Annual report of the Department of Health, Ontario, Canada.

ANNUAL REPORT

PROVINCIAL BOARD OF HEALTH

1925

DEPARTMENT OF HEALTH

Forty-fourth Annual Report

OF THE

Department of Health

Ontario, Canada

FOR THE YEAR

1925

PRINTED BY ORDER OF
THE LEGISLATIVE ASSEMBLY OF ONTARIO

ONTARIO

Ne pereat populus scientia absente

TORONTO
Printed and Published by Clarkson W. James, Printer to the King's Most Excellent Majesty
1926

PRODUCED BY
The United Press
LIMITED
TORONTO
CANADA

To His Honour Henry Cockshutt, Esq.,

Lieutenant-Governor of the Province of Ontario.

May It Please Your Honour:

I herewith beg to submit for your consideration the Forty-fourth Annual Report of the Department of Health for the year 1925.

Respectfully yours,

Forbes Godfrey,

Minister of Health and Labour.

Toronto, February 1st, 1926.

To The Honourable Forbes Godfrey, M.D.,

Minister of Health and Labour.

Sir,—I have the honour to submit for your approval the Forty-fourth Annual Report of the Department of Health, made in conformity with and under the provisions of the Public Health Act, for the year 1925.

I have the honour to be, Sir,

Your obedient servant,

W. J. Bell,

Deputy Minister of Health.

Toronto, February 1st, 1926.

DEPARTMENT OF HEALTH

Minister
HONOURABLE FORBES GODFREY

Deputy Minister
W. J. BELL, M.B.

The Provincial Board of Health

Adam H. Wright, B.A., M.D., M.R.C.S., Eng., Chairman.....Toronto
Henry R. Casgrain, M.D., C.M.....Windsor
Thos. E. Kaiser, M.D., C.M.....Oshawa
W. H. Howey, M.D., C.M.....Sudbury
A. S. McElroy, M.D., C.M.....Ottawa
James Roberts, M.D., C.M., M.O.H.....Hamilton
John W. S. McCullough, M.D., C.M., D.P.H., Chief Officer of Health and Secretary of the Board.....Toronto

District Officers of Health

District:	No. 1.	Thos J. McNally, M.D., C.M., D.P.H.	London
	No. 2.	J. J. Fraser, M.D., D.S.O.	Toronto
	No. 3.	Daniel A. McClenahan, M.D., C.M., D.P.H.	Hamilton
	No. 4.	N. H. Sutton, M.B., D.P.H.	Peterboro
	No. 5.	Paul J. Moloney, M.D., C.M.	Ottawa
	No. 6.	W. Egerton George, M.D., D.P.H.	North Bay
	No. 7.	G. L. Sparks, M.D.	Fort William
	No. 8.	Hugh W. Johnston, M.D.	Sault Ste. Marie

Division of Sanitary Engineering

F. A. Dallyn, C.E.....Provincial Sanitary Engineer
A. V. De Laporte, B.A.Sc.....Chemist in Charge of Experimental Station
A. E. Berry, M.A.Sc., C.E.....Assistant Sanitary Engineer

Division of Preventable Diseases

R. R. McClenahan, B.A., M.B., D.P.H.....Director
J. W. Hunt, M.B., L.R.C.P., M.R.C.S.....Clinical Specialist
A. L. McKay, B.A., M.B.....Clinical Specialist
G. C. Brink, M.B.....Clinical Specialist
O. G. Hague, M.B., D.R.....Clinical Specialist
Agnes Haygarth, Reg. N.....Social Service Nurse

Division of Maternal and Child Hygiene

John T. Phair, M.B., D.P.H.....Director
Beryl Knox, Reg. N.....Associate Director
Ella J. Jamieson, Reg. N.....Chief School Nurse
Marjorie Burgess, B.A.....Statistician

Division of Laboratories

C. M. Anderson, M.D., C.P.H. ..... Director
A. R. Bonham, B.A.Sc. ..... Chemist

Branch Laboratories

A. J. Slack, M.D., D.P.H., *Acting Director* ..... London
James Miller, M.D., F.R.C.S. (Edin.), *Director* ..... Kingston
N. O. Thomas, B.A., M.B., *Director* ..... Fort William
N. F. W. Graham, M.B., *Director* ..... Sault Ste. Marie
J. S. Douglas, M.B., *Director* ..... North Bay
W. R. Michell, M.B., *Director* ..... Owen Sound
G. M. Fraser, M.B., *Director* ..... Peterboro
J. L. Letts, M.B., D.P.H., *Director* ..... Ottawa

Division of Industrial Hygiene

J. G. Cunningham, B.A., M.B., D.P.H. ..... Director
R. M. Hutton, B.A. (Oxon.) ..... Literary Research
A. R. Riddell, B.A., M.B., D.P.H. ..... Clinical Specialist
F. M. R. Bulmer, M.B. ..... Special Research
H. E. Rothwell ..... Chemist
Alex. R. White ..... Chief Sanitary Inspector

Division of Dental Services

F. J. Conboy, D.D.S. ..... Director

Division of Vital Statistics

S. J. Manchester ..... Director

Division of Public Health Education

Mary Power, B.A. ..... Director
E. Jones ..... Picture Machine Operator

Honorary Consultants

Public Health Administration ..... J. G. Fitzgerald, M.D., F.R.S.C.
Pediatrics ..... Alan Brown, B.A., M.B.
Obstetrics ..... Wm. B. Hendry, M.D., D.S.O.

CONTENTS

ANNUAL REPORT

OF THE

Department of Health

of the Province of Ontario

For the Year Ending December, 31st, 1925

RESUME OF THE TRANSACTIONS OF THE PROVINCIAL BOARD OF HEALTH BY JOHN W. S. McCULLOUGH, CHIEF OFFICER OF HEALTH.

This is the Forty-fourth Annual Report of the Provincial Board of Health for the year ending 31st December, 1925.

The Board held four regular and three special meetings during the year.

There were no regulations made by the Board during the year.

In accordance with the legislation of last session of the Legislature, the work of medical and dental inspection of schools was transferred from the Department of Education to the Department of Health, and the Chief School Medical Officer, John Phair, M.B., D.P.H., with his staff joined the Department, and Fred J. Conboy, D.D.S., became Director of Dental Services.

During the year, the Registrar-General's Branch was transferred from the Provincial Secretary's Department to the Department of Health, as the Division of Vital Statistics.

In the course of the year W. J. Bell, M.B., became Deputy Minister of Health. Dr. J. J. Middleton left the service for South Africa where he has been appointed to the position of Deputy Medical Officer of Health for Johannesburg. The positions of Pediatrician and of Director of Education are thus left vacant. Dr. O. Hague was appointed assistant clinician in tuberculosis. The various divisions of the Department have been carrying on their work as usual, and the reports of each will be found elsewhere in this volume.

The Board dealt with a large volume of business during the year, particularly in the approval of water and sewage utilities.

Reference to these will appear in the report of the Sanitary Engineering Division.

The cost of the biological products supplied free to the public in the fiscal year was	$50,548 06	
Total revenue	2,441 90	
Net cost		$48,106 16
The cost of Insulin similarly distributed		33,569 63
		$81,675 79

DIVISION OF PREVENTABLE DISEASES

R. R. McClenahan, B.A., M.B., D.P.H., Director
J. W. Hunt, M.B., L.R.C.P., M.R.C.S., Acting Director

I have the honour to submit the following report of the work done by the Division of Preventable Diseases for the year 1925.

1. *The Venereal Diseases.*

(*a*) *Clinics.*

The number of clinics for the free treatment of venereal diseases in the Province is seventeen.

Tables 1, 2 and 3 show the number of new admissions, number of patients treated, and number of treatments given by clinics.

Table 4 shows the number of classified new admissions of syphilis, and discharges by clinics.

It was thought advisable to indicate the work being done on children in the clinics by the following tables: 5, 6 and 7.

(*b*) *Institutions.*

The extent of venereal disease among the inmates of Burwash, Guelph and the Mercer Reformatory in 1925, is shown below:

	1925	1924
Guelph—No. of admissions	1,053	748
No. of V.D.S. cases	100	42
No. of V.D.G. cases	28	14
Per cent. syphilis	9.49%	5.61%
Per cent. gonorrhoea	2.65%	1.87%
Burwash—		
No. of admissions	1,003	1,078
No. of V.D.S. cases	137	61
No. of V.D.G. cases	116	65
Per cent. syphilis	13.7%	5.6%
Per cent. gonorrhoea	11.6%	5.1%
Mercer—No. of admissions	186	164
No. of V.D.S. cases	64	58
No. of V.D.G. cases	70	46
Per cent. syphilis	34.5%	43%
Per cent. gonorrhoea	37.7%	35%

Weekly trips were made by the Division to the Guelph Reformatory, and the Mercer Reformatory, for the purpose of treating infected inmates. The figures below show the amount of work done in the following institutions:

	Wassermans	Smears	V.D.S. Treatments	V.D.G. Treatments
Burwash	849	139	1,053	12,848
Guelph	1,062	Ex. locally	846	1,425*
Mercer	626	470	1,164	2,708
Women's Farm	182	479	362	1,415
Men's Farm	1,426	1,426	674	355*

*Irrigations additional.

(*c*) *Clinical Office Work.*

The Division made seventy-two inspections of Toronto clinics and twenty-six inspections of Ontario clinics during the year. Five other trips were made on V. D. instructions.

Number of office consultations were 246 classified as follows:

Wassermans	56
Smears	53
Advice and treatments	137

One hundred and eighty-two biological tests for phenarsenamine and mercury were carried out during the year and nine apparatus distributed.

(*d*) *Manufacture of Supplies re Venereal Disease.*

On December 1st, 1925, the Department discontinued the manufacture of phenarsenamine, supplying in its place diarsenol, purchased from the Synthetic Drug Company, Toronto. The Department will, however, continue to manufacture preparations of mercury and bismuth.

The following table shows the distribution of supplies for the free treatment of venereal diseases for the year 1925:

DISTRIBUTION OF PUBLIC HEALTH PRODUCTS MANUFACTURED BY DIVISION OF LABORATORIES

FROM JANUARY 1ST TO DECEMBER 31ST, 1925

	Phenarsenamine		Mercury salicylate		Bismuth hydrate		Sodium hydroxide 15%.		Sterile distilled water	Silver nitrate
	Ampoules	Grams	Ampoules	Grams	Ampoules	Grams	Ampoules	Ounces	Ounces	Ampoules
Supplied free in Ontario	9,853	7,228	7,819	11,692	2,230	6,556	326	1,296	20,491	29,470
Sold to other provinces	1,500	900	1,200	1,200	.....	.....	.....	.....	.....	.....
Total	11,353	8,128	9,019	12,892	2,230	6,556	326	1,296	20,491	29,470

TABLE No. 1 — TOTAL NEW ADMISSIONS TO CLINICS DURING YEAR

Clinic	IN-PATIENTS						OUT-PATIENTS					
	MALE			FEMALE			MALE			FEMALE		
	V.D.S.	V.D.G.	D.I.	V.D.S.	V.D.G.	D.I.	V.D.S.	V.D.G.	D.I.	V.D.S.	V.D.G.	D.I.
Toronto:												
Toronto General Hospital	293	40	6	247	99	13	218	212	9	125	56	9
St. Michael's Hospital	27	20	.....	27	10	.....	67	156	6	58	35	6
Western Hospital	27	16	.....	17	18	.....	39	94	2	33	13	1
Grace Hospital	21	9	.....	15	9	4	29	27	.....	29	26	8
Women's College Hospital	.....	.....	.....	13	14	5	.....	.....	.....	37	90	15
Hospital for Sick Children	27	4	.....	22	14	.....	23	2	.....	14	48	.....
Hamilton General Hospital	37	7	4	25	24	2	64	102	8	37	25	9
Brantford General Hospital	7	1	.....	12	9	.....	14	16	1	18	11	2
London Victoria Hospital	29	26	10	20	31	12	24	48	7	22	27	5
Windsor Clinic	.....	.....	.....	.....	.....	.....	42	66	2	14	24	4
Owen Sound Clinic	.....	.....	.....	.....	.....	.....	14	45	1	12	13	.....
Ottawa Clinic	.....	.....	.....	.....	.....	.....	67	249	13	48	62	19
Fort William	14	8	.....	20	10	.....	11	19	0	9	8	0
St. Catharines	10	3	3	1	10	6	21	14	1	18	4	4
Kingston General Hospital	9	24	10	16	19	6	22	7	3	18	5	2
Peterborough	.....	.....	.....	.....	.....	.....	7	11	1	3	8	1
Sault Ste. Marie	.....	.....	.....	.....	.....	.....	14	22	2	11	15	3
North Bay (4 months)	.....	.....	.....	.....	.....	.....	1	.....	.....	2	.....	.....
	501	158	33	435	267	48	677	1,090	56	508	470	88
	1,442						2,889					
	4,331											

TABLE No. 2 — PATIENTS TREATED AT CLINICS DURING YEAR

Clinic	IN-PATIENTS						OUT-PATIENTS					
	MALE			FEMALE			MALE			FEMALE		
	V.D.S.	V.D.G.	D.I.	V.D.S.	V.D.G.	D.I.	V.D.S.	V.D.G.	D.I.	V.D.S.	V.D.G.	D.I.
TORONTO:												
Toronto General Hospital	293	40	6	247	99	13	607	413	9	307	104	9
St. Michael's Hospital	27	20	.....	27	10	.....	168	229	17	182	48	14
Western Hospital	27	16	.....	17	18	.....	370	203	.....	253	331	.....
Grace Hospital	21	8	.....	14	9	4	85	39	5	106	57	16
Women's College Hospital	.....	.....	.....	13	14	5	.....	.....	.....	81	179	31
Hospital for Sick Children	27	4	.....	22	14	.....	89	3	.....	86	88	.....
Hamilton General Hospital	37	7	4	25	24	2	161	138	13	112	46	13
Brantford General Hospital	7	1	.....	12	9	.....	32	33	2	27	22	3
Victoria Hospital, London	29	26	10	20	31	12	49	58	7	41	33	5
Windsor Clinic	.....	.....	.....	.....	.....	.....	75	98	8	48	41	10
Owen Sound Clinic	.....	.....	.....	.....	.....	.....	16	55	1	13	19	.....
Ottawa Clinic	.....	.....	.....	.....	.....	.....	167	337	28	114	88	32
Fort William	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
St. Catharines	10	3	3	1	10	6	38	22	1	30	8	5
Kingston General Hospital	9	24	10	16	19	6	38	14	3	33	12	3
Peterborough	.....	.....	.....	.....	.....	.....	12	15	4	6	13	2
Sault Ste. Marie	.....	.....	.....	.....	.....	.....	25	26	2	26	17	3
North Bay (4 months)	.....	.....	.....	.....	.....	.....	1	.....	.....	5	1	.....
	501	158	33	435	267	48	1,988	1,716	101	1,501	1,119	148
	1,442						6,573					
	8,015											

TABLE No. 3 TOTAL TREATMENTS

Clinic	IN-PATIENTS				OUT-PATIENTS			
	Male		Female		Male		Female	
	V.D.S.	V.D.G.	V.D.S.	V.D.G.	V.D.S.	V.D.G.	V.D.S.	V.D.G.
Toronto:								
Toronto General Hospital	3,191	511	2,691	1,783	7,092	3,890	4,415	516
St. Michael's Hospital	675	386	542	147	2,521	5,074	2,662	1,103
Western Hospital	370	203	253	331	787	7,930	487	345
Grace Hospital	382	89	128	93	1,156	672	1,840	867
Women's College Hospital	.....	.....	196	150	.....	.....	865	1,966
Sick Children's Hospital	394	50	327	200	1,154	32	1,095	1,001
Hamilton General Hospital	540	178	376	423	1,580	3,655	1,191	495
Brantford General Hospital	135	25	253	224	469	301	388	433
London, Victoria Hospital	575	427	389	748	372	1,166	232	638
Windsor Clinic	.....	.....	.....	.....	2,266	2,236	1,683	1,583
Owen Sound Clinic	.....	.....	.....	.....	441	2,048	97	565
Ottawa Clinic	.....	.....	.....	.....	2,100	9,638	1,830	667
Fort William	213	228	377	192	339	167	232	120
St. Catharines	207	60	56	81	417	236	395	105
Kingston General Hospital	282	375	341	298	392	692	419	146
Peterborough	.....	.....	.....	.....	189	210	104	152
Sault Ste. Marie	.....	.....	.....	.....	221	268	406	80
North Bay (four months)	.....	.....	.....	.....	.....	5	56	30
	6,964	2,541	5,929	4,670	21,496	38,140	28,397	10,812
	20,104				98,845			
118,949								

TABLE No. 4 — TOTAL NEW ADMISSIONS AND DISCHARGES

Clinic	New Admissions of Syphilis						Discharges											
							Syphilis						Gonorrhoea					
	Primary		Secondary		Tertiary		Cured		Lost		Trans.		Cured		Trans.		Lost	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
TORONTO:																		
Grace Hospital	4	3	1	1	21	24	8	6	8	12	13	13	14	19	5	6	7	4
Toronto General Hospital	26	2	9	4	150	111	13	4	100	39	76	70	69	35	116	23	38	21
St. Michael's Hospital	16	8	2	6	32	34	12	7	27	26	26	13	88	12	52	5	37	1
Western Hospital	0	1	6	1	20	15	9	2	13	7	26	11	35	3	34	2	32	3
Hospital for Sick Children	0	0	8	3	10	6	9	8	3	12	14	7	1	32	0	5	0	10
Women's College Hospital	0	2	.....	11	0	34	0	7	0	9	0	16	0	20	0	20	0	32
Hamilton General Hospital	8	4	4	10	23	18	17	16	42	30	30	15	30	20	47	16	23	11
Brantford General Hospital	2	2	6	6	1	6	4	1	7	4	9	6	8	6	4	4	1	3
London, Victoria Hospital	3	0	4	1	9	17	15	9	7	9	9	6	9	5	10	10	7	5
Windsor Clinic	26	7	36	17	5	0	0	2	0	0	6	1	60	8	3	4	6	1
Owen Sound Clinic	1	2	4	2	1	1	6	2	1	0	0	0	33	9	1	1	0	2
Ottawa Clinic	8	9	31	37	18	6	27	8	20	13	24	17	65	12	48	5	52	12
Fort William	.....	.....	6	2	3	3	14	7	2	2	5	4	13	9	9	2	1	4
St. Catharines	1	0	0	0	9	6	1	.....	16	2	7	5	3	3	8	3	2	2
Kingston	.. 8	1	6	4	11	16	9	8	6	5	5	2	5	11	2	3	1	0
North Bay	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Peterboro	8	5	1	2	3	2	1	0	2	0	5	3	2	0	5	5	1	1
Sault Ste. Marie	14	4	.....	3	4	4	25	30	5	.....	.....	1	5	7	6	1	4	0
Totals	125	50	124	110	320	304	170	117	259	170	245	189	440	211	350	116	212	112

TABLE NO. 5 NEW ADMISSIONS—CHILDREN

Clinic	IN-PATIENTS						OUT-PATIENTS					
	MALE			FEMALE			MALE			FEMALE		
	V.D.S.	V.D.G.	D.I.	V.D.S.	V.D.G.	D.I.	V.D.S.	V.D.G.	D.I.	V.D.S.	V.D.G.	D.I.
TORONTO:												
General Hospital					18							
St. Michael's Hospital												
Western Hospital												
Grace Hospital		1		1								
Women's College Hospital												
Hospital for Sick Children	27	4		22	14		23	2		14	48	
Hamilton General Hospital	2	2			8		4			4	6	
Brantford General Hospital				8	9		2	1		3	3	
London, Victoria Hospital	3				14		3				5	
Windsor Clinic								1	1		2	
Owen Sound Clinic							2					
Ottawa Clinic							4			1	4	
Fort William				2			2			3		
St. Catharines					2		5			2		
Kingston General Hospital	2	2		1						1		
Peterborough											1	
Sault Ste. Marie							4			5		
North Bay												
	34	9		34	65		49	4	1	33	70	
	142						157					
	299											

TABLE No. 6 PATIENTS TREATED—CHILDREN

Clinic	IN-PATIENTS						OUT-PATIENTS					
	MALE			FEMALE			MALE			FEMALE		
	V.D.S.	V.D.G.	D.I.	V.D.S.	V.D.G.	D.I.	V.D.S.	V.D.G.	D.I.	V.D.S.	V.D.G.	D.I.
TORONTO:												
Toronto General Hospital					18							
St. Michael's Hospital												
Western Hospital												
Grace Hospital		1		1								
Women's College Hospital												
Hospital for Sick Children	27	4		22	14		89	3		86	88	
Hamilton General Hospital	2	2			8		12			18	11	
Brantford General Hospital				8	9		2	1		4	3	
London, Victoria Hospital	3				14		4			1	6	
Windsor Clinic							1	1	1	5	2	
Owen Sound Clinic							2					
Ottawa Clinic							7	7		6		
Fort William				2			5			4		
St. Catharines					2		5			3	1	
Kingston General Hospital	2	2		1						3	1	
Peterborough						3					1	1
Sault Ste. Marie							10			11	1	
North Bay												
	34	9		34	65	3	137	12	1	141	114	1
	145						406					
	551											

TABLE NO. 7 TREATMENTS—CHILDREN

Clinic	IN-PATIENTS				OUT-PATIENTS			
	Male		Female		Male		Female	
	V.D.S.	V.D.G.	V.D.S.	V.D.G.	V.D.S.	V.D.G.	V.D.S.	V.D.G.
Toronto:								
Toronto General Hospital	.....	.....	.....	.....	.....	.....	.....	.....
St. Michael's Hospital	.....	.....	.....	.....	.....	.....	.....	.....
Western Hospital	.....	.....	.....	.....	.....	.....	.....	.....
Grace Hospital	.....	.....	.....	.....	.....	.....	.....	.....
Women's College Hospital	.....	.....	.....	.....	.....	.....	.....	.....
Sick Children's Hospital	394	59	327	200	1154	32	1,095	1,001
Hamilton General Hospital	35	11	.....	96	57	.....	72	84
Brantford General Hospital	.....	.....	221	222	16	20	24	31
London, Victoria Hospital	15	.....	46	313	6	.....	2	6
Windsor Clinic	.....	.....	.....	.....	33	23	136	158
Owen Sound Clinic	.....	.....	.....	.....	20	.....	.....	.....
Ottawa Clinic	.....	.....	.....	.....	34	.....	93	55
Fort William	.....	20	.....	.....	111	.....	25	.....
St. Catharines	.....	.....	.....	12	42	.....	56	16
Kingston General Hospital	23	22	49	.....	.....	.....	.....	.....
Peterborough	.....	.....	.....	.....	47	11	14	8
Sault Ste. Marie	.....	.....	.....	.....	98	.....	89	2
North Bay	.....	.....	.....	.....	.....	.....	.....	.....
	467	112	643	843	1,618	86	1,606	1,361
	2,065				4,671			
	6,736							

TABLE No. 8 TOTAL LABORATORY EXAMINATIONS

Clinic	Gonococcus										Number of Doses of			
	Blood		S. Fluid		Darkfield		Diagnosis		Prognosis		Phen.	Other Arsenicals	Mercury	Bismuth
	+	−	+	−	+	−	+	−	+	−				
TORONTO:														
Toronto General Hospital	1,264	1,139	85	61	20	28	192	162	59	372	2,809	1,065	2,025	181
St. Michael's Hospital	265	607	.....	.....	.....	.....	56	238	18	278	771	228	900	30
Western Hospital	116	116	.....	1	.....	.....	86	18	230	284	575	51	80	244
Grace Hospital	174	256	.....	.....	.....	.....	21	128	9	184	522	6	275	295
Hospital for Sick Children	272	440	.....	.....	.....	.....	16	63	9	83	1,481	50	.....	.....
Women's College Hospital	142	302	.....	.....	.....	.....	12	215	4	677	182	.....	.....	22
Hamilton General Hospital	218	309	3	2	.....	.....	43	119	34	710	1,351	255	580	25
Brantford General Hospital	41	70	.....	.....	.....	.....	11	52	.....	.....	292	14	340	63
London, Victoria Hospital	116	145	.....	.....	.....	.....	25	19	13	6	484	10	0	0
Windsor Clinic	184	278	.....	.....	13	18	126	100	59	313	1,085	.....	1,005	881
Owen Sound Clinic	15	47	1	1	.....	.....	34	93	28	170	46	5	112	.....
Ottawa Clinic	147	376	.....	.....	.....	.....	141	156	11	8	1,855	150	1,321	345
Kingston General Hospital	136	346	.....	.....	.....	.....	56	129	89	93	551	17	173	9
Fort William	35	40	.....	.....	.....	1	17	39	6	41	156	.....	250	.....
St. Catharines	38	51	1	1	.....	.....	13	17	9	47	291	.....	240	40
North Bay	5	7	.....	.....	.....	.....	.....	.....	.....	2	.....	11	12	.....
Peterboro	33	18	.....	1	2	2	17	13	74	68	135	.....	40	15
Sault Ste. Marie	46	123	.....	3	6	5	34	19	43	19	310	.....	282	.....
	3,212	4,670	90	70	41	54	900	1,580	695	3,355	12,896	1,862	7,635	2,150

2. *Social Service.*

(*a*) *Educational Work.*

Educational work was carried on very extensively during 1925 by means of moving pictures, films, exhibits, lectures, and the distribution of literature. The following is a summary of the work done by the social service nurse in this connection:

Out-of-town trips	29
Visits to out-of-town clinics	20
Visits to Toronto clinics	21
Number of times films shown	118
Attendance at showings	14,521
Other meetings	34

Mercer—six half-days.

