

## **Report of the Department of Health / City of Montreal.**

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# Report of the Department of Health

of

MONTREAL, P.Q. (Canada)

**Year 1938**

By DOCTOR Ad. GROULX, C.P.H.,  
DIRECTOR.



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## CITY OF MONTREAL

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### MAYOR:

His Worship ADHEMAR RAYNAULT.

### EXECUTIVE COMMITTEE:

Alderman OVIDE TAILLEFER, President,  
Aldermen F. J. HOGAN, ALFRED FILION,  
TREFFLE LACOMBE, J. E. JEANNOTTE, n.p., members.

### HEALTH COMMISSION:

Alderman OVIDE TAILLEFER,  
Aldermen Z. H. LESAGE, M.D., L. TREPANIER,  
A. L'ARCHEVEQUE, and Dr. AD. GROULX,  
Dr. E. G. ASSELIN, Dr. A. GRANT FLEMING,  
Dr. FRANK G. PEDLEY, Dr. B. G. BOURGEOIS, members.

### HEALTH DEPARTMENT:

Dr. AD. GROULX, C.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 1938

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### DIRECTOR'S OFFICE:

Dr. AD. GROULX, C.P.H., Director,  
 Dr. ADRIEN PLOUFFE, Dr.P.H., Assistant-director,  
 Dr. EUG. GAGNON, Assistant-director,  
 1 Secretary and office chief,  
 1 Office chief (general administration),  
 1 Archivist,  
 1 Clerk, 2nd grade,  
 2 Stenographer clerks,  
 1 Messenger.

### DIVISION OF CONTAGIOUS DISEASES:

Dr. J. H. GERVAIS, D.P.H., superintendent,  
 1 Clerk, 3rd grade,  
 2 Typist clerks,  
 2 Clerks, 4th grade,  
 4 Epidemiologists,  
 1 Nurse (supervisor),  
 10 Nurses.

#### Section of tuberculosis:

Dr. LEO LADOUCEUR,  
 1 Nurse (supervisor),  
 1 Nurse,  
 1 Typist clerk,  
 3 Disinfectors,  
 1 Janitor (Smallpox hospital),  
 1 Cook (Smallpox hospital).

### DIVISION OF CHILD HYGIENE:

Dr. J. N. LAPORTE, superintendent,  
 1 Stenographer clerk,  
 4 Typist clerks,  
 1 Clerk, 3rd grade,  
 1 Clerk, 4th grade,  
 1 Chief inspector for medical inspection of schools,  
 1 Medical inspector (supervisor),  
 21 Medical inspectors of schools,  
 6 Dental inspectors of schools,  
 1 Head nurse,  
 5 Nurses (supervisors),  
 96 Visiting school nurses,  
 2 Nurses inspecting boarding houses for children,  
 4 Nurses (temporary) in baby clinics,  
 4 Assistant-nurses,  
 3 Psychiatrists,  
 1 Supervising nurse (psychologist),  
 3 Nurses (psychologists),  
 2 Nurses—Test of hearing.

#### Laurier Clinic:

1 Stationary engineer,  
 1 Typist clerk.

**DIVISION OF SANITATION:**

Mr. Aimé COUSINEAU, C.E., sanitary engineer and superintendent,  
 1 Engineer and assistant-superintendent,  
 2 Clerks, 1st grade,  
 1 Clerk, 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 FOOD INSPECTION:**

Dr. A. J. G. HOOD, D.V.S., superintendent,  
 2 Typist clerks,

**Section No. 1—Milk inspection:**

1 Supervisor,  
 10 Country inspectors,  
 7 City inspectors.

**Pasteurization inspection:**

1 Supervisor,  
 7 Inspectors.

**Section No. 2—Meat inspection:**

1 Supervisor,  
 1 Clerk, 3rd grade,  
 1 Typist clerk,  
 1 Inspector of abattoirs in suburbs, and ice,  
 7 District inspectors,  
 7 Veterinary surgeons, meat inspection stations,  
 1 Asst.-inspector, meat inspection stations.

**Section No. 3—Inspection of dining-rooms, restaurants, etc.:**

1 Supervisor,  
 1 Clerk, 3rd grade,  
 1 Typist clerk,  
 7 Inspectors.

**Section No. 4—Inspection of bakeries:**

1 Supervisor,  
 1 Inspector.

**DIVISION OF MEDICAL CONTROL:**

Dr. J. A. BRIEN, superintendent,  
 4 Visiting physicians,  
 1 Typist clerk,  
 1 Clerk, 3rd grade.

**Medico legal section:**

1 Physician,  
 1 Nurse and secretary.

**DIVISION OF LABORATORIES:**

Dr. A. BOLDUC, superintendent and bacteriologist,  
 2 Bacteriologists,  
 2 Chemists,  
 1 Asst.-analyst,  
 1 Technician,  
 2 Laboratory helpers,  
 1 Stenographer clerk.

**DIVISION OF STATISTICS:**

1 Superintendent,  
 1 Statistician,  
 3 Clerks, 3rd grade,  
 1 Typist clerk.

**LAW DIVISION:**

Mr. Ed. FLAMAND, lawyer, superintendent,  
 1 Typist clerk.

**DIVISION OF MUNICIPAL ASSISTANCE:**

Mr. A. CHEVALIER, superintendent,  
 1 Assistant-superintendent,  
 1 Clerk, 1st grade,  
 1 Clerk, 2nd grade,  
 2 Clerks, 3rd grade,  
 1 Clerk, 4th grade,  
 1 Stenographer clerk,  
 1 Typist clerk,  
 1 Chief investigator,  
 14 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

1938

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 1938.

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 1938, in the Department of Health amounted to \$3,869,228.23, distributed as follows:

Hygiene.....	\$ 576,932.35
Municipal assistance.....	2,488,869.75
Hospitalization of contagious.....	450,852.72
Grants to Universities.....	20,000.00
Technical school.....	75,000.00
Grants to charitable institutions.....	289,730.00
Ecoles Ménagères.....	4,000.00
Christmas Seals.....	2,000.00
Total.....	<u>\$3,907,384.82</u>
Expenses recovered.....	<u>\$ 38,156.59</u>

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 1938; consequently, the population having been estimated at 893,000 inhabitants, we arrive at the following result:

For hygiene, properly speaking . . . . \$0.646 per capita.

For municipal assistance . . . . . \$2.78 per capita.

The following list shows the detail of expenditure during the fiscal year 1938-39:

### Hygiene

#### GENERAL ADMINISTRATION EXPENSES:

General expenses . . . . . \$ 70,652.76

#### DIRECTOR'S OFFICE:

Salaries . . . . .	\$ 27,224.91	
Administration . . . . .	349.65	
	<hr/>	\$ 27,574.56

#### SANITATION:

Salaries . . . . .	\$ 58,836.56	
Administration . . . . .	948.94	
	<hr/>	\$ 59,785.50

## CONTAGIOUS DISEASES:

Salaries.....	\$ 36,127.84	
Administration.....	2,619.83	
	<hr/>	\$ 38,747.67

## FOOD INSPECTION:

Salaries.....	\$ 85,927.54	
Administration.....	1,355.53	
	<hr/>	\$ 87,283.07

## CHILD HYGIENE:

Salaries.....	\$218,313.61	
Administration.....	21,165.30	
	<hr/>	\$ 239,478.91

## MEDICAL CONTROL:

Salaries.....	\$ 19,643.17	
Administration.....	90.24	
	<hr/>	\$ 19,733.41

## STATISTICS:

Salaries.....	\$ 7,286.89	
Administration.....	226.78	
	<hr/>	\$ 7,513.67

## LABORATORIES:

Salaries.....	\$ 19,640.87	
Administration.....	2,558.56	
	<hr/>	\$ 22,199.43

## LAW OFFICE:

Salaries.....	\$ 3,911.60	
Administration.....	51.77	
	<hr/>	\$ 3,963.37

Total.....	<hr/>	\$ 576,932.35
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### Municipal Assistance

Salaries.....	\$ 37,295.34	
Administration.....	1,622.92	
	<hr/>	\$ 38,918.26

### ART. 338a OF THE CITY CHARTER:

#### MEURLING REFUGE:

Salaries.....	\$ 13,557.60	
Food.....	} 37,229.77	
Maintenance.....		
Linen.....		
	<hr/>	\$ 50,787.37

OBLIGATORY EXPENSES..... 2,055,629.01

Contracts and resolutions of the Executive Committee.....	343,535.11	
	<hr/>	
Total.....	\$2,488,869.75	

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## **Demographic Movement**

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## POPULATION

On July 1st, 1938, the population of the City of Montreal, computed by the Superintendent of the Division of Statistics of the Department of Health, is evaluated to 893,000 inhabitants.

## BIRTH RATE

The number of births in 1938 amounted to 17,062; in 1937 it had been 17,180, showing therefore a decrease of 118 over the preceding year and an increase of 337 as compared to 1936.

The proportion of births per 1,000 inhabitants for 1938, based on the valuation of the population at 893,000, is 19.10, showing a decrease of 0.31 over 1937, it also represents a decrease of 1.28 over the average for the five years from 1933 to 1937 and a decrease of 3.85 as compared to the average for the ten preceding years.

Table I compares the number and the rate of births for the year 1938 with the ten preceding years, taken separately and in groups of five and of ten years.

**Table I****BIRTHS****Period 1928-1932 (5 years)**

Years	Population	Number of births	Proportion per 1,000 inhabitants
1928.....	754,300	20,307	26.92
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
Average.....	795,695	20,482	25.74

**Period 1933-1937 (5 years)**

1933.....	847,000	18,431	21.76
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
Average.....	865,000	17,626	20.38

**Period 1928-1937 (10 years)**

Average.....	830,347	19,054	22.95
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**Year 1938**

Year 1938.....	893,000	17,062	19.10
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**MARRIAGE RATE**

In 1938 there were 8,608 marriages, as against 8,305 in 1937, representing an increase of 303 over the preceding year.

The proportion per thousand of population is therefore 9.64 for 1938; it is an increase of 1.44 over the average of the five years 1933 to 1937, and of 1.42 over the average for the ten years 1928 to 1938.

Table II compares the rate and the number of marriages in 1938, with the preceding ten years taken separately and in group of five and ten years.

**Table II**

**MARRIAGES**

**Period 1928-1932 (5 years)**

Years	Population	Number of marriages	Proportion per 1,000 inhabitants
1928.....	754,300	6,825	9.05
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
Average.....	795,695	6,555	8.24

**Period 1933-1937 (5 years)**

1933.....	847,000	5,964	7.04
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
Average.....	865,000	7,095	8.20

**Period 1928-1937 (10 years)**

Average.....	830,347	6,825	8.22
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**Year 1938**

Year 1938.....	893,000	8,608	<del>19.10</del> 9.64
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**DEATH RATE**

The number of deaths in 1938 amounted to 9,125, as against 9,738 in 1937; showing in consequence a decrease of 613 deaths.

The proportion compared to the population is 10.22 per thousand, as against 11.00 in 1937, or a decrease of 0.78 per thousand.

The 1938 death rate is 0.36 below the average for the five years from 1933 to 1937. It is 1.49 below the average of the ten preceding years.

Table III shows a statement of the mortality since 1928 for each year separately and by groups of five and ten years.

**Table III**

**DEATHS**

**Period 1928-1932 (5 years)**

Years	Population	Number of deaths	Proportion per 1,000 inhabitants
1928.....	754,300	10,961	14.53
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
Average.....	795,695	10,287	12.93

**Period 1933-1937 (5 years)**

1933.....	847,000	8,975	10.60
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
Average.....	865,000	9,153	10.58

**Period 1928-1937 (10 years)**

Average.....	830,347	9,720	11.71
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**Year 1938**

Year 1938.....	893,000	9,125	10.22
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## NATURAL INCREASE OF THE POPULATION

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

In 1938 the excess of births over deaths was 7,937 while the average for the ten years from 1928 to 1937 was 9,339 or a decrease of 1,402.

The natural increase of the population shows for the year 1938 a rate of 8.8 per thousand of population.

Table IV

### Natural Increase of the Population

Years	Births	Deaths	Excess of births over deaths
1928-1932 (5 years)....	102,410	51,435	50,975
1932-1937 (5 years)....	88,130	45,765	42,365
1928-1937 (average 10 years)...	19,054	9,720	9,339
Year 1938.....	17,062	9,125	7,937

## INFANT MORTALITY

The number of deaths registered in 1938, of children under one year, is 1,320 as against 1,547 in 1937, showing a decrease of 227.

The proportion per 1,000 births is 77.4 in 1938, as against 90.0 in 1937, representing a decrease of ~~1.20~~<sub>12.6</sub> per thousand.

If the proportion of deaths had been as high as the average rate of the past ten years, 526 more deaths would have been recorded.

Table V indicates the variations in infant mortality since 1928 for each year separately and in groups of five and of ten years.

Table V

## Deaths from 0 to 1 year per 1,000 births

(Still-born not included)

## Period 1928-1932 (5 years)

Years	Births	Deaths under one year	Proportion per 1,000 births
1928.....	20,307	2,929	143.7
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
Average.....	20,482	2,515	122.8

## Period 1933-1937 (5 years)

1933.....	18,431	1,817	98.6
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
Average.....	17,626	1,609	91.3

## Period 1928-1937 (10 years)

Average.....	19,054	2,062	108.2
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## Year 1938

Year 1938.....	17,062	1,320	77.4
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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 1937, and the mortality for the year 1938.

This table is certainly the one showing most 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 1937; 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 20 periods, 5.6 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
1938.....	77.4	..

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

TABLE VIa  
INFANT MORTALITY

1938

LEGITIMATE AND ILLEGITIMATE

Racial origin	Births	Deaths 0 to 1 year	Rate per 1,000 births
LEGITIMATE			
1 French.....	11,538	861	74.6
2 British.....	2,528	122	48.3
3 Jewish.....	866	20	23.1
4 Others.....	1,143	52	45.5
Total.....	16,075	1,055	65.7
ILLEGITIMATE:			
1 French.....	790	226	286.1
2 British.....	139	21	151.1
3 Jewish.....	.....	.....	.....
4 Others.....	58	18	310.3
Total.....	987	265	268.5
Grand total.....	17,062	1,320	77.4

## 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 1928 and the averages for periods of five and ten years.

The percentage of deaths from diarrhoea is 14.7 per thousand in 1938, while the average for the ten years from 1928 to 1937 is 28.4, or a decrease of 13.7 in favour of the year 1938.

**Table VII**

### Deaths from Diarrhoea, from 0 to 1 year

#### Period 1928-1932 (5 years)

Years	Total of deaths 0 to 1 year	Deaths by diarrhoea 0 to 1 year	Percentage of deaths by diarrhoea
1928.....	2,919	971	33.3
1929.....	2,701	865	32.0
1930.....	2,620	877	33.5
1931.....	2,345	817	34.8
1932.....	1,979	614	31.0
Average.....	2,515	829	32.9

#### Period 1933-1937 (5 years)

1933.....	1,817	487	26.8
1934.....	1,674	428	25.6
1935.....	1,602	301	18.8
1936.....	1,404	184	13.1
1937.....	1,547	302	19.5
Average.....	1,609	340	21.1

#### Period 1928-1937 (10 years)

Average.....	2,062	585	28.4
--------------	-------	-----	------

#### Year 1938

Year 1938.....	1,320	194	14.7
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## 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 1938 is 14.0 against 18.5 in 1937, which shows a decrease of 4.5 per cent; the average for the ten preceding years from 1928 to 1937 is 26.9; 1938 indicates a decrease of 12.9 compared to this average.

**Table VIII**

### Deaths from Diarrhoea, from 0 to 2 years

#### Period 1928-1932 (5 years)

Years	Total of deaths 0 to 2 years	Deaths by diarrhoea 0 to 2 years	Percentage of deaths by diarrhoea
1928.....	3,434	1,061	30.9
1929.....	3,165	958	30.3
1930.....	2,985	966	32.4
1931.....	2,676	877	32.8
1932.....	2,267	664	29.3
Average.....	2,905	905	31.1

#### Period 1933-1937 (5 years)

1933.....	2,022	516	25.5
1934.....	1,893	463	24.5
1935.....	1,883	331	17.6
1936.....	1,606	204	12.7
1937.....	1,804	333	18.5
Average.....	1,842	369	20.0

#### Period 1928-1937 (10 years)

Average.....	2,373	637	26.9
--------------	-------	-----	------

#### Year 1938

Year 1938.....	1,482	208	14.0
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## 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.

The proportion of deaths from 0 to 1 year compared to the total of deaths was 14.47 in 1938, being exactly the same rate as 1937 and a decrease of 3.11 per cent from the average for the five years from 1933 to 1937.

**Table IX**

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

#### Period 1928-1932 (5 years)

Years	Total deaths	Deaths from 0 to 1 year	Percentage
1928.....	10,961	2,919	26.63
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
Average.....	10,287	2,515	24.45

#### Period 1933-1937 (5 years)

1933.....	8,975	1,817	20.25
1934.....	8,955	1,674	18.70
1935.....	9,162	1,602	17.48
1936.....	8,934	1,404	15.70
1937.....	9,125	1,320	14.47
Average.....	9,153	1,609	17.58

#### Period 1928-1937 (10 years)

Average.....	9,720	2,062	21.21
--------------	-------	-------	-------

#### Year 1938

Year 1938.....	9,125	1,320	14.47
----------------	-------	-------	-------

**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 1933.

This table shows, besides, the average for the five years 1933 to 1937, and the percentage for 1938.

**Table X**

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

AGE	1933	1934	1935	1936	1937	Average 5 years	1938
Under 24 hours....	19.1	20.6	17.0	17.9	18.2	18.6	21.1
1 day to 1 week...	12.6	13.3	13.9	12.4	12.4	12.9	13.9
1 week to 1 month.	11.6	12.9	10.5	12.8	10.2	11.6	10.6
1 to 3 months.....	22.1	16.9	18.8	19.0	15.0	18.4	17.0
3 to 6 months.....	17.1	15.8	17.2	16.3	17.5	16.8	16.1
6 to 9 months.....	9.6	11.8	13.3	13.7	13.2	12.3	11.8
9 to 12 months....	7.9	8.7	9.3	7.9	13.5	9.4	9.5
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 causes of deaths among children from 0 to 1 year, have diminished regularly, and are in 1938 only the second cause of deaths: the premature deaths being the capital cause.

The decrease for the year 1938 as compared to the mean of the five years from 1933 to 1937 is 6.06.

**Table XI**

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

Causes of death	1933	1934	1935	1936	1937	Average 5 years	1938
Pneumonia (108-9).....	3.08	2.09	1.69	2.49	2.13	2.29	2.57
Broncho- pneumonia (107)	9.96	11.71	15.54	20.09	16.87	14.83	17.35
Diseases of the stomach (117)...	0.33	0.12	0.19	0.36	0.07	0.21	0.00
Diarrhoea and enteritis (119)...	26.80	25.57	18.79	13.11	19.52	20.76	14.70
Malformation (157).....	8.15	6.87	8.93	7.76	7.82	7.91	8.41
Premature births (159).....	18.93	22.34	19.73	23.08	20.62	20.94	22.04
Congenital debility.....	15.63	15.83	13.72	12.40	12.02	13.92	15.15
Meningitis (simple) (79)....	0.72	0.84	0.62	0.78	1.04	0.80	1.06
Syphilis (34).....	2.81	1.79	2.81	1.99	1.55	2.19	1.00
Contagious diseases.....	6.88	7.11	9.55	6.62	10.47	8.13	9.54
Others.....	6.71	5.73	8.43	11.32	7.89	8.02	8.18
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, from 1928 to 1932 and from 1933 to 1937, the average of these two periods of five years, as well as the average for ten years and comparative figures for the year 1938.

Table XII

## Cases reported and deaths from certain contagious diseases

## Period 1928-1932 (5 years)

Years		Diphtheria	Scarlet fever	Measles	Whooping cough	Erysipelas	Chicken pox	Smallpox	Typhoid fever
1928	Cases	1632	2291	4347	275	201	1246	108	173
	Deaths	157	39	65	37	35	9	—	39
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
Average (5 yrs.)	Cases	1026	2272	3877	1429	203	2135	31	152
	Deaths	96	38	38	64	29	4	—	35

## Period 1933-1937 (5 years)

1933	Cases	297	1300	472	3271	183	4135	—	117
	Deaths	18	26	2	71	32	4	—	31
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
Average (5 yrs.)	Cases	208	2012	4759	3134	114	3920	—	96
	Deaths	23	30	40	78	23	3	—	19

## Period 1928-1937 (10 years)

Average (10 yrs.)	Cases	617	2142	2368	2281	158	3028	15	124
	Deaths	60	34	39	71	21	4	—	27

## Year 1938

1938	Cases	222	2039	2608	2351	202	4126	—	108
	Deaths	26	17	38	41	13	6	—	17

## Year 1938—Deaths from 0 to 1 year—

Table XIII indicates that death of nurslings

1. In babies under 24 hours and in those

2. During the months of April, March,

Table

Month		Under 24 hours		1 day to 1 week		1 week to 1 month	
		Sex	Total	Sex	Total	Sex	Total
January.....	M	17		8		4	
	F	8	25	8	16	3	7
February.....	M	17		11		7	
	F	9	26	4	15	5	12
March.....	M	16		13		6	
	F	9	25	11	24	12	18
April.....	M	18		7		12	
	F	8	26	12	19	6	18
May.....	M	13		9		9	
	F	9	22	8	17	9	18
June.....	M	13		9		4	
	F	7	20	3	12	3	7
July.....	M	8		6		6	
	F	8	16	4	10	1	7
August.....	M	8		8		7	
	F	8	16	7	15	2	9
September.....	M	8		5		4	
	F	15	23	7	12	4	8
October.....	M	9		2		6	
	F	10	19	8	10	2	8
November.....	M	16		11		8	
	F	10	26	8	19	7	15
December.....	M	17		10		9	
	F	18	35	5	15	4	13
Total.....	M	160		99		82	
	F	119	279	85	184	58	140
Monthly average.....		23.3		15.3		11.7	
Per cent %.....		21.1		13.9		10.6	

# lassified by month, sex and age categories

ave been more numerous:

to 3 months and from 3 to 6 months.

May and November.

## III

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
5 1	6	8 5	13	9 8	17	5 ..	5	56 33	89
13 7	20	6 6	12	5 6	11	6 5	11	65 42	107
16 15	31	16 8	24	12 13	25	9 4	13	88 72	160
20 16	36	18 13	31	11 7	18	6 7	13	92 69	161
14 6	20	9 9	18	6 4	10	8 10	18	68 55	123
12 9	21	10 10	20	2 5	7	4 5	9	54 42	96
6 2	8	6 3	9	6 7	13	4 5	9	42 30	72
12 5	17	9 6	15	4 6	10	13 7	20	61 41	102
8 8	16	12 10	22	9 6	15	6 3	9	52 53	105
13 4	17	12 7	19	7 3	10	4 3	7	53 37	90
13 9	22	8 8	16	6 4	10	4 1	5	66 47	113
5 5	10	9 5	14	3 6	9	4 2	6	57 45	102
137 87	224	123 90	213	80 75	155	73 52	125	754 566	1320
18.7		17.8		12.9		10.4		110.1	
17.0		16.1		11.8		9.5		100.0	

## A FEW PRINCIPAL CAUSES OF GENERAL MORTALITY

Table XIV shows the number of deaths from certain principal causes, from 1928 to 1932, the average for these five years, the number of deaths for 1933 to 1937 from the same causes and the average for these five years. It shows besides, the averages of deaths from the same causes for the 10 years 1928 to 1937 and deaths during the year 1938.

**Table XIV**

### A few principal causes of general mortality Deaths from 1928 to 1938

Period 1928-1932 (5 years)					
Years	Cancer	Bright's disease	Organic diseases of the heart	Broncho pneumonia	Pneumonia
1928.....	641	674	867	666	500
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
Average.....	765	752	1,191	507	407
Period 1933-1937 (5 years)					
1933.....	931	787	1,362	339	305
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
Average.....	971	904	1,471	402	285
Period 1928-1937 (10 years)					
Average.....	868	828	1,331	455	346
Year 1938					
Year 1938....	1,099	975	1,631	382	278

### 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 1928 to 1932 and from

1933 to 1937, and the average for the ten years from 1928 to 1937, from the diseases mentioned in Table XIV, compared to the total of deaths, and deaths from the same diseases for the year 1938.

This table indicates for 1938 compared to 1937, an increase of 1.5 in the proportion of deaths from organic diseases of the heart.

There was an increase of 0.1 in the proportion of deaths from pneumonia and a decrease of 0.4% in the proportion of deaths from broncho-pneumonia.

**Table XV**

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

**Period 1928-1932 (5 years)**

Years	Total of deaths	Cancer	Bright's disease	Organic diseases of the heart	Broncho- pneu- monia	Pneu- monia
1928.....	11,961	5.8	6.1	7.9	6.1	4.6
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	4.6	3.3
1932.....	9,728	8.5	9.1	13.6	4.2	3.7
Average..	10,287	7.4	7.3	11.5	4.9	3.9

**Period 1933-1937 (5 years)**

1933.....	8,975	10.7	8.8	15.2	3.8	3.4
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
Average..	9,153	10.6	9.9	16.1	4.9	3.2

**Period 1928-1937 (10 years)**

Average..	9,720	9.0	8.6	13.8	4.9	3.5
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**Year 1938**

Year 1938..	9,125	12.0	10.6	17.9	4.2	3.5
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## 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 1928 to 1938 in periods of 5 years, the average for five years from 1928 to 1932 and from 1933 to 1937, the average for ten years from 1928 to 1937, as well as the average of deaths for the year 1938.

A study of this table shows that in 1938 the proportion of deaths from cancer has increased 6.6, compared to 1937; it is 27.0 higher than the average for the five years 1928-1932, 10.8 higher than the average for the five years 1933-1937 and 18.6 higher than the average for the ten years 1928-1937.

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 965 in 1937 were 975 in 1938, an increase of 10. If we consider these deaths in relation with the population, we arrive at an average of 94.5 per 100,000 inhabitants for the period of 1928 to 1932, an average of 112.3 for the five following years; of 99.7 for the ten years and 109.2 for 1938.

This year there is an increase of 0.2 over 1937; it is also an increase of 14.7 for 1938, as compared to the period 1928-1932, and an increase of 4.7 as compared to the five year period, 1933-1937. For the 10 year period the increase is 9.5.

Deaths from organic diseases of the heart have slightly increased in 1938; since a few years they are one of the highest causes of deaths.

Pneumonia, which in 1937 caused 330 deaths decreased this year to 278; broncho-pneumonia registered a slight decrease: in 1938, 382 deaths as compared to 449 in 1937.

Table XVI

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

## Period 1928-1932 (5 years)

Years	Popula- tion	Cancer	Bright's disease	Organic diseases of the heart	Broncho- pneu- monia	Pneu- monia
1928.....	754,300	84.9	89.3	114.9	88.3	66.3
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
Average..	795,695	96.1	94.5	149.7	63.7	51.2

## Period 1933-1937 (5 years)

1933.....	847,000	109.9	92.9	160.8	40.0	36.0
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
Average..	865,000	112.3	104.5	170.1	46.5	32.9

## Period 1928-1937 (10 years)

Average..	830,347	104.5	99.7	160.3	54.8	41.7
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## Year 1938

Year 1938.	893,000	123.1	109.2	182.6	42.8	30.0
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## MORTALITY FROM TUBERCULOSIS

The number of deaths from tuberculosis, in all its forms, was 668 in 1938, having been 726 during the previous year; it shows consequently a decrease of 58 on the whole number.

The proportion per 100,000 population which in 1937 was 82.0 is 74.8 in 1938, showing a decrease of 7.2; the average of the ten preceding years which was 100.0 shows a decrease of 25.2 in favour of the current year.

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 period of five years, the average for ten years and also the number of deaths for the year 1938.

**Table XVII**

**Deaths from Tuberculosis**

<b>Period 1928-1932 (5 years)</b>					
Years	Popula- tion	Pulmo- nary	Other forms	Total	Proportion per 100,000 in- habitants
1928.....	754,300	801	137	938	124.4
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
Average.....	795,695	784	147	931	117.0
<b>Period 1933-1937 (5 years)</b>					
1933.....	847,000	670	141	811	95.8
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
Average.....	865,000	612	117	729	84.3
<b>Period 1928-1937 (10 years)</b>					
Average.....	830,347	698	132	830	100.0
<b>Year 1938</b>					
Year 1938.....	893,000	585	83	668	74.8

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## COMMENTS

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## **PROPOSED IMPROVEMENTS TO THE GENERAL ORGANIZATION OF THE DEPARTMENT OF HEALTH OF THE CITY OF MONTREAL**

### **Report submitted to the Board of Health of the City of Montreal**

Pursuant to the report I had the honour of submitting to you on the 28th of March 1938, concerning the organization and functioning of the Department of Health and after a comparative study of the recommendations made therein and of those contained in the Health Survey report made in October 1928, I take the liberty of submitting to you the following suggestions, the object of which is the improvement of the organization of the Department of Health and of the various sections it is composed of.

Since the 1st of January 1939, however, some improvements have been effected in the Department of Health.

#### **A—Director's Office and General Administration.**

##### **I—Staff:**

Two assistant directors have been appointed: Dr. Adrien Plouffe and Dr. Eugène Gagnon.

The former, Dr. Adrien Plouffe, is especially in charge of the organization and direction of the section for the teaching of hygiene and publicity, in the Director's office. Moreover, he assists the Director and replaces him when absent.

The latter, Dr. Eugène Gagnon, is entrusted with the control of discipline and work of employees of the various divisions of the Department of Health. Moreover, he has kept the superintendence of the Vital Statistics Division, till further orders.

#### **II—Creating of a section for the teaching of hygiene and for publicity purposes.**

This is an important section of the Department of Health, which must be under the immediate direction of the Director and placed in charge of one of the assistant directors.

The programme of that section consists of:

1. The preparation of the annual report in which is given an outline of the work done and which contains the budget and the statistics;

2. the bimonthly publication of the "Health Bulletin" which gives all requisite information to the physicians, nurses, social workers, parish priests, ministers, etc., on local health problems;

3. the preparation, for all the divisions of the Department, of publications, circulars, forms, etc. (especially for the communicable diseases and Child Hygiene Division);

4. the drawing up of articles, pieces of news and communiques to the newspapers concerning hygiene;

5. the organization of lectures and talks (delivered before the public or before the members of the staff or by radio);

6. the preparation of exhibits and the holding of exhibitions;

7. the utilization of the health centers as educational centers in the sanitary districts;

8. the co-operation with private associations and commercial firms in the elaboration of a programme for the teaching of hygiene.

### III—Organization of sanitary districts:

From the point of view of the general administration, it would be advisable to divide the City's territory into a certain number of districts to be known as "sanitary districts." There might be eight such districts. We have already taken a step in this direction by distributing the inspection work (by district) in the Child Hygiene and Food Divisions.

When dividing the City into sanitary districts, we shall have to take into account the limits of the wards, of the French and English Catholic parishes, of the English Protestant districts, of the districts inhabited by people of various other nationalities, etc.

### Object of the creation of sanitary districts:

1. **Decentralization** of the services and closer contact with the needs of the population;

2. **More efficient control** of infantile mortality, of mortality due to tuberculosis and of contagious diseases;

3. **More careful and more exhaustive study** of the health problems in the district;

#### 4. Co-ordination center.

- (a) To ensure more active co-operation with the physicians;
- (b) To have the social and welfare associations work together in closer collaboration;
- (c) To obtain better results from the work of the numerous official and volunteer health organizations;
- (d) To improve the administration of the sanitary services.

#### Hygiene centers:

Each district must be provided with an administrative center called "health center."

This center comprises:

- 1. offices for administration purposes and for meetings of the members of the staff;
- 2. rooms for the various baby, pre-school or pre-natal clinics, dental clinics, mental hygiene clinics, etc.;
- 3. offices for the auxiliaries of the district social service organizations subsidized by the City;
- 4. offices for the teaching of hygiene to various groups and for the holding of meetings.

#### Staff of a sanitary district:

- 1. a district medical officer, called "district chief," on full-time, responsible for the sanitary work in the territory he is in charge of and for the health of his group and whose duty it is to carry out, in his district, the general programme elaborated for the City at large, according to the needs of the population;
- 2. a certain number of district physicians engaged on full and part-time, which varies according to requirements;
- 3. a district head nurse, who directs and supervises the work of the nurses of her district;
- 4. a certain number of visiting nurses on full-time, which is variable;
- 5. a dental inspector for the schools; a clinical dentist and a nurse for the dental clinic;

6. a psychiatrist and 1 nurse-psychologist (dental hygiene);
7. a clerk-typist.

#### **Administrative services of a sanitary district:**

1. **The clerical and demographic sections:** keeping of the records and files; preparation of statistical statements, etc.; compilation of the data relating to the work and activities in each district.

#### **2. The various maternal and child hygiene clinics:**

- (a) pre-natal clinics;
- (b) baby and pre-school clinics;
- (c) mental hygiene clinics;
- (d) dental clinics for poor children.

#### **3. The functioning of the medical inspection service and of its various branches in the schools.**

#### **4. Control of communicable diseases:**

- (a) reporting and diagnosis by the Central Office; centralization is necessary here;
- (b) investigations in the families and schools by the district physicians and nurses; complement of the work done at the Central Office;
- (c) vaccination against smallpox and immunization from diphtheria in the clinics and by the family doctors;
- (d) center of distribution of the biological products required for the taking and collection of samples;
- (e) adoption of the necessary measures to follow the course of communicable diseases in the district: cards, statistical tables, etc.

#### **5. Control of tuberculosis (see special programme):**

- (a) visits to the homes of the patients in cases not attended to by volunteer associations;
- (b) collaboration with the clinics which have been established;

- (c) tuberculin tests in the clinics and schools;
- (d) X-Ray tests (portable equipment) in schools for early detection of the disease;
- (e) when required, clinic for adults and children with X-Ray and collapsotherapy tests.

**6. Visiting nurses and visits to homes—generalized nursing.**

**IV—Centralization of the stores and reserves:**

It would be advisable to centralize the stores or reserves which now exist in each of the divisions and to merge them into one store or reserve under the immediate supervision of the Director. This would make it possible to exercise a still more efficient control and would facilitate the taking of the inventories which are made in the nine divisions of the department by nine employees.

I would therefore suggest that the whole be entrusted to the store keeper of the Child Hygiene Division and that the latter be given an assistant.

I consider that this change would constitute an important improvement in the internal management of the department.

**V—Library and reading-room:**

There are at the present time a certain number of scientific volumes, distributed in the different divisions of the department; in order to facilitate the researches which the members of our staff are called upon to make a "central library" should be established with reading-room, the same to be under the supervision of the archivist of the department, who would also have, near at hand, the control of the records and archives of the Health Department.

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**COMMUNICABLE DISEASES DIVISION**

**Control of communicable diseases:**

This control is exercised by the Department of Health, communicable diseases division, in accordance with the Public Health Act of Quebec; all possible means are taken to prevent the spread of diseases.

Cases are made known to us in several ways; the number of cases reported in 1936 was, for instance, 32,956.

The following statement shows how and by whom the reports have been made and their proportion by group:—

Inspecting staff (physicians and nurses attached to the Department of Health) . . .	11,166	44.5%
Physicians: 489 { French Canadian . . . 239		
English speaking . . . 194 . . .	4,470	17.8%
Jewish nationality . . . 56		
Hospitals . . . . .	4,200	16.7%
Parents . . . . .	3,800	15.0%
Statistical Division—Dept. of Health . . . . .	604	2.4%
Neighbours . . . . .	510	2.0%
V.O.N. . . . .	300	1.2%
Metropolitan Life Insurance Co. . . . .	12	0.4%
Total . . . . .	25,062	100.0%

The reporting of cases of contagious diseases is done with all due despatch; a marked improvement is noticeable in this respect, due to the closer supervision exercised in the schools by the inspecting staff and the teaching staff. It is to be desired that the number of "prompt reports" made by the family physicians be more numerous.

The visit of cases is made on the same day the report has been received or, at the least, on the following day;

Notice of every case and of every contact excluded from the school is sent without delay (within 48 hours) to the principal and the school nurse;

The poster must be placed on the outside (on the entrance door) of the apartment or dwelling, as the case may be;

The visiting of cases is now made and the control thereof is exercised by the nurses attached to the communicable diseases division, who also educate the families as to the precautions to be taken;

Changes have been made to the medical cards; they are of a different colour for each disease;

Disinfection is proceeded with during the course of the disease; at the final disinfection, a thorough cleaning and wash-

ing are recommended; it is also recommended that the house be ventilated and that the sun and the air be allowed to penetrate therein, etc.;

Circulars are left with the families, the same containing the necessary instructions in connection with isolation and disinfection for each contagious disease.

### **Biological products:**

The Department of Health distributes free of charge biological products for the prophylaxis and treatment of scarlet fever and diphtheria and the prevention of smallpox.

The improvements effected with regard to the following contagious diseases are indicated hereunder:

#### **As regards diphtheria:**

Diagnostic verified bacteriologically;

Isolation until there is a negative result from two cultures of secretions of the throat and of two cultures of secretions of the nose, taken at not less than 24 hours' interval, at the end of 21 days for treated cases and of 8 days for contacts;

Quarantining contacts until it has been shown that they are not germ carriers;

Serum supplied for destitute persons, distribution thereof at 18 centers visited regularly every week by the nurse, who gathers the certificates issued by the physician; hence control from the outset and detection of cases.

### **Immunization:**

- (a) Product (anatoxin) supplied free of charge to the physicians and to the various organizations and institutions;
- (b) free immunization at the clinics and schools;
- (c) permanent campaign;
- (d) present situation (see tables I and II).

#### **As regards scarlet fever:**

Vaccine and serum for prophylaxis and treatment;

Distributed to the physicians who desire to use the same.

### **As regards smallpox:**

No case in Montreal since 1930. Permanent campaign to promote vaccination;

Vaccination at clinics;

Recommendation made to those who can do so to consult their doctor.

### **As regards typhoid fever:**

The supervision ceases after two successive negative cultures of the stools and urine—samples taken at not less than 24 hours' interval.

Since the beginning of the year 1938, the following improvements have been effected in this division:

1. Creation of the "Tuberculosis Section" and appointment of a physician who is a specialist in the means of combating this disease;
2. Organization of a system of free distribution of tuberculin to the physicians to enable them to apply to their clients the Mantoux process;
3. Distribution to the physicians of the anti-variolic vaccine so that they may vaccinate the unemployed and destitute persons.

As regards tuberculosis, I would refer you to the report which has already been made concerning all this organization.

### **Recommendations:**

Although the above improvements have greatly contributed in making the work of this division more efficient, there is still room for the following further improvements:

1. Organization of an "Epidemiology Section" to ensure that the infection shall be systematically looked for and detected; in infection cases which pass unnoticed or are concealed, adoption of the measures required for the control of the disease;
2. Insisting more and more on the "immunization from diphtheria" of the children under school age, as soon as they are 6 months old; study of the immunization question in relation to the family doctor;
3. Devising of a plan for supplying the physicians with:
  - (a) the "vaccine against typhoid fever" to immunize the contacts in the families;

- (d) the "serum against pneumonia" (the various known types) for indigent persons;
- (c) the "anti-meningococcic serum";
- (d) the "insulin" and "liver extract."

4. It would be to the advantage of the epidemiologists and physicians of the Department of Health to frequent from time to time the hospitals for contagious patients, such as the Pasteur, the Alexandra, Sacred Heart Hospitals and other similar institutions and thus perfect their scientific and medical knowledge;

5. Devising a plan for the prevention of venereal diseases and cancer;

6. Elaborating, in conjunction with the Section for the teaching of hygiene an educational programme and intensifying the collaboration of the Department of Health with the various institutions and the physicians;

7. Initiating, in the Tuberculosis Section, a system of examination with the fluoroscope, of radiography and of clinical examination for the teachers and the school children who have re-acted positively to the cuti-reaction and who, on the other hand, cannot consult their doctor.

#### THE CHILD HYGIENE DIVISION

The first part of the general programme of this division concerns pre-natal, infantile and pre-school hygiene.

The Department of Health keeps 4 pre-natal clinics open in certain populous wards; a fifth clinic has been established in the City and functions in co-operation with the Applied Social Hygiene School.

The pre-natal work is done chiefly by the volunteer associations and the hospitals: L'Assistance Maternelle, the Royal Victoria Maternity Hospital and the other hospitals of Montreal where pre-natal clinics are maintained. The visits to homes for cases treated by the physicians are made by the members of the following nursing associations: the Royal Victorian Order of Nurses, Metropolitan Life Insurance, the Order of Macca-bees, la Société des infirmières-visiteuses for French Canadians and l'Alliance Nationale.

In order to obtain the co-operation of the physicians and mothers, circulars have been sent to the members of the medical profession and to expectant mothers, advising the latter to place themselves without delay under the supervision of a physician.

The baby clinics constitute, with the registration of births, the visiting of new-born babies by the nurses (as soon as possible after birth), the distribution of literature, the production and distribution of wholesome milk, one of the most important factors in the drive against infantile mortality; they are veritable schools for mothers, the object of which is to advocate the feeding at the breast and the supervision of newly-born babies by the family doctor or by a physician attached to a baby clinic.

Their organization seems to be complete and covers the whole of the City's territory. There are 72 such clinics distributed as follows:

- (a) Department of Health: 45,
- (b) Fédération d'Hygiène Infantile: 19,
- (c) Child Welfare Association: 8.

In each of the clinics there is at least one graduate and registered nurse, whose duty it is to see that the work is efficiently done.

Each clinic, within the limits of the territory assigned to it, is constantly posted on the births which occur, on the proportion of the babies inscribed at the clinic or of those who are under the supervision of a physician and on the number of deaths in the district and among the infants inscribed.

All the baby clinics extend their activities to the children of pre-school age, that is to say from 1 to 6 years old.

The "Manual of Infantile Hygiene" and the "Code of the Infantile Hygiene League" have been completely revised and brought up to date.

Each year, a certain number of groups of Hygiene Leagues are organized or formed in the schools.

In summer, two baby camps are kept open, one in Lafontaine Park and the other on St. Helen's Island.

The inspection of private hospitals and maternities and of boarding-houses for children has been rendered more severe

following the adoption of two municipal by-laws concerning them (By-laws Nos. 1096 and 1204); as a matter of fact, the number of these licensed establishments has decreased and there is a noticeable improvement in the way they are kept.

**The School Medical Inspection** constitutes the second part of the programme of action of this division.

Marked improvements have been effected since its re-organization in 1928.

The personnel has been increased and rendered more adequate; it would be advisable to complete it. The average number of pupils, in 1937-38, was 7,066 per medical inspector, and 1,978 per visiting nurse; the latter average is too high.

Among the other improvements, we briefly note:

The agreement entered into with the school authorities, in 1929, with a view to ensuring a closer co-operation between the Department of Health and the School Commissions;

The creation of a Mental Hygiene Section;

The organization of a system of immunization from diphtheria in the schools;

The appointment of a head nurse;

The initiation of a system of hearing tests by means of the audiometer (No. 4-A);

The establishment of 5 municipal dental clinics for poor children of pre-school and school age and the organization of dental campaigns in the schools;

The working out of a plan providing for the systematic weighing and measurement of the pupils by the teachers;

The annual medical examination of the lay teachers of the Catholic School Commission—including at present the St. Viateur Brothers and the Marist Brothers (in certain schools).

Initiating, during the months of July and August, at the municipal clinics, in charge of the medical inspector, of a system of examination for children who enter school for the first time in September.

The distribution of the work by district and in accordance with a programme of visits, under which each school is visited

once a week by the medical inspector and twice or three times by the visiting nurse.

In order to improve the functioning of the school medical inspection service and to guide the nurses when making their visits to the homes of pupils, it has been decided to classify the physical defects in children into three categories, A, B and C, according to their seriousness and to the necessity and urgency of a correction.

A new form of "general notice to parents" (form No. 13) was adopted in 1932 and modified to conform to the new classification of defects; it consists of two forms, each of a different colour corresponding to each of the first two categories of physical defects.

Since the 1st of January 1938, a first improvement was effected in the school medical inspection system by having a letter sent to the family doctor for cases coming within the categories A and B of physical defects.

The publication of a "Manual of school medical inspection" constitutes a second important improvement.

### **Recommendations**

In order to improve the first part of the programme of action of the Child Hygiene Division, which concerns the pre-natal and infantile hygiene, I beg to submit the following suggestions:

1. Devising of the pre-natal hygiene question in Montreal and the opportunity to make use of a larger number of baby pre-scholar clinics and pre-natal clinics.

2. A system of free distribution of nitrate of silver to prevent ophtalmia neatorum and blindness should be devised.

3. A by-law providing for the registration, at the Department of Health, of midwives who practice in the City and for a mode of close supervision, should be adopted.

4. The publication "Pre-natal Hygiene" should be revised and completed.

5. It would be advisable, in order to complete the organization of the baby clinics, to have the physicians and nurses

deliver lectures intended for the parents and particularly for the mothers, as is already being done in certain places.

6. A specialist in nutrition should be appointed.

7. The propaganda we are carrying on to promote the immunization from diphtheria of children of pre-school age as soon as they are 6 and 9 months old, should be intensified.

