	21,098	30.82	2,521	119.49
7	699,500	20,740	29.65	2,424	116.87
8	742,000	20,307	27.37	2,929	143.7
9	762,000	20,415	26.79	2,701	132.3
Average 5 yrs	711,560	20,909	29.38	2,653	126.8
1930	790,000	20,993	26.57	2,620	124.8
1	813,000	20,699	25.46	2,345	113.3
2	833,000	19,997	24.01	1,979	98.9
3	847,000	18,431	21.76	1,817	98.6
4	855,000	18,433	21.56	1,674	90.8
Average 5 yrs	827,000	19,711	23.82	2,087	105.8
1935	863,000	17,361	20.12	1,602	92.2
6	875,000	16,725	19.11	1,404	83.9
7	885,000	17,180	19.41	1,547	90.0
8	893,000	17,062	19.10	1,320	77.4
9	900,000	17,116	19.02	1,223	71.5
Average 5 yrs	883,200	17,088	19.35	1,419	83.6



The death rate among legitimate children for the year 1939 was 57.1 per 1,000 births; it is relatively low and can be favorably compared with the rate in other large cities; but the mortality among illegitimate children (288.2 per 1,000 births) continues to be excessive and contributes to increase the general death rate (71.5 per 1,000 births)—see Table V at page 10.

Statistics made up for the period 1934-38 show that 42% of deaths from birth to one year occur in the first month of life; 60.8% in the first three months and 77.4% in the first six months. In 1939 the proportions remained practically the same as shown in Table X on page 00 of this report.

The chief causes of infant mortality in Montreal for the period 1934-38 and for the year 1939 are: (see Table XI, page 26).

	1934-38	1939
1. "Prenatal causes"—premature birth, congenital debility, (malformation).....	43.34%	42.92%
2. Diarrhoea-enteritis.....	18.34%	19.46%
3. Diseases of the respiratory system; broncho-pneumonia and pneumonia.....	18.50%	16.43%

Up to 1934 "diarrhoea-enteritis" was the chief cause, the death rate per 1,000 births from this infection has been reduced in the proportion of 76.1%. The rate from deaths due to diseases of the respiratory organs has been reduced in the proportion of 18.4%.

Pre-natal causes are now the chief cause of infant deaths. They are harder to eliminate and, in this case, the great causative factor is lack of "prenatal care" and its close application.

That progress has been made in this domain is beyond doubt. The lowering of the rate of infantile mortality is attributable to various factors of which the chief are: better water and milk supply; improvement in methods of teaching and child training; education of the public through the means of baby clinics, visits to the home, etc. and the co-operation of doctors and various social organizations.

SMALLPOX

In Montreal not a single case of smallpox has been reported during the last ten years. Since all children were required to be vaccinated before entering school, we have not experienced a serious outbreak of that disease. Sporadic cases have occurred from time to time, but in most instances those affected were unvaccinated persons or those who had recently come to the city.

The following table shows, since 1872, in five-year periods, with the average population for each period, the average number of deaths from smallpox and the average death rate per 100,000 population.

Year period	Population	Number of deaths	Rate per 100,000 population
1872-74.....	123,072	590.3	478.0
1875-79..	133,468	583.6	451.2
1880-84.....	146,992	29.	21.3
1885-89.....	190,359	646.8	387.5
1890-94.....	226,539	0.	
1895-99.....	265,594	2.8	1.0
1900-04.....	288,943	5.	1.7
1905-09.....	359,190	0.	
1910-14.....	473,276	1.	.1
1915-19..	607,000	0.2	.3
1920-24.....	681,850	0.	
1925-29.....	711,560	0.	
1930.....	827,185	0.	
1935-39.....	883,200	0.	

It is now an acknowledged fact in the world over that vaccination is the principal, if not the only reliable preventive measure against smallpox. Vaccination also may well be considered harmless. In making this statement, I speak from knowledge of the fact that since 1905, 382,970 persons have been vaccinated by the Department of Health of the City of Montreal and in only a very few instances have there been serious complications.

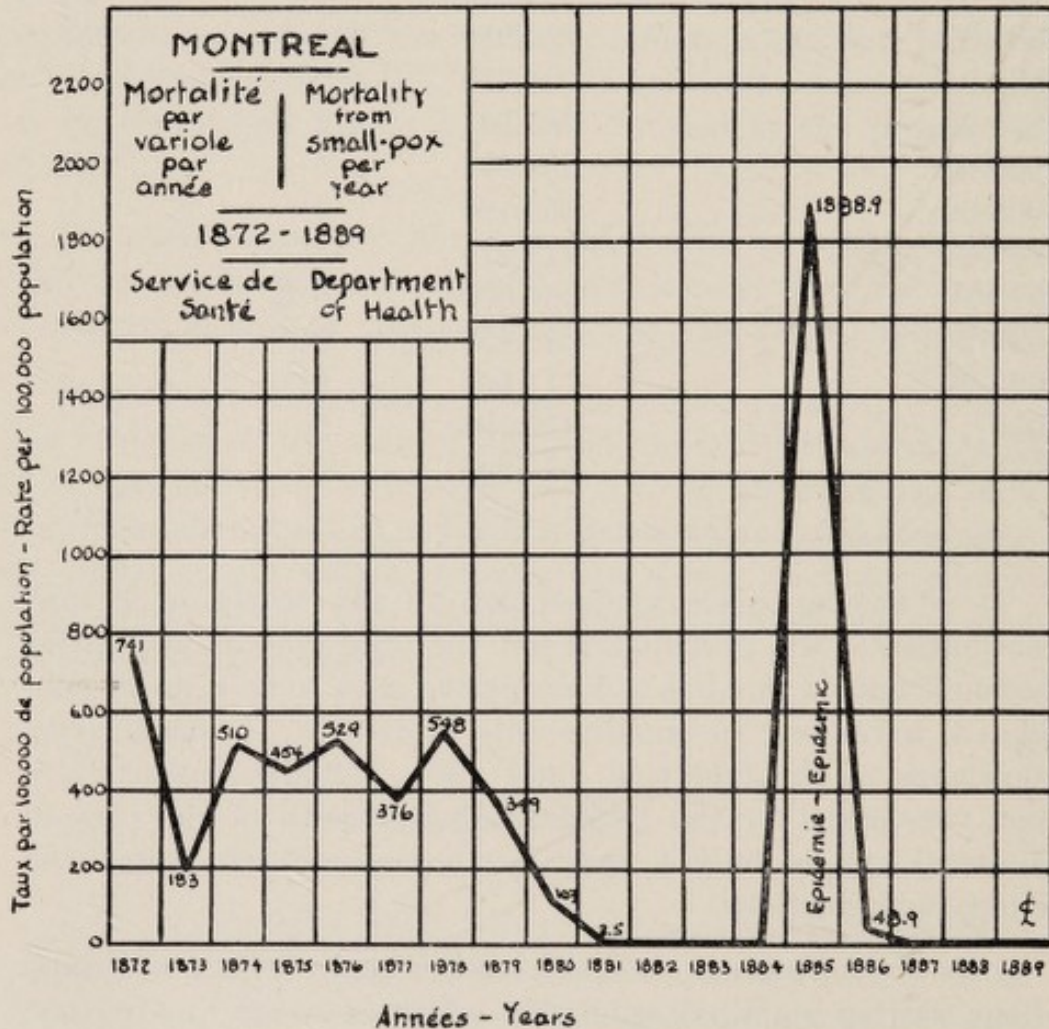
It is also of interest to make a short notice of the evolution of the various smallpox epidemics which occurred in Montreal and of their control by vaccination.

It is reported that anti-variolic vaccination according to Jenner's method was introduced into the Province of Quebec in 1801 by an artillery officer named Lathan who was stationed

at Quebec City. A great many years elapsed, however, before vaccination was used extensively. The reason for this was the use of a vaccinal lymph, then of poor quality; many severe complications were registered creating an antagonistic attitude in the population, the newspapers and the medical profession.

From the beginning of the 19th century, a number of serious outbreaks were recorded, some having a very high fatality rate, chiefly in the decade beginning with the year 1870.

The yearly incidence of death between 1872 and 1889 is illustrated in the following graph.



The exceedingly high mortality from smallpox at this time and in the following decade aroused public opinion and the question of vaccination as a means of the prevention and control

of smallpox was prominently before the public. On October 20, 1876, Dr. William H. Hingston, a prominent surgeon, then mayor of Montreal and chairman of the Board of Health, convened a meeting of the Société médicale de Montreal, saying: "It is a fact that smallpox has raised the mortality rate in this city, which is detrimental to its good reputation and to trade. It is therefore very urgent that efficacious measures be resorted to." He pleaded in favour of widespread vaccination and the result of the meeting was that many physicians took an active part in such a campaign; at the same time, physicians were appointed as public vaccinators and a stricter control was established, with the result that only 15 deaths from smallpox were reported in 1881 and no deaths during the following three years. This, unfortunately, was only the calm before the storm.

The following year, in 1885, Montreal experienced the worst and most deadly outbreak of smallpox ever recorded in Canada. The number of cases reported was 4,771. The number of deaths was 3,164, giving a rate of 1888.9 per 100,000 population. That many cases were not reported is shown by the fact that the case fatality rate as determined from these figures would be 66%.

In 1885, the whole population of Montreal had been either vaccinated or revaccinated. The memory of this terrible epidemic prompted people to have their children protected by vaccination early in life.

The effect was such that not one death from smallpox was recorded until 1897. During that year, 12 deaths occurred and around the turn of the century twenty-five more were reported. The last death from smallpox in Montreal was reported in the year 1918.

In 1887, two years after the great epidemic, legislation was passed by the Province of Quebec making it obligatory that all children over three months of age be vaccinated.

After this legislation was passed, the City Council of Montreal adopted three by-laws in the same lines but results were more or less satisfactory. By-law number 324 passed in November 1904, proved to be more effective and has since been enforced.

In addition to providing for better preventive measures, this by-law enacted that a child cannot be admitted to school or a person be employed in a commercial or industrial establishment unless he produces a certificate attesting that he has been successfully vaccinated.

Parents, teachers, and employers are made responsible for the observance of this by-law and severe penalties for failure to comply with its requirements are provided.

As soon as by-law No. 324 was passed, physicians were detailed to visit schools and commercial and industrial establishments to make sure that its provisions were observed.

It took many years to obtain the full co-operation of all concerned. Persuasion and education, rather than coercion, have been and still are the methods employed by the Department of Health in the enforcement of the by-law.

At first, many teachers and employers were reluctant to comply with the legislation. A certain number of proceedings were brought against a few. Firmness, repeated notices, sometimes a warning of prosecution, exclusion from school or work of unvaccinated persons have gradually subdued all resistance.

The following table shows the number of vaccinations by five-year period.

Year period	Number of vaccinations	Mean per year
1905-09.....	18,489	3,698
1910-14.....	17,091	3,418
1915-19.....	29,545	5,909
1920-24.....	53,991	10,798
1925-29.....	51,571	10,314
1930-34.....	130,497	26,099
1935-39.....	97,890	19,578

Since 1872, when four physicians were appointed as public vaccinators, vaccination has been made available without charge. Vaccination was conducted at first, only in the homes,

but as the organization of the Department of Health grew, a physician was assigned to conduct public vaccination and to issue certificates on demand, in the Department offices at the City Hall.

During the past twenty years free vaccination has also been offered to the public in all baby health centres situated in all parts of the City. Vaccination was also performed by voluntary agencies to which the vaccine virus was supplied by the Department of Health without charge.

During the summer holidays parents are advised through the newspapers and the churches that children will not be admitted to school unless they are able to produce a vaccination certificate. A control of vaccination is also made among new pupils during the month of September.

There are two physicians in the Department of Health who visit commercial and industrial establishments to confirm that all individuals employed therein have been vaccinated. Dairies and food establishments are visited at least once a year and other establishments at longer intervals.

A year ago it was felt that as the importance of vaccination was so deeply impressed upon the public and so well accepted by them, it was opportune to limit the extent of the free vaccination services, placing in the hands of the medical profession at large a greater share of this work. It was decided that only destitute persons would receive free vaccination. Those who are considered able to pay for this service are advised to apply to their family physician to whom the vaccine virus is supplied without charge by the Department of Health. I can speak most highly of the discretion and the tact of the members of the staff of the Department of Health in the application of this new rule. The public was not occasioned any hardship and the effectiveness of the work has not been impaired in the least.

In summarizing, here are the preventive measures which are necessary to protect against smallpox the population of a large city like Montreal:

1. Effective legislation to require vaccination at an early age;

2. Ordinances to ensure the enforcement of the law, such as :

a) inspection of all pupils at the beginning of the school year and the exclusion of unvaccinated children;

b) the requirement of a vaccination certificate from all those employed in industry, commerce, transportation, etc. and also from teachers and all those whose occupation brings them in constant contact with the public;

3. Free distribution of vaccine virus to physicians;

4. In the event of an epidemic, free vaccination or re-vaccination of the whole population by the Department of Health or other social agencies;

5. Official records of all vaccinations made by public or voluntary organizations;

6. Program of public education and propaganda about vaccination.

MORTALITY FROM DIPHTHERIA

Table I which follows shows the number of cases of diphtheria and the number and the rate of deaths per 100,000 of population, caused by this disease:

TABLE I

Years	Number of cases	Deaths	
		Number	Rate per 100,000 pop.
1927.....	1826	219	29.9
1928.....	1632	157	20.8
1929.....	1254	115	14.8
1930.....	930	83	10.4
1931.....	706	71	8.7
1932.....	607	53	6.5
1933.....	297	18	2.1
1934.....	244	30	3.5
1935.....	183	21	2.4
1936.....	166	18	2.1
1937.....	249	26	2.9
1938.....	222	26	2.9
1939.....	143	19	2.1

This table shows that in 1927 there were 219 deaths in Montreal from diphtheria and a rate of 29.9 per 100,000 of population; in 1933 the number of deaths was reduced to 18 and the rate to 2.1.

Since that time the death rate varies between 2.1 and 3.5; in 1929 there were 19 deaths and a rate of 2.1 per 100,000 population.

This state is due to the fact that there are far too many children under ten years of age who are not immunized against diphtheria and that the greater proportion of deaths from

diphtheria occurs between the time of birth and 9 years of age as indicated in Table II which follows for the year 1939:

TABLE II

Age	Population	Deaths		
		Number	Rate per 100,000 pop.	Percent of total Deaths
0-4	78,570	6	7.64	31.58%
5-9	86,760	11	12.68	57.90%
10-14.....	87,210	2	2.29	10.52%
15	647,460	0	...	...
Total.....	900,000	19	2.11	100.00%

On the 31st December 1939 there had been immunized against diphtheria 88,593 children under ten years of age, or 53.1% of children from 0-9 years of age. (See Table III.)

On the other hand the percentage of deaths by ages shows that 89.48% of deaths from diphtheria for 1939 occurred in the same age group.

Immunization against diphtheria

Since September 1928, 180,759 children have been immunized against diphtheria in Montreal; of this number 96,161 or 53.1% were inoculated between the ages of 6 months and 5 years; 54,601 or 30.2% at the ages of six or seven years on entering school; these two groups represent 83.3% of children immunized.

At the present time, including the year 1939, 31,428 children between the ages of 6 months and 4 years, out of a population of 78,570 children of ages 0-4 years, or, only 40% have been immunized against diphtheria.

There are still too many children in these groups who are still unprotected from and, therefore exposed to, diphtheria at an age when deaths from this disease are the most numerous.

Table No. II following shows the present ages of children immunized and the ages at which they were inoculated from the month of September 1928 to 1939.

Table No. III shows the total number of children immunized, that is, those who have received the three doses of anatoxin in Montreal, year by year, from the month of September 1928 to 1939, administered both by the Department of Health and by various other organizations entrusted with this work.

TABLE III
Immunization against diphtheria
Age of children having received the three doses of Toxoid from September 1928 to 1939

Age	Total number of children										Total number of children Age at which children where immunized			
	1928 1929	1930	1931	1932	1933	1934	1935	1936	1937	1938		1939	Immunized to date	
6 months to 1 year	116	234	440	825	2,181	2,063	2,887	3,214	3,589	4,040	4,670	1939 0 to 4 years pop. 78,570	24,259	6 months to 5 years
1 year	630	978	1,465	1,875	3,430	2,087	2,041	1,977	1,980	1,794	1,739		19,996	
2 years	755	1,173	1,135	1,425	3,430	1,329	1,352	1,268	1,332	1,038	964	31,428	15,201	96,161
3 years	557	1,140	1,007	1,138	3,203	1,010	951	956	1,039	889	703		12,593	
4 years	565	1,155	946	1,049	3,084	904	875	794	864	598	612	40.%	11,446	53.1%
5 years	581	1,279	1,172	1,271	3,459	945	908	848	910	685	608	5 to 9 years pop. 86,760	12,666	
6 years	809	1,941	2,479	2,830	6,589	2,787	3,149	3,000	3,227	2,581	2,308		31,700	6 to 7 years 54,601 30.2%
7 years	670	1,650	1,953	2,467	6,127	1,788	1,997	1,847	1,862	1,349	1,191	57,165	22,901	
8 years	451	667	571	759	5,324	770	748	737	738	537	396	65.8%	11,698	
9 years	221	317	304	442	5,299	387	288	294	323	184	116		8,175	3007
10 years and over	387	605	595	621	6,288	158	114	62	78	60	42		9,010	
Unknown	64	231	142	103	282	91	65	44	57	.....	45	92,176	1,124	16.7%
Total	5,806	11,370	12,209	14,805	48,696	14,319	15,375	15,041	15,999	13,755	13,394		180,769	

TABLE IV
Immunization against diphtheria 1928 to 1939

Year	Department of Health	Other organizations						Total
		La. fédération d'hygiène infantile (19 offices)	Child Welfare Association (8 offices)	Creches and other Institutions	Physicians	Total		
1928.....	384	.....	1,083	.....	.....	1,083	1,467
1929.....	3,585	.....	754	.....	.....	754	4,339
1930.....	9,108	745	1,138	379	.....	2,262	11,370
1931.....	10,064	741	1,135	269	.....	2,145	12,209
1932.....	11,499	1,375	977	54	.....	3,306	14,805
1933.....	41,490	3,313	2,186	690	1,017	7,206	48,696	
1934.....	11,484	1,206	1,257	153	219	2,835	14,319	
1935.....	12,477	1,283	1,118	191	306	2,898	15,375	
1936.....	12,017	1,666	757	317	284	3,024	15,041	
1937.....	12,935	1,726	652	398	288	3,064	15,999	
1938.....	10,473	1,799	757	442	284	3,282	13,755	
1939.....	10,032	1,332	1,084	439	507	3,362	13,394	
Total.....	145,548	15,186	12,898	4,232	2,905	35,221	180,769	

MEASLES

The number of reported cases of measles in 1939 was 8,736 as against 2608 in the previous year; the death rate per 100,000 of population due to this disease in 1939 was 4.7, which is a slight increase over that of 1938, which was 4.2.

The movement of this malady since 1913 is shown by tables and graph charts following.

Table No. 1 shows the rates of morbidity, mortality and fatality for measles, the first two calculated on the basis of 100,000 of population, the last, on 1,000 declared cases. The table covers the period since 1915, and gives the impression that measles has a tendency to increase in a serious manner.

As a matter of fact the mean morbidity rate for the period 1935-39 is 48% higher than the mean rate for the period 1915-19.

The graph chart A shows an ascending curve of morbidity per 100,000 of population which is very steep, while graph chart B shows an equally marked descending curve in the death rate.

This increase, "more apparent than real", in measles cases is due to a more exhaustive discovery of cases and closer control over the disease.

The mean death rate per 100,000 of population for five-year periods went from 13.1 for the 1915-19 period to 3.2 for the 1930-34 period, and to 5.8 for the period 1935-39, or a decrease of 56%, which demonstrates that there has been a gradual and notable improvement, due to the fact that the treatment of measles has improved, that the person suffering from measles is better taken care of, that there is also improvement in home hygiene.

Table No. II gives us, for 27 years, the number of cases and of deaths from measles occurring in children from birth to five years of age, the total of cases and deaths at all ages and the percentage of cases and deaths in children up to five years of age.

This table shows two things:

1. That fewer than 50% of all cases of measles reported to the Department of Health concern children under five years of age;
2. That there is only 8% of deaths in cases of persons over five years old.

That is to say that almost all deaths occur among children under five years of age. This discrepancy between the number of cases and the number of deaths under five years of age proves that measles holds much more serious potentialities when it attacks children under five years of age. Therefore this child group should be surrounded by every possible protection which has shown effective results.

TABLE I
Number of cases and deaths of measles in Montreal,
morbidity, mortality and fatality rates per year
and per period of five years, from 1915
to 1939

Years	Population	Number of cases	Number of deaths	Morbidity rate per 100,000 population	Mortality rate per 100,000 population	Fatality rate per 1,000 cases
1915.....	516,000	2,458	95	476.3	18.4	38.6
1916.....	529,000	1,362	33	257.4	6.2	24.2
1917.....	538,000	5,881	132	1,093.1	24.5	22.4
1918.....	580,000	346	17	59.6	2.9	49.1
1919.....	593,400	2,401	85	404.6	14.3	35.4
Average	551,280	2,490	72	451.6	13.1	33.9
1920.....	607,500	2,420	48	398.3	7.9	19.8
1921.....	618,506	1,497	34	242.1	5.4	22.7
1922.....	637,600	2,445	36	383.4	5.6	14.7
1922.....	655,700	1,995	55	304.2	8.3	27.5
1924.....	674,300	1,328	40	196.9	5.9	30.1
Average	638,721	1,937	43	303.3	6.6	22.9
1925.....	693,500	3,438	59	495.7	8.5	17.1
1926.....	713,200	1,302	27	182.5	3.7	20.7
1927.....	733,460	2,607	47	355.4	6.4	18.1
1928.....	754,300	4,347	65	576.2	8.6	14.2
1929.....	775,800	2,471	26	318.5	3.3	10.5
Average	734,052	2,833	45	385.9	6.1	16.1
1930.....	796,800	2,077	21	260.6	2.6	10.1
1931.....	818,577	7,333	30	895.8	3.6	4.3
1932.....	833,000	3,655	47	438.7	5.6	10.1
1933.....	847,000	472	2	55.7	0.2	4.2
1934.....	855,000	5,132	34	600.2	3.9	6.6
Average	842,275	3,734	27	449.8	3.2	7.0
1935.....	863,000	8,791	54	1,018.6	6.2	6.1
1936.....	875,000	4,092	40	467.7	4.5	9.7
1937.....	885,000	5,310	84	600.0	9.4	15.8
1938.....	893,000	2,608	38	293.1	4.2	14.5
1939.....	900,000	8,786	43	976.2	4.7	4.8
Average	883,200	5,917	52	669.9	5.8	10.2

ROUGEOLE — MEASLES MONTREAL

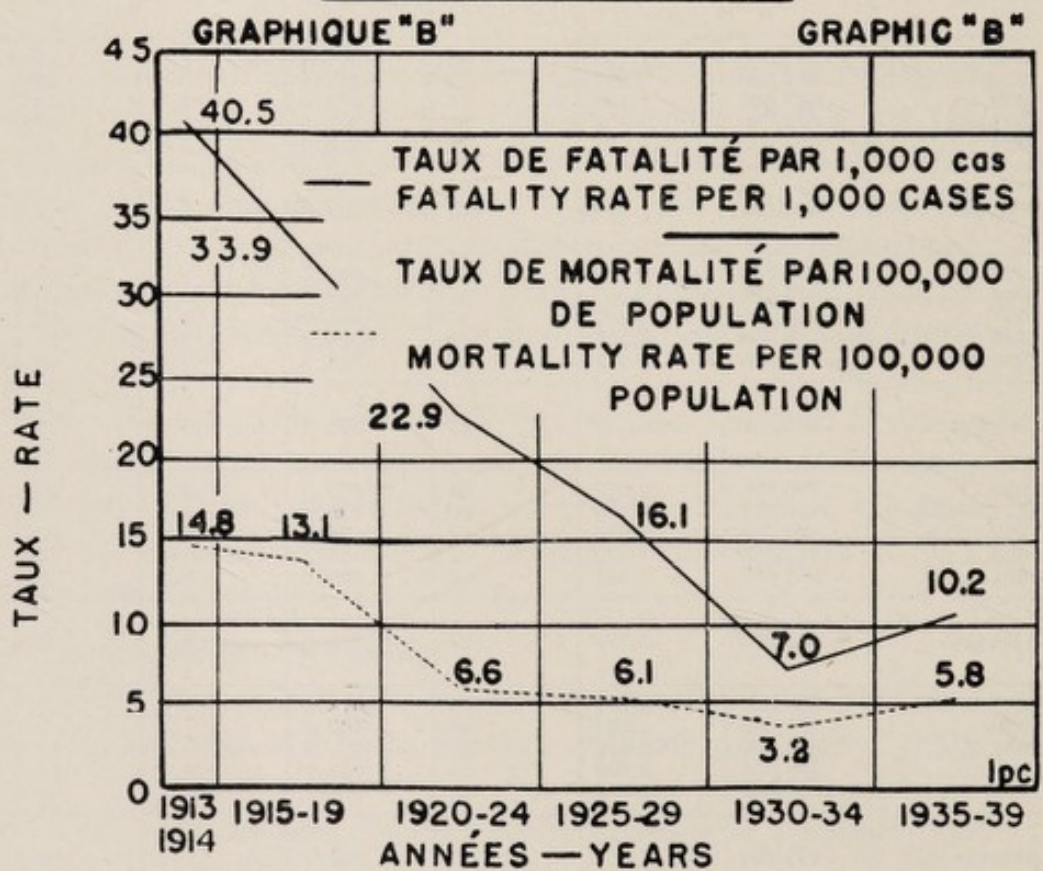
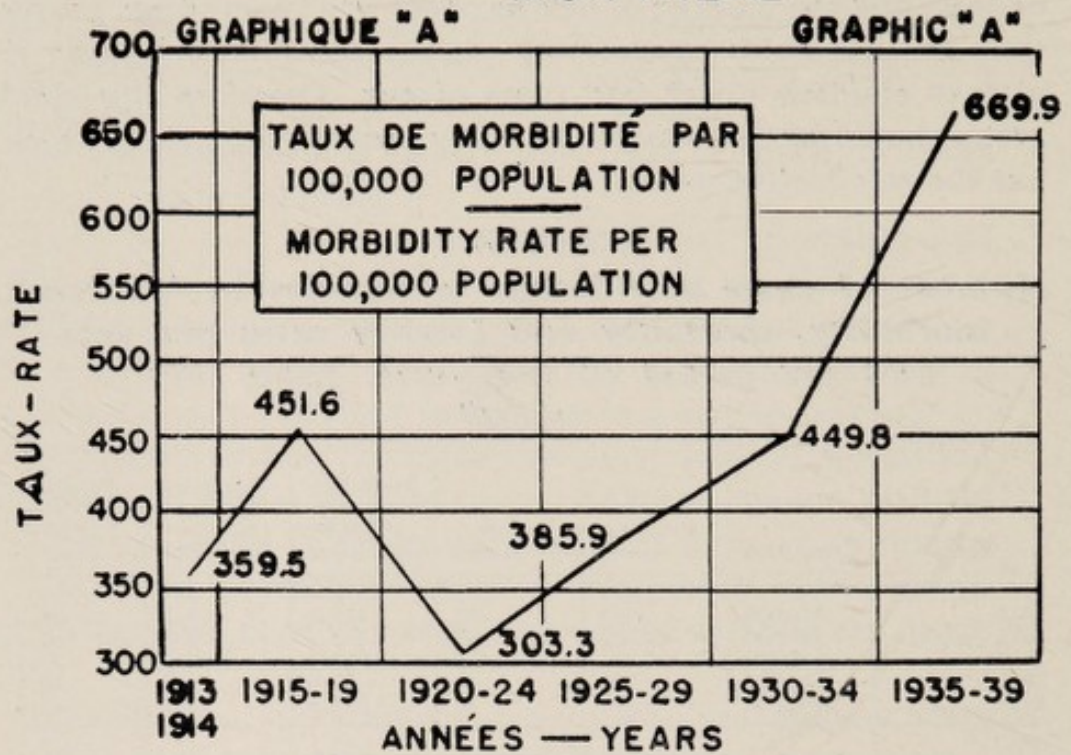


TABLE II

Montreal—Number of cases and deaths of measles and percentage of cases and deaths in children of less than 5 years old, per year and by period of five years, from 1915 to 1939

Year	Cases			Deaths		
	0 to 5 years	Total	% 0 to 5 years	0 to 5 years	Total	% 0 to 5 years
1915.....	1,181	2,458	47.6	88	95	92.6
1916.....	585	1,362	42.9	30	93	90.9
1917.....	2,603	5,881	44.2	113	132	85.6
1918.....	212	346	61.2	13	17	76.4
1919.....	1,285	2,401	53.5	82	85	96.4
Average.....	1,173	2,490	47.1	65	72	90.3
1920.....	1,175	2,420	48.5	43	48	89.5
1921.....	806	1,497	53.8	29	34	85.2
1922.....	1,189	2,445	48.6	33	36	91.6
1923.....	997	1,995	49.9	52	55	94.5
1924.....	748	1,328	56.3	40	40	100.00
Average.....	983	1,937	50.8	39	43	90.7
1925.....	1,792	3,438	52.1	57	59	96.6
1926.....	732	1,302	56.2	25	27	92.5
1927.....	1,347	2,607	51.6	43	47	91.5
1928.....	2,348	4,347	54.0	61	65	93.8
1929.....	1,311	2,471	53.0	20	26	76.9
Average.....	1,506	2,833	53.2	41	45	91.1
1930.....	1,103	2,077	53.1	18	21	85.7
1931.....	3,279	7,333	44.7	26	30	86.7
1932.....	1,829	3,655	50.0	45	47	95.8
1933.....	262	472	55.5	2	2	100.0
1934.....	2,581	5,132	50.3	31	34	91.2
Average.....	1,811	3,734	48.5	24	27	88.8
1935.....	3,169	8,791	36.0	51	54	94.3
1936.....	1,355	4,092	33.1	26	28	92.8
1937.....	2,199	5,310	41.4	79	84	84.0
1938.....	984	2,608	37.7	34	38	89.5
1939.....	3,335	8,786	37.9	40	42	95.2
Average.....	2,208	5,917	37.3	46	49	93.9
Grand total...	40,103	88,142	45.5	1,217	1,327	91.7

MILK INSPECTION IN MONTREAL

Milk inspection comprises section No. 1 of the food inspection division of the Department of Health. Its organization is based on similar corps in America.

Its object is the application of By-law No. 891 concerning "Milk" and to assure control of milk received and sold in Montreal.

Provision of good milk is a complicated problem. It is also one of education.

"The most important point from the public health point of view is the quality of milk sold and consumed"—this is the conclusion reached by the Board of Health in its report on this question.

Control of milk received and sold in Montreal is assured by strict supervision (By-law No. 891) which ordains regular and continued inspection completed by bacteriological and chemical analysis in the laboratory.

It is not only a question of rigorously applying the by-law but also and chiefly, it is imperative to carry on a great educational campaign among the population and among the interested parties, producers, farmers, suppliers, merchants, handlers of milk. This propaganda is going ahead with increased vigor.

The first milk by-law is dated 1890. In 1900 two veterinaries were in charge of milk inspection. The first bacteriological analyses were made in 1904.

In 1912, with the appointment of a superintendent of the food division, (Dr. Hood) and in 1914 with the arrival of a new director of the health department (Dr. S. Boucher) improvements which had been studied relative to milk inspection were in part put into operation; a few inspectors were named. From that time the milk by-law which had become insufficient, began to be revised but it was only on July 25, 1925, that a new by-law, "By-law No. 891, concerning milk and pasteurization" was adopted. It went into effect on May 1st 1926.

The outstanding revelations of an enquiry carried out early in 1939 by the Board of Health on this organization in Montreal were:

I—Milk sold in Montreal is of good quality, this is amply shown by the following facts:

1. Vital statistics relating to deaths from certain causes connected with milk are vastly improved:

- a) infant mortality has dropped from a rate of 183.03 per 1,000 live births for the period 1915-19, to 77.2 in 1938 and 71.5 for 1939;
- b) deaths from diarrhoea among babies from birth to one year has dropped from 64.4 per 1,000 live births in 1920-24 to 11.3 in 1938;
- c) the death rate per 100,000 of population from tuberculosis other than pulmonary has dropped from 39.9 for the period 1915-19 to 9.3 in 1938.

Years	Milk		Death		
	Tuberculinized cattles	% pasteurized milk	Infants 0-1 year	Diarrh.	T.B. other than of the lungs
			per 1,000 live births		
1915-19.....	1.79	44.88	183.03	.....	39.9
1920-24.....	4.21	62.57	160.6	64.4	26.1
1925-29.....	70.5	85.98	126.8	42.7	20.1
1930-34.....	97.0	95.	105.8	32.3	16.
1935-37.....	100.0	94.79	88.7	15.1	12.2
1938.....	100.0	94.39	77.2	11.3	9.3
1939.....	100.0	95.61	71.5	13.9	9.9

2. Since 1931 not a single case of typhoid fever has been attributed to milk;

3. Milk delivered to Montreal comes from herds of cattle which are 100% tuberculinized;

4. 95% of milk sold in Montreal is "pasteurized"; the other 5% is made up of special (raw) milk;

5. 90.6 of the samples of pasteurized milk submitted for bacteriological analysis in 1938 were "good", that is to say, they did not show any coli-bacilli per cubic centimeter.

It is admitted that for milk to be of good quality it must not contain coli-bacilli in more than from 10 to 20% of samples submitted for bacteriological analysis.

As for special milk only 66.3% of the samples were "good".

The total number of milk samples and by-products collected was 12,469 in 1937 and 13,077 in 1938. ¹

6. Chemical analysis of 2,856 samples of milk and 207 of cream collected in the streets, at stations, in dairies, from merchants, etc., in 1937, showed:

a) that the butter-fat rate was 3.5%; the same in 1938; ²

b) that the density of the milk was 1.031 in 1937 and 1.0305 in 1938. ³

7. All cream and other by-products of milk made in Montreal are "pasteurized."

8. 13,903 sediment tests or disc tests to control cleanliness of milk were carried out in 1937 and 15,754 in 1938. ⁴

9. 31,556 milk temperatures were taken in 1937; 33,758 in 1938. ⁵

10. Since 1938 the phosphatasa test of pasteurized milk has been given in doubtful cases the better to control the findings.

11. In general the observance of By-law No. 891 is good. However it could be improved with a greater number of inspectors.

¹ In 1939: 14,601.

² In 1939: 3.5.

³ In 1939: 1.030.

⁴ In 1939: 16,523.

⁵ In 1939: 36,068.

III—The organization of milk inspection in Montreal can be compared favorably with any similar body in the other large cities of the world.

IV—The organization, as it actually exists in Montreal, has been the object of flattering compliments from experts who came here from afar.

IMPROVEMENTS MADE

Reorganization of the milk inspection section

Following recommendations made by the Board of Health, Section No. 1 of milk inspection was reorganized as follows:

Division into two "sub-sections", each under the direction of a "supervisor".

I—Inspection of farms and of milk at point of production;

II—Milk inspection in the city, which comprises two groups of inspectors: groups A and B.

GROUP A —

Inspection of milk from the time of its arrival in the city up to delivery (including supervision of milk at its arrival in dairy receiving rooms and chiefly in trucks from outside).

Territory divided into 8 districts—staff of 9 inspectors.

GROUP B —

Inspection of pasteurization and of special milk establishments.**1. Milk inspection on farms** consists in:

inspection of farms of producers who ship milk or cream to Montreal;

inspection of cows and sanitary state of stables, dairies, surroundings, wells, etc.;

supervising production and transportation of milk and cream to Montreal (waggons, trucks, etc.);

supervising health of producers and herds;

controlling quality of milk;

controlling mammitis and Bang's disease (epizootic abortion);
carrying out of enquiries in the case of contagious disease in districts;

This work is done by 9 inspectors, veterinary doctors, in nine inspection districts.

2. Milk inspection in the city includes two groups:

1. **Group A:** Milk inspection in the city immediately on its arrival by railway or truck, until it is delivered. It is applied to milk and to all by-products.

This inspection includes supervision of milk at its arrival in the receiving rooms of dairies and especially that contained in truck outside.

- a) **Milk:** control over its quality, supervision over vehicles as to their condition; checking up on permits and licenses to sell; on health cards; examination of milk for cleanliness, appearance, taste; taking of samples for chemical analysis; butter fat

test; control of milk and its conditions of sale in groceries, restaurants, hotels, hospitals, nurseries, schools.

- b) **By-products:** ice cream, cheese, butter, skimmed milk, yoghurt; same supervision of cream sold on markets.

This work is done by nine inspectors and the city is divided for this purpose into eight districts.

2. Group B: Inspection of pasteurization and special milk includes:

- a) inspection, on an average of twice a week, of pasteurization establishments; these number 33, of which 27 are for milk and 6 for by-products. This inspection deals with the quality of milk and cream received, the cleanliness and sanitary conditions of the plant and of the equipment, bottling, sterilization, bottle washing, taking of samples, etc., and with improvements which could be made;
- b) inspection of special milk establishments, totalling 31; supervising bottling of this milk through the following measures:
- 1) supervising establishments and apparatus, sterilization of utensils, bacteriological control and taking of samples;
 - 2) having inspectors present during milking, supervision over cleanliness and sterilization of utensils and bacteriological control.
- c) taking of samples for bacteriological control:
- 1) **of milk and cream:** in pasteurization and special milk plants; at time of delivery to hospitals, schools and merchants;
 - 2) **of water:** water systems, wells.

This work is done by nine inspectors and the city is divided into eight districts.