Special Exhibits.

Ottawa, Owen Sound, Galt, St. Catharines, Welland, Niagara Falls, Crowland, London, Guelph, Kitchener.

(*b*) *Follow-up Work.*

The following figures are interesting as showing the work done by social service nurses in following up contacts and sources of infection:

Referred by: Self, 378; health department, 232; doctors, 405; hospitals and clinics, 467; social agencies, 174; friend, 406; jails, 41; police, 36; films, posters, exhibits, etc., 33.

Alleged sources of infection investigated:	
Syphilis—positive, 134; negative, 76; total	210
Gonorrhoea—positive, 132; negative, 64; total	196
Grand total	406
Number of contacts examined:	
Syphilis—positive, 91; negative, 408; total	499
Gonorrhoea—positive, 65; negative, 109; total	174
Grand total	673
Visits by social service nurses	8,287
Number of patients lost	834

3. *Tuberculosis.*

The diagnostic chest clinic during the year 1925 held clinics at Sault Ste. Marie, Sarnia, Owen Sound, Forest and Clinton. The physicians of these centres and the neighbouring towns gave splendid co-operation.

The following is a classification of the cases examined:

Not a factor	198	48.30%
Suspicious	80	19.51%
Active tuberculosis	38	9.26%
Arrested tuberculosis	27	6.6 %
Bronchitis non-tuberculous	27	6.6 %
Lung abscess	2	.49%
Asthma	15	3.65%
Bronchiectasis	4	.99%
Empyema	1	.24%
Silicosis	6	1.46%
Thickened pleura—(following empyema)	1	.24%
New growth	3	.73%
Heart condition (major)	7	1.70%
Unclassified	1	.24%
	410	

A small percentage of those examined were found to be tuberculous as was the case in 1924. This finding has been brought about by the elimination, as

far as possible, of previously diagnosed cases and the examination of a large number of contacts (especially children) and suspicious cases.

During the summer the clinic visited Prince Edward Island under the auspices of the Canadian Tuberculosis Association, and conducted examinations at ten centres of the Island. One hundred and ninety cases were referred by the physicians.

The last four months of the year have been given over to the examination of quarrymen and gold miners in an effort to estimate the amount of tuberculosis and silicosis among these workers. In all, three hundred and twenty-five men were examined. The results of this survey will be available at a later date.

Efforts are now being made to organize permanent tuberculosis clinics throughout Ontario.

On October 1st, the Department of Health was fortunate in securing the appointment of Dr. O. G. Hague to the staff of the clinic. Dr. Hague has spent four years on the staff of Weston Sanatorium and recently obtained his degree in radiology from the University of Toronto and is well qualified for diagnostic work.

4. *Other Preventable Diseases*

(*a*) *Diphtheria.*

The Division co-operated in the immunization of 147 school children in Morewood and several hundred in township of Scarboro.

(*b*) *Scarlet Fever.*

With the institutional physician Dick tests and immunization work was carried out in 134 children at the True Blue Orange Home, Richmond Hill. Forty-seven children at the Industrial Farm, Burwash, were Dick tested and the positives immunized. On September 16th, the division co-operated in the Dick testing of 317, staff and inmates, at Burwash. Twenty-eight positives were immunized.

The division assisted the institutional physician in carrying out the Dick test on all inmates in the Mercer Reformatory.

(*c*) *Smallpox.*

The division assisted in the control of small outbreaks of this disease at Arthur and Omemee.

(*d*) *Typhoid.*

An outbreak of typhoid fever at Ontario Hospital, Orillia, was investigated.

(*e*) *Milk.*

On April 17th at the request of the M.O.H. the milk supply of Oakville was investigated.

5. *Biological Products*

Unitage of insulin distributed 5,888,050, cost	$35,569.63
Net cost of biological products distributed	48,106.16
Total	$81,675.79

6. *Letters for the Year*

In-coming	3,430
Out-going	3,977
Total	7,407

CASES AND DEATHS FROM COMMUNICABLE DISEASES

REPORTED WEEKLY BY LOCAL BOARDS OF HEALTH FOR YEAR, 1925

1925	Smallpox		Scarlet Fever		Diphtheria		Measles		Whooping Cough		Typhoid		Tuberculosis		Infantile Paralysis		Cerebro-spinal Meningitis		Influenza		Acute Primary Pneumonia		Syphilis		Gonorrhoea		Chancroid		Chickenpox		Encephalitis Lethargica		German Measles		Mumps		Septic Sore Throat	
	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths	Deaths		Deaths		Deaths		Deaths		Deaths		Deaths		Deaths		Deaths		Deaths
January	27	0	700	14	347	34	2033	0	480	6	58	9	212	112	2	0	7	5	67	33	..	250	131	..	124	..	..	..	810	1	5	5	38	..	1257	..	8	..
February	13	1	621	10	285	17	1576	3	427	8	40	3	158	88	4	3	8	4	24	24	..	241	163	..	216	..	15	..	539	..	11	9	13	1	1112	..	3	..
March	16	0	681	8	265	15	1663	7	464	13	72	8	159	80	1	1	3	3	55	55	..	220	101	..	110	..	2	..	398	..	7	4	27	..	1281	..	7	2
April	12	0	603	8	182	16	1643	2	352	10	26	2	142	83	0	0	2	2	160	36	..	203	119	..	88	..	4	..	322	..	4	3	6	..	848	..	15	..
May	16	1	507	6	192	10	2152	3	400	11	53	9	209	92	5	2	3	3	28	28	..	168	177	..	215	..	..	..	363	..	2	2	21	..	478	..	2	..
June	12	1	326	1	142	12	1063	2	269	7	46	3	165	85	0	0	5	2	10	7	..	126	48	..	132	..	1	..	457	1	4	4	23	..	300	..	1	..
July	8	0	252	3	151	19	642	0	345	9	57	3	158	82	4	0	0	0	5	0	..	77	65	..	146	..	1	..	330	..	10	10	6	..	108	..	..	..
August	7	0	141	2	244	10	164	0	305	10	111	5	133	44	19	0	4	1	2	2	..	37	112	..	112	..	1	..	133	..	4	2	4	..	43	..	..	..
September	25	0	162	5	271	16	59	0	295	7	130	8	148	62	37	0	4	1	10	10	..	85	79	..	134	..	..	..	88	..	9	1	1	..	29	..	4	..
October	19	0	384	6	407	14	399	0	247	6	137	5	142	66	17	0	5	5	11	11	..	165	128	..	141	..	..	..	460	..	2	2	6	..	103	..	5	..
November	31	0	514	4	279	19	530	0	130	3	76	10	139	75	3	0	0	1	14	14	..	177	105	..	142	..	1	..	859	..	4	4	4	..	306	..	..	..
December	32	1	558	13	266	25	489	0	113	7	53	5	166	62	0	0	2	0	31	31	..	197	74	..	148	..	..	..	597	..	5	1	19	..	295	..	10	..
Total	218	4	5449	80	3031	207	12413	17	3827	97	859	70	1931	931	92	6	43	27	417	251	..	1946	1302	..	1708	..	25	..	5356	2	67	47	168	1	6160	..	55	2
1924	599	47	7354	118	3473	268	24095	65	2483	56	833	76	1897	972	84	8	74	55	000	107	..	1818	1331	..	1695	..	30	..	5791	..	46	30	858	1	7669	..	55	4
1923	353	0	5011	131	2935	241	10843	70	3205	181	1663	212	2150	1313	19	10	64	59	000	874	..	2959	1699	..	1992	..	43	..	....	..	..	..	....	..	....	..	..	..

DIVISION OF INDUSTRIAL HYGIENE

J. G. CUNNINGHAM, B.A., M.B., D.P.H., Director

I have the honour to submit the following report, the work of the Division of Industrial Hygiene for the year 1925.

The objective of the Division of Industrial Hygiene is to help industry to help itself in reducing the suffering and loss in production caused by ill health, physical defects, and industrial accidents—one of the four great sources of waste in industry.

With this in mind the activities of the division come under the following headings:

1. Presenting to employers and employees facts showing that considerable preventable disability occurs among industrial workers and that this costs money, whether the sickness included requires compensation payment or not.
2. Study by the division of problems in industry in Ontario affecting the health of workers.
3. Recommendations to industry for the improvement of conditions of work which are detrimental to health and, extending beyond this, to detailed recommendations as to how health supervision of individual workers in plants may be organized and developed.

Under the first heading the situation regarding health of workers has been presented in numerous personal interviews with employers. This is probably the most fruitful means of communication. These conversations frequently arise out of work done by the division's staff on individual problems in health with which employers are confronted; for example, different types of occupational disease, infection of industrial injuries, etc.

About forty articles have been prepared and published dealing with different aspects of the subject of the health of industrial workers. These have appeared in daily and weekly newspapers and trade journals. Two or three scientific articles dealing with different phases of the work have been published in scientific journals.

Current literature on various phases of the subject of industrial hygiene has been widely circulated from a lending library, which aims to keep such material readily available for those working in the field of industrial relations in industry, or, more specifically, those contemplating or developing some activity in the maintenance of health of workers in industry.

Under the second heading the individual problems referred to the division from many sources deal with:

(1) *The specific occupational hazards*, such as the influence of heat on the eyes of tin plate workers, eye effects of wood alcohol in picture moulding and finishing, health hazards in bronzing, means for detecting the presence of blue water gas in the air as a warning, the hazard from benzol in "Duco," the health hazards in electric welding, means for prevention of lead poisoning in hardening steel, oil dermatitis, etc.

From various sources apart from trade investigations noted later in this report, sixty-one cases of occupational disease have come to the attention of the division. Such of these into which it has been possible and desirable to further inquire have involved various chemical problems such as analysis of floor dust for content of lead; collection and estimation of benzene, lead, carbon monoxide

in air; arsenic and lead determinations in urine and saliva; rock and lung analysis for silica content; blood analysis for calcium and uric acid content.

In addition to investigation and reports incident to many inquiries of this type a few systematic investigations of the health of workers in hazardous trades have been undertaken:

i. In a storage battery plant where the health of workers exposed to lead is supervised by an outside physician, 120 blood smears were examined and the results checked with the physical examinations by the plant physician, with a view to forming opinion as to how far it is possible to depend on these blood examinations as a guide for the removal of men from exposure to lead. The blood findings proved to be a useful guide in the light of physical examination findings and subsequent experiences of the men. As a result four cases of early lead poisoning were detected and removed to other work before disability occurred, and six additional men were removed following re-examination because of the development of early symptoms of poisoning.

ii. Fifty-two examinations were made of men exposed to arsenic in an ore smelting and refining plant. Thirteen of these cases showed symptoms associated with exposure to arsenic, such as rashes, high blood count, high haemoglobin, low blood pressure, perforated septum. Five cases showed evidence of excessive bleeding and diminished haemoglobin, sometimes said to be associated with exposure to cobalt. These cases were exposed to cobalt dust. It is interesting to record that there were six cases of sugar in the urine in this group. With such an array of symptoms none of these men complained of ill health.

iii. One hundred and ten examinations were made of men exposed to silica dust in quarries in Ontario. Of these 58 showed no effect; 22 were suspicious of silicosis; 22 had definite silicosis; and 8 had silicosis plus tuberculosis or suspicious tuberculosis.

iv. Two hundred and thirty-six examinations were made of men exposed to silica dust in the mines of the Porcupine camp. In this group of examinations only those were examined who had not been exposed to silica dust outside Ontario and had been employed in Ontario mines at least five years in occupations where exposure could occur. The results showed 98 cases with no effects; 47 cases of suspected silicosis; 45 cases with definite silicosis; 30 cases of silicosis with tuberculosis or suspected tuberculosis; and 16 with tuberculosis or suspected tuberculosis alone. So that silicosis is being produced in Ontario gold mines.

In this work the division has been assisted by the tuberculosis experts of the Department of Health. A plan for dealing with this situation is in process of development. Some steps have already been taken to reduce the hazard and to care for any men who require treatment.

v. The inquiry into means for controlling nickel rash has been continued. Investigation was made in ten nickel plating plants and in the refinery of the International Nickel Company. The number of cases of nickel rash in these plants was reduced to two this year. A report of this work is in process of preparation.

(2) *Ventilation.*

In connection with the work on nickel rash where conditions of high temperature obtain and in other processes where high temperature and humidity are incident to the operation, particularly in the pulp and paper industry, many observations have been made with the katathermometer to determine the "cooling power" of the air in various seasons and under varying outside atmospheric conditions in the same season, with a view to ascertaining exactly what

ventilation conditions exist and in what way they may be improved. This question is closely connected with the problem of condensation of moisture in hot, humid processes, a very important economic consideration. One remedy may meet both conditions satisfactorily. About 4,000 katathermometer observations have been made in the past year and from a study of these recommendations are being drafted.

(3) *Fumigation.*

Cyanogen chloride has been used for fumigation by the chemist of the Division in bunk houses in the lumber industry with good results. It will always be necessary to keep the use of cyanogen chloride in the hands of experts. A plan for its use widely has not yet been developed.

(4) *Reduction in Severity of Accidents.*

Some attention has been paid to the reduction in severity of accidents in industry, particularly with respect to the number of cases of infected wounds and the efforts which are made to return injured men to work as soon as possible consistent with safety to the worker.

Infection of wounds costs at least one million dollars a year in compensation in Ontario. A large percentage of this can be prevented with adequate first aid facilities, including personnel and equipment, but particularly supervision, which is so often entirely lacking. The early return of injured men to work consistent with good recovery depends to a considerable extent upon the relationship between the industry and the physician. Where, as is generally the case, the physician has no responsibility to the industry beyond his responsibility to the employee as a patient the subject is not likely to receive much attention. This matter has been considered by the Industrial Medicine Committee of the Ontario Medical Association. At their annual meeting in December the report of the subcommittee, dealing with the matter indicating the position of the physician in industry was submitted for consideration and approval of the profession as a whole. It was discussed and referred to county societies for further discussion and recommendations. This should help to clarify the situation.

During the past year the trade associations of the lumber and pulp and paper industries have taken primary steps to enlist the co-operation of physicians, employers, and employees in an effort to reduce accident severity.

Under the third heading an increasing number of industrial executives have shown an interest in the organization and development of means for supervising the general health of the men and women employed in their plants. The number of nurses employed in industry is increasing slowly. The arrangements with physicians in individual plants whereby the physician assumes responsibility for health work which is done in the plant and supervises the health of workers on a part-time basis for a nominal consideration is also increasing. It is in such an arrangement as this that the suffering and anxiety, the loss in time and money incident to sickness and accident in industry can be reduced. The Division of Industrial Hygiene has facilities for the use of such appointees in health problems in industry with which they are confronted. These facilities are being used daily.

The report of the Chief Sanitary Inspector, Mr. A. R. White, follows:

I have the honour to submit for your consideration the ninth annual report showing work performed by your group of sanitary inspectors during the year 1925.

The work of your inspectors, while general in its character, centres mainly in and around the huge industries which are scattered throughout Northern Ontario, and may be cited as industrial health. Other general public health activities are, of course, carried on among the small towns and communities in the unorganized territory as will be noted hereinafter.

It has been our custom to present each year through the medium of the annual report some new or added feature which, if found practicable upon investigation and taken up by the industry, might add further to the margin of safety already provided, increase the comforts of the men employed, and still perhaps permit of greater economy by the changing of our plans somewhat, and also by the application of a more practical brand of supervision.

During the year, therefore, while carrying on our regular duties among the forest products industries we have, on occasion, come across many injured workmen lying in the bunk houses when they should apparently have been provided for in some hospital. In dealing with these cases it became necessary to discuss the reason for this apparent neglect with the company physician and with the management itself, and at times deal with direct complaints from the injured men. On investigating these cases the whole field of accident prevention and of the mitigation of accident severity with the accompanying terrific cost of paying for these accidents through compensation assessment, appeared to be involved. It seemed proper, therefore, having the machinery at our disposal, that we undertake a study of this whole question as far as it is related to the general lumberman of Ontario, and to the pulp and paper industry. The similarity of these two institutions is such that any solution to the problems of one must necessarily rebound to the benefit and advantage of the other.

A study of the woods operations of both industries brings out the somewhat startling fact that up until the winter of 1925 no work whatever had been undertaken among the 30,000 men who labour in the wood cutting camps throughout Northern Ontario and from which, during 1923, came the astonishing record of 3,421 men injured and 46 killed. Then add to this the record of our saw mills which is 1,590 men injured and 6 killed. We have, then, for the year a grand total covering the lumber camps of Ontario, with the saw mills in connection therewith, of 5,011 men injured and 52 killed, with a cost to the industries of upward of $1,000,000, or as has been estimated by the industries themselves an added cost of 50 cents to every 1,000 feet of lumber produced and 30 cents added to every cord of pulp wood cut.

Without going into detail as to the cause of many of these accidents let me say at once that a large percentage of these accidents and fatalities can and must be prevented. Let me add also that the disability arising out of neglect to the injured man, which neglect extends the period of the incapacity of the worker and endangers his life, must also receive a new attention or the industries will still continue to turn out as a by-product the cripples and helpless wrecks which have been becoming more and more numerous during the last five years.

The medical statement compiled from the records of industrial physicians that 60 per cent. of all open wounds seen by the doctor are infected when the wounded men come to him from the woods, means that life and limb are being thoughtlessly endangered, much unnecessary suffering is being endured, and compensation costs to the industry are thereby increased at least five times what they normally should be. This in brief, is the result of such investigation as we have carried on.

Many meetings have been attended at the request of the accident prevention associations of both industries, and while the plan proposed by your officials has not been adopted in its entire detail, there is, nevertheless, a sufficient adherence to our original ideas which, if carried out wholeheartedly and intelligently, should bring a very great measure of success in reducing the number of accidents and should also bring about a substantial reduction in compensation costs.

We are, therefore, able to say that in part at least the work of the division has very materially brought to the attention of the industries and to the department, the need for some new action with respect to this subject, and it is very gratifying to be able to report that the lumbermen of Ontario have already re-organized and augmented the present accident field forces and have actually started work.

The Pulp and Paper Association have also completed plans and are to begin work among the woods camps almost at once. It remains to be seen, of course, whether the present plan will succeed. It should be gratifying, however, to the Department of Health to know that the work of its officials has in a large measure, been the means of bringing this most serious matter up for consideration and in seeing the work actually commenced. To my mind this has been a most productive piece of work.

There has been nothing of special interest during the year in connection with our usual work. Regular routine visits have been made to saw mills, lumber camps, mines, construction camps, small towns and villages, etc., and while we have encountered the usual difficulties, such as I have reported from year to year, yet we have continued to advance in a sanitary sense and have also consolidated our gains of other years.

There is still some difficulty in inducing the lumberjack to fully appreciate the good effort which is being made by the employer to supply good housing conditions. One often finds beds wantonly destroyed, cuspidors upset and ventilators plugged up. As discussed in my last report the education of the employee is now considered of paramount importance for the future and our next step, but just how this may be accomplished is difficult because of the transient nature of the employee. Hopes are entertained, however, that as wages improve and living conditions become more attractive, men may stay longer and may even return to the camps year after year and thus begin to take an interest in their surroundings and in themselves.

