Report / Board of Health, City of Edmonton, Alberta.

CITY OF EDMONTON

ALBERTA

BOARD OF HEALTH REPORT

1933

Board of Heath, 1933

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Medical Officer of Health	R. B. Jenkins, M.D., D.P.H.
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Health Inspector	T. E. Lord
Health Inspector	A. P. Mathuen, A.R. San. I.
Health Inspector	J. D. Williams
Quarantine Officer	R. T. Anderson, A.R. San. I.
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Meat Inspector	D. Morrison, V.S.
Dairy Supervisor	C. Ellinger, A.R. San. I.
Analyst	H. C. Graham, B.A.
Chief Public Health Nurse	Miss M. Griffith, R.N.
Public Health Nurse	Miss S. C. Chistensen, R.N.
Statistician	Miss B. B. Murray
Stenographer	Miss A. Kellas
Stenographer	Miss C. Rose

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Annual Report of Medical Officer of Health

The Local Board of Health,
Edmonton, Alberta.

Gentlemen:

As required by the regulations under the Public Health Act, of Alberta, 1922, I am presenting herewith the annual report of the health conditions in the City of Edmonton and a report of the activities of the Board's employees, for the year 1933.

The death rate for that year, 7.31 per thousand persons, shows a continuation of previous low levels. The previous year's rate was 7.91, while the average for the preceding ten years was 7.98. Nearly 70% of the deaths resulted from causes such as heart disease, cancer, diseases of early infancy, external causes and tuberculosis. Some of these are wholly preventable; others can be so managed that the patients might have many more years of useful, happy life.

Diseases of the heart caused 18% of all deaths—last year it was 14.5%. Of those who died from these causes 17 were below the city's average life span; 60 did not reach the allotted span of three score years and ten. Cancer also showed distinct increase, there being 14% as compared with 11.2% the previous year. Despite the fact that diseases of early infancy showed an increase over the past year, it must be obvious that the steadily increasing length of the average life is due to improvement in infant mortality, and not to any great improvement in the conditions which affect the adult group. Actually, except for the communicable diseases, such as typhoid fever, the situation is not very encouraging, and should be the object of wide and serious study. Unquestionably, factors, such as distribution of medical service and financial difficulties, are of major importance in this matter, but their relative importance is yet to be determined and the necessary measures of control are yet to be found. The longevity of our poulation as shown by the average age of those dying last year was 51.1 years. This does not compare very favorably with Canada as a whole, or the United States. An interesting and possibly far-reaching study was made in Great Britain which indicates that the figures, such as I mentioned last, 51.1 years, or the annual death rate of 7.31, do not represent the prevailing health conditions, but rather the conditions which existed during the first fifteen years of life of the majority of those whom we were considering. That being so, only posterity can tell the full effect of the present economic disturbances.

COMMUNICALBE DISEASES

The cases of communicable diseases were greatly reduced in number, practically one thousand less than the previous year. This was chiefly due to the fact that the preceding year was high as a result of the measles epidemic. 1933 was particularly noticeable for the number of whooping cough cases. The other diseases were more or less the same as the previous years. Diphtheria is a condition which deserves special mention, there being only one case during the whole year. I think there can be no doubt that this amazing reduction is mainly the result of the protection afforded that larger group of susceptibles, the younger school children. As will be seen in the report on immunization the public schools and separate schools continue to report a steady number of diphtheria immunizations, which, together with the work of the Board of Health, more than equals the new births, thus insuring that we maintain our percentage of protected population. It is very gratifying to see the response that mothers are making to our appeal for immunization of the pre-school children, which is a dangerous age so far as fatalities from diphtheria are concerned. As an instance of this I might mention that in 1933, 74 children under two years were treated in this office.

May I offer for your consideration the suggestion that we ask for the removal of mumps from the list of diseases subject to isolation. I suggest this for the following reasons: The period of isolation is three weeks and that means a serious loss to any senior scholar or to any wage earner. This loss is particularly irritating to the patient and to the parents when they consider the mildness of the disease and when they

consider that a great majority of the cases suffer little more than some temporary inconvenience. Despite this fact, the conscientious person must keep the child apart from the public, usually a difficult matter, and one that is a source of annoyance. I feel that the continuance of this practice does much to disturb the relationship that exists between the public and your employees. Many times I have been impressed by the co-operation that we get from the people of the city in this problem of controlling communicable diseases and I feel that insistence upon the quarantine of a case of mumps is a serious deterrent to the continuance of the good relationships that have been developed here in past years. The citizens are always willing to accept restraining conditions if they can see the reason. It is not always possible to present these reasons in this matter. Finally, I feel that the effort and expense in quarantine and the annoyance to the persons quarantined are more or less waste, since so many cases are not reported and some of the others are diagnosed as, shall we say, swollen glands. It is true that for a time we might find an increase in the disease amongst adults, but we do not prevent the adults from getting it even now. Eventually it would become strictly a children's disease and one of minor consequence.

Scarlet fever continues to be a mild disease. Although there were 58 cases reported, there were no deaths. No secondary cases were reported as resulting from exposure after the period of quarantine.

You will observe that there is an increase in the number of cases of tuberculosis reported, and that there is a very considerable reduction in the number of deaths. Even with this smaller number, tuberculosis was responsible for reducing by 7/10 of a year the average life span of those persons who died last year. The more striking way of showing the effect that tuberculosis has, is to show that whereas the average span last year was 51.1 years, the average for those who died from tuberculosis was 36.3 years; that is, those 18 persons were each denied practically 15 years of life. Tuberculosis is a preventable disease.

PUBLIC HEALTH NURSING

A glance at the list of principle causes of death shows you that diseases of early infancy come third in the list. Analysis of the statistics concerning these deaths shows that 21 were due to causes which, to a great extent, are not controllable, causes such as premature birth (under seven months), congenital debility and congenital malformation. In the second group, which can be reduced through improved sanitation, by isolation and treatment, which group includes mainly the communicable diseases, also accounted for 21 deaths; but there were 40 deaths in that group of infant diseases which are to a great extent preventable; that is, conditions such as marasmus, acute gastroenteritis, injury at birth and prematurity over seven months.

