

ELEVENTH
ANNUAL REPORT
OF THE
PROVINCIAL BOARD OF HEALTH
FOR THE YEAR
1903.

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HALIFAX, N. S. :
COMMISSIONER OF PUBLIC WORKS AND MINES, KING'S PRINTER.
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PROVINCIAL BOARD OF HEALTH OF NOVA SCOTIA.

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PROVINCIAL BOARD OF HEALTH.

HALIFAX, NOVA SCOTIA, 1903.

ELEVENTH ANNUAL REPORT.

TO THE HON. G. H. MURRAY,

Provincial Secretary,

Chairman of Provincial Board of Health.

SIR :

I have the honour to submit the eleventh annual Report of the Provincial Board of Health.

We should know what diseases are most prevalent, and the tables (*infra*) are designed to serve this purpose.

This is necessary in order that our efforts for amelioration be properly directed.

The statistical tables (in appendix) are not so complete as is desirable (though we expect they will be), but when the reports from different parts of the Province are relatively combined, they form a basis from which we can estimate relative conditions, and this the more, from the similarity in the reports.

Tables are about the least interesting variety of literature, but their careful study can elicit valuable information.

During the past year the health of the Province has been much as usual, and can be classed good, as there are no serious epidemics.

SMALL POX.

This disease got an entrance in several places, but it was promptly met and confined to the restricted localities. We are still threatened owing to its prevalence in the other provinces and New England States, so much so that the city of Halifax feels called on to take extra precautionary measures, the necessity of which requires no argument. What is true of the city is equally so of every port of entrance in the Province.

Many are apt to think that there is too much fuss made about disinfection, etc., because they know not the persistent virulence of this disease. As an illustration I give the following extract from the Monthly Bulletin of the State Board of Health of Indiana, U.S.A.

PERSISTENCE OF SMALLPOX INFECTION.

Miss Minnie Peterson, 39 years of age, died last Monday, April 6, 1903, near Scipio, of smallpox. Her remains were brought to Brookville for interment, the funeral taking place yesterday.

The manner in which Miss Peterson contracted the disease is curious and shows that people can not be too careful in destroying contagion. We are told that her father died of smallpox twenty-seven years ago at Yung, this county, where the family then resided. The clothes he wore while ill were put into a trunk, which was locked and kept among the household effects all these years. After her mother died, not long since, Miss Peterson set to work to clean up, and in overhauling the things about the house opened this trunk and handled the contents. In this way, it is asserted, she contracted the dreaded smallpox and lost her life.—Brookville American.

The two chief invasions were at the mines, Thorburn, Pictou Co., and at Sydney Mines. The history of each was about the same. At Sydney Mines a stranger from Newfoundland got sick, and then this sickness passed from one to another and from house to house. They did not want to believe that it was smallpox, and gave it other names, and, as well as ignoring the opinion of those that differed with them, they were uncomplimentary in their criticisms.

At Thorburn it was much the same. The Provincial Board of Health sent representatives to each place and had things straightened out, and with proper management the disease was soon under control. My reports thereon are in your possession.

Amherst being on the border, and on the main line of communication, was specially open to attack, but the health officer deserves credit for the promptness with which every case that presented was handled, so that practically Amherst was free of the disease, its

business and travel uninterrupted, and yet smallpox lingered there for a long time, but it was under thorough control.

The other infectious diseases are as usual prevalent, and swell the sick list and death rate. See statistical tables in Appendix.

INFLUENZA.

This disease heads the list, and is very generally prevalent, though the deaths are few.

DIPHTHERIA.

There have been small epidemic seizures in various parts of the Province, but prompt action on the part of the health authorities has restricted its spread.

TUBERCULOSIS.

This malady still claims its customary and abundant harvest of sickness and death, because well known means of prevention are not carried out—as much due to ignorance and lassitude on the part of the people as to want of energy of the boards of health. The same may be said of all the Exanthemata, that claim their usual quotas of victims. This is undoubtedly due to their insidious persistence, and a kind of feeling that they have always been with us, and we may expect them to remain. Some years ago this might have held as an argument, but it has lost its force with our present knowledge and means of prevention.

THE RESPIRATORY PASSAGES.

The same may be said of diseases of these passages—for, though largely present and very fatal, if the people were conversant with our present knowledge of their cause and prevention, these maladies could be greatly restricted.

PNEUMONIA.

This disease, now classed with those of microbic origin, and preventable, is very prevalent and very fatal, assuming at times an epidemic type. Of late years its death rate is increasing.

BRONCHITIS.

This disease so productive of sickness and death at the extremes of life—infancy and old age—will never be controlled until the people become familiar with its cause and prevention. The medical attendant rarely sees a case until the question of prevention does not obtain.

TYPHOID OR ENTERIC FEVER

Has threatened to appear epidemically in several places, but its ravages were restrained by prompt action of the medical attendants and health officials. This disease should be readily stamped out, but it is a necessity first that all communities should have a pure water supply and proper drainage; a point towards which we are steadily though slowly progressing.

The above considerations in the most marked manner emphasize this fact, "that the government, the school authorities, and the people should insist that an adequate system be adopted to the end that the coming generation may be so educated that they may avoid the many pitfalls that the present one is floundering through."

The public school is the only means available that presents itself to me, and regular and definite sanitary instruction should not only be given to every pupil but so instilled into his mind that he will not forget it, but also that he will feel an individual interest in it; that it is for his own private use, neglect of which brings condign punishment.

We now have health readers, all very good in their way, but they do not reach down to this practical point,

HOW TO AVOID DISEASE.