Due to trade conditions the manufacture of lumber has been much curtailed this year. The drop in the total number of men employed in the woods is not nearly so great as it was at first expected, however.

There are throughout the north 150 companies with 424 camps which give employment to 21,916 men. In addition to these we have also situated in the unorganized territory:

60 saw mills, employing	4,657 men
61 mines, employing	2,300 men
53 road camps, employing	1,725 men
83 extra gangs, employing	2,865 men
5 paper mills, employing	3,175 men
7 construction companies, employing	2,600 men
2 fishing stations, employing	175 men

We have, therefore, a grand total of 39,413 men employed in the 685 industrial camps throughout the unorganized territory.

In connection with this work 146 medical and sanitary contracts have been received and accepted by the department as being satisfactory to cover the

work to be undertaken. General information from the companies has also accompanied each of these agreements showing the nature and extent of the work covered.

The number of monthly reports received during the year from these industrial physicians is 653, together with 158 sketches of new camp buildings.

The total number of camp inspections made by your staff of sanitary inspectors is 483. Additional visits have also been made to mines, small towns, summer resorts, rural school houses, dairies, fishing stations, railway extra gangs, saw mills, paper mills and construction camps and in addition our western inspector, Mr. Millar, has inspected and taken water samples from 395 ships calling at the ports of Fort William and Port Arthur. The total number of inspections made by your staff of inspectors (without consideration of the visits paid to lake vessels) is 573. This number of inspections added to those made by the contract physicians already mentioned, gives a grand total of 1,226 inspections.

Communicable Diseases

Communicable diseases until recent years were almost an every day occurrence. Each year has, however, seen a substantial reduction in the annual case record, until to-day such diseases as typhoid fever and smallpox have almost vanished. This happy state of affairs is, of course, not wholly attributable to good supervision (although I am confident this plays a major part) but rather to the fact that the early cases are concentrated upon and no stone left unturned in an effort to prevent the further spread, which is usually successful.

The knowledge of how diseases are spread is gradually being imparted to the management and also to the men, so that to-day unsanitary conditions which gave rise to typhoid fever and dysentery are becoming less numerous. Our case record for the year, therefore, is particularly pleasing:

	Cases	Deaths
Typhoid fever	3	0
Smallpox	3	0
Mumps	2	0
Total	8	0

We have also dealt with such communicable diseases as came to our notice in the small towns throughout the north and which included scarlet fever at Spragge, Franz, Goulais Bay and Walford, and also with the smallpox outbreaks at Atikokan, Rocky Inlet and Glenorchy. As these cases developed in small unorganized towns I have separated these cases from those which developed in connection with our industrial camp work. I should mention here that fully six weeks of our western inspector's time was taken up with this Atikokan outbreak and this, of course, curtailed his other work.

During the year much of my time has been spent going over the various districts, noting new developments and making provision to meet new problems, and also in improving the relationship between physician and management and in making the policy of the department better understood.

Opportunities to attend and speak at public health conferences and at meetings held in the interests of accident prevention have been taken full advantage of. These meetings have been most instructive and provide a good indication of public opinion.

The appointment of an additional inspector for the Cochrane district is now settled. The filling of this position permits the taking up of other work without disorganizing our office routine. This appointment comes at a most

opportune time as the huge construction work of our northern paper mills is about to begin. I look forward to 1926 as possibly the banner year in northern industrial activity.

Great credit is due our staff of inspectors for the painstaking effort put forward during the year. Each inspector has striven to improve conditions in his respective district and that these efforts have been successful is well evidenced by the amount of work performed, and by the almost total absence of communicable diseases, which is after all the true indication of successful supervision.

It gives me great pleasure, therefore, to convey to you this the annual report covering the work of your sanitary inspectors and of the industrial physicians who have so successfully catered to the needs of industry and to the army of employees scattered throughout northern Ontario for the year 1925.

DIVISION OF CHILD HYGIENE

J. T. PHAIR, M.B., D.P.H., Director

During the first two weeks of January it was made possible for the members of the nursing staff to take the extension course in public health nursing offered by the University of Toronto. At the conclusion of the course the entire staff moved on to Sarnia, and I feel justified in saying that they contributed very materially to the success of the Health Week which was held there during the week of January 19th.

About May 1st, the scope of the division was enlarged to include the school health activities formerly carried on by the Department of Education, the central administration of which had been recently transferred to the Depart-ent of Health. This amalgamation demanded some readjustments, and the new division is now headed up by Dr. J. T. Phair, formerly Provincial Chief School Medical Officer.

The appointment of Dr. W. J. Bell, who had for four years been pediatrician to the division, to the position of Deputy Minister, left a gap that will be exceedingly difficult to fill. The inclusion of the field staff of the Division of School Hygiene, has resulted in three physicians and six nurses being added to the previously existing staff.

The new regulations governing school medical inspection and school nursing have now been in actual operation for nearly a year in several municipalities, and have apparently more than justified their introduction. At the close of the year, seven urban municipalities and one rural had adopted the plan outlined.

The necessity for an extension of the work already being done in Northern Ontario and the more sparsely settled portions of Southern Ontario, has been realized, and the temporary assumption by the department of the responsibility for supplying a reasonable measure of public health nursing service for these districts was decided upon. This will be continued as an experiment for another year. The service given by the department to the people resident along the borders of James and Hudson's Bay, which work is carried on by Dr. Cockburn of the medical staff of this division, is much appreciated and, it is hoped, will be continued during 1926.

The interest of the Minister, Hon. Dr. Godfrey, in the needs of the north country, was evidenced by his active participation in a series of diagnostic clinics which were held at various centres far removed from the possible service of a pediatrician. The attendance and interest shown at these clinics is convincing proof of the value of such service.

DIVISION OF SANITARY ENGINEERING

F. A. Dallyn, C.E., Director

I have the honour to enclose herewith my annual report re applications received and approved for the year 1925.

	Applications	Estimated Cost
Re Waterworks:		
Extensions to existing system	146	$1,574,759 59
Purification of water supplies	2	685,000 00
New systems	21	781,105 27
Total	169	$3,040,864 86
Re Sewerage		
Extensions to existing systems	287	$3,574,742 41
Treatment works	5	428,486 71
New sewerage systems	31	4,973,567 44
Total	323	$8,976,796 56

The total number of applications favourably reported upon re waterworks and sewerage for the year was 492, and involves an estimated expenditure of $12,017,661.42.

CERTIFICATES ISSUED RE WATERMAIN EXTENSIONS, PURIFICATION, ETC., FOR THE YEAR 1925

Municipality	No. of Certificates Issued	Extensions	Purification	New
Alexandria	1	$3,106 67		
Anderdon Township	1	2,513 00		
Burlington	2	3,741 46		
Calvert Township (Ansonville and Victoria)	1			$75,000 00
Campbellford	1	8,991 00		
Carleton Place	1	5,750 00		
Crowland Township	1	2,991 46		
Dryden	1	6,992 67		
Eastview	1			1,470 00
East York	7	25,999 73		
Elmira	2	3,718 40		
Essex	1	15,000 00		
Etobicoke	10	76,107 40		
Ford City	1	16,995 61		
Forest	1	57,000 00		
Forest Hill	2			12,425 00
Fort Frances	1	4,838 06		
Fort William	1	131,903 00		
Freeman Township (MacTier)	1			12,540 00
Grantham Township	1	1,820 00		
Grimsby	1	1,848 30		
Hamilton	5	50,810 00		
Hanover	2	22,700 00		
Humberstone	1			178,329 00
Kapuskasing	1	1,688 98		
Kitchener	4	23,144 29		
LaSalle	1			37,455 00
Leamington	2			98,229 00
Leaside	2	20,668 76		
Lindsay	2	16,710 71		
London	3	110,034 14		

CERTIFICATES ISSUED RE WATERMAIN EXTENSIONS, PURIFICATION, ETC., FOR THE YEAR 1925—Continued

Municipality	No. of Certificates Issued	Extensions	Purification	New
Mimico	3	6,696 80	.....	$40,000 00
Mitchell	1	1,000 00	.....	.....
Nelson Township	3	11,562 28	.....	.....
New Liskeard	1	4,599 52	.....	.....
New Toronto	2	2,849 98	.....	.....
Niagara Falls	1	15,671 54	.....	.....
North Bay	1	39,500 00	.....	.....
North York	11	97,913 00	.....	15,000 00
Oshawa	1	23,425 40	.....	.....
Pembroke	3	5,740 25	.....	.....
Peterborough	2	14,051 45	.....	.....
Plantagenet	1	.....	.....	2,500 00
Port Colborne	1	34,408 25	.....	.....
Port Credit	1	6,668 75	.....	.....
Port Elgin	1	.....	.....	4,500 00
Riverside	3	44,362 34	.....	.....
Sandwich	4	11,990 96	.....	.....
Sandwich East	4	76,710 43	.....	.....
Sandwich West	2	41,781 14	.....	.....
St. Catharines	1	.....	$400,000 00	.....
Scarborough Township	2	8,229 45	.....	.....
Smith's Falls	1	3,520 00	.....	.....
Stamford	1	7,356 86	.....	.....
Stratford	2	8,062 70	.....	50,099 47
Sturgeon Falls	1	23,200 00	.....	.....
Teck Township	2	22,049 56	.....	.....
Tecumseh	1	21,726 08	.....	.....
Thamesville	1	15,318 01	.....	.....
Timmins	1	16,320 00	.....	.....
Tisdale Township (South Porcupine)	2	.....	.....	134,484 80
Toronto	24	188,808 67	.....	.....
Verner	1	.....	.....	20,425 00
Waterdown	1	.....	.....	30,000 00
Waterford	2	.....	.....	62,648 00
Waterloo	3	28,931 98	.....	.....
Welland	1	.....	285,000 00	.....
Weston	3	3,750 05	.....	.....
Windsor	1	55,000 00	.....	.....
Woodbridge	1	.....	.....	6,000 00
Woodstock	2	20,162 00	.....	.....
York Township	7	98,318 50	.....	.....
Totals	169	$1,574,759 59	$685,000 00	$781,105 27

CERTIFICATES ISSUED RE SEWER EXTENSIONS FOR THE YEAR 1925

Municipality	No. of Certificates	Extension	Disposal	New
Alexandria	1	$1,525 00		
Amherstburg	1	1,650 00		
Ansonville	1			$110,000 00
Arnprior	1	215 20		
Barrie	5	29,937 00		
Belleville	5	40,847 31		
Brantford	2	38,886 00		
Bridgeburg	1	7,500 00		
Brockville	1	513 50		
Burlington	1	7,597 00		
Campbellford	1	6,720 00		
Carelton Place	1	15,850 00		
Chippawa	3	10,375 93		
Collingwood	1	985 00		
Cornwall Township	1	2,825 00		
Cornwall	5	19,984 75		
Crystal Beach	1	18,327 00		
Dunnville	3	3,912 50		
East York Township	29		$145,000 00	2,688,278 00
Eastview	2	12,206 50		
Elmira	2	1,014 35		
Etobicoke Township	1	1,600 00		
Ford City	2	81,063 49		
Forest Hill	2			145,000 00
Fort Frances	1	13,016 67		
Fort William	5	31,226 92		
Galt	4	18,959 93		
Gananoque	5	15,586 71		
Goderich	3	2,869 40		
Guelph	4	41,530 00		
Hamilton	10	721,431 70		196,000 00
Kapuskasing	1	2,100 00		
Kenora	3	52,000 00		
Kingsville	1	10,269 50		
Kingston	4	7,159 60		
Kitchener	3	40,695 85		
Leamington	1	2,855 20		
Leaside	1	33,829 24		
Lindsay	2	5,263 50		
London	11	194,254 79	50,000 00	
Midland	1	35,000 00		
Mimico	4	31,941 80		
New Toronto	6	19,301 20		
Niagara Falls	8	26,653 26		
North Bay	6	107,250 71	6,486 71	
Newmarket	1	450 00		
Nelson Township	3	15,920 91		
Orillia	1	683 14		
Oshawa	1	60,605 80		
Ottawa	23	84,273 57		
Owen Sound	2	6,127 40		
Pembroke	3	8,090 82		
Peterboro	3	5,418 75	220,000 00	
Port Dalhousie	2	11,561 00		
Port Hope	1	2,695 41		
Preston	2	7,792 50		
Renfrew	2	2,201 88		
Richmond Hill	1	3,585 00		
Riverside	3	125,472 06		
St. Catharines	7	18,414 88		
St. Thomas	2	5,502 10		
Sandwich	7	17,294 12		
Sandwich East	1	50,382 19		
Sandwich West	1	60,730 80		

CERTIFICATES ISSUED RE SEWER EXTENSIONS FOR THE YEAR 1925
—Continued

Municipality	No. of Certificates	Extension	Disposal	New
Sarnia	3	$14,001 06	.....	.....
Sault Ste. Marie	2	17,610 00	.....	.....
Scarborough (Agincourt)	1	4,676 00	.....	.....
Smith's Falls	6	12,113 30	.....	.....
Stamford Township	1	3,156 44	.....	.....
Stratford	1	9,416 00	.....	.....
Sturgeon Falls	1	8,409 00	.....	.....
Sudbury	2	26,131 36	$7,000 00	.....
Sutton	1	2,170 30	.....	.....
Teck Township	2	2,908 00	.....	.....
Thorold	1	814 00	.....	.....
Timmins	3	39,840 00	.....	.....
Tisdale Township (South Porcupine)	1	56,279 23	.....	.....
Toronto	28	980,217 00	.....	.....
Walkerville	1	6,521 90	.....	.....
Waterloo	1	2,862 20	.....	.....
Welland	2	3,281 00	.....	.....
Weston	4	7,438 05	.....	.....
Whitby	4	12,196 83	.....	.....
Windsor	8	127,599 90	.....	.....
Woodstock	5	6,167 00	.....	.....
York Township	22	.....	.....	$1,834,289 44
Total	323	$3,574,742 41	$428,486 71	$4,973,567 44

THE REGISTRAR-GENERAL'S BRANCH

S. J. MANCHESTER, DIRECTOR

A report respecting the Registrar-General's Branch appears for the first time in the annual report of the Department of Health. This is due to the fact that during the year this branch was transferred from the Provincial Secretary's Department, under which it had functioned for many years, to the Department of Health.

No attempt is made to elaborate in this report the vital statistics of Ontario. The report respecting the Registration of Births, Deaths and Marriages is compiled and issued as a separate volume.

A summary is herewith presented.

POPULATION

Entire Province	3,062,150
Cities	1,231,036 or 40.2 per cent.
Towns (5,000 population)	163,822 or 5.4 per cent.
Rural	1,667,292 or 54.4 per cent.

	Births	Ratio	Marriages	Ratio	Deaths	Ratio
Entire Province	71,510	23.3	24,038	7.8	33,078	11.8
Cities	30,857	25.0	13,661	11.0	13,997	12.3
Towns	5,071	30.9	1,714	10.4	2,349	15.3
Rural	35,582	21.3	8,663	5.1	16,732	11.0

(The ratio given is per 1,000 population.)

PRINCIPAL CAUSES OF DEATH

The ten chief causes of death and their rates were.

Organic heart diseases	3,442	112.0
Cancer	2,946	95.8
Diseases of the arteries	2,455	80.1
Tuberculosis	1,823	59.5
Pneumonia	1,510	49.3
Apoplexy	1,372	44.8
Bright's disease	1,306	42.6
Broncho-pneumonia	822	26.5
Infantile diarrhoea	659	21.1
Influenza	554	18.0

(The ratio given is per 100,000 population.)

TUBERCULOSIS

The death rate from tuberculosis, per 100,000 population, for the years 1915-1924, inclusive, is as follows:

1915	89.2	1920	78.7
1916	92.2	1921	71.0
1917	88.9	1922	66.4
1918	90.0	1923	65.6
1919	78.0	1924	59.5

Cancer

The death rate from cancer, per 100,000 population, during the last ten years is as follows:

1915	73.8	1920	85.0
1916	72.6	1921	88.0
1917	79.3	1922	87.5
1918	75.5	1923	90.0
1919	76.9	1924	95.8

Infant Mortality

Number of deaths and rate per 1,000 living births 1915 to 1924, inclusive.

Year	Deaths	Rate	Year	Deaths	Rate
1915	6,838	102.0	1920	7,802	107.5
1916	7,000	107.2	1921	6,763	91.3
1917	5,777	92.1	1922	5,921	83.0
1918	6,402	99.0	1923	5,950	84.9
1919	5,999	95.5	1924	5,418	75.7

Communicable Diseases

Number of deaths and rate per 100,000 of population for the year 1924.

	Deaths	Rate
Typhoid fever	109	3.5
Smallpox	47	1.5
Measles	180	5.8
Scarlet fever	159	5.1
Whooping cough	147	4.7
Diphtheria	322	10.5
Influenza	544	18.0

Certificates and Fees

The work of this branch has increased enormously in so far as the issuing of certificates is concerned. Approximately 30,000 certificates were issued during the year.

An important change which took place during the year, to be exact on October 6th, was an amendment in the fees for service. Up to this date the fee for a search covering a three-year period for one registration was 25 cents, and for a certificate 50 cents in addition to this fee. On October 6th the fees became 50 cents for a search covering the same period and $1 additional for the certificate. With the increase of the fees for official certificates the department decided to make searches for mothers' allowances purposes and for pension and insurance purposes in the cases of returned soldiers without any charge whatever.

Old Records

While the branch has no records of births or deaths prior to July 1st, 1869, the date on which registration of births, marriages and deaths became legally effective, the branch had for many years marriage registers which had been gathered from some sources now forgotten, which date back in some cases to the "forties." These do not by any means constitute anything like complete records but such as they are they are now available. Although they had been

in possession of the branch so long they had not until recently been indexed for adequate search. The following is a list of these:

Brant	1858-1868
Bruce	1859-1869
Carleton	1865-1869
Dundas	1858-1869
Essex	1858-1869
Elgin	1858-1869
Frontenac	1858-1869
Grey	1858-1869
Halton	1858-1869
Huron	1841-1848
Haldimand	1858-1869
Kent	1858-1869
Lambton	1858-1869
Lanark	1858-1869
Lincoln	1858-1869
Leeds and Grenville	1849-1857; 1858-1869
London	1858-1869
Lennox and Addington	1862-1869
Middlesex	1848-1869
Northumberland and Durham	1858-1869
Norfolk	1858-1869
Ontario	1858-1869
Oxford	1839-1869
Ottawa	1816-1853
Peel	1858-1869
Perth	1831-1848; 1859-1869
Prescott	1858-1869
Prince Edward	1858-1869
Peterboro	1858-1869
Renfrew	1858-1869
Russell	1858-1869
Stormont	1858-1869
Simcoe	1842-1869
Toronto	1859-1867
Victoria	1858-1869
Victoria and Hastings	1839-1858
West Durham	1858-1869
Wellington	1858-1869
Waterloo	1858-1869
Welland	1858-1869
Wentworth	1857-1869
York	1823-1838
York	1858-1869

DIVISION OF DENTAL SERVICES

F. J. Conboy, D.D.S., Director

In presenting my first annual report I desire to place on record my sincere appreciation of the assistance and co-operation which I have received from all those associated with me in the Department of Health. As a result of this friendly and helpful relationship, we have been able to accomplish a work far beyond our expectations and we will start upon our second year under conditions which are in every way most promising.

The achievements of the year would, however, have been impossible without the sympathetic and active support which the department received from the dentists of Ontario. As individuals and as an association, the members of the profession have done everything in their power to make the work of the Director of Dental Services as easy and as successful as possible.

The individual dentists have freely given their time to conduct surveys, to give dental health lectures and, in a general way, to promote the various activities of the programme presented by the department. The time involved in the performance of these tasks is deserving of notice as many dentists were away from their offices for a number of days as the inspection not only included the children in the cities and towns but also the boys and girls who attended the small rural schools. The contribution made is the more noteworthy when we consider that these men provided their own transportation and cheerfully met other incidental expenses connected with the inspection.

The Ontario Dental Association through its Oral Hygiene Committee has supplied much material which has been used in connection with the Dental Health Educational Campaign. Moving picture films, booklets, slides, newspaper articles and a lantern have been placed at the disposal of the department and these have been sent to all parts of the Province. The association, through its local committees has arranged many public meetings and has provided speakers so that the importance of dental health might be brought to the attention of the various service clubs and the support of these organizations might be secured.

The first activity undertaken by the Division was to arrange for a Province-wide dental survey so that the municipal authorities might have an accurate idea of the number of children suffering from mouth defects, and the cost of providing treatment for those who could not receive dental attention in the regular way. This initial inspection is still being carried on and nearly two hundred thousand children have been examined. In places where there is no permanent school dental service, the local men give their time gratuitously to make this examination and in many places all the dentists closed their offices for three or four days in order to conduct the survey. Notification cards, provided by the Department of Health and upon which the examining dentist marked the defects which were present in the child's mouth were sent to the parents and an earnest effort made to see that proper dental attention was given. In many municipalities where the number of children whose parents could not afford to pay ordinary fees was not sufficiently large to warrant the establishment of a school clinic, a special arrangement was made with the local dentists and in that way the much needed attention was given. The survey revealed some very startling information. Of the many thousands of children examined the statistics showed that over 92 per cent. of all the

children had dental defects in either their first or second teeth and that these cavities numbered on an average over four per child. Fifty per cent. of those examined had unclean mouths and five out of every hundred showed such a septic condition as to be extremely detrimental to health. Less than 15 per cent. had received any dental attention outside of extraction, and 10 per cent. had irregular or crooked teeth.

Similar investigations made by the department among the workers in industries and the patients in hospitals disclosed the fact that while decay was not as rampant among the adults as in the case of the children, the number of cases of so-called pyorrhea was enormous and the mouth conditions from the standpoint of infection were alarming.

It is now generally recognized that dentistry is a health essential and when the people cannot afford to pay the regular fees some special arrangement must be made so that they may be able to receive dental attention. These organizations take the form of school dental services, hospital dental departments, industrial clinics and travelling dentists for the unorganized parts of the Province.