For some years past, premature births have been the first cause of infant deaths. If for no other reason this deserves careful study, but that is especially so when we consider that many of them are preventable, particularly those born after at least seven months of foetal life. Unfortunately, the information in the birth certificates is not always complete in that regard, therefore there may have been still more in the preventable group than have been recorded. Much improvement could be made by increased pre-natal care. In order to obtain this we must increase our nursing service and we must get the interest of the private practitioner so that he will utilize the nursing service and extend the pre-natal care he gives to his patients. This nursing service should, of course, provide post-natal nursing care as well. Although the deaths from diarrhoea and enteritis have been greatly reduced, it should be remembered that these are preventable. McKinnon estimates that 63% of such deaths coincide with the fly season, the implication there being that we must not relax in our efforts to improve the community sanitation.

The British study previously mentioned brings out another point, that much of the improvement in infant mortality has been the result of improvement in the health of the mothers. It should be obvious, therefore, that any increased nursing service that we can provide to deal with the infant mortality must also be directed to maternal welfare. Our maternal mortality has remained fairly low, but even yet, is above the average for the province. There is another aspect of this problem, which, to my mind, is of even greater significance; that is, that 28% to 35% of women suffer from the after-effects of child birth. There are several general causes of these after-effects, but a nursing service which will assist the

attending physicians, interpreting the physician's instructions, which would demonstrate for the mothers the methods of carrying out these instructions, and which would encourage her to return for necessary post-natal examinations, would do much to reduce both maternal mortality and the unfortunate post-natal morbidity so common now.

In order to improve our community's health service, the Board has been endeavoring for some years to create a generalized nursing service using as a nucleus the amalgamated nursing services of the school boards and this board.

This appears to be a step nearer fulfilment as shown by the vote on the plebiscite presented to the electors at the last Civic election. A very substantial majority of the electors expressed their approval of the plan to amalgamate the school boards' health services with that of the Local Board of Health.

I am sure that the Board will join with me in expressing appreciation for the service rendered in the Child Welfare Clinic by Drs. Newell, Folinsbee, Leitch and Calder, and also for the service to mothers rendered by Drs. Conn and Vant at the pre-natal clinic.

GENERAL SANITATION AND LICENSES

In spite of the additional work thrown on your inspectors as a result of the unfortunate economic conditions, work which was in the nature of relief, but which seemed necessary for inspectors to handle temporarily, they have continued to exercise full supervision over the general sanitation of the community. Inspection of premises requiring licenses, supervising local water supplies, improvement of housing and many other activities affecting the community were carried on. Increase in sewer and water installations have been naturally retarded because of difficult financial circumstances, but some of the more objectionable places have either been removed or closed. This applies particularly to the premises owned by the city. The bath house and disinfesting station continues to prove its value to the city, both insofar as cleanliness is concerned and also from the standpoint of reduction of vermin.

FOOD AND MILK

The food inspection division shows a reduction in the number of condemnations. This reduction is attributed to two factors. (1) improvement at the farms; instances are on record where, as a result of the meat inspection, wrong conditions were recognized at the farm and corrected, (2) a growing realization on the part of the producer that the city insists upon a defined and reasonably high standard of product.

May I call your attention to the tables in the dairy inspection report, showing the results of weekly blue tests. These blue tests indicate the bacterial standard of the milk and it is gratifying to see the continued improvement. However, there is no reason why this standard cannot be attained by every producer and maintained constantly. Our efforts, therefore, are being directed to that objective. As shown in the milk inspection report by another means, the bacterial count corroborates the blue test. We also find there is an improvement in the sediment test, that is, the actual cleanliness of the milk is improved, the average mark obtained being 9.13 as compared with 8.88 the previous year. The nutritive qualities of the milk continue to be well above the minimum standards demanded.

Yours respectfully,

R. B. JENKINS,

Medical Officer of Health.

FINANCIAL STATEMENT

EXPENDITURE

	1933	1932
Salaries	$27,372.03	$28,365.79
Printing, Postage, Stationery	778.62	746.29
Transportation	3,946.19	4,765.95
Telephones	216.35	208.76
Miscellaneous	189.24	390.53
Uniforms	258.00	214.31
Communicable Disease	159.52	186.79
Food and Dairy Inspection	154.91	165.24
	$33,074.86	$35,043.66

REVENUE

Inspection Fees	$ 492.25	$ 428.00
Balance on Cost of Operation	$32,582.61	$34,615.66

DIVISION OF EXPENDITURE

	Administration	Communicable Disease	Sanitation	Food Inspection	Milk Control	Lab. Service	Pub. Health Nursing	Vital Statistics	Total
Salaries	$6,200.00	$1,950.00	$8,466.00	$2,436.00	$1,986.00	$2,186.00	$2,864.00	$1,284.00	$27,372.00
Supplies	439.00	185.00	185.00	35.00	129.00	170.00	15.00	75.00	1,233.00
Transportation	370.00	586.00	772.00	600.00	1,200.00	62.00	356.00		3,946.00
Sundries	181.00	80.00	224.00	31.00	4.00	4.00			524.00
	$7,190.00	$2,801.00	$9,647.00	$3,102.00	$3,319.00	$2,422.00	$3,235.00	$1,359.00	$33,075.00
Per Cent of Total	21.8	8.4	29.1	9.4	10.	7.3	9.9	4.1	

SUMMARY OF STATISTICS

	1933	1932
Population (1933 census)	79,231	78,387
Area of city (including 1,000 acres of water	26,520	26,520
Persons per acre of land	3.10	3.07
School enrolment	18,515	18,353
Natural increase of population	789	928
Cost per capita	0.42	0.45
Births, excluding stillbirths	2,100	2,340
Births, city parentage only	1,375	1,561
Births, city parentage only, rate per 1,000 pop.	17.18	19.5
Stillbirths	29	52
Stillbirths, rate per 1,000 births	20.65	32.23
Deaths, excluding stillbirths	895	947
Deaths, citizens only	585	633
Deaths, citizens only, rate per 1,000 population	7.31	7.91
Deaths, citizens under 1 year of age	82	69
Infant mortality, rate per 1,000 living births	59.6	44.2
Number of deaths from childbirth	5	7
Maternal mortality, per 1,000 births	4.5	4.47
Marriages	1,119	1,183

VITAL STATISTICS

Births

Male, 704; Female, 671; Total 1,375

Born in Hospital, 1,209; born at home, 166.

