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This is Public Health: A Canadian History

2.1

Transformation and World War I

At the first annual meeting of the Dominion Commission for the Conservation of Natural Resources in January 1910, **Peter Bryce**, the Chief Medical Officer of the Departments

public health in its focus on preserving and protecting the nation's natural resources. Bryce stressed the need to meet the challenges of the preservation of infant life, the health of school children, tuberculosis, deaths due to industrial causes, and disease prevention measures. Tuberculosis and infectious diseases spread by contaminated water were major concerns and a Commission sub-committee was struck to create a national plan for treatment

and prevention of tuberculosis and to develop legislation with the

of the Interior and Indian Affairs, urged the Commission to include

Tubercle bacillus provinces to prevent the pollution of rivers from sewage.¹

The sub-committee looked to Saskatchewan, which had become a province in 1905 and had developed progressive public health policies under the leadership of its medical officer of health, **Maurice Seymour**. Saskatchewan's *Public Health Act*, as noted in a Toronto *Globe* article, was "so much in advance of similar legislation in other parts of the Dominion" with its measures to protect water supplies and provide care for tuberculosis cases. Saskatchewan had a relatively fragile water supply and its Act required municipalities to submit for approval all sewage construction or improvement plans to a newly created Commission of Public Health. As Commissioner of Public Health, Seymour was directly responsible for

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the administration of the Act and the Saskatchewan Bureau of Public Health. In contrast, most provinces administered their public health acts through provincial boards of health and a secretary or chief officer of health—a system, the Globe noted, that was increasingly recognized as "cumbersome and inefficient, especially in epidemics of typhoid and smallpox."2

In addition to more effective sewage management and the appointment of a provincial sanitary engineer, the Saskatchewan Public Health Act required the compulsory notification of all tuberculosis cases, so "that patients may be taught to take the proper precautions to minimize the spread of the infection." In response to the growing tuberculosis challenge, specialized hospitals called sanatoriums were being opened by some provinces to provide publicly funded treatment. Canada's first sanatorium opened in 1897 in Gravenhurst, Ontario, followed by others in Manitoba



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Rear yard, 512 Front Street East, August 1914

(1910), New Brunswick (1913) and Saskatchewan (1917). Despite high rates of tuberculosis in the Indigenous population, sanatorium treatment was not used widely in Indigenous patients for decades, in a misguided effort to keep federal spending low.4

Rabies and poliomyelitis emerged as new epidemic threats at the beginning of the decade. A 1910 rabies outbreak in southwestern Ontario spread public alarm, prompting lobbying by the Toronto Academy of Medicine for the establishment of a Pasteur Institute in Toronto to produce a domestic supply of the Pasteur Rabies Treatment, which had been developed in Paris in the 1880s. The medical journal, The Canada Lancet, reported that victims of rabies had to



Maurice Macdonald Seymour

Early Public Health Leader in Saskatchewan

2.2

Dr. Maurice M. Seymour was in charge of public health in the

new province of Saskatchewan from 1905 and in 1906 organized the Saskatchewan Medical Association. He reacted quickly to local and provincial needs by drafting ground-breaking legislation for municipal doctors, municipal hospitals and free tuberculin testing of cattle. He organized the Saskatchewan Anti-tuberculosis League, hired its first physician and director, and chose the site for the first sanatorium. Under the "Seymour Plan," doctors immunized against diphtheria in September and October, smallpox during November and December, and typhoid during January and February. He made public health simple and easy to understand, with such slogans as "Do not spit" and "Swat the fly."

—University of Regina and Canadian Plains Research Centre, 2007

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travel to New York City for the treatment, which took 21 days to complete. To meet the immediate need, the Provincial Board of Health provided rabies treatments at special clinics at Toronto General Hospital and The Hospital for Sick Children for a fee of \$25 per case to cover the cost of <u>vaccine</u> imported from New York. This program continued until the summer of 1913, when the Ontario Provincial Laboratory began preparing its own rabies vaccine.⁵

Infantile Paralysis: The New Epidemic

Shortly after the rabies scare subsided, the first widespread appearance in Canada of a strange and sometimes deadly disease sparked a wave of concern. In July 1910, a little girl from the Hamilton, Ontario area was taken to hospital with what was thought to be rabies, where she died. It was later discovered that she was a victim of infantile paralysis (poliomyelitis). Rabies and poliomyelitis are both viral diseases that affect the central nervous system and symptoms of the two were frequently confused. The *Toronto Star* reported, "While most of the cases here are children under four years of age, two or three adults are victims.... Some years ago the disease swept over a portion of the States, claiming victims by the hundreds." Public health authorities recognized that infantile paralysis was not a new disease, but a 1912 *Maclean's* magazine article was entitled "Paralysis: The New Epidemic." Written by child and maternal health authority, **Helen**.