Satisfactory progress has been made in the establishment of school dental services. The clinics are of various kinds to suit local conditions. In the large centres a school equipment is purchased and a dental officer engaged to spend full or part time in making a dental examination of all the children and giving dental treatment to those whose parents cannot provide it. In smaller places the school or health authorities enter into an arrangement with the local dentist whereby the children are sent to his office at stated times, he providing the necessary material and being paid a set amount per operation or so much per hour. In many small communities, the dentists are providing treatment for the poor without remuneration or reward of any kind. In connection with the school work an earnest effort is being made to impress upon the dentists, teachers and nurses the importance of protecting the deciduous or first teeth and the clinics are kept open on Saturday mornings in order that mothers may bring the young children for examination, advice and treatment.

The hospital dental departments are filling a great need in connection with the treatment of the sick. It is conceded by all outstanding physicians that it is impossible to make much progress in the treatment of some patients unless the mouth conditions are improved and the active co-operation between medical men and dentists in connection with hospital services is of distinct advantage to the patients. Most of the hospitals in the large cities now have indoor departments and the work is extending to the hospitals in the towns. In addition to the indoor work, some hospitals are conducting outdoor clinics and treating many people who could not get dental attention in any other way. The Western Hospital, Toronto, conducts a three-chair clinic and there are twenty-nine members on the staff. The dentists not only relieve suffering and remove infection, but fillings are inserted and dentures constructed in order that masticating efficiency may be restored.

Very little progress has been made as yet in connection with the industrial clinics, although many concerns have been visited and the benefits of a dental service presented to the executive heads of the firms. The industrial depression has made it impossible for manufacturers and others to attempt any work which might entail additional expense, but the educational efforts will certainly bring beneficial results as soon as financial conditions improve. Most employers realize the necessity of keeping the worker in good physical condition and are convinced that dental infection to a very large extent decreases efficiency. Although only two such clinics were established during the past year, we have

every reason to believe that within the next twelve months this number will be greatly augmented and the factory dental service will be a part of every well equipped and properly organized industrial plant.

Very happy results have been obtained in connection with the effort to supply a dental service in all parts of the Province. It was recognized that many people had to travel long distances in order to reach a centre where there was a resident dentist. The result was that the people could not afford to spend the necessary time and money and the teeth were neglected. The department set itself to the task of providing itinerant dentists and travelling clinics so that a dentist could visit a small community, stay there until the work was completed and then travel on to a new district. The arrangement has been entirely successful, the people have been well pleased with the services rendered, and the dentists have received sufficient remuneration to make the effort well worth while. The itinerant dentist promises to be a satisfactory and permanent health agent in this Province.

The providing of a much needed dental service for school children, patients in hospitals, industrial workers and the people in the sparsely settled parts of the Province is quite essential, but the most important work of the department has to do with dental health education. Mouth diseases must be prevented, and in order to accomplish this most laudable purpose the protective programme must be brought to the attention of the people. The people must not only be informed that it is dangerous to the physical well-being to allow dental infection to remain in the mouth, but they must also be frequently reminded. They must also be taught how to prevent dental diseases and encouraged to follow out the preventive programme worked out by the department. To accomplish this purpose hundreds of lectures on oral hygiene have been given and articles on dental health have been placed in the leading papers. Very gratifying support in this connection has been received from Women's Institutes, Home and School Clubs, service clubs and many welfare organizations. This encouragement has induced the department to arrange for a Dental Health Day to be held on October 20th, 1926, when instruction on oral hygiene and preventive dentistry will be given in every part of the Province. Physicians, educationalists, dentists, nurses and many welfare and service organizations have promised to co-operate and the success of the undertaking is already assured.

DIVISION OF LABORATORIES

C. M. ANDERSON, M.D., C.P.H., DIRECTOR

I have the honour to submit the following report and tabulated statements of the work of the public health laboratories for the year 1925.

TABLE I

Table showing number of specimens examined at the main laboratory and at the eight branch laboratories, throughout the Province for the year 1925.

SPECIMENS EXAMINED BY THE PUBLIC HEALTH LABORATORIES OF THE PROVINCIAL DEPARTMENT OF HEALTH OF ONTARIO DURING THE YEAR 1925

Sections of the Laboratory	Toronto	London	Ottawa	Sault Ste. Marie	Kingston	Fort William	Peterborough	North Bay	Owen Sound	Total
(a) **Bacteriology**										
Diphtheria cultures	10,914	4,405	5,075	300	901	1,845	675	857	396	25,368
Tuberculosis sputum	2,282	1,029	838	136	538	346	364	446	257	6,236
Typhoid bloods	1,041	749	246	19	273	122	123	172	104	2,849
Typhoid faeces	52	16	13	.....	.....	.....	6	.....	5	92
Suspected rabies	16	.....	.....	.....	.....	.....	.....	.....	.....	16
Gonorrhoea	2,888	752	1,226	206	286	547	403	553	451	7,312
Water colon bacilli and counts	2,754	1,039	2,692	3,055	705	842	1,290	1,140	623	14,140
Milk plate counts	450	1,285	1,039	2,714	109	83	345	194	.....	6,219
Miscellaneous bacteriological examinations	443	782	91	262	125	10	221	46	5	1,985
(b) **Serology**										
Treponema pallida dark field	3	3	3	5	.....	11	2	.....	.....	27
Colloidal gold reaction	410	474	.....	1	2	37	.....	.....	.....	924
Wassermann reaction	21,960	7,629	.....	654	2,345	925	.....	115	.....	33,628
Kahn precipitation test	21,550	5,331	.....	.....	2,345	.....	.....	.....	.....	29,226
(c) **Chemistry**										
Blood sugar determination	534	28	46	55	22	50	38	.....	41	814
Water chemical examination	20	730	7	.....	.....	.....	.....	.....	.....	757
Milk—Chemical examination	450	944	1,161	479	.....	258	490	.....	161	3,943
Coal—Samples for Prov. Sec'y. Dept.	508	.....	.....	.....	.....	.....	.....	.....	.....	508
Alcoholic liquors—for Liquor License Dept.	3,123	.....	.....	.....	.....	.....	.....	.....	.....	3,123
Miscellaneous chemical examinations	209	65	1,232	3	.....	423	244	19	268	2,463
Total examinations	69,607	25,261	13,669	7,889	7,651	5,499	4,201	3,542	2,311	139,630

Table II

Table showing the total examinations made at all laboratories during the years 1911, 1922, 1923, 1924 and 1925.

Laboratory at	Year				
	1911	1922	1923	1924	1925
Toronto	5,750	31,857	32,675	40,872	69,607
London	.....	11,828	12,198	14,546	25,261
Ottawa	.....	.....	12,007	12,397	13,669
Fort William	.....	5,197	5,952	6,199	5,499
North Bay	.....	2,755	4,004	6,186	3,542
Kingston	.....	5,761	4,926	5,725	7,651
Peterboro	.....	4,197	3,682	4,518	4,201
Sault Ste. Marie	.....	6,387	4,349	4,419	7,889
Owen Sound	.....	1,752	2,052	2,117	2,311
Total	5,750	69,724	81,845	96,979	139,630

Table III

Table showing outfits, vaccines and chemical products supplied during the years 1922, 1923, 1924 and 1925 from the main laboratory.

Outfits Sent Out	1922	1923	1924	1925
Syphilis (Wassermann)	22,930	20,336	29,220	41,455
Gonorrhoea	4,812	4,611	5,000	4,142
Water	3,582	3,180	2,906	3,578
Diphtheria	7,961	12,882	14,652	15,611
Tuberculosis	3,644	6,859	4,396	6,216
Typhoid	2,101	3,491	3,547	2,197
Blood sugar	.....	.....	766	1,429
Faeces	.....	.....	332	212
Total	45,030	51,359	60,819	74,840
Vaccines and Chemical Products				
Typhoid monovalent vaccine, cc	.....	.....	.....	17,750
Typhoid paratyphoid vaccine, cc	19,395	30,515	26,661	12,940
Whooping-cough vaccine, cc	48,404	40,742	51,385	61,890
Silver nitrate for prevention of ophthalmia, amps.	22,992	23,660	25,471	29,470
Phenarsenamine, gms	10,130	8,270	8,008	8,128
Mercury salicylate, grs	63	10,577	13,235	12,892
Bismuth hydrate, grs	.....	.....	.....	6,556
Pasteur preventive treatment for rabies, number of persons	8	4	5	3

From examination of the above tables the following points should be noted:

1. That a total of 139,630 specimens were examined by the public health laboratories during the year 1925.

2. That the total specimens examined at all laboratories showed an increase of 42,651.

3. That this increase is largely accounted for by increased activities at the main laboratory in Toronto and the branch laboratory at London.

4. That the number of diagnostic outfits prepared by the staff of the main laboratory also showed a marked increase.

A short summary of the activities of the different sections of the division of laboratories follows:

I. Bacteriology

(a) *Diphtheria Cultures.*

Swabs coming into the central post office are collected daily at 4 o'clock. These are brought to the laboratory for culture.

Direct smear examinations are made on all swabs from new cases. On those that show morphologically typical diphtheria bacilli, the result is immediately conveyed to the physician by wire or long distance telephone.

Swabs from new cases on which direct smears were made	1,396
New cases showing diphtheria bacilli on direct smear	93
New cases showing no diphtheria bacilli on direct smear but which were positive on culture	270
New cases showing no diphtheria bacilli on direct smear and which were negative on culture	1,033

We were therefore able to give the physician an immediate positive result in 25 per cent. of the swabs which contained diphtheria bacilli.

Two thousand six hundred and eighty-three more cultures were examined at the main Laboratory in 1925 than during the preceding year.

Four hundred and forty-nine virulence tests were made upon guinea pigs to determine whether organisms in cultures were toxin producing diphtheria bacilli. Virulence tests are performed on cultures from patients who have been more than four weeks in quarantine, on contacts and suspected carriers harbouring diphtheria-like bacilli. This practice prevents a person from being kept in quarantine any longer than is absolutely necessary to safeguard the public health.

(b) *Typhoid Diagnosis.*

A new outfit was gotten out consisting of a mailing case with a small glass tube for collecting from 3 to 5 cc's. of whole blood from suspected cases of typhoid fever. This outfit offers many advantages over the dried blood method, in that accurate dilutions of the serum ranging from 1-20 up to 1-640 can be made and the exact dilution agglutinating typhoid or paratyphoid organisms can be determined. The blood clot may be cultured for living typhoid bacilli. It occasionally happens that a sample of blood will not agglutinate typhoid bacilli but will show the organism on culture. This occurs in early cases where typhoid bacilli are invading the blood stream but in which the body has not gone on far enough in the battle to produce immune bodies such as agglutinins, etc.

Also in cases which give a history of previous attack or of having received typhoid vaccine an increasing titre in specimens taken four or five days apart would indicate typhoid infection, whereas if the serum continued to only agglutinate the organisms in low dilution such as 1-20 or 1-40, this would be against the diagnosis of typhoid infection.

While it is a little more difficult to obtain the blood the advantages of the method far offset the disadvantages. We still get many specimens of dried blood with such a small drop of the material that a satisfactory examination cannot be made.

We hope physicians will make use of this new outfit.

(*c*) *Preparation of Bacterial Vaccines.*

At the main laboratories the following bacterial vaccines were prepared:

(1) Typhoid Monovalent Vaccine.

This vaccine contains 1,000 million dead typhoid baccilli per cubic centimeter.

(2) Typhoid-Paratyphoid Vaccine.

This vaccine contains:

B. typhosus	1,000	million per cc.
B. paratyphosus "A"	500	" "
B. paratyphosus "B"	500	" "

The reaction following the administration of the combined vaccine is more severe than with the monovalent vaccine on account of the additional amount of bacteria protein. As paratyphoid fever is negligible in Ontario we consider that the typhoid vaccine will give sufficient protection.

(*d*) *Pertussis or Whooping Cough Vaccine.*

During the past year we increased the number of organisms from 2,000 to 4,000 per cubic centimeter in order that the previous bulky injections could be reduced to one-half their size and still contain the required number of Bordet's bacilli.

There has been a steadily increasing demand for this product. We prepared and distributed 1,000 more 10 c.c vials of this vaccine this year than during any previous year.

We make it a policy in preparing and distributing vaccines that they should be used within six months from the date of preparation in the case of typhoid vaccine and within four months for Pertussis vaccine. Each bottle bears a serial number and the date, after which the vaccine should be discarded.

(*e*) *Autogenous Vaccines.*

A number of autogenous vaccines were prepared for physicians on special request. Material for these vaccines were taken from recurring crops of boils, sputum from cases of bronchitis and asthma and chronic diseased sinuses, etc. An increasing number of these are being received and as each one requires the time of a skilled worker, I think a definite policy regarding them should be decided upon as there is no doubt that a lot of them are useless in therapeutics and are costly to the department in time, culture media and animals used for purity tests on the finished product.

II. Serology

Wassermann Reaction.

We have continued to use Kolmer's method in all our Wassermann examinations on blood and spinal fluid specimens. During the past year an effort was made to have the London laboratory serve the south-western section of the Province. Tests are performed at London by exactly the same method. Despite this effort we were called upon to examine 3,081 more specimens in 1925 than during the previous year. This represents an increase in the volume of work of 13.5 per cent. over the previous year. Tests were performed four days per week.

Wassermann tests are now included in the routine of the branch laboratory, Ottawa. This should ease the pressure of work on the main laboratory in 1926.

In addition to the Wassermann test, Kahn precipitation tests were performed on all serums received. This has proven to be a valuable check on the Wassermann reaction. Results agreeing as they do in over 95 per cent. of cases give to all concerned a feeling of security and satisfaction which could not be obtained by any one Wassermann technique alone.

The laboratories were advised during the year to discontinue placing needles in the outfits for withdrawing the blood. Whether this will have any effect upon the number of blood specimens taken will be revealed during the present year. The department now supplies outfits with needles at the rate of one dollar per dozen. It is now nearly six months since discontinuing the needle in routine outfits and very few complaints have been received. The present system will save the department about $2,000 per annum.

III. Chemistry

(a) *Milk Samples.*

The milks received at this laboratory for test are submitted by the cities, towns, villages and rural communities, contiguous to Toronto, which have no laboratory or means of testing their supply. The increase in the number of milk samples tested for butter fat and total solids indicates that some progress is being made in our endeavours to ensure consumers that the milk sold in Ontario conforms with the regulations.

(b) *Blood Sugar Determinations.*

The increase in the number of specimens of blood tested for sugar content from 167 in 1924 to 534 during 1925 would show that physicians appreciate the decision of the department to include this determination among its free routine laboratory tests.

(c) *Alcoholic Liquors.*

The work conducted for the Liquor License Commission during 1925 consisted of testing liquors for alcoholic strength, complete analysis of medicinal preparations submitted under section 126 of the Ontario Temperance Act and research to obtain a preservative to arrest fermentation in fermentable samples. While the number of samples tested during the year for alcoholic strength decreased from 4,195 to 3,123 there was an increase in the number of samples requiring complete analysis so that this together with the research work on preservative made the total amount of work conducted for the Commission for 1925 approximately the same as for the preceding year.

Liquor	1923	1924	1925
(1) For alcohol	2,430	4,195	3,123
(2) For medicinal ingredients	6	28	34

(d) *Coal Samples.*

For a number of years the main laboratory has been testing the coal, as supplied to the public institutions throughout the Province, for the Public Works and the Provincial Secretary's Departments. The summary shows that 508 samples were examined during 1925, being an increase of 276 over the previous year.

(*e*) *Phenarsenamine.*

The decision of the department to purchase the "606" required in the treatment of syphilis resulted in our ceasing to manufacture this product on November 1st. During the eleven months of manufacturing in 1925, there were produced 8,128 grams of the drug of which 900 grams was sold to another province.

The amount of mercury salicylate suspension, prepared and distributed, was practically the same as in 1924.

During the year several of the physicians in charge of the clinics treating public cases of syphilis requested that they be supplied with a bismuth preparation suitable for intramuscular injection. After some experimental work, a suspension of bismuth hydrate was found that was satisfactory and of this preparation 2,230 ampoules were manufactured and distributed.

There were 5,110 more ampoules of silver nitrate required to be manufactured during 1925 than in the previous year.

In addition to the foregoing, the Chemistry Section prepared all the colloidal gold solution, ammonia free and ordinary distilled water, buffer saline, blood sugar reagent for routine blood sugar outfits and other reagents required by the Serological and Bacteriological Sections.

4. Branch Laboratories

The Department of Health maintains branch laboratories at the following centres:

Fort William	Ottawa
Sault Ste. Marie	Peterboro
North Bay	Owen Sound

By special arrangement Queen's University and Western University examine public health laboratory specimens at Kingston and London, respectively.

The total number of specimens examined at the various branch laboratories again shows an increase over previous years.

During the past year, Wassermann tests were discontinued at the laboratories at North Bay, Owen Sound and Peterboro, owing to the small number of specimens received.

All of the laboratories serve as stations for distribution of outfits and biological products.

In conclusion, may I state that in my opinion the formation of the Ministry of Health under one head has been of great assistance in bringing about increased efficiency, co-operation and co-ordination of effort throughout the public health service.

DIVISION OF PUBLIC HEALTH EDUCATION

Lambton County Health Week.

The first work which the division was asked to undertake in 1925 was to assist in connection with the Lambton County Health Week, held in the City of Sarnia, January 19th to 24th, inclusive. This was in response to the request of Dr. W. J. Logie, Medical Officer of Health. The programme which was planned to provide for adult and children medical clinics, was submitted to the members of the Lambton County Medical Association and the Lambton County Dental Association, who, after due consideration, approved it and promised their active support. The societies more than made good their promise of co-operation. Through the Lambton County Medical Association the parent body, the Ontario Medical Association, was approached and the prospective programme and plan of work for Health Week, was declared satisfactory.

Community Interests.

The business men of the county, through the Chamber of Commerce, were interested, and contributed both moral and financial support. The social and fraternal organizations of the county, through their representatives at a public meeting, endorsed the idea and pledged their hearty co-operation. These representatives were divided into groups, and each group selected one of the days of Health Week, which day was to be the special day for the co-operation of that group.

Organization.

The district officer of health conducted a series of meetings at fifteen rural points in the county. The programme consisted of moving pictures, music by local talent and a health address by the district officer. These meetings were well attended, an average of 60 per cent. of the adult population of each place being present.

Lambton County was divided into small sections, one public health nurse being allotted to each, with the result that a satisfactory survey of the county was made. A certain amount of active health work was accomplished, and widespread propaganda relative to the proposed Health Week was issued to the homes throughout the entire county.

Advertising.

Publicity for the undertaking was handled by means of talks by physicians and dentists, whereby 75 per cent. of the school population was reached. Newspaper advertising in the city daily and five rural weeklies reached its climax in the Health Week Supplement; snappy headings, photographs of the speakers, articles on timely health topics, and programme for the week vied with the unusually profuse advertising which referred to Health Week and endeavoured on health grounds to demonstrate in each instance the importance of taking the advertiser's advice.

Posters, plain and illustrated, were displayed over the whole county, and in the churches the clergy made special reference to Health Week.

An interesting combination of health publicity and commercial advertising was evident on the main business streets of Sarnia during Health Week. A considerable number of the merchants very generously gave valuable window space for the display of health exhibits prepared and set up by the Department of Health and the local dental association, while many others dressed their windows from material out of their own stock, stressing in each instance the value of the articles shown from a health point of view.

Clinics.

We were fortunate in securing ideal premises for the clinical work for the occasion. The evening meetings were held in a large auditorium of one of the schools, a commodious hall seating upwards of 1,200, which was filled to capacity for each of the five evening meetings.

After conference with the local medical and dental groups it was decided to conduct eight special types of clinical work:

1. Children's Clinic to include infant, pre-school and school child.
2. Adult Medical Clinic.
3. Occupational Disease Clinic.
4. Chest Clinic.
5. Orthopedic Clinic.
6. Eye Clinic.
7. Dental Clinic.
8. Ear, Nose and Throat Clinic.

It will be noted that the first five are what may be termed diagnostic clinics and the latter three treatment clinics.

The total number dealt with at the clinics was 1,058.

Consultants.

A feature of the work was a series of special clinics conducted by consultants from the outside supplied for Health Week by the Ontario Medical Association. This feature provided the practical opportunity of demonstrating the interest of the Provincial Medical Association in the Health Week programme.

To the public it presented exceptional facilities for clinical consultation during the week, and for the medical profession it provided what practically amounted to a short post-graduate course of one session in each of the following branches, for which the special consultants were supplied:

Pediatrics,
Internal Medicine and Occupational Disease,
Orthopedics,
Tuberculosis,
General Surgery (Diagnosis).

Local Meetings

During the early part of the year we were able to meet requests from local health authorities and divisions within the department, and supplied speakers for numerous public meetings called in the interests of public health (Aurora, Sunderland, St. Catharines, Bolton, Hamilton).

Ontario Health Officers' Association

The Ontario Health Officers' Association met in their eleventh annual conference, May 4th, 5th and 6th, when a very interesting programme was presented. The following officers were elected: President, Dr. Fred Adams; First Vice-President, Dr. T. W. G. McKay; Second Vice-President, Dr. Andrew W. Dwyer.

Literature Distributed

One hundred and sixty-three thousand pieces of literature were distributed. The following pamphlets are the most popular of the publications:

Health Almanac,
Baby Book,
Communicable Disease Pamphlets,
Venereal Disease Literature.

Canadian National Exhibition, Toronto

The Canadian National Exhibition was again the setting for the public health exhibit. The Division of Child Hygiene had an interesting exhibit illustrating the medical supervision of the health of school children. In addition, two physicians were present each afternoon to consult with mothers of infants and pre-school children. Nurses were in constant attendance at the booth, and children of all ages were weighed and given a health tag which served also as a weight record.

The Division of Vital Statistics was a very busy spot, because in addition to a most attractive exhibit, applications for records were received in large numbers.

The booth devoted to industrial hygiene illustrated in a most graphic and artistic manner the contrast in the conditions in the lumber, mining and construction camps as they exist to-day and as they were before the health programme was undertaken.

By means of a large map of Ontario, attention was drawn to the health services in connection with motor tourist traffic, emphasizing the consultant and inspection services which the Division of Sanitary Engineering maintains.

The Tuberculosis Section was exceedingly well patronized. The x-ray films of actual cases in various stages of the disease were most arresting and instructive.

The exhibit of the Division of Dental Services was a centre of attraction owing to the fact that free examination and advice, including x-ray when necessary, was available to the public through the co-operation of the organized dental profession. One thousand and fifty-five people were given this service during the Exhibition; 893 x-ray pictures were taken.