In order to improve and complete the school medical inspection system in Montreal, I take the liberty of making the following suggestions:

1. Drafting of a by-law concerning the school medical inspection which would meet with the approval of the Department of Health and of the School Commission and would be based on the provisions of the existing agreement;

2. enforcement of the different clauses of the aforesaid agreement which have not been put into effect, such as the keeping and transfer of the medical cards by the school personnel, etc.;

3. formation of an association in which the members of the school personnel would be brought into contact with the parents, in order to induce the latter to take an interest in the school work and to make the members of the teaching staff and those of the medical staff better known;

4. elaboration of an educational programme by means of lectures or talks delivered before the pupils and the members of the teaching staff and promoting closer relations between the teaching staff and the inspecting staff;

5. insisting more energetically on the presence of parents at the medical examination of their children and having the same officially recognized;

6. inducing the practitioners to take an interest in the school medical inspection by the inauguration of a system of medical examination of pupils by the family doctor;

7. medical examination of the members of religious orders teaching in the Catholic schools and also of the members of the teaching staff in the Protestant schools and perhaps, later on, of the teachers in private and independent schools. A regulation would have to be enacted in this connection by the Committee of Public Instruction;

8. promoting closer relations between the inspecting staff and the physicians and dentists in the different wards of the City;

9. purchase of two photo candle meters, which would make it possible to ascertain whether or not the artificial lighting in class-rooms is adequate;

10. completing the organization of the Mental Hygiene Section by adding thereto a psychiatrist and a psychologist-nurse. Regularizing the situation now existing in the Protestant schools;

11. perfecting the organization of the Dental Hygiene Section and rendering the same more adequate by:

- (a) the appointment of a chief section dentist;
- (b) the opening of new dental clinics and the appointment of the dentists and nurses required to meet the needs of the populous wards inhabited by poor people;
- (c) the revival of the system of dental examination of pupils in the schools, once a year, which was in force in 1932, and appointment of dental inspectors.

12. Detection of cases of tuberculosis among the pupils by subjecting to the tuberculin test the children attending primary and high schools, and by observing the following rules:

- (a) tuberculinization (Mantoux process) of all children;
- (b) when a child does not react, the test should be repeated at the end of six months and at the end of one year;
- (c) when a child reacts, a report should be made to the Communicable Diseases Division, in order that the detection of cases of tuberculosis in the family may be proceeded with.

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#### THE LABORATORIES DIVISION

##### **Improvements effected and additions made from 1927 to 1937:**

The activities of the Laboratories Division now meet almost all requirements.

The examinations for the control of venereal diseases are made at the laboratories of the Provincial Department of Health; those for the control of biological products and medicinal substances generally are made by the Federal Department of Health.

From the year 1927 to the 31st December, 1937, the following improvements have been effected:

Systematic examination of dairy employees for the detection of carriers of typhoid and paratyphoid bacilli A and B; the blood, stools and urine are analyzed; two negative results are required for each, at one week interval; an examination sitting is held every week; about 6,500 dairy employees have undergone an examination to date.

Bacteriological control of the water of the Montreal aqueduct; 30 samples are analyzed every month.

Bacteriological and chemical control of the water in public baths; 10 samples are analyzed every week.

Examination of waiters and waitresses to ascertain whether any of them are affected with a communicable venereal disease; taking of urethral and vaginal secretions for the detection of the gonococcus; taking of blood for the Wasserman reaction.

Preparation of convalescent serum for the treatment of poliomyelitis; taking of blood; sterility tests; putting in bottles of 25 c.c. capacity.

Bacteriological control of carbonated beverages (soft drinks); analyses of the products offered for sale; bottle washing tests. Twenty samples per week.

Examinations for the diagnosis of amebic dysentery; colorations, microscopic examination, cultures, chemical analysis and microscopic examination of the urine of male and female teachers.

Examination of barbers and hair-dressers to ascertain whether any of them are affected with a communicable venereal disease (same procedure as for waiters and waitresses).

Bacteriological control of the washing of dishes, glasses and table utensils in eating establishments; 20 samples a week, alternately with the samples of carbonated beverages.

**Improvements effected since the 1st January, 1938:****Phosphatase Test:**

A new item has been added to the activities of the Laboratories Division: the phosphatase test.

This test enables us to get valuable information in connection with the pasteurization of milk. It makes it possible to ascertain whether or not the milk has been heated at the required temperature (142 to 145 deg. F.) and for the requisite period of time (30 minutes) and whether or not unheated milk has been added to the heated milk, which permits of a far more efficient control being exercised.

**Detection of the variety of pneumococcus present in cases of pneumonia:**

In order to enable the physicians to treat their cases of pneumonia by a specific serum, the Laboratories Division has, since the beginning of the year 1938, made the necessary analyses to detect the varieties of pneumococcus most frequently present in that disease.

Of the 32 varieties of this organism now known, the varieties 1, 2, 5, 7 and 8 are the most frequent and the most dangerous. The object of the analyses made at the laboratory is to detect these 5 varieties; moreover, they are made only for indigent patients.

**Recommendations:**

In order to complete the organization and to increase the efficiency of this division, I beg to make the following suggestions:

A supply of animals (guinea-pigs, rabbits, rats and mice) would be most useful to us, more particularly for the tests to determine the degree of virulence in carriers of diphtheric bacilli and for the inoculations of pleural and articular serosities (serofibrinous pleurisy, white tumors, cold abscesses, etc.).

If hygiene centres are organized in the various districts of the City, the culture centres might be included therein.

The organization of a service in order to examine diphtheria cultures on Sundays and holidays for diagnosis purposes.

The necessary measures should be made for the detection

of the Bang (*Brucella abortus*) bacillus and of the streptococcus of mammitis whenever necessary.

A greater number of samples of milk and its by-products should be taken for bacteriological and chemical analysis.

The personnel should be increased by the appointment of an analyst, a chemist and a laboratory attendant, in order to meet the present requirements.

#### **FOOD DIVISION**

The organization of the Food Division is based on that of similar agencies in America.

The provisions of By-law No. 891 concerning milk, of By-law No. 896 concerning meat and By-law No. 926 relating to food establishments, as well as article 49 of By-law No. 926 concerning the display of food-stuffs, fruits, vegetables and candies, are being satisfactorily observed; such has also been the case as regards article 66 of the aforesaid By-law No. 926 concerning the sterilization of the utensils used for serving tables and drinks.

It also devolves on the personnel of this division to enforce the provisions of By-law No. 609 concerning the manufacture of non-alcoholic beverages, of By-law No. 828 relating to poultry, game and fish and of By-law No. 1305 (passed on the 19th September, 1934) concerning the cutting, storage and sale of ice.

The education of food handlers is being more and more actively pursued.

The medical examination of food handlers is regularly made and for most of them by the physicians attached to the Department of Health. In 1937, 33,924 persons were examined; 780 were found to be affected with a disease. Those who are suspected of being diseased are required to go and consult their doctor and those who are suffering from a contagious disease are sent to the Communicable Diseases Division.

#### **1. Milk Inspection Branch (No. 1) upon which it devolves to enforce the municipal By-law No. 891.**

The functioning of this Branch has been the object of a special investigation made by the municipal Board of Health at the request of the Montreal City Council.

In this connection, I would refer you to the conclusions arrived at and to the recommendations contained in the report bearing date of 6th February, 1939.

**2. Meat Inspection Branch (No. 2) upon which it devolves to enforce By-laws Nos. 828, 896 and 634.**

The inspection of butcher stalls, sausage manufactories, cold storage plants, etc., is regularly made by 7 non-veterinary inspectors trained in that kind of work.

Four stations have been established for the inspection of meat from cattle slaughtered in the country. The inspection of meat is also made in 14 commission stores where meat arrives in large quantities (more than 40 head of cattle). Nine inspectors, of whom 8 are veterinary surgeons, are entrusted with this work. In these 4 stations and in the 14 commission stores, 190,500 carcasses were examined last year. The inspectors visit the large trading establishments 3 or 4 times a day and the smaller ones twice a week. An inspector is specially entrusted with the task of inspecting the abattoirs in the country.

The work of the Meat Inspection Branch is more efficient than in the past, due to the fact that the inspectors are better prepared for the work they are called upon to do and for the collection of samples for bacteriological and chemical analysis. The personnel of this Branch is composed of 18 inspectors, nine of whom are veterinary surgeons and one is a physician, acting as a chief inspector.

**3. The food inspection is within the province of Branches Nos. 3 and 4.**

(a) It devolves upon the staff of Branch No. 3 to inspect the eating establishments, restaurants, manufactories, etc. and to enforce By-laws Nos. 926 and 609;

(b) It devolves upon the staff of Branch No. 4 to inspect the bakeries and to enforce By-laws Nos. 283, 325 and 617.

There are at present in Montreal 11,817 food establishments, where 96,901 inspections were made in 1937. In these establishments, an inspection is made at least once every two months and in the large manufactories and eating establishments at least once a month. The personnel of both these Branches is composed of 10 inspectors, two of whom act as chief inspectors.

The following improvements have been recently effected in the inspection of bakeries and groceries:

(a) **Inspection of bakeries:**

The work of the inspectors of bakeries was hitherto limited to the weighing of bread and the sanitary inspection of these establishments was made by the food inspectors proper, which necessitated two groups of inspectors to supervise the same. At present, the inspectors of bakeries make the sanitary inspection themselves in addition to the weighing of bread.

(b) **Inspection of groceries:**

An improvement has also been effected in this division. Prior to the 1st of January, the sanitary inspection of groceries was under the control of the meat inspectors. As many of these establishments have also a restaurant license, two categories of inspectors were required to make inspections therein. Since the 1st of January, 1938, the inspection of groceries has been taken away from the meat inspectors and entrusted to food inspectors.

The inspectors of this division have been given the necessary training to enable them to efficiently perform their task and to educate the employees they are called upon to visit.

The personnel of the Food Division is at present composed of 60 employees working under the direction of a superintendent, as compared with 42 in 1928.

**Recommendations:**

In addition to the recommendations contained in the report of the Board of Health concerning the milk inspection, I take the liberty of making the following suggestion:

For the sake of economy and in view of the inadequate number of examining physicians, it would be advisable to require the food handlers, at least those who are able to pay, to have their medical examination made by their own doctor. It would, however, be necessary for the Department of Health to enter into a special agreement in this connection with the physicians and to have a special examination card, which would be delivered to each individual by an inspector of the Department; this card would be filled out by the physician and sent

by him to the Department of Health (Medical Control Division), and after it had been received and checked, the "health card" would be issued.

As to the laboratory analyses required, more particularly for milk handlers and for others when necessary, the same would be made at the laboratories of the Department of Health, as is already being done at present.

It would also be expedient to consider the advisability of subjecting systematically all food handlers to the tuberculin test and to the Bordet-Wasserman blood test.

It will be necessary to revise and amend By-law No. 1305 concerning ice, in order to make it more complete and accurate.

It will be expedient to study the two following questions:

- (a) the sterilization of glasses in restaurants, etc.
- (b) the manufacture of spruce beer.

Besides increasing the personnel, as already suggested, for the milk inspection service, the staff of this division should be completed by the appointment of a veterinary surgeon to be attached to the Meat Inspection Branch and of two more inspectors to be attached to the Food Inspection Branch, which looks after foodstuffs generally.

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#### SANITATION DIVISION

The principal activities of the Sanitation Division are:

1. Examination of plans and specifications of buildings which it is proposed to build or alter.

According to law, no new construction or alteration of existing buildings may be undertaken without the authorization of the Department of Health.

2. Inspection of plumbing and drainage in new or altered construction.

3. Sanitary inspection including:

- (a) complaints and investigations pertaining thereto; in 1937, there were 10,329 investigations;

- (b) regular inspection of various industrial, commercial, educational establishments, institutions, refuges, theatres, moving picture halls, public halls, garages, etc. The Department of Health is also held to make visits to immovables situated within the City limits to find the causes of insanitary conditions and order their elimination;
- (c) inspection of lanes, yards, vacant lots, sheds, stables, etc.;
- (d) inspection of cesspools and drains;
- (e) investigations on the quality of water and collection of water samples.

4. The sanitary file of dwellings, started in 1921, now includes 350,000 cards, which means that a complete survey of dwellings has been made twice since that date.

5. Inspections in connection with the enforcement of special by-laws.

6. Issuance of permits for various licences.

Special attention is given to the housing problem. Nowadays, 99.5% of dwellings are served by public sewers; the number of cesspools is limited to a few hundreds. With few exceptions, there is drinkable water in all dwellings of the City. Owing to the expansion of the automobile, manure is not a problem any more.

Among the improvements adopted since 1928 in the operation of this division, we note the preparation and adoption of the following by-laws:

- 1. In 1929,
  - (a) By-law 1006 concerning barber shops, hairdressing parlors, beauty parlors and massage establishments;
  - (b) By-law 1009 concerning laundries;
  - (c) By-law 1029 concerning gas apparatus and flue connections (incorporated in By-law 1341).

2. In 1930, By-law 1089 concerning mattresses and other upholstered articles.

3. In 1932, By-law 1203 concerning the water supply of establishments situated within the limits of the City of Montreal, in order to prevent in industrial establishments the dangers of contamination and the spreading of typhoid fever caused by a direct connection with a second source of supply and the municipal waterworks.

4. In 1933,

(a) By-law 1252 concerning public baths and bathing to control the physical, chemical and bacteriological qualities of the water in the baths and to prevent bathing in polluted water. In 1937, 655 inspections of baths were made and 376 samples of water were taken.

(b) By-law 1275 concerning fumigation and the use of fumigants; a necessary by-law in order to take all precautionary measures. In 1937, 1,617 dwellings were fumigated, and these included 5,393 rooms.

5. In 1935, By-law 1341 concerning plumbing to establish a better control of plumbers and the work they carry out.

### **Recommendations:**

The duties of the division of sanitation are varied and require the enforcement of numerous by-laws in addition to those already adopted; it would be advisable to start studying others. Let us note among others, by-laws concerning "open spaces," "the sanitation of dwellings in general" and "nuisances." The latter should contain certain provisions concerning the suppression of vermin, the destruction of weeds on vacant lots and the pollution of the air by smoke and other obnoxious emanations, etc.

There will be advantage in establishing a control over air conditioning (temperature, humidity and renewal) in public or semi-public buildings: schools, meeting halls, plants, etc.

The inspections in connection with the sanitation file should be continued in order to insure the conservation of properties, the elimination of unsanitary dwellings and the conditions liable to create them.

A housing code should be prepared.

Every investigation in cases of "typhoid" fever should be completed by the division of sanitation, when persons taken ill work in industrial establishments supplied by wells or by two water supplies whereof one is not drinkable.

The staff of this division should be increased. In 1931, there were 51 employees; in 1938, the staff was 39. There is need for 12 additional inspectors. The salaries of the inspectors of this division should be revised and another classification established for them. Moreover, the candidates for the positions of sanitary inspectors must be "plumbers" and pass a special examination with good results.

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#### DIVISION OF VITAL STATISTICS

Vital statistics are highly important in a department of health as they supply the information which is essential for the carrying out of its activities.

Since 1928, a certain number of improvements have been made in this division.

I—The staff has been increased and even doubled; there was also established a system of classification of documents.

II—**The 1931 census** has allowed us to make a compilation of the population of Montreal by municipal wards, permitting the calculation of the mortality in such wards.

However, owing to fluctuations occasioned by "unemployment," the valuation of the population from year to year is very much harder to establish.

III—**Concerning the declaration of births**, an agreement had been arrived at with the clergy in 1932, whereby the latter makes a monthly report of the births registered, and

another with the hospitals and the maternities. Such agreements have brought about the following improvements:

1. A more complete registration.
2. A decrease in the number of late registrations.
3. A campaign of education for the registration of births by means of a "circular" distributed by the Department of Health (division of statistics and division of child hygiene) and by the maternities.
4. Contribution to the campaign against infantile mortality by supplying each week a "list of new-born babies" to the division of child hygiene and to the Federation of Infant Hygiene.
5. More detailed statistics and classification by sexes, religious denominations, racial origin and civil status of parents (legitimacy).

#### **IV—Concerning statistics of deaths:**

1. More complete statistics of the deaths by obtaining reports:
  - (a) from the anatomical inspector;
  - (b) from certain religious communities which own a cemetery;
  - (c) from the Provincial Service of Demography for the deaths outside of Montreal of persons residing therein.
2. Steps taken with the Provinces to establish a uniform definition of the word "still-born," adoption of that formulated by the League of Nations and more correct classification of such births.
3. Modification of the classification of deaths and adoption of the international classification as revised in 1930.
4. Closer co-operation between the Division of Demography, the funeral directors, the public, the hospitals and the cemetery authorities.

5. Additional facilities given to the public for the obtention of burial and transportation permits by keeping the office open from 9.00 o'clock a.m. to 11.00 o'clock p.m. on weekdays and from 2.00 to 11.00 o'clock p.m. on Sundays.

6. Changes made in certain tables in order to make them conform to the practice in other statistical offices.

7. Improvement in the publication of the annual report by having printed on two pages several tables previously printed on a folded sheet.

### **Recommendations:**

1. **Annual census** of the population by the assessors during their annual inspection, as is done in Toronto.

2. **Centralization of the statistics of the municipalities in the metropolitan district.**

There should be an agreement in this connection with the Ministry of Health in order that all statistical bulletins (marriages, births and deaths) made out by the clergy of Montreal and of the surrounding municipalities, be forwarded to the division of vital statistics of the Department of Health of the City of Montreal which, after having made a copy thereof, would then transmit them to Quebec, as is presently done in the case of deaths. This system would have the following advantages:

- (a) the obtention of a more prompt transmission of the reports;
- (b) the making of more complete statistics of marriages and births;
- (c) the establishment of monthly statistics of marriages and the extension of such statistics as regards the age, the sex, the race, the religious affinities and the prior civil status of the couples;
- (d) the development of the birth statistics as regards the age, nationality, religion of the parents, number of children, etc.
- (e) It would permit of following more closely the progress

of an epidemic originating in one of those municipalities and of taking the necessary precautionary measures.

3. **"Mechanization" of the statistical work** by the use of "calculating" and "sorting" machines. In this connection, a system should be studied looking towards co-operation between divisions of contagious diseases and of vital statistics with a view of training one or two employees of each division in the operation of the machines and to do jointly all the work of compilation.

4. It had been recommended, in the report of the investigation of 1928, that all statistics of the Department of Health be made up in the division of vital statistics. Such centralization would insure co-ordination of the work. This suggestion would be realizable with "mechanization."

5. **Staff**—It would be advisable to appoint an employee to replace one who has been transferred to another department.

The classification and salaries of the employees of the division should also be revised.

Dr. ADELARD GROULX,

Director, Department of Health.

**NOTE:**—This report deals with divisions which interest particularly public hygiene and a Department of Health. It has been studied and drawn up with the co-operation of the assistant directors and division superintendents. I wish to thank the latter for their kind collaboration in this work.

A. G.

## Annex

### Section of nurses

The Contagious Diseases and Child Hygiene divisions have each their group of visiting nurses; the number of nurses for these two divisions is 127.

At present, in the Contagious Diseases Division, there are 11 nurses and 2 supervisors; one is in charge of the general control of contagious diseases and the other, of the tuberculosis section.

In the Child Hygiene Division, there are 114 nurses, one whom is chief nurse, 6 supervisors, 94 school nurses, 3 psychologist nurses, 2 nurses for the examination of hearing, 6 nurses in the dental clinics and 2 nurses for the inspection of private maternities and boarding-houses for children.

If the organization of sanitary districts is ever realized, account must be taken in the distribution of the work that the same nurse will be called upon to look after in her district the control of contagious diseases, the medical inspection of schools, the home visits, etc.

To secure adequate supervision of the nurses' work, a chief district nurse should have under her supervision no more than 10 to 12 visiting nurses.

The aspiring nurses must pass a special bilingual examination at the Department of Health and obtain a minimum of 70% of points.

In order to obtain better results and owing to their numerous activities, the number of nurses should be gradually increased to 150.

A. G.

## TUBERCULOSIS IN MONTREAL

Tuberculosis is a disease which gives great anxiety to hygienists owing to its ravages and to the loss of lives it causes. It is a very common contagious disease.

It creates a vast social problem. It prevails especially among the poorer classes—where resistance to the disease is impaired by a defective diet, or an overcrowded and insanitary dwelling, or by over-work, poverty and alcoholism. It becomes a class disease.

It is also a family disease and the safeguarding of the family depends upon the prophylactic action of the dispensary, the influence of the treating physician, the activity and devotedness of the visiting nurses and the facilities for isolation and treatment at the sanatorium.

Science has studied the various aspects of the problem and it devolves upon us to apply the knowledge acquired. Social justice plays an important part in preventive medicine.

### Mortality ascribable to tuberculosis years 1935-36-37

	Province of Quebec	District of Montreal	City of Montreal
Population in 1936.....	3,110,000	1,473,975	875,000
Average number of deaths.....	1,466	1,231	706
Average death-rate per 100,000.....	90.8	83.5	80.9

The death-rate, as regards cases of tuberculosis, for the past three years, 1935-36 and 1937, per 100,000 of population, was as follows: in the Province, 90.8—in the District of Montreal, 83.5—and in the City of Montreal proper, 80.9. In 1938, this rate declined to 74.8 per 100,000.

If our City has a most favorable death-rate, we must not, however, unduly boast of the fact, for a comparison with other large centres of our country is less advantageous.

### Mortality ascribable to tuberculosis, by nationality

An epidemiological study of the mortality ascribable to tuberculosis among the different ethnical groups the population of Montreal is composed of has given the results shown on graph A.

1. The French Canadians have the highest death-rate, as regards cases of tuberculosis, to wit, 83.2 per 100,000 in 1938.

2. The British, i.e. the English, the Scotch and the Irish, have a death-rate lower than the general rate, or 53.9.

3. The Jews have the lowest death-rate, as regards cases of tuberculosis, namely 37.6, in 1938.

The cause of these differences in the death-rate has been the subject of a most interesting study made by my colleague and assistant, Dr. E. Gagnon, and which was published in the "Bulletin d'Hygiène de Montréal"—Vol. 24, No. 3, 1938.

Among the factors which account for the high death-rate, as regards cases of tuberculosis, in the French Canadian group, we particularly note a less complete equipment for combating this disease.

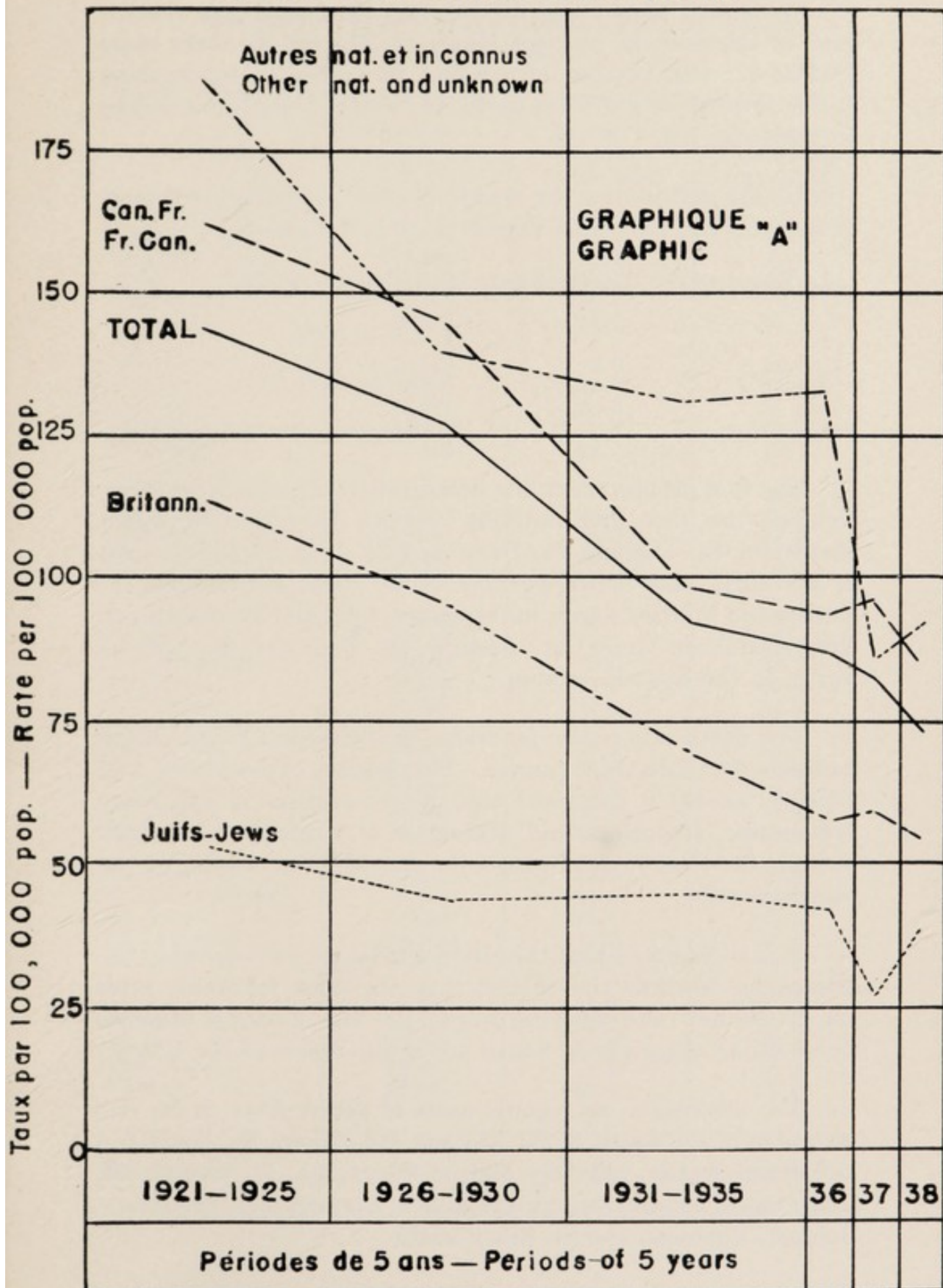
TABLE I

Mortality by racial origin and by periods of five years, from 1921 to 1938

Years	Total	French Canadians	British	Jews	Other races and unknown persons
1921-25.....	144.9	161.9	112.9	53.9	187.3
1926-30.....	126.5	145.3	92.3	45.5	139.4
1931-35.....	92.3	98.7	71.8	45.8	130.7
1936.....	85.3	93.0	56.1	42.3	132.8
1937.....	82.0	95.8	57.0	26.6	83.9
1938.....	74.8	83.2	53.9	37.6	91.2

## Graph A

showing by curves the tuberculosis mortality rates  
by racial origin and by five year periods



### Tuberculosis by wards

We stated above that the average death-rate, as regards cases of tuberculosis, was, for Montreal, 80.9 for the three years 1935-36-37; the number of persons who died of tuberculosis during these three years was 2,119; the average number of deaths per year was 706.

In the distribution by wards of the mortality ascribable to tuberculosis, the wards were divided into 4 groups:

1. Those where the death-rate is the lowest, 40-74.9;
2.    "       "       "       "       "       " 75.0 to 84.9;
3.    "       "       "       "       "       " 85.0 to 94.9; and
4.    "       "       "       "       "       " 95.0 and more per 100,000.

The first group, where the death-rate is the most favorable, includes the new and outlying wards: Ahuntsic, St. John, Montcalm, St. Michael, St. Denis and St. Jean Baptiste wards, in the north and centre sections of the City; Rosemount, St. Eusèbe and Mercier wards, in the east section, and Mount-Royal, Notre-Dame de Grâce, St. Andrew, St. Paul and St. Gabriel wards, in the western section.

The death-rate is also favorable in the second group, which includes St. Edward, Laurier, DeLorimier, Ville-Marie and Villeray wards, in the north and centre sections of the City; Préfontaine, Hochelaga and Maisonneuve wards in the eastern section; St. Henry, St. Cunegonde and St. Ann wards, in the western section.

It is to be noted that the circle constantly narrows from the extremities towards the centre; that the most favorable rates are in the new and outlying wards and the situation becomes worse in the older wards, which are in the centre of the City.

The death-rate, as regards cases of tuberculosis, is far less favorable in the wards of the 3rd and 4th groups: St. Louis and Lafontaine wards, and very high in St. Joseph, St. George, St. Lawrence, Crémazie (where the rate is the highest), St. James, Bourget, Papineau and St. Mary wards.

Table II

**Mortality ascribable to tuberculosis by wards  
(1935-1937)**

Wards	Average population (1936)	Number of deaths (1935-1937)	Average death-rate per 100,000 (1935-1937)
Ahuntsic.....	20,825	9.7	46.4
Bourget.....	25,813	25.7	99.3
Crémazie.....	18,463	29.7	160.9
Delorimier.....	45,763	36.0	78.7
Hochelaga.....	23,537	18.0	76.7
Lafontaine.....	10,500	9.0	85.6
Laurier.....	17,140	13.0	75.9
Maisonneuve.....	32,287	26.3	81.6
Mercier.....	21,787	14.3	66.0
Montcalm.....	17,588	12.7	72.1
N. D. de Graces.....	12,697	5.7	44.8
Mount Royal.....	50,138	20.0	39.9
Papineau.....	16,888	18.7	110.9
Préfontaine.....	20,125	16.7	79.9
Rosemount.....	47,600	32.0	67.2
St. Andrew.....	25,025	13.3	53.2
St. Ann.....	18,025	14.3	79.4
St. Cunegonde.....	19,950	16.0	80.3
St. Denis.....	26,512	14.7	55.4
St. Edward.....	35,700	29.0	81.3
St. Eusèbe.....	22,050	14.7	66.5
St. Gabriel.....	21,263	13.0	61.2
St. George.....	14,437	15.7	108.4
St. Henry.....	31,850	24.3	76.4
St. James.....	24,413	31.0	126.9
St. John.....	26,040	19.0	73.0
St. Jean Baptiste.....	33,775	25.0	74.2
St. Joseph.....	11,638	15.7	134.5
St. Lawrence.....	21,962	21.0	95.8
St. Louis.....	18,813	17.7	93.9
St. Mary.....	15,837	17.0	107.2
St. Michael.....	27,300	15.7	57.4
St. Paul.....	29,750	20.0	67.3
Ville-Marie.....	10,937	8.3	76.2
Villeray.....	57,872	45.7	78.9
The 35 wards.....	875,000	706.3	80.9

Table III

Mortality ascribable to tuberculosis—Classification of  
death-rate by wards.

1935-1937

**I—40.0-74.9 per 100,000:**

N.D. de Graces.....	39.9
Mount Royal.....	44.8
Ahuntsic.....	46.4
St. Andrew.....	53.2
St. Denis.....	55.4
St. Michael.....	57.4
St. Gabriel.....	61.2
Mercier.....	66.0
Rosemount.....	67.2
St. Eusèbe.....	66.5
St. Paul.....	67.3
Montcalm.....	72.1
St. John.....	73.0
St. J. Baptiste.....	74.2

**II—75.0-84.9 per 100,000:**

Laurier.....	75.9
St. Henry.....	76.4
Ville-Marie.....	76.2
Hochelaga.....	76.7
Delorimier.....	78.7
Villeray.....	78.9
St. Ann.....	79.4
Préfontaine.....	79.9
St. Cunegonde.....	80.3
St. Edward.....	81.3
Maisonneuve.....	81.6

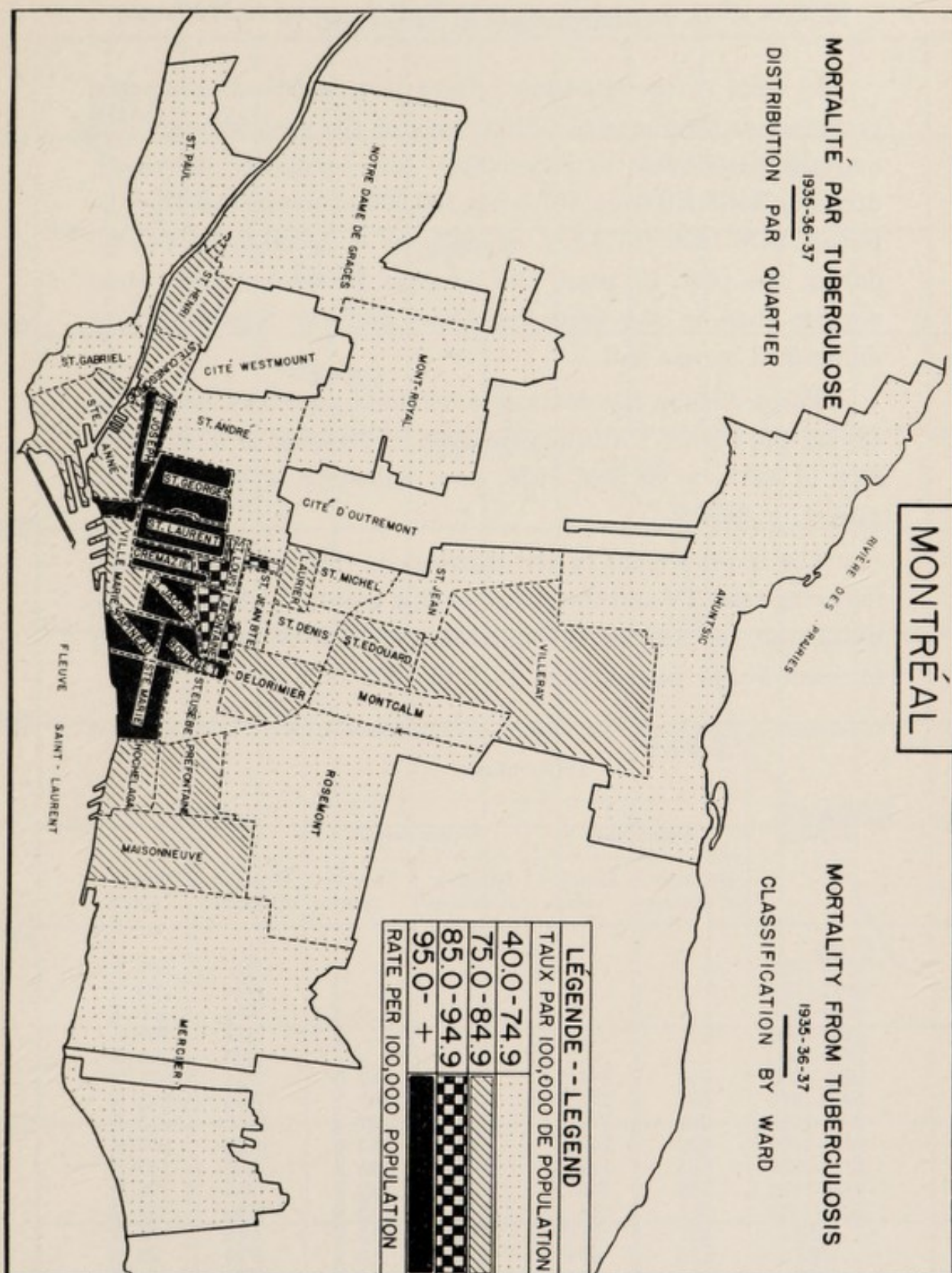
**III—85.0-94.9 per 100,000:**

Lafontaine.....	85.6
St. Louis.....	93.9

**IV—95.0 per 100,000:**

St. Lawrence.....	95.8
Bourget.....	99.3
St. Mary.....	107.2
St. George.....	108.4
Papineau.....	110.9
St. James.....	126.9
St. Joseph.....	134.5
Crémazie.....	160.9

18th May 1938.



### Decrease of mortality ascribable to tuberculosis in Montreal

In spite of the situation I have just described, a marked progress has been made in Montreal; for the past 60 years, the mortality ascribable to tuberculosis has constantly decreased, declining as it did from 307.5 per 100,000 of population, for the period 1876-1880, to 74.8, in 1938, or a decrease of 75.7%; during the past 15 years the progress made has been more notable than in the preceding years and the death-rate has diminished by one half.

The decline in the death-rate has been especially noticeable among the French Canadians in 1938, decreasing as it did from 95.8 in 1937, to 83.2 in 1938, or a reduction of 13.15% (See table I, p. 64).

The improvement in the situation is clearly shown by the following table IV and the corresponding graph C, which give the death-rate, as regards tuberculosis, per 100,000 of population for each 5-year period, from 1876 to 1938.

Periods of years	Tuberculosis				Total	
	Pulmonary		Other forms			
	Number of deaths	Death- rate	Number of deaths	Death- rate	Number of deaths	Death- rate
1876-1880	...	.....	...	....	417	307.5
1881-1885	...	.....	...	....	434	282.7
1886-1890	...	.....	...	....	513	256.3
1891-1895	...	.....	...	....	547	238.5
1896-1900	...	.....	...	....	680	266.3
1901-1905	616	214.7	168	57.0	784	271.7
1906-1910	683	175.3	186	47.7	869	223.0
1911-1915	969	176.2	183	37.1	1152	213.3
1916-1920	929	168.4	194	35.2	1123	203.6
1921-1925	785	119.6	165	25.2	950	144.8
1926-1930	798	105.7	157	20.8	955	126.5
1931-1935	661	78.4	118	13.9	779	92.3
1936	627	71.7	119	13.6	746	85.3
1937	615	69.5	111	12.5	726	82.0
1938	585	65.5	83	9.3	668	74.8

## Graph C

showing by curve the tuberculosis mortality rates by 100,000 population for each five year period from 1876 to 1938

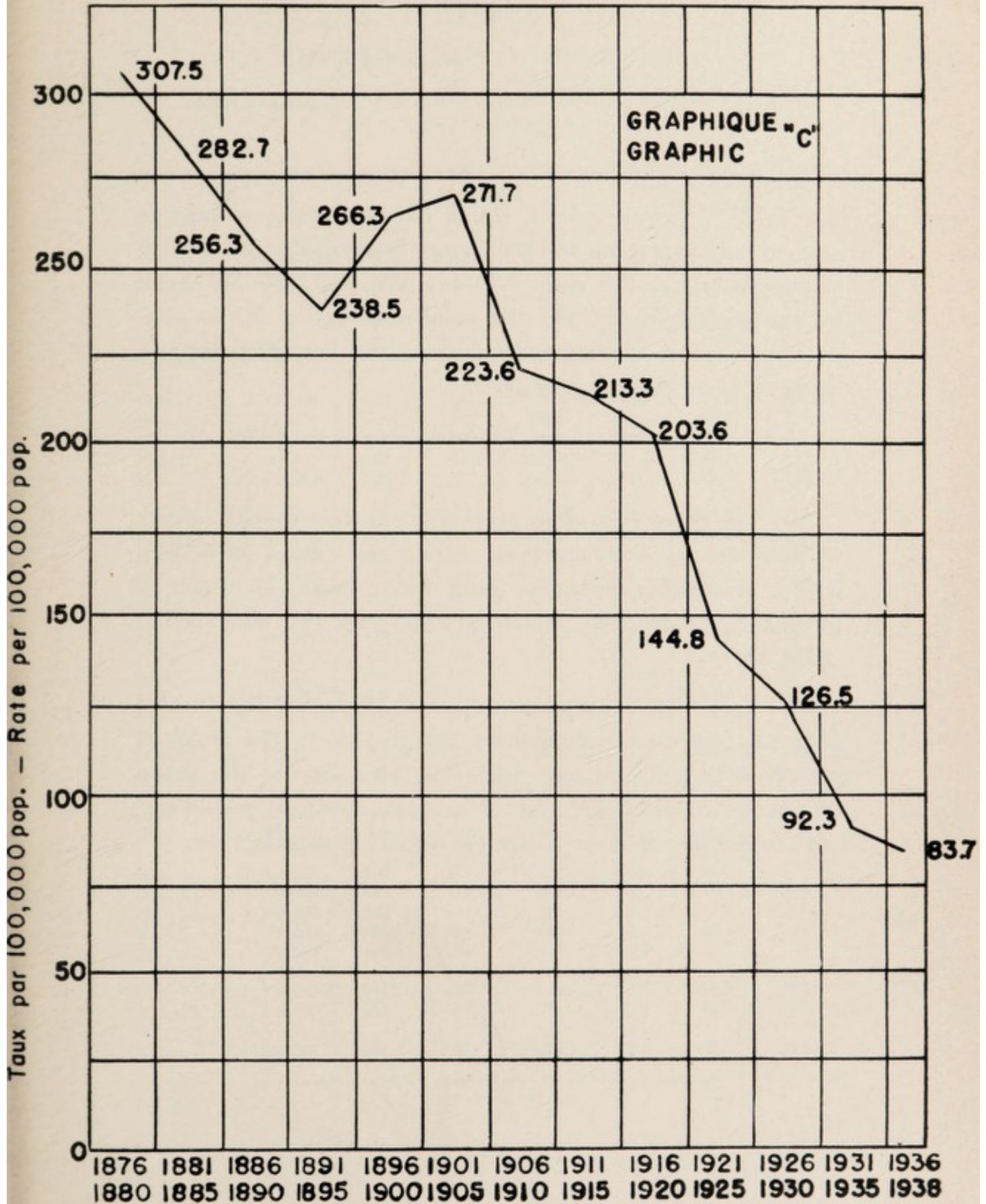


Table V, which follows, shows the death-rate, as regards cases of pulmonary and non-pulmonary tuberculosis, per 100,000 of population, for the years 1911 to 1938, and table VI shows for the years 1920 to 1938, the number of deaths due to non-pulmonary tuberculosis among persons less than 20 years and those 20 years and more of age.

The conclusions to be drawn from these tables are as follows:

1. The percentage of decrease in the death-rate with respect to non-pulmonary tuberculosis, during the period 1915-1938, is 77.1, or a higher proportion than that of deaths ascribable to pulmonary tuberculosis, which is 59.5% for the same period (table V).

2. Up to 1937, there was a marked decrease in the number of deaths due to non-pulmonary tuberculosis in the group of persons 0-19 years of age, while the mortality in the group of persons 20 years or more of age has remained stationary, but the decrease is more noticeable in both groups in 1938.

**Table V**  
**Deaths ascribable to tuberculosis**  
**Death-rate per 100,000 of population for the years**  
**1911 to 1938**

Year	Population	Number of deaths			Death-rate per 100,000 of population		
		Tuberculosis		Total	Tuberculosis		Total
		Pulmo- nary	Other forms		Pulmo- nary	Other forms	
1911.....	470,480	751	163	914	159.6	34.6	194.2
1912.....	481,400	894	148	1,042	185.7	30.7	216.4
1913.....	493,528	884	190	1,074	179.1	38.5	217.6
1914.....	504,647	964	196	1,160	191.0	38.8	229.8
1915.....	516,000	829	233	1,062	160.7	45.1	205.8
1916.....	528,980	863	174	1,037	163.1	32.9	196.0
1917.....	537,970	879	210	1,089	163.4	39.0	202.4
1918.....	579,910	1,021	212	1,233	176.0	36.6	212.6
1919.....	593,440	927	211	1,138	156.2	35.6	191.8
1920.....	607,470	919	185	1,104	151.3	30.4	181.7
1921.....	618,506	741	179	920	119.8	28.9	148.7
1922.....	637,600	761	179	940	119.3	28.1	147.4
1923.....	655,700	813	167	980	124.0	25.5	149.5
1924.....	674,300	807	171	978	119.6	25.4	145.0
1925.....	693,500	805	131	936	116.2	18.8	135.0
1926.....	713,200	796	158	954	111.6	22.2	133.8
1927.....	733,500	763	123	886	104.0	16.8	120.8
1928.....	754,300	801	137	938	106.2	18.2	124.4
1929.....	775,800	823	190	1,013	106.1	24.5	130.6
1930.....	796,800	806	177	983	101.2	22.2	123.4
1931.....	818,577	766	121	887	93.6	14.7	108.3
1932.....	833,000	722	112	834	86.7	13.4	100.1
1933.....	847,000	670	141	811	79.1	16.7	95.8
1934.....	855,000	600	113	713	70.2	13.2	83.4
1935.....	863,000	546	101	647	63.3	11.7	75.0
1936.....	875,000	627	119	746	71.7	13.6	85.3
1937.....	885,000	615	611	726	69.5	12.5	82.0
1938.....	893,000	585	83	668	65.5	9.3	74.8

**Table VI**  
**Number of deaths ascribable to non-pulmonary**  
**tuberculosis—1920-1937**

Years	0 to 19 years	20 years and more	Total
1920.....	115	77	192
1921.....	107	72	179
1922.....	102	76	178
1923.....	105	62	167
1924.....	113	58	171
Average.....	108.4	69	177.4
1925.....	76	55	131
1926.....	114	44	158
1927.....	82	41	123
1928.....	85	52	137
1929.....	128	62	190
Average.....	97	50.8	147.8
1930.....	101	76	177
1931.....	63	58	121
1932.....	70	42	112
1933.....	85	56	141
1934.....	66	47	113
Average.....	77	55.8	132.8
1935.....	46	55	101
1936.....	63	56	119
1937.....	57	54	111
1938.....	45	38	83
Average.....	52.7	50.7	103.5

**Purification of milk and mortality ascribable to  
non-pulmonary tuberculosis**

The gradual decrease in the number of deaths caused by tuberculosis since 1915 corresponds to the progress made with regard to the purification of milk and is due to the complete eradication (100%) of tuberculosis from the herds which produce the milk consumed in the City and to the high percentage (95%) of pasteurized milk sold. This is illustrated by the following table VII.

Those who succeeded in having the "milk and pasteurization by-law" adopted and thus rendered a valuable service to the community, especially to the children, deserve credit for the unrelenting efforts they have exerted in this connection.

Table VII

Years	Population	Deaths	Rate per 100,000 population	Milk Supply	
				% of tuber- culin-tested cows	% of pasteurized milk
1915	516,000	233	45.1	.....	30.86%
1916	528,980	174	32.9	.....	42.21%
1917	537,970	210	39.0	2.35%	44.70%
1918	579,910	212	36.6	1.48%	50.50%
1919	593,440	211	35.5	1.54%	56.15%
Mean	521,250	208	39.9	1.79%	44.88%
1920	607,470	192	31.6	2.05%	60.00%
1921	618,506	179	28.9	2.06%	60.50%
1922	637,600	179	28.1	3.75%	60.70%
1923	655,700	167	25.5	5.03%	64.50%
1924	674,300	171	25.4	8.17%	67.17%
Mean	638,715	177	26.1	4.21%	62.57%
1925	693,500	131	18.9	26.19%	68.10%
1926	713,200	158	22.1	63.90%	94.33%
1927	733,460	123	16.8	82.41%	95.51%
1928	754,300	137	18.2	94.94%	(1)
1929	775,800	190	24.5	85.06%	(1)
Mean	734,052	148	20.1	70.50%	85.98%
1930	796,800	177	22.2	93.43%	(1)
1931	818,577	121	14.8	91.57%	(1)
1932	833,000	112	13.5	100.00%	(1)
1933	847,000	141	16.6	100.00%	95.60%
1934	855,000	113	13.2	100.00%	94.87%
Mean	830,075	133	16.0	97.00%	.....
1935	863,000	101	11.7	100.00%	95.31%
1936	875,000	119	13.6	100.00%	94.59%
1937	885,000	111	12.5	100.00%	94.48%
1938	893,000	83	9.3	100.00%	94.39%

(1) We have no figures for years 1928 to 1932.