The staff

Following this investigation and in conformity with the recommendations of the investigators the following appointments and promotions were made among the personnel of this division:

- a) appointment of an assistant superintendent, a doctor qualified in public health. This position was entrusted to Dr. Jules A. Brien, who had already been in the service of the city for ten years. Dr. Brien received his medical diploma from Montreal University and, in 1933-34, followed a city scholarship course at Johns Hopkins University, Baltimore; where he carried on special studies in public health for which he earned the degree of "Master of Public Health";
- b) appointment of three more milk inspectors;
- c) office staff changes:
 - 1) appointment of an office manager;
 - 2) promotion of a clerk-typist to the position of stenographer;
 - 3) appointment of another stenographer and of two typists.

In the laboratory division, always in accordance with the recommendations of the Board of Health's enquiry, an analyst was added also a laboratory assistant.

These employees, who are nearly all specialists, have shown that their appointment was justified and there is no doubt but that the efficiency of the department will be thereby increased.

Manual of instruction

A manual of instruction has also been prepared with great care and distributed to all inspectors of the milk inspection section who are enjoined to follow the orders therein contained to the letter.

The Board of Health has also made certain recommendations of a general nature dealing with the need for amendments to the milk by-law and with the end in view of making its observance more strict, chiefly in regard to pasteurization which would become obligatory for all milk and for all by-products sold in Montreal.

A NEW BY-LAW

A new by-law concerning massage establishments and masseurs, and amending by-law No. 1006, was adopted by the City Council on August 16, 1939.

It was prepared by Mr. Aimé Cousineau, sanitary engineer and superintendent of the sanitation division, and submitted to the attorney of the Department of Health, Mr. Gordien Menard, as to its legal aspects.

This new by-law cannot but be of assistance to the public generally and to the proprietors of such establishments in particular. I am certain that it will be of great help in improving health conditions.

Following is the text of this new by-law which bears No. 1573:

By-law concerning massage establishments and masseurs and to amend By-law No. 1006.

(Adopted by the Executive Committee on the 9th June 1939 and, by the Council, on the 16th August 1939.)

At a meeting of the Executive Committee of the City of Montreal, held at the City Hall, on the 9th day of June, 1939, in the manner and after the observance of the formalities prescribed by law, at which meeting were present: Aldermen Savignac, Chairman; Dupuis, Coupal and Kerry, members of said Committee,

It was ordained and enacted by the said Committee as follows:

Chapter I

DEFINITIONS

ARTICLE 1.—Wherever the following words occur in this by-law, they shall, unless the context otherwise requires, be understood as follows:—

a) The words “massage” shall mean and include any process consisting in kneading, rubbing or otherwise manipulating the skin of the body of a human being, either with the hand or by means of electric instruments or apparatus, or other special apparatus; but the word “massage” as used in this by-law, shall not mean nor include massage for therapeutic purposes practised by persons authorized by law, in the exercise of their profession, nor massage of the face practised in beauty parlors, barber shops, hair dressing parlors or other establishments mentioned in By-law No. 1006, as amended.

b) The words “massage establishment” shall mean and include any premises or part thereof where massage, as defined in paragraph (a) of this article, is practised.

c) The word “masseur” shall mean a masseur or masseuse or a person practising massage, as defined in paragraph (a) of this article.

d) The word “linen” shall mean and include the towels, bed-sheets, pillow-cases, washable fabrics and other similar articles in use in massage establishments.

Chapter II

CERTIFICATE OF COMPETENCY, PERMIT, LICENSE,
INSPECTION etc.

ARTICLE 2.—No person shall exercise the trade of masseur and shall act as masseur in any massage establishment or elsewhere without having previously obtained a license to

that effect from the City and without having paid to the Director of Finance the sum fixed for the granting of such license by By-law No. 432, as amended, and without having produced the identification card issued to him by the City. Such license shall be issued by the Director of Finance only upon a written declaration from the Directors of the Department of Health and of the Police Department or upon the issuing, by the latter, of a license permit attesting that they have no objection to the granting of said license.

ARTICLE 3.—No person, company, firm or corporation shall keep or operate any massage establishment, in the City, without having first obtained a license from the Director of Finance, for which the sum mentioned in By-law No. 432 concerning taxes, etc., as amended, shall be paid. Such license shall be issued by the Director of Finance only upon a written declaration from the Building Inspector and from the Directors of the Department of Health and of the Police Department or upon the issuing, by the latter, of a license permit attesting that they have no objection to the granting of such license.

ARTICLE 4.—The Director of the Department of Health shall not issue any permit under article 2, unless the person applying for a license to exercise the trade of masseur or act as such be the holder of a certificate of competency from an institution or association where massage is taught and practised and which is recognized by the Department of Health. In case the applicant for a permit to exercise the trade of masseur should fail to produce such a certificate of competency, he or she shall, in order to obtain a permit, furnish, to the satisfaction of the Department of Health, written proofs that he or she has the qualifications required and at least 3 years experience in the exercise of the trade of masseur.

Every person who applies for a license permit must, moreover, have obtained a "health card" from the Department of Health, but such card must not have been issued more than 30 days before the date of such application.

ARTICLE 5.—Every person who keeps or operates a massage establishment and who acts as masseur in such establishment or elsewhere in the City shall pay to the Director

of Finance the sum mentioned in By-law No. 432, as amended, in addition to the fee exigible for his license to keep or operate a massage establishment.

ARTICLE 6.—The licenses issued under this by-law shall be personal and untransferable and shall be renewed each year, in the first week of the month of May.

ARTICLE 7.—The inspectors of the Department of Health shall be admitted, at any time, for inspection purposes, in massage establishments.

ARTICLE 8.—The persons, companies, firms or corporations keeping or operating a massage establishment shall be responsible for the acts of their masseurs and employees in the exercise of their trade.

ARTICLE 9.—The aforesaid persons, companies, firms or corporations shall—

a) post up in a conspicuous place, inside and outside of their establishment, the title, firm-name or corporate name under which they have obtained their license;

b) furnish to the City, monthly and whenever required to do so by the Department of Health or the Police Department, the name and address of each masseur in their employ;

c) give immediate notice to the Directors of the Department of Health and of the Police Department of any change of address of their establishment in case they should move into other premises or abandon their business;

d) employ in their establishment none but masseurs who have obtained a license from the City and who have complied with the provisions of this by-law

e) keep a register of the names and addresses of their customers with the dates of the treatments and allow the officials of the Department of Health and of the Police Department to examine, at any time, such register;

f) post up in a conspicuous place the license authorizing them to keep a massage establishment, as well as the licenses of the masseurs in their employ;

g) have themselves registered under their real name at the business firms registration office of the District of Montreal if they do business under a firm, corporate or company name, and deliver to the Director of Finance a certificate of such registration prior to the granting of their license by the City.

ARTICLE 10.—No person to whom a masseur's license has been granted shall practise massage on any person who is not of his or her sex.

ARTICLE 11.—However, upon a written prescription issued by a physician duly qualified to practise as such in the Province of Quebec, any person who is the holder of a masseur's license under this by-law may practise massage on a person not of his or her sex, in a massage establishment. Such prescription shall mention the full name of the customer or patient, and specify the number of treatments to be given, and shall be dated and numbered. Moreover, the date and hour of the treatment, as well as the name of the masseur, shall be recorded on the back of the prescription and such prescription may be examined, at any time, by the officers or officials of the Police Department.

ARTICLE 12.—It shall be unlawful—

a) To set up a massage establishment in a dwelling, premises or place not approved by the Department of Health and the Police Department and by the Building Inspector;

b) To exercise the trade of masseur or to advertise as such without having obtained a license from the City, in accordance with the provisions of this by-law;

c) To keep or operate a massage establishment under a fictitious or assumed name;

d) To keep or operate a massage establishment which is not in accordance with the provisions of this by-law.

Chapter III

SANITATION

ARTICLE 13.—All premises used as a massage establishment shall be properly lighted and ventilated and shall not be used for any other purposes.

ARTICLE 14.—The walls, ceilings, furniture and other objects, in massage establishments, shall be constantly kept clean and free from dust.

ARTICLE 15.—The floors shall be carefully swept or washed daily.

ARTICLE 16.—Every massage establishment shall be provided with a hot and a cold water distribution system to supply the wash-basins, baths and showers.

The wash-basins shall be installed in the room where customers are massaged.

Moreover, massage establishments shall be equipped with at least one bath or shower, accessible or contiguous to the room where massage is practised and used exclusively for the purposes of such establishments. There shall also be satisfactory water closet accommodation.

The plumbing shall be installed in accordance with the provisions of By-law No. 1341, as amended.

Chapter IV

PROPHYLAXIS AND CLEANLINESS

ARTICLE 17.—In case the owner, the manager or an employee of a massage establishment should have been affected with any of the contagious diseases mentioned in article 76 of the Quebec Public Health Act, Revised Statutes of Quebec, 1925, chapter 186, or with any other disease which the Lieutenant-Governor in Council shall have designated by by-law,

such owner, manager or employee shall not enter the said establishment until a permit authorizing him to do so has been granted to him by the Department of Health of the City.

ARTICLE 18.—It is forbidden to admit into any massage establishment any person suffering from any of the contagious diseases mentioned in article 76 of the Quebec Public Health Act, Revised Statutes of Quebec, 1925, chapter 186, or from any other disease which the Lieutenant-Governor in Council shall have designated by by-law, or who has been in contact with a contagious case.

ARTICLE 19.—All persons exercising the trade of masseur must have been successfully vaccinated against smallpox since less than seven years.

ARTICLE 20.—All beds, mattresses and pillows and all linen used for massaging shall be kept in a good state of cleanliness; all the instruments used for massaging or any other similar articles shall be thoroughly cleaned and sterilized immediately after each separate use.

Mattresses and pillows shall be covered with a sheet of rubber or of equivalent material.

ARTICLE 21.—All linen, including towels and sheets, shall be used only for one person.

All linen shall, after each service, be immediately placed in a special container for linen to be laundered.

ARTICLE 22.—All linen shall be washed in water heated to a temperature of at least 200° F. This shall not, however, be necessary when the linen is subjected to a temperature of not less than 200° F. during the drying or ironing process.

ARTICLE 23.—The persons exercising the trade of masseur and the employees of massage establishments shall wash their hands with hot water, soap and scrub them carefully before attending a customer.

ARTICLE 24.—It shall be unlawful to use sponges in massage establishments.

Chapter V

RENEWAL AND CANCELLATION OF LICENSE,
AMENDMENT TO BY-LAW No. 1006 AND
PENALTY

ARTICLE 25.—The Directors of the Department of Health and of the Police Department shall refuse to issue or to renew a license permit if the person, firm, company or corporation keeping or operating a massage establishment fails to comply with any of the provisions of this by-law, or makes a false declaration in his or its application for such permit, or fails or refuses to furnish, within a delay of three days, the information asked for by the said Department or refuses, at any time, to allow his or its establishment to be visited and inspected.

ARTICLE 26.—Every license issued under this by-law may be revoked and annulled by the Executive Committee of the City, on the recommendation of the Director of the Department of Health and of the Director of the Police Department, for any infraction of any provisions of this by-law, or in the event of the holder of such license failing or refusing to comply with a notice from the Department of Health or the Police Department within the delay prescribed in said notice.

ARTICLE 27.—By-law No. 1006 is amended by striking out the words "massage establishments" in the title and in articles 1, 2 and 4 thereof.

ARTICLE 28.—Any person infringing any of the provisions of this by-law shall be liable to a fine with or without costs, and, in default of immediate payment of said fine with or without costs, as the case may be, to an imprisonment, the amount of said fine and the term of said imprisonment to be fixed by the Recorder's Court of the City of Montreal at its discretion; but such fine shall not exceed forty dollars and the imprisonment shall not be for a longer period than sixty days; the said imprisonment, however, to cease at any time before the expiration of the term fixed by the said Recorder's Court upon

payment of the said fine, or fine and costs, as the case may be; and if the infringement of this by-law continues, the offender shall be liable to the fine and penalty above mentioned for each day during which the infringement is continued.

At a special meeting of the City Council of Montreal, held at the City Hall, on the 16th August 1939, in the manner and after the observance of the formalities prescribed in and by the Act of incorporation of the said City, at which meeting were present: Alderman Lesage, presiding member, in the Chair, His Worship the Mayor, Mr. Camillien Houde, Aldermen Schubert, Monette, Dupéré, Riel, Dupuis, Seigler, Taillefer, Caron, Goyette, Fillion, Dubreuil, Brien, Savignac, Lacombe, Belanger, Rochon, Taillon, Barriere, Edmison, Coupal, Kerry, Durocher, Hamelin, Delisle, Ratelle and Belisle.

The above by-law was adopted without any amendment.

THE BOARD OF HEALTH

This Board, appointed by the Council in conformity with By-law No. 1944, was made up, in 1939, of the following members:

Alderman J. M. Savignac, N.P., Chairman of the Executive Committee, ex-officio member;

Alderman Dr. Z. H. Lesage, M.D.;

Alderman Dr. J. Coupal, D.D.S.;

Alderman J. A. Edmison, Attorney;

Dr. Adelard Groulx, M.D., M.P.H., Director of the Department of Health, ex-officio member;

Dr. B. G. Bourgeois, M.D., Professor of the Medical Faculty at Montreal University;

Dr. E. G. Asselin, M.D., Professor of the Medical Faculty at Montreal University;

Dr. A. Grant Fleming, M.D., Dean of the Medical Faculty and Director of the Division of Public Health and of Preventive Medicine at McGill University;

Dr. Frank G. Pedley, M.D., Assistant Professor of Industrial Hygiene at McGill University.

Questions submitted and studied

On February 20th, Dr. Ad. Groulx, Director of the Department of Health, sent to the Board of Health a project to make certain improvements to the general organization of the Department of Health of the City of Montreal; this project was published in the department's annual report for the year 1938.

This report was studied at length and examined by the board at meetings held during the months of March, April, May and June.

It is thus that improvements suggested for various divisions of the department were approved by the Board of Health.

Moreover it studied at meetings held during the months of September, October and November—

1. a petition from the Canadian Society for the Prevention of Cruelty to Animals;
2. a petition concerning Bruchesi Institute;
3. a table showing: a) the number of beds and of maternity cases in Montreal hospitals;
b) certain statistics concerning pre-natal clinics;
4. a memorandum concerning the distribution of milk in Montreal schools; The Board also took up the study of the following questions: Report of the commission of enquiry re milk inspection; Plan from the Provincial Government to transform Nazareth Institute into a sanatorium for tuberculosis sufferers; Immunization against diphtheria; Draft of by-law concerning massage establishments.

Director's Office

Section of Public Health Instruction

REPORT FOR THE YEAR 1939

Teaching of public health has taken on, within a few years, an importance which cannot escape even the least observant. In every country it has become recognized that the hygienist must descend from his pedestal and spread the doctrine of preventive medicine among the people. "We must teach the public that it is possible to preserve one's health", the late Leon Bernard once said, and the master advised the professor of hygiene to "go down into the streets".

Everywhere, but notably in France, the United States, and in Great Britain, the teaching of public health holds first place in the work of doctors and specialists in public health.

The American Public Health Association has a section devoted to "Public Health Education". And all health departments are taking up the teaching of health to the public.

The Department of Health has not remained in the background and in its annual report for 1938 Dr. Adelard Groulx said, in the chapter: "Establishment of a section of public health teaching and publicity":

"This is an important function of the health department and a section which should be placed under the immediate direction of the director and entrusted to one of the assistant directors.

The program of this section includes:

1. Preparation of the annual report which allows of demonstrating the work accomplished, the budget and statistics;
2. The bimestrial publication of the "Health Bulletin" which informs doctors, nurses, social workers, pastors, etc., on local health problems;

3. Preparing for all divisions of the Department, publications, circulars, forms, etc. (chiefly for the contagious diseases section and that of child hygiene);
4. Preparing articles, new items, communications, for the Press, dealing with public health;
5. Organizing addresses and talks to the public, the staffs or for the radio;
6. Preparing exhibits and expositions;
7. Using health centres as teaching centres in sanitary districts;
8. Co-operation with private organizations, commercial houses, in programs of public health teaching and obtaining information concerning their publications, periodicals, slides, films, etc."

This program was followed in general lines during 1939.

The 1938 report was published, containing the report of the Director on the budget, expenses, etc., of the Department of Health; a study of the demographic movement; commentaries on improvements in the tuberculosis situation in Montreal; poliomyelitis; immunization against diphtheria; the foundling hospital problem; the Board of Health; and reports from the various divisions.

The Health Bulletin was published every two months.

We have looked after the editing or the revising of various publications from various divisions, contagious diseases, child hygiene, food inspection, etc.

Radio

Members of the staff have given, under the auspices of various associations and thanks to the generosity of the radio stations, addresses on the following questions: the fight against tuberculosis, infant mortality, milk inspection, clean-up week, etc., etc.

Press

News items and communiques of a nature to interest the public were sent to the newspapers.

Moreover the Public Health Instruction section collaborated in a special manner with the newspapers, more than 500 articles and small news items of different kinds having been published under such headings as: "Health as Capital"; "To help your Health"; "A Health idea Daily"; "The Good-Health Bulletin"; "To Help and Save our little Ones", etc.

It is apposite to thank our daily newspapers for the gracious welcome with which they always receive the items which are sent them. It is thanks to the support of the Press of Montreal that the Department of Health is enable to give the population of the city all the information which it deems opportune. The newspaper is today the most powerful means of propaganda which there is, and the Department of Health would show bad form indeed if it sought to stint the praise and gratitude which it owes the Press which is so willing to spread ideas which are helpful to our population in maintaining its health.

Educational campaign against tuberculosis

The section devoted to public health education organized, in 1939, 18 campaign nights against tuberculosis. These social evenings include:

- a) monologues and sketches as a vehicle for propaganda;
- b) a quarter-hour address by a speaker invited for the occasion or by a staff doctor;
- c) showing of the film, "Health and Happiness".

A word of explanation about this program. The public is a grown-up child and it must be entertained if we wish to capture its attention for the purpose of teaching it useful lessons. We have adopted the system of a short address lasting a quarter of an hour, accompanied by a monologue, singing and a sketch with a propaganda objective.

These pieces interpreted by pupils of our best teachers of elocution, Mrs. J. L. Audet, Miss Suzanne Paquette, Miss Jeanne De Pocas, carry health lessons which the public, either through amusement or sympathy, easily take to heart.

We then show the screen film "Health and Happiness" which the Provincial Committee for the Fight Against Tuberculosis prepared for its three-year campaign.

The Department of Health purchased a moving-picture projector and several educational films.

These propaganda entertainments are announced on Sundays by the pastors who ask their parishoners to attend them. The parish priest usually presides with the alderman of the ward.

The numerous attendance proves that the public is interested in the efforts which we are making to educate them.

Moreover, in 1939, there were 59 propaganda meetings held for school pupils. There is an address given by an inspecting physician and the film "Health and Happiness" is shown.

Exhibits and Expositions

At each campaign meeting against tuberculosis, we exhibit several of our bilingual posters, "Fight against Tuberculosis". And we distribute pamphlets on tuberculosis. Moreover, on request, we place at the disposal of the schools or other organizations posters and circulars for propaganda purposes which are distributed or shown to the public.

Talks to the staff

Talks are given to the medical staff either by department doctors or by outside physicians. Thus during the year 1939 various topics were treated: homoepathy and prevention of sickness; the tuberculosis fight in New York; hygiene during pregnancy; history of medicine; co-operation essential in mental hygiene practice; measles; birth registration; modern treatment of contagious diseases, etc.

Certificates to sanitary inspectors

Many inspectors of the sanitary staff in the Sanitation and Food Inspection divisions followed the course of the Canadian

Public Health Association and obtained their certificates: Messrs. J. F. R. Archambault, E. Bibeau, F. Brunelle, J. M. A. Carbonneau, J. E. Daignault, J. A. Desjardins, L. G. Forté, J. P. A. Gonneville, J. A. Hotte, A. Lapointe, E. Martel, J. A. Paré, R. J. Robitaille.

Training of university students

It is quite in order for the Department of Health to collaborate with the official authorities who teach public health. They maintain close contacts with the medical faculties of the University of Montreal and of McGill University.

Students in public health and nurses following public health courses in special schools in these universities spend some time in our department.

Department of Health Publications

Contagious diseases division		Number distributed in 1939
Poster:	"Fight tuberculosis".....	24,500
Circulars:		
No. 2	Diphtheria.....	125
No. 4	Whooping-cough.....	2,000
No. 6	Scarlet fever.....	1,200
No. 7	Typhoid fever.....	103
No. 8	Measles.....	3,000
No. 10	Poliomyelitis.....	20
No. 11	Tuberculosis.....	81,000
No. 12	"When a case of poliomyelitis occurs" ..	20
No. 16	Vaccination—By-law No. 324.....	500
No. 31	Rabies.....	.....
No. 36	Small-pox and vaccination.....	13,600
No. 37	Advice to parents (Contagious Diseases)	11,700
No. 62	Tuberculin control of T. B.....	4,300
Placards:	Whooping-cough, diphtheria, measles, scarlet-fever, cerebro-spinal meningitis and poliomyelitis.....	3,220
	Total.....	145,338

Child hygiene division

		Number distributed in 1939
Pancartes:		
No. 2	“The infant’s health”.....	4,400
No. 3	“Mothers, nurse your child”.....	7,200
No. 4	“Protect your health by taking care of your teeth”.....	1,075
Circulars:		
No. 2	“Height and weight”.....	12,500
No. 3	“Immunization against diphtheria”.....	16,100
No. 6	“Cleaning diapers”.....	13,350
No. 7	“Artificial nursing”.....	12,200
No. 8	“Advice to parents concerning care of children after tooth extraction”.....	3,000
No. 9	“Nursing mothers”.....	11,700
No. 10	“Prevent blindness in your children”.....	11,000
No. 11	“Child nutrition”.....	14,250
Letters from the Director on the birth of a child.....		
	French	8,200
	English	1,550
Letters from the Director to mothers when the child reaches six months		
	French	4,100
Letters from the Director—Advice to mothers		
	French	11,000
	English	1,500
Total.....		149,375

Food inspection division

Hundreds of posters regarding production of milk, its cleanliness, etc., were distributed in 1939. This is done through our inspectors.

In fine, the Department of Health has neglected nothing in the line of propaganda in order to inculcate among the public at least some indispensable ideas concerning public health.

Our population is informed of all useful precautions required to protect "A Nation's Wealth"—its Health.

Noteworthy improvements have been achieved but it is more than ever necessary to continue the education of the masses, at school, to begin with, to the end that children and youth should understand early the importance of health and of preventive medicine. This is followed up among the general public so that parents may put aside prejudice engendered by neglect and ignorance, these two capital sins which bar the progress to wise methods of prevention.

Adrien PLOUFFE, Dr.P.H.,

First Assistant Director,

Department of Health.

Director's Office

LAW OFFICE

Doctor Ad. Groulx,
 Director, Department of Health,
 City Hall (Annex).

Dear Sir:

I beg to hereafter submit the report of the Law Office for the year 1939.

Briefs submitted for study and report.....	187
Drawing up of complaints for writs of summation in the Recorder's Court.....	186
Actions pleaded.....	183
a) maintained.....	181
b) dismissed.....	2
c) withdrawn.....	0
Inquiries made.....	17
Drawing up and study of contracts.....	4
Preparation of affidavits.....	5
Legal questions submitted and information given.....	380
Legal advice to the Director and to the Superintendents of the various divisions of the Department of Health	284
Written reports.....	23
Drawing up of plans of regulations.....	10

Respectfully submitted,

Gordien MENARD,

Lawyer, Dept. of Health.

**Division of
Communicable Diseases**

Montreal, 26th July, 1940.

Dr. Ad. Groulx, M.D., C.P.H.,
Director, Health Department,
City of Montreal.

Dear Sir:

I am hereby transmitting to you the annual report of 1939 concerning the activities of the Division of communicable diseases.

Respectfully yours,

J. H. GERVAIS, M.D., D.P.H.,
Superintendent, Division of
Communicable Diseases.

JHG-mb

GENERAL SUMMARY

The list of contagious cases reported to this Division during 1939 comprises 19,365 cases and 942 deaths against a total of 14,459 cases with 989 deaths in 1938.

At first sight the number of deaths from contagious diseases appears very high, but one should subtract 631 deaths caused by tuberculosis, thus bringing down to 311 the deaths by other contagious diseases, including 170 deaths attributed to influenza.

In the detailed appreciation of the following table, we find that the increase of 1939 over 1938 due mostly to an epidemic of measles in 1939.

The cycle of evolution of the latter disease started at the end of fall 1938, reached its maximum intensity during Spring of 1939, decreased in July and nearly extinguished itself in August.

The influence of school contact in the spread of this disease is hereby demonstrated in an evident manner.

The evolution of scarlet fever, which numbered 1,374 cases in 1939 compared to 2,039 in 1938, representing a decrease of about one third, shows a noted betterment.

With an average of 208 cases and 23 deaths by diphtheria in our city during period 1933-1937 (5 years), it is to be noted that the year 1939, with 143 cases and 19 deaths, again shows an evident decrease.

In spite of this encouraging result, the immunization campaign must continue with vigor and unceasingly, trying to attain particularly the child population of preschool age, because diphtheria occurs mostly during this period, as shown by following detailed report in which are found 61 cases among children under five years of age or 42%.

Out of 19 registered deaths, no child had received immunization against diphtheria.

Concerning typhoid fevers, 103 cases were registered in 1939, out of this number, 25 cases came from outside for treat-

ment in our hospitals. Among the 78 resident cases, our investigations disclosed that 28 were of outside origin (contamination during country vacations).

The latter findings clearly demonstrate the importance of the numerous warnings which the Health Department gives each year to city dwellers who go to the country concerning minute care to be observed in order to avoid contamination by doubtful waters.

The creation, in the Communicable Disease Division, of a Section of Tuberculosis, about which a summary is appended, has necessitated the nomination of a personal specially trained for anti-tuberculosis work.

Consequently the increase in the number of calls made in 1939 compared to those of 1938 has made possible for us to attain a larger number of families in the detection of tuberculosis cases.

A comparison of cases reported in 1939 (19,365) and 1938 (14,459), if we take into account the considerable increase brought about by epidemic measles in 1939, shows a continuance of normal conditions, as far as contagious diseases are concerned, and moreover an appreciable betterment in their general evolution in our City.

Distribution of communicable cases which occurred in 1939 is as follows:

Diseases	Cases reported	Deaths	Percentage of deaths
Diphtheria.....	143	19	13.3
Scarlet fever.....	1,374	8	0.58
Measles.....	8,831	42	0.47
German measles.....	118	1	0.84
Whooping-cough.....	2,313	30	1.29
Mumps (Parotitis).....	912	1	0.10
Chicken-pox.....	3,647	4	0.10
Smallpox.....	...	...	...
Erysipelas.....	153	5	3.3
Typhoid fever.....	103	9	8.7
C. S. Meningitis.....	12	5	41.6
Poliomyelitis.....	21	1	4.7
Lethargic encephalitis.....	1	1	...
Puerperal septicaemia.....	19	11	57.9
Purulent ophthalmia.....	34	1	2.9
Amoebic dysentery.....	2	...	...
Leprosy.....	...	...	...
Undulant fever.....	1	...	...
Bacillary dysentery.....	5	3	60.0
Influenza.....	195	170	96.4
Scabies.....	90	...	...
Total.....	17,974	311	1.7
Pulmonary tuberculosis.....	1,264	542	42.8
Tuberculosis other forms.....	127	89	70.1
Grand total.....	19,365	942	4.8

P.S.—Cases of influenza are not all reported to the Division of Communicable Diseases; it is more through death certificates that they are computed.

Summary

Cases reported and confirmed.....	19,365
Number of deaths.....	942
Cases hospitalized.....	4,056
Visits by physicians.....	6,049
Visits by nurses.....	23,828
Visits by the superintendent of nurses.....	210
Visits by disinfectors.....	4,797
Number of disinfections.....	3,820
Houses placarded.....	3,220

Number of vaccinations against smallpox:

(a) by Div. of Child Hygiene, performed in schools and industrial establishments.....	7,032	
(b) by the Div. of Medical Control..	7,613	
(c) by private physicians.....	1,459	
	—————	16,104

Number of complete immunizations against diphtheria reported to our Division and done by:

Child Hygiene Division (to April 30th 1940).....	10,032	
Child Welfare Association.....	1,084	
Fédération des Œuvres d'Hygiène Infantile.....	1,332	
Other institutions.....	439	
Private physicians.....	507	
	—————	13,346

Number of dog bites reported to the Division of communicable diseases.....	273
Free distribution of anti-poliomyelitic serum.....	3

Free distribution of scarlet-fever toxin.

Number of vials:

(a) curative doses.....	58
(b) preventive doses.....	73

Free distribution of anti-diphtheria serum:

Number of vials:

(a) curative doses.....	254
(b) preventive doses.....	276

Free distribution of Toxoid (Anatoxine Ramon) 3,973

Various analyses submitted to the Municipal Laboratory..... 1,811

Following this outline, details of the various operation in the Division of communicable diseases for the year 1939 are stated.

CASES OF TYPHOID FEVER
From January 1st to December 31st, 1939

1939 Months	Repartition							
	Number of cases		Source of infection		Hospitalization		Deaths	
	Residents	Outside cases	In Montreal	Outside cases	Residents	Outside cases	Residents	Outside cases
January.....	6	...	5	1	4	...	...	...
February.....	4	1	4	1	3	1	1	...
March.....	7	2	6	3	6	2	2	1
April.....	6	3	6	3	3	2	2	...
May.....	3	...	2	1	1	...	...	...
June.....	4	5	4	5	3	1	1	2
July.....	6	...	1	5	6	...	...	...
August.....	11	2	3	10	7	2	...	1
September.....	14	6	2	18	8	6	1	1
October.....	13	6	13	6	10	6	1	2
November.....	2	...	2	...	2	...	...	...
December.....	2	...	2	...	1	...	1	...
Total.....	78	25	50	53	54	25	9	7

Percentage of deaths for the residents..... 11.5%
 Percentage of deaths for the outsiders which are 30..... 21.9%

CASSES OF POLIOMYELITIS

From January 1st to December 31st, 1939

1939 Months	Number of cases	Repartition		
		Residents	Outside cases	Deaths
January.....	...	...	...	...
February.....	...	...	...	...
March.....	...	...	...	...
April.....	...	...	...	...
May.....	...	...	...	...
June.....	...	...	...	...
July.....	...	...	...	...
August.....	6	5	1	...
September.....	12	9	3	1
October.....	1	1	...	...
November.....	2	1	1	...
December.....	1	1	...	1
Total.....	22	17	5	2

CLASSIFICATION OF CONTAGIOUS DISEASES PER MONTHS, 1939

Maladies	January	February	March	April	May	June	July	August	September	October	November	December	Total	Total of deaths for 1939
Diphtheria.....	22	14	8	9	7	7	7	7	10	19	18	14	143	19
Scarlet fever.....	177	148	107	103	104	77	45	50	78	150	164	171	1,374	8
Measles.....	489	422	991	1,555	2,475	1,981	520	123	51	68	84	72	8,831	42
German measles.....	11	21	21	18	10	16	2	2	3	3	..	11	118	1
Whooping-cough.....	435	199	225	145	132	117	91	150	248	165	204	202	2,313	30
Mumps.....	177	153	81	103	131	83	34	3	10	16	55	66	912	1
Chicken-pox.....	684	433	356	246	179	264	122	39	48	207	510	559	3,647	4
Small-pox.....	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Erysipelas.....	18	17	14	15	14	6	5	13	12	7	13	19	153	5
Typhoid fever.....	6	5	9	9	3	9	6	13	20	19	2	2	103	9
C. S. Meningitis.....	1	..	..	1	1	2	1	1	..	..	1	..	12	5
Poliomyelitis.....	..	..	..	..	..	..	..	..	..	..	..	..	21	1
Lethargic encephalitis.....	..	..	..	..	..	..	..	..	..	..	..	..	1	1
Puerperal septicaemia.....	..	..	..	4	2	1	1	1	2	..	2	4	19	11
Purulent ophthalmia.....	3	2	4	1	8	2	2	..	3	3	3	3	34	1
Amoebic dysentery.....	..	..	..	..	..	..	..	..	2	..	..	..	2	..
Undulant fever.....	..	..	..	..	..	..	..	..	..	..	..	1	1	..
Bacillary dysentery.....	..	..	..	..	..	..	..	..	..	..	..	1	5	3
Influenza.....	10	50	88	14	10	4	1	..	1	1	3	13	195	170
Scabies.....	17	8	14	1	1	4	3	2	..	17	21	2	90	..
Total.....	2,050	1,473	1,919	2,224	3,078	2,574	840	414	500	676	1,082	1,144	17,974	311
Pulmonary tuberculosis.....	96	108	137	87	113	137	119	81	94	95	85	112	1,264	542
Tuberculosis other forms ..	8	6	11	8	20	17	12	7	13	9	4	12	127	89
Grand total.....	..	..	..	..	..	..	..	..	..	..	..	..	19,365	942

CLASSIFICATION OF CONTAGIOUS DISEASES BY NATIONALITIES, 1939

Diseases	French Canadians	English Canadians	Jews	Other Nationalities	Total
Diphtheria.....	122	9	..	12	143
Scarlet fever.....	871	325	92	86	1,374
Measles.....	6,027	2,092	230	482	8,831
German measles.....	50	48	10	10	118
Whooping-cough.....	1,691	463	38	121	2,313
Mumps.....	608	207	13	84	912
Chicken-pox.....	2,169	850	463	165	3,647
Small-pox.....	..	..	..	..	..
Erysipelas.....	106	32	1	14	153
Typhoid fever.....	77	21	2	3	103
C. S. Meningitis.....	8	1	1	2	12
Poliomyelitis.....	8	8	5	..	21
Lethargic encephalitis.....	1	..	..	..	1
Puerperal septicæmia.....	16	3	..	..	19
Purulent ophthalmia.....	33	..	..	1	34
Amoebic dysentery.....	..	1	1	..	2
Leprosy.....	..	..	..	..	..
Undulant fever.....	1	..	..	..	1
Bacillary dysentery.....	2	2	1	..	5
Influenza.....	Cas non répartis	..	..	..	195
Scabies.....	Cas non répartis	..	..	..	90
Total.....	11,790	4,062	857	980	17,974
Pulmonary tuberculosis.....	868	243	16	137	1,264
Tuberculosis other forms.....	89	26	2	10	127
Grand total.....	.....	.....	.....	.....	19,365

**CONTROL OF CONTAGIOUS DISEASES,
1 9 3 9**

Diseases	Control visits			
	Diagnosis	Supervision of quarantined houses	Dis- infection	Placards
Diphtheria.....	...	675	214	40
Scarlet fever.....	177	2,296	1,198	214
Measles.....	1,993	7,793	1,276	2,352
German measles.....	20	166	...	...
Whooping-cough.....	631	2,289	430	613
Mumps.....	411	871	11	...
Chicken-pox.....	1,038	3,093	35	...
Erysipelas.....	4	130	72	...
Typhoid fever.....	100	142	12	...
C. S. Meningitis.....	9	14	1	1
Poliomyelitis.....	22	34	1	...
Puerperal septicaemia.....	...	4	...	...
Purulent ophthalmia.....	3	33	...	...
Amoebic dysentery.....	3	3	...	...
Bacillary dysentery.....	5	5	...	...
Lethargic encephalitis.....	...	...	...	...
Influenza.....	...	18	3	...
Scabies.....	26	66	...	...
Tetanos.....	4	1	...	...
Undulant fever.....	1	...	...	...
Tuberculosis.....	3	2,561	565	...
Skin diseases.....	64	105	...	...
Vulvo vaginitis.....	...	5	...	...
Miscellaneous.....	...	...	2	...
No infection.....	635	...	...	...
Under observation.....	256	...	...	...
Miscellaneous visits.....	444	3,524	4,797	...
Wrong addresses.....	198	...	...	...
Leprosy.....	...	...	...	...
Trachoma.....	...	...	...	...
Trichinoses.....	2	...	...	...
Total.....	6,049	23,828	8,617	3,220

Visiting-nurses in their investigations in families have taken 1,439 cultures for laboratory analysis.