It is of a certain value to know something about the heart, muscles, bones, nerves, brain, etc., that in life enables us to perform our varied duties, but of much more value

To know what causes tuberculosis (the great white plague, so-called), and what we know of the tubercle bacillus, its mode of propagation and tenacity of life.

To know how vaccination protects from smallpox. The press of the future may thus be spared many inanities that now appear from time to time.

To know that the pneumococcus pneumoniae is always with us, and in us, and is harmless until some imprudence enables it to get in its lethal work.

To know that a common fly can carry the poisons of typhoid, cholera, erysipelas, and different kinds of sepsis on its hairy padded foot, and implant on our food active germs of disease.

To know that certain families of mosquitoes can not only rob us of our blood, and give most pointed annoyance, but as well inject into our tissues the germs which produce malaria, or the more lethal yellow fever.

To know that a rag of clothing lying in a garret for years may be able to convey most virulent types of smallpox, scarlet fever, etc.

To know that simple cleanliness is the most valuable element in the surgeon's armamentarium, and surgical cleanliness is the synonym for the nearest attainable perfection, and as well an essential part in the wonderful success of the surgical science of to-day.

To know that there can not be too much care used in disinfection in the presence of infectious disease—that by so doing a sanitary officer is not airing a hobby—but strictly attending to business.

And so I might go on, but I think enough reasons are given to substantiate the claim made for special sanitary instruction in schools. This would not be a novelty, as it is being carried out at present in several States of the U. S., as in Michigan and Indiana. Germane to this, and a practical means of carrying it out, is the idea which is elaborated in the following quotation of a resolution of the Canadian Medical Association, and correspondence connected therewith.

DEPARTMENT OF HEALTH.

The following important resolution, moved by Dr. E. P. Lachapelle, and seconded by Dr. J. R. Jones, met with hearty approval:

“Whereas, public health, with all that is comprised in the term sanitary science, has acquired great prominence in all civilized countries; and whereas, enormously practical results have been secured to the community at large by the creation of health departments under governmental supervision and control; and whereas, greater authority and usefulness are given to health regulations and suggestions when they emanate from an acknowledged government department;

“Therefore, be it resolved, that in the opinion of the Canadian Medical Association now in session, the time is opportune for the Dominion Government to earnestly consider the expediency of creating a separate department of Public Health, under one of the existing Ministers, so that regulations, suggestions and correspondence, in such health matters as fall within the jurisdiction of the Federal Government, may be issued with the authority of a department of Public Health; and that copies of this resolution be sent by the general secretary to the Governor-General-in-Council and to the Hon. Minister of Agriculture.”

Dr. Roddick and Senator Sullivan both spoke strongly in favor of the resolution, which was carried unanimously.

OFFICE OF THE DIRECTOR-GENERAL OF PUBLIC HEALTH,

OTTAWA, Sept. 23rd, 1902.

DEAR DOCTOR,—At the meeting of the Canadian Medical Association in Montreal last week, the enclosed copy of a resolution was passed there in favor of the recognition of the importance of public health and sanitary science, by the creation of a sub-Department of Public Health, to deal with such matters relating thereto as come within the jurisdiction of the Dominion Government.

If this idea commends itself to you, as I believe it does, I would suggest that a resolution on similar lines, passed by your Provincial Board, would strengthen the movement in this direction.

The extract is taken from the Montreal Daily Herald of the 18th instant.

Yours very truly,

F. MONTIZAMBERT, M. D.,
Director-General of Public Health.

DR. A. P. REID, Esq., M. D.,
Secretary Prov. Board of Health,
Middleton, N. S.

80 UNION AVENUE,

MONTREAL, April 4, 1903.

MY DEAR DOCTOR,—It is my intention at an early date to introduce in the House of Commons the following resolution :

“Resolved, that it is expedient in the public interest to constitute a department of public health for the Dominion, charged with the execution of the various duties which are or may be imposed upon or assumed by the government for the protection of the public health and the prevention and mitigation of disease ; and that such department of public health be administered under the direction of a minister of the Crown, in conjunction with one of the existing departments of the government.”

It has occurred to me that if your Provincial Board of Health favored the idea they might be willing to pass a resolution strengthening my hands.

I should consider it a personal favor if you would kindly place the matter before your Board.

Yours faithfully,

T. G. RODDICK.

DR. REID,
Secretary Provincial Board of Health,
Middleton, N. S.

PROVINCIAL SECRETARY'S OFFICE,

HALIFAX, Sept. 30, 1902.

MY DEAR SIR,—I am in receipt of your letter of the 27th inst., with enclosures from Dr. Montizambert.

The idea suggested by him for the creation of a sub-department of public health commends itself to me, and I have no objection to the Provincial Board of Health, through you, endorsing the idea as strongly as possible. I return enclosures.

G. H. MURRAY,
Provincial Secretary.

DR. A. P. REID,
Secretary Provincial Board of Health,
Middleton, N. S.

BARBER SHOPS.

In many places these are placed under very strict regulations, the desirability of which is self evident. I make no insinuations in reference to our present establishments, but as a matter of business and in the interest of these parlors and their patrons, the needed sanitary regulations should be established.

PREVENTION AND RESTRICTION OF EPIDEMIC DISEASE.

Measures to this end, especially in reference to smallpox and epidemic diphtheria, require to be definitely promulgated, and in appendix are given those recommended by the State Board of Ohio, U. S. A. Their appropriateness is self evident.

TRANSPORTATION OF THE DEAD.

I have had many official enquiries on this subject, and our regulations in reference to embalmers and the preparation of bodies for transportation. It is most desirable that we should have some regulations on this subject.

SANATORIUM.

This institution is far advanced for occupation by patients, and it is expected that by spring that it will be formally opened.

PLANS FOR SCHOOLS, ETC.