## HISTORY OF THE FIGHT AGAINST TUBERCULOSIS

There existed in Montreal, in 1914, but two dispensaries to cope with tuberculosis: the Bruchési Institute and the Royal Edward Institute. The total number of beds did not exceed 125. An educational campaign was launched and carried on by means of public lectures for the purpose of securing the co-operation of the citizens.

Since then, the number of dispensaries and beds has gradually increased. A marked progress has been made, especially in 1925; there were then 4 anti-tuberculous dispensaries and 606 beds available.

At present, the above mentioned institutes control 6 dispensaries for the early detection of tuberculosis and for collapse-therapy, located in the different wards of the City; there is a tenth dispensary at Cartierville under the direction of the Sacred Heart Hospital.

I must mention here the excellent educational work done by the Anti-tuberculous and Public Health League from 1924 to 1928.

The universities have not remained indifferent to the problem; they have ensured the teaching of phthisiology by a special chair, thus preparing the future physician.

I wish to call particular attention to the commendable initiative taken by the authorities of the Sacred Heart Hospital and of the Mount Sinai sanatorium in successfully organizing "clinical weeks" and to the series of lectures and courses given at the University of Montreal, under the auspices of the Faculty of Medicine and of the "Franco Canadian Institute" by distinguished and renowned masters of French science.

The health camps for boys and girls located at St. Hippolyte and directed by the Bruchési Institute, for tuberculous contacts, "l'Oeuvre des Colonies de vacances," the scout camps, the "Association du bien-être de la jeunesse," which enables a great number of children to spend a part of the summer in the open air, the "Bureau des oeuvres sociales scolaires et de la cantine" and the similar English organizations, B.C.G. vaccination and the placing of children in families—all contribute to the prevention of tuberculosis.

The medical inspection of pupils and teachers in schools and the examination of all persons who handle foodstuffs make the preliminary detection possible.

The enforcement of the building by-laws are also of utmost importance from the point of view of public health and to ensure sanitary housing conditions, inasmuch as the insanitary dwelling, owing to its lack of sunlight or of natural lighting, is contrary to the prophylaxis of tuberculosis and is detrimental to the health of its occupants.

This is the reason why, among other things, the construction and occupation of rooms which are not lighted by windows opening directly to the outside air are prohibited in Montreal. From 1921 to 1937, nearly 8,000 dark rooms were suppressed and about 4,000 others were placarded, or a total of 12,000 during the past 15 years.

During the same period, about 500 dwellings were evacuated because they did not meet the requirements of hygiene and, in the course of the past few weeks, about 60 other dwellings were likewise condemned.

It would be superfluous to point out to the hygienists the baleful effects on the health of those who live in insanitary and overcrowded dwellings. In the program of the drive we have undertaken against tuberculosis, we do not ignore that there is a housing problem and a nutrition problem.

### **Beds available in hospitals for tuberculous patients and in sanatoria**

It must be borne in mind that the hospitals and sanatoria play an important part in the fight against tuberculosis, for one of the principal means of protecting the population from this disease is the isolation and hospitalization of the patient.

In the district of Montreal, there are at present 1,033 beds, 503 of which are in French Canadian institutions and 530 in English and other institutions (See table).

The proportion of the number of beds per death (the standard now used), should be 2 beds per death. At present,

the ratio is, in the Province, 1.06 bed per death and, in the district of Montreal, 0.8 bed per death.

It has not been possible to establish the proportion "per nationality" for the district of Montreal; the ratio on such basis has been found to be as follows for the City of Montreal (See following table VIII):

Proportion of beds available for

(a) French Canadians.....	0.9 bed per death
(b) British.....	3.8 beds per death
(c) Jews.....	6.6 beds per death

If we apply the proportion of beds per death, for the City of Montreal, to the whole population of the District of Montreal, such proportion of beds would be lower.

The prevention of tuberculosis among children is important; it is the very basis of the drive undertaken against this disease.

The decrease in the number of cases of tuberculosis among children indicates less mass contamination. Every effort should therefore be exerted to protect children against any contagion.

We must establish a balance-sheet, we must know exactly where we stand.

One of the first measures to be adopted to that end is to have the children of pre-school and school age undergo the tuberculin test. As regards the former, it will enable us to detect those who react positively and to find out the family contacts, which is a most important point.

The progress made is very encouraging if one considers the inadequate armament we had at our disposal, but which was, on the other hand, supplemented by an untiring devotion. The results achieved and the importance of the problem are a stimulus for us to strive more than ever to bring the death-rate down to that which prevails elsewhere and which is inferior to 50 per 100,000.

**Table VIII**  
**Beds for tuberculous patients**  
**1938—District of Montreal**

INSTITUTIONS	Number of beds	Per nationality		
		French Canadians	British	Jews
Grace Dart Home.....	118	450	118	..
Hôpital du Sacré-Cœur.....	450	450	...	..
Laurentian Sanatorium.....	247	...	247	..
Mount Sinai Sanatorium.....	92	...	...	92
Children's Memorial Hospital.....	35	...	35	..
Brehmer Rest (Ste-Agathe).....	15	...	15	..
Institut Bruchési.....	53	53	...	..
Royal Edward Institute.....	23	...	23	..
<b>Total.....</b>	<b>1033</b>	<b>503</b>	<b>438</b>	<b>92</b>

**Proportion of beds per nationality and per death**

Nationalities	Average population 1936	Deaths due to T.B. Average 1935-37	Beds	Proportion of beds	
				per death	1 bed per
Province.....	3,110,000	2824	1735	0.6(1)	2692
District of Montreal....	1,473,975	1231	1033	0.839	1427
<b>City of Montreal</b>					
French Canadians.....	565,515	540	503	0.9	1124
British.....	192,930	110	438	3.8	456
Jews.....	52,657	14	92	6.6	572
Unknown persons and other races.....	73,898	62	....	...	....
<b>Total.....</b>	<b>885,000</b>	<b>726</b>	<b>1033</b>	<b>1.4</b>	<b>857</b>

(1) At the moment of the publication of this report, in August 1939, proportion of beds compared to deaths in the province of Quebec, has risen to **1.06**.

## **The Department of Health and the fight against tuberculosis in Montreal**

In order to stimulate the drive against tuberculosis in Montreal, the administrators of the City, intent on protecting public health and on ensuring the success of the campaign undertaken, have facilitated the carrying into effect of important measures provided for in a project elaborated by the Department of Health and the Board of Health.

### **I. Collaboration of the Department of Health**

The Provincial Committee for the stamping out of tuberculosis and the Provincial Department of Health may count on the unstinted collaboration of the Department of Health of the City of Montreal.

### **II. Tuberculosis section**

The creation of a Tuberculosis section in the communicable diseases division, together with the appointment of a trained and specialized staff, constitutes a notable improvement, which could hardly be further postponed. This branch of the Department of Health is actually a medium of correlation between the various organizations engaged in combating tuberculosis.

Dr. Léo Ladouceur has been appointed director of the new section. He is a specialist in the treatment of tuberculosis and has a wide experience, having been attached for about 15 years to the Bruchési Institute. Dr. Ladouceur will first get in touch with the different anti-tuberculous agencies of Montreal and see that the new section is organized on a practical basis. He is, moreover, in charge of the epidemiological investigations of all cases referred to the Department of Health for its attention and will also supervise the hospitalization thereof.

The data gathered by this branch of the Department will, among other things, enable us to keep a record of all cases of tuberculosis in Montreal which will make it possible for us to be posted with the situation from day to day.

### **III. System of free distribution of tuberculin**

The Department of Health has inaugurated a system of free distribution of tuberculin to the physicians and institutions, which will enable them to co-operate more easily in the anti-tuberculous campaign.

#### **IV. Tuberculin tests in clinics and schools (Child Hygiene Division)**

The personnel of the Department of Health will have the children undergo the tuberculin test in the baby clinics and schools, especially in the high schools. The positive cases will be followed up by the personnel of the new Tuberculosis section so as to permit of the detection of tuberculosis in the families, and such cases will be referred to the family doctor for clinical and radiological examination.

#### **V. Education and propaganda**

##### **(a) Circular re "diet."**

The Department of Health has given its support to the propaganda carried on by the Provincial Health Department for the purpose of improving the diet among our population. It has, indeed, been shown that a well balanced diet increases the resistance of the organism to infections, more especially to tuberculosis.

The Department of Health of the City has reproduced in the form of a circular, thousands of copies of which have been distributed, the interesting and documented article by Dr. Sylvestre, Director of the nutrition division of the Provincial Department of Health.

##### **(b) Map of Montreal—distribution, by wards, of the mortality ascribable to tuberculosis.**

A "map of the City," which we have prepared and over 5,000 copies of which have been distributed, shows the number of deaths caused by tuberculosis which occurred in each ward.

##### **(c) Illustrated card "Let us fight against tuberculosis."**

An illustrated card "Let us fight against tuberculosis," of which we had 35,000 copies printed, is also distributed in the schools, health centres, stores, restaurants, railway stations, etc., in short, in all public places.

##### **(d) Circular: "Tuberculosis."**

The issuing of a circular for the prevention of tuberculosis is a further contribution of the Department of

Health to the drive against tuberculosis; over 150,000 copies of this circular have already been distributed.

## **VI. Propaganda by means of lectures given at meetings of citizens.**

### **Meeting of the 12th October 1938**

On the 12th October 1938, a meeting of citizens, which had been called by the Department of Health of the City of Montreal in conjunction with the committee for the stamping out of tuberculosis, was held at the Plateau Auditorium, at which Dr. J. A. Jarry presided.

This meeting was the first manifestation organized in Montreal on the occasion of the 3-year campaign undertaken to combat tuberculosis. Persons of note were present: Mgr. C. Chaumont, delegated by H.G. the Archbishop of Montreal, Dr. Jean Grégoire, deputy-minister of Health, who represented Hon. Dr. A. Paquette, Dr. Léopold Nègre, of the Pasteur Institute, guest of honor, Dr. Albert Lesage, Dean of the Faculty of Medicine of the University of Montreal, Dr. Ad. Groulx, Director of the Department of Health of Montreal, Dr. Grant Fleming, Dean of the Faculty of Medicine of McGill University, Mr. Armand Dupuis, President of the Catholic School Commission of Montreal, and Dr. J. E. Dubé.

### **Public meetings:**

The Department of Health subsequently launched an extensive educational campaign under the direction of our colleague and assistant, Dr. Adrien Plouffe.

The object in view is to induce all the citizens to have themselves examined by a physician and thereby prevent for themselves and the members of their families tuberculosis and its baleful effects.

Public meetings will be held in the various sections and parishes of Montreal.

The first of these public meetings was held on the 16th December 1938 in the basement of St. Edouard Church, the parish priest, Rev. Jetté, and Ald. A. Filion, acting joint chairmen. A 15-minute lecture was given by Dr. J. A. Vidal, of the Sacred Heart Hospital, and a program of playlets, songs and

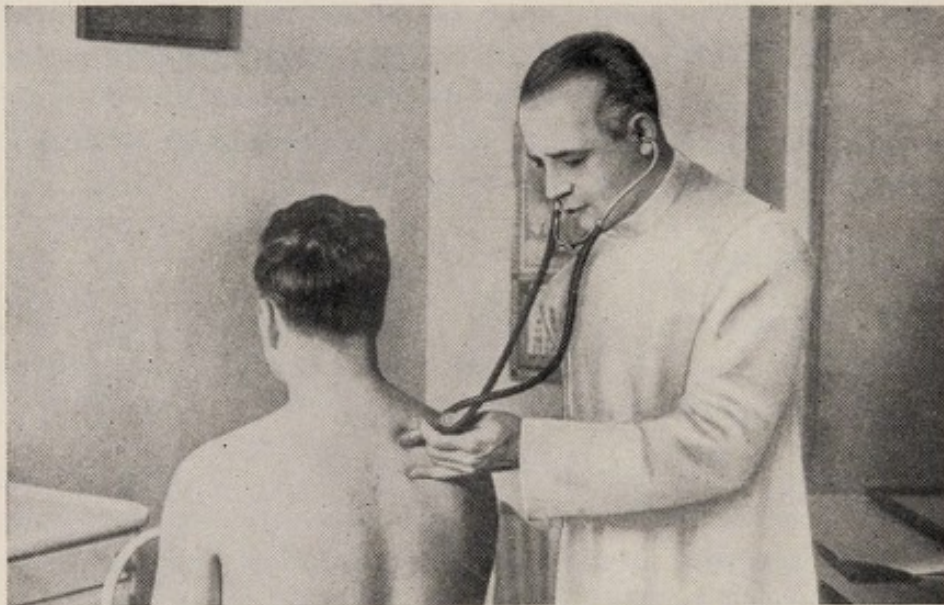
monologues dealing with subjects connected with hygiene greatly interested the audience.

The Department of Health proposes to hold further similar meetings, in the different parts of the City, inasmuch as they contribute to the success of the campaign undertaken by the committee for the stamping out of tuberculosis.

*Combattons la*  *Let us fight*

# TUBERCULOSE

*Pancarte  
publiée par  
le  
Service  
de Santé.*



*Poster  
published by  
the  
Department  
of Health.*

POUR **PRÉVENIR** TOUT DANGER  
FAITES-VOUS **EXAMINER**  
FAITES **EXAMINER** LES VÔTRES  
DÈS LA MOINDRE ALERTE  
VOYEZ VOTRE MÉDECIN  
N'ATTENDEZ PAS!

TO **PREVENT** ALL DANGER  
HAVE YOURSELF **EXAMINED**  
HAVE ALL YOUR FOLKS **EXAMINED**  
AT THE FIRST ALARM  
SEE YOUR DOCTOR  
DO NOT WAIT!

## POLIOMYELITIS

In 1938, there were, in Montreal, 9 cases of poliomyelitis (infantile paralysis) and no death due to this disease.

In view of the fact that, in 1937, many cases had been reported in the Provinces of Western Canada, in the Province of Ontario and in the Maritime Provinces, we had reason to dread a possible epidemic in our Province and in Montreal. In 1937, the number of cases in our City had been 78.

The following table shows, for the City of Montreal, the number of cases of poliomyelitis and the number of deaths caused by that disease, for the years 1915 to 1937.

Years	Number of	
	Cases	Deaths
1915.....	5	..
1916.....	109	32
1917.....	10	..
1918.....	34	..
1919.....	2	..
Average.....	32.0	..
1920.....	10	5
1921.....	10	3
1922.....	7	2
1923.....	10	5
1924.....	4	3
Average.....	8.2	3.6
1925.....	9	5
1926.....	4	3
1927.....	4	3
1928.....	22	2
1929.....	37	6
Average.....	15.2	3.8
1930.....	10	3
1931.....	744	74
1932.....	72	11
1933.....	35	6
1934.....	45	5
Average.....	181.2	19.8
1935.....	3	0
1936.....	26	0
1937.....	78	1
1938.....	9	0
Average.....	29	0.25

During the period 1915-1919, deaths ascribable to poliomyelitis were entered under the heading "other communicable diseases" on the list of deaths. In 1916, 30 deaths were recorded under this heading, but it is impossible to say how many of these deaths were caused by poliomyelitis. In that same year, 51 patients afflicted with poliomyelitis were hospitalized and 11 died therein. Of the 109 cases reported, 56 were rejected after diagnosis, 10 were considered as doubtful and 43 were confirmed.

In 1918, 12 cases were admitted to the hospitals and 1 death was recorded and there were 3 deaths classified under the heading "other communicable diseases." On the other hand, according to the tabulated statistics of the Communicable Diseases Division, 34 cases were reported, but the report of the epidemiologists (annual report of the Department of Health—p. 44), gives 16 cases diagnosed, two doubtful and 29 disinfections.

It is only from and after the year 1920 that we find the number of deaths ascribable to poliomyelitis in the table showing the number of deaths per month caused by contagious diseases.

In order to prevent this disease and to ensure the success of the campaign launched against it, the Director of the Department of Health elaborated the following project and submitted the same to the Board of Health at its special meeting held on the 19th of May 1938.

#### PROPOSED PLAN OF ACTION TO PREVENT POLIOMYELITIS

**I—Communique to the medical profession concerning the reporting of cases of poliomyelitis**, prepared by Dr. Foley, epidemiologist of the Province:—

- (a) sent to the physicians by special letter on the 26th of April 1938 (see text);
- (b) published in the French and English newspapers and medical reviews;
- (c) published in the "Bulletin d'Hygiène" issues of March and April 1938, through the intermedium of the Department of Health.

**II—Holding of a special meeting** of the representatives of the various institutions interested in the treatment of poliomyelitis—namely the hospitals for children and the

hospitals for persons suffering from contagious diseases—and of the members of the municipal Board of Health and officials of the Department of Health, on Thursday, the 19th of May 1938.

**Re** measures to be taken to prevent an epidemic of poliomyelitis;

Study of a plan of action to meet any emergency.

### III—Legislation—observance of the by-laws.

With the co-operation of the Province	1	<b>Compulsory and prompt reporting</b> of all confirmed and doubtful cases—stating whether or not they are paralytic—to the Department of Health.
	2	<b>Strict quarantine and isolation</b> } hospitalization facilities. Medico-surgical isolation.

### IV—Early diagnostic and treatment facilities

1. **Call the doctor as soon as the first symptoms of infection are revealed. Do not wait** before securing proper medical attendance. Follow the doctor's advice.

2. **Analysis of the cephalo-rachidian liquid**—facilities provided at the laboratories for physicians.

3. Analyses made at the municipal laboratory for:

- (a) lymphocytosis;
- (b) increased albumen.

4. **Supply of convalescent serum and distribution thereof to the physicians who ask for same.**

We have at present 25 litres of serum available, 15 of which are at the Department of Health and 10 at the St. Justine Hospital.

5. **Hospitalization of all paralytic cases**—facilities granted under the Public Charity Act to families of moderate means.

<b>Pulmo-respirators</b> Present facilities: 9	{		St. Justine Hospital.....3
	{		Children's Memorial Hospital. .3
	{		Pasteur Hospital.....1
	{		Victoria Hospital.....1
	{		Jewish Hospital.....1

### **Orthopedic apparatus.**

#### **V. Education:**

1. **Circulars:** Advice to parents.
  - (a) C. No. 12—"Rules to be followed when there exists a case of infantile paralysis in a family."
  - (b) **Project submitted:** "General knowledge concerning poliomyelitis and **Advice to parents** for the protection of children against this disease."
2. Communiques and articles published in the newspapers and medical reviews.
3. Talks over the radio.
4. Lectures.
5. Meetings of medical societies.

#### **VI. Collaboration required:**

1. Medical profession.
2. Hospitals.
3. Medical societies.
4. Social agencies.

After studying this project, the Board of Health adopted, in the course of that same meeting, a resolution recommending that a sum of \$5,000 be voted by the Municipal Administration for the purchase of 10 additional pulmo-respirators, the same to be manufactured by the hospitals having already instruments of this kind.

Pursuant to the aforesaid recommendation and to a report from the Director of the Department of Health concurring in such recommendation, the City of Montreal had 10 pulmo-respirators made by the St. Justine and Children's Memorial Hospitals.

In addition to the pulmo-respirators already mentioned in the plan submitted, the Pasteur Hospital had 3 similar instruments manufactured. This brings the number of pulmo-respirators in the hospitals of Montreal to 22.

The Medical Society of Montreal, intent on co-operating in the drive against poliomyelitis, held on the 7th June, 1938, an extraordinary meeting to discuss this question.

## IMMUNIZATION AGAINST DIPHTHERIA 1928-1938

Since September 1928, 167,190 children have been immunized against diphtheria in Montreal; this represents 86,788, that is to say 51.9%, inoculated at the age of 6 months to 5 years, and 51,015, representing 30.5%, at the age of 6 and 7 years; at the school opening these two groups represent 82.4% of children immunized.

At present, including the year 1938, 29,687 children aged from 5 months to 4 years, for a population of 78,015 children from 0 to 4 years old, only 38.5% are immunized against diphtheria.

A large number of these children are still unprotected and are exposed to diphtheria at this age, which is the most dangerous death period.

In the course of 1938, 13,573 children have been immunized; this represents 8,967, that is to say 66% of children aged from 6 months to 5 years, and 3,843, that is 28% at the age of 6 and 7 years.

The number of children that are being immunized before 1 year of age is increasing from year to year. The report showed 4,017 in 1938.

Table I shows the present age of children that are being immunized, and also their age when inoculated since September 1928 to 1938.

Table II shows the total of children immunized, i.e. who were given the three doses of Toxoid, in Montreal, in one year, since the month of September 1928 to 1938, by the Department of Health and by several other organizations in charge of this work.

Table I  
Immunization against diphtheria  
Age of children having received the three doses of Toxoid from September 1928 to 1938

Age	1928	1929	1930	1931	1932	1933	1934	1935	1936	1937	1938	Total number of children	
												Immunized to date	Age at which children were immunized
6 months to 1 year	46	70	234	440	825	2,181	2,063	2,887	3,214	3,589	4,017	1938 0 to 4 years pop. 78,015	19,566 6 months to 5 years
1 year.....	214	416	978	1,465	1,875	3,430	2,087	2,041	1,977	1,980	1,778		18,241
2 years.....	262	493	1,173	1,135	1,425	3,430	1,329	1,352	1,268	1,332	1,030	29,687	14,229 86,788
3 years.....	170	387	1,140	1,007	1,138	3,203	1,010	951	956	1,039	884	38,05%	11,885 51.9%
4 years.....	158	407	1,155	946	1,049	3,084	904	875	794	864	588		10,824
5 years.....	125	456	1,279	1,172	1,271	3,459	945	908	848	910	670	5 to 9 years pop. 86,002	12,043
6 years.....	136	673	1,941	2,479	2,830	6,589	2,787	3,149	3,000	3,227	2,524		29,335 6 and 7 years 51,015 30.5%
7 years.....	104	566	1,650	1,953	2,467	6,127	1,788	1,997	1,847	1,862	1,319	58,686	21,680
8 years.....	61	390	667	571	759	5,324	770	748	737	738	526	68.01%	11,291 7 years
9 years.....	62	159	317	304	442	5,299	387	288	294	323	178		8,053
10 years and over.	90	297	605	595	621	6,288	158	114	62	78	59	78,817	8,967 29,387 17.6%
Unknown.....	39	22	231	142	103	282	91	65	44	57	...		1,076
<b>Total.....</b>	<b>1,467</b>	<b>4,336</b>	<b>11,370</b>	<b>12,209</b>	<b>14,805</b>	<b>48,696</b>	<b>14,319</b>	<b>15,375</b>	<b>15,041</b>	<b>15,999</b>	<b>13,573</b>		<b>167,190</b>

**Table II**  
**Immunization against diphtheria**  
**1928-1938**

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	4,336
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	954	.....	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.....	10,291	1,799	757	442	284	3,282	13,573
Total.....	135,331	13,854	11,854	3,793	2,398	31,859	167,190

## THE PROBLEM OF THE "CRECHES"

On the 10th February 1938, His Worship the Mayor of Montreal transmitted to me a resolution of the Medical Society of Montreal relating to infantile mortality in the creches.

I am giving below the text of this resolution and report which we made in this connection to His Worship the Mayor and which we submitted to the Board of Health of the City of Montreal.

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### Resolution of the Medical Society of Montreal

January 28th, 1938.

To His Worship the Mayor of Montreal,

I have the honor to send you the text of the resolution of the Medical Society of Montreal, unanimously adopted at its last regular meeting:

WHEREAS infantile mortality in the creches, in spite of the progress achieved, is still too high;

WHEREAS the causes of such mortality are not digestive troubles, but infections;

WHEREAS such infections are contagious and epidemic;

WHEREAS the early isolation of the babies is the only prophylactic method which has proved efficient;

WHEREAS the realization of this method requires important material transformations in the construction of our creches;

It was moved by Mr. Paul Letondal, seconded by Mr. Albert Guilbault, that the Medical Society of Montreal, in regular meeting, adopt in the form of wish the following resolution:

That the creches have a well equipped isolation service, with individual rooms;

That the public powers, with the least possible delay, favor such evolution in the material organization of our creches;

That copy of this resolution be forwarded to the religious authorities of our creches, to the Honorable Minister of Health and to the Mayor of Montreal.

### Certified True Copy

(Signed) G. A. SEGUIN, M.D.,

General Secretary Treasurer,

The Medical Society of Montreal.

### Report of Dr. Ad. Groulx

Montreal, March 9, 1938.

Mr. Mayor,

In answer to your letter of the 10th of February last, with which you transmitted to me a copy of a resolution of the Medical Society of Montreal, relating to the problem of infantile mortality in the creches, I beg to submit the following:

The problem of infantile mortality (i.e. of children from 0 to 1 year in the "creches") is allied to that of infantile mortality among illegitimate children in general.

This is a complex problem, very hard of solution, which exists particularly in the province of Quebec. It has practically no existence in the other provinces of Canada, where the tendency is rather to give the child to its mother and to hold her responsible for its rearing and education. In certain places, even the pater-nity is sought—and the father, if known, is also held responsible and must contribute to the care of the child. This work is done through services or societies created by the interested govern-ments.

The "placing in families" of illegitimate children and their "legal adoption" contribute to the solution of this problem; for this purpose "The Society for the adoption and protection of children," whereof the director of the Department of Health of the City is a member, has been founded in Montreal.

There are three important creches situated within the limits of the City of Montreal; the creche of Miséricorde, the St-Paul creche and the Crèche de l'Aide à la Femme.

Two others, the Youville creche and the St-François d'Assise creche, are situated in the neighboring municipalities of St. Laurent and Pointe aux Trembles.

The rate of mortality among illegitimate children of 0-1 year affects greatly the general rate of infantile mortality in Montreal and contributes to its increase. In 1936, the rate of deaths per 1,000 births, for children from 0-1 year, was 83.9; among illegitimate children it was 364.1 against 66.8 among legitimate children. In the 3 creches situated within the city limits for the same year, it was 429.2 per 1,000 births and admissions.

The vital statistics show that gastro-intestinal infections, pulmonary diseases, syphilis and infections in general are the most important causes of infantile mortality in the creches.

The agglomeration of children in the halls and the contacts are the principal factors of transmission of the infections, which makes it necessary to isolate children as soon as they show preliminary signs, temperature, etc. and makes it important to have in the creches isolation centres for the patients.

The resolution of the Medical Society of Montreal, as drawn up, takes in the entire problem of the creches and refers to none in particular.

The creches are institutions recognized under the Quebec Public Charity Act. However, it is admitted that these charitable institutions cannot suffice with the sole revenues of that act and with charity—especially to provide for enlargements deemed necessary.

Briefly, this problem is more provincial than municipal and, in addition to being medical, it is rather a social problem. It must also be studied with care from the economic and religious points of view.

Owing to the influence of the rate of deaths in these institutions and of its extensive repercussion on infantile mortality in our city, Montreal should be interested in the solution of this problem.

However, before any decision is taken by the City, I take the liberty of suggesting that the study of this complex problem be entrusted to a special committee.

Respectfully submitted,

(Signed) AD. GROULX,

Director of the Department of Health.

II—Table showing the rate of deaths per 1,000 live births  
among children from 0 to 1 year—  
legitimate and illegitimate

Years	Legitimate	Illegitimate	General rate
1925.....	106.7	400.5	122.4
1926.....	104.5	389.4	116.9
1927.....	102.1	465.2	116.9
1928.....	128.4	461.9	143.7
1929.....	115.3	462.9	132.3
Average 5 years.....	111.2	432.8	126.8
1930.....	108.2	449.0	124.8
1931.....	92.9	489.2	113.3
1932.....	80.3	449.1	98.9
1933.....	75.6	480.3	98.6
1934.....	78.6	318.1	90.8
Average 5 years.....	87.7	439.6	105.9
1935.....	77.8	311.0	92.2
1936.....	66.8	364.1	83.9
1937.....	76.3	289.7	90.0
Average 3 years.....	73.7	319.8	88.8

## BOARD OF HEALTH

The Board of Health appointed by the Municipal Council in virtue of By-Law No. 1044, was composed for the year 1938 of:

Alderman Ovide Taillefer, Chairman of the Executive Committee, member ex-officio,

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

Alderman A. L'Archevêque,

Alderman Léon Trépanier,

Dr. Adélarde Groulx, C.P.H., Director of the Department of Health, member ex-officio,

Dr. B. G. Bourgeois, Professor of the Faculty of Medicine of the University of Montreal,

Dr. E. G. Asselin, Professor of the Faculty of Medicine of the University of Montreal,

Dr. A. Grant Fleming, dean of the Faculty of Medicine and Director of the Department of Public Hygiene and Preventive Medicine, McGill University,

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

During the year, the said Board studied the following questions:

General death rate, infant mortality and mortality from Tuberculosis during the year 1937.

Written instructions given to the inspection staff of schools to detect malnutrition cases and their classification.

Suggestion to notify the family doctor by sending him the same notice as received by the parents, concerning the physical defects found during the medical examination and suggesting them to follow a treatment.

Annual report for municipal baby clinics for the year 1937.

Report showing the number of cases and deaths and the number of children registered for the immunization against diphtheria in the municipal clinics and in the schools during the year 1937.

Letters from certain dairies asking the authorization to bottle and deliver fruit juice, tomato juice, etc., at the same time as milk bottling.

Letter from the Catholic School Commission of Montreal, in regard to a dental hygiene campaign in the schools.

Report from the Société Médicale de Montréal concerning the creches.

Report concerning the organization and the operation of the Department of Health until December 31st, 1937.

Suggestion of the programme prepared by the Provincial Committee for the prevention of tuberculosis, and statistics in regard to this sickness.

Letter from Dr. A. R. Foley, epidemiologist of the province, asking all doctors to make a brief report of each case of poliomyelitis, so as to take necessary precautions in case of an epidemic.

Report prepared by the Department of Health to prevent a poliomyelitis epidemic. (Plan studied by Dr. A. R. Foley, epidemiologist of the Province, Dr. Ernest Sylvestre, Director of Hygiene Nutrition of the Province, Dr. H. B. Cushing, of the "Children's Memorial Hospital," Dr. J. E. Dubé from the St. Justine Hospital, Dr. J. H. Charbonneau, Pasteur Hospital, and Dr. J. H. Gervais, superintendent of the Contagious Diseases Division of the Department of Health of the City.)

Statistical report of the mortality cases caused by tuberculosis in Montreal, and letter from Dr. Omer Manseau, sending a copy of the motion adopted by the Société de Phtisiologie in regard to tuberculosis.

Suggestion concerning the inoculation of vaccine against smallpox.

Report showing the rate of infant mortality in the French Catholic parishes, through the municipal and independent baby clinics.

Leaflet concerning housing problem in Europe and in England.

Circular in regard to poliomyelitis.

Statistical reports re: (1) deaths caused by tuberculosis, age and sex, (2) beds for tuberculous in the district of Montreal.

Circulars concerning baby clinics.

Report showing the number of poliomyelitis cases since the beginning of the year.

Privilege granted from St. Justine Hospital.

Privilege granted from the Institut du Radium.

Report from Dr. Groulx, entitled "Situation of tuberculosis in Montreal."

Appointment of a committee for the study of a by-law concerning milk.

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**Division of Communicable Diseases**

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**DIVISION OF COMMUNICABLE DISEASES**

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June 6th 1939.

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

Dear Sir:—

I have the honour to submit to you the detailed statement of the operations carried on by the Communicable Diseases Division during the year 1938.

Yours truly,

J.-H. GERVAIS, M.D., D.H.P.

Superintendent, Communicable  
Diseases Division.

## SUMMARY OF ACTIVITIES

### Division of Communicable Diseases

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As regards the general evolution of contagious diseases in 1938, the list of reported cases shows a decrease of contagion, this year, in our city.

If one considers that during the period covering the past five years (1933 to 1937 inclusive) the average number of cases reported to the Health Department was 23,730, it may be said that the registration of 14,459 cases in 1938 establishes almost a record in the annals of this Division.

This situation may be diversely appreciated, but we believe that it must be generally attributed to the fact that some contagious diseases such as mumps, measles and whooping-cough have reached during the year 1938, the stage of regression in the ordinary cycle of their evolution.

With the exception of cases of tuberculosis and influenza, the registration of which never gives an accurate guarantee of their real incidence, the death-rate amongst reported cases, in 1938, is 1.4%, which is usually considered as a normal percentage.

Diphtheria does not show any decrease in its high percentage of mortality. One should not infer therefrom that the immunization campaign against this disease has slackened. This situation is chiefly due to the fact that parents do not thoroughly understand the importance of immunizing their children at an early age and do not realize that it is in the first period of life that the greatest number of deaths from diphtheria occur.

Therefore, in order to reduce this disease to a minimum evolution, we make a further appeal to physicians, parents and citizens for a close collaboration. All over the world, immunization against diphtheria has proved most effective.

While 1,660 cases of tuberculosis and 726 deaths were registered in 1937, 1,411 cases and 668 deaths were reported in 1938, with a mortality percentage of 43.73 in 1937 and 47.34 in 1938. If we take into account that many cases of tuberculosis

are not reported to the Communicable Diseases Division, the real situation in Montreal with respect to the latter disease remains uncertain and the mortality percentage of registered cases is thus liable to create a rather unfavorable impression.

More accurate results would be obtained by determining the mortality from tuberculosis according to the population, which was 893,000 in 1938.

With 668 deaths, the death-rate would then be 74.8 per 100,000 population for 1938.

The Health Department organized, during the current year, in the Communicable Diseases Division a new branch, the aim of which is indicated in the Chapter entitled: "Tuberculosis Section."

Distribution of communicable cases which occurred in 1938 is as follows:

Diseases	Cases reported	Deaths	Percentage of deaths
Diphtheria.....	222	26	11.7
Scarlet fever.....	2,039	17	0.83
Measles.....	2,608	38	1.4
German measles.....	106	1	0.94
Whooping-cough.....	2,351	41	1.74
Mumps (Parotitis).....	990	3	0.20
Chicken-pox.....	4,126	6	0.14
Smallpox.....	.....	.....	.....
Erysipelas.....	202	13	6.43
Typhoid fever.....	108	17	15.7
C.S. Meningitis.....	5	3	60.0
Poliomyelitis.....	9	.....	.....
Lethargic encephalitis.....	.....	.....	.....
Puerperal septicaemia.....	24	18	75.0
Purulent ophthalmia.....	15	3	20.0
Amoebic dysentery.....	.....	.....	.....
Leprosy.....	.....	.....	.....
Undulant fever.....	.....	.....	.....
Bacillary dysentery.....	1	2	.....
Influenza.....	127	133 *	.....
Scabies.....	115	.....	.....
Total.....	13,048	321	2.4
Pulmonary tuberculosis.....	1,324	585	44.1
Tuberculosis (other forms).....	87	83	95.4
Grand Total.....	14,459	989	6.8

\* Cases of influenza are not all reported to the Communicable Diseases Division; it is rather through death certificates that they are computed.

## SUMMARY

Cases reported and confirmed.....	14,459
Number of deaths.....	989
Cases hospitalized.....	3,762
Visits by physicians.....	5,298
Visits by nurses.....	20,111
Visits by the superintendent of nurses.....	231
Visits by disinfectors.....	4,708
Number of disinfections.....	3,700
Houses placarded.....	2,005

## Number of vaccinations against smallpox:

(a) by the Child Hygiene Division, in schools and industrial establishments.....	7,788	
(b) by the Medical Control Division.....	6,132	
(c) by private physicians.....	600	
	<hr/>	14,520

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

Child Hygiene Division.....	8,528*	
Child Welfare Association.....	757	
Fédération des Oeuvres d'Hygiène Infantile.....	1,799	
Other institutions.....	442	
Private physicians.....	284	
	<hr/>	11,810

\* Revised up to March 31st, 1939, this number 8,528 should be corrected to 10,291, giving a grand total of 13,573 immunizations completed in 1938.

Number of dog bites reported to the Communicable Diseases Division.....	230
Free distribution of anti-poliomyelitic serum.	7
Free distribution of anti-scarlet fever serum (number of vials):	
(a) curative doses.....	18
(b) preventive doses.....	37
Free distribution of anti-diphtheria serum (number of vials):	
(a) curative doses.....	142
(b) preventive doses.....	196
Free distribution of Toxoid (Anatoxine Ramon) (number of vials).....	4,905
Various analyses submitted to the Municipal Laboratory.....	2,856

Details of the work done in the Communicable Diseases Division during the year 1938 will be found in the following tables.

## Classification of contagious diseases by months, 1938

Diseases	January	February	March	April	May	June	July	August	September	October	November	December	Total	Total of deaths in 1938
Diphtheria.....	36	21	14	16	13	10	18	8	18	17	34	17	222	26
Scarlet fever.....	187	257	253	235	186	143	83	53	78	162	186	216	2,039	17
Measles.....	206	157	332	366	221	196	132	93	39	105	281	480	2,608	38
German measles.....	13	8	16	18	18	9	...	1	3	2	6	12	106	1
Whooping-cough.....	278	212	203	153	136	164	153	188	176	114	301	273	2,351	41
Mumps.....	85	90	134	110	98	110	17	18	9	94	110	115	990	3
Chicken-pox.....	425	382	734	528	257	167	53	41	37	321	569	612	4,126	6
Small-pox.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Erysipelas.....	22	24	25	21	28	13	14	8	11	14	11	11	202	13
Typhoid fever.....	3	8	6	3	4	4	10	29	22	9	6	4	108	17
C.S. Meningitis.....	...	1	...	...	...	2	...	...	1	1	...	...	5	3
Poliomyelitis.....	1	1	...	...	...	1	1	1	4	...	...	...	9	...
Lethargic encephalitis.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Puerperal septicaemia.....	5	...	2	5	4	1	2	1	2	...	1	1	24	18
Purulent ophtalmia.....	1	1	3	3	...	2	1	1	1	...	...	2	15	3
Amoebic dysentery.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Leprosy.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Undulant fever.....	...	...	...	...	...	...	...	...	...	...	...	...	1	2
Bacillary dysentery.....	...	...	1	...	...	...	...	...	...	...	...	...	127	133
Influenza.....	27	20	20	18	10	5	...	1	2	9	6	9	...	...
Scabies.....	10	7	14	11	2	...	...	8	14	10	18	21	115	...
Total.....	1,299	1,189	1,757	1,487	977	827	484	451	417	858	1,529	1,773	13,048	321
Pulmonary tuberculosis.....	138	125	107	107	145	119	100	100	72	54	130	127	1,324	585
Tuberculosis (other forms).....	5	1	12	17	5	7	10	5	5	3	3	14	87	83*
Grand total.....	...	...	...	...	...	...	...	...	...	...	...	...	14,459	989

\* These exceeding cases of death from other forms of tuberculosis is due to the fact that some of these deaths are concerning cases reported before 1938.



## Classification of contagious diseases by nationalities, 1938

Diseases	French Canadians	English Canadians	Jews	Other nationalities	Total
Diphtheria.....	192	18	1	11	222
Scarlet fever.....	1,302	417	198	122	2,039
Measles.....	1,269	325	771	243	2,608
German measles.....	39	42	12	13	106
Whooping-cough.....	1,538	599	73	141	2,351
Mumps.....	593	169	163	65	990
Chicken-pox.....	2,681	1,015	222	208	4,126
Small-pox.....	.....	.....	.....	.....	.....
Erysipelas.....	127	48	7	20	202
Typhoid fever.....	85	17	3	3	108
C.S. Meningitis.....	5	.....	.....	.....	5
Poliomyelitis.....	7	2	.....	.....	9
Lethargic encephalitis.....	.....	.....	.....	.....	.....
Puerperal septicaemia.....	19	3	.....	2	24
Purulent ophthalmia.....	15	.....	.....	.....	15
Amoebic dysentery.....	.....	.....	.....	.....	.....
Leprosy.....	.....	.....	.....	.....	.....
Undulant fever.....	.....	.....	.....	.....	.....
Bacillary dysentery.....	.....	1	.....	.....	1
Influenza.....	Unclassified cases.	.....	.....	.....	127
Scabies.....	Unclassified cases.	.....	.....	.....	115
Total.....	7,872	2,656	1,450	828	13,048
Pulmonary tuberculosis.....	911	284	25	104	1,324
Tuberculosis (other forms).....	65	13	2	7	87
Grand total.....					14,459







**CASES OF TYPHOID FEVER**  
**From January 1st to December 31st, 1938**

Months	Distribution							
	Number of cases		Source of infection		Hospitalization		Deaths	
	Residents	Outsiders	In Montreal	Outsiders	Residents	Outsiders	Residents	Outsiders
January.....	3	...	3	...	2	...	1	...
February.....	5	3	5	3	5	3	2	...
March.....	2	4	2	4	1	4	1	1
April.....	1	2	1	2	1	2	...	...
May.....	2	2	2	2	2	2	1	...
June.....	2	2	2	2	2	2	...	...
July.....	9	1	6	4	8	1	1	...
August.....	23	6	14	15	19	6	2	...
September.....	19	3	5	17	13	3	...	1
October.....	4	5	...	9	3	5	3	...
November.....	5	1	1	5	3	1	2	...
December.....	3	1	...	4	2	1	2	...
Total.....	78	30	41	67	61	30	15	2

Percentage of deaths (residents)..... 19.2%

Percentage of deaths (outsiders, 30 in number)..... 6.6%

# CASES OF POLIOMYELITIS

From January 1st to December 31st, 1938

Months	Number of cases	Distribution		
		Residents	Outsiders	Deaths
January.....	1	...	1	...
February.....	1	...	1	...
March.....	...	...	...	...
April.....	...	...	...	...
May.....	...	...	...	...
June.....	1	1	...	...
July.....	1	1	...	...
August.....	1	...	1	...
September.....	4	1	3	...
October.....	...	...	...	...
November.....	...	...	...	...
December.....	...	...	...	...
Total.....	9	3	6	...

## CONTROL OF CONTAGIOUS DISEASES—1938

Diseases	Control visits			
	Diagnosis	Super- vision of quaran- tined houses	Disin- fection	Placards
Diphtheria.....	3	1,011	330	22
Scarlet fever.....	256	3,584	1,728	343
Measles.....	566	3,071	318	904
German measles.....	43	139	14	....
Whooping-cough.....	747	2,635	349	736
Mumps.....	427	1,264	28	....
Chicken-pox.....	1,303	3,608	35	....
Erysipelas.....	4	195	110	....
Typhoid fever.....	90	173	15	....
C.S. Meningitis.....	2	9	4	....
Poliomyelitis.....	8	22	7	....
Puerperal septicaemia.....	....	8	....	....
Purulent ophthalmia.....	....	19	....	....
Amoebic dysentery.....	1	2	....	....
Lethargic encephalitis.....	....	12	....	....
Influenza.....	....	42	....	....
Scabies.....	30	88	2	....
Undulant fever.....	....	....	....	....
Tuberculosis.....	15	975	758	....
Skin diseases.....	88	99	....	....
Vulvo-vaginitis.....	....	2	....	....
Miscellaneous.....	....	....	5	....
No infection.....	703	....	....	....
Under observation.....	375	....	....	....
Miscellaneous visits.....	474	3,153	4,705	....
Wrong addresses.....	160	....	....	....
Leprosy.....	....	....	....	....
Trachome.....	2	....	....	....
Trichinosis.....	1	....	....	....
Total.....	5,298	20,111	8,408	2,005

Visiting-nurses, in the course of their investigations at the homes of families, collected 1,977 cultures for laboratory analysis.

## TUBERCULOSIS SECTION

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On October 11th, 1938, the Health Department decided to create a Tuberculosis Section in the Communicable Diseases Division.

The aim of those in charge of this new branch of the Department is to establish a central filing system and co-ordinate the work of the existing institutes so that it may obtain the highest possible degree of efficiency. In order to have a clear idea of the situation with respect to tuberculosis in Montreal, we evidently need the close co-operation of the medical profession. It frequently happened in the past that some cases of tuberculosis were not reported. We sincerely hope that every physician will hereafter conscientiously report his diagnosed cases.

A form of report has been drawn up which, although it is brief, will furnish all important data and enable us to make a useful classification of tuberculosis patients.

A circular on the tuberculin test, which is already practised in the municipal baby clinics, has been distributed to the public.

Little by little, this test will be extended to all clinics. Moreover, tuberculin will be supplied to all physicians who wish to use it in their own practice.

The Tuberculosis Section has now two visiting nurses who help to detect cases. These nurses, the number of whom will be increased when required, are nevertheless assisted by the other nurses attached to the Communicable Diseases Division and the nurses connected with the Child Hygiene Division. However, calls will be made only on those tuberculous patients who are not followed up by existing anti-tuberculosis institutes, for we wish to work in close collaboration with the latter.

Showcards advertising the campaign are posted in all public places; meetings have already been organized in a few parishes and will be held in all parts of the City. A lecture and a few amusing playlets on tuberculosis are given at these meetings.

The Tuberculosis Section intends to help family physicians. The physicians with whom our activities have brought us in

contact up to the present time have been most courteous. Our colleagues will find sincere good-will on our part and we hope to get close collaboration from them.