PASTEUR HOSPITAL

Duration of Sojourn of Patients

Patients hospitalized.....	3,124
Number of days of hospitalization.....	86,733
Average sojourn for each patient.....	27.8
Maximum hospitalization by day.....	326
Minimum hospitalization by day.....	117
Average hospitalization by day.....	238

Mortality

Deaths during the year 1939.....	81
Deaths during the first 48 hours.....	40
Number of deaths happened after the first 48 hours.	41
Proportion of deaths during the first 48 hours to the total of deaths.....	50%

Miscellaneous

Ambulance calls.....	2,297
Microscopical examinations.....	3,658
Urine analyses.....	2,243

Intubations and Results

Ages	Intubations	Cures	Deaths
Under 1 year.....	...	...	...
1 to 2 years.....	...	...	...
2 to 3 years.....	3	3	...
3 to 4 years.....	4	3	...
4 to 5 years.....	4	3	...
5 to 6 years.....	5	4	1
6 to 7 years.....	...	...	...
7 to 8 years.....	1	1	...
8 to 9 years.....	1	1	...
9 to 10 years.....	...	...	...
Total.....	18	15	1

Nationality and Religion of Patients Admitted in 1939

Nationalities	Total	%	Religion	Total	%
French-Canadians....	2,749	96.1	Roman Catholics...	2,833	99.0
English-Canadians...	36	1.2	Protestants.....	17	0.6
Jews.....	8	0.3	Jews.....	8	0.3
Other nationalities...	67	2.3	Other religions.....	2	...
Total.....	2,860			2,860	

PASTEUR HOSPITAL

Fluctuation of Patients and Death Rate

Diseases	In hospital January 1st, 1939	Admitted	Total number of patients	Percent- age of cases	Results			In hospital December 31st, 1939	Total	
					Cured		Dead			Percent- age of deaths
					Cured	Dead	Percent- age of deaths			
Diphtheria.....	19	156	175	5.6	147	13	7.4	15	175	
Scarlet fever.....	111	634	745	23.8	615	8	1.0	122	745	
Measles.....	20	1,204	1,224	39.2	1,200	15	1.2	9	1,224	
Erysipelas.....	3	99	102	3.3	93	..	..	9	102
Chicken-pox.....	6	71	77	2.5	68	2	2.6	7	77	
Whooping-cough.....	94	491	585	18.7	487	21	3.6	77	585	
Mumps.....	..	17	17	0.5	17	..	..	..	17
Influenza.....	..	9	9	..	9	..	..	..	9
German measles.....	..	2	2	..	2	..	..	..	2
Poliomyelitis.....	..	3	3	..	2	1	33.3	..	3	
Diffuse phlegmon.....	..	6	6	..	4	2	33.3	..	6	
Miscellaneous.....	11	168	179	5.7	154	19	10.6	6	179	
Total.....	264	2,860	3,124	...	2,798	81	...	245	3,124	

ALEXANDRA HOSPITAL

Duration of Sojourn of Patients

Patients hospitalized.....	1,253
Number of days of hospitalization.....	38,085
Average sojourn for each patient.....	25.5
Maximum hospitalization by day.....	166
Minimum hospitalization by day.....	45
Average hospitalization by day.....	105

Mortality

Deaths during the year 1939.....	10
Deaths during the first 48 hours.....	3
Number of deaths happened after the first 48 hours	7
Proportion of deaths during the first 48 hours to the total of deaths.....	22%

Miscellaneous

Ambulance calls.....	980
Microscopical examinations.....	...
Urine analyses.....	8,174

Intubations and Results

Ages	Intubations	Cures	Dead
Under 1 year.....	...	...	...
1 to 2 years.....	...	...	...
2 to 3 years.....	1	1	...
3 to 4 years.....	...	...	...
4 to 5 years.....	...	...	...
5 to 6 years.....	2	2	...
6 to 7 years.....	...	...	...
7 to 8 years.....	1	...	1
8 to 9 years.....	...	...	...
9 to 10 years.....	...	...	...
Total.....	4	3	1

Nationality and Religion of Patients Admitted in 1939

Nationalities	Total	%	Religion	Total	%
French-Canadians....	338	26.8	Roman Catholics... ..	603	48.1
English-Canadians....	693	55.3	Protestants.....	551	43.9
Jews.....	84	6.8	Jews.....	84	6.8
Other nationalities...	138	11.0	Other religions.....	15	1.2
Total.....	1,253			1,253	

ALEXANDRA HOSPITAL

Fluctuation of Patients and Death Rate

Diseases	In hospital January 1st, 1939	Admitted	Total number of patients	Percent- age of cases	Results			In hospital December 31st, 1939	Total
					Cured	Deaths			
						Percent- age of deaths			
Diphtheria.....	9	25	34	2.4	24	4	1.2	6	34
Scarlet fever.....	90	384	474	34.5	427	1	0.2	46	474
Measles.....	7	464	471	34.2	459	2	0.4	10	471
Erysipelas.....	1	30	31	2.2	26	..	..	5	31
Chicken-pox.....	..	36	36	2.6	35	..	..	3	36
Whooping-cough.....	13	181	194	14.1	166	3	1.5	25	194
Mumps.....	1	15	16	1.2	14	..	..	2	16
Influenza.....	..	2	2	..	1	1	..	..	2
German measles.....	..	1	1	..	1	..	..	..	1
Poliomyelitis.....	..	1	1	..	1	..	..	..	1
Diffuse phlegmon.....	..	..	..	..	..	..	..	..	1
Miscellaneous.....	1	114	115	8.4	114	..	..	1	115
Total.....	122	1,253	1,375		1,266	11		98	1,375

SECTION OF TUBERCULOSIS

As pointed out in our annual report for 1938, a section of tuberculosis has been organized in the Communicable Disease Division in order to coordinate the work done by antituberculosis institutes, to detect incipient cases in families not already approached, to establish a central filing system for all cases and try to arrange for necessary treatment.

Deaths

There was a decrease in the number of deaths in 1939. Comparison between the two last years gives following results:

	Number of deaths		Rate per 100,000 population	
	1938	1939	1938	1939
Pulmonary tuberculosis.....	585	542	65.51	60.22
Tuberculosis other types.....	83	89	9.29	9.89
Total.....	668	631	74.80	70.11

Whilst there is a slight increase of deaths from extrapulmonary tuberculosis, we find a decrease of pulmonary tuberculosis. Death rate per 100,000 inhabitants goes down 4.69 points, which is a decrease of 6.27 per cent.

New Cases Reported

Total of new cases reported was 1,391, which corresponds to a little more than 2 new cases for each death. Concerning the degree of evolution at time of declaration, we have worked out a rough classification as follows: incipient, moderately advanced and very much advanced tuberculosis.

Incipient tuberculosis.....	69, or	4.96%
Moderately advanced tuberculosis.....	337, or	24.23%
Very much advanced tuberculosis.....	544, or	39.11%
Unclassified tuberculosis.....	441, or	31.70%
<hr/>		
Total.....	1391, or	100.00%

One should note the very small proportion of incipient tuberculosis cases discovered during last year and a much too large number of cases for which details are insufficient for classification. As regards cases of very much advanced tuberculosis, there exists too great a number of cases known only by death certificates, I must mention the trend towards decrease in the number of cases and also an increase of co-operation displayed by the medical profession with whom we keep cordial relations.

Concerning the small number of incipient tuberculosis cases reported, we understand the frequent difficulties encountered for the early diagnosis of such a disease. We wish to repeat to physicians that we are at their disposal, for help in suspected cases at a period of the diseases where chances of cure are greatest. I am convinced that here also we will progress.

Examination of Contacts and Suspected Cases

The examination of contacts and suspected cases of tuberculosis was carried on either by anti-tuberculosis institutes or family physicians. Hereafter follows distribution of cases:

Institutes.....	1073, or	81.53%
Private physicians.....	243, or	18.47%
<hr/>		
Total.....	1316, or	100.00%

We can see that four fifths of cases were examined by institutes which possess all required facilities for an accurate

diagnosis. It is true that, out of 243 cases examined by private physicians, only 85 or 35% have been X-rayed (byroentgenography or fluoroscope) and, if these methods of diagnosis had been applied to the other 158 cases, additional cases of active tuberculosis might have been found. But as only 26 active cases were found among 1,316 contacts or suspected cases, the latter diagnostic means would have probably detected only 2 or 3 cases of active tuberculosis.

Tuberculin Tests

During 1939 the personnel of the Child Hygiene Division performed 2,785 tuberculin tests in order to detect cases of primary infection. Out of this number, 29 neglected to come for reading of results. Therefore 2,756 cases were verified with 264 positive reactions, or 9.6 per cent (Mantoux test was used). Patch test was tried and found easier to be applied and as efficacious as Mantoux.

We intend to use this new method which has the advantage of allaying fear amongst children and objections from the general public.

House calls by Nurses

During the year our nurses made 3,518 calls classified as follows:

First calls.....	914, or	25.98%
Subsequent calls.....	1762, or	50.09%
Miscellaneous calls.....	842, or	23.93%
	<hr/>	
Total.....	3518, or	100.00%

It is to be noted that two subsequent calls always follow a first visit and as a result the average number of calls for each case was three.

Under title "Miscellaneous" we find too great a number of ineffectual visits on account of moving, erroneous address, absence of people, etc. Occasionally when a patient is hospitalized his family is disrupted or his lodging is closed during daytime

because family members work outside; consequently two or three calls are made without results. This loss of time will be tentatively eliminated in the future by writing absent people with an invitation to the clinic.

Roentgenography, as generally admitted today, makes possible the detection of numerous cases of tuberculosis at a period of development where clinical signs are still undefined. It has become necessary to extend the use of this diagnostic method at large and to put it at the service of the medical profession who will be entitled to make his low-salaried patients profit by it when the latter are unable to shoulder the expenses inherent to frequent necessary roentgenograms. We expect to be able to furnish this service as early as the beginning of year 1940.

Léo LADOUCEUR, M.D.,
Superintendent of the Tuberculosis Section.

Division of Child Hygiene

Department of Health
CITY HALL ANNEX

Montreal, May 28th, 1940.

Dr. Ad. Groulx, Director,
Department of Health,
Montreal.

Dear Sir:

I have the honour to transmit to you the annual report of
the Division of Child Hygiene for the year 1939.

Respectfully submitted,

J. N. LAPORTE, M.D.,
Superintendent of the Div. of Child Hygiene

**REPORT OF THE
DIVISION OF CHILD HYGIENE
for the year 1939**

The report of the work of the division of Child Hygiene for the year 1939 is divided into two principal parts:

FIRST PART

Section I—**PRENATAL, BABY AND PRESCHOOL HYGIENE :**

I. Prenatal hygiene:

4 prenatal clinics.

II. Hygiene of the infant (0-1 yr.) and preschool hygiene (1-6 yrs.):

- a) 46 Well-baby and preschool clinics;
- b) 2 Open-air clinics;
- c) Inspection of private boarding-houses for children and private hospitals and maternities;
- d) Child hygiene league.

Section II—**SCHOOL HYGIENE AND MEDICAL INSPECTION OF SCHOOLS :**

- I. Medical examination of pupils;
- II. Hearing tests with audiometer;
- III. Mental hygiene and Binet-Simon tests;
- IV. Medical examination of teachers;
- V. Vacation schools;
- VI. Summer camps.

Section III—**DENTAL HYGIENE :**

- I. Dental inspection in the schools;
- II. 5 municipal dental clinics.

SECOND PART :

- I. Immunization against diphtheria;
- II. Vaccination against smallpox;
- III. Tuberculin tests;
- IV. Distribution of literature.

FIRST PART

I. PRENATAL HYGIENE

Prenatal clinics

In the course of the year 1939, the four prenatal clinics known as Maisonneuve, Rosemount, St. Jean Berchmans and St. Jean de la Croix, have continued their services.

The following table indicates the results obtained in 1939.

TABLE I

Number of	municipal clinics	4
	sessions	141
	mothers registered	348
	consultations with doctor	910
	blood pressures	871
	urinalysis	803
	notices to family physicians	19
Home visits	recruiting	259
	to registered mothers	226
	post-partum	53
	Total	538

II. CHILD HYGIENE (0-1 YR.) AND PRESCHOOL HYGIENE (1-6 YRS.)

Well-baby and Preschool Clinics

In the course of the year 1939, a new clinic was opened in Ste. Bernadette parish, making a total of 46 municipal well-baby clinics. Besides, 28 independent clinics of which 19 French directed by "La Fédération d'Hygiène Infantile" and 9 English directed by the "Child Welfare Association", continued operating in the city limits of Montreal. An annual subsidy of \$8,500.00 was granted to them by the city.

TABLE II

This table indicates the general results of the work done in the clinics during the year 1939

	Department of Health		Child Welfare Association		"Fédération d'Hygiène infantile"	
	Infant	Pre-school	Infant	Pre-school	Infant	Pre-school
Number of clinics.....	46	46	9	9	19	19
Number of children registered	8,620	10,601	2,413	19,14	5,740	5,160
Number of deaths (0-1 yr.) among registered babies	41	...	16	...	24	...
Percentage of deaths compared to the number of children registered	0.4	...	0.7	...	0.4	...
Number of consultations given	53,059	26,752	6,657	5,900	72,219	19,731
Average number of consultations per child	6.2	2.5	2.8	3.0	12.6	3.8
Home visits	20,566	9,463	3,888	7,100	23,278	25,074

Open-air Clinics

Two open-air well-baby clinics were opened during the months of July and August; one in Lafontaine Park and the other in St. Helen's Island. A doctor was in attendance every day at Lafontaine Park and on pic-nic days only at St. Helen's Island.

TABLE III

Camps open for a period of.....	2 months
Weighings.....	162
Dressings.....	424
Vaccinations.....	847
Revaccinations.....	123
Certificates.....	640
Examination of children entering school in September.....	21
Children missing.....	204

Child Hygiene Leagues

Several groups of the Child Hygiene League have been formed in 1939 by the personnel of the Division of Child Hygiene among young girls attending the following schools: Esther Blondin, Gabriel Lalemant, Holy Family, Madeleine d'Ailleboust, Madeleine de Verchères, Marie Anne, Marie Immaculée, Marie Rollet, Notre Dame de la Défense, Notre Dame du St. Rosaire, St. Ambroise, Ste. Amélie, St. Arsène, St. Anselme, Ste. Cécile, Ste. Clotilde, Ste. Cunégonde, St. Edouard, Ste. Elizabeth, St. Eusèbe, St. Jean l'Évangéliste, St. Joseph, St. Marc, Ste. Mélanie, St. Nom de Jésus, Ste. Philomène, St. Paul and Institut Pédagogique.

The number of groups organized in 1939 was 6 and the number of members 351.

Inspection of Children's Boarding-Houses and Private Hospitals and Maternities for the year 1939

The supervision of boarding houses for children and private hospitals and maternities, has been carried out as indicated in the table which follows:

TABLE IV

Boarding-houses for children					
Number of	Boarding- houses	With licence (of which 4 were cancelled during the year)		13	
		Women's Directory		22	
		Children's Bureau		76	
		Catholic Welfare Bureau		19	
		Institution ("L'Aide à la femme")		1	
		Without license (where there is only one child)		60	
		Total		191	
	Children	Registered	Legitimate		266
			Illegitimate		603
			Total		869
		Deceased	Legitimate		8
			Illegitimate		82
			Total		90

Private hospitals and maternities

Number of	Private hospitals and maternities—with license			12
	Patients	Maternity cases	Married	287
			Unmarried	483
			Total	770
	Medicine and surgery			1224
	Total			1994
	Births	Legitimate		281
		Illegitimate		437
		Total		718
	Deaths	At full term	Legitimate	18
			Illegitimate	8
		Premature	Legitimate	7
			Illegitimate	13
Total		46		
Adults—Maternity and hospital cases			35	

Work of the nurses

	Number of	
	Visits	Investigations
a) Boarding-houses	746	471
b) Private hospitals and maternities	426	430
Special	543	589
Total	1715	1490
Appearance in Court as witnesses	...	2

School Hygiene and Medical Inspection of Schools

I. MEDICAL EXAMINATION OF PUPILS

The work of "Medical Inspection of Schools", primary and Junior High, Catholic and Protestant, French and English, and in a certain number of independent or private schools, was accomplished in the course of the school year 1938-39, as is indicated in the following tables.

TABLE V

Number of schools, classes and pupils and average number of schools and pupils for each medical inspector and visiting nurse
1938-1939

		Catho- lic	Protes- tant	Indepen- dent	Total
Number of	schools	219	48	23	290
	classes	3,550	854	138	4,542
	pupils	115,760	30,546	3,702	150,008
Average per				Schools	Pupils
	medical inspector			15.2	7895.1
	school nurse			3.8	2000.1

TABLE VI
General Report 1938-1939

I—Work of Medical Inspectors:

		July and August (1)	School year	Total	
Number of	Visits to schools	Routine	...	2,992	2,992
		Regular	...	4,956	4,956
		Total	...	7,948	7,948
	Examinations	Routine(2)	...	29,155	29,155
		Periodic-physical (3)	3,058	63,168	(4) 66,226
	Parents invited to medical examination of their child at school		...	7,524	7,524
	Parents present at medical examination of their child in school		...	2,953	2,953
	Parents present at medical examination of their child at the well-baby clinic		3,058	...	3,058
	Notices to parents		597	14,768	15,365

II—Work of School-Nurses:

Number of	Visits	to schools	29,118
		to homes	40,909
	Examinations		(5) 797,622
	Pupils	excluded as being suspected of having contagious diseases	4,183
		taken to dispensaries	945
	Various treatments		34,035

- 1) This report indicates the total examinations made during July and August 1938 of all children who entered school for the first time at the beginning of September.
- (2) These examinations comprise the special cases referred or kept under observation.
- (3) The periodical physical examination consists of a complete physical examination of each pupil which is made at definite periods, that is every two or three years.
- (4) This total (66,226) shows that 44.15% of all pupils in the schools have received a complete physical examination.
- (5) This total shows that each pupil has been examined by a nurse on an average of 5.3 times during the school year for uncleanliness, pediculosis, skin disease, etc.

TABLE VII

**Results of Physical and Routine Examinations
1938-1939**

I—Periodical physical examination

	July and August	School year	Total	% (1)
Number of pupils examined	3,058	63,168	66,226	
a) Normal	1,447	30,034	31,481	47.54
b) Sick or presenting one or several defects	1,611	33,134	34,745	52.46
Number of defects found:				
Vision	13	6,639	6,652	10.0
Eye disease	78	1,591	1,669	2.5
Hearing	11	503	514	0.8
Ear disease	34	991	1,025	1.5
Nasal obstruction	442	5,134	5,576	8.4
Tonsils	811	11,293	12,104	18.3
Lymphatic system	660	10,655	11,315	17.1
Goitre	2	266	268	0.4
Skin	39	2,112	2,151	3.2
Lungs	37	1,842	1,879	2.8
Heart	46	1,820	1,866	2.8
Digestive system	18	131	149	0.2
Genito-urinary system	61	345	406	0.6
Orthopedic	40	1,419	1,459	2.2
Nervous system	80	773	853	1.3
Mental condition	1	245	246	0.4
Malnutrition	514	7,869	8,383	12.7
Total number of defects	2,887	53,628	56,515	

(1) Percentage based on the number of children examined.

II—Routine examination (during school year 1938-1939):

Number of cases discovered
among school children (at
school or home):

		Total	% (2)
a) Contagious diseases:	1. Diphtheria	74	0.05
	2. Scarlet fever	708	0.5
	3. Measles	4,232	2.82
	4. Chicken pox	1,616	1.08
	5. German measles	150	0.10
	6. Mums	790	0.53
	7. Whooping cough	738	0.41
b) Parasitic diseases	1. Pediculosis	7,625	5.08
	2. Scabies	467	0.31
c) Various skin diseases		5,592	3.73
d) Uncleanliness		4,942	3.21

(2) Percentage based on the number of pupils attending school.

Control Examination and Correction of Physical Defects **School year 1938-1939**

The control examination or re-examination is made by the medical inspectors and the nurses to discover among the pupils who were given a "Notice to Parents" (Form No. 13); those whose defects were corrected.

This re-examination is made by the nurses each month, and those treated are shown to the medical inspector who examine the degree of correction of the defects. At the end of the school year a general re-examination is made in order to estimate the complete results obtained in the course of the school year.

Those pupils who had a "Notice No. 13" undergo re-examinations if the notice was not annulled by the correction of the indicated defects, or if the pupils had not in their turn undergone a new periodical physical examination.

The results of these re-examinations, showing the correction of physical defects obtained in the course of the school year 1938-1939, are to be found in Table VIII which follows.

TABLE VIII

Table showing the number of corrections of physical defects obtained and established by re-examinations made in the course of the school year 1938-39

I. Number of pupils treated and cured.....	11,198
II. Number of pupils under treatment.....	2,743
III. Physical defects corrected:	
Vision.....	3,272
Eye disease.....	370
Hearing.....	253
Ear disease.....	417
Nasal obstruction.....	2,418
Tonsils.....	3,457
Lymphatic system.....	2,051
Goitre.....	65
Skin.....	357
Lungs.....	410
Heart.....	356
Digestive system.....	52
Orthopedic.....	89
Genito-urinary system.....	128
Nervous system.....	280
Malnutrition.....	1,596
Total.....	15,571
Teeth..... (1)	5,383
IV. Number of special corrections:	
Enlarged tonsils (operations).....	2,340
Adenoids (operations).....	1,604
Defective vision (glasses).....	2,756

(1) The figure 5,383, represents only the number of children who, after receiving a notice at the medical examination, were treated by their dentist or in a clinic.

We must add that 16,329 children were treated by municipal clinics in 1938.

II. HEARING TEST

By means of the Audiometer No. 4-A

1938-1939

Two audiometers are used and are placed in charge of two nurses specially trained to make the examination of hearing of pupils in the schools.

This inspection is made among the pupils of the 2nd and 3rd year classes, seeing that it is important to ascertain the state of hearing of these pupils at the beginning of their school career.

The results of the hearing examination by means of the audiometer for the school-year 1938-1939 are shown in the table IX which follows.

TABLE IX

Hearing Tests by Means of Audiometer

No. 4-A

		SCHOOLS			
		Catho- lic	Protes- tant	Total	
Number of	Schools visited	33	6	39	
	Pupils	examined	7,446	1,232	8,678
		a) normal	7,016	1,211	8,227
		b) defective	430	21	451

Classification of Defectives

Number of defective pupils	with both ears	102	8	110
	with right ear only	186	4	190
	with left ear only	142	9	151

Other Details Noted

Number of pupils who had	running ears	1,655	199	1,854
	previous abscesses	204	38	242
	been previously operated upon	179	37	216

II. MENTAL HYGIENE SECTION

The following table shows the results of the work done in the care of abnormal mental cases (retarded and unstable), by four psychiatrists and four psychological nurses in the schools, for the school year 1938-1939, and at the Laurier clinic during 1939.

TABLE X
Report of the Psychometric Tests

		In schools. Year 1938-39	Laurier clinic 1939	
Number of schools visited		74		
Number of pupils	examined	3,345	267	
	normal	a) I. Q. 90-110	445	7
		b) I. Q. 80-90 slow-minded	690	11
		Total	1,135	18
	abnormal	a) unsteady	38	30
		b) backward	2,057	105
		c) unsteady and backward	115	114
		Total	2,210	249

Classification of Backward Cases

Backward	Total	2,172	219	Recom- mendations	
	1. Borderline	1,102	44	Auxiliary classes	
	2. Mental debility	superior	796		89
		inferior	235	39	Technical teaching (sensorial)
	3. Feeble minded	39	43		
4. Idiocy	...	4		Baie S. Paul	
Number of visits and in- vestigations by the psychological nurses		to schools	...	70	
		to homes	253	192	

Children placed in Special Schools

Emmélie Tavernier school (St. Jean de Dieu Hospital)	92
Victor Doré school	3
Public schools (Auxiliary classes)	55
Referred to the dispensaries	116
Baie St. Paul Asylum	1

IV. MEDICAL EXAMINATION OF TEACHERS

During the school year 1938-1939, the lay teachers and employees (janitors and others) connected with the Catholic School Commission, were submitted to a periodical medical examination, conforming to an agreement on this subject between the Catholic School Commission and the Department of Health. Were also submitted to this periodical medical examination the religious teachers—"Cleres St. Viateur"—of the following schools: François de Laval, Hippolyte Lafontaine, Jean Talon, Philippe Aubert de Gaspé, St. Jean Baptiste, St. Jean de la Croix, St. Louis, St. Nicolas and St. Viateur High School.

The Division of Child Hygiene, whose staff was charged with this work, expresses its gratitude to the religious personnel of the above mentioned schools, to all the principals, lay teachers and employees of the Catholic schools who have undergone this examination.

The number of lay teachers and employees (janitors, etc.) including religious, who were examined during the course of the year 1938-1939, was 2,196, of whom 369 were examined by their family physician and 1,827 by the school medical inspectors.

The results of the observations obtained are indicated in the table as follows: 1) in the column "First examination", Form No. 95, are the results of the examination of new employees, and, 2) in the column "Annual", Form No. 96, are the results of the examination of those who, having undergone the first examination the previous year, were submitted to the annual examination according to Form No. 96.

TABLE XI
Medical Examination of Teachers and Employees of the
Catholic School Commission
School year 1938-1939

		"First" Form No. 95	"Annual" Form No. 96	Total
Personnel examined	Principals, directors and ass'ts.	3	87	90
	Special professors	2	47	49
	Male teachers	58	859	917
	Female teachers	21	893	914
	Janitors and other employees	38	188	226
	Total	122	2,074	2,196
Examined by	school medical inspectors	111	1,716	1,827
	family physicians	11	358	369
	Total	122	2,074	2,196

Control of vaccination against smallpox

Number of employees	non-vaccinated	8	117	125	
	vaccinated within	more { 25 years	22	854	876
		15 years	46	813	859
		than { 7 years	36	196	232
	less than 7 years	10	94	104	
Defects	Lungs (other than tuberculosis)	2	36	38	
	Heart	6	85	91	
	Liver	1	39	40	
	Digestive system	11	112	123	
	Teeth : caries	27	174	201	
	pyorrhoea	4	45	49	
	Visual acuity :	with glasses	12	145	157
		without glasses	5	123	128
	equivocal answers	9	252	261	
	Hearing acuity:	equivocal answers	9	58	67
		9	9
	Nervous system	3	53	56	
	Kidneys:	urinalysis: a) albumen	11	141	152
b) sugar		2	42	44	
Tuberculosis (history, personal or family)	2	8	10		
Employees deceased				6	

The notes which show the defects encountered are based on the answers of the personnel to the questions submitted and on the physical examination made by the physicians. He satisfies himself with the discovery that an organ is not normal and he does not endeavour to make a precise diagnosis of an existing disease. He makes no comment nor does he draw any conclusion or suggest any recommendation, except when he is concerned with one of the contagious diseases included in the group of those which are governed by provincial by-laws.

Following the agreement made, the School Commission decides alone the measures to be taken in each separate case, after receiving advice from the proper medical advisers.

It is necessary to remark that the note written "Tuberculosis" does not only indicate that such a number of professors thus concerned are suffering from tuberculosis at present or have lately suffered from this disease, but the figures really indicate all those who have had a past history personal or family, immediate or far removed, of the disease. Those cases are all given in order to draw special attention to them so that when they have an opportunity they will not delay adopting necessary measures.

V. VACATION SCHOOLS

During the months of July and August 1939, during a period of six weeks, an organization called "Church Vacation Schools" opened in four Protestant churches, a certain number of classes where children received special training such as manual training, singing, etc.

Four doctors and four nurses from the Division of Child Hygiene have been put in charge of the medical examination of these classes and they have also made visits to the homes of children suffering from any physical defect. The purpose of this examination is to control any contagious disease.

TABLE XII

Number of churches visited.....	4
Children examined (special cases).....	242
Children examined (complete physical examination).....	30
Pupils found not vaccinated.....	38

VI. SUMMER CAMPS

In the latter part of the month of June and during July and August, the medical inspectors and nurses of the Division of Child Hygiene made a medical examination of 2,235 children before departure for various camps, specially chosen for children of the Montreal district.

The medical examination consists particularly in searching for contagious diseases, skin diseases, parasites, etc., and elimination of all suspected cases. Each child must show evidence of successful vaccination, if not he is refused permission to depart for camp.

Height and weight calculations are taken for each child and are written on the admission cards which allows the organizers to have a record when the children return to town and to note the good effects produced on the young people during their sojourn in the country.

The number of children examined for the different colonies is as follows:

TABLE XIII

Summer Camps	Children examined
1. "Les Grèves" (boys).....	1,432
2. "Le Grillon" (boys and girls).....	332
3. "Jeanne d'Arc".....	200
4. "Association des Guides" (boys and girls).....	271
Total.....	2,235

DENTAL HYGIENE

The activities of the dental hygiene section consist in:

- I. Dental inspection in the schools;
- II. Municipal dental clinics.

I. DENTAL INSPECTION IN THE SCHOOLS

In 1939 a dentist was appointed as chief of the dental section and he was replaced by a new dentist. The chief of the dental section supervises the work done by the dentists, also examines

the children and gives lectures with movies in the independent schools.

One English-speaking dentist examines the children and gives lectures and movies in the Protestant schools.

The following table shows the results of the dental inspection work done in the schools of the Protestant School Board and in a certain number of independent schools, Catholic and Protestant. This dental examination has shown that the percentage of children suffering with dental caries was 73.8%.

TABLE XIV

Number of schools visited.....	62
Number of pupils.....	32,845
Number of visits to schools.....	172
Number of conferences with moving pictures.....	186
Number of pupils present.....	32,935

Examinations

Number of children examined.....	3,624
Caries.....	2,677
Defects Gingivitis.....	3
Prophylaxis.....	2,237
Total.....	4,917
Notices to parents.....	2,291

II. MUNICIPAL DENTAL CLINICS—1939

Five dentists are specially attached to the five municipal dental clinics. They perform the examinations, treatments, prophylaxis and extractions. They also complete the records and control the investigations.

In 1939, two more clinics were doing filling. Up to date it is done in four of our municipal clinics especially in the afternoon. In these clinics, we only accept indigent children, either preschool or of school age.

TABLE XV

Report of the Municipal Dental Clinics—1939

Number of children treated.....	19,099
Treatments given—	
Number of cases for:	
extraction.....	10,305
prophylaxis.....	8,532
dressing.....	906
filling.....	787
	<hr/>
Total.....	20,530
Number of teeth extracted.....	36,102
Number of teeth filled.....	695

It is to be noted that the Junior Red Cross, with the co-operation of the Department of Health, has done filling in a certain number of schools of the Protestant School Board and that five dentists, part-time, appointed by the Catholic School Commission have examined the children in the preparatory classes.

SECOND PART

**I. Immunization against Diphtheria in the Schools
and in the municipal well-baby clinics
1928-1939**

During the year 1939, immunization against diphtheria was successfully continued in the municipal preschool and well-baby clinics and in the schools.

It should be noted that 10,559 children received their first dose of Anatoxine-Ramon in 1939 and, of this number, on December 31st, 9,674 had received two doses and 8,230 had received the three doses; this number will be finished in the course of the first six months of the year 1940.

TABLE XVI

Showing the general results of diphtheria immunization in the municipal clinics and in the schools by the personnel of the division of Child Hygiene, from September 1928 up to December 31st, 1939

		1928-37	(1) 1938	(2) 1939 (31 dec.)	Grand total
I—Anterior Schicks		27,160	40	51	27,251
II— Number of children	registered for immunization	132,705	10,980	10,559	154,244
	1. received 3 doses	125,040	10,474	8,230	143,744
	2. received only 2 doses	3,941	242	1,444	5,627
	3. received only 1 dose	3,744	264	885	4,893
III—Posterior Schicks		28,816	...	...	28,816
IV—Supplementary injections (4th dose)		172	...	...	172

(1) The number of those who received the three injections was completed during the year 1939.

(2) The number of those who received the three injections will be completed during the year 1940.

Note—On April 30th, 1940, the number of children registered for immunization in 1939 and who received the three doses of Anatoxin Ramon was 10,032.

II. VACCINATION AGAINST SMALLPOX

The following table indicates the number of vaccinations made by the medical inspectors during 1939 in the municipal baby-clinics and at Lafontaine Park.

TABLE XVII

	Baby clinics	Lafontaine Park	Total
Number of vaccinations	6,584	448	7,032
Number of revaccinations	1,575	142	1,717
Number of certificates A	4,446	698	5,144
Number of certificates B	35	...	35
Number of certificates C	705	34	739
Number of people who did not come back for certificate	406	116	522

III. TUBERCULIN TEST

Detection of tuberculosis among children by tuberculin test was continued in 1939 in-well the baby clinics and by December 31st the test was made in forty municipal clinics.

Later on, it will be made in schools, especially for children in higher grades or High Schools.

The Child Hygiene Division, in co-operation with the Tuberculosis Section, holds propaganda meetings in different schools and parishes of the city. These meetings will be continued in 1940. Large numbers of interested people attend these meetings.

TABLE XVIII

Tuberculin Test

Number of meetings	872
Number of tuberculin tests	2,785
Number of positive reactions	264
Number of negative reactions	2,492
Number of people who did not return for the reading of the test	29

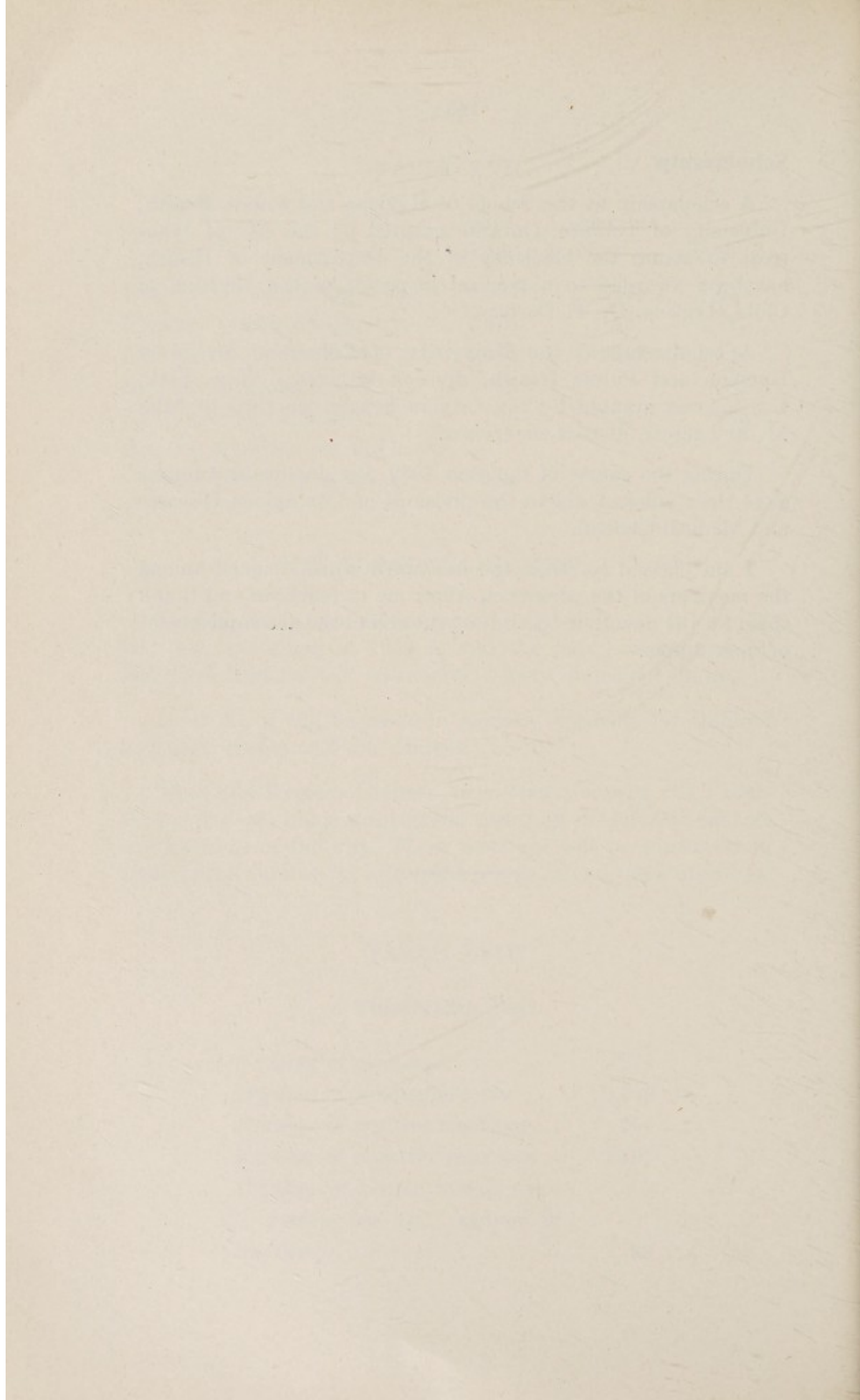
Scholarship

A scholarship at the School of Hygiene and Public Health, University of Toronto, Ontario, granted by the city of Montreal to assure the efficiency of the Department of Health, has been awarded to a medical inspector of the Division of Child Hygiene, Dr. F. Derome.

A scholarship at the University of Columbia, School of Hygiene and Public Health, division of nurses, New York, U.S.A., was granted by the City in September 1939 to Miss M. A. Lacroix, district supervisor.

During the course of the year 1939, the doctors and nurses gave their efficient aid to the divisions of Contagious Diseases and Medical Control.

I am pleased to stress the fine spirit which reigned among the members of the personnel. Allow me to felicitate and thank them for the devotion which they showed in the accomplishment of their duties.



Division of Sanitation

Department of Health
CITY HALL ANNEX

Montreal, April 1st, 1940

Doctor Ad. Groulx,
Director, Department of Health,
City Hall Annex.

Dear Sir:

I have the honor to submit to you the 1939 annual report of the Division of Sanitation, in which the statistics of the year's work are summarized in a series of tables corresponding to each of the activities of this Division.

Respectfully submitted,

Aimé COUSINEAU, C.E.,
Superintendent-Engineer.

ANNUAL REPORT OF THE DIVISION OF SANITATION

1939

The statistics of the operations of the Division of Sanitation for the year 1939 have been summarized in this report under the following classification:

- I. Examination of plans and specifications of new or modified buildings.
- II. Sanitary records of dwellings.
- III. Sanitary inspection including:
 - a) investigation of complaints;
 - b) regular inspections of various industrial, commercial and educational establishments, institutions, night refuges, theatres, movies, public halls, garages, public lavatories, etc.;
 - c) inspection of lanes, yards, vacant lots, sheds, stables, etc.;
 - d) inspection of privies, cesspools, etc.;
 - e) investigation of flood claims;
 - f) control of quality of water (collection of samples)
- IV. Plumbing and drainage in new or modified buildings
- V. The work of the Board of Examiners of Plumbers.
- VI. License-permits of various categories;
- VII. Notifications and prosecutions;
- VIII. Inspections relating to the enforcement of the following special by-laws:

- a) By-law No. 1006, concerning barber-shops, hair-dressing parlors, etc.;
- b) By-law No. 1009, concerning laundries;
- c) By-law No. 1089, concerning mattresses and other stuffed articles of bedding, etc.;
- d) By-law No. 1203, concerning the water supply of establishments located in the City of Montreal;
- e) By-law No. 1252, concerning public baths and bathing;
- f) By-law No. 1267, concerning dry cleaning establishments (ventilation tests);
- g) By-law No. 1275, concerning the use of fumigants for the destruction or control of vermin;
- h) By-law No. 1341, concerning plumbing;
- i) By-law No. 1573, concerning massage establishments and masseurs.