Physician attending, 1,362. unattended, 13.

Maternal Parentage—

Of the 1,375 city births—

704 or 51.2 %—Canadian.
300 or 21.81 %—British.
138 or 10.03 %—U.S.A.
233 or 17.00 %—Foreign.

88 or 6.4 % of births were illegitimate, of these—

56 or 63.6 %—Canadian.
10 or 11.4 %—British.
6 or 6.6 %—U.S.A.
16 or 18.2 %—Foreign.

Stillbirths

Male, 14; Female, 15; Total 29
Born in hospital, 26; unattended, nil.

Age of Mothers—

15 years to 19 years	1
20 years to 24 years	5
25 years to 29 years	10
30 years to 34 years	9
35 years and over	4

Nationality of Mothers—

Canadian	12
British	6
United States	0
Foreign or unstated	11

Causes of Foetal Death—

Dystocia	14	Prematurity	2
Malformation	4	Toxemia of pregnancy	1
Other diseases or conditions of mother			8

DEATHS

Male, 331; Female, 254; Total 585

Canadian	302
British	158
United States	47
Foreign	78

Deaths under 1 year of age—
Total, 82; Male, 36; Female, 46.
Rate per 1,000 living births, 59.6.

PRINCIPAL CAUSES OF DEATH

		1933			1932		
		No. Cases	% Total	Rate Per 100M Pop.	No. Cases	% Total	Rate Per 100M Pop.
90- 95	Diseases of Heart	105	18	131.2	92	14.5	115
45- 53	Cancer	82	14	102.5	71	11.2	89
158-161	Early Infancy	44	7.5	55	25	3.95	31
163-198	External Causes	32	5.47	40	44	6.95	55
23- 32	Tuberculosis	26	4.44	32.5	37	5.84	46
11	Influenza	24	4.10	30	39	6.2	49
107-109	Pneumonia	23	4	28.7	32	5.05	40
130-132	Acute & Chronic Nephritis	17	2.9	21.2	30	4.73	38
121	Appendicitis	14	2.39	17.5	13	2.05	16
82	Apoplexy	14	2.39	17.5	22	3.47	28
119-120	Diarrhoea	12	2.05	15	21	3.3	26
157	Malformation	10	1.7	12.5	8	1.26	10
140-150	Puerperal State	5	.85	6.25	7	1.10	8.7
	Other Causes	177	30.25	221.2	192	30.4	241
		585			633		

These thirteen principal causes represent 69.7% of the total deaths.

In 1933, as in 1932, the two highest death rates were Heart Disease and Cancer, each showing a considerable increase.

Of the 32 deaths from External Causes, 5 were suicides, 1 homicide and 26 accidents.