Doctor LEO LADOUCEUR

### Pasteur and Alexandra Hospitals

#### Duration of hospitalization

Patients hospitalized.....	3,619
Number of days hospitalization stay.....	116,693
Average stay for each patient.....	32.2%
Maximum hospitalization per day.....	462
Minimum hospitalization per day.....	156
Average hospitalization per day.....	319

#### Mortality

		Percentage
Deaths during the year 1938.....	113	3.1%
Deaths during the first 48 hours.....	57	1.5%
Number of deaths after the first 48 hours...	56	1.5%
Ratio of deaths during the first 48 hours to the total number of deaths.....		54.4%

#### Miscellaneous

Ambulance calls.....	2,752
Microscopic examinations.....	4,412
Urine analyses.....	18,979

**Pasteur and Alexandra Hospitals**  
**Fluctuation of patients and death rate**

Diseases	In Hospital January 1st, 1938	Admitted	Total number of patients	Percentage of cases	Results			In Hospital December 31st, 1938	Total
					Cured	Died	Percentage of deaths		
Diphtheria.....	48	283	331	8.8	267	33	9.9	31	331
Scarlet fever.....	251	1,536	1,787	47.5	1,570	12	0.7	205	1,787
Measles.....	10	418	428	11.4	396	5	1.1	27	428
Erysipelas.....	4	177	181	4.8	172	5	2.7	4	181
Chicken pox.....	2	83	85	2.3	78	1	1.1	6	85
Whooping-cough.....	107	506	613	1.6	483	21	3.4	109	613
Mumps.....	2	47	49	1.3	48	.....	.....	1	49
Influenza.....	.....	12	12	0.3	12	.....	.....	.....	12
German measles.....	.....	2	2	.....	2	.....	.....	.....	2
Poliomyelitis.....	.....	1	1	.....	1	.....	.....	.....	1
Diffuse phlegmon.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Miscellaneous.....	8	265	273	7.2	227	36	13.2	10	273
<b>Total.....</b>	<b>432</b>	<b>3,330</b>	<b>3,762</b>		<b>3,256</b>	<b>113</b>		<b>393</b>	<b>3,762</b>

### Intubations and results

Ages	Intuba- tions	Cures	Deaths	Percentage of deaths
Under 1 year.....	3	1	2	66.6
1 to 2 years.....	4	2	2	50.0
2 to 3 years.....	6	2	4	66.6
3 to 4 years.....	6	3	2	33.3
4 to 5 years.....	4	2	2	50.0
5 to 6 years.....	4	4	.....	.....
6 to 7 years.....	3	1	.....	.....
7 to 8 years.....	.....	.....	.....	.....
8 to 9 years.....	.....	.....	.....	.....
9 to 10 years.....	2	2	.....	.....
Total.....	32	17	12	37.5

### Nationality and religion of patients admitted in 1938

Nationalities	Total	Per- centage	Religion	Total	Per- centage
French-Canadians..	2,221	66.7	Roman Catholics..	2,530	75.9
English-Canadians..	661	16.8	Protestants.....	569	17.0
Jews.....	212	6.4	Jews.....	212	6.3
Other nationalities..	236	7.	Other religions.....	19	0.6
Total.....	3,330			3,330	

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**Division of Child Hygiene**

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**DIVISION OF CHILD HYGIENE**

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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 1938.

Respectfully submitted,

J. N. LAPORTE, M.D.,

Superintendent of the Division  
of Child Hygiene.

**REPORT OF THE  
DIVISION OF CHILD HYGIENE  
for the year 1938**

The report of the work of the Division of Child Hygiene for the year 1938 is divided into three principal parts:

1st part—**PRENATAL, BABY AND PRESCHOOL HYGIENE:**

**I. Prenatal hygiene—**

4 prenatal clinics.

**II. Hygiene of the infant (0-1 yr.) and pre-school hygiene (1-6 yrs).**

1. 45 Well-baby and preschool clinics;
2. 1 Open-air clinic;
3. Inspection of private boarding-houses for children and private hospitals and maternities.
4. Child hygiene leagues.

2nd part—**SCHOOL HYGIENE AND MEDICAL INSPECTION OF SCHOOLS:**

- I. Medical inspection of pupils.
- II. Hearing tests with audiometer.
- III. Mental hygiene and Binet-Simon tests.
- IV. Dental hygiene and dental hygiene campaigns in schools.
- V. Medical examination of teachers.
- VI. Vacation schools.
- VII. Summer camps.

3rd part—

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

## FIRST PART

### I.—PRENATAL HYGIENE

#### PRENATAL CLINICS

In the course of 1938, the four prenatal clinics known as Laurier, Maisonneuve, Rosemount and St. Jean-Berchmans, have continued their services.

The following table indicates the results obtained in 1938.

**Table I**

Number of	Municipal clinics	4
	Sessions	158
	Mothers registered	214
	Consultations with doctor	901
	Blood pressures	833
	Urinalysis	791
	Notices to family physician	16
Home visits	Recruiting	299
	To registered mothers	279
	Post-partum	128
	Total	706

**II.—CHILD HYGIENE (0-1 yr.)  
and PRESCHOOL HYGIENE (1-6 yrs.)**

**WELL-BABY AND PRESCHOOL CLINICS**

The 45 municipal clinics continued operating during the year 1938. 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 1938**

	Department of Health		Child Welfare Association		"Fédération d'Hygiène Infantile"	
	Infant	Pre-school	Infant	Pre-school	Infant	Pre-school
Number of clinics.....	45	45	9	9	19	19
Number of children registered	8,221	10,453	1,726	2,475	5,481	5,524
Number of deaths (0-1 yr.) amongst registered babies..	48		17		20	
Percentage of deaths compared to the number of children registered.....	0.6		0.9		0.4	
Number of consultations given.....	50,517	24,579	4,033	3,393	70,303	19,753
Average number of consultations per child.....	6.1	2.3	2.3	1.4	12.8	3.4
Home visits.....	23,531	11,240	3,217	5,515	24,689	27,090

One open-air clinic was open during the months of July and August in Lafontaine Park.

The following table indicates the results obtained in 1938.

**Table III**  
**Work of Open-air Clinic**

Camp open for a period of.....	2 months
Number of registrations.....	53
Number of consultations (doctor).....	17
Weighings.....	112
Dressings.....	57
Home visits.....	3
Vaccinations.....	1,021
Revaccinations.....	40
Certificates.....	837
Examination of children entering school in September.....	68

#### CHILD HYGIENE LEAGUES

Several groups of the Child Hygiene League have been formed in 1938 by the personnel of the Division of Child Hygiene amongst young girls attending the following schools: Baril, de-la-Nativité, Garneau, Gédéon-Ouimet, Lartigue, Madeleine-de-Verchères, Marguerite-Bourgeois, Marguerite-Lemoyne, Notre-Dame-de-la-Défense, St. Ambroise, Ste. Amélie, St. Anselme, St. Arsène, Ste. Brigide, Ste. Cécile, St. Denis, St. Edouard, Ste. Elizabeth, St. Enfant-Jésus, St. Eusèbe, St. Henri, St. Irénée, St. Jean-de-la-Croix, Ste. Jeanne-d'Arc, St. Marc, Ste. Mélanie, St. Nom-de-Jésus, St. Sacrement, Ste. Véronique, Stadacona and Syrian Mission.

The number of groups organized in 1938 was 7 and the number of members 407.

### Inspection of Children's Boarding-houses and Private Hospitals and Maternities for the year 1938

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 8 were cancelled during the year)		23
		Women's Directory		30
		Children's Bureau		130
		Catholic Welfare Bureau		31
		Institution ("Aide à la Femme")		1
		Without licence (where there is only one child)		72
		TOTAL		287
	Children	Registered	Legitimate	194
			Illegitimate	710
			TOTAL	904
		Deceased	Legitimate	21
			Illegitimate	83
			TOTAL	104

**N.B.**—The figures shown in this table are from May 1st, 1937, to April 30th, 1938.

Table IV — (Continued)

## Private hospitals and maternities.

Number of	Private Hospitals and Maternities—with license				15	
	Patients	Maternity cases	Married		264	
			Unmarried		566	
			TOTAL		830	
		Medicine and surgery				1,383
		TOTAL				2,213
		Births	Legitimate			250
	Illegitimate			415		
	TOTAL			665		
	Deaths	Babies	At full term	Legitimate	5	
				Illegitimate	15	
			Premature	Legitimate	2	
				Illegitimate	8	
		TOTAL				30
		Adults	Maternity and hospital cases			61

## Work of the nurses.

	Number of		
	Visits	Investi- gations	Actions taken
(a) Boarding-houses	827	428	...
(b) Private hospitals and private mater- nities	500	302	...
Special	566	847	...
TOTAL	1,893	1,587	...
Appearance in Court as witnesses			20

## SECOND PART

### 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 1937-38, as is indicated in the following tables.

Table VI

**Number of schools—classes and pupils and average  
number of schools and pupils for each medical  
inspector and visiting nurse**

		Catholic	Protes- tant	Independ- ent	Total
Number of	schools	219	49	20	288
	classes	3,598	858	124	4,580
	pupils	114,520	30,587	3,286	148,393
Average per				Schools	Pupils
	medical inspector			13.7	7,066
	school nurse			3.9	1,978

**Table VII**  
**General report**  
**1937-1938**

I—Work of Medical Inspectors:					
Number of			July and August (1)	School year	Total
	Visits to schools	Routine		3,293	3,293
		Regular		5,174	5,174
		Total		8,467	8,467
	Examina- tions	Routine (2)		31,055	31,055
		Periodic- physical (3)	3,417	67,683	71,100 (4)
	Children examined in their parents' presence		2,248	3,374	5,622
	Notices to parents		772	18,527	19,299
II—Work of School Nurses:					
Number of	Visits	to schools			29,435
		to homes			40,332
	Examinations				819,978 (5)
	Pupils	referred to doctors for special examination			31,055
		excluded as being suspicious of having contagious diseases			4,078
		taken to dispensaries			1,416
	Various treatments				33,034

- (1) This report indicates the total examinations done during July and August 1937 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 in a complete physical examination of each pupil, which is done at definite periods, that is, every two or three years.
- (4) This number (71,100) shows that 47.91% of all pupils in the schools have received a complete physical examination.
- (5) The above number shows that each child has been examined by a nurse an average of 5.5 times during the school year for uncleanliness, pediculosis, skin disease, etc.

**Table VIII**  
**Results of physical and routine examinations**  
**1937-1938**

<b>I—Physical Examination:</b>				
	July and August	School year	Total	% (1)
Number of pupils examined	3,417	67,683	71,100	
(a) Normal	1,851	33,173	35,024	49.26
(b) Sick or presenting one or several defects	1,566	34,510	36,076	50.74
Number of defects found:				
Vision	15	7,477	7,492	10.5
Eye disease	86	1,881	1,967	2.8
Hearing	6	854	860	1.2
Ear disease	87	1,282	1,369	1.9
Nasal obstruction	379	5,519	5,898	8.3
Tonsils	755	11,622	12,377	17.4
Lymphatic system	547	10,755	11,302	15.9
Goitre	3	307	310	0.4
Skin	36	2,180	2,216	3.1
Lungs	46	1,630	1,676	2.4
Heart	34	2,056	2,090	2.9
Digestive system	16	164	180	0.3
Genito-urinary system	57	374	431	0.6
Orthopedic	59	1,860	1,919	2.7
Nervous system	110	972	1,082	1.5
Mental condition	2	248	250	0.4
Malnutrition	475	8,689	9,164	12.9
Total number of defects	2,713	57,870	60,583	
Number of pupils showing dental defects	1,910	32,098	34,008	47.8

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

Table VIII—(Continued)

**Results of physical and routine examinations  
1937-1938—(Continued)**

II—Routine examination (during school year 1937-1938):			
Number of cases discovered amongst school children (at school or home):			% (2)
(a) Contagious diseases:	1 - Diphtheria	86	0.06
	2 - Scarlet fever	940	0.6
	3 - Measles	785	0.5
	4 - Chicken-pox	1,253	0.9
	5 - German measles	75	00.5
	6 - Mumps	579	0.4
	7 - Whooping- cough	891	0.6
(b) Parasitic diseases:	1 - Pediculosis	9,078	6.12
	2 - Scabies	528	0.4
(c) Various skin diseases		5,936	4.0
(d) Uncleanliness		5,322	3.6

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

## CONTROL EXAMINATION AND CORRECTION OF PHYSICAL DEFECTS

### School year 1937-1938

The control examination or re-examination is made by the medical inspectors and the nurses to discover amongst 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 examines the state 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 pupil had not in his turn undergone a new periodical physical examination.

The results of these re-examinations, furnishing the correction of physical defects obtained in the course of the school year 1937-1938, are to be found in table IX which follows.

Table IX

Table showing the number of corrections of physical defects obtained and established by re-examinations made in the course of the school year 1937-1938

I—Number of pupils treated and cured.....	12,218
II—Physical defects corrected:	
Vision.....	3,802
Eye disease.....	479
Hearing.....	337
Ear disease.....	401
Nasal obstruction.....	2,330
Tonsils.....	3,499
Lymphatic system.....	1,924
Goitre.....	83
Skin.....	433
Lungs.....	508
Heart.....	413
Digestive system.....	69
Orthopedic.....	86
Nervous system.....	285
Genito-urinary system.....	100
Malnutrition.....	2,247
Total.....	16,996
Teeth.....	6,125
III—Number of special corrections:	
Enlarged tonsils (operations).....	2,482
Adenoids (operations).....	1,695
Defective vision (glasses).....	3,209

II—HEARING TEST

BY MEANS OF

THE AUDIOMETER No. 4-A

1937-1938

Since September 1935, two audiometers instead of one have been used and placed in charge of two nurses specially trained, in order to make an examination of hearing of a greater number of pupils and consequently to render the service more general.

This inspection is made more amongst 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 1937-1938 are shown in the table X which follows.

Table X

## Hearing tests by means of audiometer No. 4-A

			SCHOOLS		
			Catholic	Protes- tant	Total
Number of	schools visited		63	12	75
	pupils	examined	13,062	1,925	14,991
		(a) normal	12,035	1,848	13,883
		(b) defective	1,027	67	1,094

## CLASSIFICATION OF DEFECTIVES

Number of defective pupils	with both ears	349	35	384
	with right ear only	358	23	381
	with left ear only	320	19	339

## OTHER DETAILS NOTED

Number of pupils who had	running ears	3,020	262	3,282
	previous abscesses	179	25	204
	been previously operated on	311	58	369

## III.—MENTAL HYGIENE SECTION

The following table shows the results of the work done in the care of the abnormal mental cases (retarded and unstable) by the three psychiatrists and their four psychologist nurses, in the schools, for the school year 1937-1938, and at the Laurier clinic during 1938.

**Table XI**  
**Report of the psychometric tests**

			In schools. School- year 1937-1938	Laurier Clinic 1938	
Number of schools visited			76		
Number of pupils	Examined		3,291	246	
	Normal	(a) I.Q. 90-110	463	4	
		(b) I.Q. 80-90 slow-minded	666	5	
		Total	1,129	9	
	Ab- normal	(a) Unsteady	34	45	
		(b) Backward	2,018	124	
		(c) Unsteady and backward	110	68	
		Total	2,162	237	

**Classification of backward**

Backward	Total		2,128	192	Recom- mendations
	1. Borderline		1,039	45	Auxiliary classes
	2. Mental debility	Superior	830	66	
		Inferior	219	35	
	3. Feeble minded		40	39	Technical teaching
	4. Idiocy		....	7	Baie St. Paul Asylum
Number of visits and inves- tigations by the psychol- ogist nurses		to schools to homes		53	
				436	

**Children placed in the special schools during the year 1938**

1. Emmélie-Tavernier school (St. J. de Dieu hosp.)	93	
2. Victor-Doré school	3	
3. Public schools (Auxiliary classes)	57	
4. Referred to the dispensaries	92	
5. Baie St. Paul Asylum	2	

#### IV—DENTAL HYGIENE SECTION

The activities of the dental hygiene section consists in:

1. Dental inspection in the schools.
2. Organization of dental hygiene campaigns.
3. Municipal dental clinics.

#### Dental inspection in the schools

The appointment of a new dentist in October 1938 has given the opportunity to the Child Hygiene Division to re-establish dental inspections in the Protestant schools, high schools and independent schools, as described in the annual report for the year 1932 (p. 99).

Their work consists especially in educating by means of conferences, moving pictures shown in schools, and dental examinations of pupils.

#### Table XII

##### Work done by dentists in protestant and independent schools

Number of conferences with moving pictures	102
Number of pupils present.....	21,164
Number of classes.....	569

#### Dental hygiene campaigns

During the school-year 1937-1938, dental campaigns were organized in the following schools which number 31: Baril, Chamilly-Delorimier, Garneau, Christophe-Colomb, Hyacinthe-Hudon, Lartigue, LeCaron, Marguerite-Bourgeois, Octave-Cassegrain, Olier, Plessis, St. Arsène, Ste. Brigide, Ste. Eulalie, St. Jean-Berchmans, Ste. Jeanne-d'Arc, St. Louis, St. Louis-de-France, St. Pierre, St. Pierre-Claver, St. Vincent-de-Paul, Souart,

Ville-Marie, Bancroft, Drummond, Gilson, Mount Royal, Royal Arthur, Victoria, William Dawson and William Lunn.

In the following protestant schools: Bancroft, Drummond, Gilson, Mount Royal, Victoria and William Dawson, the dental campaigns were organized with the co-operation of the "Junior Red Cross Association" and in the two other following ones, Royal Arthur and William Lunn, with the co-operation of the "Junior League of Montreal."

### Table XIII

#### Special report of dental campaigns organized in the course of 1937-1938

Number of schools.....	31
Number of pupils treated.....	6,124

#### Treatments given

Number of cases for:	
extraction.....	2,001
filling.....	325
prophylaxis.....	4,964
	<hr/>
Total.....	7,290

Number of teeth:	
extracted.....	6,959
filled.....	1,449

#### Municipal dental clinics 1938

The five dental clinics have carried on their operations during the year 1938. Pre-school age indigent children and needy scholars are admitted only. The treatments consist in extraction of teeth, prophylaxy and dressings; at the St. Henry Clinic we have started, since the end of 1938, during two half-days a week, teeth filling for teeth that can be saved.

The following table shows the results of the work accomplished in the course of the year 1938 in the five dental clinics: Laurier, Maisonneuve, St. Arsène, St. Henry and Ste. Marguerite.

**Table XIV****Report of the municipal dental clinics for 1938**

Number of children treated.....	16,329
---------------------------------	--------

**Treatments given**

Number of cases for:

extraction.....	8,082
-----------------	-------

prophylaxis.....	8,404
------------------	-------

dressings.....	141
----------------	-----

filling.....	13
--------------	----

Total.....	16,640
------------	--------

Number of teeth:

extracted.....	30,511
----------------	--------

filled.....	17
-------------	----

## V—MEDICAL EXAMINATION OF TEACHERS

During the school year 1937-1938, 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 of "Clercs St. Viateur" and "Maristes" Brothers 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, St. Viateur High School, Champagnat and Lambert-Closse.

The Division of Child Hygiene, whose personnel 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 had undergone this examination.

The number of lay teachers and employees (janitors, etc.) including religious, who were examined during the course of the school year 1937-1938, was 2,324, of whom 357 were examined by their family physician and 1,967 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, the results of the examination of the new employees, and, 2, in the column "Annual," form No. 96, 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 XV

**Medical examination of teachers and employees of the Catholic School Commission**

**School year 1937-1938**

		"First" Form No. 95	"Annual" Form No. 96	Total
Personnel	Principals, directors and ass'ts.	14	74	88
	Special professors	27	38	65
	Male teachers	141	855	996
	Female teachers	38	926	964
	Janitors and other employees	41	190	231
	Total	261	2,063	2,324
	Grand total			2,324
Examined by	School medical inspectors	237	1,730	1,967
	Family physicians	24	333	357
	Total	261	2,063	2,324

Table XV—(Continued)

Control of vaccination against smallpox:				"First" Form No. 95	"Annual" Form No. 96	Total	
Number of employees	Non-vaccinated			8	110	118	
	Vaccinated since	more than	25 years	30	827	857	
			15 years	102	801	903	
			7 years	103	212	315	
		less than 7 years		18	113	131	
Defects	Lungs (other than tuberculosis)			8	56	64	
	Heart			3	56	59	
	Liver			....	23	23	
	Digestive system			23	114	137	
	TEETH: - caries pyorrhœa			47 3	168 14	215 17	
	VISUAL ACUITY: with glasses without glasses equivocal answers			27 26 5	198 162 113	225 188 118	
	HEARING ACUITY: equivocal answers			6 ....	37 ....	43 7	
	Nervous system			6	109	115	
	KIDNEYS: - urinalysis: (a) albumen (b) sugar			13 3	91 29	104 32	
	TUBERCULOSIS: - (history, per- sonal or familial)			12	7	19	
	Employees	Deceased (1937-1938)					30
		Resigned or retired					81
Non-examined					54		

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-law.

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

It is necessary to remark that the note written "tuberculosis" does not indicate only that an equal number of professors is so concerned who are suffering from tuberculosis at present or who have lately suffered from this disease, but the figures really intimate all those who have had a past history personal or familial, 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.

#### VI—VACATION SCHOOLS

During the months of July and August 1938, lasting a period of six weeks, two organizations called "The Daily Vacation Schools" and "Church Vacation Schools," opened in five schools and three protestant churches, a certain number of classes where the children received special training such as manual training work, singing, etc.

Six doctors and six visiting 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.

Following table shows the result of this work.

**Table XVI**

Number of schools and churches visited.....	8
Number of children examined (special cases)....	504
Number of children examined (complete physical examination).....	31
Number of pupils found not vaccinated.....	61
Number of vaccinations.....	13
Number of certificates A.....	13
Number of visits to the homes.....	14

**VII—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 have made a medical examination of 2,560 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 card which allows the organizers to have a record when the children return to town and to note the good effects rendered the young people during their sojourn in the country.

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

**Table XVII**

Summer camps	Children examined
1. "Les Grèves" (boys).....	1,472
2. "Ste. Thérèse de Lisieux".....	160
3. "Ste. Jeanne-d'Arc".....	371
4. "Le Grillon" (boys and girls).....	226
5. "Association des Guides".....	188
6. "Les Buissonnets".....	143
Total.....	<hr/> 2,560

### THIRD PART

#### I. IMMUNIZATION AGAINST DIPHTHERIA

##### **In the schools and in the municipal Well-baby clinics 1928-1939**

During the year 1938, immunization against diphtheria was successfully continued in the municipal pre-school and well-baby clinics in the schools.

It should be noted that 10,980 children received their first dose of Anatoxin-Ramon in 1938 and, of this number, on December 31st, 10,081 had received two doses, and 8,528 had received the three doses; this number will be completed in the course of the first six months of the year 1939.

Table XVIII

Showing the general results of the diphtheria immunization made in the municipal clinics and in the schools by the personnel of the division of Child Hygiene, since September 1928 up to December 31st, 1938

		1928-1936	(1) 1937	(2) 1938 (Dec. 31)	Total
I - Anterior Schicks		27,092	68	40	27,200
II - Number of children	Registered for immunization	119,225	13,480	10,980	143,685
	1. - Received 3 doses	112,105	12,935	9,818	134,858
	2. - Received only 2 doses	3,689	252	712	4,653
	3. - Received only 1 dose	3,451	293	450	4,194
III - Posterior Schicks		28,816			28,816
IV - Supplementary injections (4th dose)		172			172

- (1) The number of those who received the three injections has been completed during the year 1938.
- (2) The number of those who received the three injections will be completed during the year 1938.

**Note.**—On March 31st, 1939, the number of children registered for immunization in 1938 and who received the three doses of Anatoxin Ramon is 10,291.

## II. VACCINATION AGAINST SMALLPOX

For the year 1938, the Director of the Department of Health has taken the initiative to vaccinate against smallpox only the people who could not pay their family doctor.

The following table indicates the number of vaccinations made by the medical-inspectors during 1938 in the municipal baby-clinics and at Lafontaine Park.

**Table XIX**

	Baby-clinics	Lafontaine Park	Total
Number of vaccinations.....	6,767	1,021	7,788
Number of revaccinations.....	946	48	994
Number of certificates "A".....	5,525	853	6,378
"    "    "    "B".....	31		31
"    "    "    "C".....	366	11	377
Number of people who did not come back for certificate.....	526	157	683

## III. TUBERCULIN TEST

In order to intensify the fight against tuberculosis in Montreal, according to the plan published in the annual report of the Department of Health for 1937 (p. 76), the research for tuberculosis for children has started in 1938 by practising the tuberculin test in baby clinics.

On the 31st of December 1938, tuberculin tests were made in eight municipal clinics. Gradually these tests will be made in the forty-five clinics and later in the schools, especially for the children attending superior classes and those going to High Schools.

The Division of Child Hygiene wishing to co-operate with the Contagious Diseases Division, Tuberculosis Section, have organized meetings in different parts of the City. These meetings were attended by a large audience. They will be held every two weeks in the course of the year 1939.

Table XX

## Tuberculin test

Number of meetings.....	80
Number of tuberculin tests.....	196
Number of positive reactions.....	26
Number of negative reactions.....	169
Number of people who did not return for the lecture of the test.....	1

## IV. DISTRIBUTION OF LITERATURE

A certain number of publications, circulars and posters are distributed annually by the division of Child Hygiene.

## Circulars (bilingual):

No. 2—"Height and Weight of Children".	16,200
No. 3—"Immunization against diphtheria"	13,000
No. 6—"Cleaning of diapers".....	11,500
No. 7—"Artificial feeding".....	10,850
No. 8—"Advice to parents concerning the care of the child after the extraction of teeth".....	9,000
No. 9—"Breast feeding".....	11,000
No. 10—"Prevent blindness in your chil- dren".....	7,500
No. 51—"Prevention of diphtheria in our homes".....	100
Letter from the Director to mothers on the occasion of the birth of a child	
—French.....	11,250
—English.....	3,400

Letter from the Director to mothers when  
the child is 6 months old

—French . . . . .	5,000
—English . . . . .	450

Letter from the Director—Advice to mothers

—French . . . . .	9,000
—English . . . . .	2,000

**Posters (bilingual)**

No. 2—"Hygiene of the child" . . . . .	9,750
No. 3—"Mother, nurse your child" . . . . .	11,300

**Publications**

No. 2 —"Hygiene de l'Enfant au premier âge" . . . . .	9,900
No. 2a—"Hygiene of the Child during infancy" . . . . .	2,500
No. 3 —"Prenatal hygiene" (bilingual) . . . . .	1,725
No. 4 —"Ligue d'Hygiène infantile" . . . . .	152

**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. Roméo Côté.

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 1938 to Miss Mary Ritchie, district supervisor.

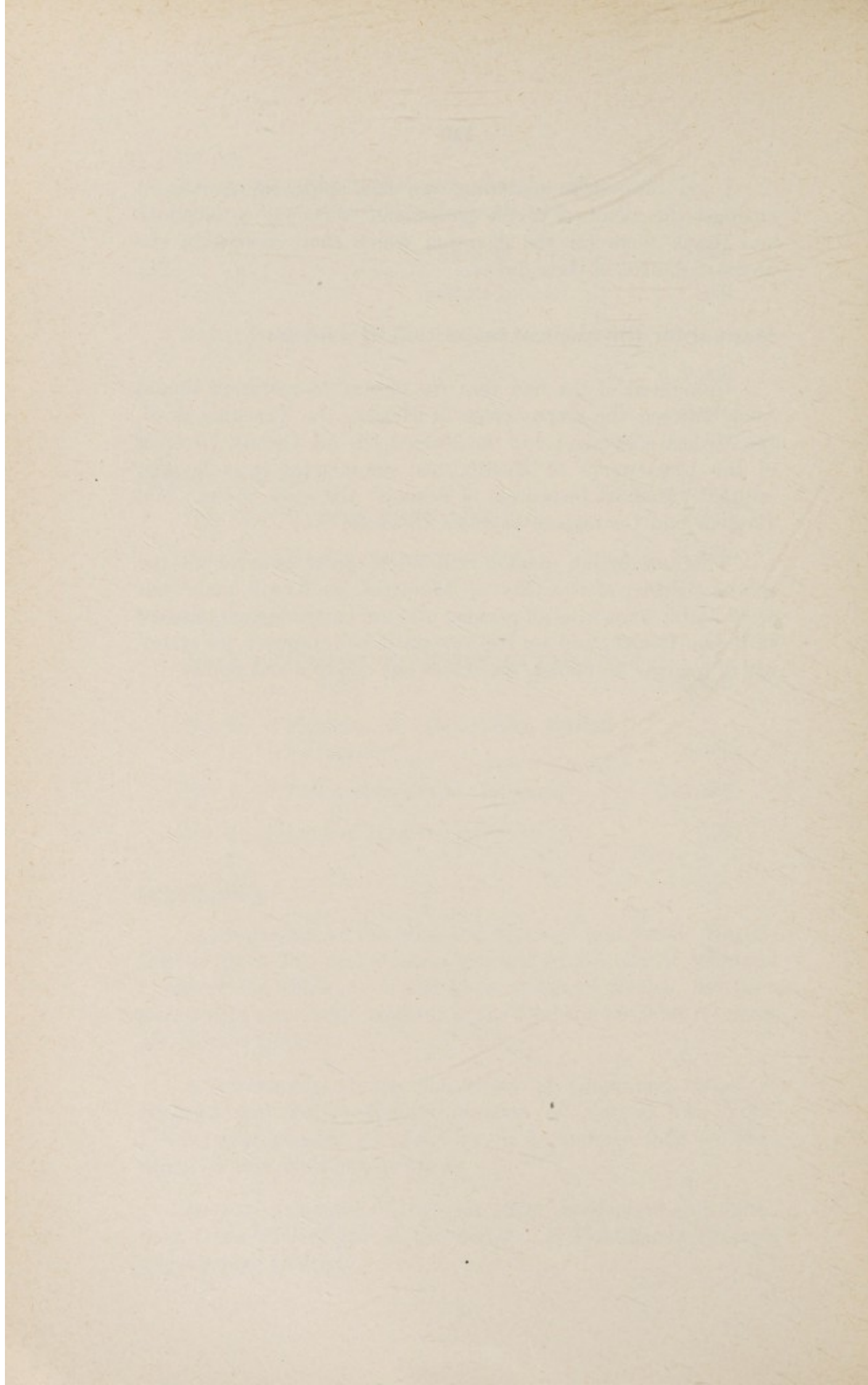
During the course of the year 1938, the doctors and nurses gave their efficient aid to the division of Contagious Diseases and Medical Control.

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

### **Manual for the medical inspection of schools:**

Convinced of the fact that the closest co-operation should exist between the Department of Health, the Teaching Staff, the Medical Profession and the Nurses, Dr. Ad. Groulx, Director of the Department of Health, has summarized in a booklet entitled "Medical Inspection of Schools" the work of the Child Hygiene and Contagious Diseases Divisions.

This instruction manual will be of great help to all the school children of the City of Montreal, as it will make our work better known to all persons who are particularly interested in Public Health, and we feel certain it will improve the standard of hygiene for babies, pre-school age children and pupils.



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**Division of Sanitation**

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**DIVISION OF SANITATION**

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

Dear Sir,

I have the honor to submit to you the 1938 annual report of the Division of Sanitation, in which the statistics of the operations of the year 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—1938

The statistics of the operations of the Division of Sanitation for the year 1938 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, shelter homes, 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) 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, hairdressing parlors, etc.;
- (b) By-law No. 1009: concerning laundries, etc.;
- (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 in the City, etc.;
- (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.

IX—Supervision of the Inspector's work.

— I —

### EXAMINATION OF PLANS AND APPLICATION FOR PERMITS

(a) New constructions.....	877
(b) Modified constructions.....	2,288
(c) Plumbing.....	2,157
	<hr/>
	5,322

## — II —

## SANITARY RECORDS OF DWELLINGS

The work carried on, from year to year since 1921, has given the following results at the end of 1938:

	Re-survey (1938)	Surveys and re-survey (1921-1938)
(a) <b>Inspections</b> .....	15,316	344,967
(b) <b>Findings:</b>		
1—occupied dark rooms.....	55	10,872
2—unoccupied dark rooms.....	—	1,890
3—insanitary dwellings.....	84	1,304
(c) <b>Notifications:</b>		
1—dark rooms.....	42	5,438
2—insanitary dwellings.....	83	1,253
(d) <b>Execution:</b>		
1—corrected dark rooms.....	—	7,720
2—placarded dark rooms.....	—	4,157
3—insanitary dwellings vacated.	82	527

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(a) The number 344,967 includes 141,877 dwellings visited during the period 1921-1929, and 203,000 during the period 1930-1938.

(b) This inspection has allowed us to locate dwellings containing rooms not lighted directly to the outside air; 10,872 such rooms have been recorded of which 7,720 have been corrected at the end of 1938.—4,157 rooms have, moreover, been placarded.

(c) In addition to the above work, several special inspections have been made to locate the insanitary dwellings in old City wards.

## — III —

## SANITARY INSPECTIONS

## (a) Investigation of complaints:

Total number.....	9,855
Founded.....	6,253
Unfounded.....	3,602

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

Plumbing and drainage.....	1,312
Structural insalubrity (owners).....	628
Insalubrity of dwellings (tenants).....	1,567
Insalubrity of yards and out-houses (tenants) ..	2,746
Total number of complaints founded.....	6,253
Water leakage.....	1,922

## (b) Routine inspections:

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

	Inspections (a)	Plumbing and drainage (b)	Other defects	Unclean
Dwellings.....	32,729	3,182	584	620
Boarding houses.....	84			
Boarding houses for children, clinics, hospitals (c).....	3	.....	...	...
Public buildings, stores and other establishments.....	5,124	220	...	204
Theatres, movies, public halls, etc.....	200	3	...	34
Industrial establishments.....	2,356	66	...	304
Educational establishments (d).....	428	19	...	64
Laundries (By-law No. 1009).....	1,565	136	...	143
Barber shops, hairdressing parlors (By-law No. 1006).....	2,241	13	...	150
Establishments: Manufacturing of mattresses, filling materials (By-law No. 1089) ..	861	10	...	23
Public baths (By-law No. 1252).....	662	2	...	32
Fumigation (By-law No. 1275).....	1,752	.....	...	...

(a) These figures include the number of dwellings visited in 1938, exclusive of second visits; 15,316 records of dwellings have been filled, revised and indexed.

(b) In many places defects were found after a smoke test which was necessary in 83 cases.

(c) The supervision of this work is under the jurisdiction of the Division of Child Hygiene, with whom 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 lanes, yards, cellars and out-houses**

This work can be summarized as follows:—

	Inspections
Lanes.....	1,694
Yards.....	31,511
Vacant lots.....	533
Sheds.....	21,505
Cellars and basements.....	14,366
Manure boxes (nuisance).....	73
Stables.....	560

**(d) Privy vaults and cesspools:**

At the end of 1938 there were 595 privy vaults and cesspools in the City of Montreal, nearly all of which were located in the outlying wards of the City.

## — IV —

**PLUMBING AND DRAINAGE**

(New or modified buildings)

	Inspections
1—Drains.....	1,346
2—Piping (before installation of fixtures).....	3,960
3—Piping (after installation of fixtures).....	4,302
4—Oil of mint tests.....	14
5—Water tests.....	1,593
6—Smoke tests.....	83
7—Works completed and accepted.....	2,175
8—Calls for inspections.....	5,049
9—Inspections (new constructions).....	19,455
10—Inspections (existing constructions).....	44,992
11—Total number of fixtures installed.....	13,672

## — V —

**BOARD OF EXAMINERS FOR PLUMBERS**

(a) Number of sittings.....	20
(b) Number of candidates.....	78
(c) Certificates of competency granted.....	54
(b) Number of examinations.....	208

## — VI —

**LICENSES**

(a) Master-plumbers (by-law No. 1341).....	554
(b) Journeymen-plumbers (by-law No. 1341).....	634
(c) Barber shops (by-law No. 1006).....	1,656
(d) Laundries (by-law No. 1009).....	350
(e) Establishments: Manufacturing of mattresses, filling materials, etc. (by-law No. 1089)....	103
(f) Public baths (by-law No. 1252).....	9
(g) Master-fumigators (by-law No. 1275).....	4
(h) Fumigators (by-law No. 1275).....	5
(i) Journeymen-fumigators (by-law No. 1275).....	6
(j) Undertakers (by-law No. 1339).....	72
(k) Embalmers (by-law No. 1339).....	35

## — VII —

**NOTIFICATIONS AND PROSECUTIONS**

Notifications by inspectors.....	8,479
Official notices served.....	4,091
Final notices.....	1,359
Actions (Recorder's Court).....	27
(a) maintained.....	26
(b) dismissed.....	1
(c) in abeyance.....	0
(d) withdrawn.....	0

## — VIII —

**ENFORCEMENT OF SPECIAL BY-LAWS**

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

(a) One or more cross-connections removed (1933-38) in.....	81	establish.
(b) Cases in abeyance at the end of 1937 in....	39	"
(c) New cases in 1938 in.....	4	"
	<hr/> 43	"
(d) Auxiliary water supplies abandoned in (1938)	2	"
(e) One or more cross-connections removed in..	15	"
(f) Work under way at the end of 1938 in.....	26	"
	<hr/> 43	"
(g) Total number of cases considered (1933-38)	117	"

**II.—Establishments surveyed in which there were hazards  
as to the contamination of the  
City water system:**

(a) Number of cases studied in.....	70	establish.
(b) Modifications to the plumbing system.....	44	"
(c) Modifications under way in.....	26	"

**NOTE.**—225 inspections have been made, 39 samples of water collected and 3 special tests performed 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 1938:

	Muni- cipal 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	16
<b>TOTAL.....</b>	<b>31</b>	<b>12</b>	<b>43</b>

The control of pool water required 662 inspections and the collection of 405 water samples. At each inspection a test for residual chlorine has been made and it has been found to vary in 368 cases or 80.5% between .2 and .5 p.p.m.

The number of admissions, in 1938, in municipal and semi-public baths, except beaches, etc., amounted to 1,281,205.

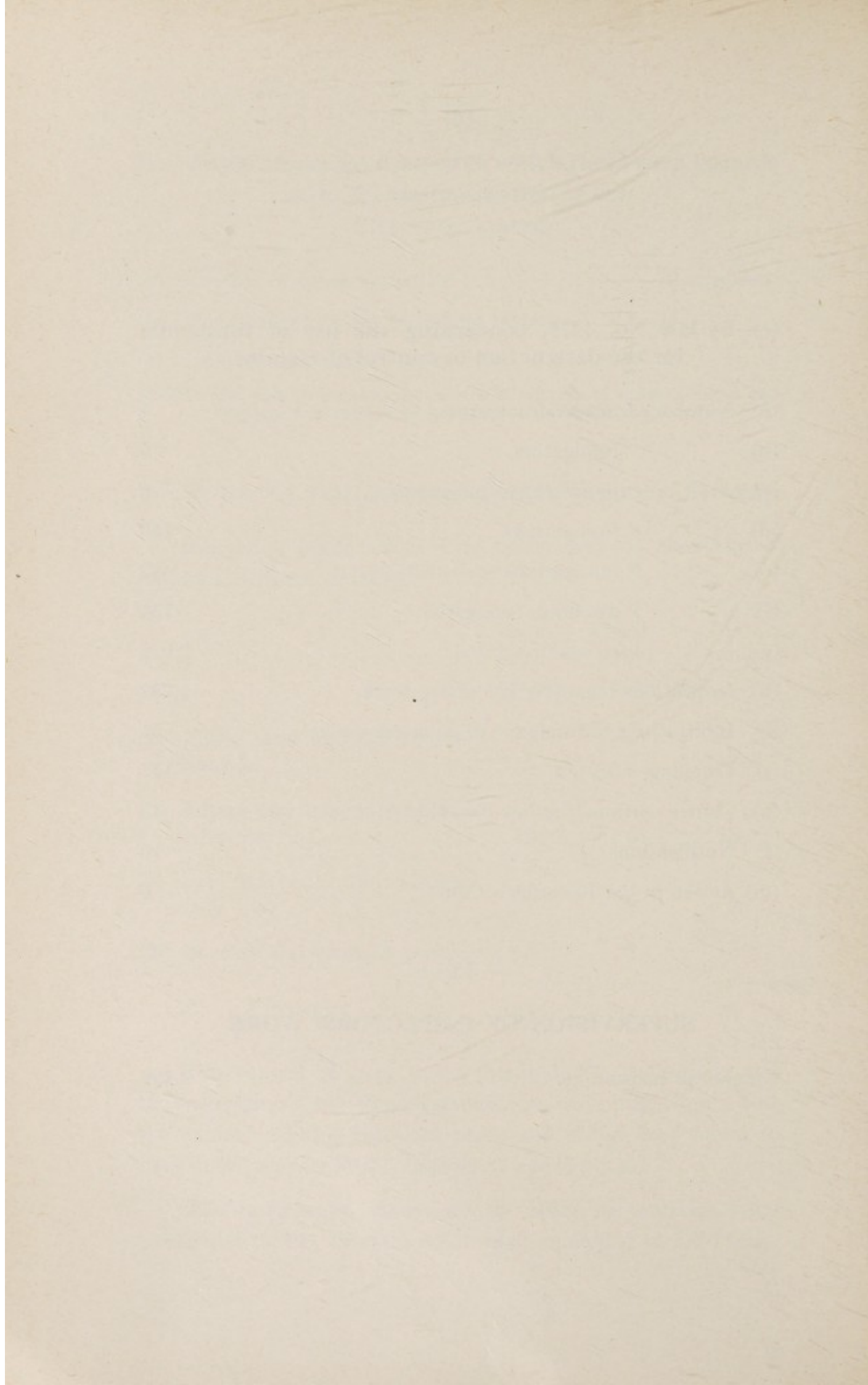
(c) **By-law No. 1275, concerning the use of fumigants  
for the destruction or control of vermin:**

(a) Number of master-fumigators.....	4
(b)     "     " fumigators.....	5
(c)     "     " journeymen-fumigators.....	6
(d)     "     " fumigations.....	169
(e)     "     " fumigations cancelled.....	22
(f)     "     " dwellings fumigated.....	754
(g)     "     " rooms fumigated.....	2,912
(h) Inspections regarding the above work.....	1,752
(i) Infiltrations of fumigant in dangerous zone.....	51
(j) Dwellings affected.....	147
(k) Contraventions (by-law No. 1275).....	10
(l) Notifications.....	10
(m) Action in the Recorder's Court.....	0

— IX —

**SUPERVISION OF INSPECTORS' WORK**

Number of inspections.....	2,499
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**Division of Food Inspection**

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**DIVISION OF FOOD INSPECTION**

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Dr. Adelard Groulx, M.D., C.P.H.

Director,  
Department of Health,  
City Hall Annex.

Dear Director,

I have the honor to submit herewith the annual report of the Division of Food Inspection for the year 1937.