Our Public Health Act assumes that the plans for water supplies and sewerage for communities, and for public schools and public buildings, should be submitted for the approval of the Provincial

Board of Health and Government before being undertaken but this very necessary and salutary procedure is too often ignored and I would again suggest that though this may not be attainable in full perfection at present, yet very much could be done without arousing public prejudice and opposition by adopting a law of this character:

“After (a given date) no school, church, hall, or public or private building, intended for the occupancy of more than —— persons, shall be erected or repaired until the plans have been submitted to and approved by the sanitary commission.”

The commissioners should be composed of representative men—architects, builders, plumbers, merchants and doctors, and should have supreme authority.

Until this is done our people must causelessly suffer in health, wealth and in comfort, and in a life shorn of the allotted span of three score years and ten.

BACTERIOLOGIST'S REPORT.

This most valuable department of the Provincial Board of Health is quietly carrying out its work as may be seen by the report.

I must record my official and personal regret for the death of Dr. Halliday, the late bacteriologist, a man of great acquirements, industry and energy, who spared no pains to the end that his department should be up to date. His loss is most sincerely regretted by all his friends, and we can only express our regard as a tribute his memory. Dr. Murray, the present Bacteriologist, was trained by Dr. Halliday and as well took special courses in foreign schools. For the short time that he has been in charge he has carried out the work most satisfactorily, and there is no fear that this department will fail in its useful work.

Circular No. 10, giving instructions with reference to this department, is also appended.

MARINE HOSPITAL—POINT TUPPER.

The location of this hospital was very much objected to by the people of the town and pointed representations were made to the Department of Marine and Fisheries. I was requested by that Department to accompany their officer, Mr. Hutchins, and examine and report on the situation.

It is for many reasons desirable that a change should be made—but so far I have not been able to learn that anything has been done. Possibly departments as well as individuals are apt to follow the lines of least resistance.

CANCER RESEARCH.

Some time since an association was formed in England for the systematic study of cancer, and assistance is requested from every available source. Amongst its members are those who occupy the highest professional positions and society leaders. The Colonial Secretary, Rt. Hon. Joseph Chamberlain, officially requested co-operation from all those who are interested or are in a position to assist. They also desire subscriptions to support the costly plant that will be required to carry out the work.

VITAL STATISTICS.

I would again call attention to the desirability of a more extended system of vital statistics, for many reasons, not the least of which would be to render possible the carrying out of "Clause 9 of Chapter 102, R. S., 1900."

VALUE OF STATISTICS.

"Independently of the very great advantage which every government or State would derive from a faithfully executed system of registration within her borders—the ability to determine clearly and distinctly the relative fecundity and mortality of her population; relative proportion of the sexes among her citizens; the longevity of her people; the causes of death within her borders; the weight with which each cause of death presses upon each portion of the community, whether those portions be considered in relation to age, sex, or condition of her people, or in relation to different sections of her territory; and of many other benefits—it is highly proper and necessary that she should be able to compare the condition of her people with that of adjoining States or countries. She may thus ascertain what differences exist, and why those differences do obtain; what diseases prevail more extensively in one than in the other, etc."—*Dr. W. L. Sutton.*

HEALTH OFFICERS' REPORTS.

Not many health officers have reported direct to this office.

Copies of reports submitted to municipal councils have been received from Dr. M. E. Armstrong, health officer for Annapolis county; Dr. Evan Kennedy, health officer for Pictou county, H. F. E. Rice, health officer for municipality of Digby, and Dr. G. D. Blackadar, health officer for the municipality of Shelburne. These all contain matters of local rather than general interest, and indicate vigilance on the part of the gentlemen named.

Dr. A. C. Jost, health officer for the municipality of Guysboro, reports on a case of smallpox, brought to Guysboro town in the person of a fireman on one of the steamers. It was successfully isolated and necessary precautions taken to prevent the contagion from spreading. Dr. Jost thus concludes his report:

“The local boards of health deserve a great deal of credit for the very prompt way in which they acted on any suggestion made with a view to limiting spread of disease. There was no friction, and through their prompt action an outbreak which might have proved costly to the municipality was averted at comparatively trifling expense.”

In presenting this report, I must again thank you for many courtesies, for advice and assistance, and for the personal favors to which I am indebted.

Respectfully submitted

Your obedient servant,

A. P. REID.

Sec'y Provincial Board of Health.

Middleton, Ann. Co., N. S.,
Sept. 30th, 1903.

NOVA SCOTIA LABORATORY OF SCIENCE.

(HALIFAX MEDICAL COLLEGE.)

BACTERIOLOGIST'S REPORT.

DR. A. P. REID,
Sec'y Provincial Board of Health,

SIR,—I have much pleasure in submitting my report of the work done in the Provincial Laboratory for the year ending October 1st, 1903. During the first five months, viz., from October 1st, 1902, to March 1st, 1903, the work was done by me under the direction of the late Dr. Halliday, and for the seven months ending October 1st, 1903, the work was done by me as Provincial Bacteriologist.

You will see from the report that there has been a considerable increase over the work done in year previous, and it is gratifying to know that the members of the profession throughout the Province are taking advantage of the laboratory facilities. I hope that the confidence which they bestowed on my learned predecessor, Dr. Halliday, will in some measure be extended to me.