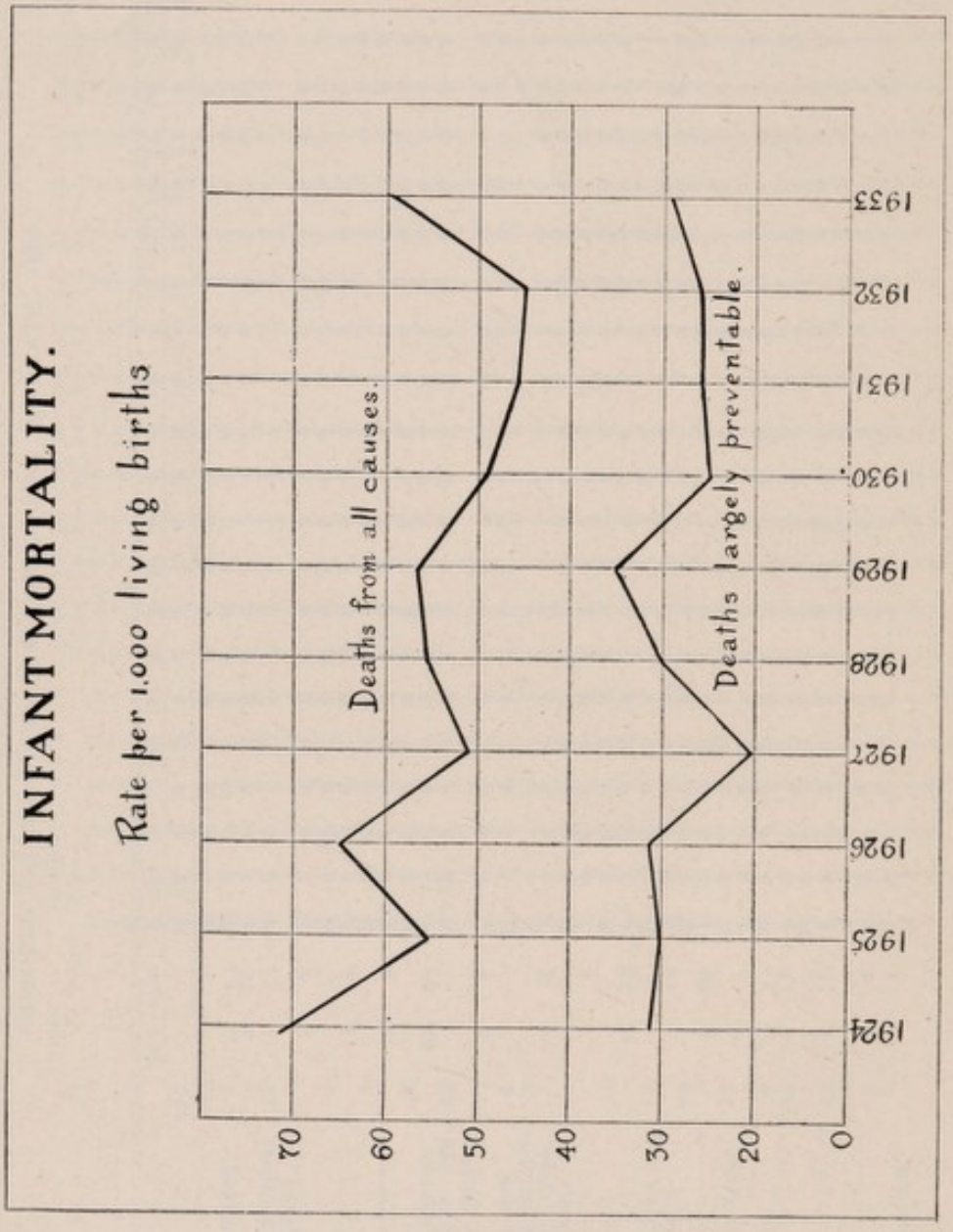
INFANT MORTALITY, 1933

		CAUSES OF DEATH	By Season														By Age								
			City Total	January	February	March	April	May	June	July	Auust	September	October	November	December	1st Day	1st Week	2nd Week	3rd Week	4th Week	Total Under One Month	1- 3 Months	4- 6 Months	7- 9 Months	10-12 Months	
I.	9	Whooping cough	3								1	1			1						1	1		1	9
	11c	Influenza with pneumonia	3		2				1													1	1	1	11c
	15	Erysipelas	1										1										1		15
	34a	Congenital Syphilis	1	1																	1				34a
VI.	79	Meningitis	2	1								1									1	1			79
	86	Convulsions	1	1																	1				86
	87e	Mongolian Idiot	1	1																	1				87e
VIII.	107a	Broncho-pneumonia	7	3		2	1	1												1	1	2		2	2	107a
	110a	Pleurisy with operation	2						1			1											2			110a
IX.	119	Enteritis	5	1	1		1		1			1								1	1		2	1	1	119
XII.	152	Cellulitis	1									1										1				152
XIV.	157b	Spina Bifida	1	1													1				1					157b
	157c	Congenital Malformation of the heart	5	2			1		1	1						2	1		1		4			1		157c
	157e	Congenital Malformations not otherwise specified	4		1	1					1		1			1	1				2		2			157e
	159	Premature birth	35	5	2	4	3	5	1	2	9	2	1		1	22	7	3	2		34	1				159
	160b	Injury at birth without mention of Casearean operations	4				1	1							2	2	2				4					160b
	161a	Atelectasis	1								1					1					1					161a
	161e	Diseases of early Infancy	4		1	2			1								2	1			3	1		1		161e
XVII.	186	Accidental deaths	1		1																					186
		TOTALS	82	16	8	9	7	7	6	3	12	7	3	0	4	28	14	4	3	2	51	10	9	7	5	

ABRIDGED INTERNATIONAL LIST OF CAUSES OF DEATH, 1933

	Totals				Under 1	1	2	3	4	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100
	M	F	Total		1 Yr.					9	14	19	24	29	34	39	44	49	54	59	64	69	74	79	84	89	94	99	
1. Typhoid and	0			M	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
paratyphoid fever		1	1	F	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6. Whooping	2			M	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cough		3	5	F	2	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1			M	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7. Diphtheria			1	F	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	10			M	2	0	1	0	0	0	1	0	0	1	2	1	0	0	0	0	2	0	0	0	0	0	0	0	0
8. Influenza		14	24	F	1	0	0	0	0	0	1	0	0	0	1	2	2	2	1	2	0	1	0	0	0	0	1	0	0
10. Tuberculosis of the	12			M	0	0	0	0	0	0	0	0	0	1	3	2	2	1	1	1	0	0	1	0	0	0	0	0	0
respiratory system		6	18	F	0	0	0	0	0	0	0	0	1	0	1	2	0	0	0	1	1	0	0	0	0	0	0	0	0
11. Tuberculosis	3			M	0	1	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0
other forms		5	8	F	0	0	0	0	0	1	0	3	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
14. Other infectious and	2			M	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0
parasitic diseases		3	5	F	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0
	5			M	1	0	0	0	0	0	0	0	0	0	0	1	0	2	0	0	1	0	0	0	0	0	0	0	0
12. Syphilis			5	F	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15. Cancer and other	46			M	0	0	0	0	0	0	0	1	0	2	1	1	2	1	4	11	5	2	7	5	2	2	0	0	0
malignant tumors		36	82	F	0	6	0	0	0	0	0	0	2	0	1	4	1	4	4	5	3	6	3	1	2	0	0	0	0
16. Tumors, non-malignant	3			M	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
or not specified		3	6	F	0	0	0	0	0	0	0	0	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
17. Chronic rheumatism	1			M	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
and gout			1	F	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3			M	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	1	0	0	0	0	0	0
18. Diabetes		8	11	F	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	4	1	1	0	0	0	0	0
19. Alcoholism	1			M	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
(acute or chronic)			1	F	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20. Other general diseases and	10			M	0	0	0	0	0	0	1	0	0	0	0	1	1	0	3	1	0	1	2	0	0	0	0	0	0
chronic poisonings		10	20	F	0	0	0	0	0	0	1	0	0	0	0	0	0	1	0	2	2	1	2	0	1	0	0	0	0
21. Progressive locomotor ataxia and	1			M	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
general paralysis of insane			1	F	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22. Cerebral	6			M	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
haemorrhage		8	14	F	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	3	0	1	1	0	1	1	0	0
23. Other diseases of the nervous																													
system and organs of	5			M	2	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	1	0	0	0	0	0	0	0	0
special sense		8	13	F	2	0	0	0	0	1	0	1	1	0	0	0	1	0	0	1	0	0	0	0	0	0	1	0	0
24. Diseases of the	74			M	0	0	0	0	0	0	0	1	1	0	0	2	5	4	10	6	9	7	17	8	2	2	0	1	0
heart		31	105	F	0	0	0	0	0	0	0	1	0	0	0	1	0	2	2	2	3	5	1	7	4	3	0	0	0
25. Other diseases of the	26			M	0	0	0	0	0	0	0	0	0	0	0	1	0	1	3	2	3	3	5	3	2	3	0	0	0
circulatory system		18	44	F	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	4	2	3	0	6	0	2	0	0	0
	1			M	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
26. Bronchitis			1	F	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	9			M	3	0	0	0	0	0	0	0	0	0	0	0	2	0	1	0	2	0	0	1	0	0	0	0	0
27. Pneumonia		14	23	F	4	0	0	1	0	0	0	0	0	0	0	1	0	0	1	0	1	1	2	1	1	1	0	0	0