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,

Supt. Food Insp. Division

1938

## DIVISION OF FOOD INSPECTION

## Section No. 1

## 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 markets	Submitted by Citizens	TOTAL
732	47	350	209	391	32	1,761	5	24	29

**Average:** DENSITY and BUTTERFAT of above samples  
1.0305                      3.5%

Collection of samples for bacteriological  
analysis

Milk.....	6,958
Cream.....	752
Chocolate flavored dairy drink.....	185
Ice cream mix.....	54
Ice cream.....	418
Sterilization test for dairy utensils.....	994
Drinking water.....	416
River water for ice cutting.....	117
Water from wells and springs.....	94
<b>TOTAL.....</b>	<b>9,988</b>

**Section No. 1—(Continued)****EXAMINATION OF MILK  
IN THE CITY****MILK:**

Acidity tests.....	901
Sediment tests.....	15,754
Temperatures taken.....	33,758
Babcock tests.....	783
Physical examination (color, taste and smell)...	45,503
Other tests.....	887
Total number of gallons examined.....	774,424

**CONFISCATIONS:**

Milk (in gallons).....	18,317
Cream (in quarts).....	640½

**INSPECTION OF MILK PRODUCERS  
IN THE COUNTRY****1938****INSPECTIONS:**

Dairy score cards.....	4,213
Special.....	9,757
At Railway Stations.....	62
<b>TOTAL.....</b>	<b>14,032</b>

**COWS:**

Number examined.....	66,296
Clean.....	61,501
Tuberculin tested within the year.....	66,296
Tuberculin test overdue.....	0

**Section No. 1—(Continued)****STABLES:**

Number.....	4,213
Clean.....	4,094
With concrete floor.....	3,845
With 400 cubic feet of air space per animal.....	3,953
With 1 foot of light area per animal.....	4,108
Whitewashed entirely.....	4,152

**DAIRIES:**

Number.....	4,191
Clean.....	4,138
Unfinished or unsuitable.....	22

**REFRIGERATION:**

With ice.....	4,106
With spring water.....	36
Producers not having satisfactory cooling systems.....	71

**MISCELLANEOUS:**

Written notices.....	2,927
Written notices by letter from the Office.....	687
Producers interdicted.....	428

**COWS EXAMINED RE: MASTITIS:**

Number of herds.....	53
Number of cows examined.....	983
Number of cows condemned.....	51

## Section No. 1—(Continued)

## Inspection of cream producers in the country

1938

## INSPECTIONS:

Dairy score cards.....	1,074
Special.....	788
At Railway Stations.....	2
<b>TOTAL.....</b>	<b>1,864</b>

## COWS:

Number examined.....	16,874
Clean.....	16,086
Tuberculin tested within the year.....	16,874
Tuberculin test overdue.....	0

## STABLES:

Number.....	1,074
Clean.....	991
With concrete floor.....	920
With 400 cubic feet of air space per animal.....	1,025
With 1 foot of light area per animal.....	1,032
Whitewashed entirely.....	1,024½

## DAIRIES:

Number.....	1,045
Clean.....	975
Unfinished or unsuitable.....	29

## REFRIGERATION:

With ice.....	928
With spring water.....	8
Producers not having satisfactory refrigeration.	138

## MISCELLANEOUS:

Written notices.....	636
Written notices by letter from the Office.....	153
Producers interdicted.....	212

## Section No. 1—(Continued)

## Inspections in the city

## PASTEURIZATION

In pasteurization plants.....	2,871
In special milk establishments.....	1,109
In "crèches".....	58
In hospitals.....	69
In nurseries.....	43
In stables.....	466
Special.....	306
<hr/>	
TOTAL.....	4,922

## Inspections in the city

## CHEMICAL

At the Railway Stations.....	448
In dairies.....	2,413
In groceries.....	4,082
In dining-rooms.....	1,875
In restaurants.....	4,595
In markets.....	509
In stables.....	61
In private houses.....	69
In various places.....	437
Special.....	1,568
<hr/>	
TOTAL.....	16,057

Empty cans examined.....	66,542
Empty cans confiscated.....	128
Can tops (lids) confiscated.....	68
Notices for poor milk.....	38
Written notices (various).....	6,296
Actions taken.....	4
Condemnations.....	4

Section No. 1—(Continued)

OBSERVATIONS AND IMPROVEMENTS—1934 to 1938

Inspection of Dairy Farms—MILK

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

Section No. 1—(Continued)

**PROGRESS IN THE METHODS AND EQUIPMENT OF MILK PRODUCERS**

**1934 to 1938**

	1934	1935	1936	1937	1938
<b>COWS:</b>					
Clean.....	91.63%	90.38%	91.10%	91.53%	92.76%
<b>STABLES</b>					
Whitewashed.....					
Clean.....	95.84%	81.59%	98.47%	97.82%	98.50%
With concrete floor.....	93.40%	93.61%	95.93%	96.59%	97.18%
	86.98%	96.99%	90.44%	90.59%	91.27%
<b>MILK-ROOMS:</b>					
Number.....	97.80%	98.67%	99.40%	99.28%	99.48%
Clean.....	96.83%	94.31%	98.28%	97.63%	98.74%
<b>REFRIGERATION:</b>					
With ice.....	92.65%	93.86%	96.42%	96.92%	97.46%
With spring water or wells.....	4.33%	5.83%	3.36%	.....	00.85%

1938

## DIVISION OF FOOD INSPECTION

## Section No. 1

## Recapitulation

Total number of establishments.....	16,441
Total number of inspections.....	36,851
Total number of cows examined.....	83,170
Total number of samples of milk, cream and ice cream collected for chemical and bacteriological anal- ysis.....	11,778
Total number of various examinations of milk, cream and ice cream.....	97,586
Total number of gallons of milk examined.....	774,424
Total number of gallons of milk confiscated.....	18,317
Total number of quarts of cream confiscated.....	640½
Complaints.....	62
Actions taken.....	4
Condemnations.....	4
Written notices.....	10,699

## Section No. 1—(Continued)

1938

## DETECTION OF MASTITIS CASES IN MILCH COWS

Special milk (or cream) "By-law No. 891"

Number of herds and cows examined					Classification by group			
Number of herds.	Total number of cows in herds.	Number of cows examined.	Number of untested cows (dry or recently freshened).	No. 1 Healthy cows.	No. 2a Suspicious cows.	No. 2b Slightly affected cows.	No. 3 Positively affected cows.	No. 4 Severely affected cows.
51	1,279	959	320	111	325	381	100	42

Pasteurized milk (or cream) "By-law No. 891"								
Number of herds.	Total number of cows in herds.	Number of cows examined.	Number of untested cows (dry or recently freshened).	No. 1 Healthy cows.	No. 2a Suspicious cows.	No. 2b Slightly affected cows.	No. 3 Positively affected cows.	No. 4 Severely affected cows.
2	26	24	2	2	2	5	6	9

Section No. 1—(Continued)

**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.	1. Strip cup test. 2. Chemical test. 3. Physical examination.	Negative. Negative. Negative.	No restriction.	No restriction.
No. 2 { (a) Suspicious cows.  (b) Slightly affected cows.	1. Strip cup test. 2. Chemical test. 3. Physical examination. 4. Bacteriological examination.	Absence of pus, flakes or stringy milk. Negative or slight reaction. Few nodules, not painful. Negative (streptococci and staphylococci).	No restriction.	No restriction.
	1. Strip cup test. 2. Chemical test. 3. Physical examination. 4. Bacteriological examination.	Absence of pus, flakes or stringy milk. Slight or doubtful reaction. Fibrous nodules, painful. Absence of streptococci and staphylococci.	Must be placed in one end of stable.	May be sold for human consumption.

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

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

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.

1938

## FOOD INSPECTION DIVISION

## Section No. 2

	Total number of establishments	Total number of inspections
Markets.....	7	581
Private abattoir (city).....	1	144
Private abattoirs (country).....	475	1,432
Butcher stalls.....	1,121	22,172
Fish stalls.....	33	533
Poultry dealers.....	82	1,765
Packing houses.....	9	320
Grocers.....	1,182	13,695
Cooked meat dealers.....	37	740
Cold storages.....	7	89
Sundry manufacturers.....	82	359
Ice dealers.....	287	585
Specials.....	.....	1,180
	3,323	43,595

Written notices.....	1,580
Actions taken.....	3
Convictions.....	3
Cases dismissed.....	—
Complaints.....	74
Samples collected for analysis.....	618
Meats and other foodstuffs submitted for analysis by citizens.....	54
Dogs having bitten someone.....	230
Dogs visited, having bitten someone.....	795
Research re: negri bodies (all negative).....	7
Country abattoirs interdicted during the year.....	45

1938

## FOOD INSPECTION DIVISION

## Section No. 2—(Continued)

## Carcasses inspected and confiscated

## At the private abattoir

	Inspections	Confiscations
Cattle.....	16	..
Calves.....	1,387	1
Carcasses of mutton.....	801	..
Hogs.....	330	..
Total.....	2,534	1

## At the inspection stations

Calves.....	22,264	57
Carcasses of mutton.....	2,162	..
Hogs.....	24,253	7
Total.....	48,679	64

## At the commission stores

Calves.....	51,713	254
Carcasses of mutton.....	8,109	30
Hogs.....	54,930	50
Total.....	114,752	334

Total number of carcasses inspected. 165,965

Total number of carcasses confiscated 398

**N.B.**—The inspection at the public abattoirs is performed by the Federal Government.

1938

## FOOD INSPECTION DIVISION

## Section No. 2—(Continued)

## Foodstuffs and meats condemned (lbs.)

	Private abattoir	Inspection stations	Commis- sion stores	Markets, butchers, etc.	Total
Beef.....	30	....	7	569	606
Veal.....	38	54	1,004	202	1,298
Mutton.....	154	9	14	97	274
Pork.....	....	4,991	11,067	3,197	19,255
Poultry.....	....	236	1,617	2,070	3,923
Fish.....	....	....	....	9,713	9,713
Sundry meats....	....	25	505	8,305	8,835
Sundry foodstuffs.	....	....	....	32,495	32,495
	222	5,315	14,214	56,648	76,399

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 which were too young.

## Recapitulation

Total number of establishments.....	3,323
Total number of inspections.....	43,595
Total number of carcasses inspected.....	165,965
Total number of carcasses confiscated.....	398
Foodstuffs and meats condemned (lbs.) .....	76,399
Actions taken.....	3
Convictions.....	3
Cases dismissed.....	..
Complaints.....	74
Samples collected for analysis.....	618
Meats and other foodstuffs submitted for analysis by citizens.....	54
Written notices.....	1,580
Dogs having bitten someone.....	230
Dogs visited having bitten someone.....	795
Research re: negri bodies (all negative).....	7
Country abattoirs interdicted during the year.....	45

# FOOD INSPECTION DIVISION

## Section No. 3

1938

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

1. Kind of establishments:	Number of establish- ments to be visited	Number of visits
Hotels.....	58	100
Restaurants.....	5,337	16,373
Dining-rooms.....	757	8,119
Grocery-stores.....	1,057	5,654
Confectioneries.....	77	1,304
Pastry-shops.....	88	1,606
Fruit and vegetable stores.....	216	2,007
Beverage manufacturers.....	50	696
Sundry manufacturers.....	152	1,397
Religious institutions.....	159	40
Taverns.....	66	95
Special inspections in above men- tioned establishments.....		3,847
Total.....	<u>8,019</u>	<u>41,238</u>
Vehicles used for the conveyance of foods.....	1,420	1,662

## Section No. 3—(Continued)

## 2. Samples collected for analysis:

Chemical.....	59
Bacteriological.....	629
Total.....	<u>688</u>

## 3. Confiscations:

Utensils.....	55
Fruits (in pounds).....	34,248
Vegetables (in pounds).....	162,316
Various foodstuffs (in pounds).....	95,258
Total.....	<u>291,822</u>

## 4. Sundries:

Complaints.....	70
Written notices.....	3,866
Actions taken.....	47
Actions in Court on January 1st, 1938.....	2
Actions withdrawn.....	..
Actions dismissed.....	..
Convictions.....	47
Actions in Court on December 31st, 1938.....	2

## DIVISION OF FOOD INSPECTION

Section No. 3—(Continued)

## COMPARATIVE TABLE

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

Establishments	1935		1936		1937		1938	
	To be visited	Visited	To be visited	Visited	To be visited	Visited	To be visited	Visited
Hotels.....	52	300	56	252	51	238	58	100
Restaurants.....	4,965	20,688	5,029	24,137	5,130	21,686	5,337	16,373
Dining-rooms.....	726	8,850	745	9,178	710	9,144	757	8,119
Grocery-stores.....	.....	.....	.....	(Inspected by Section No. 2)	.....	.....	1,057	5,654
Confectioneries.....	80	1,801	66	1,392	68	1,330	77	1,304
Pastry-shops.....	103	2,116	105	2,095	104	2,089	88	1,606
Fruit and vegetable stores.....	227	1,935	216	2,402	223	2,247	216	2,007
Beverages manufacturing estab.....	51	901	45	985	49	985	50	696
Various manufacturing estab.....	140	1,784	150	1,948	172	1,928	152	1,397
Taverns.....	68	176	43	166	72	138	66	95
Institutions.....	174	138	172	93	176	110	159	40
Special inspections.....	.....	3,803	.....	3,343	.....	3,494	.....	3,847
Total.....	6,705	45,395	6,748	48,521	6,871	45,977	8,019	41,238
Vehicles.....	1,595	2,367	1,660	2,618	1,674	2,027	1,420	1,662

## DIVISION OF FOOD INSPECTION

## Section No. 3—(Continued)

## Comparative Table—(Continued)

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

	1935	1936	1937	1938
2. Samples collected for analysis:				
Chemical.....	30	12	51	59
Bacteriological.....	660	384	647	629
Total.....	690	396	698	688
3. Confiscations:				
Utensils.....	16	2	8	55
Fruits (in lbs.).....	23,712	5,436	3,872	34,248
Vegetables (in lbs.).....	33,531	21,803	104,856	162,316
Various foodstuffs (in lbs.).....	33,321	14,056	25,813	95,258
Total.....	90,564	41,295	134,541	291,822
4. Sundries:				
Complaints.....	82	70	50	70
Written notices.....	4,300	3,259	3,100	3,866
Actions in Court on January 1st.....	.....	3	.....	2
Actions taken.....	138	43	39	47
Actions withdrawn.....	8	1	.....	.....
Actions thrown out....	4	.....	.....	.....
Convictions.....	123	45	37	47
Actions in Court on December 31st.....	3	.....	2	2

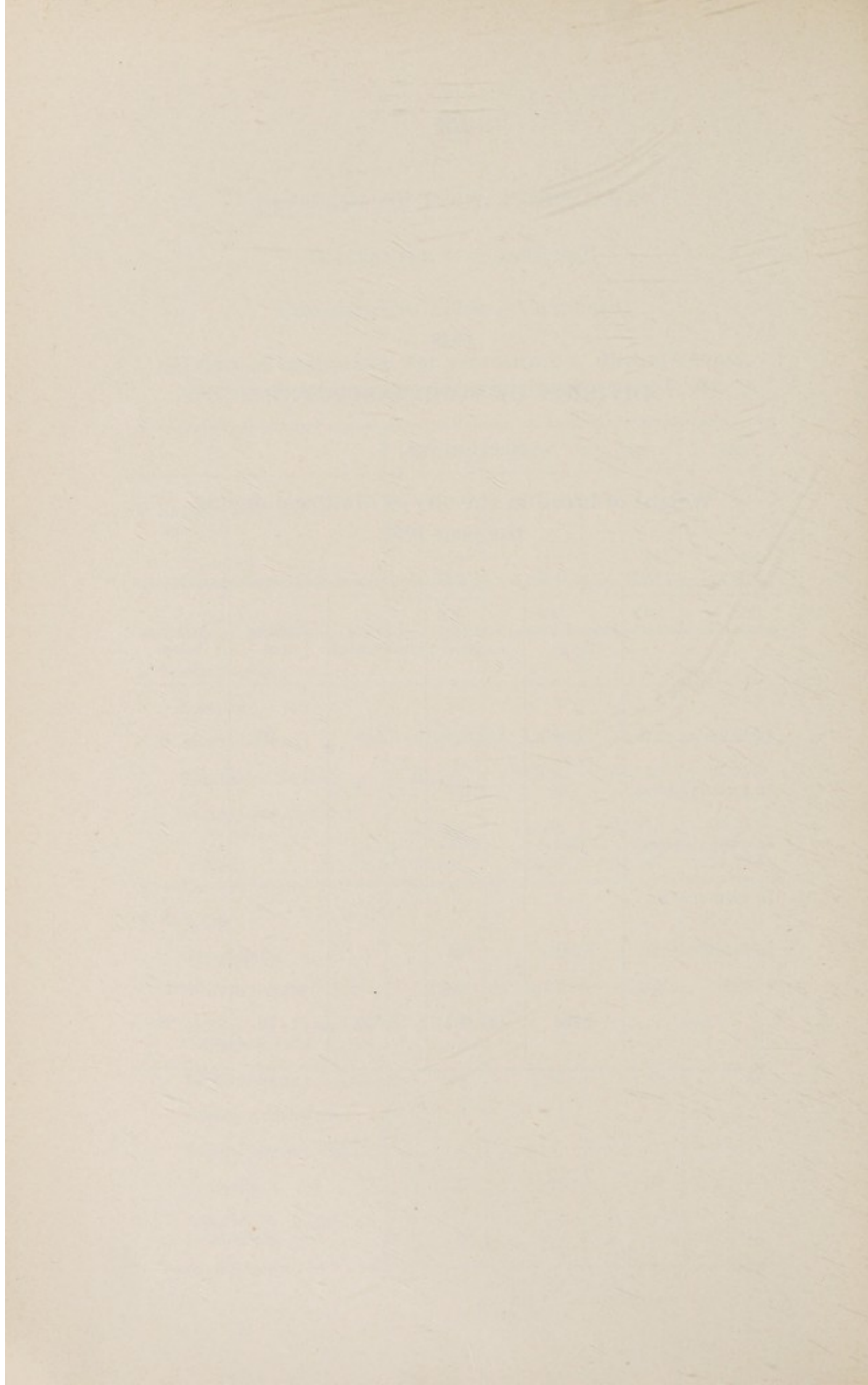
1938

## DIVISION OF FOOD INSPECTION

## Section No. 4

Weight of bread in the city of Montreal during  
the year 1938

	Inspections made	Loaves weighed	Loaves confiscated	Notices sent	Actions taken
In bakeries.....	1,631	132,634	3,648	70	8
In grocery-stores.	49	1,160	2	.....	.....
In pastry-shops..	211	7,877	.....	.....	.....
In restaurants....	2	.....	.....	.....	.....
In vehicles.....	2,241	311	.....	.....	.....
Total.....	4,134	141,982	3,650	70	8



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## **Division of Municipal Assistance**

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DIVISION OF MUNICIPAL ASSISTANCE

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Dr. A. Groulx,

Director of the Department of Health,

City Hall.

Dear Sir,

I beg to submit herewith the thirty-fourth Annual Report of the Division of Municipal Assistance for the year 1938.

This year our Division has dealt with 65,809 cases, which necessitated 60,159 investigations and the hospitalization of 47,496 persons at the expense of the City.

These figures do not include the work done at the Meurling Municipal Refuge, which during the year 1938 has supplied 247,320 sleeping accommodations to 4,487 individuals and given 517,791 meals to the individuals lodged.

On the 31st of December 1938, there remained 1,610 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% were, after being investigated, refused. An economy of \$268,-716.45 being thereby effected.

Taking into consideration that a sum of \$2,258,855.36 was paid out towards costs of hospitalization, transportation, burial, etc. and also that the administration costs of the Department as regards the above items amounted to \$37,295.34, it will be realized that the amount expended for administration represented a percentage of (0.17%) one-seventeenth of one percent.

The City has made the following disbursements towards Municipal Assistance during the year 1938:

Cost of hospitalization, etc. . . . .	\$2,258,855.36
Subventions, grants to benevolent institutions. . . . .	512,853.34
Meurling Municipal Refuge for the homeless. . . . .	50,787.37
Administration costs of the office. . . . .	37,295.34
Total. . . . .	<u>\$2,859,791.41</u>

Less different amounts recovered from people legally responsible for the upkeep of patients, the total amounting to. . . . .	<u>37,197.24</u>
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Net amount disbursed by the City. . . . . \$2,822,594.17

It may be pointed out that the City also contributed through tax exemptions to benevolent institutions a sum of nearly \$540,000.00, bringing to a grand total of \$3,362,594.17 the amount contributed by the City for assistance purposes during the year. Of course the disbursements made towards direct relief during that period are not included in the above figure.

Respectfully submitted,

A. CHEVALIER,

Superintendent of the Municipal  
Assistance Division.

# STATEMENT OF THE OPERATION OF THE MUNICIPAL ASSISTANCE DIVISION FOR THE YEAR 1938

Items	Hospitalized	Investiga- tions	Cases	Expenses	Amount collected	Amount saved through the control exercised
Neglected children.....	1,095	1,532	1,544	\$ 90,734.25	\$ 1,120.60	\$ 26,312.93
Juvenile delinquents and Juvenile Court.....	404	315	404	58,464.76	1,118.79	5,716.12
Insane.....	1,031	1,235	1,272	493,600.60	27,508.33	69,104.00
Incurable patients and others.....	255	343	343	122,736.77	.....	.....
Tuberculous.....	162	199	199	73,000.00	7,118.57	.....
Assistance to the poor.....	.....	220	220	.....	.....	.....
Street vendors.....	.....	102	102	.....	.....	.....
Special cases.....	.....	558	558	.....	.....	.....
Burial of paupers.....	.....	1,174	1,177	5,572.45	330.95	278.62
Deportation of immigrants.....	.....	11	11	.....	.....	.....
Repatriation of strangers.....	.....	355	355	1,499.35	.....	659.71
Charitable institutions having registered (By-Law 1447).....	.....	215	215	.....	.....	.....
Persons authorized to collect gifts for said institutions.....	.....	87	87	.....	.....	.....
Tag-Days.....	.....	64	64	.....	.....	.....
Quebec Public Charity Act.....	44,549	45,731	51,092	1,413,247.18	.....	165,905.77
Dispensaries.....	.....	7,485	7,633	.....	.....	.....
Social Service Exchange (Unemployment cases)	.....	533	533	.....	.....	739.30
	47,496	60,159	65,809	\$2,258,855.36	\$37,197.24	\$268,716.45
Meurling Municipal Refuge. Free night lodgings: 247,320. Free meals given: 517,791...				50,787.37		
Administration expenditure of general office.....				37,295.34		
Subsidies and grants.....				512,853.34		
Exemption of taxes to charitable institutions.....				\$ 600,936.05		
				\$ 540,000.00		

A. CHEVALIER  
Superintendent of the Municipal Assistance Division.

## PLACING OF NEGLECTED CHILDREN IN SCHOOLS OF INDUSTRY

1,544 applications for placing or discharging neglected children had to be settled during 1938. These applications necessitated 1,532 investigations, 12 of which remained in abeyance on the 31st of December 1938.

The result of said investigations was as follows:

Accepted cases.....	922
Refused cases.....	283
Procedures discontinued.....	85
Applications for release granted.....	139
Special cases.....	103
	<hr/>
Total.....	1,532

Children were placed as follows:

Children in schools of industry on the 1st of  
January 1938..... 1,127

Admitted during the year:—

At Maison Ste. Domitille.....	275	
At Orphelinat de Liesse.....	265	
At Orphelinat d'Huberdeau...	195	
	<hr/>	735
Readmitted during the year		360
		<hr/>
		1,095

Total..... 2,222

Discharges, set free or internements terminated 866

On the 31st of December 1938..... 1,356

Distributed as follows:

Maison Ste. Domitille, Laval-des-Rapides.....	579
Orphelinat de Liesse.....	504
Orphelinat d'Huberdeau.....	273

All these are placed at joint expenses with the Provincial Government.

On December 31st 1938 none were waiting for admission. The cost of maintenance of these children in 1938 amounted to \$90,734.25. The amount paid by the City for their transportation amounted to \$971.35 and to the Provincial Government \$89,163.90.

In 1936 it cost..... \$73,749.89

In 1937 it cost..... 76,550.00

The \$14,184.25 increase of cost over the 1937 figure is due to the following causes:

- (a) The unmarried mothers with children who were getting relief asked to have their children placed in care of the proper institutions when they were refused their allocation by the Direct Relief Commission.
- (b) Married women, not legally separated from their husbands, applied in greater number owing to the same cause.

The parents of some of the children reimbursed the City to the extent of \$1,120.60 after it was found they were in a position to do so.

In 1936 the amount recovered was..... \$473.00

In 1937 the amount recovered was..... 910.46

Taking into consideration that 29% of the requests for hospitalization have been refused after investigation, it will be realized that a saving of \$26,312.93 was effected.

### JUVENILE DELINQUENTS

404 cases of juvenile delinquency were reported in the following institutions' monthly report:—

Mont St. Antoine.....	223
Bon-Pasteur.....	98
Shawbridge.....	59
Girls' Cottage.....	24

315 investigations were completed during the year with the following results:—

Investigations closed.....	281
Objections to payment.....	17
Parents having to reimburse.....	17

On the 31st of December 1938, there were in the reform schools at the City's expense 572 juvenile delinquents, as follows:—

At Mont St. Antoine.....	302
At Maison Lorette.....	118
At Shawbridge.....	126
At Girls' Cottage.....	26

A sum of \$6,500.00 was paid by the City to the Provincial Government towards the cost of operation of the Juvenile Court.

The City recovered \$1,118.79 from relations legally responsible for the cost of maintenance of some of the delinquents.

In 1936 the amount recovered was.....	\$609.88
In 1937 the amount recovered was.....	729.40

The City paid towards the cost of maintenance of young delinquents a total of \$51,964.76, detailed as follows:—

For transportation.....	\$ 196.00
To the Provincial Government.....	51,768.76

In 1936 the total amount paid was.....	54,838.06
In 1937 the total amount paid was.....	52,106.39

An economy of \$5,716.12 was effected owing to the fact that after being investigated, 11% of cases submitted to us were objected to for various reasons.

## INSANITY

There were in the asylums for the insane, at the City's expense, on the first of January 1938, 4,345 patients. During the year, 1,031 of these patients were admitted: at St. Jean-de-Dieu, 765, at Verdun, 142, at l'Hospice Ste. Anne-de-la-Baie-St. Paul, 16, at l'Asile de Bordeaux (for the criminal insane)

98, at La Jemmerais School 10. 862 of these patients were either discharged from these Asylums or died during the year; consequently, there were left 4,514 patients on the 31st of December 1938, distributed as follows:—

St. Jean-de-Dieu .....	3,169
Verdun.....	638
Ste. Anne-de-la-Baie-St-Paul .....	351
Bordeaux (Criminal Insane).....	218
Ecole La Jemmerais.....	54
Beauport (St. Michel Archange and Hospice Dufrost).....	31
St. Ferdinand d'Halifax .....	53

There was an increase of 26 admissions in the year of 1938 over the year 1937.

Mental cases in 1938 required 1,235 investigations, the results of which have been as follows:—

Investigations closed.....	874
Parents having to reimburse the City.....	162
Special investigations for the Quebec Gov- ernment.....	33
Objections to payment.....	64
Procedures discontinued.....	100
Insane persons deported.....	1
Insane persons repatriated.....	1

On the 31st of December 1938, there remained 37 investigations to be made. 923 commitment papers were prepared in 1938 by our Division.

The City of Montreal has collected in 1938, from parents, for the costs of maintenance of these patients the sum of \$27,508.33.

In 1936.....	\$23,453.84
In 1937.....	22,820.33

The total amount of receivable accounts on the 30th of April 1939, was \$14,777.39. The cost of maintenance in the asylums for 1938 amounted to \$492,399.45, plus repatriation and transport of patients to the amount of \$1,201.15, making a total of \$493,600.60.

In 1936, amount spent was .....	\$461,576.79
In 1937, amount spent was .....	478,268.08

As for other needy cases, and considering the fact that, if we add to the 1,031 insane patients who were committed the 166 rejected cases on the ground of objection to payment, cancellation, deportation and rapatriation, representing nearly 14% of cases which the City would have been called to assume payment if no control had been performed, we have then by this fact realized an economy of \$69,104.00.

### INCURABLE PATIENTS AND OTHERS

Applications for the hospitalization of incurable patients and others during the year 1938 amounted to 343. Investigations have given the following result:—

Recommendable cases.....	226	
Cases not recommendable, etc.....	67	
Parents having to refund cost of maintenance to the City.....	30	
Hospitalized during the year 1938....	255	
Present on December 31st 1938.....		240

As follows:

At Sacred-Heart Hospital.....	112	69
At the Grey Nun's (St. Mathieu St.).	20	39
At St. Luke's Hospital.....	49	10
At Notre-Dame-de-la-Merci's Re- fuge.....	53	75
At St. Henri's "Hospice".....	21	47

On the 31st of December 1938, there were 7 vacant places in the aboved mentioned institutions; one patient was waiting his admission on the same date.

The amount paid for their cost of maintenance during 1938 was as follows: \$122,736.77

To the Sacred-Heart Hospital.....	\$ 43,999.26
To the Grey Nuns (St. Mathieu St.)....	14,600.00
To St. Luke's Hospital.....	10,950.00
To Notre-Dame-de-la-Merci's Refuge....	34,218.75
To St. Henri's "Hospice" .....	18,968.76
In 1936 the amount paid was.....	121,661.88
In 1937 the amount paid was.....	123,227.40

35% of cases submitted were refused for various reasons and in some cases the relations legally responsible for the upkeep of patients were called upon to reimburse in whole or in part their cost of maintenance. The reasons enumerated under the heading TUBERCULOUS applies here.

### TUBERCULOUS

There were 199 applications for hospitalization of indigent tuberculous during the year 1938. The investigations have given the following result:—

Recommendable cases.....	171
Cases not recommendable.....	15
Parents having to refund cost of maintenance..	13

The number of tuberculous patients hospitalized or re-hospitalized during the year was 162.

99 tuberculous patients were at the Sacred-Heart Hospital on the 31st of December 1938 at the City's expense: there was one vacant place and no one awaiting for admission on the same date.

\$73,000.00 was paid for the hospitalization of tuberculous patients during the year 1938. The same amount was paid for that purpose in the year 1936 and 1937. In 1938 the City recovered \$7,118.57 from relatives of patients suffering from various chronic diseases.

In 1936, the amount recovered was.....	\$3,890.52
In 1937, the amount recovered was.....	6,689.31

14% of the requests made for the hospitalization of tuberculous patients were, after investigation, refused. In some cases, relations of patients were called upon to reimburse in whole or in part the cost of maintenance.

There was no possibility of effecting any economy in this particular field owing to the fact that the City pays for an allotted number of beds at the hospital, whether occupied or not.

## BURIAL OF INDIGENTS

1,177 requests for burial of poor persons at the City's expense were made in 1938. These have necessitated 1,174 investigations, with the following results:—

Persons buried at the City's expense.....	1,118
Responsible parties having been called upon for reimbursement of whole or part of expenses incurred.....	24
Requests refused or discontinued.....	32
Under investigation on 31st December 1938..	3

The amount collected in 1938 from the responsible parties for the burial costs has been \$330.95.

In 1937.....	\$202.87
In 1936.....	280.74

The amount paid by the City for the burial costs and purchasing lots in 1938 has been \$5,572.45.

In 1937.....	\$6,467.10
In 1936.....	7,888.70

5% of the burial requests were refused after investigation, or the parents were applied to reimburse. The City thus saved the sum of \$278.62.

## ASSISTANCE TO THE INDIGENTS

During the year of 1938, 220 applications for relief of various kinds were filed with our Division. Most of these cases were referred to the Charitable Institutions.

## MENDICANTS AND STREET VENDORS

102 applications for street vendor licenses were made at our Office in the course of the year. These applications have been investigated with the following result:

Applications recommended upon payment of the \$10.00 license fee.....	0
Applications recommended free of charge.....	71
Applications not recommended or discontinued..	23
Under investigation on the 31st December 1938..	8

## SPECIAL CASES

558 requests for research or information were made through this Division during the year 1938. These researches were of a particular nature and we are pleased to state that they were attended to satisfactorily.

## DEPORTATION

The cases of deportation of immigrants figured at 11 in 1938. After investigation these cases were disposed of as follows:

Immigrants deported.....	2
Proceedings discontinued or refused.....	3
Under investigation at Ottawa on the 31st of December 1938.....	6

## REPATRIATION

355 requests for repatriation came before this office in 1938. The above mentioned requests were disposed of as follows:

Persons repatriated at the City's expense.....	199
Requests refused or discontinued after investigation.....	156

The amount spent by the City for this purpose was \$1,498.35.

In 1936.....	\$1,266.96
In 1937.....	1,510.15

44% of the requests for repatriation have been refused which represents a saving of \$659.71.

## REGISTRATION OF CHARITABLE INSTITUTIONS AND OF PERSONS AUTHORIZED TO SOLICIT GIFTS OR ALMS ON BEHALF OF SAID INSTITUTIONS

In conformity with the Municipal By-Law No. 1447, 215 institutions soliciting or collecting gifts or alms have registered in 1938 (in 1937, 209) and 87 persons were authorized to solicit such gifts or alms (in 1937, 45).

### TAG DAYS

His worship the Mayor received during the year 1938, 64 applications for permission to hold Tag Days (32) or Guignolées (32), in compliance with the above mentioned By-Law. Those applications were handed to this Department for attention and we reported as follows:—

Favourable recommendations.....	61
Not recommended.....	3
7 Associations have held "Tag Days."	

221 applications for a permit to hold charity entertainment were received in compliance with said By-Law, 185 were granted and 36 refused.

With respect to Tag Days, it is to be noted that the 27 Tag Days, which have been held during 1938, have brought in the sum of \$79,503.10. The expenditures amounted to \$16,986.21; that is to say 21.36%. The interested institutions have made a benefit of \$62,517.90.

As for the year of 1937, figures can be compared as follows:—  
23 Tag Days: receipts, \$75,982.66; expenditures: \$13,248.44; percentage of expenses: 17.43%. Profits realized by the institutions \$62,729.22.

### PUBLIC CHARITIES ACT

The number of requests for hospitalization under the Quebec Public Charities Act, sent to our Division during the year 1938, were as follows:—

Applications for hospitalization in Hospitals, Sanatoria, Homes and Orphanages.....	38,481
Cases reconsidered.....	3,306
Under investigation on the 1st of January 1938.....	1,529
Transferred to other Institutions.....	3,811
Total.....	47,127

Investigations made during the year.....	45,731
Under investigation on the 31st of December 1938.....	1,396

The result of these investigations has been as follows:

Accepted cases.....	40,584
Refused cases.....	5,147

To these 40,584 cases accepted after investigation, we must include or add 3,965 cases accepted in the Maternities, Crèches, Day Nurseries, and school for crippled children, making a total of 44,549 hospitalized persons and 51,092 cases.

Appeals were heard before the district magistrate according to Article 22a of the Quebec Public Charities Act, in 72 rejected cases, with the following result: 59 cases, our decisions were maintained; 13 cases were rejected.

The following table will show that 11.25% of the requests for hospitalization under the Quebec Public Charities Act, during the year 1938, have been rejected after investigation.

If we consider that the cost of maintenance for the same period has been \$1,412,332.01, to which must be added \$915.17 for transportation, totalling \$1,413,247.18, we happen by the refusals above mentioned to have saved to the City the amount of \$158,990.30 to which must be added an amount of \$6,915.47 for credits obtained and our objections on the first bi-annual statement of 1938 to have effected a saving of \$165,905.77.

The second bi-annual statement, amounting to \$702,816.91, is, at the presentation of this report, not verified.

In 1936, the disbursements were \$1,499,999.96, and \$1,377,620.36 for 1937.

## PUBLIC CHARITIES ACT

Years	Applications for hospitaliza- tion	Accepted cases	Refused cases	% of refused cases
1922.....	10,088	8,933	1,095	$10\frac{4}{5}$
1923.....	8,998	7,889	1,109	$12\frac{3}{8}$
1924.....	9,546	8,506	1,040	$10\frac{8}{9}$
1925.....	10,634	9,228	1,406	$13\frac{1}{5}$
1926.....	10,560	9,589	971	$9\frac{1}{5}$
1927.....	11,934	10,751	1,183	$9\frac{7}{8}$
1928.....	12,788	11,565	1,223	10
1929.....	14,893	13,117	1,776	$11\frac{9}{10}$
1930.....	16,845	14,249	2,596	$15\frac{1}{3}$
1931.....	21,243	17,890	3,353	$12\frac{1}{5}$
1932.....	28,807	24,696	4,111	$14\frac{1}{4}$
1933.....	35,223	29,748	5,475	$15\frac{1}{2}$
1934.....	36,240	30,672	5,568	$15\frac{1}{3}$
1935.....	40,235	35,140	5,095	$12\frac{3}{5}$
1936.....	40,447	35,736	4,711	$11\frac{3}{5}$
1937.....	47,902	42,373	5,529	$11\frac{1}{2}$
1938.....	45,731	40,584	5,147	$11\frac{1}{4}$

## OUT-DOOR CLINICS

During the year 1938 the hospitals have submitted for investigation 7,281 cases of persons attending their out-door clinics.

### Result of the investigations

Under investigation on January 1st 1938.....	352
Investigations requested.....	7,281
	<hr/>
Total.....	7,633
	<hr/>
Investigations made.....	7,485
	<hr/>
Under investigation on December 31st 1938..	148
Financial circumstances justifying treatment in out-door clinics.....	4,725
Should pay for medical services.....	1,556
Strangers in Montreal.....	196
Wrong addresses.....	421
Refused to give information.....	89
Assumed names.....	113
No information obtainable.....	385
	<hr/>
Total.....	7,485
Cases known to Social Service Record.....	249

The attention is called to the fact that 63% of cases investigated justified the treatments of out-door clinics, leaving consequently 37% of persons using the out-door clinics that were unjustified in doing so.

## SOCIAL SERVICE RECORD

The number of record-cards of the Social Service Record on December 31st 1938 was 329,606, 284,967 individual cards and 44,639 address-cards, not counting the cards of patients treated under the Quebec Public Charity Act in the various hospitals for a great number of years.

During 1938 we brought to the attention of the Unemployment Relief Commission 533 cases requiring a reduction or a discontinuation of relief granted under the Unemployment Act.

The result has been discontinued.....	404
Unchanged.....	34
Not getting relief or not located.....	95
Total.....	533

The weekly saving thus realized by this decreased allocation was \$739.30.

## SUBSIDIES AND GRANTS

Subsidies and grants accorded by the City of Montreal in 1938 amounted to \$512,853.34, distributed as follows:—

### HOSPITAL AMBULANCE SERVICE

Notre Dame Hospital.....	\$ 1,500.00
Montreal General Hospital.....	1,500.00
Royal Victoria Hospital.....	1,500.00
Hôpital St. Luc.....	1,500.00
Hôpital Ste. Justine.....	1,500.00
Hôtel-Dieu.....	1,000.00
Hôpital Ste. Jeanne-d'Arc.....	800.00
Children's Memorial Hospital.....	500.00
Western Hospital.....	500.00
St. Mary's Hospital.....	500.00
Homoeopathic Hospital.....	500.00
Jewish General Hospital.....	250.00

### PATRONAGES AND HOMES

Patronage St. Vincent-de-Paul.....	300.00
Maison d'Oeuvres Jean-le-Prévost.....	300.00
Montreal Boys' Home.....	250.00
Salve Regina Boys' Home.....	200.00

### FRATERNAL SOCIETIES

Montreal Sailors' Institute.....	400.00
Catholic Sailors' Club.....	400.00

**CHILDREN'S WELFARE**

Colonie de Vacances des Grèves.....	\$1,000.00
Colonie de Vacances Ste. Jeanne d'Arc.....	500.00
Camp d'été pour filles (Institut Bruchési).....	750.00
Camp d'été pour garçons (Institut Bruchési).....	750.00
Camp d'été Ste. Thérèse de l'Enfant-Jésus.....	500.00
Colonie de vacances de l'Aide aux enfants infirmes (Camp le Grillon).....	500.00
Fédération des Ligues du Sacré-Coeur de Montréal (surveillance des enfants au Parc Lafontaine)..<	500.00
Diocesan Camp Corporation.....	250.00
Association du Bien-Etre de la Jeunesse.....	1,000.00

**EDUCATIONAL**

Société d'Archéologie et Numismatique de Montréal.	500.00
Comité des bibliothèques d'enfants.....	1,000.00
Children's Library.....	500.00

**ANTI-TUBERCULOSIS CLINICS**

Institut Bruchési.....	12,200.00
Institut Bruchési (dispensaire St. Denis).....	1,000.00
Royal Edward Institute.....	6,000.00
Royal Edward Institute (dispensaire Rosemont)....	1,000.00
Hôpital du Sacré-Coeur.....	800.00

**HOMES, ORPHANAGES AND ASYLUMS**

Assistance publique.....	2,105.00
Asile des Vieillards des Petites Soeurs des Pauvres..	1,000.00
Bon-Pasteur (pénitents).....	300.00
Sheltering Home.....	100.00
Orphelinat St. Arsène.....	750.00

**ASSISTANCE (WOMEN AND CHILDREN)**

Assistance Maternelle.....	2,500.00
La Société d'Adoption et de Protection de l'Enfance	1,000.00
Assistance Maternelle (Royal Victoria Montreal Maternity Hospital).....	1,500.00

**GENERAL ASSISTANCE**

Salvation Army.....	\$1,500.00
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**EDUCATION AND ASSISTANCE**

Société de secours aux enfants infirmes.....	1,000.00
Institut des Aveugles de Nazareth.....	600.00
Institution des Sourdes-Muettes.....	400.00
Association Canadienne-Française des Aveugles....	1,400.00
Montreal Association for the Blind.....	1,500.00
Canadian National Institute for the Blind.....	1,000.00
St. John's Ambulance Brigade.....	100.00

**NIGHT REFUGES, SHELTERS**

Union Nationale Française.....	250.00
Old Brewery Mission.....	500.00
Vestiaire des Pauvres (fourneau St. Antoine) .....	1,000.00

**SOCIAL ACTIVITIES**

Montreal Parks and Playgrounds.....	1,000.00
Fédération des Scouts Catholiques de la Province de Québec (Canadiens-Français).....	2,500.00
Guides Catholiques de Montréal.....	500.00
Montreal Boys' Scout Association.....	1,000.00

**SUNDRIES**

Ligue de Sécurité de la Province de Québec.....	2,100.00
Montreal Tourist and Convention Bureau.....	1,000.00
L'Oeuvre de la Soupe—Sœurs de la Providence (Asile de la Providence).....	1,000.00
Sœurs Grises—Guy Street (special).....	500.00
Montreal Children's Hospital.....	500.00

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Total..... \$70,755.00

## SPECIAL GRANTS

Société St. Jean-Baptiste de Montréal (Sec. Côte-Cherrier).....	\$ 100.00
Club de Hockey Concordia.....	2,500.00
Shriners' Hospital.....	2,000.00
Society for the Prevention of Cruelty to Animals...	2,500.00
Conseil des Métiers et du Travail.....	200.00
Montreal Convalescent Hospital.....	3,000.00
Institut Bruchési and Royal Edward Institute (Christmas seals).....	2,000.00
Financial Federation.....	35,642.83
Federation of Catholic Charities.....	14,080.53
Federation of Jewish Philanthropies.....	11,846.41
Oeuvres de Charité Canadiennes-Françaises (the Société St. Vincent-de-Paul included).....	138,430.23
Protestant Relief Society.....	500.00
United Irish Society.....	500.00
Comité central Congrès Eucharistique national.....	1,500.00
Fédération Canadienne des Maires des Municipalités.....	1,350.00
L'A.C.J.C.....	200.00
Park Toboggan Club.....	1,950.00
Montreal General Hospital.....	25,000.00
St. Mary's Hospital.....	30,515.00
Hôpital St. Luc.....	50,200.00
Institut Neurologique.....	15,000.00
Hôpital Ste. Justine.....	11,166.67
Homoeopathic Hospital.....	1,666.67
A.C.J.C. (contrat la Palestre).....	11,250.00
Ecoles ménagères.....	4,000.00
Ecole Technique.....	75,000.00
Total.....	\$ 442,098.34
Grand Total.....	\$ 512,853.34

The value of the real estate owned by Charitable Institutions and exempted from taxation in 1938 was about \$40,000,000.00. The real estate taxes at \$1.35% amount to \$540,000.00.

## MEURLING MUNICIPAL REFUGE

During the year 1938, there were 247,355 entries for lodging accommodation in the Meurling Refuge. Of this number 35 individuals were refused admission for good cause, so that the net number of lodgings given was 247,320. The lodgings were given to 4,487 individuals, or an average of 55.1 times each individual, representing 30 nationalities, and 2,795 were refused for lack of places.

The number of refugees who have been supplied with work or with situations amounted to 18,202, the average age of the persons lodged being 44.7 years.

The number of free meals given during the year 1938 was 617,791.

The number of trades represented was 30. The total number of treatments given by our physicians was 41,351.

Number of diseases.....	37
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## LAUNDRY OF THE REFUGE

968,764 pieces of linen were washed at the Laundry of the Refuge. Of this number, 6,361 pieces belonged to different departments of the City Hall; 10,917 to the refugees; 951,986 to the Refuge.

## MEURLING MUNICIPAL REFUGE

1914 to 1938

Years	Lodgings given	Number of individuals	Average age	Nationality		Meals given	Expenses	Lodgings refused for lack of places
				Can.	For.			
1914.....	67,652	3,846	40	51	49	148,304	\$21,536.82	.....
1915.....	87,491	4,059	46	54	46	182,795	25,813.84	.....
1916.....	36,417	1,722	51	77	23	78,268	21,208.64	.....
1917.....	22,779	1,282	54	88	17	54,497	16,563.34	.....
1918.....	15,711	1,590	55	79	21	38,820	17,227.14	.....
1919.....	26,483	2,971	53	67	33	54,431	15,995.17	.....
1920.....	9,411	882	53	88	12	21,332	16,226.74	.....
1921.....	94,488	4,300	42	76	24	196,972	28,456.53	.....
1922.....	90,843	3,231	42	75	25	189,466	31,678.56	.....
1923.....	72,972	2,416	47	78	22	154,071	24,162.28	.....
1924.....	94,950	3,249	48	72	28	199,747	24,848.57	.....
1925.....	91,348	3,331	44	69	31	191,761	30,726.59	.....
1926.....	72,403	2,695	47	72	28	153,911	34,991.85	.....
1927.....	80,142	3,785	45	64	36	167,612	27,870.86	.....
1928.....	120,877	4,226	44	66	34	251,544	29,514.56	.....
1929.....	126,921	3,283	43	65	35	264,305	29,294.51	.....
1930.....	214,723	7,256	45	63	37	442,479	38,965.99	.....
1931.....	249,185	3,985	44	60	31	514,565	37,955.88	.....
1932.....	254,219	5,531	43	70	30	525,345	28,462.05	.....
1933.....	204,489	4,741	43	68	32	435,518	29,089.67	.....
1934.....	171,590	4,339	50	77	23	365,507	33,693.80	.....
1935.....	172,828	4,105	46	78	22	366,467	43,629.57	.....
1936.....	226,160	4,450	43	80	20	476,704	46,673.25	.....
1937.....	222,887	4,201	42.3	79	21	469,078	47,613.74	.....
1938.....	247,320	4,487	44.9	80	20	517,791	50,787.37	2,795

## CO-OPERATION WITH THE POLICE DEPARTMENT

During the year 1938 the Police Department 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...	210
Insane committed after examination.....	140
Declared responsible and disposed of by the Courts.....	70

Patients escorted:—

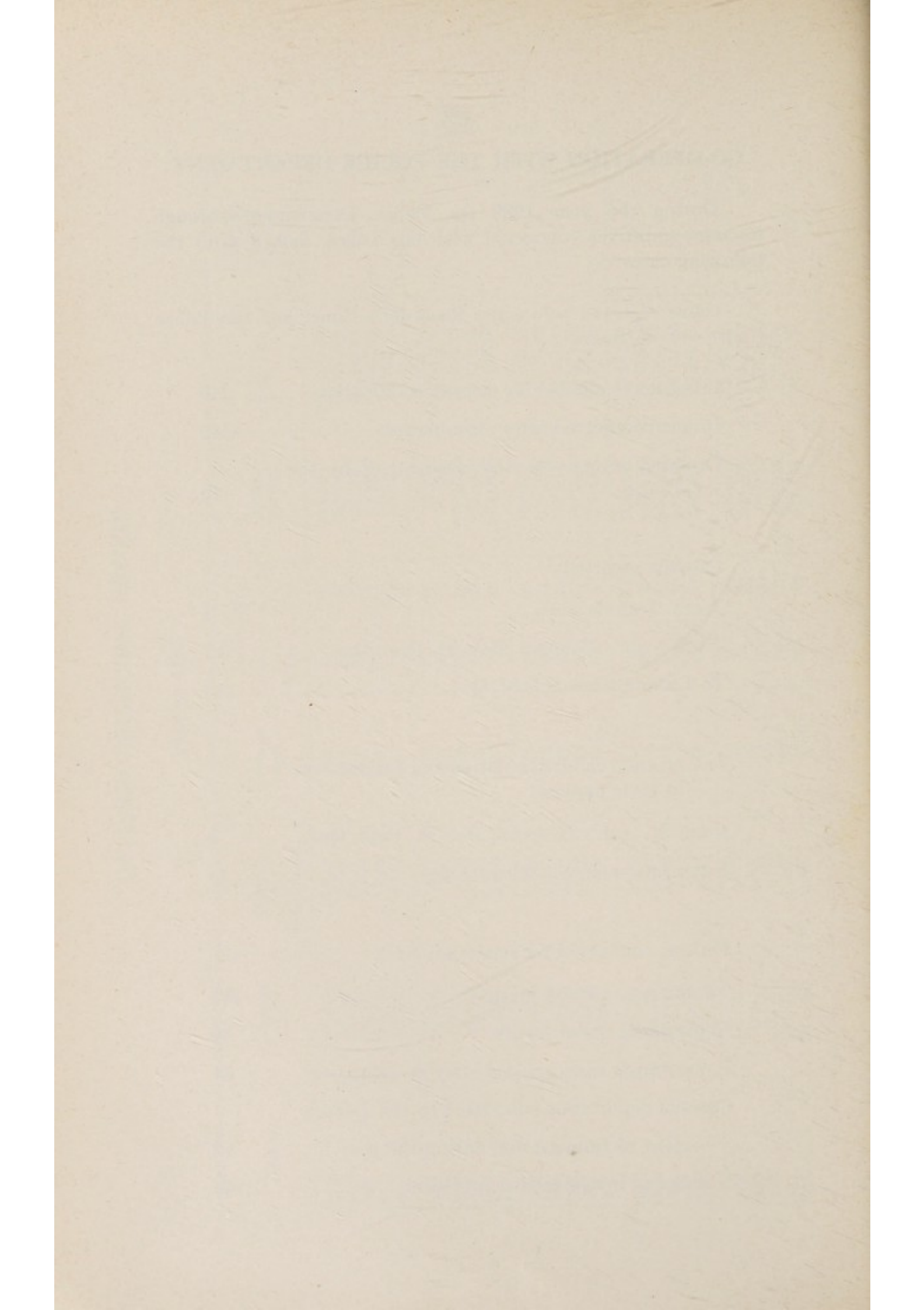
To St. Jean de Dieu.....	2
To St. Ann's Hospital, Baie St. Paul, Que....	15
To LaJemmerais School, Que.....	15

Patients and children escorted and handed over  
to their parents:

From St. Ann's Hospital, Baie St. Paul, Que..	5
From LaJemmerais School, Que.....	19

Persons conducted for repatriation:—

To different railway stations.....	195
Repatriated under escort.....	10
Repatriation cases refused after investigation.	51
Cases of deportation submitted to the Depart- ment of Immigration during the year....	12
Number of investigations or visits.....	1,146



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**Division of Medical Control**

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**DIVISION OF MEDICAL CONTROL**

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Doctor A. Groulx,

Director of the Health Department,

City Hall (annex)

Sir,

I hereby transmit the report of the Division of Medical Control for the year 1938.