IX. Supervision of the Inspectors' work.

—I—

EXAMINATION OF PLANS AND APPLICATION FOR PERMITS

(a) New constructions.....	1,195
(b) Modified constructions.....	1,787
(c) Plumbing.....	2,095
	5,077

SANITARY RECORDS OF DWELLINGS

The work carried on, from year to year since 1921, has given the following results as at the end of 1939:

	Re-survey (1939)	Survey and re-survey (1921- 1939)
(a) Inspections	17,923	362,890
(b) Findings:		
1. occupied dark rooms.....	71	10,943
2. unoccupied dark rooms.....		1,890
3. insanitary dwellings (inhabited cellars, etc.).....	19	1,315
(c) Notifications:		
1. dark rooms.....	56	5,494
2. insanitary dwellings (inhabited cellars, etc.).....	19	1,264
(d) Execution:		
1. corrected dark rooms.....		7,721
2. placarded dark rooms.....		4,158
3. insanitary dwellings (inhabited cellars, etc.) vacated.....	18	538

(a) The number 362,880 includes 141,877 dwellings visited during the period 1921—1929, and 221,013 during the period 1930—1939.

(b) This inspection has allowed us to locate dwellings containing rooms not lighted directly to the outside air; 10,943 such rooms have been recorded of which 7,721 have been corrected at the end of 1939. 4,158 rooms have, moreover, been placarded. Due to the numerous corrections made in previous years, we found less defects in existing buildings and seldom in dwellings built since 1921.

(c) The building and plumbing defects found and the cases of uncleanness are included in table No. III (b).

SANITARY INSPECTIONS

(a) Investigation of complaints:

Total number.....	9,170
Founded.....	5,923
Not founded.....	3,247

The measures ordered and executed after investigation have been classified as follows:

Plumbing and drainage.....	1,225
Structural insalubrity (owners).....	658
Insalubrity of dwellings (tenants).....	1,515
Insalubrity of yards and out-houses (tenants).....	2,525
<hr/>	
Total number of complaints founded.....	5,923
Water leakage.....	2,202

(b) Routine inspections:

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

	In- spections (a)	Plumbing and drainage defects (b)	Other defects	Unclean
Dwellings.....	33,104	3,767	726	767
Boarding houses.....	144	...	...	...
Boarding houses for children, clinics, hospitals (c).....	5	...	...	...
Public buildings, stores and other establish- ments.....	6,639	271	...	169
Theatres, movies, public halls, etc.....	250	3	...	46
Industrial establishments.....	1,708	48	...	123
Educational establishments (d).....	390	12	...	14
Laundries (by-law No. 1009).....	896	35	...	82
Barber shops, hairdressing parlors, etc. (by-law No. 1006).....	1,474	8	...	50
Establishments: manufacturing of mattresses, filling materials, etc. (by-law No. 1089)...	682	5	...	5
Public baths (by-law No. 1252).....	627	...	...	18
Fumigation (by-law No. 1275).....	1,550	...	...	...
Massage establishments (by-law No. 1573)...	345	...	...	...

(a) These figures include the number of dwellings visited in 1939, exclusive of second visits. 17,923 records of dwellings have been filled, revised and indexed.

(b) In many places defects were found after a smoke test which was necessary in 27 cases.

(c) The supervision of this work is under the jurisdiction of the Division of Child Hygiene, with which we co-operate.

(d) General inspections of all schools are made in the course of the school year. The medical inspection of schools has been placed under the direction of the Division of Child Hygiene.

(c) Inspections of yards, lanes, cellars and out-houses:

This work can be summarized as follows—

	Inspections
Lanes.....	1,499
Yards.....	20,410
Vacant lots.....	901
Sheds.....	19,902
Cellars and basements.....	12,440
Manure boxes (nuisance).....	58
Stables.....	313

(d) Privy vaults and cesspools:

At the end of 1939 there were 407 privy vaults and cesspools in the City of Montreal, nearly all of which were located in the outlying wards of the City.

(e) Claims:

Hundred and twenty-six investigations were made by our inspectors during 1939, following claims made at the claims' office of the Legal Department. A written report and a sketch have been made in each case.

—IV—

PLUMBING AND DRAINAGE

(New or modified buildings)

	Inspections
1. Drains.....	1,775
2. Piping (before installation of fixtures).....	3,092
3. Piping (after installation of fixtures).....	4,499
4. Water tests.....	2,006
5. Works completed and accepted.....	2,568
6. Calls for inspections.....	6,242
7. Inspections (new constructions).....	22,894
8. Inspections (existing constructions).....	45,711
9. Total number of fixtures installed.....	14,108
10. Special investigations.....	348

BOARD OF EXAMINERS FOR PLUMBERS

(a) Number of sittings.....	20
(b) Number of candidates.....	48
(c) Certificates of competency granted.....	36
(d) Number of examinations.....	166

LICENSES

(a) Master-plumbers (by-law 1341).....	530
(b) Journeymen-plumbers (by-law 1341).....	701
(c) Barber shops (by-law 1006).....	1,527
(d) Laundries (by-law 1009).....	334
(e) Establishments: Manufacturing of mattresses, filling materials, etc. (by-law 1089).....	103
(f) Public baths (by-law 1252).....	18
(g) Master fumigators (by-law 1275).....	5
(h) Fumigators (by-law 1275).....	8
(i) Journeymen fumigators (by-law 1275).....	13
(j) Undertakers (by-law 1339).....	64
(k) Embalmers (by-law 1339).....	40
(l) Massage establishments (by-law 1574) in abeyance.....	...
(m) Masseurs (by-law 1574) in abeyance.....	...

NOTIFICATIONS AND PROSECUTIONS

Notifications by inspectors.....	7,547
Official notices served.....	4,478
Second notices.....	1,146
Final notices.....	320
Actions (Recorder's Court).....	51
Actions maintained.....	51

ENFORCEMENT OF SPECIAL BY-LAWS

The statistics relating to the enforcement of by-laws concerning barber-shops, (No. 1006), laundries, (No. 1009), mattresses and other stuffed articles, etc., (No. 1089) and plumbing installations in buildings (piping, appliances, etc.) (No. 1341) are contained in the table relating to routine inspections: 111 (b).

(a) **By-law No. 1203, concerning the water supply of establishments located in the City of Montreal:**

This by-law is enforced jointly with the Public Works Department.

The following data summarizes the work accomplished—

I. ESTABLISHMENTS DRAWING WATER FROM A SOURCE OTHER THAN THE CITY SYSTEM :

	Establishments
a) Total number of cases studied (1933-39) in.....	117
b) New cases (1939).....	10
c) One or more cross-connections removed in.....	3
d) Work under way at the end of 1939 in.....	60
e) Inspections.....	23

II. ESTABLISHMENTS SURVEYED IN WHICH THERE WERE HAZARDS AS TO THE CONTAMINATION OF THE CITY WATER SYSTEM :

	Establishments
a) Number of cases studied (1933-39) in.....	91
b) New cases (1939).....	21
c) Modifications to the plumbing system.....	17
d) Modifications under way in.....	51
e) Inspections.....	153

Note—20 samples of water were collected in connection with the above work.

(b) **By-law No. 1252, concerning public baths and bathing:**

Swimming pools within City limits may be classified as follows at the end of 1939—

	Municipal baths	Semi-public baths	Total
a) Filters and automatic chlorination.....	5	2	7
b) Filters and intermittent disinfection.....	12	6	18
c) Intermittent disinfection only.....	1	1	2
d) Beaches and open air pools	13	3	15
Total.....	31	12	43

The control of pool water required 635 inspections and the collection of 370 water samples. 598 tests for residual chlorine were made and it was found to vary in 460 cases or 77% between .2 and .5 p.p.m.

The number of admissions in 1939 in municipal and semi-public baths, except beaches, etc. amounted to 1,289,040.

(c) **By-law No. 1275, concerning the use of fumigants for the destruction or control of vermin:**

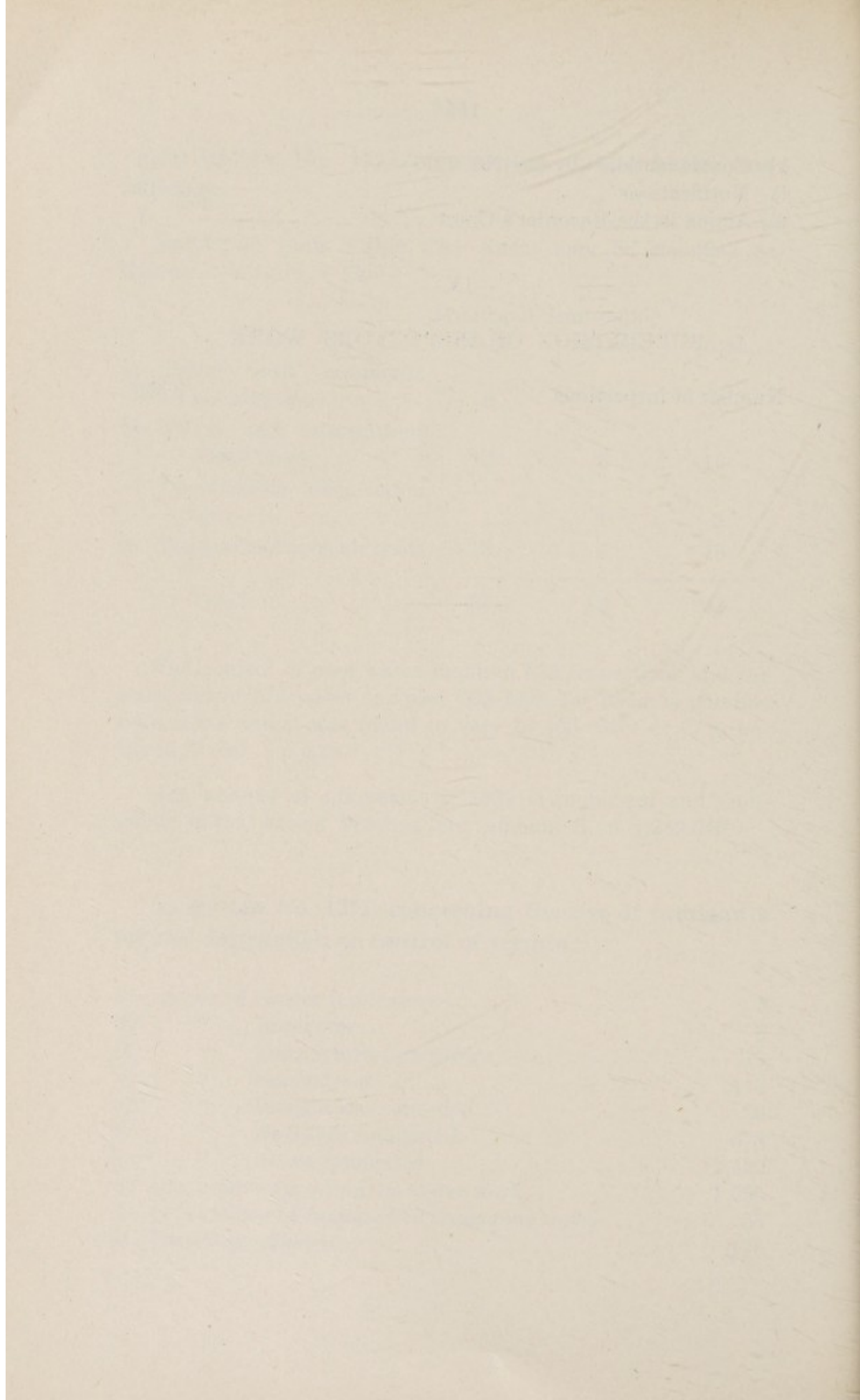
a) Number of master fumigators.....	5
b) " fumigators.....	8
c) " journeymen-fumigators.....	13
d) " fumigations.....	143
e) " fumigations cancelled.....	26
f) " dwellings fumigated.....	578
g) " rooms fumigated.....	2,422
h) Inspections regarding the above work.....	1,550
i) Infiltrations of fumigant in dangerous zones....	55
j) Dwellings affected.....	176

k) Contraventions (by-law No. 1275)	13
l) Notifications	13
m) Action in the Recorder's Court	1

—IX—

SUPERVISION OF INSPECTORS' WORK

Number of inspections	2,570
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Division of Food Inspection

Department of Health

CITY HALL ANNEX

Montreal, June 17th 1940

Dr. Adelard Groulx,
Director, Department of Health,
City Hall Annex.

Dear Sir,

I have the honor to submit herewith the annual report of the Division of Food Inspection for the year 1939.

In the following tables will be found a brief statement of the work performed by the different sections of the Division under my supervision.

Respectfully submitted,

A. J. G. HOOD,
Superintendent, Division
of Food Inspection.

Section No. 1

DIVISION OF FOOD INSPECTION
INSPECTION OF MILK IN THE CITY

Collection of Samples for Chemical Analysis

MILK							CREAM		
On the street	In hotels	In groceries	In dairies	In various places	Submitted by citizens	TOTAL	Collected by the Inspectors in market.	Submitted by citizens	TOTAL
876	77	510	214	539	64	2,280	283	42	325

Average: DENSITY and BUTTERFAT of above milk samples.
 1,030.0 3.55%

Collection of Samples for Bacteriological Analysis

Milk.....	7,156
Cream.....	826
Chocolate flavored dairy drink.....	300
Ice cream mix.....	67
Ice cream.....	529
Sterilization test for dairy utensils.....	955
Drinking water.....	422
River water for ice cutting.....	42
Water from wells and springs.....	70
Total.....	10,367

EXAMINATION OF MILK

In the City

MILK	
Acidity tests	707
Sediment tests	16,523
Temperatures taken	36,068
Babcock tests	657
Physical examination (color, taste and smell)....	40,236
Other examinations	1,932
Total number of gallons examined	763,776

CONFISCATIONS

Milk (in gallons)	15,386
Cream (in quarts)	188

INSPECTION OF MILK PRODUCERS

In the country

INSPECTIONS

Dairy score cards	4,139
Special	8,546
At railway stations	62
Total	12,747

COWS

Number examined	66,862
Clean	60,395
Tuberculin tested within the year	66,833
Tuberculin test overdue	29

STABLES

Number	4,139
Clean	3,996
With concrete floor	3,860
With 400 cubic feet of air space per animal	4,055
With 1 foot of light area per animal	4,050
Whitewashed entirely	3,837

DAIRIES

Number.....	4,124
Clean.....	4,038
Unfinished or unsuitable.....	15

REFRIGERATION

With ice.....	4,001
With spring water.....	26
Producers not having satisfactory cooling systems.....	70
Producers having electrical refrigeration.....	42

MISCELLANEOUS

Written notices.....	2,811
Written notices by letter from the office.....	620
Producers interdicted.....	329

COWS EXAMINED Re: MASTITIS

Number of herds.....	55
Number of cows examined.....	1,248
Number of cows condemned.....	45

INSPECTION OF CREAM PRODUCERS

In the country

INSPECTIONS

Dairy score cards.....	1,022
Special.....	1,019
At railway stations.....	5
Total.....	<hr/> 2,046

COWS

Number examined.....	16,613
Clean.....	14,666
Tuberculin tested within the year.....	16,613
Tuberculin test overdue.....	0

STABLES

Number.....	1,022
Clean.....	929
With concrete floor.....	950
With 400 cubic feet of air space per animal.....	973
With one foot of light area per animal.....	926
Whitewashed entirely.....	898

DAIRIES

Number.....	975
Clean.....	917
Unfinished or unsuitable.....	58

REFRIGERATION

With ice.....	913
With spring water.....	13
Producers not having satisfactory refrigeration.....	36
Producers having electrical refrigeration.....	60

MISCELLANEOUS

Written notices.....	581
Written notices by letter from the office.....	194
Producers interdicted.....	240

INSPECTIONS IN THE CITY

Pasteurization

In pasteurization plants.....	3,128
In special milk establishments.....	927
In "crèches".....	46
In hospitals.....	57
In nurseries.....	35
In stables.....	471
Special.....	344
Total.....	5,008

Chemistry

At the railway stations.....	356
In dairies.....	2,530
In groceries.....	6,180
In restaurants.....	6,257
In dining rooms.....	1,794
In markets.....	425
In stables.....	76
In private houses.....	83
In various places.....	1,193
Special.....	1,496
Total.....	20,390
Empty cans examined.....	58,960
Empty cans confiscated.....	497
Can tops (lids) confiscated.....	209
Notices for poor milk.....	154
Written notices (various).....	6,751
Actions taken.....	20
Condemnations.....	19

OBSERVATIONS AND IMPROVEMENTS
Inspection of Dairy Farms—Milk

1934-1939

	1934	1935	1936	1937	1938	1939
Number of producers visited.....	4,685	4,525	4,498	4,644	4,213	4,139
Cows examined.....	73,546	71,528	71,197	74,285	66,296	66,862
Cows found clean.....	67,392	64,649	64,865	67,998	61,501	60,395
Stables with a cement floor.....	4,073	4,388	4,068	4,207	3,845	3,860
Stables with 400 cubic feet of air per animal.....	4,496	3,998	4,164	4,355	3,953	4,055
Stables with one square foot of glass per animal.....	4,490	4,049	4,328	4,523	4,108	4,050
Whitewashed stables.....	4,490	3,692	4,429	4,543	4,152	3,837
Clean stables.....	4,376	4,236	4,315	4,486	4,094	3,996
Producers having a dairy.....	4,582	4,465	4,471	4,611	4,191	4,024
Producers whose dairy was not found satisfactory.....	103	60	27	33	22	15
Producers whose dairy is maintained in a clean condition.....	4,437	4,211	4,394	4,502	4,138	4,038
Producers having ice.....	4,341	4,247	4,337	4,501	4,106	4,001
Producers cooling milk in spring water or wells.....	203	264	151	2	36	26
Producers not having satisfactory cooling systems.....	141	14	10	141	71	70
Producers having electrical refrigeration.....	...	...	...	...	...	42
Notices in writing.....	932	2,127	2,409	3,255	2,927	2,811
Notices (letter from the office).....	675	1,092	522	424	687	620
Producers interdicted.....	543	705	472	315	428	329

PROGRESS IN THE METHODS AND EQUIPMENT OF MILK PRODUCERS

1934-1939

	1934	1935	1936	1937	1938	1939
COWS :						
Clean.....	91.63%	90.38%	91.10%	91.53%	92.76%	89.92%
STABLES :						
Whitewashed.....	95.84%	81.59%	98.47%	97.82%	98.50%	96.41%
Clean.....	93.40%	93.61%	95.93%	96.59%	97.18%	95.42%
With concrete floor.....	86.98%	96.99%	90.44%	90.59%	91.27%	91.74%
MILK-ROOMS :						
Number.....	97.80%	98.67%	99.40%	99.28%	99.48%	98.79%
Clean.....	96.83%	94.31%	98.28%	97.63%	98.74%	96.0%
REFRIGERATION :						
With ice.....	92.65%	93.86%	96.42%	96.92%	97.46%	95.21%
With spring water or wells.....	4.33%	5.83%	3.36%	....	0.85%	0.75%

DIVISION OF FOOD INSPECTION

1 9 3 9

Recapitulation

Total number of establishments.....	12,553
Total number of inspections.....	40,191
Total number of cows examined.....	83,475
Total number of samples of milk, cream and ice cream collected for chemical and bacteriological analysis.....	12,972
Total number of various examinations of milk, cream and ice cream.....	96,123
Total number of gallons of milk examined.....	763,776
Total number of gallons of milk confiscated.....	15,386
Total number of quarts of cream confiscated.....	188
Complaints.....	58
Actions taken.....	20
Condemnations.....	19
Written notices.....	11,111

INSPECTORS' EXPENSES FOR COUNTRY INSPECTION

Re: Mastitis

	Total special inspections	Days worked	Miles-Auto	Expenses	Cost
Brisson, Dr. L. P.....	91	42½	1,550	\$ 110.06	\$1.21
Chevrefils, Dr. L.....	60	24½	758	81.68	1.36
Martel, Dr. A.....	108	51	1,604	119.30	1.10
Lorrain, Dr. L.....	41	15½	100	14.36	.35
Langlois, Dr. Rod.....	26	14	37	10.20	.37
Paquin, Dr. J.....	28	39	559	54.71	1.96
	-----			-----	
Total.....	354			\$390.31	

INSPECTORS' EXPENSES FOR COUNTRY INSPECTION

	MILK		CREAM		Total insp.	Days worked	Average daily insp.	Miles R.R.	Average miles daily R.R.	Miles auto	Average Miles daily (auto)	Expenses	Cost
	Score cards	Spec. insp.	Score cards	Spec. insp.									
Gauthier, Dr J.-L.	637	1,289	79	111	2,116	233	9.0	.....	.....	10,904	46.8	\$1,412.56	\$0.667
Brisson, Dr L.-P.	557	972	69	71	1,669	223½	7.4	.....	.....	11,253	50.4	1,313.62	0.787
Lajoie, Dr L.-G.	583	903	345	282	2,113	231	9.1	2,686	9.52	10,246	44.3	1,327.02	0.628
Chevrefils, Dr L.	163	25	.....	.....	188	33	5.7	.....	.....	1,451	44.0	175.00	0.938
Tétreau, Dr G.-M.	539	990	191	202	1,922	227	8.4	.....	.....	11,906	52.9	1,347.21	0.747
Martel, Dr A.	252	1,205	3	9	1,469	215½	6.8	.....	.....	10,778	50.0	430.06	0.293
Lorrain, Dr L.	419	524	53	14	1,010	128½	7.8	.....	.....	6,709	52.2	540.85	0.535
Langlois, Dr Rod.	507	958	204	144	1,813	216	8.4	.....	.....	10,206	47.2	1,349.38	0.744
Paquin, Dr Jean.	419	1,118	22	43	1,602	218	7.3	.....	.....	11,286	51.7	1,173.83	0.732
Senecal, Dr Lucien.	57	607	51	84	799	94½	8.4	.....	.....	6,127	64.1	478.84	0.599
Total	4,133	8,591	1,017	960	14,702	1,820	.....	.....	.....	.....	.....	\$9,548.37	

■ Average daily inspections for all inspectors: 8.1.

■ Average cost per inspection for all inspectors: 0.649.

(Dr. Brisson, Dr. Lajoie, Dr. Chevrefils, Dr. Martel and Dr. Lorrain have often worked together using only one automobile owned by one of them. This has had an influence over the number of miles covered with regard to the number of working days accomplished, by comparison with the average result of other inspectors.)

(Dr. L. Chevrefils left the Department of Health March 30th, 1939.)

(Dr. L. Lorrain left the Department of Health August 16th, 1939.)

(Dr. L. Sénécal who entered the Department of Health June 1st, 1939, was in training until July 1st; he then took charge of a district which he relinquished November 25th, 1939.)

DETECTION OF MASTITIS CASES IN MILCH COWS

Special Milk (or cream) "By Law No. 891"

Number of Herds and Cows examined						Classification by Group				
No. of herds	Total number of cows in herds	No. of cows examined	No. of untested cows (dry or recently freshened)	No. 1 Healthy cows	No. 2 Suspicious cows	No. 3 Slightly affected cows	No. 4 Positively affected cows	No. 5 Severely affected cows		
54	1,653	1,211	442	196	431	466	73	45		
Pasteurized milk (or cream) "By Law No. 891"										
No. of herds	Total number of cows in herds	No. of cows examined	No. of untested cows (dry or recently freshened)	No. 1 Healthy cows	No. 2 Suspicious cows	No. 3 Slightly affected cows	No. 4 Positively affected cows	No. 5 Severely affected cows		
1	43	37	6	6	19	7	5	0		

CLASSIFICATION OF DAIRY COWS FROM THE POINT OF VIEW OF THE EXISTENCE OF MASTITIS IN THE HERD

GROUP	EXAMINATION	RESULT	Instructions which must be complied with.	
			COWS	MILK
No. 1 Healthy cows.	<ol style="list-style-type: none"> 1. Strip cup test. 2. Chemical test. 3. Physical examination. 	<p>Negative. Negative. Negative.</p>	No restriction.	No restriction.
(a) Suspicious cows.	<ol style="list-style-type: none"> 1. Strip cup test. 2. Chemical test. 3. Physical examination. 	<p>Absence of pus, flakes or stringy milk. Negative or slight reaction. Few nodules, not painful.</p>	No restriction.	No restriction.
	<ol style="list-style-type: none"> 4. Bacteriological examination. 	<p>Negative (streptococci and staphylococci).</p>		
(b) Slightly affected cows.	<ol style="list-style-type: none"> 1. Strip cup test. 2. Chemical test. 3. Physical examination. 4. Bacteriological examination. 	<p>Absence of pus, flakes or stringy milk. Slight or doubtful reaction. Fibrous nodules, painful. Absence of streptococci and staphylococci.</p>	Must be placed in one end of stable.	May be sold for human consumption.

2.

<p>No. 3. Positively affected cows.</p>	<p>1. Strip cup test. 2. Chemical test. 3. Physical examination. 4. Bacteriological examination.</p>	<p>Absence of pus but presence of flakes or stringy milk. Positive reaction in one or more quarters. Fibrous nodules, painful. Atrophy of one or more quarters. Presence of streptococci or staphylococci or both.</p>	<p>Must all be isolated immediately from the balance of the herd. We recommend the sale of these animals for slaughter. Permission to keep these animals can only be granted for the current year.</p>	<p>Must not be sold for human consumption unless pasteurized. May be used for young animals on the farm.</p>
<p>No. 4. Severely affected cows.</p>	<p>1. Strip cup test. 2. Chemical test. 3. Physical examination 4. Bacteriological examination.</p>	<p>Presence of pus. Marked reaction. Marked fibrosis, painful nodules with or without swelling; open abscesses. One or more quarters atrophied or dry. Presence of streptococci or staphylococci or both.</p>	<p>Must all be isolated immediately from the balance of herd and sold for the slaughter. If pure bred animals and during the gestation period, permission may be granted to breeders to keep these animals on condition that they are not giving milk and shall be kept in a separate stable.</p>	<p>Must not be sold for human consumption or used for young animals.</p>

REMARKS—The classification of the herd is only temporary and will be changed according to results obtained upon subsequent test.

Bacteriological examinations will only be made when deemed necessary by the Department.

One positive result obtained upon examination is sufficient to indicate in which group each cow is to be classed.

Examinations are only made one month after calving and not less than one month before.

1939

FOOD INSPECTION DIVISION

Section No. 2

	Total number of establish- ments	Total number of ins- pections
Markets.....	7	547
Butcher stalls.....	1,101	21,600
Fish stalls.....	30	686
Poultry dealers.....	52	1,325
Packing houses.....	13	131
Grocers.....	9	89
Cooked meat dealers.....	43	526
Cold storages.....	5	93
Sundry manufacturers.....	19	347
Abattoirs.....	405	1,159
Ice dealers.....	483	1,133
Specials.....		1,605
Provisions.....	5	74
	2,172	29,315

Written notices.....	1,288
Actions.....	7
Convictions.....	7
Complaints.....	135
Samples collected for analysis.....	616
Samples submitted for analysis by citizens.....	44
Dogs having bitten someone.....	277
Examinations of dogs having bitten someone.....	906
Research Re: negri bodies.....	13
Country abattoirs interdicted during year.....	66

FOOD INSPECTION DIVISION

Carcasses inspected and confiscated at the private abattoir

	Ins- pections	Con- fiscations
Cattle.....	...	...
Calves.....	934	...
Carcasses of mutton.....	433	...
Hogs.....	199	1
	<hr/>	<hr/>
Total.....	1,566	1

At the inspection stations

Calves.....	24,633	82
Carcasses of mutton.....	1,956	3
Hogs.....	26,686	6
	<hr/>	<hr/>
Total.....	53,275	91

At the commission stores

Calves.....	48,026	286
Carcasses of mutton.....	6,249	9
Hogs.....	54,907	101
	<hr/>	<hr/>
Total.....	109,182	396
Total number of carcasses inspected	164,023	
Total number of carcasses confiscated		488

Note—The inspection at the public abattoirs is performed by the Federal Government.

FOOD INSPECTION DIVISION

Foodstuffs and meats condemned (lbs.)

	Private abattoir	Inspection stations	Commis- sion stores	Markets, butchers, etc.	Total
Beef.....	147	410	26	1,361	1,944
Veal.....	67	451	995	939	2,452
Mutton.....	62	164	82	105	413
Pork.....	340	6,513	12,024	3,817	22,694
Poultry.....	...	97	1,692	3,738	5,527
Fish.....	...	...	...	105,838	105,838
Sundry meats...	...	60	290	6,371	6,721
Sundry foodstuffs	...	...	...	36,855	36,855
	616	7,695	15,109	159,024	182,444

N.B.—The above foodstuffs and meats have been condemned for the following reasons: spoiled, mouldy, slimy, sour, dirty, and affected with diseases and calves too young.

FOOD INSPECTION DIVISION

Recapitulation

Total number of establishments.....	2,172
Total number of inspections.....	29,315
Total number of carcasses confiscated.....	488
Total number of carcasses inspected.....	164,023
Foodstuffs and meats condemned (lbs.).....	182,444
Actions taken.....	7
Convictions.....	7
Cases dismissed.....	0
Complaints.....	135
Samples collected for analysis.....	916
Samples submitted for analysis by citizens.....	44
Dogs having bitten someone.....	277
Written notices.....	1,288
Examinations of dogs having bitten someone.....	906
Researches Re: negri bodies (all negative).....	13
Country abattoirs interdicted during year.....	66

FOOD INSPECTION DIVISION

Section No. 3

Section of inspection for restaurants, dining-rooms,
grocery stores, etc.—1939

Kind of establishments	Number of establi- shments to be visited	Number of visits
(1) Candy stores.....	3,782	2,513
Restaurants.....	967	11,825
Dining-rooms.....	794	7,426
Grocery stores.....	1,549	8,452
Confectioneries.....	70	1,012
Pastry shops.....	101	1,310
Fruit and vegetable stores.....	247	1,986
Beverage manufacturers.....	47	495
Sundry manufacturers.....	157	1,124
Special inspections in above mention- ed establishments.....		4,123
Total.....	7,714	40,266
Vehicles used for the conveyance of foods.....	1,541	1,033
(2) Samples collected for analysis:		
Chemical.....	152	
Bacteriological.....	690	
Total.....	842	
(3) Confiscations:		
Utensils.....		216
Fruits (in pounds).....		15,910
Vegetables (in pounds).....		46,272
Various foodstuffs.....		192,064
Total.....		254,246

(4) Sundries:

Complaints.....	99
Written notices.....	4,181
Actions taken.....	79
Actions in court on January 1st, 1939	2
Actions withdrawn.....	...
Actions dismissed.....	...
Convictions.....	77
Actions in court on Dec. 31st, 1939..	4

DIVISION OF FOOD INSPECTION

Comparative Table

Section of inspection for restaurants, dining-rooms,
grocery stores, confectioneries, pastry shops, etc.

Establishments	1936		1937		1938		1939	
	To be visited	Visited	To be visited	Visited	To be visited	Visited	To be visited	Visited
Hotels.....	56	252	51	238	58	100	Included in	Din.-rooms
Candy stores.....		Included in	Restaurants				3,782	2,513
Restaurants.....	5,029	24,137	5,130	21,686	5,337	16,373	967	11,825
Dining-rooms.....	745	9,178	710	9,144	757	8,119	794	7,426
Grocery stores.....		Inspected by	Section No. 2		1,057	5,654	1,549	84,52
Confectioneries.....	66	1,392	68	1,330	77	1,304	70	1,012
Pastry shops.....	105	2,095	104	2,089	88	1,606	101	1,310
Fruit and Vegetable stores.....	216	2,402	223	2,247	216	2,007	247	1,986
Beverage manufacturing est.....	45	985	49	985	50	696	47	495
Various manufacturing establish.	150	1,948	172	1,928	152	1,397	157	1,124
Taverns.....	43	166	72	138	66	95	Included in	Din.-rooms
Institutions.....	172	93	176	110	159	40	Included in	Din.-rooms
Special inspections.....		3,343		3,494		3,847		4,123
Total.....	6,627	45,991	6,755	44,389	8,017	41,238	7,714	40,266
Vehicles.....	1,660	2,618	1,674	2,027	1,420	1,662	1,541	1,033

DIVISION OF FOOD INSPECTION

Comparative Table—Continued

Section of inspection for restaurants, dining-rooms, grocery stores, confectioneries, pastry shops, etc.

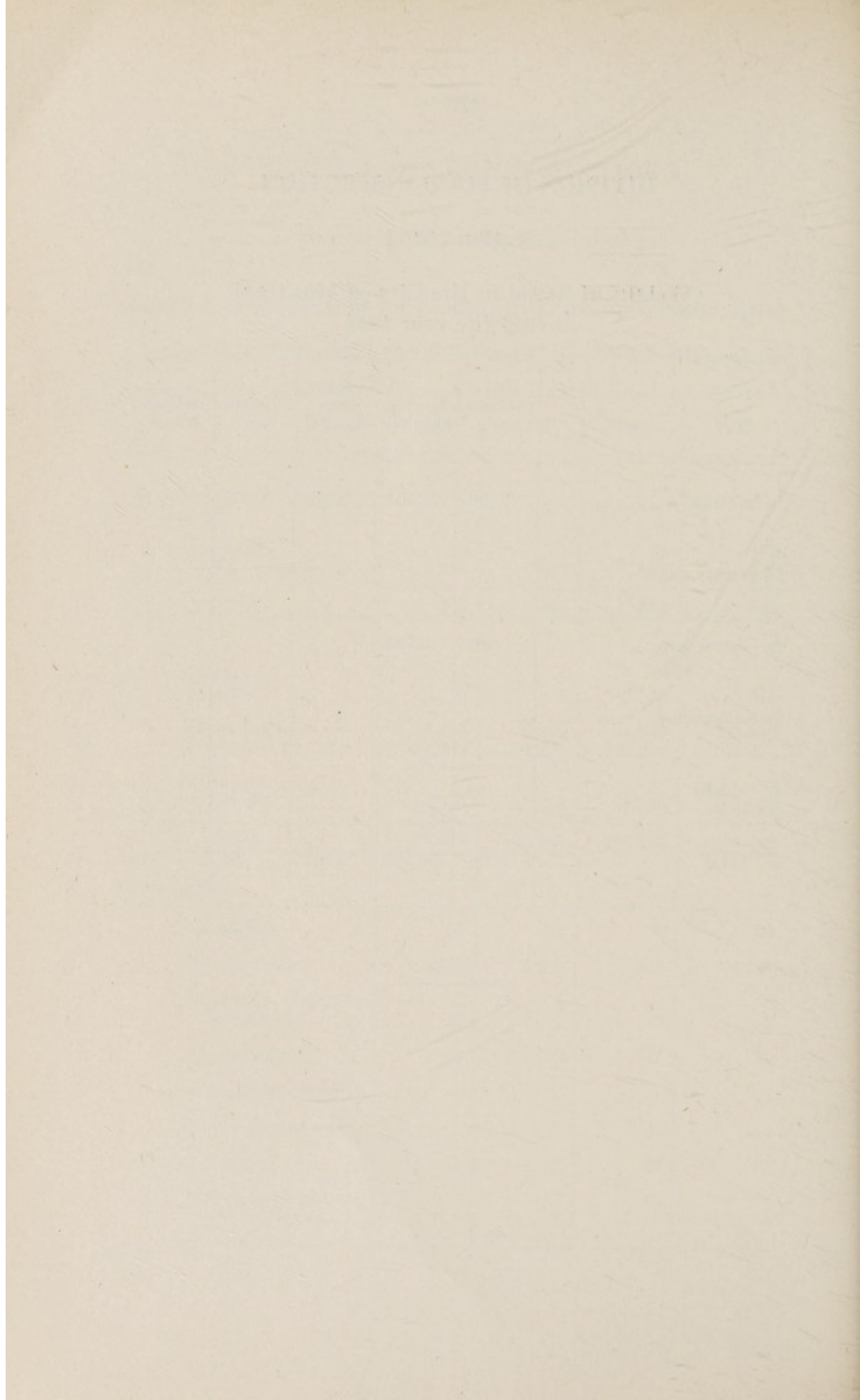
	1936	1937	1938	1939
2. Samples collected for analysis:				
Chemical.....	12	51	59	152
Bacteriological.....	384	647	629	690
Total.....	396	698	688	842
3. Confiscations:				
Utensils.....	2	8	55	216
Fruits (in lbs.).....	5,436	3,872	34,248	15,910
Vegetables (in lbs.)...	21,803	104,856	162,316	46,272
Various foodstuffs (in lbs.).....	14,056	25,813	95,258	192,064
Total.....	41,295	134,541	291,822	254,246
4. Sundries:				
Complaints.....	70	50	70	99
Written notices.....	3,259	3,100	3,866	4,181
Actions in Court on January 1st.....	3	...	2	2
Actions taken.....	43	39	47	79
Actions withdrawn...	1	...	...	...
Actions thrown out...	...	...	...	...
Convictions.....	45	37	47	77
Actions in Court on December 3rd.....	...	2	2	4

DIVISION OF FOOD INSPECTION

Section No. 4

Weight of Bread in the City of Montreal
during the year 1939

	In- pections made	Loaves weighed	Loaves con- fiscated	Notices sent	Actions taken
In bakeries.....	1,822	127,504	2,842	68	16
In grocery stores.....	...	...	...	...	...
In pastry shops.....	232	10,792	...	...	...
In restaurants.....	...	...	...	...	...
In vehicles.....	141	...	...	...	...
Total.....	2,195	138,296	2,842	68	16



**Division of Municipal
Assistance**

Department of Health

DIVISION OF MUNICIPAL ASSISTANCE

Montreal, June 14th, 1940.