A new feature was the "Book Shelf for Health" which was made possible through the kind co-operation of the various firms in Toronto handling books on health subjects.

Moving pictures were once more a popular feature of the health exhibit. A film on cancer, imported through the kindness of Dr. W. H. Harris, was very well received. Over 10,000 people viewed the pictures during the Exhibition.

Communicable diseases, including venereal disease, were featured in a joint exhibit of the laboratory and the Division of Preventable Diseases.

Fall Fairs.

The division gave assistance to the various divisions and local authorities in connection with fall fairs upon request.

In October, the Fifth Annual Conference of the Canadian Council on Child Welfare was attended in Ottawa.

Health Films.

The report of Mr. E. H. Jones, moving picture operator, follows:

During the year 1925 health films were shown in compliance with requests to the Department of Health in the following places. A memorandum of the attendance is given in each instance:

Date, 1925	Place	Auspices	Attendance	Special performance for children
Jan. 19-24	Sarnia	Department of Health	5,400	.....
" 3	Toronto	Jewish Girls' Club	350	.....
Feb. 7	"	" " "	300	.....
" 11	"	Can. Social Hygiene Council	100	.....
" 12	"	Victoria House	300	.....
" 19	"	Neilson's Factory	700	.....
Mar. 1	"	Jewish Girls' Club	400	.....
" 6	"	Christian Brotherhood Church	500	.....
" 11	Mimico	Presbyterian Church	600	.....
" 16-21	Galt	Can. Social Hygiene Council	3,000	.....
" 26-27	Toronto	" " " "	1,000	.....
" 29	"	Council of Jewish Women	200	.....
" 30	"	Christian Brotherhood Church	300	.....
pr. 2	Aurora	Department of Health	600	.....
" 17	Toronto	St. Andrew's Hall	300	.....
" 20-21	St. Catharines	Social Hygiene Council	800	.....
" 23	Stouffville	Department of Health	350	500
" 27-28	Welland	Social Hygiene Council	600	.....
" 30	Willowdale	Department of Health	200	.....
May 4-5-6	Toronto	Ontario Health Officers' Association	.....	.....
" 10	"	Jewish Girls' Club	250	.....
" 12	Orillia	Child Welfare Association	200	900
" 19	Toronto	Can. Social Hygiene Council	100	.....
" 19	Birch Cliff	Department of Health (Dental)	150	.....
June 4-5-6	Kitchener	Can. Social Hygiene Council	1,200	.....
" 11	Toronto	Department of Hygiene, U. of T.	100	.....
" 12-13	Guelph	Can. Social Hygiene Council	700	.....
" 19	Dundalk	Department of Health	500	.....
" 22	Powassan	" "	200	150
" 23	Trout Creek	" "	250	100
" 24	Sundridge	" "	150	150
" 25	South River	" "	75	100
" 26	Burk's Falls	" "	100	75
July 27	MacTier	" "	100	50
" 28	Bala	" "	150	75
Aug. 11	Aurora	Child Welfare Association	200	.....
" 14	Thorndale	Department of Health	200	200
Oct. 26	Trenton	" "	900	1,200
Nov. 1	Toronto	Jewish Girls' Club	150	.....
" 12	Muskoka	Indian Reserve	100	.....
" 20	Milton	School Nurse	.....	200
" 23-25	London	Can. Social Hygiene Council	500	.....
" 24	Lynden	Department of Health	300	400
" 30	Orillia	Child Welfare Association	200	700
Dec. 2	Alvinston	Beck Memorial	100	50
" 10	Oakville	Department of Health	75	.....

Fall Fairs.

The department maintained a public health exhibit at the Canadian National Exhibition in Toronto, August 31st to September 12th, in connection with which health films were shown to 10,000 people.

The following fall fairs were attended, a health exhibit being the feature in each case, and in the last named our health films were shown to 800 people.

Aug. 31st to Sept. 12th....Canadian National Exhibition.
Sept. 22nd.....Bowmanville.
Sept. 30th to Oct. 1st.....Simcoe.
Sept. 30th.....Ancaster.

Showings in Toronto.

From the list of places it will be seen that a large number of requests from the City of Toronto—clubs, schools, societies, etc., were made during the year. The films listed above were narrow gauge and were shown with our own machine; in addition I may add that a number of standard size films have been loaned to local boards of health throughout the Province upon special request.

STATEMENT OF BIOLOGICAL PRODUCTS AND INSULIN

NOVEMBER 1ST, 1924 TO OCTOBER 31ST, 1925.

Month	Smallpox Vaccine Points	Cost	Diphtheria Antitoxin Units	Cost	Syringes	Cost	Schick Test Outfits	Cost	Toxin-Antitoxin 25 c.c.	Cost	Toxin-Antitoxin 50 c.c.	Cost	Toxin-Antitoxin Boxes	Cost
November	4,875	$219 38	24,829,000	$3,476 06	723	$144 60	155	$31 00	148	$148 00	32	$64 00	..	.....
December	6,220	279 90	37,083,000	5,191 62	1,758	351 60	50	10 00	118	118 00	.....	.....	26	$5 20
January	10,247	461 11	24,078,000	3,370 92	1,112	222 40	62	12 40	96	96 00	91	182 00	.....	.....
February	7,115	320 18	17,404,000	2,436 56	965	193 00	90	18 00	103	103 00	3	6 00	46	9 20
March	10,135	456 08	25,462,000	3,564 68	1,195	239 00	18	3 60	12	12 00	.....	.....	20	4 00
April	4,080	183 60	21,555,000	2,657 90	681	136 20	5	1 00	8	8 00	62	124 00	.....	.....
May	6,857	308 57	13,799,000	1,719 26	874	174 80	125	25 00	86	86 00	.....	.....	30	6 00
June	7,626	343 17	10,536,000	1,327 04	455	91 00	83	16 60	111	111 00	.....	.....	.....	.....
July	3,334	150 03	19,516,000	2,414 84	460	92 00	99	19 80	31	31 00	39	78 00	26	5 20
August	6,961	313 25	21,467,000	2,665 78	1,029	205 80	114	22 80	57	57 00	8	16 00	.....	.....
September	7,016	315 72	27,299,000	3,390 06	846	169 20	151	30 20	108	108 00	.....	.....	79	15 80
October	4,921	221 45	21,580,000	2,689 20	891	178 20	107	21 40	.....	.....	.....	.....	276	55 20
	79,387	$3,572 44	264,608,000	$34,903 92	10,989	$2,197 80	1,059	$211 80	878	$878 00	235	$470 00	503	$100 60

STATEMENT OF BIOLOGICAL PRODUCTS AND INSULIN—*Continued*

NOVEMBER 1ST, 1924 TO OCTOBER 31ST, 1925.

Month	Anti-meningitis serum, vials	Cost	Intra-spinal Outfits	Cost	Tetanus Antitoxin Units	Cost	Syringes	Cost	Complete Outfits	Cost	DIPHTHERIA TOXOID			
											Treatment for Six	Cost	Treatment for Twelve	Cost
November	153	$153 00	2	$0 90	2,371,000	$711 30	207	$ 41 40	.....	.....	.....	.....	.....	.....
December	55	55 00	25	11 25	676,000	202 80	18	3 60	1	$0 45	.....	.....	.....	.....
January	56	56 00	24	10 80	522,000	156 60	23	4 60	....	.....	.....	.....	.....	.....
February	128	128 00	5	2 25	319,000	95 70	22	4 40	.....	.....	.....	.....	.....	.....
March	96	96 00	2	90	677,500	203 25	25	5 00	.....	.....	.....	.....	.....	.....
April	29	29 00	7	3 15	661,000	198 30	16	3 20	.....	.....	.....	.....	.....	.....
May	53	53 00	9	4 05	1,274,000	382 20	159	31 80	3	1 35	.....	.....	.....	.....
June	98	98 00	3	1 35	1,708,000	512 40	58	11 60	16	7 20	.....	.....	.....	.....
July	44	44 00	13	5 85	1,332,000	399 60	53	10 60	14	6 30	.....	.....	.....	.....
August	25	25 00	3	1 35	2,327,500	698 25	108	21 60	7	3 15	.....	.....	.....	.....
September	130	130 00	30	13 50	1,969,500	590 85	39	7 80	14	6 30	.....	.....	.....	.....
October	73	73 00	5	2 25	1,358,000	407 40	74	14 80	3	1 35	158	$158 00	558	$558 00
	940	$940 00	128	$57 60	15,195,500	$4,558 65	802	$160 40	58	$26 10	158	$158 00	558	$558 00

STATEMENT OF BIOLOGICAL PRODUCTS AND INSULIN—*Continued*

NOVEMBER 1ST, 1924 TO OCTOBER 31ST, 1925.

Month	Diphtheria Toxoid for 25 persons	Cost	Dick Test outfits	Cost	S. F. Antitoxin 15 c.c.	Cost	S. F. Antitoxin 2 c.c.	Cost	S. F. Toxin Boxes	Cost	Rabies Treatment	Cost	Total Cost
November	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	$4,989 64
December	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	6,229 42
January	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	4,572 83
February	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	3,316 29
March	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	4,584 51
April	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	3,344 35
May	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2,792 03
June	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	$15 00	2,534 36
July	.....	.....	91	$18 20	52	$117 00	24	$9 60	56	No charge	.....	.....	3,402 02
August	303	$303 00	45	9 00	20	45 00	15	6 00	22	No charge	1	15 00	4,407 98
September	.....	.....	206	41 20	177	398 25	116	46 40	84	No charge	1	15 00	5,278 28
October	.....	.....	88	17 60	234	526 50	430	172 00	182	No charge	.....	.....	5,096 35
	303	$303 00	430	$86 00	483	$1,086 75	585	$234 00	344	No charge	3	$45 00	$50,548 06

INSULIN

Month	Units	Cost
November	400,500	$2,853 56
December	455,500	2,929 79
January	396,000	2,178 00
February	533,950	3,046 73
March	454,000	2,497 00
April	405,400	2,229 70
May	501,900	2,760 45
June	610,000	3,355 00
July	433,900	2,386 45
August	607,800	3,342 90
September	495,700	2,726 35
October	593,400	3,263 70
	5,888,050	$33,569 63

Cost biological products	$50,548 06
Revenue	2,441 90
Net cost	$48,106 16
Insulin	33,569 63
	$81,675 79

DISTRICT OFFICERS OF HEALTH

DISTRICT No. 1.

T. J. McNally, M.D., D.P.H.

I have the honour to submit the thirteenth annual report of public health work in this district.

During the year I made 118 official visits to as many different municipalities and in each case reviewed with the medical officer of health the past year's activities of the local board and where I considered it necessary had them summoned and discussed with the full board the local problems of sanitation and administration.

These interviews have all been harmonious and have shown a rapidly growing appreciation on the part of these officials of the changed and broadened field of public health activities engaged in by the Ontario Department of Health.

Eighty of the municipalities were visited a second time to check up the work of the present year and in addition other repeat visits were made on account of some difficulty experienced by the local board in administration or control of nuisances. This close personal supervision of health work in the district was rendered possible through the use of motor car.

Public Health Nursing

Throughout the year Miss Riddle and Mrs. Bagshaw who are assigned to this district have done faithful and excellent work. They spent the early part of the year in preliminary surveys for the Lambton County Health Week held in Sarnia from January 19th to the 23rd, then assisted with the work of the clinics and did the follow-up home visitations connected with this demonstration.

In the preliminary surveys they were assisted by Misses Halley, Castle, Pennock and Campbell of the department who were assigned to this work for a few weeks before, during and following the Health Week.

After this work was completed the district nurses made a survey of the Townships of Plympton, Warwick and Bosanquet and the Town of Forest, in preparation for another series of tuberculosis, pre-school and school clinics which were conducted in the town of Forest by Drs. Bell, Phair, Kitley, Brink and Riddell. The Wednesday afternoon was devoted to a special tuberculosis clinic conducted by Dr. Brink before the Lambton County Medical Association. Following these clinics the nurses made an intensive follow up visitation to the homes in the aforementioned municipalities.

Dr. Smith of the Child Hygiene Division assisted by Mrs. Bagshaw made a complete physical examination of all the school children of the Township of Dawn; following this the nurse proceeded with the follow-up home visitations until the roads became impassable for a motor.

During this time Miss Riddle was engaged in an intensive survey of the Township of Brooke in preparation for a series of clinics to be conducted in Petrolia during the coming year.

Latterly the nurses have been engaged in a similar survey in the Town of Petrolia.

Lambton County Health Week

Under this title the Department of Health of Ontario succeeded in staging the most successful public health educational campaign and nursing demonstration ever attempted in Canada, or so far as I am aware, in any country, and gave a definite illustration of complete co-operation between public health workers, medical and dental professions and public officials as well as social organizations working in perfect accord in their respective spheres having only in mind:

1. To disseminate information relative to health protection and disease prevention.
2. To create an opening for active public health work.
3. To promote a closer relation and a better understanding between the public and medical profession.
4. To stimulate a demand for medical and dental health service on the part of the public.
5. To introduce a rational free medical and dental service to special classes in the community where the same is indicated and properly rendered.
6. To promote the control of matters and services distinctly medical and dental by the medical and dental professions, respectively.

The field work for this demonstration was carried out as indicated under "Public Health Nursing," supplemented by some thirty meetings at fifteen towns and villages in the county. At each of these meetings public health films illustrating different phases of the work were shown, the afternoon being for school children who were addressed by the nurse doing survey work in the locality, the evening meeting for adults who were given a short address on some public health subject by your district officer. These meetings were enlivened with vocal and instrumental music by local talent and in some cases ended up with a social tea. In this way about 90 per cent. of the local children and 60 per cent. of the adult population at these points were brought personally in contact with the public health workers.

The county medical and dental professions freely offered their services in this publicity and educational campaign, giving addresses in the schools and to church societies on oral hygiene and general public health.

Eliminating the legion of minor details of organization and of the Week's work, it might not be amiss to give a brief sketch of the programme and some of the results following the work.

Each of the five days was occupied by:

1. Clinics for infants, pre-school and school children.
2. Clinics for adults, general medical and occupational disease.
3. Dental clinics.
4. Chest clinics.

For four of the days there were in addition to the above

5. Eye clinics
6. Ear, nose and throat clinics.

} conducted by specialists.

On Wednesday, Dr. R. I. Harris, of Toronto, and on Friday, Dr. D. E. Robertson, of Toronto, conducted special consultation clinic on referred orthopedic cases.

There was a public meeting each evening at which different subjects related to public health were dealt with in an address from the following well-informed leaders, the Hon. Howard Ferguson, the Right Rev. M. F. Fallon, the Hon. Forbes Godfrey, Dr. George Young, Dr. J. W. S. McCullough, Dr. W. Seccombe, Dr. Helen MacMurchy, Dr. C. D. Parfitt, Dr. Frank Woods, Mrs. Chas. Thor-

burn, Dr. A. E. Webster, Dr. H. W. Hill, Miss H. G. Campbell, Mr. F. A. Dallyn and Mr. E. H. Stonehouse.

These able speakers maintained a well-sustained public interest throughout the whole week, as evidenced by the attendance of capacity audiences in a hall seating about 1,200 people.

During the evenings the medical and dental professions were engaged in round-table conferences led by the specialist conducting the clinics during the day, thus being prepared for and stimulated to give better services to their clientele in days to come.

There were about 1,100 persons examined, and where disease or defect was found the family physician was notified by private letter what diagnosis was made, with suggestions as to treatment; of these, 143 were chest conditions, many of whom were open cases of tuberculosis, and of these, several had not been under a physician previous to the survey; following the recommendation of the specialist, and on the advice of the family physician, a number were placed in the sanitorium.

All cases were visited in their homes by the nurses since, and a very earnest effort made to have all cases placed under treatment by the family physician or dentist as required.

A better understanding has been developed between the professions concerned and the general public and a more cordial relationship between both and the Department of Health.

To those desirous of obtaining further information regarding the organization and results of this demonstration I would refer to the article in the American Journal of Public Health, July 1925, by Dr. W. J. Bell, to whose initiative and energy, its success was largely due.

Canning Factories

These factories continue to give considerable trouble through their effluents causing nuisances, Essex, Harrow, Leamington and Tecumseh, being the greatest offenders.

Milk

The milk products factories occasioned several protests by creating nuisances but on the condition being officially brought to the notice of the management correction was made.

The supplying of milk for domestic use in the urban municipalities is in many cases unsatisfactory, notwithstanding the best efforts of the Department, through local officers, district officer and the engineering staff. The failure to have a satisfactory supervision is due in most cases, to the unsatisfactory condition of the law which requires the local council to pass a by-law under schedule B of the Public Health Act, before the local board of health has the necessary jurisdiction to supervise production, care, storage and delivery of milk to the consumer.

Prejudice and interested influence all too frequently prevent the necessary by-law being passed, therefore I respectfully recommend that schedule B be so amended as to give the local board of health the necessary authority to supervise the milk delivery in the municipality without any amendment by the local council.

Meat

The control of the slaughtering of animals for food is being fairly well supervised, but there is need for better arrangements to prevent the flesh of diseased animals being sold for domestic use.

Rural Schools

Improvement is being made in the sanitary conditions of these institutions, though in too many instances, either through the indifference or passive resistance of the trustees, satisfactory water supply and conveniences are not provided.

The start made towards dental inspection of the school children through the department, arranging for a first free inspection is a forward movement, though it appears to me that transportation must be provided for the dentists before many of these schools are reached, as it can not be expected that the dentist will bear this expense in addition to giving his time free.

Communicable Diseases—Smallpox

This year has been practically free of this disease in this district, owing, I believe to the amount of vaccination carried out last year as a result of the serious outbreak in Windsor, but we are menaced from its prevalence in Detroit. The action of Windsor Board of Health insisting that no child may attend the public schools without being first successfully vaccinated is to be commended and should be applied generally in the interest of public health.

Diphtheria

We have now the assured action of antitoxin in lessening the mortality from this disease, as well as passive immunity from its use on contacts; and it is pretty well established that we may obtain permanent immunity through the use of toxoid; the incidence as well as the mortality from diphtheria should be very materially further reduced. We may hopefully look forward for this result now since it has been found that toxoid does not produce any reaction in young children, and in very few cases up to twelve years of age which removes all reasonable objection to its general application during the age of greatest susceptibility to the disease.

There has not been any epidemic of the disease in the district during the year, but the isolated cases are all too frequent.

Venereal Diseases

The provision made for the treatment of indigent cases is working out very satisfactorily in this district, though I regret to have to note that the cases treated as private patients are not being well reported.

The incidence of this disease among the native population on the Indian reserves is very common and a constance menace to the communities where these people migrate for work during the summer season, as well as at all times, to the municipalities adjoining the reserves.

I respectfully urge that the department take this matter up with the Federal department responsible for the care of these people, so that some effective plan may be put in operation to stamp out this serious condition of affairs.

Typhoid Fever

The occurrence of this disease in isolated cases is all too frequent, but serves to impress us with the necessity for eternal vigilance to guard against the carrier and ambulant cases, as well as to protect the public against the open menace.

There has commenced a small outbreak in Courtright, the danger of which was some time ago urged on the local authorities and the Department by

your district officer, as well as by the local officer, who now is unfortunately a victim of the disease. Notwithstanding our protests against the danger of the situation, no action has been taken to protect the public.

The sanitary conditions at Glencoe are seriously threatening an outbreak, one case having already occurred. The conditions have been investigated, reported upon and recommendations made by your engineering staff, and these reports and recommendations officially placed in the hands of the reeve and medical officer, but so far as I am aware, no action has been taken by the local authorities. Correction of conditions should be insisted upon by the Department.

A few cases in Chatham were investigated, the source found and the disease stamped out.

Water Supplies (Public)

The supervision of these having been taken over by your Division of Engineering, it only remains for me to call attention to those that in my judgment require active observation, viz., Courtright, Glencoe (private supplies), Kingsville, Woodstock and Aylmer, owing to potential dangers of serious contamination.

Motor Camps and Tourist Refreshment Booths

On the instruction of the Honourable the Prime Minister, acting as Minister of Health, a complete survey of sanitary conditions in these camps and boo hs was made in collaboration with the Engineering Division and, on the basis of our report, recommendations for regulations were formulated by the Deputy Minister in conference with the District officers and the heads of divisions concerned for the Government's action.

Summer Resorts

Some improvement is being made in the sanitary conditions of these communities, but regulations and more definite supervision are required than is possible under present arrangements to bring conditions to such a standard as to adequately protect the public health.

Nuisances

The correction of nuisances from such varied causes as factory wastes, removal of night soil, fouled drains, contamination of streams, slaughter-houses, etc., occasioned about fifty special visits to different parts of the district, and diverted the time and attention of your district officer altogether too much from conditions more directly concerned with the preservation of public health. To overcome this, and in view of the fact that the Sanitary Engineering Division has practically taken over the care of public water supplies, and that the rural school boards are in need of practical expert advice regarding conveniences and well coverings, I again urge that a qualified and trained sanitary engineer from that Division be assigned to the District Officer for work in the district, but whose work would be subject to the supervision of the Director of the Division.

Public Institutions

The sanitary conditions of all these institutions were carefully gone over during the year, and recommendations made where conditions urgently demanded improvement, but I regret to say that so far as I am aware, without any action being taken to correct the several points dealt with.

DISTRICT NO. 2

J. J. Fraser, M.D., D.S.O.

I have the honour to submit herewith my annual report for the year 1925.

District No. 2 is made up of nine counties, covering an area of 6,264,816 acres. There are 192 municipalities, made up of five cities, seventy-one towns and villages, and 116 townships. It is impossible to cover this large extent of area in anything like a satisfactory manner, and I would recommend that Simcoe and Muskoka, which were formerly in District No. 4, be handed back to make the districts more equal.

Among the activities attempted this year, two, I think are deserving of special mention, the inspection of motor camps and refreshment booths, and public health education. Inspection of motor camps will be referred to later. In the matter of education I have addressed boards of health and municipal councils, interviewed newspaper editors and written weekly articles. I have tried to convince school boards and boards of health, that health, within certain limits, is purchaseable. The response to these attempts is all that could be desired; the results are not so easily estimated.

Communicable Diseases

There has been no outstanding advance in the control of communicable diseases during the past year, unless the work of D'Hherelle on the bacteriophage opens up new fields in immunology.