Respectfully yours,

J. A. CHARRON, M.D.

Superintendent of the

Division 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 medical 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 1938 may be summed up as follows:—

**Examinations of employees:**

1. New employees.....	109
2. Employees absent through illness.....	2,253
3. Special examinations, re: State of health..	63
Total.....	2,425

**Municipal Assistance:**

1. Children placed in Industrial Schools.....	869
2. Incurables	
(a) Tuberculous.....	194
(b) Other diseases.....	296
	— 490
3. Sheltered indigents (at Meurling Refuge)..	247,320

City beds were classified as follows during 1938:—

**Sacred Heart Hospital:**

- 100 beds for tubercular patients (50 for men, 50 for women).
- 75 beds for patients suffering from cancer or other incurable diseases which require medical care (37 for men, 38 for women).

**St. Henry Home:**

35 beds for paralytics (18 for men, 17 for women).

12 beds for indigent men; 2 more beds were added in February, 1936.

**Notre Dame De La Merci Hospital, Bordeaux:**

75 beds for old or crippled indigent men.

**St. Luke's Hospital:**

10 beds for emergency cases (men or women).

**Grey Nuns, St. Matthew St.:**

40 beds for old people or cripples (20 for men, 20 for women).

**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..... 33,224

**2. Barbers, hairdressers, etc.:**

(a) at the office

(b) in shops

Total..... 2,337

## MEDICAL INSPECTION OF BARBERS, HAIRDRESSERS, ETC.

During the year 1936, the first year in which By-law No. 1394, concerning barbers, hairdressers, etc., was applied, results had not been quite satisfactory.

In 1937 our efforts were rewarded by results: 3,475 barbers, hairdressers, etc., obtained their health cards.

In 1938, only 2,337 persons conformed with the by-law. It appears that 1,138 persons, through negligence or for other reasons, did not appear before the Medical Control bureau to obtain or renew their health card.

### 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. The Medical Control bureau performs the vaccination of certain employees who are too poor to pay their family physician.

Following is a summary of the work of this section:

#### Vaccination against small-pox:

##### 1. Food handlers vaccinated:

(a) at the office.....	4,307
(b) at plants.....	402
Total.....	4,709

##### 2. Barbers, hairdressers, etc.

(a) at the office.....	552
(b) in shops.....	105
Total.....	657

##### 3. Other vaccinations..... 766

Total.....	6,132
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This year, an important modification changes things completely in the vaccination department.

Until the first of August, 1938, all those who appeared before the Medical Control office for their health card, were indiscriminately vaccinated if it was necessary.

Following repeated steps taken before the Executive Committee and the Director of the Department of Health, by various medical associations in the City of Montreal, it was decided that only the poor and persons unemployed, not under direct relief—and consequently not having the means to pay to be vaccinated—would be vaccinated by the department's doctor. As for the others, they must visit their family physician or at least a private doctor.

Evidently this brought about a radical diminution in the number of persons vaccinated. As a matter of fact from the first of January to the first of August 1938, we had four thousand three hundred and ninety-five vaccinations (4,395) as against one thousand two hundred and seventy-nine (1,279) from the first of August to the 31st of December.

On the other hand the proportion of successful vaccinations has increased. It was seventy-point-nine percent (70.9%), owing to the fact that the number of children vaccinated in proportion to adults re-vaccinated is greater than in past years.

The public, from the first, accepted the change in good grace. The few criticisms which were made to us came from young people, for the most part, who do not take the pains to reason things out, rather than from mature persons.

Now protests have become the exception.

# FOOD ESTABLISHMENTS

## MONTHLY CLASSIFICATION OF HEALTH CERTIFICATES, 1938

Certificates	January	February	March	April	May	June	July	August	September	October	November	December	Grand Total
Number of certificates issued.....	2,590	3,082	4,247	3,564	4,257	2,158	1,742	2,287	2,154	2,597	2,438	2,108	33,224
Number of certificates refused.....	40	43	59	60	68	53	55	58	66	81	76	57	716
REASONS:—													
Ptyorrhea.....	13	15	21	18	23	15	13	18	21	26	24	21	228
Tuberculosis.....	1	2	1	2	2	2	6	3	2	3	2	1	27
Uncleanliness.....	14	16	26	24	32	24	21	24	26	31	28	18	284
Skin diseases.....	6	4	5	8	6	6	7	8	8	10	12	11	91
Venereal diseases.....	6	6	6	8	5	6	8	5	9	11	10	6	86
Total.....	40	43	59	60	68	53	55	58	66	81	76	57	716
Number of vaccinations.....	537	519	878	681	857	682	603	510	365	211	158	131	6,132
Number of verifications.....	501	491	851	607	831	641	591	483	312	197	141	118	5,764

BARBER SHOPS, HAIRDRESSING PARLORS, ETC.

MONTHLY CLASSIFICATION OF HEALTH CERTIFICATES, 1938

Certificates	January	February	March	April	May	June	July	August	September	October	November	December	Grand Total
Number of certificates issued . . . . .	237	316	285	191	187	102	93	142	171	218	208	187	2,337
Number of certificates refused . . . . .	2	3	2	2	3	2	2	3	2	2	3	3	29

#### IV. MEDICO-LEGAL OFFICE

Following is the report of the medico-legal counsel for the year 1938:—

##### Workmen injured:

Examinations at the Medico-legal office.....	1,343
Examinations at home.....	20
Examinations in hospitals.....	16
First reports.....	344
Subsequent reports.....	281

##### Expert reports for the Legal department:

Examinations at the Medico-legal office.....	162
Examinations at home.....	452
First reports.....	614
Subsequent reports.....	247

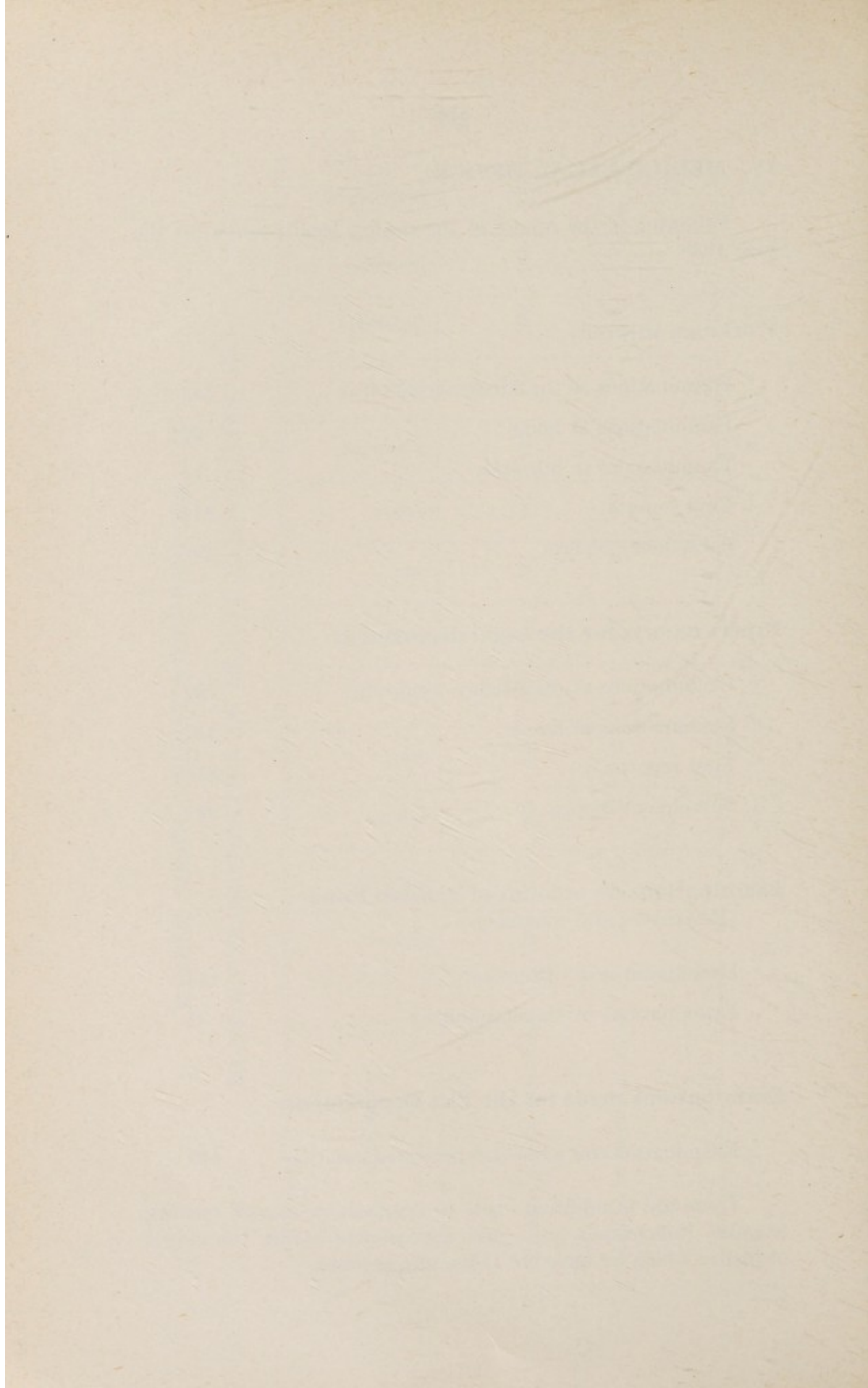
##### Examinations on account of Pension Fund— (Employees and constables)

Examinations re: Admission.....	184
Examinations re: Superannuated.....	71

##### Examinations made for the Fire Department:

Examinations for admission or superannuation	440
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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.



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**Division of Laboratories**

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DIVISION OF LABORATORIES

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Doctor Ad. Groulx, M.D., C.P.H.,  
Director, Department 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, 1938.

The total number of analyses made during the year was 48,857, divided among the different Divisions of the Department of Health, the Police Department and the private practitioners of Montreal.

To this we must add the preparation of twelve litres of convalescent serum, for the treatment of poliomyelitis.

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, Division of Laboratories.

## DIVISION OF LABORATORIES

## Analyses made during year 1938

## A. Specimens analyzed for the Department of Health.

## Division of Food Inspection:—

## I. Solid Foods:

## 1. Natural:

Celery (physico-chemical examination).....	1
Chopped meat (re-adulterations).....	68
Dried nuts (bacteriological examination).....	1
Dried and pulverized vegetables (bacteriological examination).....	1
Fish (bacteriological examination).....	1
Granulated sugar (physico-chemical examination).....	2
Meat: bacteriological examination.....	12
pathological examination.....	8
Pulverized Irish moss (bacteriological examination).....	1
Table salt (physico-chemical examination)...	1

## 2. Canned:

Beans (bacteriological examination).....	1
Blood pudding (bacteriological examination).	2
Carrots (bacteriological examination).....	1
Corn (bacteriological examination).....	8
Salmon (bacteriological examination).....	2
Sardines (bacteriological examination).....	4
Tomatoes (bacteriological examination).....	8
Tomatoes (re-toxic metals).....	1
Tomato paste (bacteriological examination)..	2
Tuna (bacteriological examination).....	1

## 3. Prepared:

Biscuits (bacteriological examination).....	1
Cake (bacteriological and chemical examinations).....	2
Candy (bacteriological examination).....	3
Chicken pie (bacteriological examination)....	1
Jams (bacteriological examination).....	1
Ham (bacteriological examination).....	3
Macaroni (bacteriological examination).....	2
Plum jelly (bacteriological examination)....	1
Preserved pears (bacteriological examination).	1
Sausage (bacteriological examination).....	1
Sausage (re-adulterations).....	560

**II. Liquid Foods:**

## Milk and Cream:

## 1. Natural:

## (a) Samples brought by our inspectors:

## Bacteriological examination:

Plate count.....	7,547
B. Coli test.....	7,547
Research of Brucella Abortus.....	2
Research of haemolytic streptococcus....	5

## Chemical analysis:

Completed (1).....	10
Summary (2).....	1,530
Bromthymol test.....	1
Catalese test.....	4
Preservative test.....	1,545
Research of blood.....	1
Research of colouring matters.....	1

## (b) Samples brought by citizens:

Summary chemical analysis plus preservative test.....	248
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- (1) Completed chemical analysis comprises specific gravity, butter fat, dry extract, defatted extract, water.
- (2) Summary chemical analysis comprises specific gravity by "QUEVENNE" lacto-densimeter, butter fat by "BABCOCK" test, preservative test.

**II. Liquid Foods—(Continued)**

2. By-products:	
Cheese (bacteriological examination).....	1
Chocolate drink (bacteriological examination)	376
Chocolate drink (physico-chemical examination).....	2
Fermented milk (bacteriological examination).	1
Ice cream (bacteriological examination).....	884
Milk powder (bacteriological examination)...	4
Milk powder (chemical examination).....	4

**Miscellaneous:**

Canned soup (bacteriological and chemical examinations).....	2
Carbonated beverages (bacteriological examination).....	2
Carbonated beverages (physico-chemical examination).....	1
Carbonated water (re-toxic metals).....	9
Controls in nurseries, hospitals (milk, water) (bacteriological examination).....	2,456
Home made soup (bacteriological and chemical examinations).....	3
Molasses (physico-chemical examination)....	1
Wash water (dining rooms) (bacteriological examination).....	1,050
Water from the Montreal Aqueduct (bacteriological examination).....	736
Water from various sources (bacteriological examination).....	558

**III. Biological examinations: (3)**

Blood: agglutination test re-B. Typhosum....	492
agglutination test re-B. Paratyphosum A & B.....	492
Stools: re-B. Typhosum and B. Paratyphosum A & B.....	957
Urines: re-B. Typhosum and B. Paratyphosum A & B.....	928

(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:

Bottle caps (physical examination).....	1
Labels (physical examination).....	1
Rat poison (chemical examination).....	1
Thermometers (checking).....	8
Wash powders (bacteriological examination)..	3
Wash powders (chemical examination).....	2
Wood shavings (physical examination).....	1
	<hr/>
	28,119

#### Division of Sanitation:

Water from public swimming pools (bacteri- ological examination).....	680
Water from public swimming pools (chemical examination).....	340
Water from various sources (bacteriological examination).....	124
	<hr/>
	1,144

#### Division of Contagious Diseases:

Blood: agglutin- ation test	{ re-Brucella Abortus.....	168
	{ re-B. Paratyphosum A & B.....	168
	{ re-B. Typhosum.....	168
Rabies: research of Negri bodies.....		7
Stools: re-B. Typhosum and B. Paratypho- sum A & B.....		67
re-Entamoeba histolytica.....		4
re-tubercle bacilli.....		2
Throat swabs: re-diphtheria.....		2,204
re-Vincent's angina.....		5
Urines: re-B. Typhosum and B. Paratypho- sum A & B.....		63
		<hr/>
		2,856

**Division of Child Hygiene:**

Conjunctival discharge (re-gonococcus).....	1
Hair (re-tinea).....	1
Thermometers (checking).....	1
Urines: chemical and microscopic examinations.....	1,475
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	1,478

**Division of Medical Control:**

Blood: determination of sugar.....	2
Urethral and vaginal swabs.....	197
Urines: chemical and microscopic examinations.....	284
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	483

**B. Specimens analyzed for the Police Department:**

Blood: determination of sugar.....	4
determination of urea.....	1
Narcotic drugs.....	45
Sputum: re-tuberculosis.....	1
Urethral and vaginal swabs (prostitutes).....	2,022
	<hr/>
	2,073

**C. Specimens analyzed for Physicians:**

Bile: re-B. Typhosum and B. Paratyphosum A & B.....	1
{ re-B. Aertrycke.....	15
{ re-Brucella Abortus.....	196
{ re-B. dysenteriae Flexner (V.W.X.Y.Z.).....	16
{ re-B. dysenteriae Shiga...	15
{ re-B. dysenteriae Sonne..	15
Blood: agglutina- tion test { re-B. enteritidis Gaertner.	15
{ re-B. Paratyphosum A & B.....	196
{ re-B. Paratyphosum C...	13
{ re-B. Proteus X-19.....	5
{ re-B. Typhosum.....	196
{ re-Salmonella group.....	15
{ re-Salmonella Newport...	8

Blood: bleeding time.....	2
coagulation time.....	8
culture.....	35
re-determination of cholesterol.....	2
of creatinine.....	3
of hemoglobin.....	61
of sugar.....	420
of urea.....	178
of uric acid.....	2
differential blood count.....	45
red and white cells count.....	60
Cerebro-spinal fluid.....	3
Conjunctival discharge (re-gonococcus).....	3
Domestic insect (identification).....	1
Hair (re-tinea).....	1
Intestinal worms (identification).....	6
Mother's milk.....	1
Pleural fluid.....	2
Sputum: re-tubercle bacilli.....	1,626
re-typing of pneumococcus.....	21
Stools: bacteriological examination (blood, protozoa, tubercle bacilli, worms, etc.).	50
re-B. Typhosum and B. Paratyphosum A & B.....	213
re-Entamoeba histolytica.....	293
Throat swabs: re-diphtheria.....	51
re-Vincent's angina.....	66
Urethral and vaginal swabs.....	276
Urines: bacteriological examination (B. Coli, gonococcus, tubercle bacilli).....	176
chemical and microscopic examinations.....	8,214
re-B. Typhosum and B. Paratyphosum A & B.....	171
Wounds pus.....	8
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	12,704
	<hr/>
Total.....	48,857

## CONTAGIOUS DISEASES, YEAR 1938

Diseases	Number of specimens	Positive	Negative	Suspicious	Unsatisfactory	Percentage		
						Positive	Negative	Suspicious
Diphtheria.....	2,256	166	2,086	2	2	7.4	92.4	0.1
Rabies.....	7	0	7	0	0	0.0	100.0	0.0
Tuberculosis.....	1,678	187	1,491	0	0	11.1	88.9	0.0
Typhoid fever: Physicians of the City.....	880	105	775	0	0	11.9	88.1	0.0
Detection of "germ carriers" (food handlers).....	2,377	20(a)	2,357	0	0	0.8	99.2	0.0
Gonorrhea: Physicians of the City.....	303	72	229	2	0	23.8	75.5	0.7
Food handlers.....	197	14	183	0	0	7.1	92.9	0.0
Prostitutes (*).....	2,022	296	1,726	0	0	14.6	85.4	0.0
Amoebic dysentery.....	297	59	238	0	0	19.9	80.1	0.0

(a) These positive results come from 18 samples of blood (positive Widal) and 2 samples of urine (positive to B. Typhosum).

(\*) Women arrested in disorderly houses.

## ANNUAL REPORT, 1938

Bacteriological analysis of milk, cream,  
ice-cream, water, etc.

## A. Quantitative analysis (Standard plate count):

## Division of Food Inspection:

Pasteurized milk (delivered to consumers)....	2,763
Special milk (delivered to consumers).....	1,972
Chocolate drink.....	188
Cream.....	584
Ice cream.....	442
Controls in pasteurizing plants and special milk establishments.....	1,631
Controls in nurseries, hospitals.....	1,228
Tests on washing of utensils (dairies).....	597
Water from various sources, eggs, food sun- dries, oysters, etc.....	269
Water from the Montreal Aqueduct.....	368
Wash water (dining rooms).....	525
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	10,567

## Division of Sanitation:

Water from public swimming pools.....	350
Water from various sources.....	62
	<hr/>
	412

B. Qualitative analysis (fermentation test for  
the detection of bacteria of the B. Coli  
group in the above samples).....

10,979

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Total..... 21,958

# **BACTERIOLOGICAL ANALYSIS OF THE WATER FROM THE MONTREAL AQUEDUCT, YEAR 1938**

Month	Number of samples	Number of colonies	B. Coli 10 c.c. Portions
January.....	34	13,633	4-170
February.....	26	3,273	0-130
March.....	38	719	0-190
April.....	27	5,009	0-135
May.....	31	1,709	0-155
June.....	28	1,302	0-140
July.....	25	1,283	0-125
August.....	36	4,486	1-180
September.....	33	3,208	0-165
October.....	35	1,846	0-175
November.....	26	1,860	0-130
December.....	28	238	0-140
Total.....	367	38,566	5-1835
Mean.....	...	105	0.3%

## BACTERIOLOGICAL ANALYSIS, 1938

## Pasteurized Milk—Plate Count

Number of samples	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 incl.:— 1,270	983	218	50	19	0	77.4	17.2	3.9	1.5	0.0
From June to September incl.:— 797	580	168	35	14	0	72.8	21.1	4.4	1.7	0.0
From October to December incl.:— 696	550	131	12	3	0	79.1	18.8	1.7	0.4	0.0
For the year:— 2,763	2,113	517	97	36	0	76.5	18.7	3.5	1.3	0.0

## BACTERIOLOGICAL ANALYSIS, 1938—(Continued)

## Pasteurized Milk—B. Coli Group

Number of samples	Fermentation test					Percentage				
	B. Coli Group				Samples void	B. Coli Group				Samples void
	Present			Absent		Present			Absent	
	0.01 c.c.	0.1 c.c.	1 c.c.			0.01 c.c.	0.1 c.c.	1 c.c.		
From January to May incl.:— 1,270	15	9	50	1,196	0	1.2	0.7	3.9	94.2	0.0
From June to September incl.:— 797	26	35	96	640	0	3.2	4.4	12.1	80.3	0.0
From October to December incl.:— 696	8	5	45	638	0	1.2	0.7	6.5	91.6	0.0
For the year:— 2,763	49	49	191	2,474	0	1.8	1.8	6.9	89.5	0.0

## BACTERIOLOGICAL ANALYSIS, 1938—(Continued)

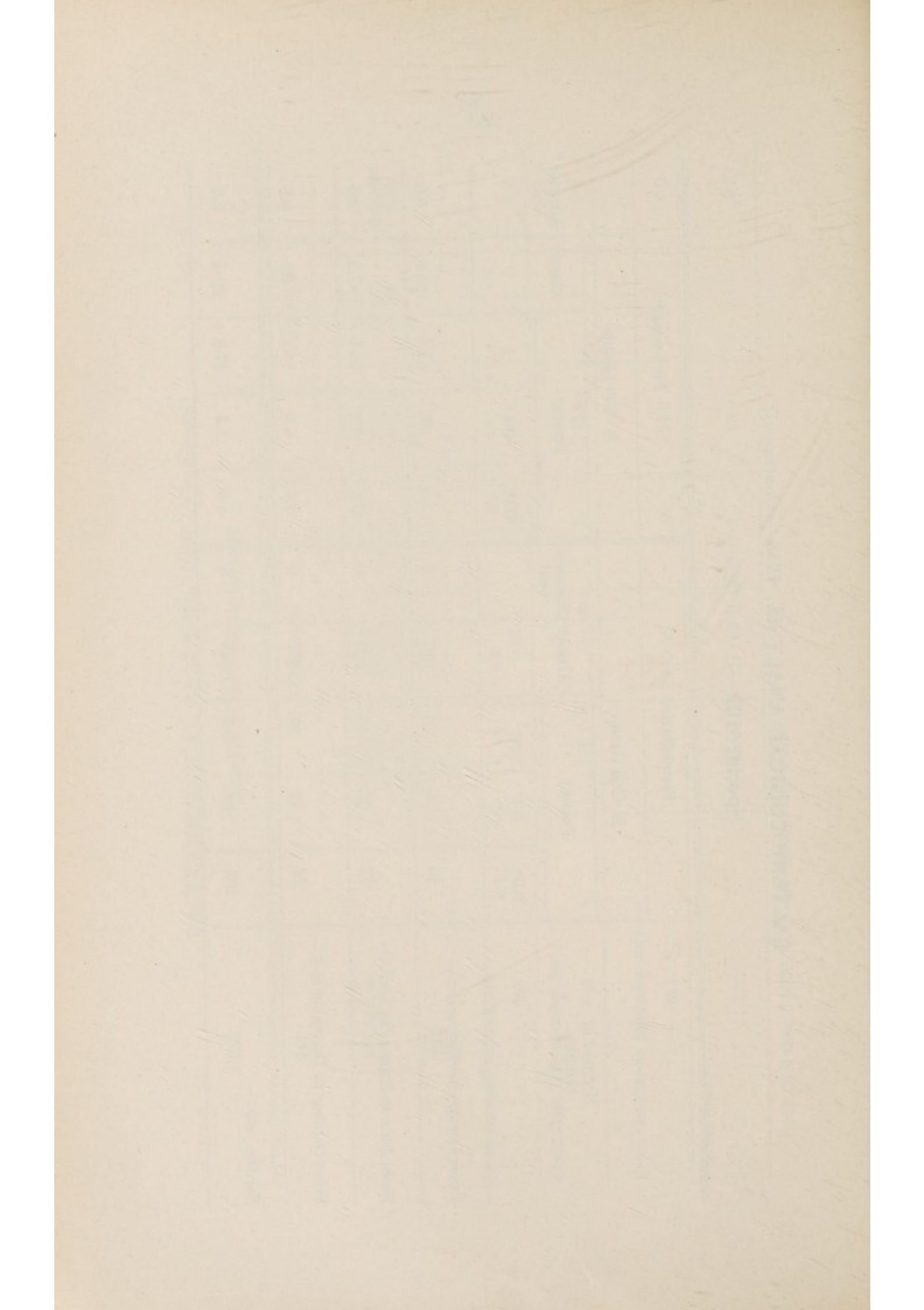
## Special Milk—Plate Count

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 incl.:—						
847	795	52	0	93.9	6.1	0.0
From June to September incl.:—						
614	575 (x)	41 (xx)	0	93.3	6.7	0.0
From October to December incl.:—						
511	485	26	0	94.9	5.1	0.0
For the year:—						
1,972	1,853	119	0	93.9	6.1	0.0
(x) Less than 50,000.	(xx) More than 50,000.					

## BACTERIOLOGICAL ANALYSIS, 1938—(Continued)

## Special Milk—B. Coli Group

Number of samples	Fermentation test					Percentage				
	B. Coli Group				Samples void	B. Coli Group				Samples void
	Present			Absent 1 c.c.		Present			Absent 1 c.c.	
	0.01 c.c.	0.1 c.c.	1 c.c.			0.01 c.c.	0.1 c.c.	1 c.c.		
From January to May incl.:— 847	16	25	115	691	0	1.9	2.9	13.6	81.6	0.0
From June to September incl.:— 614	77	92	151	294	0	12.6	14.9	24.6	47.9	0.0
From October to December incl.:— 511	15	33	80	383	0	2.9	6.5	15.7	74.9	0.0
For the year:— 1,972	108	150	346	1,368	0	5.5	7.6	17.5	69.4	0.0



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## Division of Law Office

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**DIVISION OF LAW-OFFICE**

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Doctor Ad. Groulx, M.D., C.P.H.,  
Director, Department of Health,  
City Hall (Annex).

Dear Sir,

I beg to herein submit the report of the Law-Office Division,  
for the year 1938.

Respectfully submitted,

ED. FLAMAND,  
Superintendent, Law-Office Division.

## DIVISION OF LAW OFFICE

### ANNUAL REPORT 1938

Briefs submitted for study and report.....	60
Drawing up of complaints for writs of summation in the Recorder's Court.....	71
Actions pleaded:.....	47
(a) maintained.....	45
(b) dismissed.....	1
(c) withdrawn.....	1
Inquiries made.	
Special inquiries: Application of Quebec Public Charities Act, of Lunatic Asylum Act and other Public Charities Regulations.....	15
Preparation of affidavits.....	2
Legal questions submitted and information given....	201
Legal advice to the Director and to the Superintend- ents of the various divisions of the Department of Health.....	189
Written reports.....	21
Drawing up of plans of regulations.....	1

DEPARTMENT OF LAW OFFICE  
OFFICE OF THE ATTORNEY GENERAL  
STATE OF NEW YORK

IN SENATE,  
January 10, 1907.  
REPORT  
OF THE  
ATTORNEY GENERAL,  
JAMES C. CLARK,  
IN RESPONSE TO A  
RESOLUTION PASSED  
BY THE SENATE,  
MAY 1, 1906,  
RELATIVE TO THE  
PROSECUTION OF  
THE CASE OF  
JAMES C. CLARK,  
IN THE MATTER OF  
THE ESTATE OF  
JAMES C. CLARK,  
DECEASED.

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## Division of Demography

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**DIVISION OF DEMOGRAPHY**

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Doctor Ad. Groulx,

Director of Health Department,  
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 1938.

Respectfully submitted,

**EUGENE GAGNON, M.D.**

Superintendent, Division of Demography.

## COMMENTS OF THE DEMOGRAPHER

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).....	9,564
Rate per 1,000 population.....	10.71
from the above: Residents.....	8,433
Non residents..	1,131
Residents deceased elsewhere.....	692
Total residents' deaths.....	9,125
Rate per 1,000 population.....	10.22

Comparing the two last years 1937 and 1938 the following main facts are outstanding:

	1937	1938	Increase or decrease in 1938
1. Population (estimated).....	885,000	893,000	+ 8,000
2. Births.....	17,180	17,062	- 118
Rate per 1,000 population..	19.41	19.10	- 0.31
3. Marriages.....	8,305	8,608	+ 303
Rate per 1,000 population..	9.38	9.64	+ 0.26
4. Deaths.....	9,738	9,125	- 613
Rate per 1,000 population..	11.00	10.22	- 0.78
5. Influenza.....	215	133	- 82
Rate per 1,000 population..	0.24	0.15	- 0.09
6. Tuberculosis (all forms)....	726	668	- 58
Rate per 1,000 population..	0.82	0.75	- 0.07
7. Infectious and parasitic diseases (T.B. excepted)....	353	223	- 130
Rate per 1,000 population..	0.40	0.25	- 0.15
8. Pneumonia and Broncho- pneumonia.....	779	660	- 119
Rate per 1,000 population..	0.88	0.74	- 0.14
9. Cancer.....	1,031	1,099	+ 68
Rate per 1,000 population..	1.16	1.23	+ 0.07
10. Deaths from violence.....	448	431	- 17
Rate per 1,000 population..	0.51	0.48	- 0.03
11. Deaths under 1 year.....	1,547	1,320	- 227
Rate per 1,000 births.....	90.0	77.4	- 12.6
12. Malformations and diseases of early infancy.....	633	611	- 22
Rate per 1,000 births.....	36.8	35.8	- 1.0
13. Diarrhœa under 1 year.....	302	194	- 108
Rate per 1,000 births.....	17.6	11.4	- 6.2

This table shows, for year 1938, an increase for population, marriages and cancer. There is a more or less great decrease for all the other items. One should note that the total number of deaths is 613 less and that one third of this diminution is accountable to the group of children under one year of age. Notwithstanding a greater number of marriages, the births have been less than the figures obtained in 1937 and the birth rate has been lowered by 0.31 per 1,000 of population.

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		
	1936	1937	1938	1936	1937	1938
I—Epidemic diseases:						
Typhoid.....	8	16	17	0.01	0.02	0.02
Diphtheria.....	18	26	27	0.02	0.03	0.03
Influenza.....	119	215	133	0.14	0.24	0.15
Tuberculosis (pulmonary)....	627	615	585	0.72	0.69	0.67
Other infectious diseases.....	317	422	262	0.36	0.48	0.29
Total.....	1,089	1,294	1,024	1.25	1.46	1.15
II to V—General diseases:						
Cancer.....	990	1,031	1,099	1.13	1.16	1.23
Other general diseases.....	447	497	548	0.51	0.57	0.61
Total.....	1,437	1,528	1,647	1.64	1.73	1.84
VI—Diseases of nervous system.....	428	522	412	0.49	0.59	0.46
VII—Diseases of circulatory system..	2,009	2,208	2,144	2.29	2.50	2.40
VIII—Diseases of respiratory system..	870	906	783	0.99	1.02	0.88
IX—Diseases of the digestive organs:						
Diarrhoea, 0 to 2 years.....	200	333	208	0.23	0.38	0.23
Other dis. of the digestive sys.	546	553	566	0.62	0.63	0.63
Total.....	746	886	774	0.85	1.01	0.86
X—Diseases of genito-urinary system	1,178	1,133	1,126	1.35	1.28	1.26
XI—Puerperal state.....	88	81	77	0.10	0.09	0.09
XII—Diseases of the skin.....	39	28	29	0.04	0.03	0.03
XIII—Diseases of the bones.....	7	18	15	0.01	0.02	0.02
XIV—Congenital malformation.....	116	128	120	0.13	0.14	0.13
XV—Diseases of early infancy:						
Debility, etc. (158-160-161)..	174	186	200	0.20	0.21	0.22
Premature birth (159).....	324	319	291	0.37	0.36	0.33
Total.....	498	505	491	0.57	0.57	0.55
XVI—Senility.....	41	31	38	0.05	0.04	0.04
XVII—Violent or accidental deaths:						
Suicides.....	51	65	52	0.06	0.07	0.06
Homicides.....	13	19	15	0.02	0.02	0.02
Other violent deaths.....	296	364	364	0.33	0.41	0.41
Total.....	360	448	431	0.41	0.50	0.49
XVIII—Cause of death not determined.	28	22	14	0.03	0.02	0.01
Grand total.....	8,934	9,738	9,125	10.21	11.00	10.21

Comments on this table are quite unnecessary. Cancer is about the only cause showing a notable rate increase. All the other groups of causes are either practically at the same level as in 1936 and 1937 or even at a much lower one. Taken as a whole, year 1938 is comparable to 1936 which was an exceptionally favourable one.

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.

**PERCENT OF DEATHS FOR EACH OF THE THREE  
FOLLOWING AGE GROUPS**

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.....	17.69	24.94	57.37	100.0
Average.....	30.93	26.41	42.66	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 7,937 in 1938 while during the preceding ten years the average has been 9,339 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 thirteen 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

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.

In the second group, (5 to 9 years, column 5) the lowering trend starts with year 1935 with a small difference for the last five years. The third group (10 to 14 years, column 6) is still rising, but it is easy to see that the rate of increase is lessening. There is no merit in predicting that within the next two years this group will also have reached the top and started to decline.

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 to 1934 and 1,505 for the next three years. In 1938 the number of children between 5 to 14 years has been lowered by 328.

Of the aforesaid one may conclude that the number of new pupils entering school has already passed over the top and has begun to decline; that after 1938, the number of pupils registered in grades higher than the fourth, also begins to decrease. As regards the high school classes, one must expect that the number of registrations will still continue to increase during two or three years. This does not mean however that the increment in the number of school children will continue for that period, because the higher grades will soon have to compensate the loss in the lower ones.

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.

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 and is the one adopted to standardize the mortality rate of this city. For that purpose the standard million is divided into a certain number of age groups.

The following table compares the population of Montreal in 1938 to the standard million.

Age groups	Montreal			Standard million England and Wales in 1901	Difference for Montreal
	% at each age group	Population in 1938	Age distribution per 1,000,000		
0 to 4 years...	8.73	77,995	87,340	114,262	- 26,922
5 to 9 years...	9.64	86,092	96,408	107,209	- 10,801
10 to 14 years...	9.69	86,488	96,851	102,735	- 5,884
15 to 19 years...	9.92	88,586	99,200	99,796	- 596
20 to 24 years...	10.02	89,479	100,200	95,946	+ 4,254
25 to 34 years...	17.98	160,561	179,801	161,579	+ 18,222
35 to 44 years...	14.23	127,074	142,300	122,849	+ 20,451
45 to 54 years...	10.01	89,389	100,100	89,222	+ 10,878
55 to 64 years...	5.72	51,080	57,200	59,741	- 2,541
65 years and over	4.06	36,256	40,600	46,661	- 6,061
Total.....	100.00	893,000	1,000,000	1,000,000	

It is seen that the million population of Montreal is lower than the standard million for all age groups under 20 and those over 55 years.

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.

Age 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....	1,613	20.68	1.8062	2.3629	+ .5567
5 to 9 years....	133	1.54	0.1385	0.1651	+ .0266
10 to 14 years....	115	1.33	0.1288	0.1366	+ .0078
15 to 19 years....	171	1.93	0.1915	0.1926	+ .0011
20 to 24 years....	229	2.56	0.2565	0.2456	- .0109
25 to 34 years....	468	2.91	0.5232	0.4702	- .0530
35 to 44 years....	704	5.54	0.7883	0.6806	- .1077
45 to 54 years....	1,042	11.66	1.1672	1.0403	- .1269
55 to 64 years....	1,415	27.70	1.5844	1.6548	+ .0704
65 years and over	3,235	89.23	3.6227	4.1636	+ .5409
Total.....	9,125	10.21	10.2073	11.1123	+ .9050

The adjusted or standardized rate is slightly higher (.9050) than the gross rate. But in England and Wales, the mean rate for years 1900-1901-2, has been 17.02 per thousand population; therefore, the Montreal rate when increased to 11.11 per thousand is favorably compared to the one of England, the difference in favor of Montreal between the two rates being 34.72 per cent.

It must 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.

### Deaths by months.

The number of deaths in 1938 has been 9,125 which is 613 less than the previous year, and 28 less than the mean number of the preceding five years.

### NUMBER OF DEATHS PER MONTH 1933 TO 1938

#### Comparison of 1938 with the five previous years.

Months	1933	1934	1935	1936	1937	Mean 5 years	1938
January.....	803	818	784	825	868	820	795
February.....	744	695	802	754	946	788	758
March.....	808	869	951	798	883	862	863
April.....	797	825	840	758	876	819	876
May.....	812	857	934	784	925	862	829
June.....	813	710	682	722	750	735	734
July.....	655	662	626	669	738	670	653
August.....	676	673	664	654	748	683	679
September.....	710	701	636	695	754	699	701
October.....	736	659	682	741	727	709	730
November.....	698	722	734	756	676	717	746
December.....	723	764	827	778	847	788	761
Total.....	8,975	8,955	9,162	8,934	9,738	9,153	9,125
Mean.....	747.9	746.3	763.5	744.5	811.5	762.7	760.4
Per 1,000 population..	10.6	10.5	10.6	10.2	11.0	10.6	10.2

The average number of deaths each month in 1938 is lower by 2 than the monthly average for the previous five years. The highest average daily incidence of deaths was in the month of April with 29 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 1938 has been higher for the months of March, April, September, October, November and lower for the other months.

### 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 1938 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 1938 has been 16,544. 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 Protonotary's Office, we have found that 518 births registered had not been reported to us which is 3.04 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.....	12,388	12,534	146	1.16
(b) English.....	844	893	49	5.48
(c) Others.....	545	571	26	4.55
2. Anglican churches...	643	720	77	10.69
3. United churches.....	575	667	92	13.79
4. Presbyterian churches	168	188	20	10.64
5. Baptist churches.....	30	40	10	25.00
6. Greek Orthodox.....	95	112	17	14.28
7. Other protestant churches.....	129	146	17	11.64
8. Synagogues.....	671	735	64	8.71
9. Municipal regist.....	456	456	...	....
Total.....	16,544	17,062	518	3.04

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

Legitimacy

Religious Denominations	Grand total	TOTAL		Sex	French
		Male	Female		
Roman Catholics:					
French.....	11,657	5,885	5,772	M F	5,687 5,614
English.....	878	475	403	M F	56 41
Others.....	569	290	279	M F	8 3
Anglicans.....	701	332	369	M F	19 14
United.....	623	331	292	M F	17 21
Presbyterian.....	187	93	94	M F	5 2
Other Protestants.....	177	98	79	M F	14 6
Greek Orthodox.....	112	62	50	M F	.. ..
Synagogues.....	735	442	293	M F	.. ..
Municipal.....	436	165	271	M F	14 17
Total—Legitimate.....	16,075	8,173	7,902	M F	5,820 5,718

## LEGITIMATE BIRTHS

igion, sex and racial origin

ths

English	Scotch	Irish	Other British	Jews	Italian	Ruthenian Polish	Tzecho Slovak	Other races	Race unknown
51	12	45	..	1	50	3	..	36	..
45	12	39	..	..	31	..	..	31	..
01	30	250	3	1	7	6	2	19	..
07	27	192	4	..	9	2	1	20	..
6	..	2	..	..	160	22	13	79	..
1	2	2	..	..	149	33	18	71	..
39	25	32	1	..	1	1	..	14	..
67	39	28	5	..	1	2	..	13	..
42	85	23	7	..	8	..	1	48	..
22	60	35	4	..	9	1	2	38	..
33	39	9	..	..	3	..	1	3	..
28	52	4	..	..	6	..	..	2	..
36	4	1	..	..	5	..	8	30	..
29	9	1	2	..	9	..	3	20	..
..	..	..	..	..	..	..	..	62	..
..	..	..	..	..	..	..	..	50	..
..	..	..	..	442	..	..	..	..	..
..	..	..	..	293	..	..	..	..	..
80	25	14	2	9	3	3	2	13	..
78	24	13	..	120	2	1	1	15	..
88	220	376	13	453	237	35	27	304	..
77	225	314	15	413	216	39	25	260	..