Dr. A. Groulx,
Director of the Dept. of Health,
City Hall.

**Re: Thirty-fifth Annual
Report of the Division
of Municipal Assistance
for the year 1939.**

Dear Sir:

I beg to submit herewith the thirty-fifth Annual Report of the Division of Municipal Assistance for the year 1939.

This year our Division has dealt with 58,564 cases, which necessitated 51,538 investigations and the hospitalization of 45,815 persons at the expense of the City. These figures do not include the work done at the Meurling Municipal Refuge, which, during the year 1939, has supplied 229,956 sleeping accommodations to 3,681 individuals and given 479,300 meals to the individuals lodged.

On the 31st of December 1939, there remained 1,581 investigations in abeyance.

A better idea can be had of the work done by this Division by referring to the report which is herewith included.

I wish to point out that, of all hospitalization requests made to the Municipal Assistance Department, a percentage of 16.7% was, after investigation, refused.

Respectfully submitted.

A. CHEVALIER,
Superintendent.

**STATEMENT OF THE OPERATION OF THE MUNICIPAL ASSISTANCE DIVISION FOR THE
YEAR 1939**

Items	Hospi- talized	Investi- gations	Cases
Neglected children.....	917	1,392	1,410
Juvenile delinquents and Juvenile Court.....	405	355	405
Insane.....	948	1,378	1,409
Incurable patients and others.....	284	380	380
Tuberculous.....	151	214	217
Assistance to the poor.....		202	202
Street vendors.....		106	106
Special cases.....		515	515
Burial of paupers.....		1,160	1,160
Deportation of immigrants.....		14	14
Repatriation of strangers.....		438	438
Charitable institutions (registered, by-law No. 1447).....		215	215
Persons authorized to collect gifts for said institutions.....		62	62
Tag-days and Charities, entertainments, etc.....		265	265
Quebec Public Charities Act.....	43,110	44,297	51,221
Social Service Exchange (Unemployment cases).....		545	545
Total.....	45,815	51,538	58,564

PLACING OF NEGLECTED CHILDREN IN INDUSTRIAL SCHOOLS

1,410 applications for placing or discharging neglected children had to be settled during 1939. These applications necessitated 1,392 investigations; 18 of which remained in abeyance on the 31st of December 1939.

The result of said investigations was as follows—

Accepted cases.....	783
Refused cases.....	275
Procedures discontinued.....	81
Applications for release granted.....	178
Special cases.....	75

Total.....	1,392
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Children were placed as follows—

Children in industrial schools on the 1st of January 1939.....	1,356
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Admitted during the year—

To Maison Ste. Domitille.....	201
To Orphelinat de Liesse.....	179
To Orphelinat d'Huberdeau.....	151

Total.....	531
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Readmitted during the year.....	386
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Total.....	917
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2,273

Discharged, set free at end of internement.....	1,080
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On the 31st of December 1939.....	1,190
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Distributed as follows—

Maison Ste. Domitille, Laval des Rapides.....	505
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Orphelinat de Liesse.....	425
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Orphelinat d'Huberdeau.....	260
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All these are placed at the joint expenses of the City and the Provincial Government.

On December 31st, 1939, none was waiting for admission.

JUVENILE DELINQUENTS

405 cases of juvenile delinquents were reported in the monthly reports of the following institutions.

Mont St. Antoine.....	207
Bon Pasteur.....	123
Shawbridge.....	51
Girls' Cottage.....	24

325 investigations were completed during the year with the following results—

Investigations closed.....	314
Objections to payment.....	16
Parents obliged to reimburse.....	25

On the 31st of December, 1939, there were, in the reform schools, at the City's expense, 645 juvenile delinquents, as follows—

At Mont St. Antoine.....	307
At Maison Lorette.....	179
At Shawbridge.....	128
At Girls' Cottage.....	31

INSANE

There were in the asylums for the insane, at the City's expense, on the first of January 1939, 4,514 patients. During the year, 948 of these patients were admitted: to St. Jean de Dieu; 700 to Verdun; 157 to l'Hospice Ste. Anne de la Baie St. Paul; 6 to l'Asile de Bordeaux (for the criminal insane) 84; to La Jemmerais School 758 of these patients were either discharged from these Asylums or died during the year; consequently, there were left 4,704 patients on the 31st of December, 1939, distributed as follows—

St. Jean de Dieu.....	3,314
Verdun.....	692
Ste. Anne de la Baie St. Paul.....	342

Bordeaux (criminal insane).....	260
Ecole LaJemmerais.....	10
Beauport (St. Michel Archange and Hospice Dufrost).....	31
St. Ferdinand d'Halifax.....	55

There was a decrease of 83 admissions in the year 1939 over the year 1938.

Mental cases in 1939 required 1,378 investigations, the result of which have been as follows—

Investigations closed.....	833
Parents having to reimburse the City.....	197
Special investigation for the Quebec Government	168
Objections to payment.....	78
Procedures discontinued.....	95
Insane persons deported.....	1
Insane persons rapatriated.....	6

On the 31st of December, 1939, there remained 31 investigations to be made. 838 commitment papers were prepared in 1939 by our Division.

INCURABLE PATIENTS AND OTHERS

Applications for the hospitalization of incurable patients and others during the year 1939 amounted to 380. Investigations have given the following results:

Recommendable cases.....	206	
Cases not recommandable.....	69	
Parents having to refund cost of maintenance to the City.....	105	
Hospitalized during the year 1939 ...	284	
Patients on December 31st, 1939	255	
As follows—		
At the Hôpital du Sacré Cœur.....	126	64
At the Grey Nun's St. Mathieu St. ...	11	38
At St. Luke's Hospital.....	26	4

At Refuge Notre Dame de la Merci..	56	73
At the Hospice St. Henri.....	19	43
At Notre Dame de Lourdes.....	46	33

On the 31st of December, 1939, there were 27 vacant places in the above mentioned institutions; 6 patients were awaiting their admission on the same date.

TUBERCULOUS

There were 217 applications for hospitalization of indigent tuberculous during the year 1939. The investigations have given the following result:

Recommendable cases.....	180
Cases not recommendable.....	22
Parents having to refund costs of maintenance ..	11
Deported.....	1
Under investigation on the 31st of December, 1939.....	3

The number of tuberculous patients hospitalized or re-hospitalized during the year was 151.

97 tuberculous patients were at the Sacred Heart Hospital on the 31st of December, 1939, at the City's expense; there was 3 vacant places and five were waiting for admission on the same date.

ASSISTANCE TO THE INDIGENT

During the year 1939, 202 applications for relief of various kinds were filled with our Division. Most of these cases were referred to the Charitable Institutions

MENDICANTS AND STREET VENDORS

106 applications for street vendors' licences were made at our office in the course of the year. These applications have been investigated with the following results:

Applications recommended upon payment of the \$10.00 licence fee.....	4
Applications recommended free of charge.....	48
Applications not recommended or discontinued...	50
Under investigation on the 31st of December 1939	4

SPECIAL CASES

515 requests for research or information were made through this Division during the year 1939. These researches are of a particular nature and we are pleased to state that they were attended to satisfactorily.

BURIAL OF INDIGENTS

1,160 requests for burial of poor persons at the City's expense were made in 1939. These have necessitated 1,157 investigations with the following results—

Persons buried at the City's expense.....	1,099
Responsible parties called upon for reimbursement of whole or part of expenses incurred.....	20
Requests refused or discontinued.....	38
Under investigation on the 31st of Dec. 1939....	3

DEPORTATION

The cases of deportation of immigrants numbered 14 in 1939. After investigation these cases were disposed of as follows:

Immigrants deported.....	3
Proceedings discontinued or refused.....	3
Under investigation at Ottawa on the 31st of December, 1939.....	8.

REPATRIATION

438 requests for repatriation came before this office in 1939. The above-mentioned requests were disposed of as follows:

Persons repatriated at the City's expense.....	306
Requests refused or discontinued after investigation.....	132

REGISTRATION OF CHARITABLE INSTITUTIONS AND OF PERSONS AUTHORIZED TO SOLICIT GIFTS OR ALMS ON BEHALF OF SAID INSTI- TUTIONS

In conformity with Municipal By-Law No. 1447, 215 institutions soliciting or collecting gifts or alms registered in 1939 (in 1938: 215) and 62 persons were authorized to solicit such gifts or alms (in 1938: 87).

During the year 1939, 265 applications for permission to hold tag-days, "guignolées" or charitable entertainments were received in compliance with the above-mentioned By-Law. These requests after investigation were—

Granted.....	247
Refused.....	18

In respect of tag-days, it is to be noted that the 28 tag-days held during 1939 brought in the sum of \$92,530.25. The expenditures amounted to \$15,978.74, that is to say 14.98%. The interested institutions have made a benefit of \$76,551.51.

Procedures were taken before the Recorders' Court against four individuals or institutions for having neglected to comply with said By-Law.

PUBLIC CHARITIES ACT

The number of requests for hospitalization under the Quebec Public Charities Act, sent to our Division during the year 1939, was as follows:

Applications for hospitalization in hospitals, sanatoriums, homes and orphanages	37,892
Cases reconsidered	3,126
Under investigation on the 1st of January 1939	1,396
Transferred to other institutions	3,389
Total	45,803
Investigations made during the year	44,297
Under investigation on the 31st of December 1939	1,506

The result of these investigations has been as follows—

Accepted cases	37,692
Refused cases	6,605

To these 37,692 cases accepted after investigation, we must include or add 5,418 cases accepted in the Maternities, Crèches, Day Nurseries, and School for crippled children, making a total of 43,110 hospitalized persons and of 51,221 cases.

Appeals were heard before the district magistrate according to article 22a of the Quebec Public Charities Act, in 107 rejected cases, with the following result: in 60 cases, our decisions were maintained; in 29 cases they were rejected and 18 were under consideration on the 31st of December, 1939.

SOCIAL SERVICE RECORD

The number of record-cards of the Social Service Record on December 31st 1939, was 341,284, or 292,651 individual cards and 48,633 address-cards, not counting the cards of patients treated under the Quebec Public Charities Act in the various hospitals for a great number of years past.

During 1939, we brought to the attention of the Unemployment Relief Commission 545 cases requiring a reduction or a discontinuation of relief granted under the Unemployment Act.

Relief discontinued.....	262
Unchanged.....	157
Not getting relief or not located.....	126
	<hr/>
Total.....	545

The weekly saving thus realized by this decreased allocation was \$373.05.

MEURLING MUNICIPAL REFUGE

During the year 1939, there were 230,067 entries for lodging accomodation in the Meurling Refuge. Of this number 111 individuals were refused admission for good cause; so that the next number of lodgings given was 229,956. The lodgings were given to 3,681 individuals, or an average of 62.1 times each individual, representing 34 nationalities, and 1,722 were refused for lack of room.

The number of refugees who have been supplied with work or with situations amounted to 18,949; the average age of the persons lodged was 45.8 years.

The number of trades represented was 35. The total number of treatments given by our physicians was 40,564.

The number of free meals given during the year 1939 was 479,300.

Number of diseases: 32.

THE REFUGE LAUNDRY

957,303 pieces of linen were washed at the Refuge laundry. On this number, 8,389 pieces belonged to different departments of the City Hall; 12,175 to the refugees; 935,190 to the Refuge and 1,549 to soldiers.

CO-OPERATION WITH THE POLICE DEPARTMENT

During the year 1939 the Department of Police, through its representatives connected with our office, looked after the following cases:

Cases reported before the Recorder's Court and the Police Court were as follows—

Prisoners remanded for mental examination.....	240
Insane committed after examination.....	163
Declared responsible and disposed of by the courts	74
Died at Bordeaux Hospital (under examination)	3
Patients escorted.....	21
Persons handled for repatriation—	
Persons and children escorted and handed over to their parents.....	21
To different railway stations.....	309
Repatriated under escort.....	5
Repatriation cases refused after investigation....	130
Cases of deportation submitted to the Depart- ment of Immigration during the year.....	11
Number of investigations or visits.....	1,044

Division of Medical Control

Montreal, April 19th, 1940.

Doctor Ad. Groulx,
Director, Department of Health,
City Hall Annex.

Sir:

I hereby transmit the report of the Division of Medical Control, for the year 1939.

Respectfully yours,

J. A. CHARRON, M.D.,
Superintendent of the
Div. of Medical Control.

The report of the Division of Medical Control is divided into four parts, as follows:

- I. Medical examinations;
- II. Health cards;
- III. Vaccination against small-pox;
- IV. Medico-legal office.

I—Medical Examinations

This first part includes medical examination of and visits made to employees who are absent through illness, and the medical examination of those seeking employment, examination of children placed in industrial schools and of patients suffering from chronic or incurable diseases (this work being done in collaboration with the division of Municipal Assistance), and the daily examination of around 700 inmates who frequent the Meurling Municipal Refuge.

The work of this section of the Division of Medical Control for the year 1939 may be summed up as follows:

EXAMINATIONS OF EMPLOYEES:

1. New employees.....	155	
2. Employees absent through illness.	2,894	
3. Special examinations Re: state of health.....	63	
Total.....		3,112

MUNICIPAL ASSISTANCE:

1. Children placed in industrial schools.....		890
2. Incurables:		
a) tuberculous.....	207	
b) other diseases.....	325	532
3. Sheltered indigents (at Meurling Refuge).....		219,634

II—Health Cards

In conformity with city by-law No. 926, concerning food establishments and restaurants, and with by-law No. 1394, concerning barber shops, hairdressing parlors, etc., employees working in these places must procure a health card which is issued to them by this division, after complete medical examination supplemented by laboratory tests. The number of these establishments in Montreal is around 5,000.

MEDICAL EXAMINATION OF FOOD HANDLERS, BARBERS, Etc:

1. Food handlers:	
Number of examinations:	
a) at the office,	
b) in plants.	
Total.....	31,465
2. Barbers, hairdressers, etc:	
Number of examinations:	
a) at the office,	
b) in shops.	
Total.....	2,752

MEDICAL INSPECTION OF BARBERS, HAIRDRESSERS, Etc., Etc:

During the year which just elapsed a greater number of barbers, hairdressers, etc., acted in conformity with by-law No. 1394. 2,752 secured their health cards, that is to say 415 more than in 1938.

III—Vaccination against Small-Pox

The health by-laws demand that employees who work in food establishments, in barber shops, hairdressing parlors, etc., must produce a certificate of vaccination showing that they have been successfully vaccinated within less than seven years.

Following is a summary of the work of this section:

VACCINATION AGAINST SMALL-POX :

1. Food handlers vaccinated:		
a) at the office.....	5,143	
b) at plants.....	1,055	
Total.....		6,198
2. Barbers, hairdressers, etc:		
a) at the office.....	225	
b) in shops.....	63	
Total.....		288
3. Other vaccinations.....		
Total.....		1,127
		7,613

CLASSIFICATION OF HEALTH CARDS, 1939

I—Food establishments

Number of cards issued.....		31,465
Number of cards refused.....		558
Reasons: Pyorrhea.....	121	
Tuberculosis.....	3	
Skin diseases.....	77	
Venereal diseases.....	86	
Uncleanliness.....	271	

II—Barber shops, hairdressing parlors, etc.

Number of cards issued.....		2,752
Number of cards refused.....		39

VACCINATIONS AND VERIFICATIONS

Number of vaccinations.....		7,613
Number of verifications.....		7,227

IV—Medico-legal Office

Following is the report of the medico-legal counsel for the year 1939.

WORKMEN INJURED :

Examinations at the Medico-legal office.....	1,532
Examinations at home.....	30
First reports.....	371
Subsequent reports.....	333

EXPERT REPORTS FOR THE LEGAL DEPARTMENT :

Examinations at the Medico-legal office.....	137
Examinations at home.....	668
First reports.....	540
Subsequent reports.....	311

EXAMINATIONS ON ACCOUNT OF PENSION FUND (Employees and constables):

Examinations Re: admission.....	238
Examinations Re: superannuated.....	54

EXAMINATIONS MADE FOR THE FIRE DEPARTMENT:

Examinations for admission or superannuation ..	180
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There are in addition visits to hospitals to consult records, examine radiographs, etc., and appearances before the courts of justice which we have not taken into account.

Department of Health

CITY HALL ANNEX

Philadelphia, May 1930

Director, Department of Health
City Hall Annex

Philadelphia

Division of Laboratories

Department of Health
CITY HALL ANNEX

Montreal, May 10th, 1940.

Doctor Ad. Groulx,
Director, Dept. of Health,
City Hall Annex.

Dear Sir:

I have the honor to submit, herewith, the report of the Division of Laboratories for the year ending December 31, 1939.

The total number of analyses made during the year was 53,037, divided among the different Divisions of the Department of Health, the Police Department and the private practitioners of Montreal.

A brief statement of the work performed by the Division under my supervision will be found in the following tables.

Respectfully submitted,

A. BOLDUC, M.D.,
Superintendent,
Div. of Laboratories.

Per R. B.

DIVISION OF LABORATORIES

Analyses made during year 1939

a) Specimens analyzed for the Department of Health

DIVISION OF FOOD INSPECTION

I—Solid Foods

1. Natural:

Banana (physical examination).....	1
Buckwheat flour (physical examination).....	1
Chopped meat: bacteriological examination.....	4
Re: adulterations.....	66
“Chop Suey” (bacteriological examination).....	2
Cocoa beans (physical and bacteriological examinations).....	6
Coffee (physico-chemical examination).....	1
Eggs (physical examination).....	3
Fish (physico-chemical examination).....	2
Fried potatoes (physical examination).....	2
Frozen ducks (physical examination).....	2
Granulated sugar (physico-chemical examination).....	3
Macaroni (physical examination).....	1
Meat: pathological examination.....	18
physical and bacteriological examinations.....	19
Re: toxic metals.....	2
Oatmeal (physical and bacteriological examinations).....	1
Olives (bacteriological and chemical examinations).....	1
Orange (physical examination).....	1
Peas (physico-chemical examination).....	10
Salted peanuts (physical examination).....	1
Shreddeed cocoanut (bacteriological examination).....	1
Tea (physical examination).....	3
Wheat flour (physical examination).....	12
Yeast (physical examination).....	10

2. Canned:

Berries (physical and bacteriological examinations).....	9
Blood pudding (physical and bacteriological examinations).....	3
Celery (bacteriological examination).....	1
Corn (bacteriological examination).....	5
Lobster (physical and bacteriological examinations).....	8
Peas (bacteriological examination).....	2
Sardines (bacteriological examination).....	1
String beans (bacteriological examination).....	3
Tomatoes (physical and bacteriological examinations).....	25
Tomato paste (bacteriological examination)...	16

3. Prepared:

Almond paste (physical examination).....	1
Biscuits (physical examination).....	19
Bologna sausage (physical and bacteriological examinations).....	2
Bread (bacteriological and chemical examinations)	3
Cake (bacteriological examination).....	1
Candy (physical and bacteriological examinations).....	2
Candy (chemical examination).....	2
Chinese pattie (bacteriological examination).....	1
Doughnuts (physical and bacteriological examinations).....	3
Ham: pathological examination.....	2
physical and bacteriological examinations....	1
research of <i>Trichinella spiralis</i>	1
Jams (bacteriological examination).....	4
Jellied head cheese (physical and bacteriological examinations).....	6
Peanut butter (physical and bacteriological examinations).....	11
Pickles (bacteriological examination).....	2
Pies (bacteriological examination).....	2

Pork cracklings (bacteriological examination)...	1
Prepared flour (bacteriological examination)...	1
Preserved apricots (bacteriological examination)	1
Sandwiches (physical and bacteriological examinations).....	2
Sausage: bacteriological examination.....	5
Re: adulterations.....	517
research of <i>Trichinella spiralis</i>	1

II—Liquid Foods

Milk and Cream:

1. Natural:

(a) Samples brought by our inspectors:

Bacteriological examination:

Plate count.....	7,920
B. Coli test.....	7,920

Chemical analysis:

Completed ¹	53
Summary ²	2,420
Acidity test.....	30
Phosphatase test.....	70
Preservative test.....	2,459
Research of blood.....	9
Research of colostrum.....	4
Research of foreign matters.....	34

(b) Samples brought by citizens:

Summary chemical analysis plus preservative test.....	267
---	-----

2. By-products:

Chocolate drink: plate count.....	257
B. Coli test.....	257
Chemical analysis.....	17

¹ Completed chemical analysis comprises specific gravity, butter fat, dry extract, defatted extract, water.

² Summary chemical analysis comprises specific gravity by "QUE-
VENNE" lacto-densimeter, butter fat by Babcock test, preservative test.

Ice cream: plate count.....	540
B. Coli test.....	540
Chemical analysis.....	17

Miscellaneous:

Canned soup (physical and bacteriological examinations).....	3
Carbonated beverages (bacteriological examination).....	31
Controls in nurseries, hospitals (milk, water) (bacteriological examination).....	2,196
Home-made soup (physical and chemical examinations).....	1
Maple syrup (physical and chemical examinations).....	3
Tomato juice (physical and bacteriological examinations).....	3
Vegetable juice (bacteriological examination)....	4
Vinegar (chemical analysis).....	8
Wash water (dining rooms) (bacteriological examination).....	1,276
Water from the Montreal Aqueduct (bacteriological examination).....	852
Water from various sources (bacteriological examination).....	340

III—Biological examinations³

Blood: agglutination test re-B. Typhosum.....	564
Agglutination test re-B. Paratyphosum A-B	564
Stools: re-B. Typhosum and B. Paratyphosum A and B.....	1,091
Urines: re-B. Typhosum and B. Paratyphosum A and B.....	1,089

³ These tests are carried out for the detection of typhoid "germ carriers" among the employees of dairies and other food handlers.

IV—Special examinations

Thermometers (checking).....	22
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 31,698

DIVISION OF SANITATION

Shaving brushes: research of anthrax bacillus....	64
Solution of Sodium hypochlorite.....	1
Water from public swimming pools (bacteriological examination).....	708
Water from public swimming pools (chemical examination).....	354
Water from various sources (bacteriological examination).....	166

 1,293

DIVISION OF CONTAGIOUS DISEASES

Blood : agglu- t i n a - t i o n t e s t .	{	re-B. Ærtrycke.....	1
		re-Brucella Abortus.....	3
		re-B. dysenterial Flexner.....	1
		re-B. dysenterial Shiga.....	1
		re-B. dysenterial Sonne.....	1
		re-B. enteritidis Gaertner.....	1
		re-B. Paratyphosum A and B.....	3
		re-B. Paratyphosum C.....	1
		re-B. Proteus X-19.....	1
		re-B. Typhosum.....	3
		re-Salmonella group.....	1
		re-Salmonella Newport.....	1
Blood culture.....			1
Disinfectant (Standardization).....			2
Rabies: research of Negri bodies.....			15
Stools: re-B. Typhosum and B. Paratyphosum A and B.....			76
re-B. Dysenterial.....			18
re-Salmonella group.....			18
re-Entamoeba histolytica.....			1
Throat swabs: re-diphtheria.....			1,579
re-meningococcus.....			12

re-streptococcus hemolyticus	4
re-Vincent's angina	1
Urines: re-B. Typhosum and B. Paratyphosum A and B	66
	<hr/>
	1,811

DIVISION OF CHILD HYGIENE

Urines: chemical and microscopic examinations	1,704
	<hr/>
	1,704

DIVISION OF MEDICAL CONTROL

Blood: determination of sugar	2
determination of urea	1
Urethral and vaginal swabs	347
Urines: chemical and microscopic examinations	422
	<hr/>
	772

b) Specimens analyzed for the Police Department

Blood: determination of sugar	1
Domestic insect (identification)	2
Narcotic drugs	66
Sputum: re-tuberculosis	3
Urethral and vaginal swabs (prostitutes)	2,105
	<hr/>
	2,177

c) Specimens analysed for Physicians

Blood: a g l u - t i n a - t i o n t e s t	{	re-B. Aertrycke	15
		re-Brucella Abortus	267
		re-B. dysenteriae Flexner	15
		re-B. dysenteriae Shiga	15
		re-B. dysenteriae Sonne	15
		re-B. enteritidis Gaertner	15
		re-B. Paratyphosum A and B	267
		re-B. Paratyphosum C	15
		re-B. Proteus X 19	16
		re-B. Typhosum	267
		re-Salmonella group	15
		re-Salmonella Newport	14

Blood: bleeding time.....	3
coagulation time.....	6
culture.....	47
re-determination of cholesterol.....	7
of creatinine.....	9
of hemoglobin.....	64
of sugar.....	480
of urea.....	250
of uric acid.....	3
differential blood count.....	56
red and white cells count.....	64
re-Van den Bergh.....	1
Cerebro-spinal fluid.....	2
Conjunctival discharge.....	8
Hydrocele fluid.....	1
Mother's milk.....	8
Petrol (re-adulterations).....	1
Pleural fluid.....	4
Renal calculus (identifications).....	1
Stomach contents.....	2
Sperm.....	3
Sputum: re-tubercle bacilli.....	1,805
re-typing of pneumococcus.....	7
Stools : bacteriological examination (blood, protozoa, tubercle bacilli, worms, etc.).....	109
re-B. dysenteriae.....	31
re-B. Typhosum and B. Paratyphosum A and B.....	217
re-Entamoeba histolytica.....	221
re-Salmonella group.....	16
Throat swabs: re-diphtheria.....	53
re-Streptococcus hemolyticus.....	1
re-Vincent's angina.....	252
Urethral and vaginal swabs.....	262
Urines: bacteriological examination (B. Coli, gonococcus, tubercle bacilli).....	189
chemical and microscopic examinations.....	8,296
re-B. Typhosum and B. Paratyphosum A and B.....	151
Wound pus.....	16
	<hr/>
	13,582
Total.....	<hr/> <hr/> 53,037

CONTAGIOUS DISEASES, YEAR 1939

Diseases	Number of specimens	Positive	Negative	Suspicious	Un-satisfactory	Percentage			
						Positive	Negative	Suspicious	Un-satisfactory
Diphtheria.....	1,632	97	1,535	0	0	5.94	94.06	0.00	0.00
Rabies.....	15	0	15	0	0	0.00	100.00	0.00	0.00
Tuberculosis.....	1,921	203	1,718	0	0	10.57	89.43	0.00	0.00
Typhoid fever: Physicians of the City	826	119	707	0	0	14.41	85.59	0.00	0.00
Detection of "germ carriers" (food handlers)	2,827	3 (a)	2,824	0	0	0.11	99.89	0.00	0.00
Gonorrhea: Physicians of the City.....	271	81	189	1	0	29.89	69.74	0.37	0.00
Food handlers.....	347	17	330	0	0	4.90	95.10	0.00	0.00
Prostitutes (x).....	2,105	358	1,747	0	0	17.01	82.99	0.00	0.00
Amoebic dysentery.....	221	32	188	1	0	14.48	85.07	0.45	0.00

(a) These positive results come from 3 samples of blood (positive Widal).

(x) Women arrested in disorderly houses.

ANNUAL REPORT, YEAR 1939

Bacteriological analyses of milk, cream,
ice cream, water, etc.

a) Quantitative analysis (Standard Plate Count)

DIVISION OF FOOD INSPECTION

Pasteurized milk (delivered to consumers).....	2,810
Special milk (delivered to consumers).....	1,904
Chocolate drink.....	257
Cream.....	613
Ice cream.....	540
Controls in pasteurizing plants and special milk establishments.....	2,036
Controls in nurseries, hospitals.....	1,098
Tests on washing of utensils (dairies).....	557
Water from various sources, eggs, oysters, etc.	170
Water from the Montreal Aqueduct.....	426
Wash water (dining rooms).....	638
Carbonated beverages.....	13
	<hr/>
	11,062

DIVISION OF SANITATION

Water from public swimming pools.....	354
Water from various sources.....	87
	<hr/>
	441

b) Qualitative analysis (fermentation test for the detection of bacteria of the B. Coli group in the above samples.....	11,503
	<hr/>

Total.....	23,006
Research of phosphatase.....	63
	<hr/>
Grand total.....	23,069

**BACTERIOLOGICAL ANALYSIS OF THE WATER
FROM THE MONTREAL AQUEDUCT, YEAR 1939**

Month	Number of samples	Number of colonies	B. Coli 10 c.c. portions
January.....	40	589	0-200
February.....	30	381	0-150
March.....	33	1,379	0-165
April.....	24	843	0-120
May.....	32	2,362	0-160
June.....	33	4,045	0-165
July.....	34	3,005	2-170
August.....	33	7,700	4-165
September.....	35	1,289	6-175
October.....	44	3,045	3-220
November.....	32	1,875	0-160
December.....	27	372	0-135
Total.....	397	26,885	15-1985
Mean.....	...	68	0-76%

BACTERIOLOGICAL ANALYSIS, 1939

Pasteurized milk—Plate count

Numeration, Percentage	Numeration						Percentage			
	Less than 10,000 colonies per c.c.	From 10,000 to 50,000 colonies per c.c.	From 50,000 to 100,000 colonies per c.c.	More than 100,000 colonies per c.c.	Samples void	Less than 10,000 colonies per c.c.	From 10,000 to 50,000 colonies per c.c.	From 50,000 to 100,000 colonies per c.c.	More than 100,000 colonies per c.c.	Samples void
From January to May inclusive: 1,195	932	214	35	14	0	77.9	17.9	2.9	1.3	0.0
From June to September inclusive: 834	504	248	49	33	0	60.5	29.7	5.9	3.9	0.0
From October to December inclusive: 781	378	309	43	51	0	48.4	39.5	5.6	6.5	0.0
For the year: 2,810	1,814	771	127	98	0	64.5	27.5	4.5	3.5	0.0

BACTERIOLOGICAL ANALYSIS (continued)
Pasteurized milk—B. Coli Group

Number of samples	Fermentation test						Pourcentage				
	B. Coli group						B. Coli group				
	Present			Absent			Present			Absent	Samples void
	0.01 c.c.	0.1 c.c.	1 c.c.	0.01 c.c.	1 c.c.	1 c.c.	0.01 c.c.	0.1 c.c.	1 c.c.		
From January to May inclusive: 1,195	6	7	51	1,131	0	0.5	0.6	4.3	94.6	0.0	
From June to September inclusive: 834	20	33	67	714	0	2.4	3.9	8.1	85.6	0.0	
From October to December inclusive: 781	8	10	41	722	0	1.1	1.3	5.2	92.4	0.0	
For the year: 2,810	34	50	159	2,567	0	1.2	1.8	5.7	91.3	0.0	

BACTERIOLOGICAL ANALYSIS (continued)

Special milk—Plate count

Number of samples	Numeration				Percentage		
	Less than 25,000 colonies per c.c.	More than 25,000 colonies per c.c.	Samples void	Less than 25,000 colonies per c.c.	More than 25,000 colonies per c.c.	Samples void	
From January to May inclusive: 866	827	39	0	95.5	4.5	0.0	
From June to September inclusive: 573	542 (a)	31 (b)	0	94.6	5.4	0.0	
From October to December inclusive: 465	417	48	0	89.7	10.3	0.0	
For the year: 1,904	1,786	118	0	93.8	6.2	0.0	

(a) Less than 50,000. (b) More than 50,000.

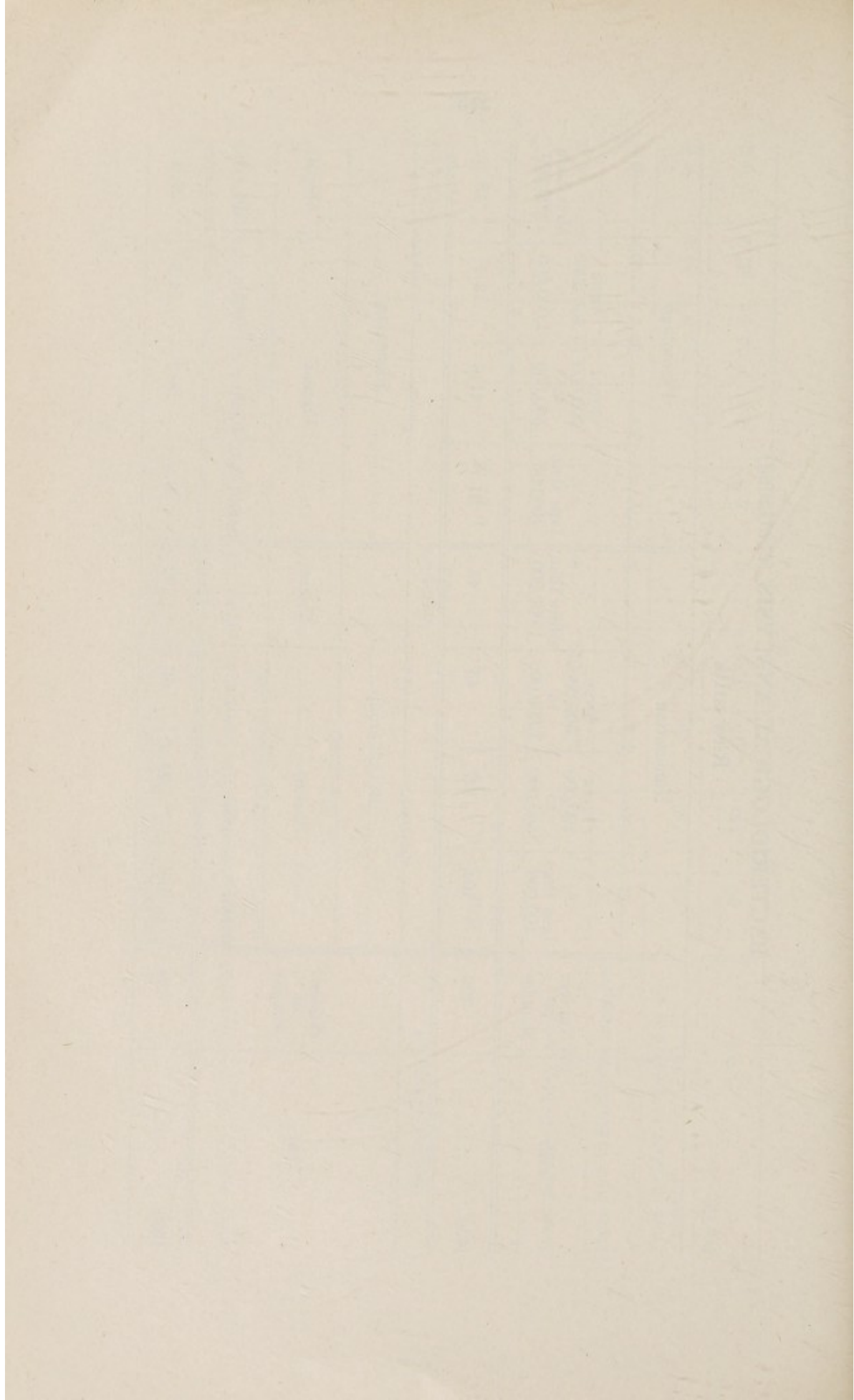
BACTERIOLOGICAL ANALYSIS (continued)
Special milk—B. Coli group

Number of samples	Fermentation test					Pourcentage				
	B. Coli group					B. Coli group				
	Present		Absent		Samples void	Present		Absent		
	0.01 c.c.	0.1 c.c.	1 c.c.	1 c.c.		0.01 c.c.	0.1 c.c.		1 c.c.	
From January to May inclusive: 866	16	32	121	697	0	1.9	3.8	13.9	80.4	0.0
From June to September inclusive: 573	71	81	153	268	0	12.4	14.1	26.7	46.8	0.0
From October to December inclusive: 465	12	38	96	319	0	2.6	8.2	20.6	68.6	0.0
For the year: 1,904	99	151	370	1,284	0	5.2	7.9	19.4	67.5	0.0

BACTERIOLOGICAL ANALYSIS (continued)
Raw milk

Year	Number of samples	Numeration			Percentage				
		Less than 100,000	From 100,000 to 500,000	From 500,000 to 1,000,000	More than 1,000,000	Less than 100,000	From 100,000 to 500,000	From 500,000 to 1,000,000	More than 1,000,000
1939.....	329	104	137	45	43	31.6	41.6	13.7	13.1

Year	Number of samples	B. Coli group		Percentage					
		Present	Absent	Present	Absent				
1939.....	329	128	60	49	92	38.9	18.3	14.9	27.9
		0,0001 c. c.	0,001 c. c.	0,01 c. c.	0,01 c. c.	0,0001 c. c.	0,000 c. c.	0,01 c. c.	0,01 c. c.



Division of Demography

DIVISION OF DEMOGRAPHY

Doctor Ad. Groulx,
Director, Department of Health,
City Hall (Annex),
Montreal.

Dear Sir:

I have the honor of submitting to you the report of the
Division of Demography of the Health Department of Montreal
for the year 1939.

Respectfully submitted.

Eug. GAGNON,
Superintendent,
Division of Demography.

COMMENTS OF THE DEMOGRAPHER

I—Basis of Calculation adopted for this Report

In vital statistics the most important rates are calculated in connection with population. In Canada, census reports give for each municipality the number of people who have their usual residence therein. It follows obviously that in establishing birth and mortality rates, the basis of calculation be the usual residence of the parents in the case of births and that of the deceased in the case of deaths.

This practice has always been observed in Montreal but it is not generally followed neither by the Dominion Bureau of Statistics nor by the provinces where such rates are calculated according to the place where births and deaths occur. For this reason, I deem it opportune to indicate at the very beginning of these comments the variations in mortality rates ensuing from these two different practices. They are as follows:

Number of deceased in Montreal (residents and non residents)	9,735
Rate per 1,000 population	10.82
from the above—	
Residents	8,519
Non residents	1,216
Residents deceased elsewhere	672
Total residents' deaths	9,191
Rate per 1,000 population	10.21
Difference between the two rates obtained	0.61

II—Population

The natural increase of the population, which is the difference between births and deaths, has been 7,925 in 1939. It will be noted, however, that in estimating the increase of the population for the same year, only 7,000 has been added to the one for the previous year.