Isolation and quarantine have been questioned and discredited by some, but only where they have not been efficiently enforced. The public are showing a better appreciation of these means of prevention than ever before, and are apt to check up on the health officer who does not enforce them.

Smallpox

Small outbreaks occurred at Stratford, Kitchener and Elora, all of a mild type, there being no deaths. In these places all the contacts were vaccinated, and most of the children.

Chicken-pox

There were two hundred and fifty-four cases of chicken-pox as compared with three hundred and forty-three last year. Some practitioners are slow in following the new regulations that demand that chicken-pox be placarded. Chicken-pox is mainly important from a diagnostic point of view, on account of the possibility of its being mistaken for smallpox.

Measles

An attempt has been made to reduce the number of measles cases this year, for two reasons. It was estimated there were fifty thousand cases of measles in the Province last year; this is too many. Measles in England have been of a very severe type this year, the mortality rate being higher than that for scarlet fever.

Diphtheria

The only place where there was anything approaching an epidemic was Hespeler, where there were eight cases and three deaths. All the school children and some pre-school were given two immunizing doses of toxoid. A useful result of the epidemic was the interest aroused in reporting and quarantining communic-

able diseases, which before this had been rather indifferent. A few municipalities are taking advantage of toxoid immunization.

Typhoid

There were two outbreaks of typhoid during the year. One of twelve cases in Orillia hospital was traced to a carrier who had a biliary fistula. The other was at Owen Sound. There were really two outbreaks here, one beginning the middle of August, the other at the end of September. While the latter was definitely traced to the water through drainage from an old reservoir, the cause of the first outbreak was not so clear. The following sources of infection were investigated—bathing in sewage-polluted stream, polluted well and springs apart from the municipal supply, possible carrier on milk route, and infection brought from outside, e.g., off a boat or motor trip. One or more cases seemed to arise from each of these sources. Since then, Owen Sound has decided to chlorinate all its wate. supp'y.

Tuberculosis

No more permanent diagnostic clinics have been established, but a good deal of interest has been stimulated by the travelling chest clinic. The death rate for the Province in 1900 was 149.8; for last year it was 59.5. While this shows an encouraging decrease, the work being done on incipient cases and on children should further reduce this mortality rate.

Summer Resorts

This year has been better for the hotels than last, and some of them have already made plans for enlarging. The disposal of sewage in these enlarged places has to be carefully watched. The time has come, when to guard against a possible break-down in any of these disposal plants, chlorination of the water supply should be considered. There is one hotel chlorinating its supply now, others have been advised to consider it, preparing for the time when it may be necessary.

The resorts of Muskoka, Algonquin Park and Georgian Bay were inspected as far as time permitted. A new resort was inspected this year at Tobermory, in the Bruce Peninsula. A large number of tourists, American and Canadian, are now going in there by the blue water highway, via Sarnia. Accommodation heretofore has been rather primitive, but those promoting this resort are very anxious to have everything as it should be for the safety and comfort of tourists. Lion's Head is also attracting some of this summer trade.

At Wasaga Beach the hotels are well looked after. The water supply is from flowing wells, and pasteurized milk is available from Collingwood. But on account of its easy accessibility, there is a large floating population, between two and three thousand over the week-end, and no sanitary arrangements are provided. The township council has been approached and plans drawn up for them to remedy this situation.

Tourist Camps and Refreshment Booths

These were inspected for the first time, and in company with one of the engineering division. The need for regulations gove ning them was clearly seen. It was quite plain that there must be some supervision over them, whether this should be local or central is not yet determined, probably both will be

needed. There was not more than half a dozen in the whole district that could be said to come up to requirements. In each place visited, a point was made of seeing some responsible person—the mayor, clerk, chamber of commerce, park superintendent, newspaper editor, etc.

Public Health Nursing

As many of the cities and large towns in the district have now public health nurses, a good deal of work was done in the rural parts this year. The schools in a number of the townships were pretty thoroughly covered. Two weeks in the summer were devoted to the Bruce Peninsula. in conjunction with the nurse at the Red Cross Outpost in Lion's Head. This work is much needed and appreciated, and I think at least a month could well be given to it each summer.

The nurses were loaned to Guelph and Orangeville during epidemics in the schools. While this may be agreeable to the municipality it should not be encouraged. They are apt to take advantage of it. Guelph has one nurse for a school population of over four thousand.

The demonstration carried on by an urban and rural municipality combined, Dundalk and Proton township, was well received, and showed what can be done by a capable health officer. In this case, the town and township have the same M.O.H. The co-operation of the school inspector was also enlisted and every school in the township asked for the service.

One very important duty performed by the district nurses was the visiting and help given the local health nurses. While the work is more or less new this contact should be kept up.

The programme of combined school and health nursing has not taken very well. Until the health officer is better paid, he can not devote the time required to do his part of the work.

Schools

The schools now being built are paying more attention to sanitary arrangements, and to lighting, heating and ventilation. More teaching of health is being done in the schools. The Red Cross in co-operation with the Department of Education and the Department of Health has taken for its aim and ideal—Every Ontario school a health centre. Health officers throughout the district are taking more interest in the schools, and it is rare to find one who does not mention some improvements that are being carried out in his municipality. They are beginning to see that the school forms one of their best points of contact for carrying out any health programme they may have in view.

Goitre

An extensive survey was made of the school children in Kitchener for goitre. At the same time they were examined with a view to finding out the extent of diseased tonsils among them. In all, there were 3,876 children examined. Of these, 1,613 or 41.6 per cent., had goitre; 1,676 or 43.2 per cent., had diseased tonsils. The result of the follow-up work has not yet been determined. Arrangements are being made to have a similar survey made in the schools of Guelph.

Matters relating to drainage have been pretty well placed where they belong, with the council of the municipality, not with the board of health. But four local boards—Listowel, Fergus, Seaforth and Guelph, asked assistance in dealing with pollution of streams. One township has a judgment against the town but the town says: show us how to remedy the condition and we will do so. And there the matter rests.

Problems that present themselves as matters of policy: There is still a large expenditure of public funds used in inspecting and abating nuisances that could be used to much better advantage in protecting and promoting public health. The idea still persists with some health boards that the abatement of nuisances is their main reason for existing.

More attention should be given to the pre-school child. While the infant is best looked after of any age group, the child from two to six years of age is the most neglected of any age group. I believe if this group were under the same care and supervision as the infant group the occurrence of communicable diseases would be very much lessened. A study of this group would also undoubtedly add to our present scant knowledge of feeble-mindedness.

The problem of pasteurization of milk seems as far from being settled as ever. A by-law submitted in Kitchener for pasteurization was defeated by two thousand majority. While a town would not think of chlorinating part of its water supply and leaving the rest untreated, the same town will pasteurize part of its milk supply and leave the rest to take care of itself.

The problem of the typhoid carrier calls for attention. The majority of cases of typhoid occurring now are traced to carriers, especially in rural districts. A carrier who is engaged as a dairyman, cook or food handler should be compelled to change his or her occupation. In Minnesota when carriers suffer serious loss through enforced change of occupation they are aided by a grant made by the legislature. The question of registering all carriers has been raised in some places.

DISTRICT NO. 3

D. A. McClenahan, M.D., D.P.H.

The year 1925 was one of activity in District No. 3. During the early part of the summer in company with Mr. Delaporte of the Sanitary Engineering Division of the Provincial Department of Health, a survey was made of all the tourist camps, refreshment booths, summer hotels, and a large number of private boarding houses in the district. In all, over four hundred calls were made. These places at present are being carried on in a rather haphazard way, some of them are well conducted and some of them very badly. At a subsequent date a conference of the district officers and engineers was held in the office of the Deputy Minister of Health. A suggested set of regulations was drawn up, to be forwarded to the Minister of Health, and if it meets with his approval, will probably be implemented into law. These places after regulations are made will, of course, require supervision to make sure that the regulations are lived up to.

Epidemiology

My district has been singularly free during this year from serious epidemics. There was only a small epidemic of diphtheria in Vineland, which was due to a carrier handling the milk, a few cases of smallpox in Welland. The epidemic in Welland was readily controlled largely through the energetic measures taken by the M.O.H., Dr. Rieve.

Your district officer was called frequently to see suspicious cases of infection, notably at Wellandport, Hamilton, Acton, Bridgeburg, Dundas, Burlington, Milton, Beamsville, Oakville, Brampton and Jordan.

We have had some success in co-operation with boards of health and boards

of education in the establishment of medical and dental inspection of schools. The following municipalities have established or are arranging to establish this service—Aurora, North York, Newmarket, Forest Hill, West York, Paris, Simcoe, New Toronto, Port Colborne and Weston.

Immunization against Diphtheria

This work has been begun during the year, and a large number of inoculations of toxoid have been given. The plan followed is to give the inoculations of toxoid (two inoculations three weeks apart) without doing a preliminary schick test, and give them to all the children where parents give their consent. The proposal is to do a schick test about a year after the administration of the toxoid to check up results, and see if reaction given is a negative one. About three thousand inoculations have been done outside of the cities and towns, and no marked reactions have been noted. I wish specially to commend the work done by Dr. Farquharson of Scarboro Township.

Public health education has been continued throughout the year by means of addresses and the exhibition of the moving pictures on health topics supplied by the Provincial Department of Health. These pictures were shown at Aurora, Stouffville, Lynden and Oakville. In addition, a number of public meetings have been held and conferences with medical officers of health, boards of health, boards of education and municipal councils.

I wish to return thanks to all in the Provincial Department of Health for the fullest and most considerate co-operation during the year 1925.

DISTRICT NO. 4

N. H. Sutton, M.B., D.P.H.

I beg to submit my report for the year 1925, for District No. 4.

Both in office and in the field, the routine work of the district has been large in amount and varied in character. Communication with M.O.H.'s has been closely maintained by visits, long distance telephone and, when time allowed, by letter. The M.O.H.'s feel free to consult me on any problem where I can be of any service to them, and the spirit of mutual helpfulness which obtains is of great service to public health. The problems on which I have been consulted have been as varied as numerous, and many have been the subject of report to the Ministry. As these are mostly of routine character, I refrain from enumerating them here and discuss in this report only the larger aspects of the work.

Public Health Nursing

During the year, demonstrations were held by Miss McEwen, of the Child Hygiene Division, in the village of Norwood during the winter, and village of Havelock and parts of the township of Belmont, during the spring and early summer. The latter of these was the more successful, owing to the very hearty support given to her in her work by the local M.O.H.'s, who grasped the possibilities of public health nursing work and aided her efforts in all possible ways. In the autumn, Miss McEwen held a demonstration in Beaverton and part of the surrounding township of Thorah. Beaverton is to be congratulated on the growth of its public health sentiment, wherein it is some-

what in advance of many places of its size. I regret that pressure of other work during the autumn prevented me from keeping in very close touch with the demonstration there.

Tourist Camps, Etc.

During the month of June, with Mr. Gibbs, of the Sanitary Engineering Division, I visited the tourist camps and highway refreshment booths throughout the district. These are becoming very numerous, and especially the refreshment booths might be said to be springing up like mushrooms. Both camps and booths, whether municipal or privately owned, are exceedingly individualistic in their character and vary from good to bad in their design and fittings, according as those responsible for them have any proper idea of the requirements of such places, in regard to beauty, convenience, sanitation and healthfulness. The data collected in these surveys will enable adequate regulations to be laid down for them. Without such regulations, it will be nearly impossible to curb some of the most greedy and ignorant promoters of such camps and booths. For instance, a visit to a local M.O.H., to inquire into an outbreak of diphtheria, showed that this disease had occurred in the family of a farmer, whose roadside refreshment booth some twenty feet from the house, had been inspected during the previous month. The M.O.H. informed me that he had had considerable difficulty in convincing this man that the booth would have to be closed during the period of quarantine, since members of his family conducted the booth, and milk products from his cows were sold there. The necessity for safeguarding the water supply and for providing proper sanitary conveniences had been comparatively rarely appreciated by the private owners of camps and booths. The municipally-owned camps averaged much better in this regard.

Fresh Air Camps

Several of these have been established, at different points throughout the district on the borders of lakes and streams and these also vary very greatly in their characteristics. Some of the organizations are well instructed on what conduces to healthfulness in such camps, while in others, the sanitary arrangements are allowed to be quite primitive, either from lack of funds or proper installation or from sanitary ignorance. In the survey of these, as well as in the survey of tourist camps, etc., my visits were in the character of inspections, and directions were given as to the installations necessary to make these places sanitary and healthful. The experience of one of these camps in having some diphtheria cases arise shortly after the children had come from Toronto, led me to make representations to the Health Department of Toronto. that while the children were being physically examined, prior to their two weeks in camps, this examination should include swabbing of the nose and throat, so that carriers from diphtheria should be eliminated or segregated.

Summer Resorts

During the holiday months, I again checked over the summer resorts and I am pleased to say that much improvement in the general conditions has occurred especially as regards summer hotels. Water samples were again taken from all parts of the Stoney Lake area, and the purity of these samples was in pleasing contrast to former years, thus attesting to the effectiveness of changes in sanitary arrangements which I have instituted in this area. "Groups of cottages" in summer communities have been more difficult to control, and I would strongly

recommend that the presence of these be taken account of in regulations of your Board. Some of these groups run up to 100 or 200 cottages, and in such cases are in close proximity to each other. They are very often in out-of-way places, and practically out of control of local M.O.H.'s It is scarcely necessary to point out that such groups, if not well looked after, may easily become the very antithesis of health resorts.

Milk Survey

During the latter part of August and early September, I engaged in a milk survey throughout this district, taking samples from all dealers supplying milk to the towns and villages in my district, and also the City of Belleville. The cities of Peterboro and Oshawa were not included in this part of the survey, as they have their own analyses of milk. The results of these tests varied within widespread limits, and it was not always the villages which had the dirtiest supplies or the high bacterial counts, but on the whole, the amount of dirt present and the height of bacterial counts was almost surprising even to myself, whom previous investigation had somewhat prepared for these findings. I had hoped to complete the survey in the late autumn, by visiting the premises of the producers and dealers in the period when the cows were stabled, but pressure of other work prevented this from being done. I shall endeavour to complete this survey in the early spring, before the animals are put out to grass. In doing so, I shall have with me the local sanitary authorities in each case, so that they shall be instructed where necessary in such inspection work, and that hereafter local inspection may become standardized throughout my district. I may say, that almost without exception, the local M.O.H.'s have shown themselves keenly interested in this survey and are exceedingly willing to lend all possible assistance in forwarding it.

Medical Officers of Health

I feel that I must compliment these men on the work that they are doing. There are still some exceptions who do not rise to their opportunities, and some who almost obstruct rather than promote the growth of public health sentiment, knowledge and effort, but on the whole, they are taking their duties seriously and rendering service to the communities which are very valuable and out of all proportions to the immediate monetary results which their salaries represent. I am happy to state that I can see continued and steady improvement in the manner in which they are following out their duties. At the same time, I may say that the great majority of them in my district are becoming more and more in favour of the full-time area M.O.H. idea, and that this sentiment is the strongest among those who are keenest to do their duty and who necessarily regret the ill effect upon the general public health, of the limitations inherent in the present plan of local part-time M.O.H.'s I have been pleased to receive from all M.O.H.'s and also from numerous private physicians, glowing reports on the results obtained by the scarlet fever antitoxin now distributed by the Provincial Board. From these reports, I should judge that this antitoxin is going to prove quite as valuable in handling this disease as the diphtheria antitoxin has long proved itself to be in diphtheria.

Communicable Diseases

Of these, those which are regarded by the public and also largely by the medical profession as the more serious, are becoming constantly better treated and better controlled, with the possible exception of venereal disease. Those

which are more lightly regarded, as is the case with measles, whooping cough, etc., have not shown much improvement in their control. When the medical profession and public health workers have shown the public the very serious death list from these diseases, improvement will at once set in. The treatment and control of venereal diseases, while they have advanced by leaps and bounds, must still show a vast deal of improvement, before anything like a satisfactory situation exists. In this connection, I note with great satisfaction, the great increase in the attendance at V.D. clinic in Peterboro, an increase which is very marked and satisfactory.

In these diseases, as in fact all other communicable diseases, and generally in all public health effort, the City of Oshawa is the bright and shining light in my district. The M.O.H. and Board of Health there cannot be too highly commended for their excellent work. Of other communicable diseases, there is nothing very outstanding to report, with the exception of smallpox, of which the Town of Trenton seems to have been the centre. This disease has smouldered there for some nine months, and has begun to assume the proportions of a real epidemic. The earlier cases were of mild type; some of these now occurring are severe. The epidemic there has not been handled with all the efficiency which could be desired, whereas, in some other ten or twelve municipalities to which it spread, it has been practically stamped out by the only possible means to that end, widespread vaccination. I am pleased to state that vaccination in Trenton is now becoming more general and results are at last being achieved.

The More Sparsely Settled Areas

I am pleased to note that through the agency of the Red Cross, the needs of the North Hastings area are in a fair way to be met by the erection of a small hospital in Bancroft, at the end of the year. The scheme is not yet completed, but there is every hope of it going forward to completion. I would strongly recommend that some way be found of maintaining a public health nurse there, to work in the surrounding area, with that hospital as a base.

DISTRICT NO. 5

P. J. Moloney, M.D.

I hereby submit my annual report for the year 1925 from District Number 5.

This district is made up of the counties of Dundas, Stormont and Glengarry, Leeds and Grenville, Frontenac, Lennox and Addington, Lanark, Renfrew, Carleton, Prescott and Russell, and the City of Kingston.

The head office is at Ottawa, owing to which favourable location there is good access by railroad and provincial and county highway to most parts of the territory. The work centering in the office has greatly increased during the year, advantage being more often taken by boards of health, health officers, municipal councils and others for the information and authority which it affords.

The district consists of 172 municipalities, has been throughly inspected in a routine manner during the year, also all requests for special visits, and conditions requiring special visits, though not requested, have received attention.

The public institutions, thirty-four in number, have been inspected, regarding their sanitary condition, and report sent to the Department in Toronto and to the governing bodies when indicated.

I wish to record the hearty co-operation and valuable assistance received from the Divisions of Child Hygiene, Sanitary Engineering, Communicable

Diseases, Dental Services, and the other departments located at the head office, as also the Dominion Veterinary General's Department, and the Canadian Tuberculosis Association.

Public Health Nurses

The Division of Child Hygiene had four nurses giving demonstrations under my supervision during the year. Their work continues to receive the highest praise. This is due, not only to the excellence of the objective sought, but also to the energy, tact and persistence of the nurses themselves.

So much has appeared in the press in praise of the work done by Miss Squires, that I will only add, that after the Glengarry health week of last year, she continued her work in the district, especially around Maxville, until the whole county was thoroughly gone over. It is likely that two public health nurses will be appointed in the near future in this county, one at Alexandria, and the other at Maxville.

During the summer, Miss Squires and Miss Howey carried on a strenuous programme in the rough country around Arden. I found everyone very favourably impressed with what they accomplished, and since it is financially impossible for this district to engage a full-time nurse, I hope that this locality linked up with the more northern country, will yet secure the service of a nurse, aided by a liberal grant from the department.

Late in the fall the nurses came on to Kemptville where the same type of work as that carried on in Glengarry was pursued. Miss Howey remains to finish this work in 1926, while Miss Squires takes charge at Gananoque.

In October a wide spread outbreak of smallpox occurred in North Renfrew. Fortunately at this time, two nurses, Misses Campbell and Castle were assigned to work in this locality. With great energy these two nurses aided the local doctors in a vaccination campaign, covering a wide stretch of country, including Golden Lake Indian Reservation, at which latter place, ninety per cent. of the Indians were vaccinated.

They have lately got their regular programme under way, which includes a proposed clinic, series of lectures with moving pictures, etc., at Eganville.

Public Health and School Nursing Programme in the Town of Cornwall

The most notable programme of public health nursing and school nursing carried on under local auspices and inaugurated during the year, was that at Cornwall. For many years the V.O.N. had a nurse in this town. The work increased in popularity until this year they have three nurses in this town. Up to the present this work was financed by grants from the town, Metropolitan Life Insurance Company, and various public donations, including tag days. A very representative women's organization had the programme in charge.

At first school nursing was carried on in the public schools only. Later, arrangements were made that this service be extended to the separate schools.

A fully qualified public health nurse, Miss James, is in charge of this feature of the work and is giving excellent satisfaction. As the people of Cornwall considered that they were complying with all the essential requirements of the Health Act, they felt they should be entitled to the Government grant in aid of such work.

Accompanied by Dr. Phair, I visited Cornwall and we went thoroughly into the whole situation and, all parties being agreeable, the procedure was made regular by the local board of health, appointing Miss James as a full-time public

health nurse whose duties would be entirely taken up by school work. The amount of medical inspection essential was also agreed upon by Dr. Hamilton, M.P., M.O H. The local board of health would now become entitled to the annual grant of $500 in aid of this work. The details of the arrangement were carried out with the hearty approval of the Local Council of Women and the V. O. N.

Anti-Tuberculosis Activities

During the year, this work, which I have much at heart, made considerable progress in District No. 5. The Canadian Tuberculosis Association, Red Cross, the Division of the Department of Health having this work in charge, the sanitorium officials and local bodies took an active part in its success.

Dr. Brink by a series of chest clinics in many parts of the district aroused a keen interest in, and a desire for, the establishment of some permanent arrangement, by which they could be carried on.

Through the Tuberculosis Association, the Red Cross consented to bear a large part of the expense of an expert to take charge of at least two chest clinics.

Accompanied by Dr. Brink, a meeting was held with the Medical Association of the County of Renfrew, and their co-operation secured for the establishment of a monthly clinic in the town of Pembroke. Similarly a meeting in Brockville was held and a clinic was arranged for twice a month for the town and county, respectively.

Dr. Hopkins of the Mowat Sanitorium, Kingston, agreed to take charge of the clinics with the co-operation of local associations.

In Brockville the Rotary Club supplemented the Red Cross grant with sufficient to cover the expenses incurred.

In Pembroke the two hospitals bore the extra expense as a free offering to the work.

The chest clinic is carried on with the consent and approval of the medical men. It was recognized that to make these clinics a success it was absolutely necessary to have the co-operation of the doctors. The arrangements agreed upon were that no patient should be examined except sent by, or recommended by, a physician, and later, after careful examination, that the expert's findings and the X-ray readings should be sent to the patient's physician only, together with such recommendations as seemed called for.