In all 815 specimens were examined, which were divided as follows:

Typhoid fever—Widal agglutinative or serum test—positive, 37; negative, 45; total.....	82
Throat cultures—examined for diphtheria bacilli—positive, 58; negative, 35; total.....	93
Sputum examined for tubercle bacilli—positive, 90; negative, 88; total.....	178
Urine chemical and microscopical examinations.....	115
Urine for tubercle bacilli—positive, 2; negative, 3; total.....	5
Pathological exam. tumors, tissues, etc.....	267
Bacteriological exam. tissues, ligatures, etc.....	11
Stomach contents examinations.....	4
Blood examination, haemaglobin estimation, etc.....	7
Water analysis.....	4
Pus and other pathological fluids.....	49

In the examination of blood for the Widal Test it will be noticed that of 82 specimens examined only 37, or about 45 per cent., gave a positive reaction. The explanation of this is that the physician very often only sends one specimen from the patient, which probably in some of the cases is taken before the reaction has developed, and also because physicians use it to confirm a negative diagnosis.

In order that a more definite judgment may be obtained physicians are requested to state the duration of the illness, the temperature and the pulse rate.

The throat swabs have been sent from different parts of the province both for the purpose of diagnosis and for release from quarantine. I am of opinion that in many of the cases where a negative diagnosis has been given that a second or even third swab should be sent.

Sputum suspected of being tuberculous should be sent securely corked in a wide mouth bottle.

Tissues, tumors and scrapings sent for examination should be put up in bottles and preserved in alcohol or 4 per cent formaline.

All specimens sent to the laboratory should bear the name of the physician who has sent them.

The work undertaken in the laboratory includes—

- (1.) Examination of sputum for tubercle bacilli, pneumococci, &c.
- (2.) Examination of swabs from the throat in suspected cases of diphtheria.
- (3.) Examination of blood specimens in suspected typhoid by the Widal test.
- (4.) Microscopic examination of blood films, etc.
- (5.) Urine quantitative examination of albumen, urea, etc., and report on microscopic characters of deposits.
- (6.) Reports on pathological fluids, tumours, uterine scrapings.
- (7.) Chemical and bacteriological examinations of water, sewage, etc.
- (8.) Milk, the estimation of fats, solids and bacteriological examination, particularly for tubercle and typhoid bacilli.

(9.) Foods, ordinary sanitary examinations for injurious preservatives, and other noxious substances.

I take this opportunity of thanking yourself and other members of the medical profession throughout the province for the interest taken in the work of the laboratory and for the many kindnesses extended to me.

Yours truly,

L. M. MURRAY.

Provincial Bacteriological Laboratory,
Halifax Medical College,
Oct. 5th, 1903.

APPENDIX.

STATISTICAL TABLES.

PROVINCE OF NOVA SCOTIA, 1902-3.

DISEASES. 1902-3	CASES.			DEATHS.		
	M.	F.	Total	M.	F.	Total
ALL CAUSES (DEATHS).....						
<i>Stillbirths</i> (included in above).				67	109	176
GENERAL DISEASES.						
I. EPIDEMIC DISEASES.						
Typhoid Fever	125	91	216	18	10	28
Typho-Malaria fever.....		2	2			
Typhus fever.....						
Scurvy	5	4	9			
Smallpox	20	25	45	1		1
Measles... ..	91	88	179	1		1
Scarlet fever	110	112	222	6	8	14
Whooping cough.....	8	7	15			
{ Diphtheria.....	40	32	72	9	8	17
{ Membraneous croup.....	5	1	6	3		3
{ Croup.....	37	24	61	11	12	23
Influenza	827	740	1567	4	6	10
Milliary fever.....						
Asiatic cholera						
Cholera nostras	22	29	51			
{ Chicken pox.....	73	80	153			
{ German measles	4	14	18			
{ Mumps.....	152	168	320			
{ Trichinosis						

STATISTICAL TABLES.—Continued.

DISEASES.	CASES.			DEATHS.			
	1902-3.	M.	F.	Total	M.	F.	Total
II. OTHER GENERAL DISEASES.							
Pyemia and Septicemia.....	13	20	33	3	3	6	
Glanders and Farey.....							
Malignant pustule.....							
Rabies.....							
Relapsing fever.....							
Malaria.....	1		1				
Pellagra.....							
Scrofula.....	26	18	44				
Syphilis.....	44	16	60				
<i>Tuberculosis—</i>							
{ Lungs.....	175	204	279	44	50	94	
{ Meninges.....	5	6	11	2	6	8	
{ Peritoneum.....	3	2	5	2	1	3	
{ Skin.....							
{ Other organs.....	5	4	9				
{ General.....	8	4	12	1	1	2	
<i>Cancer—</i>							
{ Mouth.....	35	18	53	11	5	16	
{ Stomach or liver.....	17	22	39	4	6	10	
{ Intestines or rectum.....	9	6	15	2	1	3	
{ Uterus.....		33	33		9	9	
{ Breast.....	9	28	37	1	1	2	
{ Skin.....	1		1				
{ Other organs.....	4	2	8	2	1	3	
Rheumatism.....	138	79	217				
Diabetes.....	36	9	45	2	1	3	
Exophthalmic goitre.....	5	5	10		2	2	
Addison's disease.....	1	1	2	1		1	
Leukemia.....	3	5	8	1		1	
Anemia, chlorosis.....	34	229	263				
Other general diseases.....	42	48	90	6	9	15	
Alcoholism.....	25	6	31				
Chronic poisonings.....	1		1				

STATISTICAL TABLES.—Continued.