As we go along further away from the census year, it becomes a more difficult task to establish with a reasonable degree of accuracy, an estimation of the population. The last census was taken in 1931. Since that date we have added 81,423 to the census population, which is in eight years an increase of nearly 10 per cent, while during the same period of time, the natural increase has not exceeded 68,495 or 8.4 per cent.

In Toronto, where a municipal census is taken yearly, the real increase of the population was 3.5 per cent only, while the natural increase for the same period was 5.0 per cent. Following is a comparison of the figures for both cities:

Cities	Dom- inion census 1931	Pop- ulation in 1939	In- crease	% increase	Natural increase	% natural increase
Montreal.	818,577	900,000 (1)	81,423	9.9	68,495	8.4
Toronto.	627,231	649,123 (2)	21,892	3.5	31,606	5.0

(1) Estimation.

(2) Municipal census.

To make even an approximate evaluation of the migrations of population determined by the financial crisis whose effects are still to be felt, is an impossibility. An increase of the population has been calculated for each year since the 1931 census, while in Toronto, the municipal census showed a decrease for both years 1932 and 1933. There is nothing to prove that conditions have been similar in both cities. But if they have, our estimates would be too high about 25,000 and the birth and death rates would slightly be higher than those shown in this report. We therefore think that until the next census, our estimates of the population, to be on the safe side, must be kept below the natural increase.

III—Main Facts in 1939

In the following table are shown differences of various statistical facts in 1939 as compared to the previous year.

	1938	1939	Increase or decrease in 1939
1) Population (estimated).....	893,000	900,000	+ 7,000
2) Births.....	17,062	17,116	+ 54
Rate per 1,000 population...	19.10	19.02	- 0.08
3) Marriages.....	8,608	10,650	+ 2,042
Rate per 1,000 population...	9.64	11.83	+ 2.19
4) Deaths.....	9,125	9,191	+ 66
Rate per 1,000 population...	10.22	10.21	- 0.01
5) Influenza.....	133	170	+ 37
Rate per 1,000 population...	0.15	0.19	+ .04
6) Tuberculosis (all forms).....	668	631	- 37
Rate per 1,000 population...	0.75	0.70	- 0.05
7) Infectious and parasitic diseases (T.B. excepted).....	223	203	- 20
Rate per 1,000 population...	0.25	0.23	- .02
8) Pneumonia and Broncho- pneumonia.....	660	579	- 81
Rate per 1,000 population...	0.74	0.64	- 0.10
9) Cancer.....	1,099	1,141	+ 42
Rate per 1,000 population...	1.23	1.27	+ 0.04
10) Deaths from violence.....	431	376	- 55
Rate per 1,000 population...	0.48	0.32	- 0.16
11) Deaths under 1 year.....	1,320	1,223	- 97
Rate per 1,000 births.....	77.4	71.5	- 5.9
12) Malformations and diseases of early infancy.....	611	537	- 74
Rate per 1,000 births.....	35.8	31.4	- 4.4
13) Diarrhoea under 1 year.....	194	238	+ 44
Rate per 1,000 births.....	11.4	13.9	+ 2.5

As outlined above, this table shows an increase of population; it also shows a very large increase in the rate of marriages and a smaller one for cancer, influenza and gastro-intestinal diseases under one year of age. The general mortality rate is practically the same as in the previous year. All the other data are slightly lower.

In the following table, the causes of deaths for the last three years are divided into various groups of diseases making it easier to find the tendency of each group either to increase or to diminish.

DEATHS BY VARIOUS GROUPS OF DISEASES

Causes	Years			Per 1,000 population		
	1937	1938	1939	1937	1938	1939
I—Epidemic diseases:						
Typhoid.....	16	17	9	0.02	0.02	0.01
Diphtheria.....	26	27	19	0.03	0.03	0.02
Influenza.....	215	133	170	0.24	0.15	0.19
Tuberculosis (pulmonary)....	615	585	542	0.69	0.67	0.60
Other infectious diseases.....	422	262	264	0.48	0.29	0.29
Total.....	1,294	1,024	1,004	1.46	1.15	1.11
II to V—General diseases:						
Cancer.....	1,031	1,099	1,141	1.16	1.23	1.27
Other general diseases.....	497	548	468	0.57	0.61	0.52
Total.....	1,528	1,647	1,609	1.73	1.84	1.79
VI—Diseases of nervous system....	522	412	474	0.59	0.46	0.53
VII—Diseases of circulatory system...	2,208	2,144	2,344	2.50	2.40	2.60
VIII—Diseases of respiratory system..	906	783	678	1.02	0.88	0.75
IX—Diseases of the digestive organs:						
Diarrhoea, 0 to 2 years.....	333	208	256	0.38	0.23	0.28
Other dis. of the digestive sys.	553	566	530	0.63	0.63	0.59
Total.....	886	774	786	1.01	0.86	0.87
X—Diseases of genito-urinary system	1,333	1,126	1,232	1.28	1.26	1.37
XI—Puerperal state.....	81	77	54	0.09	0.09	0.06
XII—Diseases of the skin.....	28	29	34	0.03	0.03	0.04
XIII—Diseases of the bones.....	18	15	12	0.02	0.02	0.01
XIV—Congenital malformation.....	128	120	114	0.14	0.13	0.13
XV—Diseases of early infancy:						
Debility, etc. (158-160-161)...	186	200	248	0.21	0.22	0.28
Premature birth (159).....	319	291	175	0.36	0.33	0.19
Total.....	505	491	423	0.57	0.55	0.47
XVI—Senility.....	31	38	45	0.04	0.04	0.05
XVII—Violent or accidental deaths:						
Suicides.....	65	52	59	0.07	0.06	0.07
Homicides.....	19	15	9	0.02	0.02	0.01
Other violent deaths.....	364	364	308	0.41	0.41	0.34
Total.....	448	431	376	0.50	0.49	0.42
XVIII—Cause of death not determined.	22	14	6	0.02	0.01	0.01
Grand total.....	9,738	9,125	9,191	11.00	10.21	10.21

Comments on this table are quite unnecessary. Cancer, diseases of the circulatory and the genito-urinary systems are the only ones showing a notable increase. This is explained by the gradual ageing of the population and the increase in the number of deaths over 50 years of age.

IV—Percentage of Deaths at Various Age Groups

When deaths are divided into three age groups as in the following table, we find that the proportion entering in the second one remains about the same each year while the increase in the third group is compensated by a decrease in the first one.

Years	0 to 4 years	5 to 49 years	50 years and over	Total
1914.....	50.14	25.39	24.47	100.0
1919.....	44.10	27.51	28.39	100.0
1924.....	40.86	25.31	33.83	100.0
1925.....	37.01	26.53	36.46	100.0
1926.....	34.86	26.76	38.38	100.0
1927.....	32.72	30.35	36.93	100.0
1928.....	35.62	26.22	38.46	100.0
1929.....	33.37	26.77	39.86	100.0
1930.....	32.14	26.67	41.19	100.0
1931.....	30.27	26.94	42.79	100.0
1932.....	26.34	26.88	46.78	100.0
1933.....	24.72	26.01	49.27	100.0
1934.....	23.71	25.47	50.82	100.0
1935.....	22.30	25.18	52.52	100.0
1936.....	19.60	26.14	54.26	100.0
1937.....	20.52	25.86	53.62	100.0
1938.....	17.89	24.94	57.37	100.0
1939.....	16.23	23.18	60.59	100.0
Average.....	30.12	26.23	43.65	100.0

The increase of the mean age of the population is due to two main factors, viz: a marked decrease since a few years of the number of births which is not compensated by a corresponding decrease of infant mortality on the one part, and on the other, a lessening of migration from the rural parts to the city, of young people who on account of the financial depression have found it more difficult to obtain lucrative employment.

The decrease in the number of births has a direct bearing on the natural increase of the population which amounts to less than 7,925 in 1939 while during the preceding ten years the average has been 9,094 per year. It will also, in the near future, show its influence on the number of pupils registered at school and one must expect that the number will before long assume a lowering trend. It is possible to show up this tendency by calculating for a number of years the number of children born since 15 years, the number of those deceased during the same period of time and the number surviving.

In the following table, the figures show such calculations for the last fourteen years, the survivors at the end of each being divided in groups of five years.

End of year	Since 15 years		Number of children surviving			
	Births	Deaths under 15 years	0 to 4 years	5 to 9 years	10 to 14 years	5 to 14 years
1	2	3	4	5	6	7
1926	310,567	70,310	88,222	78,923	73,112	152,035
1927	311,200	68,438	89,251	79,507	74,004	153,511
1928	311,017	66,686	89,059	80,804	74,468	155,272
1929	310,046	64,910	88,547	82,849	73,747	156,596
1930	310,347	62,663	87,798	85,083	74,803	159,886
1931	311,287	60,584	87,694	85,965	77,044	163,009
1932	311,620	58,113	87,700	87,079	78,728	165,807
1933	309,678	55,198	86,329	87,145	80,006	167,151
1934	308,152	52,875	86,548	86,600	82,129	168,729
1935	304,333	49,607	84,074	86,261	84,391	170,652
1936	299,997	47,051	81,275	86,347	85,324	171,671
1937	296,382	44,704	78,770	86,447	86,461	172,908
1938	292,917	42,322	78,015	86,092	86,488	172,580
1939	288,533	39,620	77,267	85,404	86,242	171,662

This table clearly shows the way in which the three age groups are evolving. The first one (0 to 4 years, column 4) has been decreasing since 1928. The difference at first very slight, has increased year after year to a point that for 1937 there are in this group 2,505 less children than in the previous year. However in 1938, the decrease has been 755 only and 748 in 1939. But if 1939 is compared to 1926 the decrease is as high as 10,955.

In the second group, (5 to 9 years, column 5) the lowering trend starts after the year 1933 with a difference of 1,741 for the last six years. The third group (10 to 14 years, column 6) has reached the summit in 1938 and has decreased by 246 in 1939.

If the last two groups (5 to 14 years, column 7) are now put together, we find that the mean increase has been 1,618 for the three years 1926-28; 2,579 (a peak) for the next three years; 1,907 between 1932 and 1934 and 1,505 for the next three years. In 1938, the number of children between 5 and 14 years has been lowered by 328 and by 918 in 1939, which makes a total of 1,246 in two years.

Of the aforesaid, one may conclude that the number of the new pupils entering schools must have decreased unless the age at admission has been lowered; the number of pupils must also be less in all classes below the seventh and perhaps the eighth grades. As regards the pupils in the high school grades, they are as a rule older than 15 years and do not enter into the above calculations. I may add that, unless a greater proportion of the pupils continue their studies beyond the elementary grades, the school population must have already started to diminish.

It is important to remember those facts not only when planning a programme of school medical inspection, but also in view of solving the problem of pupils' accommodation in the schools.

The above remarks also show that the age of the population of a city or a country is a very unstable matter and that perturbations in birth rates are followed by deep variations in the composition of age groups and also in the death rates, because

such rates are not the same at all ages. It follows that few cities or countries have the same age grouping of their population, and this fact must always be kept in mind when comparisons are made.

V—Standardization of Mortality Rates

Since a number of years, statisticians have endeavored to solve this problem and they are reaching that aim by adjusting the gross death rate of a given population to a population in which the age distribution is considered as normal or standard, and the comparison is made with one million of such a population.

Properly speaking, a standard distribution of population according to ages does not exist. Therefore when trying to adjust mortality rates, we are forced to make use for our calculations of a more or less arbitrary basis.

It is the population of England and Wales enumerated at the census of 1901 that is generally taken as a basis of comparison. It is the one we have adopted to standardize the mortality rate of this city in our previous reports. This year we have thought it interesting to enlarge the field of our comparisons. We have calculated standardized rates according to the population of the Dominion in 1911, 21 and 31, in order to show the difference between these rates and the one obtained with the standard million (England and Wales in 1901).

The following table compares the population of Montreal in 1939 to the standard million.

Ages groups	Montréal			Standard million England and Wales, in 1901	Difference for Montreal
	% at each age group	Population in 1939	Age distribution per 1,000,000		
0 to 4 years.....	8.73	78,570	87,300	114,262	— 26,962
5 to 9 years.....	9.64	86,760	96,400	107,209	— 10,809
10 to 14 years.....	9.69	87,210	96,900	102,735	— 5,835
15 to 19 years.....	9.92	89,280	99,200	99,796	— 596
20 to 24 years.....	10.02	90,180	100,200	95,946	+ 4,254
25 to 34 years.....	17.98	161,820	179,800	161,579	+ 18,222
35 to 44 years.....	14.23	128,070	142,300	122,849	+ 20,451
45 to 54 years.....	10.01	90,090	100,100	89,222	+ 10,878
55 to 64 years.....	5.72	51,480	57,200	59,741	— 2,541
65 years and over....	4.06	36,540	40,600	46,661	— 6,061
Total.....	100.00	900,000	1,000,000	1,000,000	

As the specific death rates, specially under 5 years and over 55 years, are higher than for the intermediate ones, it follows that when such rates are applied to a higher corresponding population, the adjusted death rate will also be higher. This is shown in the next table.

Ages groups	Number of deaths	Specific death rate	Gross rate per 1,000,000 population	Adjusted rate per 1,000,000 population	Difference between columns 4 and 5
1	2	3	4	5	6
0 to 4 years...	1,492	18.99	1.6578	2.1698	+ .5120
5 to 9 years...	121	1.39	0.1340	0.1490	+ .0150
10 to 14 years...	98	1.12	0.1085	0.1151	+ .0066
15 to 19 years...	151	1.69	0.1676	0.1687	+ .0011
20 to 24 years...	188	2.08	0.2084	0.1996	— .0088
25 to 34 years...	459	2.84	0.5006	0.4589	— .0417
35 to 44 years...	668	5.22	0.7428	0.6413	— .1015
45 to 54 years...	1,111	12.33	1.2342	1.1001	— .1341
55 to 64 years...	1,425	27.68	1.5833	1.6536	+ .0703
65 years and over	3,478	95.18	3.8643	4.4412	+ .5769
Total.....	9,191	10.21	10.2015	11.0973	+ .8958

The adjusted or standardized rate is slightly higher (0.8958) than the gross rate. But in England and Wales, the mean rate for years 1900-1901-1902, has been 17.02 per thousand population; therefore, the Montreal rate when increased to 11.10 per thousand is favorably compared to the one of England, the difference in favor of Montreal between the two rates being 34.78 per cent.

If we take as a basis of standardization, the population of Canada as enumerated in the censuses of 1911-1921 and 1931, we obtain the standardized rates of 11.08, 11.34 and 12.02 respectively, the average rate being 11.38 if calculation is made on the mean population of the three censuses. It is to be noted that the rate based on the population of Canada in 1911 is nearly the same as the one obtained from the population of England and Wales in 1901.

It must also be noted that the calculation of the population of Montreal for the age groups referred to above has been based on the results of the 1931 census. As a rule the variations in the age grouping are not very great between two censuses; such variations however constitute a factor of error which must be kept in mind when reading the results.

VI—Deaths by Months

The number of deaths in 1939 has been 9,191 which is an increase of 66 compared to the previous year and 8 compared to the mean number of the preceding five years.

NUMBER OF DEATHS PER MONTH 1934 TO 1939

Comparison of 1939 with the five previous years.

Months	1934	1935	1936	1937	1938	Mean 5 years Months	1939
January.....	818	784	825	868	795	818	785
February.....	695	802	754	946	758	791	879
March.....	869	951	798	883	863	873	1,021
April.....	825	840	758	876	876	835	821
May.....	857	934	784	925	829	866	833
June.....	710	682	722	750	734	720	663
July.....	662	626	669	738	653	669	731
August.....	673	664	654	748	679	684	616
September.....	701	636	695	754	701	697	680
October.....	659	682	741	727	730	708	714
November.....	722	734	756	676	746	727	657
December.....	764	827	778	847	761	795	791
Total.....	8,955	9,162	8,934	9,738	9,125	9,183	9,191
Mean.....	746.3	763.5	744.5	811.5	760.4	765.2	765.9
Per 1,000 popu- lation.....	10.5	10.6	10.2	11.0	10.2	10.5	10.2

In 1939, the number of deaths has been higher than the average of the previous 5 years by 8 only. The highest average daily incidence of deaths was in the month of March, with 33, while the daily average for the whole year is only 25. It can also be seen that, compared to the mean of the previous five years, the number of deaths in 1939 has been higher for the months of February, March, July and October, and lower for the other months.

VII—Birth Registration

In the report of the Health Department for year 1933, page 278, we have extensively explained the procedure to be followed to register a birth and the procedure adopted to collect statistics of birth; I refer to that report for this information.

I have great pleasure in acknowledging the fact that nearly all the ministers of the churches have faithfully continued in 1939 to send to this office reports of the births they have registered and I take this opportunity to offer them my most sincere and cordial thanks.

The number of births reported by the ministers of the churches in 1939 has been 16,388. I must state however that a small number of them have made no reports; in some other instances, the reports were incomplete and when checking each report received with the entries made in the registry books deposited at the Prothonotary's Office, we have found that 728 births registered had not been reported to us, which is 4.25 per cent of all births registered during the year.

In the following table, churches are grouped according to religious denominations and the number of births reported to this office together with the number actually registered is given.

BIRTH REGISTRATION

Religious Denominations	Births reported	Births registered	Difference	Percent of Total
1. Roman Catholic churches:				
(a) French.....	12,263	12,480	217	1.74
(b) English.....	890	966	76	7.87
(c) Others.....	461	515	54	10.49
2. Anglican churches.....	639	798	159	19.92
3. United churches.....	555	653	98	15.01
4. Presbyterian churches....	169	206	37	17.96
5. Baptist churches.....	32	34	2	5.91
6. Greek Orthodox.....	116	136	20	14.71
7. Other Protestant churches.....	124	131	7	5.34
8. Synagogues.....	632	690	58	8.41
9. Municipal regist.....	507	507	...	...
* Total.....	16,388	17,116	728	4.25

In the following table, the births are classified according to legitimacy, religious denominations of the parents, sex and racial origin.

LEGITIMATE AND
Classified according to
Legitimate

Religious Denominations	Grand total	Total		Sex	French
		Male	Female		
Roman Catholics:					
French.....	11,518	5,887	5,631	M F	5,681 5,448
English.....	937	471	466	M F	44 57
Others.....	509	263	246	M F	6 1
Anglicans.....	784	403	381	M F	19 23
Baptistes.....	34	13	21	M F	3 5
Presbyterian.....	205	93	112	M F	3 6
United.....	633	303	330	M F	18 15
Other Protestants	121	68	53	M F	11 3
Greek Orthodox.....	690	414	276	M F	......
Synagogues.....	136	72	64	M F	1 ...
Municipal.....	483	196	287	M F	50 45
Total—Legitimate.....	16,050	8,183	7,867	M F	5,836 5,603

LEGITIMATE BIRTHS

by sex and racial origin

Males

Scotch	Irish	Other British	Jews	Italian	Ruthenian Polish	Tzecho Slovak	Other Races	Race unknown
21	46	...	1	49	2	1	39	...
15	33	...	...	41	3	3	38	...
27	239	3	...	17	1	1	17	...
22	231	5	...	12	2	1	16	...
...	...	...	...	136	25	20	75	...
...	2	...	...	136	30	17	59	...
36	41	3	...	...	...	...	12	...
38	26	5	1	2	1	...	15	...
1	2	...	...	...	...	...	1	...
3	...	...	...	...	...	...	1	...
43	10	...	...	3	...	...	2	...
50	10	...	...	2	...	...	3	...
67	30	4	...	6	1	2	40	...
74	28	1	1	9	6	1	40	...
2	1	...	1	4	...	6	18	...
1	1	1	...	2	...	3	26	...
...	...	...	414	...	...	...	...	...
...	...	...	276	...	...	...	...	...
...	...	...	...	...	...	...	71	...
...	...	...	...	...	...	...	64	...
16	15	...	11	6	1	2	14	...
19	10	3	121	5	2	0	12	...
213	384	10	427	221	30	32	289	...
222	341	15	399	209	44	25	274	...

LEGITIMATE AND
Classified according to
Illegitimate

Religious Denominations	Grand total	Total		Sex	French
		Male	Female		
Roman Catholics:					
French.....	962	499	463	M F	476 449
English.....	29	12	17	M F	3 2
Others.....	6	4	2	M F	1 2
Anglicans.....	14	7	7	M F	1 ...
Baptistes.....	...	...	...	M F	......
Presbyterian.....	1	1	...	M F	......
United.....	20	9	11	M F	... 1
Other Protestants	10	6	4	M F	......
Synagogues.....	...	...	...	M F	......
Greek Orthodox.....	...	...	...	M F	......
Municipal.....	24	15	9	M F	7 5
Total—Legitimate.....	1,066	553	513	M F	488 459
Grand total.....	17,116	8,736	8,380	M F	6,324 6,062

ILLEGITIMATE BIRTHS

by religion, sex and racial origin

Births

English	Scotch	Irish	Other British	Jews	Italian	Ruthenian	Tzecho Slovak	Other races	Race unknown
7	1	6	...	...	6	1	...	2	...
6	2	2	...	...	1	1	...	2	...
2	...	7	...	...	...	...	...	...	...
2	2	11	...	...	...	...	...	...	...
...	...	...	...	...	...	1	...	2	...
...
6	...	...	...	...	...	...	...	...	...
5	...	1	...	...	...	...	...	1	...
...
...
...	...	1	...	...	...	...	...	...	...
...
5	...	1	...	1	...	...	...	2	...
5	2	...	...	...	...	...	...	3	...
3	...	2	...	...	...	...	...	1	...
3	1	...	...	...	...	...	...	...	...
...
...
...
7	...	...	...	1	...	...	...	...	...
2	...	1	...	1	...	...	...	...	...
30	1	17	...	2	6	2	...	7	...
23	7	15	...	1	1	1	...	6	...
771	214	401	10	429	227	32	32	296	...
758	229	356	15	400	210	45	25	280	...

Before concluding, I am glad to state that the staff of the Division of Demography has worked faithfully and efficiently throughout the year.

Tables published as an appendix are arranged to show various aspects of statistical data; they are the same as published since many years.

DIVISION OF STATISTICS

TABLE I

Population (Estimated)

Nationalities	Sex		Total	Proportion per 100
	M	F		
French-Canadians	278,981	296,119	575,100	63.90%
British-Canadians	95,549	100,651	196,200	21.80%
Jews	26,721	26,829	53,550	5.95%
Other nationalities	45,022	30,128	75,150	8.35%
Total	446,273	453,727	900,000	100.00%

TABLE II

BIRTHS

Nationalities	Sex		Total	Proportion per 1,000 population
	M	F		
French-Canadians	6,324	6,062	12,386	21.36%
British-Canadians	1,396	1,358	2,754	14.04%
Jews	429	400	829	15.48%
Other nationalities	587	560	1,147	15.26%
Total	8,736	8,380	17,116	19.02%

TABLE III

Deaths

(Still-births not included)

Nationalities	Sexs		Total	Proportion per 1,000 population
	M	F		
French-Canadians.....	3,210	3,049	6,259	10.88%
British-Canadians.....	1,014	960	1,974	10.06%
Jews.....	209	182	391	7.30%
Other nationalities and race unknown.....	368	199	567	7.54%
Total.....	4,801	4,390	9,191	10.21%

TABLE IV

Marriages

	Total	Proportion per 1,000 population
French-Canadians.....	7,130	12.38%
British-Canadians.....	2,219	11.31%
Jews.....	803	14.99%
Other nationalities.....	498	6.63%
Total.....	10,650	11.83%

TABLE V

Births and Marriages

(By place of registration)

	Naissances		Total	Mariages
	M	F		
Catholic Churches:				
French-Canadians.....	6,386	6,094	12,480	6,862
Irish-Canadians.....	483	483	966	756
Others.....	267	248	515	300
Total.....	7,136	6,825	13,961	7,918
Protestant Churches:				
Anglicans.....	410	388	798	720
Presbyterians.....	94	112	206	217
United Churches.....	312	341	653	759
Other protestants.....	87	78	165	159
Total.....	903	919	1,822	1,855
Other denominations:				
Synagogues.....	414	276	690	803
Orthodox Churches.....	72	64	136	74
Births registered at the City Hall.....	211	296	507	...
Total.....	697	636	1,333	877
Grand total.....	8,736	8,380	17,116	10,650

TABLE VI
DEATH BY CIVIL STATUS AND NATIONALITIES, YEAR 1939

Civil status	French-Canadians		British-Canadians		Jews		Other nationalities and unknown nationalities		Total		Grand total	%
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.		
Married.....	1,367 42.60	1,051 34.47	506 49.90	308 32.08	128 61.24	87 47.80	196 53.26	92 46.22	2,197 45.76	1,538 35.05	3,735 40.64	40.64%
Single.....	495 15.42	531 17.42	217 21.40	211 21.98	22 10.53	12 6.59	62 16.85	16 8.04	796 16.58	770 17.54	1,566 17.04	17.04%
Widowers and widows.....	532 16.56	847 27.78	182 17.95	366 38.13	43 20.57	72 39.56	50 13.59	48 24.12	807 16.81	1,333 30.36	2,140 23.28	23.28%
Unknown.....	18 0.56	1 0.03	7 0.69	2 0.21	... ...	1 0.55	10 2.71	... ...	35 0.73	4 0.09	39 0.42	0.42%
Children under 15 years.....	798 24.86	619 20.30	102 10.06	73 7.60	16 7.66	10 5.50	50 13.59	43 21.62	966 20.12	745 16.96	1,711 18.62	18.62%
Total.....	3,210 100.00	3,049 100.00	1,014 100.00	960 100.00	209 100.00	182 100.00	368 100.00	199 100.00	4,801 100.00	4,390 100.00	9,191 100.00	100.00%

TABLE VII

Comparative table of Births and Deaths

Nationalities	Births	Deaths	Excess of births over deaths	Natural per 1,000 of population
French-Canadians.....	12,386	6,259	6,127	10.65%
British-Canadians.....	2,754	1,974	780	3.97%
Jews.....	829	391	438	8.18%
Other nationalities.....	1,147	567	580	7.72%
Total.....	17,116	9,191	7,925	8.81%

TABLE VIII

Deaths of Children under 1 year

Nationalities	Births	Deaths	Proportion per 1,000 Births
French-Canadians.....	12,386	1,010	81.5
British-Canadians.....	2,754	127	46.1%
Jews.....	829	17	20.5%
Other nationalities and race un- known.....	1,147	69	60.2%
Total.....	17,116	1,223	71.5%

TABLE IX
BIRTHS, MARRIAGES AND DEATHS
From 1872 to 1939 inclusive

Years	Population	Deaths	Proportion per 1,000	Births	Proportion per 1,000	Marriages	Proportion per 1,000
Average from —							
1872 à 1883.....	134,505	4,131	30.71	6,057	45.29	1,327	9.88
1884 à 1888.....	180,951	5,589	30.88	7,653	42.29	1,826	10.09
1889 à 1893.....	219,802	5,527	25.14	9,292	42.27	2,143	9.75
1894 à 1898.....	244,794	6,010	24.55	9,796	40.05	2,033	8.30
1899 à 1903.....	272,603	6,873	25.21	9,925	36.41	2,483	9.11
1904 à 1908.....	339,158	7,782	22.94	12,481	36.80	3,503	10.33
1909 à 1913.....	459,281	9,937	21.63	17,705	38.50	4,930	10.73
1914 à 1918.....	533,501	11,103	20.81	20,373	38.18	6,128	9.61
1919 à 1923.....	618,561	10,477	16.96	20,704	33.48	6,864	10.12
1924 à 1928.....	690,300	9,983	14.46	21,124	30.60	6,287	9.11
1929 à 1933.....	809,000	10,269	12.69	20,107	24.85	6,383	7.89
1934 à 1938.....	874,200	9,183	10.51	17,952	20.53	7,623	8.72
1939.....	900,000	9,191	10.21	17,116	19.02	10,650	11.83

TABLE
DEATHS FROM 0

Month	January			February			March			April			May		
	0 to 6 mos.	6 to 12 mos.	Total	0 to 6 mos.	6 to 12 mos.	Total	0 to 6 mos.	6 to 12 mos.	Total	0 to 6 mos.	6 to 12 mos.	Total	0 to 6 mos.	6 to 12 mos.	Total
Measles.....	1	4	5							2	6	8	1	4	5
Whooping cough.....		1	1	3	1	4	1		1	2	1	3	2	1	3
Influenza.....	2	4	6	3	5	8	13	6	19	4	1	5			
Tuberculosis.....		1	1					1	1						
Syphilis.....	1		1	2		2	3		3	1		1	2		2
Other epidemic diseases....	1		1		1	1	1		1						
General diseases (Nos. 45 to 77).....		1	1							3		3		1	1
Meningitis.....	1	1	2	1		1				1	1	2		1	1
Convulsions.....				3		3				1		1			
Other diseases of the nervous system.....	1	1	2	2	3	5	3		3	2	4	6	3	4	7
Diseases of the circulatory system.....							1		1					1	1
Bronchitis.....							1		1	1		1			
Broncho-pneumonia.....	8	3	11	17	9	26	15	6	21	20	6	26	9	10	19
Pneumonia.....	2	2	4	2	2	4	4	3	7	2	3	5	1		1
Other diseases of the respiratory system.....	1		1				4		4					2	2
Diseases of the stomach....	1		1								1	1			
Diarrhoea.....	11	2	13	6	5	11	9	3	12	8	2	10	16	4	20
Other diseases of the digestive system.....															
Diseases of the genito-urinary system.....					1	1									
Diseases of the skin, etc. (Nos. 151 to 156).....		1	1	1		1				2		2	1	1	2
Malformations.....	10	1	11	9		9	8		8	6		6	7	1	8
Congenital debility.....	6		6	6		6	3		3	3		3	2		2
Premature birth.....	27		27	22		22	30		30	16		16	29		29
Result of confinement.....	1		1	7		7	6		6	3		3	7		7
Other diseases peculiar to early infancy.....	6		6	6		6	3		3	6		6	12		12
External causes.....							2		2	1		1	2		2
Ill-defined causes.....															
Total.....	80	22	102	90	27	117	107	19	126	84	25	109	96	28	124

X

TO 1 YEAR, 1939

June			July			August			September			October			November			December			Grand total		
0 to 6 mos.	6 to 12 mos.	Total	0 to 6 mos.	6 to 12 mos.	Total	0 to 6 mos.	6 to 12 mos.	Total	0 to 6 mos.	6 to 12 mos.	Total	0 to 6 mos.	6 to 12 mos.	Total	0 to 6 mos.	6 to 12 mos.	Total	0 to 6 mos.	6 to 12 mos.	Total	0 to 6 mos.	6 to 12 mos.	Total
...	1	1	...	2	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	4	17	21
...	1	1	...	...	...	...	1	1	1	2	3	1	...	1	1	...	1	1	...	1	12	8	20
...	...	...	...	...	...	...	...	...	...	1	1	...	...	1	...	1	...	1	...	1	24	17	41
...	...	...	...	...	...	...	...	...	...	1	1	1	...	1	...	...	...	...	...	...	1	3	4
1	1	2	5	1	6	5	1	6	...	1	1	7	1	8	...	...	1	...	1	28	5	33	
2	...	2	2	...	2	...	...	...	...	...	...	...	...	...	1	1	1	...	1	7	2	9	
...	...	...	...	...	...	...	...	...	1	...	1	1	...	1	...	...	2	...	2	7	2	9	
...	...	...	...	...	...	1	...	1	1	...	1	...	...	...	1	1	2	...	2	7	4	11	
...	...	...	1	1	...	1	1	...	...	...	1	...	1	1	...	1	...	...	...	6	2	8	
2	3	5	...	1	1	5	1	6	...	...	...	2	2	4	1	...	1	1	3	4	22	22	44
...	...	...	...	...	...	...	...	...	1	...	1	1	...	1	...	...	...	...	...	...	3	1	4
...	...	...	...	...	...	1	...	1	...	...	...	...	...	...	...	...	1	...	1	4	...	...	4
4	2	6	10	3	13	8	2	10	5	4	9	11	2	13	13	1	14	4	4	8	124	52	176
...	...	...	...	...	...	...	...	...	1	...	1	1	...	1	1	...	1	...	1	1	14	11	25
...	...	...	1	...	1	1	...	1	1	...	1	2	...	2	1	...	1	2	...	2	15	...	15
...	1	1	...	...	...	...	...	...	...	1	1	...	...	...	...	...	...	1	1	1	1	4	5
14	3	17	12	7	19	17	9	26	52	12	64	29	7	36	3	1	4	3	4	7	180	59	239
1	1	2	...	1	1	1	...	1	2	...	2	...	...	...	...	...	...	...	...	...	4	2	6
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	2	...	...	...	1	2	3
1	...	1	2	...	2	1	...	1	1	...	1	...	...	...	...	...	1	...	1	10	2	12	
6	1	7	2	...	2	7	2	9	6	...	6	13	...	13	10	1	11	1	2	12	96	6	102
6	...	6	11	...	11	1	...	1	4	...	4	9	...	9	2	...	2	3	...	3	56	...	56
13	...	13	24	...	24	24	...	24	17	...	17	20	...	20	10	...	10	16	...	16	248	...	248
3	...	3	9	...	9	7	...	7	7	...	7	4	...	4	4	...	4	6	...	6	64	...	64
1	...	1	5	...	5	6	...	6	2	...	2	...	...	...	3	...	3	5	...	5	55	...	55
1	...	1	1	...	1	1	...	1	...	...	...	...	...	...	...	...	1	...	1	9	...	...	9
55	14	69	84	16	100	86	17	103	102	221	124	103	12	115	51	5	56	64	14	78	1002	221	1223

TABLE
DEATHS OF ILLEGITIMATE

Place of death	Crèche de la Miséricorde					Crèche Saint-Paul					L'Aide à la Femme				
	0 to 3 mos.	3 to 6 mos.	6 to 1 an	over 1 year	Total	0 to 3 mos.	3 to 6 mos.	6 to 1 an	over 1 year	Total	0 to 3 mos.	3 to 6 mos.	6 to 1 an	over 1 year	Total
Whooping-cough															
Diphtheria															
Grippe															
Syphilis	6	3	2	1	12									1	1
Tuberculosis	7	6			13						7	2	4		13
Meningitis									4	4					
Bronchitis				2	2			1		1					
Broncho-pneumonia															
Pneumonia	10	7	2		19			1	4	5	8	4	10	5	27
Diarrhoea									2	2	1		1		2
Malformation	35	17	2	1	55	1	1		4	6	18	15	5		38
Premature birth	3		1		4						2				2
Congenital debility	12				12						5				5
Other diseases of early infancy	22	1			23						1				1
Infanticide	8				8						2				2
Other causes	12	8	2	1	23				4	4	3	1	1	2	7
Total	115	42	9	5	171	1	1	2	18	22	47	22	22	7	98
Per cent (%)	67.3	24.5	5.3	2.9	100.0	4.5	4.5	9.1	81.9	100.0	48.0	22.4	22.4	7.2	100.0

Number of births at "Misericordia" 563
 Number of deaths at "Misericordia" and "St. Paul" 136
 Proportion per 1,000 births 241.6

XI

CHILDREN IN 1939

Protestant Institutions					Private boarding houses and maternities					Other places					Grand total				
0 to 3 mos.	3 to 6 mos.	6 mos. to 1 year	over 1 year	Total	0 to 3 mos.	3 to 6 mos.	6 mos. to 1 year	over 1 year	Total	0 to 3 mos.	3 to 6 mos.	6 mos. to 1 year	over 1 year	Total	0 to 3 mos.	3 to 6 mos.	6 mos. to 1 year	over 1 year	Total
.....
.....
.....	6	3	3	1	13
1	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	15	8	4	.....	27
.....	4	4
.....	1	2	3
.....
.....	1	1	1	2	5	19	12	14	11	56
.....	1	.....	1	2	4
.....	1	3	.....	2	6	55	36	7	7	105
1	1	1	.....	.....	.....	1	.....	.....	.....	.....	.....	7	.....	1	.....	8
4	4	4	.....	.....	.....	4	12	.....	.....	.....	12	37	.....	.....	.....	37
.....	3	.....	.....	.....	3	26	1	.....	.....	27
.....	1	.....	.....	1	4	.....	.....	.....	4	15	.....	.....	.....	15
.....	3	.....	.....	.....	3	3	.....	.....	.....	3
.....	1	.....	1	.....	.....	.....	.....	.....	2	.....	2	.....	4	17	9	6	7	39
6	1	.....	7	6	.....	.....	.....	6	26	4	3	4	37	201	69	37	34	341
85.7	14.3	.....	100.0	100.	.....	.....	.....	100.0	70.3	10.8	8.1	10.8	100.0	58.9	20.2	10.9	10.0	100.0

TABLE XII

TOTAL OF DEATHS FROM 0 TO 1 YEAR

From different Causes

Diseases	1938			1939		
	0 to 6 months	6 to 12 months	Total	0 to 6 months	6 to 12 months	Total
Measles.....	1	19	20	4	17	21
Whooping cough.....	15	17	32	12	8	20
Influenza.....	21	17	38	24	17	41
Tuberculosis.....	2	8	10	1	3	4
Syphilis.....	10	3	13	28	5	33
Other epidemic diseases.....	11	15	26	7	2	9
General diseases (Nos. 45 to 77)	9	4	13	7	2	9
Meningitis.....	10	4	14	7	4	11
Convulsions.....	5	...	5	6	2	8
Other diseases of the nervous system.....	16	19	35	22	22	44
Diseases of the circulatory system.....	4	2	6	3	1	4
Bronchitis.....	1	...	1	4	...	4
Broncho-pneumonia.....	145	84	229	124	52	176
Pneumonia.....	24	10	34	14	11	25
Other diseases of the respiratory system.....	6	1	7	15	...	15
Diseases of the stomach.....	2	2	4	1	4	5
Diarrhoea.....	141	53	194	180	59	239
Other diseases of the digestive system.....	9	1	10	4	2	6
Diseases of the genito-urinary system.....	...	2	2	1	2	3
Diseases of the skin (Nos. 151 to 156).....	7	1	8	10	2	12
Malformation (No. 157).....	99	10	109	96	6	102
Debility, icterus, etc. (Nos. 158 to 161).....	123	3	126	111	...	111
Premature birth.....	291	...	291	248	...	248
Result of confinement (No. 160)	74	...	74	64	...	64
External causes.....	13	5	18	9	...	9
Ill-defined causes.....	1	...	1	...	...	...
Total.....	1,040	280	1,320	1,002	221	1,223

TABLE XIIa
DEATHS FROM 0 TO 1 YEAR
Legitimate and illegitimate Children
Rate per 1,000 births, 1914-1939

years	Number of births		Number of deaths 0 to 1 year		Rate per 1,000 births		Total Mortality per 1,000 births	
	Legitimate	Illegitimate	Legitimate	Illegitimate	Legitimate	Illegitimate		
1	2	3	4	5	6	7	8	9
1914.....	20,637	749	3,660	541	177.3	722.3	196.4	4.1
1915.....	19,945	747	3,233	546	162.1	730.9	182.6	4.5
1916.....	19,084	675	3,134	538	164.2	797.0	185.8	4.9
1917.....	19,038	626	2,872	616	150.8	984.0	177.4	6.5
1918.....	19,654	719	3,256	646	165.7	898.4	191.5	5.4
Average.....	19,672	703	3,231	577	164.2	820.8	185.1	5.0
1919.....	19,159	800	2,945	598	153.7	747.5	177.5	5.7
1920.....	20,305	875	3,375	697	166.3	796.6	192.2	4.8
1921.....	20,221	925	2,599	690	128.5	745.9	155.6	5.8
1922.....	19,663	1,057	2,538	766	129.1	724.7	159.4	5.6
1923.....	19,435	1,092	2,238	819	115.2	750.0	148.9	6.5
Average.....	19,757	950	2,739	714	138.6	751.6	166.8	5.6
1924.....	20,386	1,114	2,273	878	111.5	788.1	146.5	7.1
1925.....	20,805	1,171	2,221	469	106.8	400.8	122.4	3.8
1926.....	19,986	1,112	2,088	433	104.5	389.4	119.5	3.7
1927.....	19,893	847	2,031	394	102.1	465.2	116.9	4.6
1928.....	19,374	933	2,488	431	128.4	461.9	143.7	3.6
Average.....	20,089	1,035	2,220	521	110.5	503.4	129.8	4.6
1929.....	19,417	998	2,239	462	115.3	462.9	132.3	4.0
1930.....	19,974	1,019	2,162	458	108.3	449.4	124.8	4.1
1931.....	19,634	1,065	1,824	521	92.9	489.2	113.3	5.3
1932.....	18,965	1,032	1,525	454	80.4	439.9	98.9	5.4
1933.....	17,388	1,043	1,316	501	75.7	480.3	98.6	6.3
Average.....	19,076	1,031	1,813	479	95.0	464.6	113.9	4.9
Average 20 years	19,648	930	2,501	573	127.3	621.5	149.6	4.9
1934.....	17,495	938	1,375	299	78.6	318.8	90.8	4.1
1935.....	16,288	1,073	1,268	334	77.8	311.3	92.3	4.0
1936.....	15,761	964	1,053	351	66.8	364.1	83.9	5.4
1937.....	16,072	1,108	1,226	321	76.3	289.7	90.0	3.8
1938.....	16,075	987	1,057	263	65.8	266.5	77.4	4.1
Average.....	16,338	1,014	1,196	314	73.2	309.7	87.0	4.2
1939.....	16,050	1,066	916	307	57.1	288.0	71.5	5.0

(1) Quotient obtained by dividing the figures of column 7 by those of column 6.