28. Other diseases of respiratory system (Tuberculosis excepted)	6			M	2	1	0	0	0	0	1	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0
		2	8	F	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
29. Diarrhoea and enteritis	7			M	2	0	0	2	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0
		5	12	F	3	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
30. Appendicitis	7			M	0	0	0	0	0	0	0	0	1	1	1	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0
		7	14	F	0	1	1	1	0	0	1	0	0	0	0	1	0	0	1	0	0	1	0	0	0	0	0	0	0	0
31. Diseases of the liver and biliary passage	4			M	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	0	0	1	0	0	0	0	0	0
		2	6	F	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0
32. Other diseases of the digestive system	14			M	0	0	0	0	0	0	0	1	1	0	0	1	4	3	1	1	1	0	1	0	0	0	0	0	0	0
		8	32	F	0	0	0	0	1	1	0	0	1	0	0	0	1	0	1	1	0	2	0	0	0	0	0	0	0	0
33. Nephritis	10			M	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	2	2	0	2	2	0	0	0	0	0
		7	17	F	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	2	0	1	1	2	0	0	0	0	0
34. Other diseases of the genito-urinary system	8			M	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	2	0	1	1	2	1	0	0	0	0	0
		3	11	F	0	0	0	0	0	0	0	0	0	1	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0
35. Puerperal septicaemia				M	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		1	1	F	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
36. Other diseases of pregnancy childbirth and puerperal state				M	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		4	4	F	0	0	0	0	0	0	0	0	1	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
37. Diseases of the skin and cellular tissue and of the bones and organs or locomotion	3			M	1	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		2	5	F	0	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
38. Congenital debility and malformations, premature births and other diseases of early infancy	22			M	22	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		32	54	F	32	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
39. Senility	6			M	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	1	1	0	0
		3	9	F	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	1	0	0
40. Suicide	4			M	0	0	0	0	0	0	0	0	2	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0
		1	5	F	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
41. Homicide	1			M	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
			1	F	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
42. Violent or accidental deaths (suicide and homicide excepted)	17			M	0	0	1	1	0	2	2	2	1	2	1	1	0	1	0	1	0	1	0	1	0	0	0	0	0	0
		9	26	F	1	0	0	0	0	0	1	1	0	0	0	0	0	1	1	0	0	0	2	2	0	0	0	0	0	0
43. Causes of death not specified or ill defined	1			M	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
			1	F	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTALS	331			M	36	3	2	3	1	2	5	7	8	8	9	15	23	16	27	29	32	17	40	25	11	9	2	1	0	
		254	585	F	46	3	2	3	2	3	3	6	8	6	4	13	8	13	12	19	21	24	12	20	12	9	3	1	0	


INFANT MORTALITY.
Rate per 1,000 living births
Deaths from all causes.
Deaths largely preventable.
70
60
50
40
30
20
0
1924
1925
1926
1927
1928
1929
1930
1931
1932
1933

COMMUNICABLE DISEASES

Notifiable	1933 Cases	1933 Deaths	1932 Cases	1932 Deaths
Acute Polimyelitis	3			
Cerebro-spinal Meningitis (Meningococcic)	1		2	
Diphtheria	1	1	3	
Scarlet Fever	58		41	
Smallpox				
Chickenpox	589		859	
Measles	35		3654	4
Mumps	420		491	
Rubella	2		3	
Typhoid	7	1		
Para-Typhoid Fever			3	
Whooping Cough	1326	5	306	
Erysipelas	17	2	23	2
Tuberculosis (Pulmonary)	62	11	57	31
Tuberculosis (other forms)	7	7	7	6
Pneumonia, Acute Lobar		8	5	15
Dysentery			1	
Venereal Disease	320	5	336	5
Trachoma	1			
Puerperal Septicaemia			1	1
Septic Sore Throat			8	2
Undulant Fever	1			
	2850	40	5800	66
Non-Notifiable				
Diphtheria Carriers	1		2	
Typhoid Carriers			1	
Purulent Infections		2		6
Influenza		23		39
Trench Mouth			3	
	1	25	6	45

The 2,850 cases of communicable disease give a morbidity rate of 35.6 per 1,000 population. There were 48 deaths or a death rate of 1.68% of cases.

1,131 or 39.7% were pre-school children, among whom 14 deaths occurred. 1,225 or 43% were school children, of whom only 2 died; and 494 or 17.3% were adults, of whom 32 died.

The adults deaths include 16 from tuberculosis (all forms) and 7 from lobar pneumonia. Influenza, which is not included among notifiable diseases unless in an epidemic form, was responsible for 18 deaths.