DISEASES.	CASES.			DEATHS.			
	1902-3.	M.	F.	Total	M.	F.	Total
LOCAL DISEASES.							
III. DISEASES OF THE NERVOUS SYSTEM AND OF THE ORGANS OF SENSE.							
Enccephalitis.....	1	1	2	.....	.....	.....	.....
{ Simple meningetis	6	7	13	4	4	8	
} Cerebrospinal meningetis.....	2	2	4	.....	1	1	
Cerebral congestion, hemor.	9	8	17	3	2	5	
Ceberal softening.....	8	7	15	5	2	7	
Paralysis ..	52	43	95	10	10	20	
General paralysis of insane.....	6	.....	6	2	.....	2	
Other forms of insanity.....	17	10	27	1	.....	1	
Epilepsy.....	40	31	71	2	2	4	
Convulsions.....	26	26	52	2	5	7	
Convulsions of infants.....	42	40	82	6	4	10	
Tetanus.....	.....	.....	.....	.....	.....	.....
Other nervous diseases.....	41	77	118	3	3	6	
IV. DISEASES OF THE CIRCULATORY SYSTEM.							
Pericarditis	8	5	13	5	3	8	
Endocarditis	7	6	13	.....	.....	.....
Organic heart disease.....	47	28	75	6	4	10	
Angina Pectoris	5	4	9	2	.....	2	
Diseases of the arteries	6	6	12	1	2	3	
Embolism.....	2	3	5	1	.....	1	
Varices, hemorrhoids.....	77	71	148	.....	.....	.....
Phlebitis.....	2	4	6	.....	.....	.....
Lymphangitis ..	11	3	14	.....	.....	.....
Other lymphatic diseases.....	.....	.....	.....	.....	.....	.....
Hemorrhage.....	18	10	28	.....	.....	.....
Other circulatory diseases.....	5	12	17	.....	1	1	
V. DISEASES OF THE RESPIRATORY SYSTEM.							
Diseases of the nose.....	123	97	220	.....	.....	.....
Disease of the larynx and thyroid ..	27	25	52	.....	.....	.....
Acute bronchitis.....	841	390	1231	6	4	10	
Chronic bronchitis	179	147	326	2	3	5	
Broncho-pneumonia	115	100	215	24	19	43	
Pneumonia ...	292	120	412	44	32	76	
Pleurisy.....	121	57	178	5	2	7	

STATISTICAL TABLES.—Continued.

DISEASES. 1902-3.	CASES.			DEATHS.		
	M.	F.	Total	M.	F.	Total
Congestion of lungs.....	97	51	148	6	4	10
Gangrene of lungs.....	3	3	6	2	2	4
Asthma and emphysema.....	70	75	145	1	2	3
Other respiratory diseases.....	21	9	30	5	3	8
VI. DISEASES OF THE DIGESTIVE SYSTEM.						
Diseases of the mouth.....	85	85	170	1	.....	1
Diseases of pharynx and esophagus.....	17	21	38	.....	.....	.....
Ulcer of the stomach.....	14	16	30	3	4	7
Other diseases of stomach.....	145	130	275	2	1	3
Cholera infantum.....	59	46	105	6	8	14
Diarrhœa and enteritis.....	78	80	158	2	3	5
Dysentery.....	42	25	67	3	2	5
Hernia and intestinal obstructions..	30	5	35	1	.....	1
Other diseases of intestines.....	14	23	37	4	2	6
Acute yellow atrophy of the liver..	.....	.....	.....	.....	.....	.....
Cirrhosis of the liver.....	11	2	13	2	.....	2
Other diseases of the liver.....	27	20	47	.....	1	1
Peritonitis.....	16	19	35	1	7	8
Other diseases of the digestive system.....	33	41	74	1	1	2
Iliac abscess.....	2	.....	2	.....	.....	.....
VII. DISEASES OF THE GENITO-URINARY SYSTEM.						
Acute nephritis.....	4	3	7	.....	.....	.....
Bright's disease.....	36	23	59	6	3	9
Other diseases of the kidneys.....	18	9	27	2	1	3
Vesical calculi.....	11	5	16	2	.....	2
Diseases of the bladder.....	64	45	109	2	.....	2
Diseases of the male genital organs.	97	.....	97	.....	.....	.....
Uterine tumor.....	.....	32	32	.....	.....	.....
Other uterine diseases.....	.....	150	150	.....	3	3
Ovarian tumors.....	.....	6	6	.....	.....	.....
Other diseases of the female genital organs.....	.....	60	60	.....	.....	.....
VIII. PUERPERAL DISEASES.						
Accidents of pregnancy.....	.....	22	22	.....	2	2
Puerperal septicemia.....	.....	9	9	.....	3	3
Puerperal albuminuria.....	.....	30	30	.....	2	2

STATISTICAL TABLES.—*Continued.*

DISEASES.	CASES.			DEATHS.			
	1902-3.	M.	F.	Total	M.	F.	Total
IX. DISEASES OF THE SKIN AND CELLULAR TISSUE.							
Erysipelas	51	40	91	.....	.....	.....	.....
Gangrene	7	3	10	1	2	3	.....
Anthrax .....	.....	.....	.....	.....	.....	.....	.....
Phlegmon, acute abscess.....	36	18	54	.....	.....	.....	.....
Other diseases of the skin.	90	68	158	.....	.....	.....	.....
X. DISEASES OF THE LOCOMOTOR SYSTEM.							
Pott's disease.....	6	7	13	.....	.....	.....	.....
Chronic or cold abscess.	14	19	33	.....	.....	.....	.....
White swellings.	8	11	19	.....	.....	.....	.....
Other diseases of the locomotor system	17	13	30	.....	.....	.....	.....
XI. MALFORMATIONS.							
Malformations.....	16	12	28	3	.....	3	.....
XII. DISEASES OF INFANCY.							
Congenital debility.	9	13	22	3	.....	3	.....
Premature birth.....	40	28	68	33	21	54	.....
Want of care.....	11	11	22	2	1	3	.....
Other diseases of infancy.....	51	36	87	8	5	13	.....
XIII. DISEASES OF OLD AGE.							
Senile debility.....	27	19	46	22	18	40	.....
XIV. VIOLENCE.							
<i>A. Suicide.</i>							
{ Poison .....	.....	.....	.....	.....	.....	.....	.....
{ Asphyxia .....	.....	.....	.....	.....	.....	.....	.....
{ Strangulation.....	.....	.....	.....	.....	.....	.....	.....
{ Drowning.....	4	.....	4	4	.....	4	.....
{ Firearms.....	.....	.....	.....	.....	.....	.....	.....
{ Cutting instruments.....	11	.....	11	11	.....	11	.....
{ Fall from height.	1	.....	1	1	.....	1	.....
{ Crushing.....	.....	.....	.....	.....	.....	.....	.....
{ Other methods.....	1	.....	1	1	.....	1	.....