TABLE XIII

Stillbirths, legitimate and illegitimate in 1939, causes of deaths, period of gestation and sex

Causes of morti-natality	6½ months			7 months			8 months			At full term			Grand total		
	M	F	Tot.	M	F	Tot.	M	F	Tot.	M	F	Tot.	M	F	Tot.
I—Foetal mortality during "gestations": Foetus born at full term or before term.															
1. Syphilis and other chronic diseases.....	3	1	4	4	1	5	26	16	42	3	3	6	28	25	53
2. Toxaemia of pregnancy.....	.....	.....	.....	17	8	25	4	4	8	.....	.....	.....	9	10	19
3. Malformation incompatible with life.....	.....	.....	.....	2	2	4	7	5	12	.....	.....	.....	19	20	39
4. Other causes and causes not specified.....	6	3	9	7	7	14	12	5	17	.....	.....	.....	19	20	39
II—Mortality from premature birth:															
5. Maternal exertion (over-work).....	.....	.....	.....	1	.....	1	1	.....	1	.....	.....	.....	.....	.....	.....
6. Traumatism causing premature birth.....	.....	.....	.....	1	1	2	1	.....	1	.....	.....	.....	.....	.....	.....
7. Abnormal placental insertion.....	.....	.....	.....	1	1	2	2	2	4	.....	.....	.....	.....	.....	.....
8. Acute diseases and infections.....	1	1	2	2	2	4	2	2	4	.....	.....	.....	.....	.....	.....
9. Chronic infection (syphilis).....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
10. Other causes and causes not specified.....	.....	.....	.....	3	3	6	1	2	3	.....	.....	.....	.....	.....	.....
III—Foetal mortality during "parturition": Foetus born at full term or before term.	2	3	5	8	8	16	5	14	19	.....	.....	.....	.....	.....	.....
11. Abnormal presentation and prolapsed cord.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
12. Obstacles to parturition.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
13. Other causes and causes not specified.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
IV—Grand Total.....	12	9	21	45	29	74	52	43	95	160	130	290	269	211	480

TABLE
DEATHS BY AGES,

Ages	Legitimates					Total
	French-Canadians	British-Canadians	Jews	Other nationalities	Unknown	
Premature children.....	M	99	23	1	6	129
	F	60	13	1	8	82
From 0 to 1 month.....	M	99	16	6	8	130
	F	76	14	3	5	99
From 1 month to 6 months.....	M	135	14	4	11	164
	F	102	14	2	10	128
From 6 months to 1 year.....	M	84	10	.....	3	97
	F	77	4	.....	6	87
Total under 1 year.....	M	417	63	11	28	520
	F	315	45	6	29	396
From 1 year to 2 years.....	M	55	5	.....	4	64
	F	52	5	3	3	63
From 2 years to 3 years.....	M	24	1	.....	2	27
	F	11	.....	.....	.....	11
From 3 years to 4 years.....	M	15	4	.....	2	21
	F	14	1	.....	1	16
From 4 years to 5 years.....	M	9	3	1	.....	13
	F	19	1	.....	.....	20
Total under 5 years.....	M	520	76	12	36	645
	F	411	52	9	33	506
From 5 years to 9 years.....	M	51	8	3	4	66
	F	49	3	.....	3	55
From 10 years to 14 years.....	M	39	7	1	2	49
	F	38	8	1	2	49
From 15 years to 19 years.....	M	52	21	.....	5	78
	F	56	12	1	4	73
From 20 years to 24 years.....	M	54	15	4	6	79
	F	90	14	4	1	109
From 25 years to 29 years.....	M	72	18	4	5	99
	F	90	13	7	6	116
From 30 years to 34 years.....	M	81	20	4	8	113
	F	97	22	6	6	131
From 35 years to 39 years.....	M	94	34	8	14	150
	F	115	20	4	11	150
From 40 years to 44 years.....	M	126	42	7	31	207
	F	110	32	9	10	161
From 45 years to 49 years.....	M	160	42	15	40	258
	F	120	41	12	14	187
From 50 years to 54 years.....	M	237	89	23	37	386
	F	176	67	17	20	280
From 55 years to 59 years.....	M	221	102	28	53	404
	F	174	61	16	17	268
From 60 years to 64 years.....	M	229	119	17	41	406
	F	217	92	23	15	347
From 65 years to 69 years.....	M	269	111	29	30	439
	F	241	104	16	9	370
From 70 years to 79 years.....	M	543	194	44	37	818
	F	532	245	41	23	841
From 80 years to 89 years.....	M	242	95	8	8	353
	F	349	146	14	17	526
90 years and over.....	M	32	10	2	1	45
	F	63	18	2	3	86
Total over 5 years.....	M	2,502	927	197	322	3,950
	F	2,517	898	173	161	3,749
Grand total.....	M	3,022	1,003	209	358	4,595
	F	2,928	950	182	194	4,255

XIV
 YEAR 1939

Illegitimates					Total	Sex		Grand total	Percentage of total deaths
French-Canadians	British-Canadians	Jews	Other nationalities	Unknown		Male	Female		
20	2	.....	1	1	24				
10	3	.....	.....	.....	13	153	95	248	2.70
27	2	.....	1	1	31				
21	1	.....	.....	1	23	161	122	283	3.08
99	3	.....	3	.....	105				
67	6	.....	1	.....	74	269	202	471	5.12
20	2	.....	.....	.....	22				
14	.....	.....	1	.....	15	119	102	221	2.41
166	9	.....	5	2	182				
112	10	.....	2	1	125	702	521	1,223	13.31
12	2	.....	.....	.....	14				
6	.....	.....	1	.....	7	78	70	148	1.61
9	.....	.....	.....	.....	9				
3	.....	.....	.....	.....	3	36	14	50	0.54
1	.....	.....	.....	.....	1				
.....	.....	.....	.....	.....	.....	22	16	38	0.41
.....	.....	.....	.....	.....	.....	13	20	33	0.36
188	11	.....	5	2	206				
121	10	.....	3	1	135	851	641	1,492	16.23
.....	.....	.....	.....	.....	.....	66	55	121	1.32
.....	.....	.....	.....	.....	.....	49	49	98	1.07
.....	.....	.....	.....	.....	.....	78	73	151	1.64
.....	.....	.....	.....	.....	.....	79	109	188	2.05
.....	.....	.....	.....	.....	.....	99	116	215	2.34
.....	.....	.....	.....	.....	.....	113	131	244	2.65
.....	.....	.....	.....	.....	.....	150	150	300	3.27
.....	.....	.....	.....	.....	.....	207	161	368	4.00
.....	.....	.....	.....	.....	.....	258	187	445	4.84
.....	.....	.....	.....	.....	.....	386	280	666	7.25
.....	.....	.....	.....	.....	.....	404	268	672	7.31
.....	.....	.....	.....	.....	.....	406	347	753	8.19
.....	.....	.....	.....	.....	.....	439	370	809	8.80
.....	.....	.....	.....	.....	.....	818	841	1,659	18.05
.....	.....	.....	.....	.....	.....	353	526	879	9.56
.....	.....	.....	.....	.....	.....	45	86	131	1.43
.....	.....	.....	.....	.....	.....	3,950	3,749	7,699	83.77
188	11	.....	5	2	206				
121	10	.....	3	1	135	4,801	4,390	9,191	100.00

TABLE XV
DEATHS BY AGES, NATIONALITIES AND MONTHS, FOR 1939

Nationalities	French-Canadians		British-Canadians		Jews		Other nationalities		Unknown		Grand total	
	Deaths	%	Deaths	%	Deaths	%	Deaths	%	Deaths	%	Deaths	%
January:												
Under 5 years.....	105	20.27	18	9.28	1	3.57	3	3.57			127	16.18
Over 5 years.....	413	79.73	176	90.72	27	96.43	42	96.43			658	83.82
Total.....	518	100.00	194	100.00	28	100.00	45	100.00			785	100.00
February:												
Under 5 years.....	126	21.61	16	7.92	4	10.81	6	10.53			152	17.29
Over 5 years.....	457	78.39	186	92.08	33	89.19	51	89.47			727	82.71
Total.....	583	100.00	202	100.00	37	100.00	57	100.00			879	100.00
March:												
Under 5 years.....	154	21.33	12	5.97			3	5.08			169	16.55
Over 5 years.....	568	78.67	189	94.03	39	100.00	56	94.92			852	83.45
Total.....	722	100.00	201	100.00	39	100.00	59	100.00			1,021	100.00
April:												
Under 5 years.....	114	19.69	8	5.33	2	6.67	8	13.11	1	100.00	133	16.20
Over 5 years.....	465	80.31	142	94.67	28	93.33	53	86.89			688	83.80
Total.....	579	100.00	150	100.00	30	100.00	61	100.00	1	100.00	821	100.00
May:												
Under 5 years.....	121	21.37	15	8.88	4	10.00	9	15.52			149	17.99
Over 5 years.....	445	78.63	154	91.12	36	90.00	49	84.48			684	82.11
Total.....	566	100.00	169	100.00	40	100.00	58	100.00			833	100.00
June:												
Under 5 years.....	80	17.47	7	5.39			4	8.51	1	100.00	92	13.88
Over 5 years.....	378	82.53	123	94.61	27	100.00	43	91.49			571	86.12
Total.....	458	100.00	130	100.00	27	100.00	47	100.00	1	100.00	663	100.00
July:												
Under 5 years.....	82	16.77	17	10.36	2	5.41	7	18.42	2	66.67	110	15.05
Over 5 years.....	407	83.23	147	89.64	35	94.59	31	81.58	1	33.33	621	84.95
Total.....	489	100.00	164	100.00	37	100.00	38	100.00	3	100.00	731	100.00

TABLE XV — (Continued)
 DEATHS BY AGES, NATIONALITIES AND MONTHS, FOR 1939

Nationalities	French-Canadians		British-Canadians		Jews		Other nationalities		Unknown		Grand total	
	Deaths	%	Deaths	%	Deaths	%	Deaths	%	Deaths	%	Deaths	%
August:												
Under 5 years.....	95	22.46	13	10.32	2	6.90	7	19.44	.....	.....	117	18.99
Over 5 years.....	329	77.54	113	89.68	27	93.10	29	80.56	1	100.00	499	81.01
Total.....	424	100.00	126	100.00	29	100.00	36	100.00	1	100.00	616	100.00
September:												
Under 5 years.....	125	26.65	12	9.02	1	2.70	9	21.95	.....	.....	147	21.62
Over 5 years.....	344	73.35	121	90.98	36	97.30	32	78.05	.....	.....	533	78.38
Total.....	469	100.00	133	100.00	37	100.00	41	100.00	.....	.....	680	100.00
October:												
Under 5 years.....	110	23.06	11	6.58	1	3.23	7	18.42	1	100.00	130	18.21
Over 5 years.....	367	76.94	156	93.42	30	96.77	31	81.58	.....	.....	584	81.79
Total.....	477	100.00	167	100.00	31	100.00	38	100.00	1	100.00	714	100.00
November:												
Under 5 years.....	57	12.90	9	5.73	1	5.56	6	15.00	.....	.....	73	11.11
Over 5 years.....	385	87.10	148	94.27	17	94.44	34	85.00	.....	.....	584	88.89
Total.....	442	100.00	157	100.00	18	100.00	40	100.00	.....	.....	657	100.00
December:												
Under 5 years.....	71	13.35	11	6.08	3	7.89	8	20.00	.....	.....	93	11.76
Over 5 years.....	461	86.65	170	93.92	35	92.11	32	80.00	.....	.....	698	88.24
Total.....	532	100.00	181	100.00	38	100.00	40	100.00	.....	.....	791	100.00
Total:												
Under 5 years.....	1,240	19.81	149	7.55	21	5.37	77	13.75	5	71.43	1,492	16.23
Over 5 years.....	5,019	80.19	1,825	92.45	370	94.63	483	86.25	2	28.57	7,699	83.77
Grand Total.....	6,259	100.00	1,974	100.00	391	100.00	560	100.00	7	100.00	9,191	100.00

TABLE
DEATHS BY CIVIL STATUS

Wards	0 to 6 months	6 months to 1 year	1 year to 4 years	5 years to 14 years	15 to 49 years			
					Married	Widowed	Single	Unknown
Ahuntsic-Bordeaux.....	18	3	4	4	18	3	17	.....
Bourget.....	31	2	10	12	25	4	23	.....
Cremazie.....	14	3	4	2	30	5	32	1
DeLorimier.....	34	12	8	6	42	3	30	.....
Hochelaga.....	39	9	10	9	29	1	20	.....
Lafontaine.....	5	2	2	4	6	2	15	.....
Laurier.....	13	3	7	4	24	1	17	.....
Maisonneuve.....	37	8	9	6	46	3	23	.....
Mercier.....	29	6	6	6	24	1	11	.....
Montcalm.....	19	4	7	6	21	1	13	.....
MountRoyal.....	16	.....	1	2	20	2	11	.....
Notre Dame de Grace.....	13	2	5	9	52	2	35	.....
Papineau.....	20	6	9	1	25	1	23	.....
Prefontaine.....	25	6	10	7	28	2	16	.....
Rosemount.....	54	17	17	13	64	5	27	.....
St. Andrew.....	8	1	1	2	26	1	19	.....
St. Ann.....	14	3	4	9	20	.....	12	1
Ste. Cunegonde.....	33	10	11	5	22	2	18	.....
St. Denis.....	21	5	5	14	28	1	24	.....
St. Edward.....	29	5	10	9	35	3	35	.....
St. Eusebe.....	27	3	6	6	29	.....	14	1
St. Gabriel.....	18	7	6	4	20	2	11	.....
St. George.....	3	1	2	.....	16	1	19	.....
St. Henry.....	33	12	7	11	34	2	25	.....
St. James.....	32	10	3	9	41	2	28	.....
St. John.....	21	5	9	5	41	3	27	.....
St. Jean Baptiste.....	25	4	12	7	26	1	21	.....
St. Joseph.....	6	.....	5	4	21	3	12	.....
St. Lawrence.....	9	2	1	1	26	6	28	1
St. Louis.....	2	2	.....	2	21	1	14	.....
Ste. Mary.....	13	6	14	6	14	2	5	.....
St. Michael.....	11	3	3	7	29	1	17	.....
St. Paul.....	23	6	10	10	29	1	24	.....
Villemarie.....	7	6	3	.....	10	1	5	.....
Villeyray.....	56	15	15	19	62	1	59	.....
Unknown.....	3	.....	.....	.....	.....	.....	2	4
Institutions.....	241	32	33	4	13	.....	76	2
Total.....	1,002	221	269	225	1,017	70	808	10

LVI

ND BY WARDS, IN 1939

50 to 69 years				70 years and over				Total				Grand total
Married	Widowed	Single	Unknown	Married	Widowed	Single	Unknown	Married	Widowed	Single	Unknown	
33	8	3	1	21	16	3	.....	72	27	52	1	152
41	21	9	.....	32	51	5	.....	98	76	92	.....	266
38	21	22	2	13	24	5	.....	81	50	82	3	216
85	32	9	.....	50	70	4	.....	177	105	103	.....	385
52	16	5	.....	19	31	.....	.....	100	48	92	.....	240
17	7	8	.....	12	13	3	.....	35	22	39	.....	96
49	21	5	.....	33	35	7	.....	106	57	56	.....	219
88	11	17	.....	23	41	3	.....	157	55	103	.....	315
38	18	2	.....	21	25	2	.....	83	44	62	.....	189
43	12	1	.....	27	26	.....	1	91	39	50	1	181
28	3	6	.....	10	26	4	.....	58	31	40	.....	129
25	25	15	1	59	97	20	1	236	124	99	2	461
44	17	10	.....	22	30	12	1	91	48	81	1	221
30	13	5	.....	12	23	3	.....	70	38	72	.....	180
88	27	5	.....	33	54	7	.....	185	86	140	.....	411
48	26	21	.....	25	48	19	.....	99	75	71	.....	245
33	15	14	1	13	25	7	.....	66	40	63	2	171
26	14	5	.....	16	32	2	.....	64	48	84	.....	196
31	15	8	.....	26	40	14	.....	115	56	91	.....	262
33	21	12	.....	40	66	3	.....	138	90	103	.....	331
43	12	2	.....	20	30	4	.....	92	42	62	1	197
46	16	11	.....	20	45	2	.....	86	63	59	.....	208
34	12	23	.....	12	27	8	1	62	40	56	1	159
48	15	5	1	29	45	4	.....	111	62	97	1	271
58	22	14	2	30	49	10	.....	129	73	106	2	310
33	11	6	.....	27	33	3	.....	131	47	76	.....	254
46	31	10	.....	32	55	1	.....	124	87	80	.....	291
55	13	11	1	14	11	10	.....	60	27	48	1	136
46	27	25	2	24	26	14	.....	106	59	80	3	248
7	9	3	.....	19	24	4	1	87	34	27	1	149
46	18	6	.....	16	25	2	.....	56	45	52	.....	153
2	16	6	1	28	45	1	.....	109	62	48	1	220
2	22	2	.....	19	36	4	.....	100	59	79	.....	238
6	8	8	.....	11	13	7	2	37	22	36	2	97
5	37	13	1	54	68	6	.....	241	106	183	1	531
3	.....	1	3	.....	.....	.....	.....	3	.....	5	7	16
5	27	86	5	24	129	138	2	72	156	610	9	847
5	639	414	21	886	1,434	341	9	3,728	2,143	3,280	40	9,191

TABLE

DEATHS OF CHILDREN UNDER FIVE YEARS,
By sex and by

WARDS	DEATHS							
	Grand total	0 to 1 year			Per-centage of total deaths	1 to 5 years		
		M	F	Total		M	F	Total
Ahuntsic.....	152	10	11	21	13.8	2	2	4
Bourget.....	266	14	19	33	12.4	3	7	10
Cremazie.....	216	7	10	17	7.9	4	.....	4
DeLorimier.....	385	25	21	46	11.9	4	4	8
Hochelaga.....	240	25	23	48	20.0	5	5	10
Lafontaine.....	96	2	5	7	7.3	.....	2	2
Laurier.....	219	9	7	16	7.3	3	4	7
Maisonneuve.....	315	24	21	45	14.3	2	7	9
Mercier.....	189	22	13	35	18.5	.....	6	6
Montcalm.....	181	16	7	23	12.7	5	2	7
Mount Royal.....	129	10	6	16	12.4	1	.....	1
Notre Dame de Grace....	461	8	7	15	3.3	3	2	5
Papineau.....	221	18	8	26	11.8	4	5	9
Prefontaine.....	180	20	11	31	17.2	7	3	10
Rosemount.....	411	37	34	71	17.3	13	4	17
St. Andrew.....	245	5	4	9	3.7	.....	1	1
Ste. Ann.....	171	6	11	17	10.0	4	.....	4
Ste. Cunegonde.....	196	21	22	43	21.9	7	4	11
St. Denis.....	262	13	13	26	9.9	2	3	5
St. Edward.....	331	19	15	34	10.3	5	5	10
St. Eusebe.....	197	25	5	30	15.2	3	3	6
St. Gabriel.....	208	14	11	25	12.0	5	1	6
St. George.....	159	2	2	4	2.5	2	.....	2
St. Henry.....	271	27	18	45	16.6	3	4	7
St. James.....	310	26	16	42	13.5	1	2	3
St. John.....	254	17	9	26	10.2	7	2	9
St. Jean Baptiste.....	291	11	18	29	10.0	5	7	12
St. Joseph.....	136	2	4	6	4.4	4	1	5
St. Lawrence.....	248	9	2	11	4.4	.....	1	1
St. Louis.....	149	2	2	4	2.7	.....	.....	.....
St. Mary.....	153	10	9	19	12.4	5	9	14
St. Michael.....	220	7	7	14	6.4	2	1	3
St. Paul.....	238	21	8	29	12.2	5	5	10
Villemarie.....	97	7	6	13	13.4	2	1	3
Villeray.....	531	45	26	71	13.4	8	7	15
Unknown.....	16	1	2	3	18.7	.....	.....	.....
Institutions.....	847	164	109	273	32.2	23	10	33
Total.....	9,191	701	522	1,223	13.3	149	120	269

VII

COMPARED TO THE TOTAL OF DEATHS

wards, in 1939

Per-centage of total deaths	DEATHS							Per-centage of total deaths
	0 to 5 years			Per-centage of total deaths	Over 5 years			
	M	F	Total		M	F	Total	
2.6	12	13	25	16.4	59	68	127	83.6
3.8	17	26	43	16.2	117	106	223	83.8
1.9	11	10	21	9.8	128	67	195	90.2
2.1	29	25	54	14.0	167	164	331	86.0
4.2	30	28	58	24.2	90	92	182	75.8
2.1	2	7	9	9.4	39	48	87	90.6
3.2	12	11	23	10.5	100	96	196	89.5
2.8	26	28	54	17.1	145	116	261	82.9
3.2	22	19	41	21.7	67	81	148	78.3
3.9	21	9	30	16.6	75	76	151	83.4
0.8	11	6	17	13.2	53	59	112	86.8
1.1	11	9	20	4.4	211	230	441	95.6
4.1	22	13	35	15.9	94	92	186	84.1
5.5	27	14	41	22.7	64	75	139	77.3
4.1	50	38	88	21.4	164	159	323	78.6
0.4	5	5	10	4.1	112	123	235	95.9
2.3	10	11	21	12.3	84	66	150	87.7
5.6	28	26	54	27.5	66	76	142	72.5
1.9	15	16	31	11.8	108	123	231	88.2
3.0	24	20	44	13.3	153	134	287	86.7
3.1	28	8	36	18.3	84	77	161	81.7
2.9	19	12	31	14.9	95	82	177	85.1
1.3	4	2	6	3.8	84	69	153	96.2
2.6	30	22	52	19.2	110	109	219	80.8
1.0	27	18	45	14.5	150	115	265	85.5
3.5	24	11	35	13.7	114	105	219	86.3
4.1	16	25	41	14.1	128	122	250	85.9
3.7	6	5	11	8.1	76	49	125	91.9
0.4	9	3	12	4.8	157	79	236	95.2
.....	2	2	4	2.7	78	67	145	97.3
9.1	15	18	33	21.5	58	62	120	78.5
1.3	9	8	17	7.7	106	97	203	92.3
4.2	26	13	39	16.4	109	90	199	83.6
3.1	9	7	16	16.5	54	27	81	83.5
2.8	53	33	86	16.2	218	227	445	83.8
.....	1	2	3	18.7	9	4	13	81.3
3.9	187	119	306	36.1	224	317	541	63.9
2.9	850	642	1,492	16.2	3,950	3,749	7,699	83.8

TABLE
DEATHS BY CERTAIN

WARDS	1-2	7	8	9	10	11	23	24-32	45-53	
	Typhoid fever	Measles	Scarlet fever	Whooping cough	Diphtheria	Influenza	Tuberculosis, pulmonary	Tuberculosis other forms	Other contagious diseases	Cancer
	1	2	3	4	5	6	7	8	9	10
1—Ahuntsic.....						1	11	2	1	20
2—Bourget.....		2		2	4	6	17	2	2	30
3—Cremazie.....		1		1	1	1	29	4	4	31
4—DeLorimier.....	1	2	1	1	1	8	20	1		49
5—Hochelaga.....				2	1	1	19	4		26
6—Lafontaine.....	1	1	1			1	11			10
7—Laurier.....		1				5	14			36
8—Maisonneuve.....	1	2		2	1	10	22	3	2	39
9—Mercier.....		1		1		6	10	2		23
10—Montcalm.....		2			1	4	10	5	1	31
11—Mount Royal.....						1	6	1		25
12—Notre Dame de Grace.....	1		1		1	8	9	4	3	81
13—Papineau.....	1	3		4		2	14	1	3	21
14—Prefontaine.....	1	3				3	17	4	1	22
15—Rosemount.....	1	2		1	1	15	22	7	2	49
16—St. Andrew.....						1	8	3		28
17—Ste. Ann.....		1				2	11	2	1	17
18—Ste. Cunegonde.....		4	1	2	1	4	14	2	2	16
19—St. Denis.....		1		1		4	13	1	2	38
20—St. Edward.....		1	1	3		1	18	2	2	36
21—St. Eusebe.....	1	1			1	3	16	2		27
22—St. Gabriel.....				2	3	6	5	2	1	24
23—St. George.....							5		1	31
24—St. Henry.....		2		2	2	6	14	1	1	24
25—St. James.....		3		2		5	17	5	5	42
26—St. John.....			2			4	10	4	1	39
27—St. Jean Baptiste.....		2				9	16	1	1	41
28—St. Joseph.....		2				1	7		3	18
29—St. Lawrence.....						4	20	1	4	37
30—St. Louis.....						1	13			22
31—St. Mary.....		2		1	1	3	8	1	6	16
32—St. Michael.....		1		1		2	13	1	2	34
33—St. Paul.....			1	1		4	17	2	2	25
34—Villemarie.....		1					7	4	1	13
35—Villeray.....	1	1		1		11	39	6	5	68
36—Unknown.....								1		2
37—Institutions.....						27	40	8	36	50
Total.....	9	42	8	30	19	170	542	89	95	1,141

VIII

DISEASES, BY WARDS, IN 1939

Diabetes 59	Cerebral hemorrhage 82a	Endocarditis and myocarditis 91-93	Pneumonia 108-109	Enteritis 119	Nephritis 130-132	Puerperal state 140-149	Diseases of early infancy 158-161	Suicide 163-171	Homicide 172-175	Accidents 176-198	Others	Total
11	12	13	14	15	16	17	18	19	20	21	22	23
2	2	12	5	4	27	1	5	1	.....	5	53	152
3	6	40	5	2	34	.....	12	.....	.....	9	90	266
3	3	29	5	3	27	1	9	.....	.....	6	58	216
12	11	50	7	6	53	2	22	1	.....	11	126	385
7	3	20	1	6	42	.....	19	1	.....	5	83	240
1	1	12	3	3	17	.....	2	1	.....	4	27	96
5	3	20	7	4	23	2	6	1	.....	4	88	219
8	6	30	9	8	42	.....	18	1	1	9	101	315
.....	5	24	4	6	18	2	13	.....	.....	6	68	189
.....	5	19	6	4	17	2	6	.....	.....	3	65	181
3	2	6	4	.....	12	1	8	1	.....	1	58	129
8	14	42	12	1	39	1	7	7	1	10	211	461
3	4	31	8	5	32	3	11	1	.....	10	64	221
7	5	5	3	4	24	1	14	2	.....	9	55	180
7	10	48	9	13	38	3	29	1	2	19	132	411
5	3	28	7	1	18	.....	2	5	.....	14	122	245
1	10	21	7	3	15	1	4	2	.....	10	63	171
4	3	19	7	8	29	2	16	3	.....	11	48	196
8	2	37	8	3	40	2	13	.....	1	6	82	262
8	4	29	8	3	60	5	15	1	.....	12	122	331
3	4	25	5	6	29	1	14	.....	.....	5	54	197
10	4	24	7	8	27	1	7	.....	.....	4	73	208
3	5	18	2	.....	11	.....	2	7	.....	2	72	159
5	4	26	5	14	37	4	12	1	1	6	104	271
5	4	42	10	6	38	3	16	5	.....	9	93	310
5	10	24	6	5	22	.....	11	1	.....	16	95	254
8	8	33	6	4	39	1	10	3	.....	9	99	291
3	4	20	8	.....	19	.....	1	.....	.....	10	40	136
5	8	27	4	2	20	.....	6	1	1	14	94	248
4	4	23	2	.....	11	.....	2	1	.....	6	60	149
3	3	12	5	7	16	.....	5	1	.....	5	58	153
3	3	15	10	1	24	1	3	2	.....	10	94	220
2	4	26	10	5	26	4	14	.....	.....	16	79	238
5	1	13	2	1	15	.....	1	2	.....	3	28	97
18	7	52	16	10	73	8	29	5	1	17	165	531
.....	.....	1	.....	.....	3	.....	.....	1	.....	4	4	16
10	17	98	20	100	87	.....	59	2	1	8	284	847
87	192	1,001	243	256	1,104	52	423	59	9	308	3,212	9,191

TABLE XIX
DEATHS BY AGES, QUARTERS OR SEASONS, IN 1939

AGES	1st quarter (Winter)			2nd quarter (Spring)			3rd quarter (Summer)			4th quarter (Autumn)			Grand total for year			
	January	February	March	April	May	June	July	August	September	October	November	December		Total 4th quarter		
			Total 1st quarter			Total 2nd quarter			Total 3rd quarter			Total 4th quarter				
From 0 to 1 month.....	47	55	60	39	61	29	129	50	46	34	130	41	31	38	110	531
From 1 to 6 months.....	33	35	47	45	35	26	106	34	40	68	142	62	20	26	108	471
From 6 months to 1 year.....	22	27	19	25	28	14	67	16	17	22	55	12	5	14	31	221
From 1 to 2 years.....	16	17	18	9	17	13	39	4	9	15	28	8	11	11	30	148
From 2 to 3 years.....	4	3	6	10	3	5	18	4	1	3	8	3	5	3	11	50
From 3 to 4 years.....	5	7	13	4	1	1	6	1	1	1	3	2	1	1	4	38
From 4 to 5 years.....	.....	8	6	1	4	4	9	1	3	4	8	2	.....	.....	2	33
Total under 5 years.....	127	152	169	133	149	92	374	110	117	147	374	130	73	93	296	1,492
Over 5 years.....	658	727	852	688	684	571	1,943	621	499	533	1,653	584	584	698	1,866	7,699
Grand total.....	785	879	1,021	821	833	663	2,317	731	616	680	2,027	714	657	791	2,162	9,191
Grand total in 1938.....	795	758	863	876	829	734	2,439	653	679	701	2,033	730	746	761	2,237	9,125
" " " 1937.....	868	946	883	876	925	750	2,551	738	748	754	2,240	727	676	847	2,250	9,738
" " " 1936.....	825	754	798	758	784	722	2,264	669	654	695	2,018	741	756	778	2,275	8,934
" " " 1935.....	784	802	951	840	934	682	2,456	626	664	636	1,926	682	734	827	2,243	9,162
" " " 1934.....	818	695	869	825	857	710	2,392	662	673	701	2,036	659	722	764	2,145	8,955

TABLE XX
DEATHS FROM CERTAIN CONTAGIOUS DISEASES
AND ENTERITIS BY MONTHS, YEAR 1939

Causes of death	January	February	March	April	May	June	July	August	September	October	November	December	Total
Typhoid fever.....	1	2	2	2	1	1	1	1	1	1	1	1	9
Paratyphoid.....	8	2	3	11	9	9	3	3	1	1	1	1	42
Undulant fever.....	2	3	3	1	2	2	1	1	1	1	1	1	8
Measles.....	2	8	2	4	3	2	1	1	5	1	1	1	30
Scarlet fever.....	2	3	3	1	1	1	1	1	1	3	2	1	19
Diphtheria.....	9	46	72	13	9	3	1	1	2	1	3	11	170
Whooping cough.....	1	1	1	1	1	1	1	1	1	1	1	1	5
Influenza.....	1	1	1	1	1	2	1	1	1	1	1	1	1
Meningitis C. S.....	42	46	54	51	56	52	51	36	35	38	37	44	542
Erysipelas.....	10	5	14	10	5	5	9	4	8	6	8	5	89
Poliomyelitis.....	1	1	1	1	1	1	1	1	1	1	1	1	1
Mumps.....	1	1	1	1	1	1	1	1	1	1	1	1	1
Varicella.....	1	1	1	1	1	1	1	1	1	1	1	1	1
German measles.....	1	1	1	1	1	1	1	1	1	1	1	1	1
Pulmonary tuberculosis.....	6	3	11	2	5	9	9	9	4	11	5	3	4
Tuberculosis, other forms.....	81	119	165	96	87	86	75	51	57	61	57	69	1,004
Others.....	15	13	11	11	22	19	19	29	69	36	5	7	256
Enteritis (119).....	96	132	176	107	109	105	94	80	126	97	62	76	1,260

TABLE XXI

DEATHS FROM CERTAIN DISEASES

Average number and proportion per 100,000 population

Periods of years	(1)	Typhoid	Smallpox	Measles	Whooping cough	Scarlet fever	Diphtheria	Tuberculosis		Cancer	Diarrhoea	Bright's disease
								Pulmonary	Other forms			
1881-1885	No	95	634	42	38	38	214	434	.....	58	523	.....
	Taux	61.9	413.1	27.4	24.7	24.7	139.4	282.7	.....	40.7	340.7	.....
1886-1890	No	82	15	59	46	15	304	513	.....	84	699	.....
	Taux	41.0	7.5	29.5	23.0	7.5	151.9	256.3	.....	42.4	349.3	.....
1891-1895	No	50	.....	40	67	155	114	547	.....	106	806	.....
	Taux	21.8	.....	17.4	28.8	67.6	49.7	238.5	.....	46.2	351.4	.....
1896-1900	No	68	5	47	87	62	182	680	.....	163	663	.....
	Taux	26.6	1.9	18.4	31.7	24.3	71.3	266.3	.....	63.5	359.6	.....
1901-1905	No	91	3	68	77	70	89	616	168	181	1,070	126
	Taux	31.7	1.0	23.7	26.4	24.4	31.0	214.7	57.0	63.1	373.0	42.7
1906-1910	No	156	.....	85	97	67	114	683	186	247	1,822	232
	Taux	40.0	.....	21.8	24.9	17.2	29.3	175.3	47.7	63.4	467.6	59.5
1911-1915	No	108	1	66	90	90	157	969	183	341	2,249	402
	Taux	21.9	0.2	13.4	18.2	18.2	31.8	176.2	37.1	69.1	455.9	81.5
1916-1920	No	89	1	63	109	69	174	929	194	422	1,844	509
	Taux	16.1	0.2	11.4	19.1	12.5	31.5	168.4	35.2	76.5	334.3	92.2
1921-1925	No	55	.....	45	95	78	134	785	165	532	1,382	612
	Taux	8.4	.....	6.9	14.5	11.9	20.4	119.6	25.2	81.1	210.7	93.3
1926-1930	No	139	.....	37	87	46	143	798	157	681	1,028	726
	Taux	18.4	.....	4.9	11.5	6.1	18.9	105.7	20.8	90.2	136.2	96.2
1931-1935	No	28	.....	33	74	31	39	661	118	919	632	845
	Taux	3.3	.....	3.9	8.8	3.7	4.6	78.4	13.9	108.9	74.8	100.2
1936	No	8	.....	40	40	20	18	627	119	990	231	1,003
	Taux	0.9	.....	4.6	4.6	2.3	2.1	71.7	13.6	113.2	26.4	114.6
1937	No	16	.....	84	99	17	26	615	111	1,031	376	994
	Taux	1.8	.....	9.5	11.2	1.9	2.9	69.5	12.5	116.5	42.5	112.3
1938	No	17	.....	38	41	17	26	585	83	1,099	208	975
	Taux	1.9	.....	4.3	4.6	1.9	2.9	65.2	9.3	123.1	23.3	109.2
1939	No	9	.....	42	30	8	30	542	89	1,141	256	1,104
	Taux	1.0	.....	4.7	3.3	0.9	3.3	60.2	9.9	126.8	28.4	122.7

(1) In this column, "No." indicates the average number and "Rate" the proportion per 100,000 of population for each of the diseases.