While advance cases were always examined, special stress was laid upon the examination of contacts. It was felt that it was of prime importance that after a parent or other member of the family, died of tuberculosis, the remaining members of the family would bear careful scrutiny to discover if before death of those who died with tuberculosis, they had passed the disease on to those with whom they were in immediate contact. In this way very many cases were discovered, who with reasonable care might live out their allotted span of life in reasonable good health, and free from the danger of infecting others.

I confidently expect that during this year, several more centres will be established in the other counties where the physicians will be enabled to get ready access to expert advice.

In view of the progress already made in the province in abating this great scourge of humanity, it is reasonable to hope that tuberculosis in the near future will be very rare in this end of the province.

Smallpox

The district was unusually free from this disease until the month of October.

As showing the friendly co-operation existing among the public health bodies, the first intimation I had of the presence of this disease was a telegram from the Commissioner of Health of Detroit City, to the effect that a young girl coming from Eganville, Renfrew County, had developed smallpox, and that she stated that members of her family at home were similarly affected.

On investigation, it was found that the disease was widespread around Eganville, but that none of the cases had been treated by a physician.

A systematic campaign of vaccination was inaugurated in which the two public health nurses stationed at Eganville materially assisted.

A good deal of difficulty was experienced from men passing to and from lumber camps in the district of Nipissing. These camps had many cases of smallpox, and until the unprotected men were all vaccinated, were a constant source of infection. All the northern townships of Renfrew, were affected, and several cases occurred also in Pembroke, Renfrew and Eganville.

The rest of the district remains free except Rockland where there were eight cases.

It is worthy of note that in this latter town practically 100 per cent. of the children were vaccinated, and the disease stamped out in a very short time.

Every health officer in the district, and through these, every physician was urged to be on the lookout for suspects and they were also encouraged to inaugurate vaccination campaigns as a preventative. At the end of the year the epidemic was well under control, only a few cases in the township of Admaston remaining.

Scarlet Fever, Measles and Diphtheria

These diseases were much less prevalent than in former years.

Typhoid

Nothing of the nature of an epidemic occurred during the year, and the sporadic cases were much less than in former years.

Summer Resorts—Tourist Camps, Etc.

The Minister of Health having directed that data be collected in connection with tourist camps, etc., so as to enable the Government to draft a set of regulations governing them, a very extensive and careful survey was made during the summer of this year.

A detailed report on each locality, including water analysis, was sent to the department.

Mr. Burn, of the Sanitary Engineering Division, accompanied me on the tour of inspection which required two months' time to complete.

Later, a conference was held in Toronto by the district officers, and the other officials of the department directly interested in this matter, and a set of regulations was drafted for the Minister's consideration.

Until this investigation was made, I did not realize the enormous extent and importance of the tourist traffic, as it affects Eastern Ontario.

A partial list of the locations of importance, associated with the tourist traffic, visited follows:

Stanley Island, Lancaster-on-the-Lake, Hamilton Island, Summerstown, Stone House Point, Flanagan's Bay, Colqutious, Cornwall, Long Sault Park,

Iroquois Point, Morrisburg, Cardinal, Brockville, Rockport, Gananoque, Thousand Islands and about twenty other small resorts along the St. Lawrence River, Kingston, Collins' Bay, Jones' Falls, Sand Lake, Opinicon Lake, Chaffey's Locks, Fosters, Newboro, Big Rideau, Little Rideau, Westport, Belford Lakes, Sand Lake, Portland, Oliver Ferry, Beckett's Landing, and Hogs Back. Charlton Lake region: Athens, Delta, Morton, Lyndhurst, Otty Lake, Christie's Lake, Oconto Lake, Sharbot Lake, Calabogie, Lanark and Ferguson's Falls, Opiongo chain of lakes. Along the upper Ottawa: Petawawa, Pembroke, Cobden, Forrester's Falls, Chat Falls, Fitzroy Harbour.

Great numbers of wayside resorts, most of which were of the small restaurant variety, along the highways were inspected. The new regulations should make great improvements in the sanitary conditions in the vast majority of these places catering to the travelling public, as at present only a small proportion have establishments satisfactory from a public health view point.

Other Matters of Note Dealt With

Cornwall—Inauguration of Fly Creek drainage scheme which had been a live issue for many years and will afford sewage facilities for half of the town area.

Carleton Place—Installing chlorination plant in connection with the local waterworks system.

Plantagenet—New conservation dam and filter in connection with village water supply.

Elgin—Complicated drainage problem.

Athens—Establishment of new cemetery and installing of a new drainage system.

Portsmouth—Installation of sewers in connection with sanitarium.

Morewood—Treatment of over two hundred children by toxin-antitoxin to control a persistent outbreak of diphtheria.

Almonte—Establishment of milk lunches in the schools with good results.

Alexandria—Installation of filter plant in connection with the town's water supply.

Ottawa—Inaugurated a movement looking to the installation of a filter plant for the city's water supply.

Rockland—Fox farms in this town and some others, which are claimed to be creating a nuisance, were regulated so as to avoid complaints.

Brockville—The Nurses' Home in connection with the General Hospital was found very unsatisfactory, and a promise was secured from the Hospital Board that a new building would be erected in the near future.

Napanee—Practically all the wells in this town are unfit for use as a drinking water supply. Have inaugurated a movement which looks promising for the installation of a filter system in connection with the civic water system.

Winchester—Considerable time has been devoted to an effort to have the cattle of the County of Dundas tested for tuberculosis. Tentative arrangements have been made with the Dominion authorities to have this accomplished next year. The estimate of the Department would not allow its being done this year.

Summer Camp, Y.M.C.A., Ottawa boys' and Oconto girls' summer camps have received several special inspections.

DISTRICT NO. 6

W. E. George, M.B., D.P.H.

I have the honor to submit my Annual Report for 1925.

Before approaching the subject of communicable diseases, I would like to bring to the attention of the Provincial Department of Health certain matters which relate to the general health of this district. The importance of medical relief for indigents of unorganized territory is deserving of further consideration by the Department, and such legislation as is required should be introduced in order to make it legally responsible, with authority to use its funds for medical assistance of those deserving pioneers who inhabit our frontiers. Some are destitute, or unable to pay the excessive cost for medical attention to the sick ones of the family, due to their isolated position. It is a singular omission on the part of past governments that they have provided no medical relief for such deserving indigents of the unorganized territory. In cases of infectious disease, some general legislation has been provided, but this is largely a responsibility obtained for protection against infection and the spread of communicable disease.

Past governments have placed responsibilities on organized municipalities for the medical care of their indigent poor, but those who settle on our unorganized frontiers, many of whom have been induced to go there by governmental authority, have had no such protection from our government, which was the only authority with powers which enable it to function in unorganized territory. I would recommend appropriate legislation to meet this need.

Communicable Disease

Only a limited portion of District No. 6 is surveyed, some 537 townships. In this area only eighty-four municipalities are organized. The result has been that communicable diseases frequently came from the unorganized townships to the towns for treatment. Towns often are put to considerable expense to care for infectious cases who were not of their citizens. There is no doubt that the law, as present constituted, places the responsibility on the municipality in which the diseased person is. That this is unjust when applied to unorganized territory is beyond question. This matter has been brought to the attention of the Provincial Board of Health on a number of occasions. As far back as 1917, this was of sufficient importance to cause special reference in the annual report from this office. In that year, Sudbury complained strongly of the injustice of their legal responsibilities as set forth in the Health Act, for the care of patients suffering from infectious disease, from the unorganized areas surrounding them. Since then, Parry Sound, North Bay, Timmins, Cochrane, Iroquois Falls, New Liskeard, Haileybury and Cobalt, have made special representations against the injustice of the Act. A particularly objectional instance of this injustice was brought to my attention in August as a result of a diphtheria case that came to Cobalt from the unorganized village of Temagami. As a result of this case, the town was faced with an account of a considerable amount. In this instance, your district officer had the opportunity to strongly endorse the objections of the Mayor, Col. Armstrong, M.P. As a result, Hon. Forbes Godfrey, M.D., Minister of Health, with his unusually keen appreciation of the responsibilities of the Department, promptly broke all precedents and assumed a reasonable share of the costs of the case. There is no reason to doubt but that this new precedent will be adopted as the policy of the Department and will be supported by new legislation at the earliest possible time.

This office appreciates the objections to the establishment of precedents, but when an injustice requires remedy and is followed by such prompt and unfaltering action, it deserves and obtains the gratitude of Health District No. 6.

In reporting on the returns of communicable diseases, it must be remembered that outside of lumber and other industrial camps no returns are made from the territory without municipal organization. The list of cases of infectious diseases given below is therefore collected from the weekly returns from thirty-eight towns and villages, and forty-six townships, which represent the organized area of this district.

	1925		1924		1923	
	Cases	Deaths	Cases	Deaths	Cases	Deaths
Chicken-pox	124		119		33	
Conjunctivitis, acute, infectious	2		1			
Diphtheria	120	14	189		139	14
Influenza			8		287	14
Gonorrhoea	27		45		4	
German measles	16		25		2	
Measles	183		1,033		62	1
Mumps	427		138		1	
Pneumonia—						
Acute lobar	12		14		23	10
Bronchial	6	5	14		14	4
Poliomyelitis	7		4		5	
Puerperal septicaemia	1		3			
Scarlet fever	293	1	246		142	2
Septic sore throat	3		7		3	
Smallpox	1		25		5	
Syphilis	6		11			
Tuberculosis	4	3	12		18	23
Typhoid	12		49		1,008	77
Whooping cough	26		111		325	15
Malignant oedema			1			
Meningitis	1		2		1	1
Total	1,271	23	2,067		2,072	161

I realize that it is easy to draw unjustifiable conclusions from the incidence of communicable disease. So, without placing undue emphasis upon it, let me point out that there was more than a thirty-three per cent. drop in the total number of infectious cases reported. In view of the fact that there has been considerable increase and improvement in the number of municipalities reporting regularly, I am of the opinion that the drop is considerably greater than that indicated. As there were only 277 cases of communicable diseases reported in the past six months, this section has had an era of health prosperity which will act as an inspiration for future endeavour. This has been the best half-yearly report that has been reported from this area since the Province has had its present district organization.

In September, a small outbreak of scarlet fever occurred in the academy at Monteith. This is a sort of boarding continuation, or high school. Dr. Macleod tested all the students by Dick's method and the reactors received immunizing doses of antitoxin.

A number of cases of poliomyelitis occurred in Parry Sound (8), and vicinity during the summer. The seriousness of the results and the helplessness of our measures of prevention were most in evidence.

There were a few cases of typhoid reported, with but one death. After such outbreaks as occurred in Cochrane in 1922 and 1923, it is to be expected that Northern Ontario will contribute a few cases each year for the next few years. It is reasonably satisfactory that only twelve cases were reported during the year.

Infectious disease in the lumber and construction camps is something that requires more careful supervision than has been given to it during the past year.

The sanitary inspectors of this district have been most courteous and have established an attitude of splendid co-operation with the district officer. It is desirable, therefore, that all cases of infectious diseases in camps be reported to the district officer and the measures instituted for control be agreed upon and adopted between him and the inspector for the affected area. Smallpox has occurred in three camps, and typhoid in at least two.

Public Health Nursing

Miss Heeley, I regret to say, resigned toward the end of the summer. It will not be easy to replace such energy, efficiency and co-operation. She carried on survey work in the villages along the Canadian National Railway (old Grand Trunk) in the District of Parry Sound, between Powassan and Scotia Junction, and along the line east and west of this point. Clinics were held in Powassan, Trout Creek, South River, Sundridge and Burk's Falls. These were largely attended and gave such support to the nurse's hands that many defects were corrected.

Toward the end of the year Miss Hally was entailed to do permanent work over the area recently covered by Miss Heeley. During the year Miss Hally carried on rural surveys in the following townships: Field, Bageron, Bastedo, Hugel, Creasor, Springer, Caldwell and Kirkpatrick. The nurse also went to Sturgeon Falls for a while to assist Miss Nault.

In June she went to Kapuskasing, where a splendid survey was carried to completion. This terminated with a clinic which was one of the most successful ever held in this district.

Toward the end of the year she began permanent work in Parry Sound, as mentioned above.

Rural surveys have been notoriously void of obtaining corrections of defects. Parents, however, take more care with communicable diseases, and make more preparation for confinements, etc. It would seem that the only satisfactory method in rural areas is to carry the corrections to the children, as is being proposed for the dental clinic by Dr. Conboy.

One of the problems of the unorganized townships is that some children are too far from school to attend, while some parents take their families to the bush in the winter. In this way the children have absolutely no schooling.

In October a special nurse was sent to this district to carry on a survey at Kirkland Lake. This work was not completed at the close of the year.

The Red Cross have been doing certain public health survey work in the neighbourhood of North Bay. Two treatment clinics were held during the year in the village of Bonfield. Tonsils were removed in about forty children, most of whom were indigent. Teeth were extracted or filled in about one hundred and fifty more. This was a most creditable piece of work and I was delighted to be able to attend the first clinic, held in July.

Thesis

It was required for my diploma in public health that I prepare a thesis on public health in the unorganized districts of Northern Ontario. This required a great deal of reading and search, which continued up to the end of September. All annual reports since 1888 had to be reviewed. It is gratifying to report that the only copy now in existence of the first camp regulations, brought down by the Provincial Board of Health in 1891, was finally obtained and these regulations were re-written in full and preserved. It is to be regretted that the standard plans of buildings are not having similar treatment in order to preserve the records.

Tourist Camps and Summer Cottages

Summer tourist camps in this district number five, and are located at Sundridge, Trout Creek, North Bay and Sudbury. Efforts were made to draw up a list of minimum requirements: safe water supply, sanitary privies or water closets, garbage receptacles, cleanliness, etc.

Where cottages were located on a body of water used as a public water supply efforts were made to have a house-to-house inspection of the sanitary conveniences and measures employed to protect the water.

Minister's Visit

The Hon. Dr. Forbes Godfrey made a visit to this district during August, accompanied by his deputy, Dr. W. J. Bell. They visited Timmins and Iroquois Falls. It is regretted that their itinerary did not permit them to visit a number of other towns that were planning for their visit. As much of their time as possible was made use of during their short visit. Those who followed them were convinced that the Minister and his deputy filled the various duties and many demands made upon them with a spirit which inspired confidence in the sincerity of their efforts.

Water Supplies

Iroquois Falls has just completed a splendid water treatment plant. The treatment permits of storage for four hours at maximum pumpage. Alum and lime, to aid precipitation and filtration, are added as the water enters the tank. The water is then filtered and passes to a second storage, from which it is pumped to the town mains.

Ansonville completed arrangements with Iroquios Falls during the past year to obtain their supply from that town as soon as their new plant can be put into operation. The mains have been laid and the connections installed, so that there will be no delay as soon as the water is available.

North Bay depends on chlorination for the protection of its water supply.

Elk Lake. Quite a number of citizens obtain their domestic supply of water from Bear Creek, but since at least the overflow of one septic tank empties into the stream above the intake pipes for domestic supplies, and since considerable dangerous drainage is bound to reach the river from the dwellings along its banks, I have pointed out that the water taken from this river is exposed to these dangers and have advised that the use of the river as a water supply within the town limits be prohibited.

Burk's Falls. This town obtains its water supply from Reazen Lake, located three miles from town. The water comes down by gravity. The water is of a dark brown colour and has a rank odour. A mechanical filter has been installed, but up to the present it has been impossible to get efficiency out

of it. Our Sanitary Engineering Division have given generous assistance to the municipality in order that the filter would give the town the protection which the expense warrants. Toward the end of the year the Engineering Division informed me that they had discovered a certain coagulant that gave promise of solving the Burk's Falls difficulty. An effort was to be made late in the year to give the new coagulant a trial, but I was not informed as to the results.

Milk Supplies

An investigation of the milk production at Iroquois Falls was made early in December. A copy of the report is enclosed.

The spread of milk prices, from producer to consumer, requires investigation as there is reason to believe that the milk dealers add to their profits by an increase in price during the winter time. The milk dealer is not confronted with any striking increase in cost in winter that will warrant an increase of price. No objection can be made to reasonable increases to the producers.

Dental Clinics

Dr. Conboy made a visit to a number of towns in my district during November. Dental surveys have been begun in North Bay, Cobalt, Haileybury, while the matter is receiving consideration by a number of other municipalities. Undoubtedly, the rural areas are most in need of dental care. A solution of the problem has been suggested by Dr. Conboy, the Director of Dental Services, that the corrections be taken to them free, or at a nominal charge.

Recommendations

1. I cannot too strongly recommend that the sanitary inspectors be placed under the supervision of the district officers and that at least one sanitary inspector be attached to each district. These men could supervise nuisances and unsanitary conditions, leaving the district officer the more important work of communicable diseases, including tuberculosis and venereal diseases; infant mortality; school inspection; milk and food; public health education; vital statistics; indigent medical relief.

History has given us examples of the failure of public health when physicians were placed under lay-men and our department should avoid such repetition of failure by placing the supervision of the sanitary inspectors under the district officers.

2. Northern Ontario, meaning the unorganized districts, should be placed under separate health supervision from the rest of the Province, with a separate management or organization. The Act should be so amended as to deal specifically with the peculiar problems of the unorganized districts. At present, outside the camp regulations, the Health Act refers to the unorganized area only in generalities. I would suggest that an assistant to the Deputy Minister should be appointed, who would have charge of this work. The problems of the unorganized areas with their relations to organized areas, have become such that immediate solution is most desirable.

Report on the Iroquois Falls Dairy

The investigation of this dairy began on Wednesday morning, December 2nd, 1925, between 6 and 6.30 a.m., and was in compliance with a request of the medical officer, Dr. H. Maitland Young, and the company's official, A. T. McDonald, under whose department the dairy is operated.

At the beginning, I would like to express my gratitude to Mr. Bean, the manager of the dairy, and his staff, who by their courtesy and kindness contributed largely to the efficiency of the investigation. Their courtesy was not diminished even when in the natural course their personal cleanliness and technique came in for its share of criticism.

Although general observations and recommendations were frequently being made throughout the survey, yet some systematic method had to be followed. The method adopted in this particular case was largely suggested by my location during the investigation. For example, the cleanliness of the stables, cleanliness of cows and cleanliness of the men were observed in the stables. The cleanliness of utensils was observed in the milk house, and handling of milk in both stable and milk house.

The following are the headings in the order the observations were made:

1. Cleanliness of Stables.
2. Cleanliness of Cows { udders, flanks.
3. Cleanliness of men { hands, clothing.
4. Cleanliness of utensils { pails, milking machines, cans, pasteurizer and cooler, bottles, washing equipment.
5. Handling of Milk.

Milk samples were taken each day and the results helped to guide us in the improvements suggested.

The stable consists of two rows of cows about twelve to fifteen feet apart, with a central feed passage, and plank floors and gutters. The cow stand is raised three or four inches higher on the front side of the gutter than on the side of the barrow walk. The cows are tied with iron stanchions and each cow is separated by an iron stall partition. One end of the cow-barn is used to house the horses, dry cows, calves and provide such number of box stalls as are required. The stable is reasonably well drained and the manure is removed over fifty feet from the stable. The walls are of lumber and are whitewashed. The roof is the ceiling in the summer but during winter a temporary board ceiling is put in for the purpose of preventing moisture precipitating on the inside of the roof and running down into the stable. This was a matter of annoyance for some time. The procedure has been successful. Reasonable window lighting has been provided; about three square feet per animal.

1. Cleanliness of Stables

It was found that the manure was being regularly removed from the stables and that the cow stands and barrow walk were being sprinkled with saw dust. The frontal feed passage was not swept before milking.

Advice:

(a) In order to free the stable of everything which produces dust, sweep cow stands and frontal feed passage and barrow walk well and in sufficient time before milking to allow the dust to settle. Absorb any moisture with slaked lime.

(b) In order to free stable of odours which are absorbed by the milk, a tight partition should be built between the cow barn and the part of the stable used for horses, dry cows, box stalls, etc.

2. Cleanliness of Cows

The cows' flanks were clipped and clean, but the cows' udders were not being cleaned by washing or wiping with a wet cloth, nor were the flanks brushed free of loose dust previous to milking.

Advice:

Wipe udders carefully with a damp or wet cloth fifteen minutes before milking.

Flanks are to be brushed free from loose dust at the same time.

3. Cleanliness of Milkers

The hands were being carefully washed before commencing to milk, but no effort was being made to keep the hands clean. Hands were placed against cows to push them over or to brush off the flanks before beginning to milk. Stanchions or stall partitions or other dusty materials were handled without due regard for the maintenance of clean hands.

Clean clothing was not being worn during milking hours.

Advice:

When the hands are washed carefully previous to milking, great care must be exercised to keep the hands from coming in contact with anything but the clean utensils and the clean udders during the whole milking time. *This is the most difficult part in the production of clean milk.*

Milk pails should be supplied with handles on the sides in order that they can be emptied without placing hands on the bottom of the pails.

Clean long white coats or short white coats and white aprons should be worn during milking.

4. Cleanliness of Utensils

The bottles, cans, milking machines and pails are all washed in the bottling room. This is likely to produce heavy growths of bacteria in too close proximity to the bottling plant, where the clean milk is being handled.

The utensils were fairly well washed and the bottles rinsed with running water, but the efforts at sterilization and the equipment for the purpose were very ineffectual. There is no equipment whereby the utensils can be sterilized with boiling water or steam. It is true that a steam hose is turned into the milking machine pails, the milk pails and the pasteurizer, but this is not carried on sufficiently long to sterilize. Indeed, there is no method of retaining the heat until sterilization is effected. An effort is made to secure sterilization by a strong solution of chlorine, with the results noted in the chart on the past page.

The milking machines and the milk pails were proven by bacterial counts from the washings of these utensils to be non-sterile and therefore required some more efficient method of sterilization. The bacterial counts from the rest of the equipment indicated that sterilization had been much more effective.

Advice:

(a) All utensils which can be placed in boiling water should have this treatment for five minutes. Bottles could be brought up slowly to the boiling point.

(b) Whatever equipment is necessary in order to sterilize with steam or boiling water is recommended.

(c) Separate room should be supplied for washing utensils.

5. Handling the Milk

The milk is first received into the milking maching pails, which are emptied into a milk can in the stable. From the milk can the milk was poured into pails and carried to the pasteurizer. The milk comes in contact with—

1st—milking machine pails,
2nd—can,
3rd—pails,
4th—pasteurizer.