## LEGITIMATE AND

Classified according to

Illegitimate

Religious Denominations	Grand total	TOTAL		Sex	French
		Male	Female		
Roman Catholics:					
French .....	877	478	399	M F	427 354
English .....	15	9	6	M F	.. 1
Others .....	2	1	1	M F	.. ..
Anglicans .....	19	11	8	M F	1 ..
United .....	44	22	22	M F	.. 4
Presbyterian .....	1	1	..	M F	.. ..
Other Protestants .....	9	4	5	M F	1 2
Greek Orthodox .....	..	..	..	M F	.. ..
Synagogues .....	..	..	..	M F	.. ..
Municipal .....	20	8	12	M F	.. ..
Total—Illegitimate .....	987	534	453	M F	429 361
Grand Total .....	17,062	8,707	8,355	M F	6,249 6,079

## LEGITIMATE BIRTHS

igion. sex and racial origin

rths

English	Scotch	Irish	Other British	Jews	Italian	Ruthenian Polish	Tzecho Slovak	Other races	Race unknown
13	5	15	1	..	3	..	..	10	4
13	5	14	..	..	2	..	..	3	8
2	1	6	..	..	..	..	..	..	..
..	..	4	..	..	1	..	..	..	..
..	..	..	..	..	1	..	..	..	..
1	..	..	..	..	..	..	..	..	..
7	2	1	..	..	..	..	..	..	..
4	..	1	..	..	1	..	..	2	..
8	1	4	1	..	1	1	..	6	..
13	1	..	..	..	..	..	..	4	..
1	..	..	..	..	..	..	..	..	..
..	..	..	..	..	..	..	..	..	..
1	1	..	..	..	..	..	..	1	..
2	..	1	..	..	..	..	..	..	..
..	..	..	..	..	..	..	..	..	..
..	..	..	..	..	..	..	..	..	..
..	..	..	..	..	..	..	..	..	..
3	..	..	..	..	..	..	..	2	3
6	1	..	..	..	..	..	..	1	4
35	10	26	2	..	5	1	..	19	7
39	7	20	..	..	4	..	..	10	12
723	230	402	15	453	242	36	27	323	7
716	232	334	15	413	220	39	25	270	12

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.....	276,811	293,816	570,627	63.90%
British-Canadians.....	94,806	99,868	194,674	21.80%
Jews.....	26,513	26,620	53,133	5.95%
Other nationalities.....	44,672	29,894	74,566	8.35%
TOTAL.....	442,802	450,198	893,000	100.00%

TABLE II

### BIRTHS

	Sex		Total	Proportion per 1,000 population
	M	F		
French-Canadians.....	6,249	6,079	12,328	21.60%
British-Canadians.....	1,370	1,297	2,667	13.70%
Jews.....	453	413	866	16.30%
Other nationalities.....	635	566	1,201	16.11%
TOTAL.....	8,707	8,355	17,062	19.10%

TABLE III

## DEATHS

(Still-births not included)

Nationalities:	Sex		Total	Proportion per 1,000 population
	M	F		
French-Canadians.....	3,216	3,039	6,255	10.96%
British-Canadians.....	1,012	922	1,934	9.93%
Jews.....	223	166	389	7.32%
Other nationalities and race unknown.....	348	199	547	7.34%
TOTAL.....	4,799	4,326	9,125	10.21%

TABLE IV

## MARRIAGES

	Total	Proportion per 1,000 population
French-Canadians.....	5,400	9.46%
British-Canadians.....	2,165	11.12%
Jews.....	610	11.48%
Other nationalities.....	433	5.81%
TOTAL.....	8,608	9.64%

**TABLE V**  
**BIRTHS AND MARRIAGES**

(By place of registration)

	Births		Total	Marriages
	M	F		
Catholic Churches:				
French-Canadians.....	6,363	6,171	12,534	5,400
Irish-Canadians.....	484	409	893	514
Others.....	291	280	571	282
<b>TOTAL.....</b>	<b>7,138</b>	<b>6,860</b>	<b>13,998</b>	<b>6,196</b>
Protestant Churches:				
Anglicans.....	343	377	720	598
Presbyterians.....	94	94	188	253
United Churches.....	353	314	667	714
Other protestants.....	102	84	186	174
<b>TOTAL.....</b>	<b>892</b>	<b>869</b>	<b>1,761</b>	<b>1,739</b>
Other denominations:				
Synagogues.....	442	293	735	610
Orthodox Churches.....	62	50	112	63
Births registered at the City Hall.....	173	283	456	...
<b>TOTAL.....</b>	<b>677</b>	<b>626</b>	<b>1,303</b>	<b>673</b>
<b>GRAND TOTAL...</b>	<b>8,707</b>	<b>8,355</b>	<b>17,062</b>	<b>8,608</b>

TABLE VI  
DEATH BY CIVIL STATUS AND NATIONALITIES, YEAR 1938

Civil status	French-Canadians		British-Canadians		Jews		Other nationalities and unknown nationalities		Total		Grand Total	Per-cent
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.		
Married.....	1,305 40.57	1,016 33.44	516 50.99	290 31.45	147 65.92	88 53.01	179 51.44	94 47.24	2,147 44.76	1,488 34.39	3,635 39.83	39.83%
Single.....	527 16.37	548 18.03	198 19.57	195 21.15	16 7.18	12 7.23	59 16.95	29 14.57	800 16.66	784 18.12	1,584 17.36	17.36%
Widowers and widows..	518 16.15	773 25.43	173 17.09	358 38.83	40 17.93	57 34.34	34 9.77	34 17.08	765 15.94	1,222 28.26	1,987 21.79	21.79%
Unknown.....	21 0.65	1 0.03	13 1.28	4 0.43	.....	.....	19 5.46	.....	53 1.10	5 0.11	58 0.63	0.63%
Children under 15 years.....	845 26.26	701 23.07	112 11.07	75 8.14	20 8.97	9 5.42	57 16.39	42 21.11	1,034 21.54	827 19.12	1,861 20.39	20.39%
Total.....	3,216 100.00	3,039 100.00	1,012 100.00	922 100.00	223 100.00	166 100.00	348 100.00	199 100.00	4,799 100.00	4,326 100.00	9,125 100.00	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.....	12,328	6,255	6,073	10.64%
British-Canadians.....	2,667	1,934	733	3.77%
Jews.....	866	389	477	8.98%
Other nationalities.....	1,201	547	654	8.77%
Not stated.....	.....	.....	.....	.....
<hr/>				
TOTAL.....	17,062	9,125	7,937	8.89%

TABLE VIII

## DEATHS OF CHILDREN UNDER 1 YEAR

Nationalities:	Births	Deaths from 0 to 1 year	Proportion per 1,000 births
French-Canadians.....	12,328	1,087	88.2
British-Canadians.....	2,667	143	53.2
Jews.....	866	20	23.1
Other nationalities and race un- known.....	1,201	70	58.3
<hr/>			
TOTAL.....	17,062	1,320	77.4

TABLE IX  
BIRTHS, MARRIAGES AND DEATHS  
From 1872 to 1938 inclusive

Years	Population	Deaths	Proportion per 1,000	Births	Proportion per 1,000	Marriages	Proportion per 1,000
Average from:							
1872 to 1883.....	134,505	4,131	30.71	6,057	45.29	1,327	9.88
1884 to 1888.....	180,951	5,589	30.88	7,653	42.29	1,826	10.09
1889 to 1893.....	219,802	5,527	25.14	9,292	42.27	2,143	9.75
1894 to 1898.....	244,794	6,010	24.55	9,796	40.05	2,033	8.30
1899 to 1903.....	272,603	6,873	25.21	9,925	36.41	2,483	9.11
1904 to 1908.....	339,158	7,782	22.94	12,481	36.80	3,503	10.33
1909 to 1913.....	459,281	9,937	21.63	17,705	38.50	4,930	10.73
1914 to 1918.....	533,501	11,103	20.81	20,373	38.18	6,128	9.61
1919 to 1923.....	618,561	10,477	16.96	20,704	33.48	6,864	10.12
1924 to 1928.....	690,300	9,983	14.46	21,124	30.60	6,287	9.11
1929 to 1933.....	809,000	10,269	12.69	20,107	24.85	6,383	7.89
1934.....	855,000	8,955	10.47	18,433	21.56	6,536	7.64
1935.....	863,000	9,162	10.62	17,361	20.12	7,035	8.15
1936.....	875,000	8,934	10.20	16,725	19.11	7,633	8.72
1937.....	885,000	9,738	11.00	17,180	19.41	8,305	9.38
1938.....	893,000	9,125	10.22	17,062	19.11	8,608	9.64

TABLE  
DEATHS FROM

Month	January			February			March			April			May		
DISEASES	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		
Whooping cough.....	1	3	4	1	2	3	1	2	3	2	2	4	1	2	
Influenza.....		5	5	6		6	4	6	10	6	1	7	3	3	
Tuberculosis.....					1	1					2	2			
Syphilis.....	1		1				2	1	3						
Other epidemic diseases.....	2		2		2	2	2	1	3	1	3	4	1	1	
General diseases (Nos. 45 to 77).....	1	1	2	1	1	2	2	2	4	2		2			
Meningitis.....		1	1	2		2	2		2	1		1			
Convulsions.....													1		
Other diseases of the nervous system.....	1	1	2				2	4	6	1	2	3	1	1	
Diseases of the circulatory system.....					1	1				2		2			
Bronchitis.....															
Broncho-pneumonia.....	7	11	18	7	8	15	22	13	35	37	16	53	22	13	35
Pneumonia.....	1		1	2	2	4	3	4	7	8	1	9	3	2	
Other diseases of the respiratory system.....							2		2	1		1	1		
Diseases of the stomach.....															
Diarrhœa.....	9		9	2	2	4	11	2	13	11	3	14	8	3	11
Other diseases of the digestive system.....				4		4									
Diseases of the genito-urinary system.....														1	
Diseases of the skin, etc. (Nos. 151 to 156).....	1		1				2	1	3				2		
Malformations.....	5		5	10	1	11	14		14	6	1	7	8	1	
Congenital debility.....	2		2	7	1	8	10	1	11	6		6	5		
Premature birth.....	29		29	21		21	27		27	26		26	25		2
Result of confinement.....	5		5	8		8	4		4	11		11	8		
Other diseases peculiar to early infancy.....	2		2	11		11	8		8	8		8	3		
External causes.....				2	1	3	4	1	5	1		1	2	1	
Ill-defined causes.....				1		1									
Total.....	67	22	89	85	22	107	122	38	160	130	31	161	95	28	123

## 1 YEAR, 1938

June		July			August			September			October			November			December			Grand Total		
0 to 6 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	...	4	4	...	5	5	...	6	6	...	3	3	...	...	...	...	...	...	1	19	20
...	...	1	2	3	...	1	1	2	2	4	3	...	3	1	1	2	2	...	2	15	17	32
...	1	...	...	...	...	...	...	...	...	...	...	...	...	1	1	2	...	1	1	21	17	38
1	1	1	1	2	1	2	3	...	...	...	...	1	1	...	...	...	...	...	...	2	8	10
...	1	1	1	2	1	...	1	...	...	...	1	1	2	3	...	3	...	...	...	10	3	13
2	3	...	...	...	...	2	2	2	1	3	1	...	1	1	1	2	...	2	2	11	15	26
...	...	...	...	...	...	...	...	1	...	1	2	...	2	...	...	...	...	...	...	9	4	13
2	5	...	1	1	...	...	...	...	...	...	...	...	...	2	...	2	...	...	...	10	4	14
...	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	...	2	5	...	5
1	3	...	3	3	1	1	2	3	1	4	1	1	2	3	2	5	1	2	3	16	19	35
1	1	1	...	1	...	...	...	...	...	...	1	...	1	...	...	...	...	...	...	4	2	6
...	...	...	...	...	...	...	...	1	...	1	...	...	...	...	...	...	...	...	...	1	...	1
5	14	1	3	4	6	2	8	7	1	8	9	5	14	9	4	13	9	3	12	145	84	229
1	2	...	...	...	...	...	...	2	...	2	2	...	2	1	...	1	1	...	1	24	10	34
...	1	1	...	1	...	...	...	...	1	1	...	...	...	...	...	...	...	...	...	6	1	7
...	...	...	...	...	2	...	2	...	1	1	...	...	...	...	1	1	...	...	...	2	2	4
2	14	11	6	17	19	14	33	17	8	25	15	5	20	16	3	19	10	5	15	141	53	194
...	1	...	1	1	...	...	...	1	...	1	1	...	1	1	...	1	1	...	1	9	1	10
...	...	...	...	...	...	...	...	...	...	...	1	1	...	...	...	...	...	...	...	...	2	2
...	...	...	...	...	1	...	1	...	...	...	...	...	...	...	...	...	1	...	1	7	1	8
...	13	6	...	6	6	2	8	5	2	7	7	...	7	10	1	11	9	2	11	99	10	109
...	2	2	...	2	2	...	2	6	1	7	5	...	5	7	...	7	8	...	8	62	3	65
...	22	17	...	17	19	...	19	24	...	24	17	...	17	32	...	32	32	...	32	291	...	291
...	5	4	...	4	6	...	6	6	...	6	5	...	5	7	...	7	5	...	5	74	...	74
...	4	3	...	3	7	...	7	4	...	4	1	...	1	4	...	4	6	...	6	61	...	61
...	...	1	...	1	1	1	2	...	...	...	2	...	2	...	1	1	...	...	...	13	5	18
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	1
96	96	50	22	72	72	30	102	81	24	105	73	17	90	98	15	113	87	15	102	1040	280	1320

TABLE  
DEATHS OF ILLEGITIMATE

Place of death	Crèche de la Miséricorde					Crèche St. Paul					L'Aide à la Femme				
Causes	0 to 3 mos.	3 mos. to 6 mos.	6 mos. to 1 year	Over 1 year	Total	0 to 3 mos.	3 mos. to 6 mos.	6 mos. to 1 year	Over 1 year	Total	0 to 3 mos.	3 mos. to 6 mos.	6 mos. to 1 year	Over 1 year	Total
Whooping-cough.....															
Diphtheria.....															
Grippe.....	9	1	1		11										
Syphilis.....	2	1			3						1	1		1	3
Tuberculosis.....								3	1	4	1		1		2
Meningitis.....															
Bronchitis.....															
Broncho-pneumonia...	15	6	8		29	1		6	4	11	2	5	5	4	16
Pneumonia.....	1		1		2			1		1	1	1		4	6
Diarrhœa.....	9	1	2		12	3	3			6	11	9	1	4	25
Malformation.....	4				4						1			1	2
Premature birth.....	12				12						5				5
Congenital debility...	10	4	1		15						1				1
Other diseases of early infancy.....	6				6						5				5
Infanticide.....															
Other causes.....	14	4	1		19	2	2	2	2	8	2	2	16	15	37
Total.....	82	17	14		113	6	5	12	7	30	30	18	23	29	100
Per cent.....	72.6	15.0	12.4		100.0	20.0	16.7	40.0	23.3	100.0	30.0	18.0	23.0	29.0	100.0

Number of births at "Misericordia"..... 563  
 Number of deaths at "Misericordia" and "St. Paul"..... 136  
 Proportion per 1,000 births..... 241.6

I

## CHILDREN IN 1938

Protestant Institutions					Private boarding houses and maternities					Other places					Grand Total				
3 mos. to 6 mos.	6 mos. to 1 year	Over 1 year	Total		0 to 3 mos.	3 mos. to 6 mos.	6 mos. to 1 year	Over 1 year	Total	0 to 3 mos.	3 mos. to 6 mos.	6 mos. to 1 year	Over 1 year	Total	0 to 3 mos.	3 mos. to 6 mos.	6 mos. to 1 year	Over 1 year	Total
1			1												9	1	1		11
															3	2		1	6
1			1												1	1	4	1	7
		1	1		1				1	1		1	1	3	20	11	20	10	61
										1				1	3	1	2	4	10
1			1							4				4	27	14	3	4	48
1			1		1				1	2				2	9			1	10
5			5		5				5	14				14	41				41
															11	4	1		16
1			1		2				2	4				4	18				18
										9				9	9				9
										2			2	4	18	10	19	19	66
7	2		1	10	9				9	35	2	1	3	41	169	44	50	40	303
0	20.0		10.0	100.0					100.0	85.4	4.9	2.4	7.3	100.0	55.8	14.5	16.5	13.2	100.0

TABLE XII

**TOTAL OF DEATHS FROM 0 TO 1 YEAR,  
FROM DIFFERENT CAUSES, YEARS  
1937 AND 1938**

Causes	1937			1938		
	0 to 6 months	6 to 12 months	Total	0 to 6 months	6 to 12 months	Total
Measles.....	5	29	34	1	19	20
Whooping cough.....	25	37	62	15	17	32
Influenza.....	26	14	40	21	17	38
Tuberculosis.....	2	4	6	2	8	10
Syphilis.....	20	4	24	10	3	13
Other epidemic diseases.....	11	5	16	11	15	26
General diseases (Nos. 45 to 77)	8	5	13	9	4	13
Meningitis.....	8	8	16	10	4	14
Convulsions.....	1	1	2	5	..	5
Other diseases of the nervous system.....	20	34	54	16	19	35
Diseases of the circulatory system.....	1	1	2	4	2	6
Bronchitis.....	2	3	5	1	..	1
Broncho-pneumonia.....	150	111	261	145	84	229
Pneumonia.....	15	18	33	24	10	34
Other diseases of the respiratory system.....	5	1	6	6	1	7
Diseases of the stomach.....	2	4	6	2	2	4
Diarrhœa.....	199	103	302	141	53	194
Other diseases of the digestive system.....	11	2	13	9	1	10
Diseases of the genito-urinary system.....	1	1	2	..	2	2
Diseases of the skin (Nos. 151 to 156).....	4	7	11	7	1	8
Malformation (No. 157).....	105	14	119	99	10	109
Debility, icterus, etc. (Nos. 158 to 161).....	116	1	117	123	3	126
Premature birth.....	319	..	319	291	..	291
Result of confinement (No. 160)	68	..	68	74	..	74
External causes.....	10	6	16	13	5	18
Ill-defined causes.....	..	..	..	1	..	1
Total.....	1,134	413	1,547	1,040	280	1,320

**TABLE XIIa**  
**DEATHS FROM 0 TO 1 YEAR**  
**Legitimate and illegitimate children**  
**Rate per 1,000 births, 1914-1938**

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	177.3	6.5
1918.....	19,654	719	3,256	646	165.7	898.4	191.5	5.4
Average.....	19,872	703	3,231	577	162.9	820.8	185.1	5.0
1919.....	19,159	800	2,945	698	153.7	872.5	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	734	138.6	772.6	167.7	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	4.5
1928.....	19,374	933	2,488	431	128.4	461.9	143.9	3.6
Average.....	20,099	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	108.4	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	5.0
Average 20 years..	19,697	930	2,501	578	127.0	621.5	149.3	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	65.2	266.5	77.4	4.1
	16,338	1,014	1,196	314	73.2	309.7	87.0	4.2

(\*) Quotient obtained by dividing the figures of column 7 by those of column 6.

TABLE XIII

Stillbirths, legitimate and illegitimate in 1938, causes of deaths, period of gestation and sex.

Causes of morbi-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.....	..	..	..	5	1	6	2	..	2	3	1	4	10	2	12
2-Toxaemia of pregnancy.....	4	1	5	18	15	33	8	13	21	25	22	47	55	51	106
3-Malformation incompatible with life.....	..	1	1	1	5	6	2	4	6	12	11	23	15	21	36
4-Other causes and causes not specified.....	3	1	4	10	1	11	16	10	26	24	15	39	53	27	80
II—Mortality from premature birth:															
5-Maternal exertion (over-work).....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
6-Traumatism causing premature birth.....	1	..	1	2	1	3	..	..	..	..	..	..	3	1	4
7-Abnormal placental insertion.....	..	..	..	1	..	1	1	3	4	..	..	..	2	3	5
8-Acute diseases and infections.....	..	..	..	1	1	2	1	4	5	..	..	..	2	5	7
9-Chronic infection (syphilis).....	..	..	..	1	1	2	..	2	2	..	..	..	1	3	4
10-Other causes and causes not specified.....	3	2	5	4	5	9	8	8	16	..	..	..	15	15	30
III—Foetal mortality during "parturition":															
Foetus born at full term or before term.															
11-Abnormal presentation and prolapsed cord...	..	..	..	..	..	..	..	..	..	30	13	43	30	13	43
12-Obstacles to parturition.....	..	..	..	..	..	..	..	..	..	82	53	135	82	53	135
13-Other causes and causes not specified.....	..	..	..	..	..	..	..	..	..	5	4	9	5	4	9
IV—Grand Total.....	11	5	16	43	30	73	38	44	82	181	119	300	273	198	471

TABLE XIIIa

Premature, born under six and a half months gestation and not included in stillbirths statistics, year 1938

Causes of morti-natality	Under 4 months				4 months				5 and 6 months				Grand Total			
	M		Un.		Tot.		M		F		Tot.		M		F	
I—Foetal morti-natality during "gestations":																
1-Syphilis and other chronic diseases.....	1	..	2	3	..	..	..	..	..	..	..	..	3	..	3	8
2-Toxaemia of pregnancy.....	18	5	3	26	..	9	..	2	11	20	18	38	47	25	3	75
3-Malformation incompatible with life.....	2	..	1	3	..	1	..	..	1	3	3	6	6	3	1	10
4-Other causes and causes not specified.....	9	1	2	12	..	10	3	3	13	14	2	16	33	6	2	41
II—Morti-natality from premature birth:																
5-Maternal exertion (overwork).....	4	..	..	4	..	5	..	..	5	6	5	11	15	5	..	20
6-Traumatism causing premature birth.....	5	..	..	5	..	4	..	2	6	5	10	15	14	12	..	26
7-Abnormal placenta insertion.....	2	..	..	2	..	4	..	2	6	11	5	16	17	7	..	24
8-Acute diseases and infections.....	5	..	..	5	..	2	..	..	2	12	9	21	19	9	..	28
9-Chronic infection (syphilis).....	2	..	..	2	..	..	..	2	2	4	4	8	6	6	..	12
10-Other causes and causes not specified.....	9	2	3	14	..	5	6	6	11	28	13	41	42	21	3	66
III—Foetal morti-natality during "parturition":																
11-Abnormal presentation and prolapsed cord.....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
12-Obstacles to parturition.....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
13-Other causes and causes not specified.....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
IV—Grand Total.....	57	8	11	76	..	40	17	57	105	72	177	202	97	11	310	

**TABLE**  
**DEATHS BY AGES.**

AGES		Legitimates					Total
		French-Canadians	British-Canadians	Jews	Other nationalities	Unknown	
Premature children.....	M	126	15	3	3	....	147
	F	88	10	....	4	....	102
From 0 to 1 month.....	M	114	26	5	10	....	155
	F	96	14	2	2	....	114
From 1 month to 6 months.....	M	141	25	4	19	....	189
	F	102	9	3	6	....	120
From 6 months to 1 year.....	M	100	16	3	7	....	126
	F	94	7	....	3	....	104
Total under 1 year.....	M	481	82	15	39	....	617
	F	380	40	5	15	....	440
From 1 year to 2 years.....	M	55	2	....	2	....	59
	F	62	6	1	5	....	74
From 2 years to 3 years.....	M	26	4	1	....	....	31
	F	22	2	....	4	....	28
From 3 years to 4 years.....	M	21	....	....	1	....	22
	F	12	1	....	....	....	13
From 4 years to 5 years.....	M	14	2	1	2	....	19
	F	7	....	....	....	....	7
Total under 5 years.....	M	597	90	17	44	....	748
	F	483	49	6	24	....	562
From 5 years to 9 years.....	M	64	4	1	4	....	73
	F	44	8	2	6	....	60
From 10 years to 14 years.....	M	44	5	2	1	....	52
	F	53	6	1	3	....	63
From 15 years to 19 years.....	M	74	7	1	4	....	86
	F	62	13	2	8	....	85
From 20 years to 24 years.....	M	70	19	5	9	....	103
	F	99	11	3	13	....	126
From 25 years to 29 years.....	M	73	14	8	6	....	101
	F	100	15	5	10	....	130
From 30 years to 34 years.....	M	73	18	3	12	2	108
	F	97	17	5	10	....	129
From 35 years to 39 years.....	M	93	22	6	18	....	139
	F	122	32	4	2	....	160
From 40 years to 44 years.....	M	139	45	10	24	2	220
	F	130	32	11	12	....	185
From 45 years to 49 years.....	M	173	65	11	35	....	284
	F	108	44	11	12	....	175
From 50 years to 54 years.....	M	197	75	21	36	3	332
	F	168	60	10	13	....	251
From 55 years to 59 years.....	M	226	105	26	43	....	400
	F	170	57	21	14	....	262
From 60 years to 64 years.....	M	238	135	27	32	....	432
	F	196	78	33	14	....	321
From 65 years to 69 years.....	M	285	107	29	24	....	445
	F	224	91	20	13	....	348
From 70 years to 79 years.....	M	495	210	38	28	....	771
	F	499	227	22	23	....	771
From 80 years to 89 years.....	M	209	72	13	11	....	305
	F	323	139	7	10	....	479
90 years and over.....	M	26	6	5	2	....	39
	F	40	31	3	3	....	77
Total over 5 years.....	M	2,479	909	206	289	7	3,890
	F	2,435	861	160	166	....	3,622
Grand total.....	M	3,076	999	223	333	7	4,638
	F	2,918	910	166	190	....	4,184

V

AR 1938

French-Canadians	Illegitimates				Total	Sex		Grand total	Percentage of total deaths
	British-Canadians	Jews	Other nationalities	Unknown		Male	Female		
18	4	....	....	....	22				
16	3	....	1	....	20	169	122	291	3.19
15	2	....	1	4	22				
19	2	....	1	5	27	177	141	318	3.49
58	5	....	3	....	66				
51	4	....	1	....	56	255	176	431	4.72
27	....	....	....	....	27				
22	1	....	....	....	23	153	127	280	3.07
18	11	....	4	4	137				
108	10	....	3	5	126	754	566	1,320	14.47
17	1	....	....	....	18				
8	2	....	1	....	11	77	85	162	1.78
5	1	....	....	....	6				
4	....	....	....	....	4	37	32	69	0.76
...	....	....	....	....	....	22	13	35	0.38
1	....	....	....	....	1	19	8	27	0.30
140	13	....	4	4	161				
121	12	....	4	5	142	909	704	1,613	17.69
...	....	....	....	....	....	73	60	133	1.45
...	....	....	....	....	....	52	63	115	1.26
...	....	....	....	....	....	86	85	171	1.87
...	....	....	....	....	....	103	126	229	2.51
...	....	....	....	....	....	101	130	231	2.53
...	....	....	....	....	....	108	129	237	2.60
...	....	....	....	....	....	139	160	299	3.28
...	....	....	....	....	....	220	185	405	4.44
...	....	....	....	....	....	284	175	459	5.03
...	....	....	....	....	....	332	251	583	6.39
...	....	....	....	....	....	400	262	662	7.25
...	....	....	....	....	....	432	321	753	8.25
...	....	....	....	....	....	445	348	793	8.69
...	....	....	....	....	....	771	771	1,542	16.90
...	....	....	....	....	....	305	479	784	8.59
...	....	....	....	....	....	39	77	116	1.27
...	....	....	....	....	....	3,890	3,622	7,512	82.31
140	13	....	4	4	161				
121	12	....	4	5	142	4,799	4,326	9,125	100.00

TABLE XV  
DEATHS BY AGES, NATIONALITIES AND MONTHS, FOR 1938

Nationalities:	French-Canadians		British-Canadians		Jews		Other nationalities		Unknown		Grand total	
	Deaths	%	Deaths	%	Deaths	%	Deaths	%	Deaths	%	Deaths	%
January:												
Under 5 years.....	97	18.10	15	8.11	25	100.00	7	14.29	....	....	119	14.97
Over 5 years.....	439	81.90	170	91.89	....	100.00	42	85.71	....	....	676	85.03
Total.....	536	100.00	185	100.00	25	100.00	49	100.00	....	....	795	100.00
February:												
Under 5 years.....	110	20.91	14	9.03	2	6.25	6	13.95	2	100.00	134	17.68
Over 5 years.....	416	79.09	141	90.97	30	93.75	37	86.05	....	....	624	82.32
Total.....	526	100.00	155	100.00	32	100.00	43	100.00	2	100.00	758	100.00
March:												
Under 5 years.....	159	25.90	12	7.10	4	11.11	13	32.50	4	100.00	192	22.25
Over 5 years.....	455	74.10	157	92.90	32	88.89	27	67.50	....	....	671	77.75
Total.....	614	100.00	169	100.00	36	100.00	40	100.00	4	100.00	863	100.00
April:												
Under 5 years.....	152	24.68	20	11.05	4	11.11	9	20.93	....	....	185	21.12
Over 5 years.....	464	75.32	161	88.95	32	88.89	34	79.07	....	....	691	78.88
Total.....	616	100.00	181	100.00	36	100.00	43	100.00	....	....	876	100.00
May:												
Under 5 years.....	126	22.58	14	7.74	2	5.71	4	8.00	2	40.00	148	17.85
Over 5 years.....	432	77.42	167	92.26	33	94.29	46	92.00	3	60.00	681	82.15
Total.....	558	100.00	181	100.00	35	100.00	50	100.00	5	100.00	829	100.00
June:												
Under 5 years.....	107	21.66	8	5.26	....	100.00	4	7.41	....	....	119	16.21
Over 5 years.....	387	78.34	144	94.74	33	100.00	50	92.59	1	100.00	615	83.79
Total.....	494	100.00	152	100.00	33	100.00	54	100.00	1	100.00	734	100.00
July:												
Under 5 years.....	84	18.38	9	7.09	2	9.09	4	8.89	....	....	99	15.17
Over 5 years.....	373	81.62	118	92.91	20	90.91	41	91.11	2	100.00	554	84.83
Total.....	457	100.00	127	100.00	22	100.00	45	100.00	2	100.00	653	100.00

TABLE XV  
DEATHS BY AGES, NATIONALITIES AND MONTHS, FOR 1938—(Continued)

Nationalities:	French-Canadians		British-Canadians		Jews		Other nationalities		Unknown		Grand total	
	Deaths	%	Deaths	%	Deaths	%	Deaths	%	Deaths	%	Deaths	%
August:												
Under 5 years.....	105	23.03	17	11.49	2	6.06	7	16.67	.....	.....	131	19.29
Over 5 years.....	351	76.97	131	88.51	31	93.94	35	83.33	.....	.....	548	80.71
Total.....	456	100.00	148	100.00	33	100.00	42	100.00	.....	.....	679	100.00
September:												
Under 5 years.....	105	21.56	9	6.72	3	7.69	7	17.50	.....	.....	124	17.69
Over 5 years.....	382	78.44	125	93.28	36	92.31	33	82.50	1	100.00	577	82.31
Total.....	487	100.00	134	100.00	39	100.00	40	100.00	1	100.00	701	100.00
October:												
Under 5 years.....	89	18.62	13	7.51	2	5.45	4	9.76	1	100.00	109	14.93
Over 5 years.....	389	81.38	160	92.49	35	94.55	37	90.24	.....	.....	621	85.07
Total.....	478	100.00	173	100.00	37	100.00	41	100.00	1	100.00	730	100.00
November:												
Under 5 years.....	106	20.66	21	13.21	.....	.....	5	11.90	.....	.....	132	17.69
Over 5 years.....	407	79.34	138	86.79	32	100.00	37	88.10	.....	.....	614	82.31
Total.....	513	100.00	159	100.00	32	100.00	42	100.00	.....	.....	746	100.00
December:												
Under 5 years.....	101	19.42	12	7.06	2	6.89	6	14.29	.....	.....	121	15.90
Over 5 years.....	419	80.58	158	92.94	27	93.11	36	85.71	.....	.....	640	84.10
Total.....	520	100.00	170	100.00	29	100.00	42	100.00	.....	.....	761	100.00
Total:												
Under 5 years.....	1341	21.44	164	8.48	23	5.90	76	14.31	9	56.25	1613	17.68
Over 5 years.....	4914	78.56	1770	91.52	366	94.10	455	85.69	7	43.75	7512	82.32
Grand Total.....	6255	100.00	1934	100.00	389	100.00	531	100.00	16	100.00	9125	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.....	12	4	5	7	9	2	16	...
Bourget.....	38	14	16	9	19	1	23	...
Crémazie.....	23	5	8	2	25	1	31	1
Delorimier.....	35	8	12	12	50	4	51	...
Hochelaga.....	32	12	17	10	29	4	32	...
Lafontaine.....	6	1	1	4	13	...	10	...
Laurier.....	18	8	3	5	22	...	14	...
Maisonneuve.....	35	10	5	6	44	...	31	...
Mercier.....	18	5	6	8	33	1	16	...
Montcalm.....	20	5	6	7	27	2	15	...
Mount Royal.....	8	...	1	3	12	1	13	...
Notre-Dame de Grâces.....	24	3	5	7	47	1	40	...
Papineau.....	42	8	9	8	30	...	26	...
Préfontaine.....	17	4	12	7	28	1	21	...
Rosemount.....	61	15	14	21	58	2	40	...
St. Andrew.....	4	2	2	2	38	2	24	...
St. Ann.....	20	3	2	8	25	1	8	...
Ste. Cunégonde.....	33	12	5	6	38	...	12	...
St. Denis.....	19	7	7	7	28	2	21	...
St. Edward.....	30	5	12	7	51	3	28	...
St. Eusèbe.....	33	10	10	5	30	...	21	...
St. Gabriel.....	20	11	9	3	28	1	18	...
St. George.....	8	...	2	1	17	1	16	2
St. Henry.....	48	12	8	7	43	...	30	...
St. James.....	30	8	6	5	33	3	36	...
St. John.....	22	7	11	11	39	2	21	...
St. Jean Baptiste.....	28	7	8	6	31	4	27	...
St. Joseph.....	9	3	4	5	14	...	13	...
St. Lawrence.....	11	4	4	2	22	3	33	...
St. Louis.....	18	1	5	3	26	...	16	...
St. Mary.....	23	9	9	9	20	2	14	...
St. Michael.....	14	1	2	4	26	...	19	...
St. Paul.....	28	9	9	13	41	1	19	...
Villemarie.....	18	2	6	1	10	2	12	...
Villeray.....	58	16	17	26	70	4	53	1
Unknown.....	8	...	...	...	3	...	2	5
Institutions.....	170	49	38	1	7	2	59	2
Total.....	1,040	280	293	248	1,086	53	881	11

## VI

## ND BY WARDS, IN 1938

50 to 69 years				70 years and over				Total				Grand total
Married	Widowed	Single	Unknown	Married	Widowed	Single	Unknown	Married	Widowed	Single	Unknown	
34	7	4	..	12	21	5	..	55	30	53	..	138
61	28	10	2	19	42	4	..	99	71	111	2	283
41	17	13	3	12	20	5	1	78	38	87	5	208
110	28	13	..	32	61	8	..	192	93	139	..	424
50	12	3	..	22	33	3	..	101	49	109	..	259
22	11	4	..	19	22	4	..	54	33	30	..	117
58	12	6	1	23	30	5	..	103	42	59	1	205
68	19	9	1	22	39	9	1	134	58	97	2	291
47	9	5	1	23	24	1	..	103	34	59	1	197
33	11	1	..	14	17	..	..	74	30	54	..	158
25	8	6	..	10	19	..	..	47	28	31	..	106
122	30	17	..	54	116	22	2	223	147	118	2	490
40	10	7	2	19	27	7	..	89	37	107	2	235
28	13	3	..	14	20	..	..	70	34	64	..	168
70	21	2	..	36	48	5	..	164	71	158	..	393
52	21	24	..	22	49	51	..	112	72	79	..	263
29	8	9	..	14	14	6	..	68	23	56	..	147
39	10	12	..	37	32	4	..	114	42	84	..	240
54	27	9	..	28	36	5	..	110	65	75	..	250
67	19	6	..	40	56	8	1	158	78	96	1	333
33	18	4	..	17	20	3	..	80	38	86	..	204
36	12	6	1	17	24	1	..	81	37	68	1	187
26	22	19	..	12	21	12	..	55	44	58	2	159
50	25	6	1	17	40	6	..	110	65	116	1	292
56	19	16	..	18	44	7	..	107	66	108	..	281
46	12	3	1	12	35	1	..	97	49	76	1	223
60	35	9	1	25	52	13	2	116	91	98	3	308
19	11	11	1	12	9	6	..	45	20	51	1	117
57	24	28	3	11	29	8	3	90	56	90	6	242
48	12	2	..	10	34	1	..	84	46	46	..	176
26	9	4	..	12	23	3	..	58	34	71	..	163
63	24	4	..	28	38	1	..	117	62	45	..	224
52	14	2	..	24	26	4	..	117	41	84	..	242
18	3	9	..	12	11	1	1	40	16	49	1	106
113	20	9	1	49	57	8	..	232	81	187	2	502
2	2	2	3	..	..	1	1	5	2	13	9	29
22	20	89	2	23	145	125	11	52	167	531	15	765
777	603	386	24	771	1,334	315	23	3,634	1,990	3,443	58	9,125

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.....	138	8	8	16	11.6	4	1	5
Bourget.....	283	28	24	52	18.4	6	7	13
Crémazie.....	208	16	12	28	13.5	3	5	8
Delorimier.....	424	28	15	43	10.1	6	6	12
Hochelaga.....	259	24	20	44	17.0	8	9	17
Lafontaine.....	117	5	2	7	6.0	...	1	1
Laurier.....	205	16	10	26	12.7	1	2	3
Maisonnette.....	291	25	20	45	15.5	3	2	5
Mercier.....	197	12	11	23	11.7	2	4	6
Montcalm.....	158	13	12	25	15.8	1	5	6
Mount Royal.....	106	6	2	8	7.5	...	1	1
Notre-Dame de Grâces.....	490	16	11	27	5.5	2	3	5
Papineau.....	235	29	21	50	21.3	7	2	9
Préfontaine.....	168	14	7	21	12.5	6	6	12
Rosemount.....	393	47	29	76	19.3	8	6	14
St. Andrew.....	263	4	2	6	2.3	1	1	2
St. Ann.....	147	13	10	23	15.6	...	2	2
St. Cuthbert.....	240	24	21	45	18.8	2	3	5
St. Denis.....	250	17	9	26	10.4	5	2	7
St. Edward.....	333	20	15	35	10.5	6	6	12
St. Eusèbe.....	204	25	18	43	21.1	6	4	10
St. Gabriel.....	187	15	16	31	16.6	3	6	9
St. George.....	159	4	4	8	5.0	1	1	2
St. Henry.....	292	38	21	59	20.2	3	5	8
St. James.....	281	27	11	38	13.5	6	...	6
St. John.....	223	14	15	29	13.0	4	7	11
St. Jean Baptiste.....	308	16	19	35	11.4	5	3	8
St. Joseph.....	117	6	6	12	10.2	2	2	4
St. Lawrence.....	242	9	6	15	6.2	3	1	4
St. Louis.....	176	15	4	19	10.8	3	2	5
St. Mary.....	163	16	16	32	19.6	4	5	9
St. Michael.....	224	10	5	15	6.7	2	...	2
St. Paul.....	242	20	17	37	15.3	5	4	9
Ville-Marie.....	106	12	8	20	18.8	6	...	6
Villeray.....	502	44	30	74	14.7	8	9	17
Unknown.....	29	2	6	8	27.6	...	...	...
Institutions.....	765	120	99	219	28.7	23	15	38
Total.....	9,125	754	566	1,320	14.5	155	138	293

## VII

## COMPARED TO THE TOTAL OF DEATHS

ards, in 1938

DEATHS								
Per- centage of total deaths	0 to 5 years			Per- centage of total deaths	Over 5 years			Per- centage of total deaths
	M	F	Total		M	F	Total	
3.6	12	9	21	15.2	64	53	117	84.8
4.6	34	31	65	23.0	101	117	218	77.0
3.8	15	21	36	17.3	115	57	172	82.7
2.8	34	21	55	12.9	193	176	369	87.1
6.6	32	29	61	23.6	100	98	198	76.4
0.9	5	3	8	6.9	56	53	109	93.1
1.5	17	12	29	14.2	106	70	176	85.8
1.7	28	22	50	17.2	120	121	241	82.8
3.1	14	15	29	14.8	85	83	168	85.2
3.8	14	17	31	19.6	63	64	127	80.4
1.0	6	3	9	8.5	48	49	97	91.5
1.0	18	14	32	6.5	228	230	458	93.5
3.8	36	23	59	25.1	89	87	176	74.9
7.2	20	13	33	19.7	71	64	135	80.3
3.6	55	35	90	22.9	146	157	303	77.1
0.7	5	3	8	3.0	127	128	255	97.0
1.4	13	12	25	17.0	61	61	122	83.0
2.1	26	24	50	20.9	105	85	190	79.1
2.8	22	11	33	13.2	112	105	217	86.8
3.6	26	21	47	14.1	147	139	286	85.9
4.9	31	22	53	26.0	74	77	151	74.0
4.8	18	22	40	21.4	87	60	147	78.6
1.3	5	5	10	6.3	84	65	149	93.7
2.7	41	26	67	22.9	116	109	225	77.1
2.1	33	11	44	15.6	119	118	237	84.4
4.9	18	22	40	17.9	91	92	183	82.1
2.6	21	22	43	14.0	130	135	265	86.0
3.4	8	8	16	13.6	64	37	101	86.4
1.6	12	7	19	7.8	139	84	223	92.2
2.8	18	6	24	13.6	89	63	152	86.4
5.5	20	21	41	25.1	66	56	122	74.9
0.9	12	5	17	7.6	100	107	207	92.4
3.7	25	21	46	19.0	108	88	196	81.0
5.7	18	8	26	24.5	57	23	80	75.5
3.4	52	39	91	18.1	215	196	411	81.9
...	2	6	8	27.6	16	5	21	72.4
4.9	143	114	257	33.6	198	310	508	66.4
3.2	909	704	1,613	17.7	3,890	3,622	7,512	82.3

TABLE  
DEATHS BY CERTAIN

WARDS	1-2 Typhoid fever	7 Measles	8 Scarlet fever	9 Whooping cough	10 Diphtheria	11 Influenza	23 Tuberculosis, pulmonary	24-32 Tuberculosis other forms	Other contagious diseases	45-53 Cancer
	1	2	3	4	5	6	7	8	9	10
1—Ahuntsic.....	...	1	1	1	1	2	12	2	...	10
2—Bourget.....	1	...	2	1	1	1	21	2	1	34
3—Crémazie.....	1	1	...	1	...	2	17	1	2	23
4—Delorimier.....	1	...	1	1	3	5	34	3	2	56
5—Hochelaga.....	2	...	...	1	3	5	18	1	4	30
6—Lafontaine.....	1	...	1	...	...	1	6	...	...	12
7—Laurier.....	...	...	...	...	...	3	8	1	...	28
8—Maisonneuve.....	...	1	...	1	...	3	26	4	1	33
9—Mercier.....	...	...	2	3	1	5	19	2	1	35
10—Montcalm.....	...	1	...	2	...	1	10	1	1	15
11—Mount Royal.....	...	...	...	...	...	1	5	1	2	14
12—Notre-Dame de Grâces.....	...	...	...	...	...	2	15	2	3	82
13—Papineau.....	1	...	...	...	1	1	11	3	3	28
14—Préfontaine.....	1	...	2	...	2	1	15	3	...	14
15—Rosemount.....	...	1	1	6	1	6	28	5	3	50
16—St. Andrew.....	...	...	...	1	...	2	16	1	1	40
17—St. Ann.....	...	...	...	1	...	2	6	1	1	19
18—Ste. Cunégonde.....	...	...	1	1	...	5	17	1	2	20
19—St. Denis.....	...	...	...	...	...	2	12	2	1	40
20—St. Edward.....	2	...	1	1	1	8	16	3	3	31
21—St. Eusèbe.....	...	...	...	2	...	2	8	1	1	18
22—St. Gabriel.....	2	1	...	...	1	4	9	3	4	25
23—St. George.....	...	...	...	...	...	...	10	...	1	30
24—St. Henry.....	1	...	...	1	1	1	17	3	5	33
25—St. James.....	1	...	...	3	...	2	18	3	4	38
26—St. John.....	1	...	...	4	1	8	14	1	1	24
27—St. Jean Baptiste.....	...	...	1	...	1	11	24	1	2	58
28—St. Joseph.....	...	1	...	2	...	2	12	3	1	11
29—St. Lawrence.....	...	...	...	1	1	2	19	3	2	42
30—St. Louis.....	...	1	1	1	...	4	19	2	3	18
31—St. Mary.....	1	...	1	2	1	2	10	1	2	19
32—St. Michael.....	...	...	...	2	...	3	14	5	1	33
33—St. Paul.....	1	1	...	...	1	3	16	2	5	25
34—Villemarie.....	...	...	...	1	1	1	10	...	1	7
35—Villeray.....	...	...	1	1	4	11	36	7	6	59
36—Unknown.....	...	...	...	...	...	...	1	...	...	...
37—Institutions.....	...	29	1	...	...	19	36	9	14	45
38—Total.....	17	38	17	41	26	133	585	83	84	1,099

## VIII

## DISEASES, BY WARDS, IN 1938

Diabetes	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
1	12	13	14	15	16	17	18	19	20	21	22	23
4	...	15	2	2	24	...	6	...	...	9	46	138
4	5	19	11	14	43	1	17	...	...	7	88	283
1	2	16	7	...	21	1	13	1	...	15	83	208
6	7	42	9	3	58	4	18	...	...	21	140	424
6	2	29	7	3	30	5	16	...	...	10	87	259
1	3	14	5	1	14	...	2	3	...	2	51	117
7	6	22	5	6	19	...	9	1	...	...	90	205
6	4	30	6	5	33	4	22	...	2	9	101	291
5	2	21	3	3	16	4	6	5	2	7	55	197
3	1	17	7	7	19	...	7	3	...	3	60	158
3	2	5	2	1	11	3	5	...	...	11	40	106
7	9	48	10	2	32	1	11	1	...	20	235	490
4	1	16	4	12	25	5	18	2	...	11	89	235
7	4	9	5	2	21	2	11	1	...	12	56	168
7	5	33	11	9	27	4	35	2	...	18	141	393
4	6	30	11	...	16	2	1	4	...	16	112	263
4	3	18	8	5	14	2	8	1	...	5	49	147
6	6	26	1	10	39	1	18	...	...	8	78	240
5	4	23	11	5	34	4	13	...	...	3	91	250
3	8	33	10	2	56	3	19	1	...	13	109	333
8	2	16	6	8	25	3	19	1	...	8	76	204
4	2	15	11	7	13	2	9	3	1	10	61	187
2	6	16	6	1	10	...	5	2	...	6	64	159
6	7	30	17	9	35	1	22	1	...	16	86	292
1	3	28	4	11	39	3	13	2	1	12	85	281
7	3	12	10	2	19	3	12	2	...	7	92	223
8	6	31	5	5	31	2	13	1	...	10	98	308
3	...	6	5	3	16	...	2	4	...	7	39	117
8	5	25	3	2	14	2	5	2	...	9	97	242
7	3	14	3	3	11	...	8	...	...	7	71	176
2	...	12	4	5	26	2	6	1	...	9	57	163
10	5	19	10	1	17	...	7	2	...	11	84	224
7	1	25	18	5	19	5	15	1	...	8	84	242
3	3	10	3	1	8	...	12	1	...	9	35	106
7	10	40	14	10	64	7	34	1	...	171	73	502
1	...	1	...	...	...	1	1	2	9	11	4	31
5	12	91	24	43	76	...	53	1	...	7	298	763
32	148	857	278	208	975	77	491	52	15	364	3,305	9,125