STATISTICAL TABLES.—Continued.

DISEASES. 1902-3.	CASES.			DEATHS.		
	M.	F.	Total	M.	F.	Total
<i>B. Accidents.</i>						
Fractures	155	23	378	1	4	5
Dislocation.	18	7	25			
{ Gunshot.....	17	2	19	5		5
{ Lightning.....	2		2			
{ Mining accidents.....						
{ Railroad accidents.....	1		1			
{ Vehicles and horses	7	3	10			
{ Fire (burn).....	4	4	8			
{ Hot liquid (scald)		5	5			
{ Corrosive substance						
{ Sunstroke.....						
{ Freezing ..	4	1	5	4	1	5
Accidental drowning	8	2	10	8	2	10
Starving.....						
Noxious gases						
Other accidental poisons	1	1	2	1	1	2
Other accidents	46	25	71			
<i>C. Homicide.</i>						
Homicide.						
XV. CAUSES ILL-DEFINED.						
Exhaustion, cachexia, debility.	4	4	8	2	2	4
Fever, inflammation.....	4	5	9			
Dropsy.....	15	9	24	3	1	4
Heart failure..	10	7	17	10	7	17
Asphyxia, cyanosis.....	3	1	4	1	1	2
Sudden death.....	5	3	8	5	3	8
Abdominal tumor.....	2	6	8		1	1
Other tumors.....	14	11	25			
Unknown, not specified.....	3	4	7	3	3	6
XVI. BIRTHS.						
Single births	496	483	979	5	3	8
Twins.....	11	9	20			
Illegitimate.....	14	7	21			

STATISTICAL TABLES.—*Continued.*

VISITS TO ENFORCE SANITARY LAWS.

	In Person.	By Inspector.
Location, Construction, Repair or Cleaning of		
Water Closets.....	58	542
Sinks.....	67	50
Drains.....	42	38
Yards.....	58	30
Stables.....	16	41
Other places.....	51	26
Visits to schools.....	145	..
" school buildings.....	175	..
Inspection of wells and sources of water.....	79	..
" " for domestic purposes.....	38	..
Visits in cases of infectious diseases.....	106	2
Notifications " " ".....	94	..
Vaccinations—Gratuitous.....	20	..
Non-gratuitous.....	103	..
Schools closed owing to infectious diseases.....	18	..
Public gatherings prohibited owing to infectious diseases.....	6	..

CIRCULAR NO. 10.

PROVINCIAL BOARD OF HEALTH OF NOVA SCOTIA.

TO THE MEDICAL PROFESSION AND THE PUBLIC.

LABORATORY OF SCIENCE;
ITS OBJECTS AND REGULATIONS.

This Circular is issued by the Board of Health of the Province of Nova Scotia, with the object of calling attention to the fact that a Laboratory of Science has now been established, more completely equipped than ever before, and it is proposed to make this institution of benefit—to the medical profession, by putting laboratory methods within their reach,—to the public, indirectly through the profession.

Facilities will be provided for bacteriological investigation in suspected cases of tuberculosis, diphtheria, typhoid, etc., and both Chemical and Bacteriological examination of water, milk, etc., will be undertaken.

Pathological investigation, such as the examination of morbid tissues, pathological fluids, blood films, etc., will be carried out as far as possible.

Blood counts, urinary analysis (other than the ordinary chemical examination), examinations of stomach contents, will also be made in the laboratory.

Chemical notes must in all cases accompany specimens, otherwise examinations will positively not be carried out.

It is earnestly hoped that advantage will be taken of these facilities, and every effort will be made to make the institution

worthy of public support, devoted as it is to the interest of the public health of the province.

Medical men are further specially requested to communicate with the laboratory, and give the subsequent history of cases, as it is only in this way that the Bacteriologist can have any means of judging of the accuracy and efficiency, not only of his own work, but of the relative value of such matters as the Widal reaction, etc.

The following hints, copied from the New Hampshire Sanitary Bulletin, issued by the State Board of Health, may be of use to those taking advantage of the work of the laboratory :

TUBERCULOSIS.

“It is of vital importance for the successful treatment of tuberculosis that the disease be positively recognized and determined in its earliest stage. It has been conclusively demonstrated beyond controversy that a very large proportion of cases of tuberculosis might be cured if the disease were discovered in its incipency and proper treatment given.

“Not infrequently it is impossible to diagnose a suspected case until the bacillus of the disease has been discovered or excluded by repeated bacteriological examination.

“In the incipient stages it is sometimes necessary to make several examinations before the nature of the case can be determined either positively or negatively.

“Free facilities are now provided for the bacteriological examination of sputum, and we expect and trust that physicians will avail themselves of the opportunity to the fullest extent.

“In view of the great mortality from tuberculosis, the importance of its early recognition in a given case, and its curability under favorable conditions, we believe that the medical profession will avail itself as far as possible of the use of the laboratory in all suspected cases.