The school population in Grades 1 to 8 is estimated at 13,264. Number of days lost due to quarantine, 13,718:

Poliomyelitis	30 days
Scarlet Fever	910 "
Chickenpox	2506 "
Measles	180 "
Mumps	4305 "
Typhoid Fever	27 "
Whooping Cough	5760 "

At an average cost of 40c per pupil per day this means a loss of $5,487.20, approximately one-half of the loss last year.

ISOLATION HOSPITAL

The diseases hospitalized included: Scarlet Fever, 51; Tuberculosis, 17; Diphtheria, 3; Typhoid Fever, 8; Erysipelas, 24; Meningitis, 8 (all forms); Poliomyelitis, 4. Whooping Cough, 26; Scabies, 38.

The deaths occurring in the hospital were as follows: Tuberculosis, 5; Meningitis, 7; Erysipelas, 2; Whooping Cough, 2; Suspect Diphtheria, 1; Non-infectious, 15.

IMMUNIZATION

	Smallpox Vaccination	Diphtheria Immunization	Whooping Cough Vacc.
Local Board of Health	145	159	235
Public Schools		1294	
Separate Schools	152	247	
	297	1700	235

TUBERCULOSIS NURSING SERVICES

Total visits made by nurse	2,700	Clinics, number held	23
Visits to positive cases	1,190	Persons examined	301
Visits to suspect cases	261	New examinations	147
Visits to contacts	429	(a) positive	27
No. of contacts seen	2,942	(b) suspects	35
Co-operative visits	591	(c) contacts	24
Not at home, wrong address, etc.	229	(d) ex-sanatorium	13
New cases reported	61	(e) non-tubercular	48
Suspects	39	Re-examinations	63
Contacts	145	Re-examinations ex-san.	86
Cases admitted to sanatorium	29	Contacts	5
Cases admitted to local hospitals	35	No. of visits to office	644
Died, 27; deported, 4; discharged, 2	33	Letters written	257
Total cases on roll	364		

PUBLIC HEALTH NURSING

The following visits have been made:

	1933	1932
Child Welfare	2934	3433
Pre-natal visits	279	376
Post-natal visits	175	256
New births visited	130	163
Investigation visits	102	140

DISABILITIES FOUND DURING DISTRICT VISITS

	Babies	Pre-School Age	School Age	Adults
I. Infectious and Parasitic diseases	42	32	16	6
II. Cancer and other tumors				
III. Rheumatic Diseases, Diseases of Nutrition and of Endocrine Glands and other general disease	21	5	1	6
IV. Diseases of the Blood and Blood Forming Organs	4			
VI. Diseases of the Nervous System and Organs or Special Sense	3	12	3	2
Diseases of the Organs of Vision	9	4		4
Diseases of the Ear and of the Mastoid Process	4	1	1	
VII. Diseases of Circulatory System	5	8		4
VIII. Diseases of Respiratory System	7	5		
IX. Diseases of Digestive System	59	85	2	2
X. Diseases of Genitro-Urinary System	4	7		
XI. Diseases of Pregnancy				
XII. Diseases of Skin and Cellular tissue	40	17	14	11
XIII. Diseases of Bones and Organs of Locomotion				
XIV. Congenital Malformation	9	3		
XV. Diseases of Early Infancy	8	1		
XVI. Senility				
XVII. External Causes	3	5		
XVIII. Not Specified	4	2		1

PRE-NATAL AND POST-NATAL SERVICES

	1933	1932
New cases admitted	172	201
Discharged	173	219
On roll December 31st	43	44

CHILD WELFARE CLINICS

Clinics are held bi-weekly throughout the year. Here babies are examined and weighed and the mother instructed as to care and feeding by the doctor in charge.

The number of babies and pre-school children being brought each year to the Clinic is steadily increasing, and undoubtedly in years to come this educational work should bear fruit.

Following is a report of the Clinics held during the past year:

Diagnostic clinics held during the year		102
Number in attendance		5562
Average attendance		55
Weighing clinics held during the year		48
Number in attendance		774
Average attendance		14
New babies admitted		792
New pre-schools admitted		198
Total number in attendance		6336
Babies referred to family doctor		50
Pre-school referred to family doctor		29
Attendance according to age:		
Babies under 1 year	3983	
Babies under 2 years	1103	
		5086
Pre-school under 3 years	508	
Pre-school under 4 years	306	
Pre-school under 5 years	224	
Pre-school under 6 years	155	
Pre-school under 7 years	57	
		1250
		6336

Nurses are in attendance at each clinic and follow up the cases in their homes, the mother being instructed in the preparing of feedings and in the routine care of the child. Breast feeding receives special attention. Good results are being achieved.

Much time has been spent by our nurses at their district work investigating home conditions, etc. It was found in most of the cases reported that a shortage of food and clothing with the accompanying despondency was at the root of the trouble. By enlisting the co-operation of the Civic and Provincial Relief Departments or else that of some of the various charitable organizations, much was done to alleviate and eliminate suffering and distress.

All pre-natal and post-natal cases registering at the Provincial Out-door Clinic are followed up by the Department nurses. This phase of our work is likewise showing satisfactory results.

Layettes have been provided for new babies, and clothing when necessary for those mentioned in the preceding paragraph by the Junior Hospital League to whom much praise is due for the work undertaken and carried out by them in 1933.

The valuable aid received from the Red Cross Society in very many emergency cases cannot be too highly commended.

At all times active and kindly co-operative service was given by the Victorian Order of Nurses, Sunshine, and other societies working for the welfare of the less fortunate members of the community.

HEALTH INSPECTION

INSPECTIONS

821 complaints were received from the public, of these 605 were found to be justified upon inspection.

4,220 verbal notices were issued for the abatement of nuisance and 2,036 written notices making a total of 6,256.

21,136 inspections were made of public and private premises, 4,269 re-inspections were made.