TABLE XIX  
DEATHS BY AGES, QUARTERS OR SEASONS, IN 1938

AGES	1st quarter (Winter)				2nd quarter (Spring)				3rd quarter (Summer)				4th quarter (Autumn)				Grand total
	January	February	March	Total 1st quarter	April	May	June	Total 2nd quarter	July	August	September	Total 3rd quarter	October	November	December	Total 4th quarter	
From 0 to 1 month.....	49	54	69	172	63	57	39	159	33	40	44	117	37	61	63	161	609
From 1 to 6 months.....	18	31	53	102	67	38	41	146	17	32	37	86	36	37	24	97	431
From 6 months to 1 year.....	22	22	38	82	31	28	16	75	22	30	24	76	17	15	15	47	280
From 1 to 2 years.....	17	16	16	49	11	18	11	40	19	19	6	44	8	10	11	29	162
From 2 to 3 years.....	9	7	9	25	4	4	5	13	5	5	9	19	5	5	2	12	69
From 3 to 4 years.....	4	2	3	9	1	3	6	10	3	3	..	6	3	2	5	10	35
From 4 to 5 years.....	..	2	4	6	8	..	1	9	..	2	4	6	3	2	1	6	27
Total under 5 years.....	119	134	192	445	185	148	119	452	99	131	124	354	109	132	121	362	1,613
Over 5 years.....	676	624	671	1,971	691	681	615	1,987	554	548	577	1,679	621	614	640	1,875	7,512
GRAND TOTAL.....	795	758	863	2,416	876	829	734	2,439	653	679	701	2,033	730	746	761	2,237	9,125
GRAND TOTAL in 1937.....	868	946	883	2,697	876	925	750	2,551	738	748	754	2,240	727	676	847	2,250	9,738
“ “ in 1936.....	825	754	798	2,377	758	784	722	2,264	669	654	695	2,018	741	756	778	2,275	8,934
“ “ in 1935.....	784	802	951	2,537	840	934	682	2,456	626	664	636	1,926	682	734	827	2,243	9,162
“ “ in 1934.....	818	695	869	2,382	825	857	710	2,392	662	673	701	2,036	659	722	764	2,145	8,955
“ “ in 1933.....	803	744	808	2,355	797	812	813	2,422	655	676	710	2,041	736	698	723	2,157	8,975

TABLE XX

## DEATHS FROM CERTAIN CONTAGIOUS DISEASES AND ENTERITIS BY MONTHS, YEAR 1938

Causes of death	January	February	March	April	May	June	July	August	September	October	November	December	Total
Typhoid fever.....	2	2	2	..	1	..	1	4	..	2	1	1	16
Paratyphoid.....	..	..	..	..	..	..	..	..	..	..	..	1	1
Undulant fever.....	..	..	..	..	..	..	..	..	..	..	..	..	..
Measles.....	..	..	..	2	2	1	9	11	7	4	..	2	38
Scarlet fever.....	1	3	3	3	2	1	..	..	..	1	1	1	17
Diphtheria.....	6	2	3	2	..	..	..	3	2	1	3	3	26
Whooping cough.....	5	5	5	5	4	..	4	2	4	3	2	2	41
Influenza.....	25	20	26	17	12	4	..	..	3	8	6	12	133
Meningitis C. S.....	..	1	1	..	..	1	..	..	..	..	..	..	3
Erysipelas.....	1	2	4	2	1	..	..	..	1	..	..	2	13
Poliomyelitis.....	..	..	..	..	..	..	..	..	..	..	..	..	..
Mumps.....	..	..	..	..	..	..	..	..	..	..	..	..	..
Varicella.....	..	1	..	1	1	1	..	..	1	..	1	..	7
German measles.....	1	..	..	..	..	3	..	..	..	..	..	..	4
Pulmonary tuberculosis.....	1	..	..	..	..	..	..	..	..	..	..	..	1
Tuberculosis, other forms.....	45	62	50	54	58	58	50	41	43	44	38	42	585
Others.....	1	3	14	13	6	6	9	7	4	6	5	9	83
Enteritis (119).....	10	6	13	14	11	16	19	34	27	21	20	17	208
Total.....	98	107	121	113	98	91	92	102	92	90	79	93	1176

**TABLE XXI**  
**DEATHS FROM CERTAIN DISEASES**  
 Average number and proportion per 100,000 population  
 for each period of 5 years. from 1876 to 1938

Periods of years	(*)	Typhoid	Smallpox	Whooping cough	Scarlet fever	Diphtheria	Tuberculosis		Cancer	Diarrhoea	Bright's disease
							Pulmo- nary	Other forms			
1876-1880	No.	81	510	30	35	173	417	..	46	492	..
	Rate	59.7	376.1	22.1	25.8	127.6	307.5	..	33.3	362.8	..
1881-1885	No.	95	634	42	38	214	434	..	58	523	..
	Rate	61.9	413.1	27.4	24.7	139.4	282.7	..	40.7	340.7	..
1886-1890	No.	82	15	59	15	304	513	..	84	699	..
	Rate	41.0	7.5	29.5	7.5	151.9	256.3	..	42.4	349.3	..
1891-1895	No.	50	..	40	155	114	547	..	106	806	..
	Rate	21.8	..	17.4	67.6	49.7	238.5	..	46.2	351.4	..
1896-1900	No.	68	5	47	62	182	680	..	163	663	..
	Rate	26.6	1.9	18.4	24.3	71.3	266.3	..	63.5	359.6	..
1901-1905	No.	91	3	68	70	89	616	168	181	1070	126
	Rate	31.7	1.0	23.7	24.4	31.0	214.7	57.0	63.1	373.0	42.7
1906-1910	No.	156	..	85	67	114	683	186	247	1822	232
	Rate	40.0	..	21.8	17.2	29.3	175.3	47.7	63.4	467.6	59.5
1911-1915	No.	108	1	66	90	157	969	183	341	2249	402
	Rate	21.9	0.2	13.4	18.2	31.8	176.2	37.1	69.1	455.9	81.5
1916-1920	No.	89	1	63	69	174	929	194	422	1844	509
	Rate	16.1	0.2	11.4	12.5	31.5	168.4	35.2	76.5	334.3	92.2
1921-1925	No.	55	..	45	78	134	785	165	532	1382	612
	Rate	8.4	..	6.9	11.9	20.4	119.6	25.2	81.1	210.7	93.3
1926-1930	No.	139	..	37	46	143	798	157	681	1028	726
	Rate	18.4	..	4.9	6.1	18.9	105.7	20.8	90.2	136.2	96.2
1931-1935	No.	28	..	33	31	39	661	118	919	632	845
	Rate	3.3	..	3.9	3.7	4.6	78.4	13.9	108.9	74.8	100.2
1936	No.	8	..	40	20	18	627	119	990	231	1003
	Rate	0.9	..	4.6	2.3	2.1	71.7	13.6	113.2	26.4	114.6
1937	No.	16	..	84	17	26	615	111	1031	376	994
	Rate	1.8	..	9.5	1.9	2.9	69.5	12.5	116.5	42.5	112.3
1938	No.	17	..	38	17	26	585	83	1099	208	975
	Rate	1.9	..	4.3	1.9	2.9	65.2	9.3	123.1	23.3	109.2

(\*) 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 1938

Population.....	570,627	194,674	53,134	74,565	893,000			
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.....	16	94.1	1	5.9	....	....	17	100.00
Measles.....	33	86.8	4	10.5	....	1	38	100.00
Scarlet fever...	15	88.2	1	5.9	....	1	17	100.00
Whooping cough.....	32	78.1	6	14.6	....	2	41	100.00
Diphtheria.....	24	92.4	1	3.8	....	1	26	100.00
Influenza.....	108	81.2	17	12.8	....	5	133	100.00
Tuberculosis, pulmonary.....	415	70.9	96	16.4	....	57	585	100.00
Tuberculosis, other forms.....	60	72.3	9	10.8	....	11	83	100.00
Other contagious diseases.....	64	76.2	15	17.8	....	2	84	100.00
Cancer.....	646	58.8	315	28.7	....	57	1,099	100.00
Diabetes.....	165	71.1	43	18.6	....	10	232	100.00
Cerebral hemorrhage embolism..	117	62.9	50	26.9	....	10	186	100.00
Diseases of the heart.....	983	60.3	457	28.0	....	91	1,631	100.00
Pneumonia.....	468	70.9	128	19.4	....	48	660	100.00
Enteritis.....	206	84.8	20	8.2	....	14	243	100.00
Nephritis.....	789	80.9	129	13.2	....	39	975	100.00
Diseases of early infancy.....	499	81.7	79	12.9	....	20	611	100.00
Violent deaths and accidental...	271	62.9	91	21.1	....	55	431	100.00
Total.....	4,911	69.3	1,462	20.6	....	424	7,092	100.00
Other causes of death.....	1,344	66.1	472	23.2	....	123	2,033	100.00
Grand Total.....	6,255	68.5	1,934	21.2	....	547	9,125	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.....	...	...	...	...	9	7	...	...	...	...	1	...
Measles.....	10	10	7	4	1	1	...	...	1	2	...	1
Scarlet fever.....	2	1	5	1	3	3	1	...	...	...	...	...
Whooping-cough.....	10	15	4	3	...	...	3	1	2	...	...	...
Diphtheria.....	1	1	11	3	4	4	...	1	...	...	...	...
Grippe or influenza.....	17	17	4	7	28	35	3	...	...	1	3	10
Tuberculosis, all forms.....	5	2	8	3	222	235	1	...	...	1	64	39
Syphilis.....	7	6	1	...	13	4	...	...	...	...	4	4
Other infectious and parasitic diseases.....	10	7	1	3	5	7	...	1	...	...	3	3
Cancer and malignant tumors..	...	...	...	...	294	352	...	...	...	...	146	169
Diabetes.....	...	...	1	1	76	87	...	...	...	...	16	27
Other tumors and other general diseases.....	5	2	7	4	81	114	4	2	...	...	25	34
Diseases of the nervous system..	24	24	8	8	117	107	2	...	...	...	38	43
Diseases of the circulatory system.....	3	3	...	4	665	575	...	...	...	...	338	307
Diseases of the respiratory system.....	120	98	38	45	138	113	20	8	2	5	67	52
Diseases of the digestive system..	108	70	17	15	188	188	12	5	1	1	53	43
Diseases of the genito-urinary system.....	...	1	...	1	411	477	...	1	1	...	82	75
The puerperal state.....	...	...	...	...	...	61	...	...	...	...	...	11
Diseases of the skin and cellular tissue.....	5	3	2	3	17	3	...	...	...	...	4	3
Congenital malformation and early infancy.....	267	226	3	3	...	...	46	30	1	...	1	1
Old age.....	...	...	...	...	9	14	...	...	...	...	6	6
Violent and accidental deaths...	4	2	21	8	190	46	1	1	2	1	57	20
Ill-defined causes of deaths.....	1	...	...	...	8	2	...	...	...	...	1	...
Total.....	599	488	138	116	2479	2435	93	50	10	11	909	861

KIIa

## AGES, SEX AND NATIONALITIES, IN 1938

Jews						Other nationalities or unknown						Total		
0 to year	1 to 5 years		Over 5 years			0 to 1 year	1 to 5 years		Over 5 years			M	F	Grand total
	F	M	F	M	F	M	F	M	F	M	F			
												10	7	17
											1	19	19	38
							1					12	5	17
						1	1					21	20	41
								1				17	9	26
				1	2		1		1	3		59	74	133
				9	10		1	1	2	45	19	356	312	668
				1	1					1		27	15	42
				1		1						21	21	42
				37	44					33	24	510	589	1099
				6	8					4	6	103	129	232
		1		4	8			1		14	10	142	174	316
	1			7	8	3				16	4	215	197	412
				84	49					73	43	1163	981	2144
1	3		1	12	5	16	5		6	21	7	435	348	783
1				12	11	9	3	1	1	19	14	421	353	774
				19	10					25	23	538	588	1126
											5		77	77
				2						2		32	12	44
0	1	1		1		13	7					343	268	611
				1							2	16	22	38
1				9	4	4	5			39	7	328	103	431
										1	1	11	3	14
5	5	2	1	206	160	47	23	5	10	296	166	4799	4326	9125

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.....	...	1	...	...	30	41	...	...	...	1	8	10
Tuberculosis, other forms 24-32.....	...	...	1	1	10	5	...	...	...	...	1	...
Other infectious and parasitic diseases...	2	4	3	5	16	4	1	...	1	...	5	2
II—Cancers and other tumors 45-55.....	...	...	1	...	59	42	...	...	...	1	54	44
III—Rheumatismal diseases, etc. 56-69.....	...	...	...	...	13	14	...	...	1	...	7	2
IV—Diseases of the blood, etc. 70-74.....	...	...	...	1	4	3	...	...	...	...	2	1
V—Chronic poisoning, etc. 75-77.....	...	...	...	...	...	...	...	...	...	...	...	...
VI—Diseases of the nervous system 78-79.....	4	2	3	2	18	4	1	...	...	...	7	5
VII—Diseases of the circulatory system 90-103..	...	...	...	...	31	25	...	...	...	...	45	27
VIII—Diseases of the respiratory system 104-114..	7	3	4	3	17	12	...	1	3	1	17	3
IX—Diseases of the digestive system 115-129...	3	5	3	3	39	28	1	2	...	...	30	20
X—Diseases of the genito-urinary system 130-139.....	...	...	...	1	55	23	...	...	...	1	23	9
XI—The puerperal state 140-9.....	...	...	...	...	...	15	...	...	...	...	...	5
XII—Diseases of the skin, etc. 151-153.....	...	2	...	...	3	1	...	...	...	...	2	1
XIII—Diseases of the bones 154-156.....	...	...	...	...	2	2	...	...	...	...	2	1
XIV—Congenital malformation 157.....	1	1	1	...	...	...	4	2	...	...	1	...
XV—Diseases of early infancy 158-161.....	11	8	...	...	...	...	6	6	...	...	...	...
XVI—Old age 162.....	...	...	...	...	1	1	...	...	...	...	...	...
XVII—Violent and accidental deaths 163-198.....	...	...	4	...	30	6	...	...	1	...	16	11
XVIII—Ill-defined causes of deaths 199-200.....	...	...	...	...	...	...	...	...	...	...	1	...
XIX—Total.....	28	26	20	16	328	226	13	11	6	4	221	141

## XIII

## F MONTREAL, IN 1938

## ationalities and ages

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			
...	...	...	...	...	...	...	...	...	...	6	1	44	54	98
...	...	...	...	...	...	...	...	...	...	1	...	13	6	19
...	...	...	...	...	...	...	...	1	...	2	...	31	15	46
...	...	...	...	4	4	...	...	1	...	4	4	123	95	218
...	...	...	...	4	...	...	...	...	...	3	...	28	16	44
...	...	...	...	1	...	...	...	...	...	...	1	7	6	13
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	2	1	...	...	...	...	2	...	37	14	51
...	...	...	...	5	4	...	...	...	...	6	1	87	57	144
...	...	...	...	4	...	...	...	...	1	4	...	56	24	80
...	...	...	...	2	...	...	...	1	...	6	2	85	60	145
...	...	...	...	...	1	...	...	...	...	3	...	81	35	116
...	...	...	...	...	1	...	...	...	...	...	2	...	23	23
...	...	...	...	...	...	...	...	...	...	...	...	5	4	9
...	...	...	...	...	...	...	...	...	...	...	...	4	3	7
1	...	...	...	...	...	...	...	...	...	...	...	8	3	11
...	...	...	...	...	...	1	1	...	...	...	...	18	15	33
...	...	...	...	...	...	...	...	...	...	...	...	1	1	2
...	...	...	...	...	1	...	...	...	...	1	1	52	19	71
...	...	...	...	...	...	...	...	...	...	...	...	1	...	1
1	...	...	...	22	12	1	1	3	1	38	12	681	450	1131

**TABLE XXIV**  
**DEATHS IN MONTREAL, CLASSIFIED ACCORDING**  
**TO THE PLACE OF DEATH**

(domiciles, hospitals, homes, etc.)

**RESIDENTS AND NON-RESIDENTS**

Place of death	Residents		Non-residents		Total		Grand Total
	Male	Fem.	Male	Fem.	Male	Fem.	
Domiciles.....	2,002	2,062	27	23	2,029	2,085	4,114
<b>GENERAL HOSPITALS:</b>							
1—Notre Dame Hospital.....	305	178	59	38	364	216	580
2—St. Luc Hospital.....	205	150	36	14	241	164	405
3—Pasteur Hospital.....	45	40	8	3	53	43	96
4—Hotel Dieu Hospital.....	134	106	81	38	215	144	359
5—Du Sacre Coeur Hospital.....	158	191	57	58	215	249	464
6—Ste. Jeanne d'Arc Hospital.....	90	87	17	16	107	103	210
7—Ste. Justine Hospital.....	218	180	49	36	267	216	483
8—Misericorde Hospital.....	15	17	6	11	21	28	49
9—Montreal General Hospital.....	153	79	73	27	226	106	332
10—Montreal General Hospital West..	41	31	29	23	70	54	124
11—Royal Victoria General Hospital..	176	102	100	59	276	161	437
12—Royal Victoria Maternity.....	20	12	5	5	25	17	42
13—Children's Memorial Hospital.....	42	41	20	13	62	54	116
14—Montreal Childrens' Hospital.....	17	17	2	1	19	18	37
15—Homoeopathic Hospital.....	19	29	11	14	30	43	73
16—Catherine Booth.....	2	3	3	3	5	6	11
17—St. Mary's Hospital.....	48	49	13	10	61	59	120
18—Alexandra Hospital.....	12	6	2	3	14	9	23
19—Jewish General Hospital.....	68	49	16	5	84	54	138
20—Private Hospitals & Maternities..	15	14	..	6	15	20	35
21—Others.....	17	3	5	1	22	4	26
Total General Hospitals.....	1,800	1,384	592	384	2,392	1,768	4,160
<b>INFANT HOMES:</b>							
1—Misericorde.....	61	53	..	..	61	53	114
2—St. Paul.....	18	10	..	..	18	10	28
3—Aide à la Femme.....	54	53	..	..	54	53	107
4—Boarding Homes.....	5	4	..	..	5	4	9
Total.....	138	120	..	..	138	120	258

**TABLE XXIV**  
**DEATHS IN MONTREAL, CLASSIFIED ACCORDING**  
**TO THE PLACE OF DEATH**  
 (domiciles, hospitals, homes, etc.)  
**RESIDENTS AND NON-RESIDENTS—(Continued)**

Place of death	Residents		Non-residents		Total		Grand Total
	Male	Fem.	Male	Fem.	Male	Fem.	
<b>OTHER HOMES:</b>							
1—Notre Dame de la Merci.....	146	..	32	..	178	..	178
2—Aide à la Femme.....	7	15	..	4	7	19	26
3—Convalescent Homes.....	1	5	1	3	2	8	10
4—Others.....	172	274	7	30	179	304	483
Total.....	326	294	40	37	366	331	697
<b>MISCELLANEOUS:</b>							
1—Religious communities.....	13	68	..	..	13	68	81
2—Public places.....	180	26	17	6	197	32	229
Total.....	193	94	17	6	210	100	310
<b>PENAL ESTABLISHMENTS:</b>							
1—Bordeaux Hospital.....	19	..	5	..	24	..	24
2—Others.....	..	1	..	..	..	1	1
Total.....	19	1	5	..	24	1	25
<b>MONTREAL RESIDENTS DECEASED ELSEWHERE:</b>							
1—St. Jean de Dieu Asylum.....	98	118	..	..	98	118	216
2—Verdun Insane Asylum.....	21	23	..	..	21	23	44
3—T. B. C. Sanatoria.....	7	9	..	..	7	9	16
4—Other hospitals.....	82	176	..	..	82	176	258
5—Other places.....	113	45	..	..	113	45	158
Total.....	321	371	..	..	321	371	692

### SUMMARY

Domiciles.....	2,002	2,062	27	23	2,029	2,085	4,114
General Hospitals.....	1,800	1,384	592	384	2,392	1,768	4,160
Infant homes.....	138	120	..	..	138	120	258
Other homes.....	326	294	40	37	366	331	697
Miscellaneous.....	212	95	22	6	234	101	335
Total deaths in Montreal.....	4,478	3,955	681	450	5,159	4,405	9,564
Montreal residents deceased elsewhere.	321	371	..	..	321	371	692
<b>GRAND TOTAL.....</b>	<b>4,799</b>	<b>4,326</b>	<b>681</b>	<b>450</b>	<b>5,480</b>	<b>4,776</b>	<b>10,256</b>



es, year 1938

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
	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		2	1			2		1	1							2										1
2										1																2
3																										3
4																										4
5																										5
6																										6
a)																										a)
b)																										b)
c)																										c)
7																										7
8																										8
9																										9
10																										10
11																										11
a)	1		2	1	1	1	2		1	1	1	1				3	1	2	4	3	15	6	7	1		a)
b)	1			2			2			1	1									2	4	2	3		1	b)
12																										12
13												1														13
a)																										a)
b)																										b)
c)																										c)
14																										14
a)																										a)
b)																										b)
c)																										c)
d)			1			1	1					1				2	2		1	1						d)
15																										15
16																										16
17																										17
18										1																18
19																										19
20																										20
21																										21
22																										22
23	57	22	45	36	32	27	21	38	17	37	13	27	8	25	13	22	7	11	9	11	11					23
24										1			1													24
25	2	1	2	1	1		1					1			1		1	1								25
26	1	1												1			1									26
27		1				1		1							1		1									27
28			1																							28



V

## THE INTERNATIONAL NOMENCLATURE

s, year 1938—(Continued)

s	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
	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F						
29																																	29				
30		1			1						1						1															30					
31																																31					
32			2			1						1																				32					
a)																																a)					
b)																	1															b)					
c)																																c)					
33																																33					
34	1		1	1	2	3		2	1	3		3		2	2		1	3		2												34					
a)																																a)					
b)																																b)					
c)																																c)					
35					1																											35					
36																		1														36					
a)																																a)					
b)																																b)					
c)																																c)					
37																																37					
38																																38					
a)																																a)					
b)																																b)					
39																																39					
40																																40					
a)																																a)					
b)																																b)					
42																																42					
43																																43					
44																																44					
63	28	55	41	38	34	24	47	19	44	16	35	11	28	17	28	15	20	13	19	31	8	10	1	1													
45				1				1	2	4		5	1	11	1	11	1	18		16	2	4										45					
46											1		2		1		1	6	1	3		8										46					
47				3		3	3	3	2	4	1	10	4	15	8	24	6	11	15	24	22	7	8									47					
a)					2			3	2			3	2	6	4	3	5	8	3	5	3	1										a)					
b)	1		2				3	1	3	2		2	4		6	12	13	5	5	11	14		6									b)					
c)					1	1	1	1	3		4	2	3	2	1	2	1	3	1		1											c)					
d)												1										1										d)					
e)	1			1	1	2	6	2	2	2	7	4	8	11	11	9	14	13	5	9	22	3	12									e)					
f)																																f)					
g)	1	1		1	1		1	4	1	2	1	12		12	1	9	2	8	1	9	1											g)					

TABLE

CLASSIFICATION OF DEATHS ACCORDING

By causes, sex and

No. of 1929	International Classification	Total	M		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
48	Cancer and malignant tumor of the uterus .....	127	....	127	....	....	....	....	....	....	....	....	....	....	....	....
49	Cancer and malignant tumor: other female genital organs.....	24	....	24	....	....	....	....	....	....	....	....	....	....	....	....
50	Cancer and malignant tumor of the breast .....	129	1	128	....	....	....	....	....	....	....	....	....	....	....	....
51	Cancer and malignant tumor of male genito-urinary organs.....	69	69	....	....	....	....	....	....	....	....	....	....	....	....	....
52	Cancer and malignant tumor of the skin .....	10	4	6	....	....	....	....	....	....	....	....	....	....	....	....
53	Cancer and malignant tumor of other organs not stated.....	81	40	41	....	....	....	....	....	....	1	....	....	....	4	....
54	Tumors (non-malignant): a) female genital organs.....	26	....	26	....	....	....	....	1	....	....	....	....	....	....	....
	b) other organs.....	14	9	5	....	....	....	....	1	....	....	....	....	....	....	....
55	Tumors whose character is not specified: a) female genital organs. ....	....	....	....	....	....	....	....	1	1	1	2	....	....	1	....
	b) other organs.....	34	22	12	....	....	....	....	....	....	....	....	....	....	....	....
	Total.....	1173	541	632	....	....	....	....	2	1	4	2	....	....	6	....
	<b>III.—Rheumatic Diseases, Diseases of the Nutrition of Endocrin Glands and other General Diseases.</b>															
56	Acute articular rheumatic fever..	44	21	23	....	....	....	....	1	7	7	1	4	6	....	....
57	Chronic rheumatism, osteoarthritis.....	46	17	29	....	....	....	....	....	....	....	....	....	....	....	....
58	Gout.....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
59	Diabetes mellitus.....	232	103	129	....	....	....	....	1	1	1	1	....	3	1	....
60	Scurvy: a) infantile scurvy (Barlow's disease).....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
	b) scurvy.....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
61	Beriberi.....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
62	Pellagra.....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
63	Rickets.....	4	4	....	....	....	....	....	2	....	2	....	....	....	....	....
64	Osteomalacia.....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
65	Disease of the pituitary gland (hypophysis).....	1	1	....	....	....	....	....	....	....	....	....	....	....	....	....
66	Disease of the thyroid gland and parathyroid glands: a) goitre.....	15	3	12	....	....	....	....	....	....	....	1	....	....	....	....
	b) exophthalmic goitre.....	2	1	1	....	....	....	....	....	....	....	....	....	....	....	....
	c) myxoedema and cretinism..	2	1	1	....	....	....	....	....	....	....	....	....	....	....	....
	d) tetany.....	2	1	1	....	....	....	....	....	....	....	....	....	....	....	....
	e) others.....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
67	Diseases of the thymus.....	12	8	4	6	2	1	1	1	....	1	....	....	....	....	....

## s, year 1938—(Continued)

[illegible]



## XV

## O THE INTERNATIONAL NOMENCLATURE

ges, year 1938—(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
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	1									1					68
			1						1																69
1	4		3		3	3	5	7	7	14	9	12	17	15	18	19	30	18	27	32	44	10	10	1	
		1							1							2		1		1					70
																1									a)
																									b)
			1	1			2		1		1		1	1	2	2	1	1	5	2	4				71
				1								1				1									a)
					1																				b)
1	1				1	1		2		2		2		1	1	1				1			2		72
	1				1	4				2						2					2				a)
								1					1												b)
																									73
	1		1					1																	74
1	2	2	2	1	3	5	2	3	3	2	3	2	2	3	3	6	4	1	6	3	7		2		
		1					1	2		3			2	1		4				1					75
																									76
									1	1											1				a)
																									b)
						1							1												77
																									a)
																									b)
	1				1	1	2		4	1		2	2		4				1	1					
								1												1					78
			1	1																					a)
																									b)
	1						3						1				1			2					79
												1				1		2		1					80
						1		1	1	1					1	2			1	1	3				81



## XV

## D THE INTERNATIONAL NOMENCLATURE

es, year 1938—(Continued)

0 to 4 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
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	...	...	4	1	1	3	10	11	8	11	7	13	7	9	9	14	12	4	17	...	1	82 a)
...	...	...	...	...	1	...	1	1	...	...	1	1	...	2	...	...	2	4	5	5	2	3	...	...	83 b)
...	...	1	...	...	1	...	6	1	2	2	3	...	1	2	1	2	2	1	2	2	1	...	...	...	84 c)
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	85 a)
3	1	1	...	1	2	...	1	1	1	1	1	...	1	...	1	1	...	1	3	1	...	...	...	...	86 b)
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	87 a)
...	1	...	...	...	...	...	...	...	1	...	1	1	...	1	2	1	1	2	2	5	2	2	...	...	88 b)
...	...	...	...	...	3	...	...	1	...	1	1	...	...	...	2	...	2	...	2	2	1	2	...	...	89 c)
...	...	...	...	...	...	...	...	...	1	1	...	...	...	...	...	...	...	...	1	...	...	...	...	...	90 d)
...	...	...	1	...	2	...	1	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	91 e)
...	...	...	1	...	1	...	2	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	92 a)
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	93 b)
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	94 c)
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	95 a)
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	96 b)
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	97 a)
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	98 b)
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	99 a)
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	99 b)
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	99 c)
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	99 d)
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	99 e)
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	99 f)
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	99 g)
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	99 h)
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	99 i)
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	99 j)
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	99 k)
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	99 l)
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	99 m)
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	99 n)
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	99 o)
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	99 p)
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	99 q)
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	99 r)
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	99 s)
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	99 t)
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...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	99 ap)
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...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	99 ar)
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...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	99 bh)
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	99 bi)
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	99 bj)
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	99 bk)
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...	...	...	...	...	...	...	...	...	...	...															



## s, year 1938—(Continued)

[illegible]



## es. year 1938—(Continued)

[illegible]

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
139	Non-venereal diseases of the female organs:															
	a) fallopian tube and parametrium.....	19		19												
	b) uterus.....	4		4					1							
	c) mammae.....															
	d) others.....															
	Total.....	1126	538	588			2	1	1	2	1	3	3		10	
<b>XI.—The Puerperal State.</b>																
140a	Abortion, with septic conditions...	7		7												
140b	By-self, with septic conditions....															
141a	Abortion, without mention of septic conditions, including haemorrhages.....	1		1												
141b	By-self, without mention of septic conditions, including haemorrhages.....	1		1												
142	Ectopic gestation.....	4		4												
143	Other accidents of gestation (haemorrhages not included)...															
144	Puerperal haemorrhage:															
	a) placenta proevia.....	5		5												
	b) other haemorrhages.....	8		8												
145	Septicaemia and puerperal sepsis (not returned as result of abortion):															
	a) Puerperal septicaemia and puerperal pyaemia.....	18		18												
	b) puerperal tetanus.....															
146	Puerperal albuminuria and eclampsia.....	14		14												
147	Other forms of toxæmia of pregnancy.....	2		2												
148	Phlegmasia alba dolens, embolism or sudden death (not returned as septic):															
	a) phlegmasia alba dolens and thrombosis.....	3		3												
	b) embolism and sudden death.....	2		2												
149	Other accidents of pregnancy....	12		12												
150	Other stated diseases or conditions not mentioned (puerperal state).....															
	Total.....	77		77												
<b>XII.—Diseases of the Skin and Cellular Tissue.</b>																
151	Furunculosis.....	6	5	1	1											
152	Phlegmon.....	14	8	6	1	2			1	2			1		2	
153	Other diseases of the skin, annæa, and of the cellular tissue.....	9	7	2	1	1	1									
	Total.....	29	20	9	3	3	1		1	2			1		2	

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## TO THE INTERNATIONAL NOMENCLATURE

ages, year 1938—(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	..	2	..	4	..	2	..	3	..	1	..	3	..	..	..	2	..	1	..	..	..	..	..	..	139
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	a)
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	b)
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	c)
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	d)
4	10	6	8	5	16	3	13	24	30	14	16	22	37	56	42	47	47	77	65	175	176	93	100	8	11	
..	..	..	2	..	2	..	3	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	140a
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	140b
..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	141a
..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	141b
..	..	..	..	1	..	1	..	1	..	1	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	142
..	..	..	..	..	2	..	1	..	1	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	143
..	1	..	2	..	1	..	1	..	2	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	144
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	a)
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	b)
..	3	..	6	..	2	..	3	..	4	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	145
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	a)
..	3	..	2	..	3	..	2	..	3	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	b)
..	..	1	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	146
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	147
..	..	..	3	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	148
..	1	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	a)
..	..	..	3	..	3	..	2	..	4	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	b)
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	149
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	150
..	8	..	20	..	15	..	14	..	16	..	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
..	1	..	..	..	..	..	..	..	..	..	1	..	1	..	..	1	1	..	..	3	..	1	1	..	..	151
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	152
..	..	..	..	1	..	..	..	..	..	..	..	2	1	1	..	..	..	..	1	..	..	..	..	..	..	153
..	1	..	..	1	..	..	..	..	..	..	1	1	2	1	2	1	..	..	4	1	1	..	..	..	..	

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
	<b>XIII.—Diseases of the bones and Organs of Locomotion.</b>									
154	Osteomyelitis.....	9	6	3	1			1	1	1
155	Other diseases of the bones except tuberculosis.....	3	3							1
156	Diseases of the joints and other organs of locomotion:									
	a) joints, except tuberculosis and rheumatism.....	2	2							
	b) other organs of locomotion.....	1	1				1			
	<b>Total.....</b>	<b>15</b>	<b>12</b>	<b>3</b>	<b>1</b>		<b>1</b>	<b>1</b>	<b>1</b>	<b>2</b>
	<b>XIV.—Congenital Malformation.</b>									
157	Congenital malformation (still-born not included):									
	a) congenital hydrocephalus....	16	7	9	3	6	3	3		
	b) spina bifida and meningocele....	13	6	7	4	7	1	1		
	c) congenital malformations of the heart.....	66	35	31	30	27	4	2	1	
	d) monstrosity.....	3		3		3				
	e) others.....	22	13	9	12	7	1	1	1	
	<b>Total.....</b>	<b>120</b>	<b>61</b>	<b>59</b>	<b>49</b>	<b>50</b>	<b>5</b>	<b>5</b>	<b>3</b>	<b>1</b>
	<b>XV.—Diseases of Early Infancy.</b>									
158	Congenital debility.....	65	38	27	37	25	1	2		
159	Premature birth.....	291	169	122	169	122				
160	Consequences of birth:									
	a) cesarean operation stated.....									
	b) cesarean operation not stated.....	75	45	29	45	29				
161	Other diseases peculiar to early infancy:									
	a) atelectasis.....	8	3	5	3	5				
	b) icterus neonatorum.....	17	11	6	11	6				
	c) sclerema and others.....	36	16	20	16	20				
	<b>Total.....</b>	<b>491</b>	<b>282</b>	<b>209</b>	<b>281</b>	<b>207</b>	<b>1</b>	<b>2</b>		
	<b>XVI.—Old Age.</b>									
162	Senility:									
	a) with senile dementia.....	4	1	3						
	b) without senile dementia.....	34	15	19						
	<b>Total.....</b>	<b>38</b>	<b>16</b>	<b>22</b>						

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## THE INTERNATIONAL NOMENCLATURE

es, year 1938—(Continued)

		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
F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F						
																																			154			
														1						1	1													155				
													1							1														156 a)				
	1																																	b)				
	1												1		1		1		2	1																		

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
	<b>XVII.—Violent Deaths and Accidental.</b>															
163	Suicide by solid or liquid poisons and corrosive substances.....	6	1	5												
164	Suicide by poisonous gases.....	10	6	4												
165	Suicide by hanging or strangula- tion.....	10	8	2												
166	Suicide by drowning.....	8	4	4												
167	Suicide by firearms.....	8	7	1												
168	Suicide by cutting or piercing instruments.....	8	8													
169	Suicide by jumping from high places.....	1	1													
170	Suicide by crushing.....															
171	Suicides by other means.....	1	1													
172	Infanticide (under one year):															
	a) immediately after birth.....	9	4	5	4	5										
	b) others, under one year.....															
173	Homicide by firearms (one year and over).....	1		1												
174	Homicide by cutting and piercing instruments (one year and over)															
175	Criminal abortion.....	1		1												
175a	Others.....	4		4							1		1			
176	Poisoning by venomous animals.....															
177	Poisoning by food.....															
178	Accidental absorption of poison- ous gas.....	9	6	3					1							
179	Other acute accidental poisoning (not by gas).....	24	18	6							1	1				
180	Conflagration.....	3	2	1												
181	Accidental burns (conflagration excepted).....	22	18	4			1	1	13	1	1					1
182	Accidental mechanical suffoca- tion.....	8	4	4	3	1		1	1	2						
183	Accidental drowning.....	74	68	6			1		1	1		1	7			11
184	Accidental injury by firearms, except combatants in battle...	3	3								1					1
185	Accidental injury by cutting or piercing instruments, except combatants in battle.....															
186	Accidental injury by fall, crushing, land slide.....	69	46	23					2	3	2	2	2	1		1
186	1) Accidental injury in mining and quarrying.....															
	2) Accidental injury by machi- nery.....	4	3	1						1						
	3a) Railway accidents.....	6	5	1												
	3b) Tramway accidents.....	3		3												
	3c) Automobile and motorcycle accidents.....	113	87	26					5	1	7	5	5	1		4
	3d) Accidents by other means of transportation by land...	2	2								2					
	3e) Accident by water transport- ation.....															
	3f) Accidental injury by aerial transportation.....	1	1													
	3g) Elevators.....	4	4													

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## TO THE INTERNATIONAL NOMENCLATURE

ges, year 1938—(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		2					1	1													163
			1	1	1	1	1					1	1	1		1							1			164
1					1	1			3	1	3															165
	1				2		1	1		2		1														166
		1			1		1	1		1		1				2										167
1								2		1		1		3												168
												1														169
1																										170
																										171
																										172
																										a)
																										b)
			1																							173
																										174
					1																					175
						1		1																		175a
																										176
																										177
			1			1	1			1			1	1		1		1								178
			1	1	1		2		2	6		1		5		2		1								179
			1							1										1						180
1	1							1											1							181
4		5		6		9		6		3	1	4	2	5		3		2		1						182
																										183
																				1						184
																										185
1		4		2	1	5	1	3	1	4	1	6	1	2	2	4	3	4	2	4	3		1		1	186
																										1)
1		1			1				1		1		2				1					1				2)
																			1		2					3a)
																										3b)
2		9	3	4		8		3	2	7		4	4	10	3	7		7	2	5	4		1			3c)
																										3d)
																										3e)
			1																							3f)
2			1		1																					3g)

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
187	Cataclysm.....															
188	Injury by animals.....															
189	Hunger or thirst.....	1		1												
190	Excessive cold.....	2	1	1												
191	Excessive heat.....	1	1													
192	Lightning.....	1	1													
193	Accidental injury by electric currents (lightning excepted).....	3	3												1	
194	Other accidents.....															
	a) foreign body.....	1	1													
	b) others.....	9	9				1								1	
195	Violent death of unstated nature or unknown cause.....															
196	War injuries.....	1	1													
197	Execution of civilians by belligerent armies.....															
198	Execution (sentence of death).....															
	Total.....	431	328	103	7	6	3	2	23	9	15	9	15	2	20	1
	<b>XVIII.—III-defined Causes of Death.</b>															
199	Sudden death.....	9	7	2												
200	Cause of death unstated or not specified.....	5	4	1	1											
	Total.....	14	11	3	1											
	Total M.....		4799		601		153		155		73		52		86	
	Total F.....			4326		439	127		138		60		63		85	
	Grand total.....		9125		1040		280		293		133		115		171	
	<b>Special Classification for accidents</b>															
1	Agricultural machinery.....															
2	Elevators.....	4	4													
3	Machines (recreation).....	2	2								2					
4	Other machines.....	3	2	1					1							
5	Collision: Railroad and automobile.....	2	1	1												
6	Collisions: Railroad and other vehicles.....															
7	Other railroad accidents.....	6	5	1												
8	Collisions: Tramways and automobile.....	2	1	1												
9	Collisions: Tramways and other vehicles.....															
10	Other tramway accidents.....	3		3												
11	Collisions: Automobile and automobile.....	13	9	4												
12	Collisions: Automobile and other vehicles.....	4	4										1		1	
13	Other automobile accidents.....	90	70	20					4	1	8	5	4	1	3	
14	Motorcycle accidents.....	2	2													
	Total.....	131	100	31					4	2	10	5	5	1	4	

## XV

## O THE INTERNATIONAL NOMENCLATURE

ges, year 1938—(Concluded)

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	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	187
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	188
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1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	192
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	193
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	194
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	a)
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	b)
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	195
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5	2	27	7	19	8	26	9	23	6	32	2	25	10	27	5	22	4	17	7	11	11	1	2	1	1	
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1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	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.....	14.65	+1.02	46.2	- 8.8	13.47	30.054	30.45	29.02	.278
February.....	17.51	+2.27	38.2	- 5.0	13.69	30.228	30.85	29.30	.369
March.....	27.46	+1.38	58.5	-12.1	14.64	29.978	30.45	29.38	.304
April.....	44.48	+3.40	78.7	20.1	14.84	30.004	30.58	29.28	.267
May.....	55.37	+0.39	75.1	39.0	17.01	29.918	30.38	29.44	.195
June.....	67.62	+2.95	88.1	51.2	17.46	29.954	30.33	29.61	.155
July.....	70.50	+1.19	88.0	52.8	15.84	29.924	30.13	29.54	.133
August.....	70.95	+4.19	93.0	50.1	15.68	29.924	30.18	29.55	.174
September.....	56.48	-2.25	75.1	37.2	15.02	29.996	30.48	28.84	.283
October.....	50.32	+3.55	76.8	30.3	15.50	30.104	30.54	29.47	.219
November.....	37.78	+4.38	70.2	9.6	14.17	30.094	30.63	29.35	.264
December.....	24.04	+4.48	44.0	- 1.6	11.33	30.031	30.69	29.21	.395
Sums for 1938.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Means for 1938.....	44.76	+2.25	.....	.....	14.89	30.017	.....	.....	.252
Means for 64 years ending December 31st, 1938.....	42.51	.....	.....	.....	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

## NADA, ABSTRACT FOR YEAR 1938

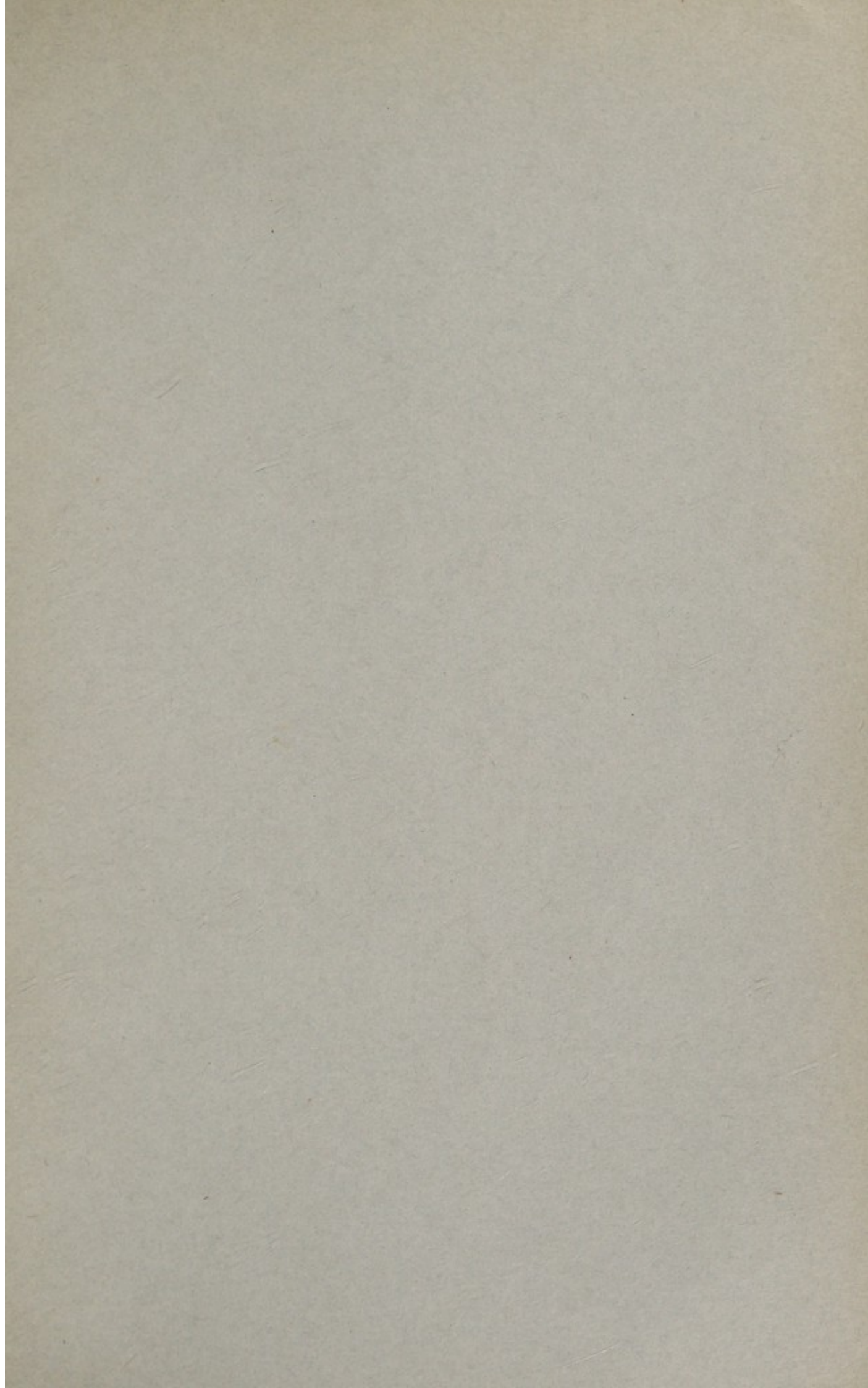
Nada.—Latitude 45° 30' N.—Longitude 75° 35' W.

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
4.8	.....	.....	31.1	0.93	4	15.3	2.40	12	1	15
8.7	.....	.....	34.2	1.60	7	18.2	3.66	14	4	17
11.8	.....	.....	36.6	1.38	7	17.3	3.73	7	1	13
18.8	.....	.....	31.6	3.43	10	10.2	4.57	5	0	15
23.5	.....	.....	52.4	3.72	12	0.0	3.72	0	0	12
29.2	.....	.....	60.6	3.36	9	.....	3.36	.....	.....	9
29.4	.....	.....	41.9	3.47	15	.....	3.47	.....	.....	15
34.6	.....	.....	59.4	5.57	12	.....	5.57	.....	.....	12
36.6	.....	.....	36.7	6.53	15	.....	6.53	.....	.....	15
37.3	.....	.....	44.1	1.22	6	0.0	1.22	.....	.....	6
38.6	.....	.....	36.1	1.44	6	4.1	2.00	6	0	12
40.5	.....	.....	21.0	2.10	6	15.5	3.91	11	0	17
.....	.....	.....	.....	34.75	109	80.6	44.14	55	6	158
75.9	.....	.....	40.49	.....	.....	.....	.....	.....	.....	.....
74.0	.....	.....	43.43	29.90	108	113.7	41.76	76	15	169

On 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. Solar 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.





Printing Service Limited, Montreal.

1939