DIRECTIONS FOR COLLECTING SPUTUM.

“The expectoration discharged in the morning is preferred. Have the patient wash out the mouth and throat with pure water early in the morning, and then cough up the sputum from the lower passages.

“The sputum should be forwarded in as fresh a condition as possible.

DIPHTHERIA.

“In all inflammatory conditions of the throat in which there is the slightest exudatum, a microscopic examination should be made to determine whether or not the condition is due to the presence of diphtheria bacilli.

“Upon the prompt recognition of the true character of this disease may depend the life, not only of the patient, but also of other members of the family or the community.

“Not infrequently it is absolutely impossible to know whether a given case is diphtheria or not without a bacteriological examination. The streptococcus pyogenes and the micrococcus of septic sputum, and perhaps other forms of infections, may produce results that stimulate diphtheria, and sometimes produce death.

“We would call the attention of the profession to two papers on this subject in the last report of the State Board of Health.

“1. That no case having the appearance of diphtheria can be positively diagnosed as such until the Klebs-Löffler bacillus has been discovered by microscopic examination, which ought to be made in all cases.

“2. That without a bacteriological examination, which shall determine the true character of the disease, no physician can be certain of the best means of treatment, nor can the health officers be certain as to whether isolation of the patient is necessary or not for the protection of the public.

“3. That in a case having all the clinical appearance of malignant diphtheria, the condition may be due wholly to streptococcal infection, in which case anti-diphtheritic serum would be absolutely useless and fatal results might follow; while had a bacteriological examination been made, the patient might, perhaps, have been saved by the use of anti-streptococcal serum or other treatment. These facts may also explain why in a very small percentage of deaths reported from diphtheria, anti-diphtheritic serum, although given early, produced no remedial effects.

“4. That the conclusion that the throats of well persons in a family where diphtheria exists should be examined to determine the extent of the infection seems to be well founded.

“That if bacteriological examinations were made in all cases of suspected diphtheria, a certain percentage would be found to be due to other forms of infection which would not require the patient or the family to be placed in quarantine.”

Outfits for mailing swabs from suspected throats can be obtained on application at the Laboratory.

DIRECTION FOR TAKING SPECIMENS.

“The patient should be placed in a good light and, if a child, held properly. In cases where it is possible to get a good view of the throat, depress the tongue and rub the cotton swab gently, but freely, against any *visible exudate*, revolving the wire between the fingers, so as to bring all portions of the swab in contact with the mucous membrane or exudate. In other cases, including those in which the exudate is confined to the larynx, avoiding the tongue, pass the swab back as far as possible, and rub it freely as described against the mucous membrane of the pharynx and tonsils.

“Then carefully replace the swab in the tube, plug with cotton wool, cover with rubber cap in the manner in which it was originally sent out, wrap the blank around the tube, place in wooden case, seal with a small slip of adhesive plaster and forward to the Laboratory.

TYPHOID FEVER.

“The medical profession recognizes the importance of an early diagnosis on this disease, not only for the proper treatment of the case from the onset, but also that prompt investigation may be made into the cause of the disease, and the necessary precautions taken to prevent its dissemination to others.

“The experiments of numerous investigators have shown that the blood serum of persons suffering from typhoid fever exercises a peculiar agglutinating action over the typhoid bacilli. This special action appears, as a rule, from the fifth to the eighth day of the disease, and persists in some instances for years after recovery.

“The last is known as the Widal reaction, and is performed in the following way :

“One part of the suspected blood serum is added to one or more parts of a 24-hour bouillon culture of the typhoid bacillus. When the typhoid reaction appears, the bacilli quickly lose their mobility and become clumped together in masses

“The substances which cause this reaction are absent, or present to only a very moderate extent, in the blood of those not suffering from typhoid; while after the fifth day the blood of those having typhoid fever usually contains these agglutinating substances in abundance.

“The results so far obtained indicate that we are safe in drawing the following conclusions :

“1. That the patient in all probability has typhoid fever, or has had it within one year, in those cases in which the reaction occurs promptly upon the addition of one part of serum to nine parts of a bouillon culture of the typhoid bacillus.

"2. That if a marked reaction occurs when one part of blood serum is added to nineteen or more parts of a bouillon culture, the probability that the patient has typhoid fever becomes almost a certainty.

"From the fourth to the seventh day of the disease specimens of blood serum from typhoid patients give the reaction in about 70 per cent.; from the eighth to the fourteenth day, in about 80 per cent. of the cases.

"In from 5 to 10 per cent. of the typhoid cases the blood does not at any time in the course of the disease give a prompt and complete reaction, when one part of the blood serum is added to ten or more of the culture.

"The absence of the reaction in any individual case does not therefore positively exclude the diagnosis of typhoid fever."

DIRECTIONS FOR TAKING SPECIMENS OF BLOOD FOR TYPHOID EXAMINATIONS.

The skin covering the tip of the finger or lobe of the ear should be thoroughly cleaned and then pricked with a clean needle.

A few drops may then be taken up in capillary tube, or smeared on a glass slide or a glazed piece of note paper, and allowed to dry and then transmitted to the laboratory.

CHEMICAL EXAMINATIONS.

A large part of the work will necessarily be confined to water analysis, on the investigation of suspected pollution of supplies used for domestic purposes, and in the determination of the quality of waters proposed to be taken for public supplies.

Secondary to this will be made examinations of foods, etc., but for no other purpose than the advancement of public health interests.

WATER ANALYSIS.

In the examination of water we classify the substances found in it as mineral and organic.

From a sanitary standpoint we are mainly interested in the organic contents of a water. This we find first as living organisms, animal and vegetable, which either float in the water or have the power to move about in it.