LICENSES

1,263 license applications received from bake shops, barber shops, bath houses, butcher shops, candy and ice cream parlors, dairies, dog kennels, entertainment halls, fish dealers, fur farms, hair dressing and manicuring, laundries, lodging houses, pool, billiard and dance halls, restaurants, vegetable and fruit wagons, etc., were investigated and reports turned over to License Inspector for action.

SEWER AND WATER INSTALLATION

Seventy-six sewer and water notices were issued, 8 notices were compied with, 29 were granted an extension of time. Figures from the Building Inspector show that 162 plumbing permits were issued. Of those 27 were for old buildings.

HOUSING SUPERVISION

Following our usual procedure, rooming houses were regularly checked up for vermin, etc., and instructions given for the prevention of overcrowding and general maintenance of sound sanitation.

BATH HOUSE AND DISINFESTING STATION

26,776 men were given baths. Of this number 91 were verminous. The clothing of 561 was disinfested. 23,126 men washed their clothing and 69,378 clothing units were washed. 353 cases of Scabies were treated and their clothing and bedding disinfested. I wish to tender the thanks of this division to the Department and school nurses for their readily given co-operation when requested.

SCAVENGING

The scavenging system in force functioned well. Few complaints were received. Those received that were justified were speedily rectified.

COW SHEDS AND STABLE INSPECTION

Structural improvements of cowsheds, such as impervious floors, proper lighting and ventilation, etc., received considerable attention by the inspectors during the year with marked results. $492.25 cattle and hog permit fees were collected.

WATER

27 samples of water were taken, 17 well were placarded. Eight ice samples were taken. Inspections were made of ice houses and ice fields.

FOOD AND BEVERAGES

Frequent inspection have been made of the drinking glasses used in the beer parlors. Sterilizations by chlorination of these glasses is being enforced.

45 samples of foodstuffs, exclusive of water and milk, were collected by the Health Inspectors and submitted to the Provincial Laboratory for examination.

1559 pounds 2 ounces of foodstuffs were condemned by the Health Inspectors.

Medical certificates of health were demanded from 29 food handlers.

INFECTIOUS AND CONTAGIOUS DISEASES

During the year 2,315 homes were quarantined and released from quarantine.

Cases of tuberculosis, goitre, trench mouth, typhoid fever and venereal diseases were investigated by the Inspectors during the year.

INDUSTRIAL HEALTH SERVICE

Inspections were made of the business premises where help was employed and improvements in working conditions obtained where necessary.

RELIEF

Valuable assistance was given by Mrs. Marshall of the Sunshine office, and other charitable organizations in supplying bedding, clothing, etc.

Regarding the borderline cases, this division has borne the brunt of the trouble caused by them. Assistance to prevent malnutrition, etc., was obtained in several instances.

ENFORCEMENT OF REGULATIONS

Four were prosecuted during 1933.

FOOD INSPECTION

There has been no change made in this Department during 1933. There is urgent need for control of foods of various kinds, confectionery, candy, bread, meat, etc., displayed for sale in stores so as to protect them from dust, flies, etc., and to prevent handling by the public.

There has been a decline in the number of hogs slaughtered for local consumption due to the greatly increased cost of the live animals, and the comparatively low price of other kinds of meat. The totals for veal and mutton are the same as for last year while the number of cattle slaughtered has increased.

MEATS INSPECTED AND CONDEMNED

		CONDEMNED		
	No. Inspected	Portions	Carcasses	Weight
Beef	1,664	232	7	9,141
Veal	2,244	29	2	645
Mutton	1,868	99	4	500
Pork	5,228	1,546	5	18,909
	11,004	1,906	18	21,195 lbs.

CARCASSES INSPECTED AND FOUND TO BE INFECTED BY T.B.

	Inspections	Infected	Percent.
Beef	1,448	49	4.14%
Pork	3,986	722	18.11%

(These figures for 10 months only).

OTHER FOODSTUFFS CONDEMNED

Poultry	133 lbs. 4 oz.	
Sundries	509	
		642 lbs. 4 oz.

FOODSTUFFS CONDEMNED BY HEALTH INSPECTORS

Canned Goods	946 lbs. 2 oz.	
Meat	143 lbs. 8 oz.	
Fish	3 lbs. oz.	
Vegetables	127 lbs. oz.	
Fruit	146 lbs. oz.	
Candy	9 lbs. oz.	
Poultry	95 lbs. 8 oz.	
Ice Cream	57 lbs. oz.	
Sundries	32 lbs. oz.	
		1,559 lbs. 2 oz.
		23,396 lbs. 6 oz.

No. of visits to butcher shops	4,310
No. of visits to other shops	913
	5,223

Complaints received from the public, 33.

Complaints justified, 19.

Complaints unjustified, 14.

PROSECUTIONS

One rooming house keeper was fined $3.00 and costs for having uninspected meat for use on his premises.

DAIRY INSPECTION

The following four hundred and thirteen applications for dairy licenses comprise the general milk supply and come under my report as follows:

	Totals	Granted	Refused
Local and within 15 mile radius of city (milk)	312	305	7
More distant points (cream)	101	97	4
	413	402	11

During the year there were 363 temporary suspensions of dairy licenses of milk producers who ship milk to pasteurizing plants. Three licenses were also suspended indefinitely on account of continued unsatisfactory conditions.

Further progress has been made in the keeping quality of the milk which is shipped to milk plants to be pasteurized. A general test of the milk from all shippers is carried out weekly throughout the year under the Methylene Blue Reductase Test. Wherever a sample of milk is found to be in Class 2 a further test is made in three of four days time. During 1933 12,422 samples of the above market milk were tested under the supervision of this branch of the Local Board of Health. No Class 4 milk has been shipped since the summer of 1931 and during 1933 there were but three small individual shipments of Class 3 milk as revealed by the tests.