The night's milk was placed in the pasteurizer and cold water circulated through it all night. In the morning the temperature of the night's milk was brought up to body heat and maintained at this temperature throughout the time of milking, with the idea of preventing souring produced by adding fresh warm milk to the cold milk of the previous night.

The milk was being pasteurized at 147°F. for half an hour in order to keep down the bacterial count. This temperature largely destroys the cream line. There is no recording thermometer on the pasteurizer.

The price of milk in Iroquois Falls is eighteen cents per quart. This appears to me to be excessive. Milk is one of the best articles in the diet of children. It is also a fact that there is no article of food whose consumption is so influenced by the cost to the consumer as is milk. Everything, therefore, which can be done to lower the cost to the consumer greatly increases its consumption. Pasteurization at 147°F. largely destroys the cream line. The small quantity of cream rising to the top of the bottle had a strong influence on the appearance of the milk and naturally influenced its use.

Advice:

(a) Night's milk should not be heated to body temperature in the morning and maintained there during milking, as this greatly increases the bacterial count, but should be kept below 45°F. until all the milk is ready for pasteurization.

(b) Milk should go directly from milking machine pails to the cooler and thence to the pasteurizer.

(c Pasteurization should not be carried out above 140°F. for half an hour. This temperature will improve the appearance of the cream line and help to increase its consumption.

(d) The temperature and length of pasteurization should be controlled by a recording thermometer. This equipment should be added to the pasteurizer and the records kept by the Board of Health.

(e) If the company would drop the price to fifteen cents and an active propaganda be carried on by the local board of health pointing out the value and importance of milk as food, and if the board can assure the public that the milk is being produced under such conditions as are prescribed here, I believe the consumption will increase sufficiently to warrant the reduction from eighteen to fifteen cents.

As the consumption at present is only one-third pint per individual per day, it is absolute proof that the children are being denied this food.

In conclusion, let me say that the dairy scored sixty points out of a total of one hundred, using the division of the U.S. Department of Agriculture, forty points for equipment and sixty for methods.

The recommendations made under the different headings will increase the score to above eighty and can be done with practically the same cost of production.

Wash samples from utensils	Sterile H_2O distilled, Salt, .85 per cent. Tuesday, December 8th, 1925	
1. 10 c.c. saline wash sterilized quart bottles	500	bact. per c.c.
2. 10 c.c. saline wash sterilized pint bottles	1,000	" "
3. 10 c.c. saline wash milking pail rinsed	1,500	" "
4. 10 c.c. saline wash milking machine-pail rinsed only	470,000	" "
5. 10 c.c. saline wash milking machine-pail sterilized	2,000	" "
6. 10 c.c. saline wash milk pail sterilized	40,000	" "
7. 10 c.c. saline wash sterilized can	2,500	" "
8. 50 c.c. saline wash from pasteurizer sterilized	1,800	" "
9. 10 c.c. saline wash pasteurizer outlet sterilized	2,000	" "
10. 30 c.c. saline wash from cooler basin—broken in transit		
11. 10 c.c. saline wash iron pipe to cooler—sterilized	1,000	" "
12. 10 c.c. saline wash milker—sterilized	570,000	" "

Daily Milk Samples

	Fat per cent.	Count
Wednesday, December 2nd, 1925—		
1. Pint fresh from pail taken from can in cow barn before going to pasteurizer	3.2	18,600
2. First pint from pasteurizer after pasteurization	3.1	18,400
3. Pint of mixed milk from pasteurizer before pasteurization	3.1	360,000
4. Last pint from pasteurizer after pasteurization	3.0	5,500
Thursday, December 3rd, 1925—		
1. Fresh pint from pail before going to pasteurizer	3.0	45,200
2. First pint from pasteurizer after pasteurization	3.1	16,600
Friday, December 4th, 1925—		
1. Fresh pint from pail before going to pasteurizer	2.8	43,600
2. First pint from pasteurizer after pasteurization	3.0	38,200
No samples taken Saturday as they would arrive at Laboratory on Sunday.		
None taken Sunday as express office was not open to receive shipments.		
Monday, December 7th, 1925—		
1. Mixed sample from pasteurizer, night and morning, unpasteurized	3.0	62,900
2. First bottle after pasteurization	3.0	6,800
Tuesday, December 8th, 1925—		
1. Mixed sample unpasteurized (night and morning)	3.1	28,800
2. First pasteurized pint	3.0	6,200
Wednesday, December 9th—		
1. Night's milk only below 50 degrees mixed	3.4	26,000
2. First pasteurized pint mixed	3.5	12,600

DISTRICT No. 7

G. L. Sparks, M.D.

I have the honour to submit the following annual report for 1925 for District No. 7 which includes the Districts of Thunder Bay, Rainy River, Kenora and Patricia.

At the close of the 1925 annual meeting in Toronto of the Ontario Health Officers' Association, the district officers were called into conference with the recently appointed Deputy Minister of Health. At this conference the

Minister's instructions regarding weekly reports and other routine matters were explained to us; and I gathered that my most important public health duty during the summer season would be to accompany an engineer from the Sanitary Engineering Division on a survey of motor tourist camps and summer resorts in District No. 7. This survey took precedence over all but emergency work; and it was commenced about the middle of June, lasting (with an intermission of ten days) until the middle of August. Previous to the commencement of the survey I visited the newspaper editors at the "Head of the Lakes," acting under instructions from the Deputy Minister of Health. Articles and editorials dealing with the proposed survey appeared in the Fort William and Port Arthur newspapers; and the publicity given to the survey was apparently gratifying to the Deputy Minister of Health. Mr. E. W. Johnston from the Sanitary Engineering Division, was the engineer assigned to District No. 7; and I endeavoured to guide Mr. Johnston to as many of the summer camps, refreshment booths and resorts as I could locate. Mr. Johnston made voluminous notes upon printed blank forms in regard to each of the places visited; and when all the information bearing upon motor tourist camps, summer resorts and refreshment booths in District No. 7 is tabulated and classified it should be of considerable value to the department. During the course of the survey inspections were made of the water supply and sewage-disposal systems of the following C.N.R. divisional points: Atikokan, Redditt, Sioux Lookout, Armstrong and Nakina. One divisional point on the C.P.R. (Ignace) was also visited and a similar inspection made.

While the above-mentioned survey was in progress I was notified by the Deputy Minister of Health regarding the Minister's proposed summer tour into District No. 7; and in connection therewith I was instructed to visit the following towns: Dryden, Kenora, Rainy River and Fort Frances. The visits were duly made and I also made a special visit to Oxdrift in the District of Kenora to attend the clinic held in the Oxdrift Community Hall on the date of the Minister's visit to that place. The Minister's tour of the district was concluded by visits to Fort William and Port Arthur. It was my privilege to attend at a very enjoyable dinner in each of the above-mentioned cities where the respective local boards of health acted as hosts to the Minister and his Deputy.

Dairies

During the intervals of the open season preceding and following the two months' summer resort survey, attempts were made to carry on routine sanitary inspections in municipalities and also in connection with public schools situated in territory without municipal organization. The increase of routine office work in addition to the above-mentioned special survey made it impossible to devote the usual amount of time to these inspections; but visits were made to a number of municipalities; and dairies were inspected in Port Arthur (and McIntyre Township), Fort William, Schreiber and Sioux Lookout. It was encouraging to find evidence of increased interest in the matter of tuberculin testing of dairy herds. Shortly before my visit to the Town of Sioux Lookout, at about the beginning of October, nearly all the cattle in the town had been tuberculin tested by veterinary inspectors with the result that some of the dairymen had lost nearly their entire herds. The results of the tests in Sioux Lookout would apparently justify the opinion that tuberculin testing of all dairy herds in the district should be made compulsory.

Milk-pasteurization plants are in operation in Port Arthur, Fort William and Kenora. Recording thermometers are installed in connection with three plants (one in Port Arthur and two in Fort William). During the month of April the local health authorities of the City of Port Arthur sent a number of samples of milk to the department's Fort William Branch Laboratory for bacterial counts. Since the month of May the local health authorities of the City of Fort William have sent in milk samples at intervals for bacterial counts. This is a step in the right direction; as both Port Arthur and Fort William have laboratory facilities within reach for a certain definite amount of this work to be carried on throughout the year.

Water Supplies

Water supplies have been supervised so far as time would permit. Fortunately the immediate supervision of water-chlorination plants is under the jurisdiction of engineers from the Sanitary Engineering Division. Railway water supplies at the divisional points specified above have been fully dealt with in the reports submitted to the department by the Sanitary Engineering Division.

Schools in Territory Without Municipal Organization

A few schools in territory without municipal organization were inspected as to sanitary conditions; and reports were submitted to the school boards and to the Provincial Board of Health. The number of public and separate schools in territory without municipal organization in District No. 7 precludes the possibility of a general inspection of such institutions by your district officer.

Sewage Disposal

Conditions as to sewage disposal in municipalities are practically the same as in previous years, except that sewers have been extended throughout a portion of the "Coal Dock Area" in Ward No. 1, City of Fort William. Owing to the low level of this area it became necessary for the city to construct a pumping-station so as to facilitate the discharge of sewage into the Kaministiquia River. I understand from reports issued by the local medical officer of health that the majority of householders in the "Coal Dock Area" have not taken advantage of the sewage facilities provided by the city. An amendment to the Public Health Act is in order so that local boards of health may have the power of compelling sewer connections with premises when considered necessary in the interest of public health.

On looking over a copy of the annual report for 1925 as submitted by Dr. W. E. C. Day, Medical Officer of Health, Town of Sioux Lookout, I find the following statement: "We have, also, at last succeeded in having the railroad company install a proper sewage disposal. Considering the length of time and efforts that have been made in past years this is a matter of very special gratification."

Night Soil, Manure and Garbage Disposal

The disposal of night soil, manure and garbage has been carried on under practically the same conditions as noted in my annual report for 1924.

Communicable Diseases

At the beginning of the year an outbreak of smallpox occurred in the Town of Kenora. A visit was made to the municipality about the end of January; and after strenuous work on the part of the local health authorities the outbreak was limited to about six or seven cases. Section 12 (twelve) of the Vaccination Act was brought into force during the outbreak in Kenora by order of the town council and proclamation issued by the mayor.

No other serious outbreak of smallpox requiring the personal attention of your district officer occurred until about the end of November when an indigent case was discovered at Atikokan—a C.N.R. divisional point in territory without mmunicipal organization in the District of Rainy River. The provincial gaol being the only available building in the community, was converted into an emergency isolation hospital; and everything possible was done for the care and comfort of the patient and for the protection of the public. After a week's illness in this building the patient died; and arrangements were immediately made for his burial by an undertaker at the expense of the Ontario Department of Health. Up to the end of 1925 two additional cases of smallpox developed at Atikokan, one case proving fatal. I understand that the District Provincial Sanitary Inspector (Mr. W. C. Millar), who had been ordered to Atikokan under instructions from the Deputy Minister of Health, personally performed the duties of an undertaker in connection with the burial of this second fatal case of smallpox. Up to the time of writing two more cases of smallpox have developed in Atikokan, but with practically universal vaccination in the community, including re-vaccinations of "non-takes," it is hoped that the outbreak will not assume the proportions of an epidemic. I may add that the first fatal case had never been vaccinated; and I understood from the District Provincial Sanitary Inspector that the second fatal case had never been vaccinated. Of the remaining three cases that have occurred to the date of this report, one—of moderate severity—had been vaccinated successfully between forty-five and fifty years ago and never vaccinated since. The other two cases had never been vaccinated previous to the recent appearance of smallpox in the community; but they were unsuccessfully vaccinated on two separate occasions during the course of the outbreak.

Two mild cases of smallpox at Rocky Inlet (in territory without municipal organization) in the District of Rainy River, at a point about eighty (80) miles west of Atikokan, had apparently no connection with the cases at the latter place. Neither of the Rocky Inlet cases had had a successful vaccination previous to the onset of the disease.

During the year two unsuccessful attempts were made to induce the Canadian Pacific and Canadian National Railways to assume responsibility for the provision of sanatorium treatment for two sectionmen ill of tuberculosis, and employed in territory without municipal organization. The regulations apparently are not sufficiently explicit regarding this point; and the railway companies, or their physicians, refused to admit responsibility for provision of sanatorium treatment for the above-mentioned employees. After considerable difficulty I succeeded in securing a pass for the Canadian Pacific Railway employee from Osko to Weston; but the Canadian National Railway employee travelled from Superior Junction to Toronto in some manner unknown to me. He eventually appeared at the Out-Patients' Department of the Toronto General Hospital from which institution he was sent to the Toronto Hospital for Consumptives at Weston. I understand that in both instances the expenses of the

patients' maintenance and treatment at the sanatorium were finally assumed by the Ontario Department of Health.

A visit was made about the beginning of October to deal with a small outbreak of scarlet fever in the unorganized Township of Drayton, District of Kenora.

During the winter season, complaints were received regarding an outbreak of measles in the unorganized Township of Lybster adjoining the Municipality of Gillies. The fyle of correspondence in connection with this outbreak of measles is an illustration of the difficult public health problem presented by the unorganized agricultural townships thrown open for settlement. The present part-time system of medical officers of health will no doubt continue in existence for some years in connection with rural municipalities in this district. The creation of local health machinery to function in the unorganized agricultural townships thrown open for settlement in District No. 7 would appear to be the logical public health procedure. I believe that the provision of adequate local health machinery for the above-mentioned unorganized agricultural townships is the most pressing public health requirement in this district at the present time if we are to have uniform public health protection in the rural areas.

The following table has been compiled from the weekly returns of communicable diseases sent to this office as having been received by the department from the secretaries of local boards of health in District No. 7 during the year 1925. The figures are not to be taken as the exact numbers of cases and deaths from communicable diseases; but they may have some value as an index of the communicable diseases reported from municipalities in the district:

Disease	Cases	Deaths	Disease	Cases	Deaths
Chancroid	1	0	Pneumonia, bronchial	18	5
Chickenpox	147	0	Pneumonia, primary	1	1
Diphtheria	80	6	Influenza pneumonia	0	2
Gonorrhoea	8	0	Poliomyelitis	1	0
Influenza	56	3	Scarlet fever	75	0
Intestinal influenza	0	1	Smallpox	11	0
German measles	6	0	Syphilis	1	0
Measles	590	1	Tuberculosis	22	22
Mumps	689	0	Typhoid fever	13	1
Pneumonia, acute lobar	10	18	Whooping cough	10	0

It is to be noted that in some instances the returns were incomplete even to the extent of reporting more deaths than cases.

Medical Inspection of Schools

As noted earlier in this report I was able to carry on sanitary inspections of a few schools in territory without municipal organization; but the routine medical inspection of the pupils in the above institutions is an unsolved problem at the present time. In one or two instances I have inspected the pupils when visiting a school in connection with an outbreak of communicable disease in the vicinity.

Other Departmental Activities

I have at all times received co-operation and courtesy from the director and employees of the department's branch laboratory at Fort William, from the provincial public health nurses on duty in the district and from Mr. W. C. Millar, District Provincial Sanitary Inspector. Mr. Millar's duties are important in that he is charged with the enforcement of the sanitary regulations applying to territory without municipal organization; and he has supervision over the

sanitary inspections made by physicians connected with industry as coming under the above-mentioned regulations. In reading over annual reports for previous years from other districts I have noticed the recommendation that the sanitary inspectors be placed under the d rect supervision of the district officer. This recommendation while apparently logical, would, if acted upon, place the district officer in the position of exercising supervision by means of the sanitary inspector over the contracting physicians in his district unless n the meantime, the sys em of sanitary contracts were discontinued. To my mind the sanitary inspection of lumber and other camps in territory without municipal organization should be carried on directly by the provincial sanitary inspectors without any system of sanitary inspections by contracting physicians. I believe that until some radical change is made in the above method of sanitary supervision over industry, it is in the public interest for the district provincial sanitary inspector and the district officer to work each in his logical field with each official restricted to his logical field so as to avoid the evils resulting from dual control.

DISTRICT No. 8

H. W. Johnston, M.D.

I beg to submit the following report of public health activities in District No. 8 for the year 1925.

As in previous years a considerable amount of time has been devoted to the work of control of communicable diseases and the prevention of epidemics. The district has been fortunate in being free from any serious outbreak during the whole of the year. Scarlet fever is the only acute communicable disease which has been at all prevalent. These cases have mostly been of a mild type and they have been limited to a few children in scattered localities. These improved conditions may be attributed to the increasing co-operation and assistance of the attending physicians and the greater interest of the public who are being reached by the various methods of public health education.

Thirty-nine cases of diphtheria were reported in the distr ct. Two deaths occurred from this cause in outlying places where medical attention was not readily available.

Four cases of anterior poliomyelitis were investigated and found to have originated in the State of Michigan.

Three cases of typhoid fever coming from lumber camps apparently received their infection from the Province of Quebec previous to their employment with the lumber companies.

A very valuable tuberculosis clinic was conducted by officers of the department in Sault Ste. Marie early in the year. The welfare organizations of the city and surrounding district co-operated with the boards of health in locating contacts, early cases and cases that were difficult of diagnosis. The clinic was crowded to capacity for one week. In addition to the valuable diagnostic work the clinic was found to be very valuable from an educational standpoint, and the value of early diagnosis was made very apparent to those attending the clinic.

In unorganized territory throughout the north country it has been a great benefit in the control of tuberculosis to be able to have indigent cases receive early hospital treatment at government expense.

Tourist Camp Supervision

During the summer months a very interesting survey was made of tourist resorts throughout the district. Working with Mr. Downey of the Division of Sanitary Engineering, detailed reports were secured in some seventy-five localities requiring some two hundred investigations of tourist hotels, summer boarding houses, municipal camp sites, road booths, and refreshment places. It was found when making these surveys that municipalities and proprietors were prepared to care for the increasingly large number of tourists who are visiting New Ontario and they are making every effort to provide attractive accommodation for these summer visitors. Many rural hotels and boarding houses are installing sanitary conveniences. Camps and amusement places in unorganized territory present a more difficult problem in regard to sanitary supervision. The highways which are being regularly extended farther into the unsettled parts are becoming very attractive to motor tourists. In order to keep these places in a satisfactory sanitary condition it will require that more attention be given to regular supervision. Sanitary inspection should be frequent and notices should be posted to indicate the quality of water supplies, and to provide notices regarding sanitary requirements.

Public Health Nursing and Child Hygiene

During the year the nurses of the department have continued public health demonstrations through the district. Amalgamation of the health work of the Department of Education with that of the Department of Health has increased the field of responsibility and there follows now a greater need for an increased staff of nurses to be allotted to each health district. The public health nursing service has been proven to be exceedingly valuable in this district and the work is thoroughly appreciated both in the rural homes and in the smaller towns and communities. It has not been possible with only one or two nurses engaged in working over such a large field to give a service which is at all adequate. Many points have not been touched more frequently than every three or four years. If the staff were doubled and each nurse made responsible for a given territory it might then be possible to cover the ground at least every second year.

In the City of Sault Ste. Marie the medical society has been co-operating with the school board and the board of health in medical inspection of school children. During the year this voluntary service was given to cover both public and separate schools. Valuable records were thus made available regarding the prevalence of goitre, defective dental conditions, unhealthy tonsils and adenoids, defective sight, hearing and nutrition. The active support of the medical profession created a decided interest in the school health programme and it resulted in a large number of corrections being made.

The physicians in the smaller municipalities and rural districts have given very hearty co-operation to the department in assisting with medical examinations in schools where the nurses of the department have been working. When visits are made to the schools by the district officer of health opportunity is also taken to give health talks. It is regretted that the large territory to be covered does not permit us to give a regular health service to all of the schools

in unorganized sections where the communities are more directly under the administration of the government departments.

During two weeks in September health demonstrations were arranged in connection with school fairs in Algoma District. The school fair is found to be an excellent opportunity to get in touch with a large number of children from the rural sections. Parents and pupils are quite interested in our public health programme. In these two weeks it was possible to meet approximately one thousand children and their parents. It was very satisfactory to find the improved health conditions which resulted from a visit to the same series of fairs two years previously. Many defects had been corrected, diet and health habits improved and general average of nutrition showed a definite gain.

Social Hygiene

Venereal disease clinics conducted by Dr. Graham of the provincial laboratory in Sault Ste. Marie continue to give good service to the district. The limited capacity of the clinics curtails the amount of follow-up work which might be carried on if more time and space were available for the present staff.

Milk Supplies

For several years past an endeavour has been made to have conditions improved in regard to the milk supply in the towns and municipalities in the district. Even though we were advocating an increase in the use of milk it was frequently found that the dairymen threatened to discontinue the supply if they were required to incur extra expense in improvement of equipment and methods. Gradually these difficulties are being overcome and many of the smaller places have a much better quality than previously. It is a matter for regret that the new arrangements of the federal department result in a decreased service for tuberculin testing of registered herds and those herds which supply the municipalities which undertake the proper control of milk supplies. The long season of winter feeding in the northern parts of Ontario adds also to the difficulty of procuring a sufficient supply at a reasonable cost. During the year inspections have been carried on at Hornepayne, Hearst, Espanola, Thessalon, Gore Bay, Bruce Mines, St. Joseph's Township and the townships surrounding Sault Ste. Marie.

Industrial Hygiene

Dr. Riddell and Dr. Brink representing the Division of Industrial Hygiene and the Division of Preventable Diseases made two visits to the district during the year 1925 to study cases of chest diseases, presumably due to occupation in stone quarries.

Industrial health programmes carried on by the Austin & Nicholson Company of Chapleau, and the Spanish River Pulp & Paper Company in Sault Ste. Marie and Espanola have been showing satisfactory results. The programmes of these companies have been gradually improved and enlarged.

Public Health Education

Frequent opportunities have been accepted for carrying on public health education in the district. The school fairs referred to above are considered

one of our most valuable methods. The value of the Schick and Dick tests in preventive medicine have been continually brought to the attention of the physicians and school boards. Several clinics were conducted for the purpose of introducing and demonstrating these methods.

Addresses on appropriate health topics have been prepared for various organizations including the Rotary Club, District Medical Society, district and branch meetings of the Women's Institute, Y.M.C.A. and church groups, "New Canadian" clubs, school boards and municipal councils. In public health talks special stress has been placed on the value of periodic medical examinations as a means of health promotion.

Successful health demonstrations were arranged for agricultural society fairs at Bruce Mines and Sault Ste. Marie.