TABLE XXII
DEATHS FROM CERTAIN DISEASES BY NATIONALITIES, IN 1939

	575,100		196,200		53,550		75,150		900,000	
Population.....										
Proportion.....	63.90		21.80		5.95		8.35		100.00	
Causes of death	French-Canadians		English-Canadians		Jews		Other nationalities or unknown		Total	
Typhoid.....	8	88.9	1	11.1	.....	.....	.....	.....	9	100.00
Measles.....	35	83.3	2	4.8	1	2.4	4	9.5	42	100.00
Scarlet fever.....	8	100.0	.....	.....	.....	.....	.....	.....	8	100.00
Whooping cough.....	29	96.7	1	3.3	.....	.....	.....	.....	30	100.00
Diphtheria.....	17	89.5	.....	.....	.....	.....	.....	.....	19	100.00
Influenza.....	140	82.4	23	13.5	.....	.....	2	10.5	170	100.00
Tuberculosis, pulmonary.....	386	71.2	87	16.1	.....	.....	7	4.1	542	100.00
Tuberculosis, other forms.....	70	78.6	11	12.4	14	2.6	55	10.1	89	100.00
Other contagious diseases.....	71	74.7	17	17.9	.....	.....	8	9.0	95	100.00
Cancer.....	699	61.2	311	27.3	1	1.1	6	6.3	1,141	100.00
Diabetes.....	124	66.3	43	23.0	62	5.4	69	6.1	187	100.00
Cerebral hemorrhage embolism.....	129	54.2	72	30.3	11	5.9	9	4.8	238	100.00
Diseases of the heart.....	1,155	63.3	446	24.4	13	5.4	24	10.1	1,826	100.00
Pneumonia.....	400	70.3	115	20.2	115	6.3	110	6.0	569	100.00
Enteritis.....	257	88.6	22	7.6	24	4.2	30	5.3	290	100.00
Nephritis.....	867	78.5	166	15.1	1	0.4	10	3.4	1,104	100.00
Diseases of early infancy.....	411	76.5	78	14.5	12	2.3	36	6.7	537	100.00
Violent deaths and accidental.....	200	64.9	77	25.0	9	2.9	22	7.2	308	100.00
Total.....	5,006	69.5	1,472	20.4	284	3.9	442	6.2	7,204	100.00
Other causes of death.....	1,254	63.1	502	25.3	107	5.3	124	6.3	1,987	100.00
Grand total.....	6,260	68.1	1,974	21.4	391	4.3	566	6.2	9,191	100.00

TABLE

CLASSIFICATION OF DEATHS BY CAUSES,

Causes of death	French-Canadians						British-Canadians					
	0 to 1 year		1 to 5 years		Over 5 years		0 to 1 year		1 to 5 years		Over 5 years	
	M	F	M	F	M	F	M	F	M	F	M	F
Typhoid and paratyphoid fevers.....					3	5					1	
Measles.....	10	9	7	7	1	1		1		1		
Scarlet fever.....			1	5	2							
Whooping-cough.....	12	7	6	4				1				
Diphtheria.....			4	1	4	8						
Grippe or influenza.....	19	17	5	4	32	63	2	1			3	17
Tuberculosis, all forms.....	2	2	9	5	226	212			1		58	39
Syphilis.....	17	12			12	5	3	1			4	1
Other infectious and parasitic diseases.....	3	3	2	3	9	5	1		1		2	4
Cancer and malignant tumors.....					333	366			1		139	171
Diabetes.....			1	1	56	66					20	23
Other tumors and other general diseases.....	5	1	3	4	82	95	2		1		29	34
Diseases of the nervous system.....	35	21	10	13	133	96	1	3	1		47	56
Diseases of the circulatory system.....	2	2	5	3	724	663			1		329	316
Diseases of the respiratory system.....	103	83	36	26	114	111	7	9	3	4	55	52
Diseases of the digestive system.....	131	94	23	13	152	184	11	6	2	1	64	45
Diseases of the genito-urinary system.....	1		2	1	414	532	1				107	86
The puerperal state.....						47						4
Diseases of the skin and cellular tissue.....	6	5	1	1	14	6		1			3	5
Congenital malformation and early infancy.....	236	168	1	2	2	2	44	31	1		1	1
Old age.....					6	11					6	18
Violent and accidental deaths.....	2	3	9	12	180	37		1	3	1	59	26
Ill-defined causes of deaths.....					3	2						
Total.....	584	427	125	105	2502	2517	72	55	15	7	927	898

CXIIa

AGES, SEX AND NATIONALITIES, IN 1939

Jews						Other nationalities or unknown						Total		
0 to 1 year		1 to 5 years		Over 5 years		0 to 1 year		1 to 5 years		Over 5 years		M	F	Grand total
M	F	M	F	M	F	M	F	M	F	M	F			
												4	5	9
		1					1	3				22	20	42
												3	5	8
												18	12	30
								1		1		10	9	19
						2			1	3	1	66	104	170
				10	4		1		1	49	12	355	276	631
					1						4	40	20	60
							1				1	19	16	35
				26	36					37	32	536	605	1,141
				3	8					4	5	84	103	187
1				9	4					8	3	140	141	281
				11	9	1	2			21	14	260	214	474
				81	74					93	51	1,235	1,109	2,344
3	2		1	15	15	9	4	2	1	16	7	363	315	678
			1	8	6	3	5	1	1	26	9	421	365	786
				23	8		1			36	20	584	648	1,232
					1						2		54	54
				1	2					1		26	20	46
7	4				1	20	15			1		313	224	537
										1	3	13	32	45
			1	10	4		3	1	1	21	2	285	91	376
										1		4	2	6
1	6	1	3	197	173	35	33	8	5	324	161	4,801	4,390	9,191

TABLE
DEATHS OF NON-RESIDENTS
Classification by causes,

Causes of death	French-Canadians						British-Canadians						
	0 to 1 year		1 to 5 years		Over 5 years		0 to 1 year		1 to 5 years		Over 5 years		
	M	F	M	F	M	F	M	F	M	F	M	F	
I—Infectious and parasitic diseases:													
Tuberculosis of the lungs 23.....					32	46						7	3
Tuberculosis, other forms 24-32.....					5	7						2	1
Other infectious and parasitic diseases...	4		6	2	11	15	1	1				5	
II—Cancers and other tumors 45-55.....		1	1		50	49						55	49
III—Rheumatismal diseases etc. 56-69.....					7	14		2				9	8
IV—Diseases of the blood, etc. 70-74.....		1			4	5			1	1		4	1
V—Chronic poisoning etc 75-77.....				1		1							
VI—Diseases of the nervous system 78-79.....	2	2	4	3	20	6						6	8
VII—Diseases of the circulatory system 90-103.....		1			68	25						46	29
VIII—Diseases of the respiratory system 104-114.....	5	5	4	2	20	14	4	2		1		5	9
IX—Diseases of the digestive system 115-129.....	4	2	6	3	54	39	1	3				27	21
X—Diseases of the genitourinary system 130-139.....			1		43	30						17	15
XI—The puerperal state 140-149.....						14							3
XII—Diseases of the skin, etc. 151-153.....					7	1	1					2	
XIII—Diseases of the bones 154-156.....						1						2	1
XIV—Congenital malformation 157.....	5	2	1	1	2	2	3	5	1				
XV—Diseases of early infancy 158-161.....	16	14					10	7		1			
XVI—Old age 162.....													1
XVII—Violent and accidental deaths 163-198.....	1		1		32	7	1		1			18	10
XVIII—Ill-defined causes of deaths 199-200.....													
XIX—Total.....	37	28	24	12	355	276	21	20	3	3		205	159

CXIII
OF MONTREAL, IN 1939
ationalities and ages

Jews						Other nationalities or inknown						Total		
0 to 1 year		1 to 5 years		Over 5 years		0 to 1 year		1 to 5 years		Over 5 years		M	F	Grand total
M	F	M	F	M	F	M	F	M	F	M	F			
										1	4	40	53	93
				2						2	1	11	9	20
										2	1	29	19	48
				2	2			2		7	4	117	105	222
				1	1						1	17	26	43
					1					1		10	9	19
					1								2	3
					1					1		33	20	53
				3	5					1	3	118	63	181
							1					39	33	72
				2	1				1			94	70	164
				2	1					4	2	67	48	115
					1								18	18
1												11	1	12
												2	2	4
												12	10	22
							1					27	22	49
													1	1
				1	2					2	1	57	20	77
1				13	16	2		2	1	21	17	684	532	1,216

TABLE XXIV

DEATHS IN MONTREAL, CLASSIFIED ACCORDING
TO THE PLACE OF DEATH

(domiciles, hospitals, homes, etc.)

Place of death	Residents		Non-residents		Total		Grand total
	Male	Fem.	Male	Fem.	Male	Fem.	
Domiciles.....	1,997	2,224	30	19	2,027	2,243	4,270
GENERAL HOSPITALS :							
1—Notre Dame Hospital.....	260	189	86	48	346	237	583
2—St. Luc Hospital.....	255	131	30	21	285	152	437
3—Pasteur Hospital.....	39	40	12	3	51	43	94
4—Hotel Dieu Hospital.....	127	119	56	57	183	176	359
5—Sacre Cœur Hospital.....	173	165	44	67	217	232	449
6—Ste. Jeanne d'Arc Hospital.....	74	92	14	22	88	114	202
7—Ste. Justine Hospital.....	210	165	68	44	278	209	487
8—Misericorde Hospital.....	17	18	3	4	20	22	42
9—Montreal General Hospital.....	179	88	64	44	243	132	375
10—Montreal General Hospital West..	39	33	24	30	63	63	126
11—Royal Victoria General Hospital .	166	94	104	66	270	160	430
12—Royal Victoria Maternity.....	20	12	5	5	25	17	42
13—Children's Memorial Hospital....	30	19	9	9	39	28	67
14—Montreal Children's Hospital....	20	12	3	3	23	15	38
15—Homoeopathic Hospital.....	18	29	10	10	28	39	67
16—Catherine Booth.....	2	1	5	1	7	2	9
17—Ste. Mary's Hospital.....	47	46	14	18	61	64	125
18—Alexandra Hospital.....	7	4	2	.....	9	4	13
19—Jewish General Hospital.....	74	56	9	10	83	66	149
20—Private Hospitals and Maternities.	11	18	4	8	15	26	41
21—Others.....	47	71	6	8	53	79	132
Total General Hospitals.....	1,815	1,402	572	478	2,387	1,880	4,267
INFANT HOMES :							
1—Misericorde.....	97	74	.....	.....	97	74	171
2—St. Paul.....	18	3	.....	.....	18	3	21
3—Aide a la Femme.....	62	37	.....	5	62	42	104
4—Boarding homes.....	.....	1	.....	.....	.....	1	1
Total.....	177	115	.....	5	177	120	297

TABLE XXIV
DEATHS IN MONTREAL, CLASSIFIED ACCORDING
TO THE PLACE OF DEATHS
 (domiciles, hospitals, homes, etc.)
RESIDENTS AND NON-RESIDENTS—(Continued)

Place of death	Résidents		Non-résidents		Total		Grand total
	Male	Fem.	Male	Fem.	Male	Fem.	
OTHER HOMES :							
1—Notre Dame de la Merci.....	180	1	31	.....	211	1	212
2—Aide a la Femme.....	5	19	.....	1	5	20	25
3—Convalescent Home.....	4	7	5	4	9	11	20
4—Others.....	130	176	7	17	137	193	330
Total.....	319	203	43	22	362	225	587
MISCELLANEOUS :							
1—Religious communities.....	5	88	.....	.....	5	88	93
2—Public places.....	129	25	34	8	163	33	196
Total.....	134	113	34	8	168	121	289
PENAL ESTABLISHMENTS :							
1—Bordeaux Hospital.....	20	.....	5	.....	25	.....	25
2—Others.....	.....	.....	.....	.....	.....	.....	.....
Total.....	20	.....	5	.....	25	.....	25
MONTREAL RESIDENTS DECEASED ELSEWHERE :							
1—St. Jean de Dieu Asylum.....	109	117	.....	.....	109	117	226
2—Verdun Insane Asylum.....	19	33	.....	.....	19	33	52
3—T. B. C. Sanatoria.....	13	6	.....	.....	13	6	19
4—Other hospitals.....	96	146	.....	.....	96	146	242
5—Other places.....	102	31	.....	.....	102	31	133
Total.....	339	333	.....	.....	339	333	672

RÉCAPITULATION

Domiciles.....	1,997	2,224	30	19	2,027	2,243	4,270
General hospitals.....	1,815	1,402	572	478	2,387	1,880	4,267
Infant homes.....	177	115	.....	5	177	120	297
Other homes.....	319	203	43	22	362	225	587
Miscellaneous.....	154	113	39	8	193	121	314
Total deaths in Montreal.....	4,462	4,057	684	532	5,146	4,589	9,735
Montreal residents deceased elsewhere.	339	333	.....	.....	339	333	672
GRAND TOTAL.....	4,801	4,390	684	532	5,485	4,922	10,407

XXV
TO THE INTERNATIONAL NOMENCLATURE
ages, year 1939—(Continued)

20 to 24 years		25 to 29 years		30 to 34 years		35 to 39 years		40 to 44 years		45 to 49 years		50 to 54 years		55 to 59 years		60 to 64 years		65 to 69 years		70 to 79 years		80 to 89 years		Over 90 years		No. of 1929	
M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F		
																											29
	2					1	1		1			1						1			1	1					30
			1																								31
	1			1	1						1	1															
									1																		33
																											34
				1		1			1	2	2	3		4	3	4	1	4		1							35
				1																							36
												1									1		1				
																											37
																											38
																											39
																											40
																											41
																											42
																											43
																											44
23	64	41	34	38	32	35	28	46	27	47	18	46	13	26	15	19	13	20	13	21	27	10	20	1	5		
																											45
					1		1					8	3	6		11	1	16	4	18	1	2	3				46
										2	1	1		7	1	4		6	1	10		2					
		1		1		1	2	8	7	3	14	9	24	9	24	15	17	13	40	38	6	11	1	1			
			2	1	2		1	3	2	2	3	3	9	4	2	5		5	6	9		1					
							4	2		4	3		5	7	6	9	4	8	7	13		6		1			
									1		3	3	1	2	1	3	2	1	3	2							
							1							1				2									
			1	1	1	1	1	3	5	4	6	8	8	9	12	8	13	14	8	15	26	3	8				

XXV
TO THE INTERNATIONAL NOMENCLATURE
ages, year 1939—(Continued)

20 to 24 years		25 to 29 years		30 to 34 years		35 to 39 years		40 to 44 years		45 to 49 years		50 to 54 years		55 to 59 years		60 to 64 years		65 to 69 years		70 to 79 years		80 to 89 years		Over 90 years		No. of 1929
M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	
						1		1	1	8	1	10	1	12	3	12	1	9	4	6	2	1	1			47
																										48
			3			5		11		11		20		20		13		11		10		15		4	1	49
						1				1		3		4		3		1		2		8		1		50
						3		6		5		12		12		14		15	1	10		6		6	1	51
								3				5		4		12		13		24		5				52
													1		1	1	1		3	1					1	53
1					1	1	3	1	2	2	3	3	4	7	5	4	4	5	8	7	5		2			54
			1			2		3		3		2		3		1		2		2		2				55
1							1		1		1				1		2	1	3	1	6	1	5			55
																										55
			1		2																1		1		2	55
2		2	7	5	15	8	26	18	42	27	59	63	75	88	75	87	83	91	79	146	129	25	43	3	5	55
																										56
2		2	3			1	1	1	1	2	2	1			2						1	1				56
1		1							2		1	3	5			2	1	2	4	5	4	9	1	7		57
																										58
		1				1	1		4	1		2	4	13	8	12	20	19	14	14	24	28	5	7		59
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XXV
TO THE INTERNATIONAL NOMENCLATURE
ages, year 1939—(Continued)

20 to 24 years		25 to 29 years		30 to 34 years		35 to 39 years		40 to 44 years		45 to 49 years		50 to 54 years		55 to 59 years		60 to 64 years		65 to 69 years		70 to 79 years		80 to 89 years		Over 90 years		No. of 1929
M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	
																										68
						2						1				1										69
3		4	3		5	2	1	8	3	3	9	9	16	10	16	22	23	18	21	29	38	6	14			
							1								1					2						70
	1		1			1		1		3	1	2		1		1	2	2	1	3	2					71
			1																							72
2		2		2		2	1	1	1			1	2				1		2		2					73
1			2			1						2		1	2					2	3					74
	1					1		1				1		1							1					
								2				2		2					1		1					75
				1		1				2		2		2					1		1					76
												1														77
1																										
						1				2		3		2					1		1					
																										78
2							1		1																	
							2	1	1	3	1					1	1									79
							1		1				1					1		3						80
2							1		1	1	1					2		2		2						81

XXV
TO THE INTERNATIONAL NOMENCLATURE
ages, year 1939—(Continued)

20 to 24 years		25 to 29 years		30 to 34 years		35 to 39 years		40 to 44 years		45 to 49 years		50 to 54 years		55 to 59 years		60 to 64 years		65 to 69 years		70 to 79 years		80 to 79 years		Over 90 years		No. of 1929	
M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F		
																										82	
				1	1	2	2	2	2	6	4	13	12	12	9	15	12	15	8	23	30	10	11	1	..		
											1	..	..	7	3	2	1	1	2	3	6	2	6	..	..
									1	..	..	..	..	..	..	..	1	1	3	3	1	..	..	1	..	
				1	..	3	1	4	2	2	..	6	..	2	..	3	..	1	..	..	..	..	..	..	..	83
												1	2	..	..	..	..	..	..	..	..	..	..	..	..	84
		2	..	1	..	1	..	1	..	1	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..
	3	2	1	1	1	1	1	1	1	..	3	2	..	..	..	1	..	..	..	1	1	..	..	..	..	85
																										86	
																										87	
												1	..	..	..	..	..	..	..	..	..	..	..	..	..
			2	..	..	1	..	1	..	1	1	..	1	1	..	1	..	4	2	2	5	..	4	..	..
				1	..	..	..	2	..	1	..	1	2	..	..	..	..	..	2	..	2	..	1	..	..
					1	..	..	..	..	..	..	1	1	..	..	..	..	..	..	..	1	..	..	..	..	88
																										89	
	1	..	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
4	4	4	4	6	3	8	9	11	10	15	10	27	18	23	13	24	14	25	13	39	46	14	21	1	1		
1	..	..	..	1	..	..	..	..	..	1	..	1	..	..	..	1	1	..	..	..	..	..	..	..	..	90
1	2	1	2	1	1	1	2	2	..	..	..	..	..	1	..	..	..	1	..	1	..	1	..	1	..	91
5	7	7	7	6	9	9	13	9	14	19	9	10	18	16	12	20	20	16	26	20	40	26	28	1	5	92	
		1	..	..	..	..	1	..	..	..	..	..	..	1	1	..	3	1	1	..	..	1	3	..	..	93
2	..	..	1	2	1	4	3	11	7	12	9	21	22	32	18	34	18	40	22	85	93	45	62	8	12	
													1	..	..	..	..	..	..	..	1	..	3	..	..
		1	..	2	1	12	3	16	2	28	8	58	13	61	13	45	22	41	28	82	30	19	17	1	1	94	
																										95	
	2	1	1	2	5	4	5	3	6	9	6	5	6	13	18	9	15	11	21	34	31	13	20	..	2		
			2	..	2	..	..	1	..	..	2	4	..	..	..	3	..	1	..	1	..	..	..	..	..	96
								1	..	6	..	8	7	14	8	20	17	28	21	78	87	41	82	12	..	97	
																2	..	1	2	8	8	2	3	1	1	98	
							1	..	..	..	..	1	1	..	..	..	..	..	..	..	..	..	..	..	..
									1	..	..	1	1	1	1	3	1	1	2	3	2	1	1	1	1	99
													1	..	..	1	..	..	3	1	2	..	1	..	..	100

TABLE
CLASSIFICATION OF DEATHS ACCORDING
By causes, sex and

No. of 1929	International Classification	Total	M	F	0 to 5 months		6 m. to 1 year		1 to 4 years		5 to 9 years		10 to 14 years		15 to 19 years	
					M	F	M	F	M	F	M	F	M	F	M	F
101	Diseases of the lymphatic system (lymphangitis, etc.).....	1	1	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....
102	Idiopathic anomalies of blood pressure.....	2	1	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
103	Other diseases of the circulatory system.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Total.....	2344	1235	1109	2	1	1	6	3	2	6	6	3	7	7	
	VIII.—Diseases of the Respiratory System.															
104	Diseases of the nasal fossae and annexa.....	7	5	2	.....	.....	.....	.....	1	1	.....	.....	.....	.....	1	.....
106	Diseases of the larynx.....	5	3	2	.....	1	.....	.....	1	1	2	.....	.....	.....	.....	.....
106	Bronchitis:															
	a) acute.....	8	5	3	4	.....	.....	.....	.....	.....	1	.....	.....	1	.....	.....
	b) chronic.....	5	4	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	c) unstated.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
107	Broncho-pneumonia, including capillary bronchitis.....	326	176	150	74	50	28	24	28	24	.....	1	.....	.....	1	2
108	Lobar pneumonia.....	200	96	104	3	6	2	5	5	2	2	1	1	4	1	1
109	Pneumonia not specified.....	43	19	24	1	4	3	1	1	1	.....	.....	.....	.....	2	.....
110a	Pleurisy.....	2	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
110b	Purulent pleurisy.....	10	3	7	.....	1	.....	.....	2	1	.....	.....	.....	.....	.....	1
111	Congestion, oedema, embolism, hemorrhagic infarct of lung....	40	26	14	7	5	.....	.....	2	1	.....	.....	.....	1	1	.....
112	Asthma.....	10	9	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
113	Pulmonary emphysema.....	3	3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
114	Other diseases of the respiratory system, except tuberculosis															
	a) pneumonia, including occupa- tional diseases of the lungs.....	4	4	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	b) others, including gangrene of the lung.....	15	8	7	.....	1	.....	.....	2	1	1	.....	1	.....	.....	.....
	Total.....	678	363	315	89	68	33	30	41	32	6	2	2	6	6	4
	IX.—Diseases of the Digestive System.															
115	Diseases of the buccal cavity annexa, including pharynx, and tonsils and adenoids.....	19	12	7	.....	.....	1	.....	2	1	1	1	.....	.....	.....	1
116	Diseases of the oesophagus.....	1	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
117	Ulcer of the stomach or duode- num:															
	a) stomach.....	42	34	8	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	b) duodenum.....	17	16	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
118	Other diseases of the stomach (except cancer).....	40	19	21	1	.....	1	2	2	2	1	.....	.....	.....	1	.....

XXV
TO THE INTERNATIONAL NOMENCLATURE
ages, year 1939—(Continued)

20 to 24 years		25 to 29 years		30 to 34 years		35 to 39 years		40 to 44 years		45 to 49 years		50 to 54 years		55 to 59 years		60 to 64 years		65 to 69 years		70 to 79 years		80 to 89 years		Over 90 years		No. of 1929	
M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F		
																											101
										1											1						102
																											103
9	11	11	13	14	20	31	29	45	30	75	35	110	73	141	73	142	103	143	131	315	306	156	227	20	37		
																											104
1								1		1								1	1							105	
																											106
														1		1		1							1		107
3				2	1	2	2	4	2		1	2	2	6	4	1	5	5	4	9	11	11	13		4	108	
6	1	1	4	3	4	6	6	5	2	5	4	10	8	8	4	10	4	12	12	14	22	1	12	1	2	109	
		1			1	1		1	1	4	1				2	1		2	1	1	6	1	5	1		110a	
			2			1													2							110b	
			1					1		2		3		2		1	1	2		3	3	1	2	1		111	
			1					1		2		1		2		1				2						112	
														1				1		1						113	
																										114	
								1						1		2											
					1		1		1	1		2					2				1						
10	1	2	8	5	7	12	10	13	6	15	6	18	10	21	10	17	13	24	20	31	43	15	33	3	6		
																											115
		1		2		1		1	3	2		1							1								116
																					1						117
1				1		1		1	1	8	1	5		5	1	3	3	4		2	2	3					118
				2		1		2		4		2		4		1	1										
		1			1		1	1			1	3	4	1	1	1	2	1	1	4	3	1	3				

TABLE
CLASSIFICATION OF DEATHS ACCORDING
By causes, sex and

No. of 1929	International Classification	Total	M	F	0 to 5 months		6 m. to 1 year		1 to 4 years		5 to 9 years		10 to 14 years		15 to 19 years	
					M	F	M	F	M	F	M	F	M	F	M	F
183	Accidental drowning.....	55	51	4							3	1	5	1	6	
184	Accidental injury by firearms, except combatants in battle.....															
185	Accidental injury by cutting or piercing instruments, except combatants in battle.....	1	1													
186	Accidental injury by fall, crush- ing, land slide.....	64	45	19				2	3	1			2	1		
	1) Accidental injury in mining and quarrying.....															
	2) Accidental injury by machinery	1	1													
	3a) Railway accidents.....	10	8	2												
	3b) Tramway accidents.....	3	2	1												
	3c) Automobile and motorcycle accidents.....															
	3d) Accidents by other means of transportation by land.....	114	89	25				1	6	11	6	8		7	1	
	3e) Accident by water transport- ation.....															
	3f) Accidental injury by aerial transportation.....															
	3g) Elevators.....	2	2													
187	Cataclysm.....															
188	Injury by animals.....															
189	Hunger or thirst.....															
190	Excessive cold.....															
191	Excessive heat.....															
192	Lightning.....	1	1													1
193	Accidental injury by electric cur- rents (lightning excepted).....	4	4							1						1
194	Other accidents.....															
	a) foreign body.....	1	1					1								
	b) others.....															
195	Violent death of unstated nature or unknown cause.....															
196	War injuries.....	1	1													
197	Execution of civilians by belli- gerent armies.....															
198	Execution (sentence of death).....	1	1													
	Total.....	376	286	90	2	7		13	15	17	7	15	2	15	1	
	XVIII.—III-defined Causes of Death.															
199	Sudden death.....	5	4	1												
200	Causes of death unstated or not specified.....	1		1												
	Total.....	6	4	2												
	Total M.....		4801					583	119	149	66	49	78			
	Total F.....			4390				419	102	120	55	49	73			
	Grand total.....	9191						1002	221	369	121	98	151			

TABLE
CLASSIFICATION OF DEATHS ACCORDING
By causes, sex and

No. of 1929	International Classification	Total	M	F	0 to 5 months		6 m. to 1 year		1 to 4 years		5 to 9 years		10 to 14 years		15 to 19 years	
					M	F	M	F	M	F	M	F	M	F	M	F
	Special Classification for Accidents															
1	Agricultural machinery.....															
2	Elevators.....	2	2													
3	Machines (recreation).....															
4	Other machines.....	1	1													
5	Collision: Railroad and auto- mobile.....															
6	Collisions: Railroad and other vehicles.....															
7	Other railroad accidents.....	10	8	2												
8	Collisions: Tramways and auto- mobile.....	1	1													
9	Collisions: Tramways and other vehicles.....															
10	Other tramway accidents.....	3	2	1												
11	Collisions: Automobile and automobile	7	6	1												
12	Collisions: Automobile and other vehicles.....	3	3													2
13	Other automobile accidents.....	96	72	24				1	6	11	6	8			5	1
14	Motorecycle accidents.....	7	7													
	Total.....	130	102	28				1	6	11	6	8			7	1

XXV
TO THE INTERNATIONAL NOMENCLATURE
ages, year 1939—(Continued)

20 to 24 years		25 to 29 years		30 to 34 years		35 to 39 years		40 to 44 years		45 to 49 years		50 to 54 years		55 to 59 years		60 to 64 years		65 to 69 years		70 to 79 years		80 to 79 years		Over 90 years		No. of 1929	
M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F		
			1											1													1
																											2
			1																								3
																											4
																											5
																											6
					1			1	2				2			1	1			2							7
																1											8
																											9
													1														10
	2	1			1		1		1		1											1	1				11
																											12
	5	1	1	1	4	2	1	1	3	1	6		8	2	3		2		2		9	2	3	1		13	
	1		1				1				1		1			1		1									14
8	2	4	1	6	2	3	2	6	1	8		12	2	5	1	5		3		11	3	4	1				

METEOROLOGICAL SERVICE OF
Observations made at McGill University, Montreal,
Height above

Month	Thermometer					*Barometer			
	†Mean	(a) Deviation from 63 years means	Maximum	Minimum	Mean daily range	†Mean	Maximum	Minimum	Mean daily range
January.....	15.11	+1.45	46.6	-14.4	15.96	30.015	30.62	29.12	.342
February.....	15.82	+0.57	39.0	-8.9	18.26	30.067	30.72	29.34	.463
March.....	22.80	-3.23	43.9	-5.9	15.26	30.068	30.59	29.27	.322
April.....	36.93	-4.08	57.8	20.4	12.49	29.920	30.51	29.56	.234
May.....	56.19	+1.19	85.8	34.6	19.20	29.937	30.33	29.28	.204
June.....	65.05	+0.37	84.9	48.5	15.80	29.942	30.29	29.53	.197
July.....	70.40	+1.08	89.9	54.3	15.72	29.926	30.29	29.45	.143
August.....	70.87	+4.03	86.0	54.2	16.70	29.955	30.24	29.55	.128
September.....	58.25	-0.47	86.9	33.5	16.80	29.995	30.55	29.54	.248
October.....	46.83	+0.06	71.2	21.4	15.95	29.973	30.43	29.26	.305
November.....	32.30	-1.08	52.0	14.5	11.31	30.156	30.67	29.46	.261
December.....	22.02	+2.42	47.7	-4.0	9.91	29.821	30.45	29.13	.340
Sums for 1939.....									
Means for 1939.....	42.71	+0.19			15.28	29.981			.266
Means for 65 years ending December 31st, 1939.....	42.52				15.27	29.982			.235

- Barometer readings reduced to sea level and 32° F. -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 the average for 64 years. -Humidity relative, saturation being 100. Means of readings every two hours from recording hygrometer. - For 57 years only.

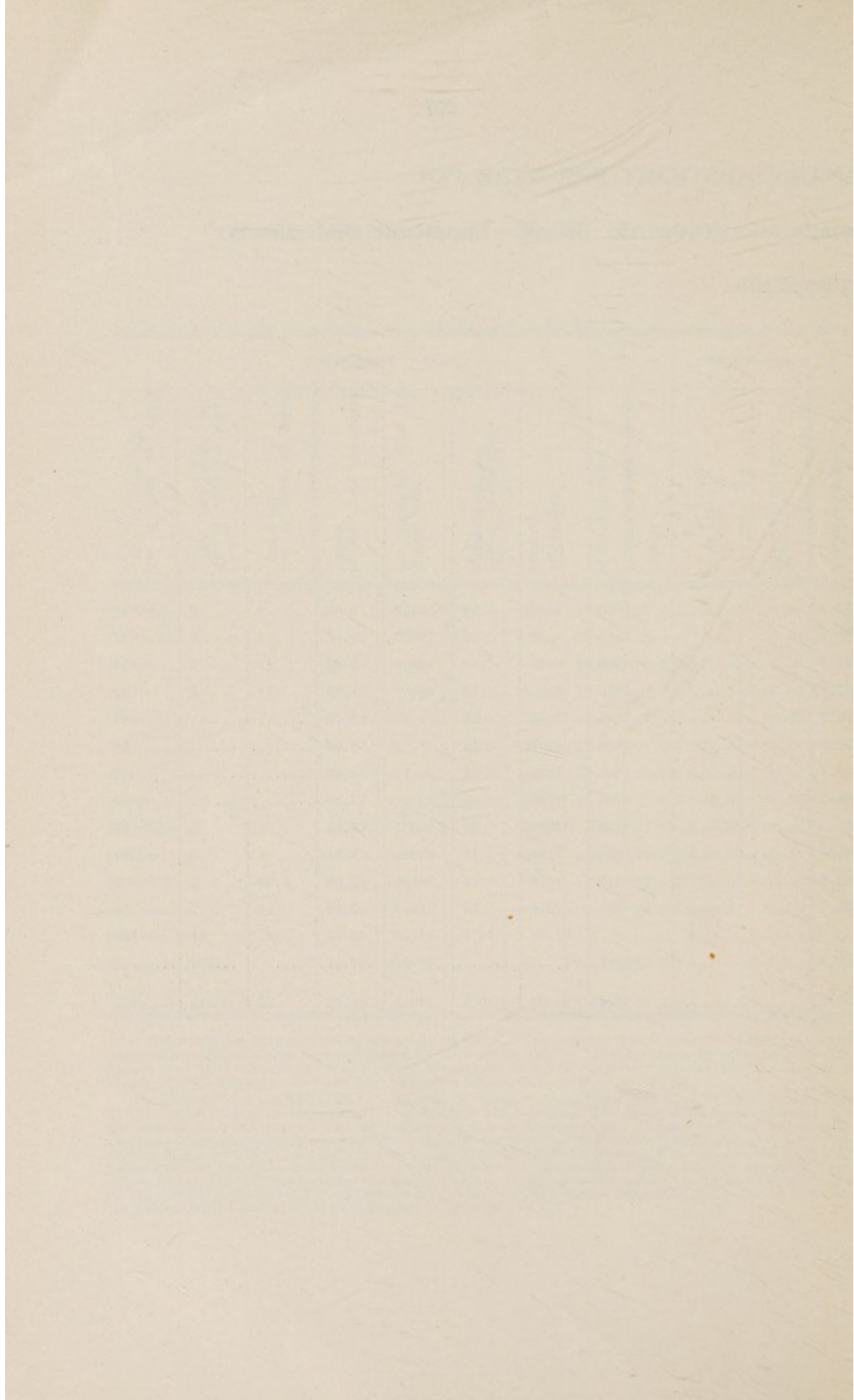
The greatest heat was 93.0 (Fah.) above zero, on August 4, the greatest cold was 12.1 below zero on March 4. The extreme range of temperature was therefore 105.1 degrees. The greatest temperature range in one day was 32.9 on January 31, the least range was 2.6 on December 11. The warmest day was August 15 when the mean temperature was 82.9 above zero. The coldest day was March 3 when the mean temperature was 5.1 below zero. Hail on 1 day. Fog on 1 day. Thunderstorms on 23 days. Auroras observed on 4 nights. Lunar halos on 12 nights. Solar halos on 1 day. First trace of snow on November 14. First appreciable snowfall on November 17. First freezing weather on October 31. The greatest rainfall in one day was 2.22 inches on May 30 and September 21, 2.82 inches fell in 26 hours 45 minutes on September 20-21. The heaviest snowfall was on April 8 and 9, when 98 inches fell in 30 hours.

CANADA, ABSTRACT FOR YEAR 1939

Canada.—Latitude 45° 30' N.—Longitude 75° 35' W.

sea level 187

Mean relative humidity	Wind		Percent possible sunshine	Precipitation						
	Resultant direction	Mean velocity, M. P. H.		Inches rain	No. of days on which rain or sleet fell	Inches, snow	Inches of rain and melted snow	No. of days on which snow fell	No. of days on which rain and snow fell	No. of days on which rain or snow fell
79.2	30.0	1.35	3	21.5	3.42	9	0	12
80.8	28.4	0.49	7	38.7	5.06	16	6	17
77.4	32.9	0.41	6	24.9	3.02	11	2	15
75.6	28.5	1.32	13	16.4	4.49	11	3	21
61.8	52.3	2.93	13	.....	2.93	.....	.....	13
69.2	50.2	4.06	14	.....	4.06	.....	.....	14
73.7	54.0	4.82	12	.....	4.82	.....	.....	12
69.0	63.8	4.29	9	.....	4.29	.....	.....	9
72.5	41.5	4.53	15	0.3	4.65	1	0	16
6.89	36.6	3.30	12	Trace	3.31	1	0	13
64.3	41.2	1.74	7	1.0	2.00	2,02	1	8
74.7	16.5	2.14	4	14.6	3.82	16	2	18
	31.38	11.5	117.4	45.87	67	14	168
72.3	39.7	.....	.....	.....	.....	.....	.....	.....
74.0	43.4	29.92	10.8	113.8	41.82	76	15	169







Imprimerie Populaire Limitée — 430 est, rue Notre-Dame, Montréal



1940