The Reductase tests were carried out according to the Standard Methods of Milk Analysis and the following table shows the percentage of milk producers who shipped raw milk to pasteurizing plants which was in Class 1 under the above standards when received at the milk plants. Limitations of space compel the omission here of the results of the weekly tests and they are, therefore, shown as a monthly average.

	1930	1931	1932	1933
January (Incomplete Records)		90.82	95.11	96.68
February	72.	90.55	95.10	97.84
March	75.5	91.51	95.67	97.08
April	77.5	87.21	96.75	96.76
May	65.	87.01	91.13	95.24
June	65.5	79.88	85.20	91.22
July	44.	77.29	97.21	92.64
August	64.	83.92	91.54	92.86
September	88.	92.18	95.38	97.73
October	91.5	97.19	97.95	98.38
November	88.	97.19	96.35	96.51
December	88.	91.33	97.	99.57
Average	74.4	88.84	94.53	96.04

During the fiscal year, April 1st, 1932, to March 31st, 1933, 13,091 dairy cattle were Tuberculin tested by the Dominion Department of Agriculture; 0.1% of these were reactors. All reacting animals were slaughtered under Dominion veterinary inspection, the amount of compensation paid to owners being $586.53.

The appreciation is acknowledged of the co-operation given and suggestions made by Leslie C. Frank, Esq., Sanitary-Engineer-in-Charge, Office of Milk Investigations, United States Public Health Service, in the proposed changes of the Edmonton Dairy By-Law.

Appreciation is again acknowledged of the co-operation and continued assistance given by Dr. H. R. Thornton, Professor of Dairying, University of Alberta, Edmonton, regarding problems in dairy bacteriology and in the carrying out of bacteriological surveys at the farms of milk shippers who were having difficulty in meeting our bacteriological standards.

LABORATORY REPORT

MILK INSPECTION

During the year there were taken 1,293 samples of retail milk, an increase over the previous year of sixty-one samples. The results of the bacterial examination are as tabulated. The samples which could not be counted because of the growth of spreader organisms are not taken into account in arriving at the percentage in each group.

	Special	15,000 40,000	40,000 100,000	100,000 400,000	Over 400,000	T.N.C.	Spreaders	Total
January	71	9	5	2	0	2	0	89
February	67	15	4	5	0	2	0	93
March	87	18	5	2	0	2	0	114
April	87	16	2	3	1	0	0	109
May	104	3	4	0	0	0	0	111
June	89	10	8	2	0	3	0	112
July	93	7	4	6	0	2	1	113
August	89	18	16	6	1	2	0	132
September	68	20	9	7	1	0	2	107
October	79	17	3	2	0	0	2	103
November	89	20	13	6	0	0	5	133
December	57	12	5	2	0	0	1	77
Total	980	165	78	43	3	13	11	1293
Per Cent.	76.44	12.86	5.08	3.43	.23	1.01		100
Out of a possible 10 points the:						1933		1932
Average mark for sediment was						9.13		8.88
Average butter fat on 1287 samples						3.94		3.84
Average solids not fat on 1285 samples						8.98		8.74

In addition all samples from about April on, were tested by the Methylene Blue Reduction test with quite useful and satisfactory results.

In addition to these regular retail samples a large number of tests of other samples were made, many of them for the information of producers or retailers wishing to improve their product or their method of handling. There were 146 special samples tested including very many high test milks for hotel and dining car service. The average butter fat was 4.4% One hundred and thirteen of these samples were examined for bacteria count, 88 or 78.5% were in the special class.

Sixty-one samples of cream were examined. The average butterfat was found to be 25% and of 59 examined for bacteria count 40 or 68% gave counts of 15 thousand or under.

SWIMMING POOLS

There were 195 samples of swimming pool water taken for bacteria count of which 191 samples or 98% gave counts of 200 per cubic centimeter or under. (Almost all of these counts were under 10). No single sample gave a positive test for colon bacillus. Tests were also made from time to time for free chlorine in the water. Solutions have also been made up for our three city pools and the two privately owned ones to check on their disinfecting methods.

As an experiment at one of the pools as a means of prolonging the disinfecting action of the hypochlorites there was also added Ammonium Sulphate. This change resulted in a very marked decrease in the amount of chlorine used without any decease as far as could be ascertained in the anti-bacterial efficiency. Under no condition did residual chlorine fail to carry through the whole length of the pool. As the Ammonium salt was very cheap and used in very small amounts the chlorination bill was reduced about 80%. The results were so good that the same method was also tried at the other two pools for the finish of the season. As the water tends to become slightly more acid by this method of treatment, various tests were made of the hydrogenion concentration (pH) to make sure that it was kept sufficiently alkaline to cause no irritation to the skin and eyes. As this particular type of chloramine treatment is rather unusual, considerable work still remains to be done to establish the best working conditions.

SEWAGE DISPOSAL PLANTS

General supervision was found necessary and was given to the operation of our various sewage plants and tests made of the influent, effluent, sludge and gas as were required. Such a surplus of gas was produced from one of our plants that we were enabled for considerable time to use the same to heat other civic buildings.

The chlorinating apparatus previously used by us at one of the packing plants was moved down to the sewage plant and has proved very useful in helping control the odor nuisance there.

During the early spring test holes were made through the ice considerable distance down the stream to get an idea of the fate of our sewage in the river. Many samples were taken for test at various times until the ice broke up. The oxygen content of the water was reduced by only a very small amount but the grease material to some extent still persisted. This of course, was rather to be expected under winter conditions particularly.

WATER SUPPLY, ETC.

To some limited extent, supervision was given to the water purification and various tests of the water were made. The provincial Laboratory made almost daily bacterial examination and the results were used by our office for control.

Various classes of tests were made on varying materials among them numerous tests of enamel ware for the presence of significant amounts of easily soluble antimony and tests of strength of various chlorine sterilizers and alkali washing powders for dairy and bottling works use.