Second, the products of organic life, such as albumen, urea, etc., which may be dissolved or suspended in the water.

The ordinary methods employed in the sanitary analysis of a water give the form and amount of the constituents of a water at the time it was analyzed; but the results obtained cannot be considered as establishing the value of a water for potable purposes, though they go a long way toward settling the matter.

Students of sanitary science have attempted to establish certain standards of purity of water based on the determination of nitrogen. The standards express limits for organic nitrogen or albumenoid ammonia, free ammonia, nitrates and nitrites, beyond which the water containing them should not be used for drinking.

In addition to the chemical and biological examination one should know the location, environment, and source of the water and the character and population of the drainage area.

INSTRUCTIONS FOR THE COLLECTION OF WATER.

The water should be sent in a one gallon glass-stoppered bottle. No analysis of water will be made except to determine its fitness for drinking purposes.

The following instructions should be complied with in every particular:

1. From a water tap.—The water should run freely for a few minutes before it is collected. The bottle should be rinsed out with the water at least twice. It is then filled to overflowing and stoppered. The stopper should also be rinsed off, and after it has been put in place it should be secured by tying over it a clean piece of cotton cloth.

2. From a stream, pond or reservoir.—The bottle and stopper should, if possible, be submerged, and the stopper taken out beneath the surface.

When the bottle is full replace the stopper, below the surface, if possible, and secure as above.

It is important that the sample should be obtained free from the sediment on the bottom of a stream or pond and from the scum on the surface.

If the stream should not be deep enough to allow of this method of taking the sample, the water may be dipped in an absolutely clean vessel and poured into the bottle after it has been rinsed.

3. From a well.—Pump or draw the water in the usual manner, rinse the bottle and stopper, then fill, using the above precautions.

Samples should be collected immediately before shipping, that as little time as possible should intervene between the collection of the sample and its examination.

NORMAL CHLORINE.

In order to interpret correctly the significance of a given amount of chlorine in water, it is necessary to know the normal amount of chlorine in the natural or unpolluted water of the same locality. For example, the amount of chlorine near the coast is largely in excess of that found in the interior. Information then on this point should accompany the sample, and in some instances it may be necessary to make an examination of water from the same district which is not under suspicion of contamination.

MILKS, ETC.

The ordinary sanitary chemical examinations will be made, e. g. ;
Percentage of fats, solids, etc., and also the absence or presence of injurious preservatives, when necessary.

Anyone desiring further information on these or other points of sanitary importance are invited to apply to the Laboratory either personally or by letter.

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Director Laboratory of Science and Hygiene,
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MEASURES FOR THE PREVENTION OF SMALLPOX WHEN EPIDEMIC IN A LARGE COMMUNITY.

(From the Ohio Sanitary Bulletin.)

1. There should be sufficient hospital accommodation for the isolation and treatment of all cases that can not be sufficiently isolated in their homes. (Take every case possible to the hospital.)

- (a) The hospital should be accessible.
- (b) In warm weather, tents, floored and warmed, would answer the purpose well.
- (c) The hospital must be properly guarded at all times.
- (d) Guards and nurses must be vaccinated, even if they have previously had smallpox.
- (e) There should be a disinfecting station at the hospital, with provision for disinfecting the ambulance bringing cases to it.
- (f) There should be a place to dress for those leaving (discharged from) the hospital.

2. If possible a separate room or tent should be provided for doubtful cases (suspects), and a hospital or place to isolate those exposed and liable to have smallpox who can not be, or should not be, isolated at home.

3. Persons exposed to smallpox in the eruptive stage of the disease should be treated :

(a) If they have previously had smallpox, or furnished satisfactory proof of having been successfully vaccinated within two years prior to said exposure, they may be disinfected (person and clothing worn at time of such exposure) and discharged.

(b) If found and vaccinated (two places, with two different tubes or points) within seventy-two hours after first possible exposure, they may be disinfected (person and clothing) and discharged, provided that this shall only apply to responsible residents of the city, who can be punished for violating the rules of the Board of Health, and provided further that all such discharged persons shall from the ninth day from the first exposure to the seventeenth day from the last possible exposure, be examined daily by a medical officer, and shall be at once isolated (quarantined) on the appearance of fever or eruption.

4. Persons associated with exposed persons need not be quarantined.

5. There should be a disinfecting corps, properly instructed and equipped, to disinfect houses after death, recovery or removal of smallpox patients.

6. Sanitary policemen for guard or other duty should be at the health office night and day. Medical inspectors should be on call to at once examine reported (suspected) cases.

7. Infected districts of the city should be defined, if possible; and a medical officer and a uniformed policeman sent to inspect each house (each room and outbuildings) for concealed cases.

8. Physicians should be required to report all cases of chickenpox, giving name, age and location. A medical officer should examine, with the attending physician, all such cases in adults.

9. Vaccination—

(a) The city should appoint public vaccinators in each ward and offer vaccination free to all; the city to furnish the virus.

(b) Medical inspectors should be appointed to inspect all school children (lady physicians for older girls) to determine their vaccination status.

(c) All children not protected by vaccination should be prevented from attending school.

(d) All railroad men on trains coming to the city should be vaccinated (this should be ordered by the State Board of Health). Postmen and street car employes should be vaccinated, by the advice of the local Board of Health.

(e) A letter should be sent by the local board to the management of all workshops and factories, urging that vaccination be made a condition of employment. Their attention should be called to the possible necessity of shutting down the works if smallpox should break out among their employes.

(f) Vaccination should be enforced, as far as possible, in "infected districts," at the time of the house to house inspection.

10. The importance of frequent disinfection and cleansing of street cars should be brought to the attention of the street car companies.