MacMurchy, the article said that, "1910 was in a terrible sense a 'wonder year' for epidemic poliomyelitis. In that year it appeared all over the world, as it were."

Indeed, at the 1910 Congress of American Physicians and Surgeons, poliomyelitis received more attention than any other subject. MacMurchy added that the "toll of the victims of tuberculosis grows smaller every year," while polio "now counts its victims by the thousand where it used to count them by the couple." Polio was not like other diseases

Helen MacMurchy

Pioneering Interest in Mental Hygiene and Child Welfare

Dr. Helen MacMurchy was one of the pioneers in the development of mental hygiene and child welfare

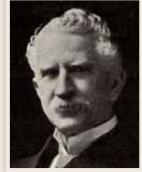
in Canada. In 1906, Dr. MacMurchy was appointed Inspector of the Feeble-minded in the Department of the Provincial Secretary in Ontario and took an active interest in education, public charities and child welfare. In 1920, following the organization of the federal Department of Pensions and National Health, Dr. MacMurchy was selected as the Director of the Division of Child Welfare. She was the first woman ever appointed to the Permanent International Committee of the Congress of Hygiene. Retiring from this office in 1934, she devoted her time to the preparation of a number of scientific articles and books which were a contribution of great value in the advancement of the special fields to which her interest has primarily been given.

-Canadian Public Health Journal, Vol. 28, 1937

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that struck "the poor, or delicate" and its cause was unknown. MacMurchy's article about this "pestilence which walketh in darkness" asked, "How does it select its victims and where does it strike them that we might protect them from its murderous and cruelly disabling attack?" There was no consensus about whether it was contagious or what could be done to control, prevent and treat it. A noted pathologist told a meeting of the Chicago Neurological Society, "We cannot even diagnose, because the first certain symptom is the paralysis of the patient." Toronto health officials decided to isolate patients in a room in their homes, but not post placards and quarantine their homes, while in Hamilton, Ontario placards were posted. In Canada, only Ontario and British Columbia had designated infantile paralysis as a reportable disease by 1911. An investigation by the Canadian Commission of Conservation canvassed physicians across the country to report the cases and deaths from infantile paralysis and received reports on 658 cases and 46 deaths between November 1, 1909 and October 31, 1910.11

The Commission of Conservation organized a special public health conference in Ottawa in October 1910 for provincial and federal health officials to meet with the Commission's new Medical Advisor, Charles Hodgetts. Hodgetts focussed on the persistent incidence of typhoid due to contaminated water in Canadian cities. Canada's typhoid death rates exceeded those in the United States, the United Kingdom and most European countries and the Toronto Globe reported that Hodgetts declared that it was time "that we were alive to our responsibilities and made haste to put our house in sanitary order." Hodgetts recommended more efficient and federally-enforced legislation, with the cooperation of the provincial



Charles John Colwell Orr Hastings

Internationally Renowned Medical Officer of Health

Dr. Charles Hastings was Toronto's Medical Officer of Health from 1910 to 1929. He was a crusader in making Toronto the first city

in Canada to pasteurize milk. He introduced a safe water supply and established an internationally recognized public health nursing system. Dr. Hastings was a leading pioneer of health education programs, medical and dental inspection in public schools and neighbourhood baby clinics in Canada. Under his direction, the Toronto Health Department expanded from a staff of 27 with one public health nurse in 1910, to a staff of 500 with 114 public health nurses in 1920. Toronto became a model of public health administration in Canada and around the world. The key to this reputation was accurate records, believing that records supply both the direction and justification for radical health programs. His goal for Toronto was to create a Health Department which would "reduce in every possible way unnecessary and preventable disease with its attending suffering and premature death."

-Janice R. Sandomirsky, Toronto's Public Health Photography 2.4

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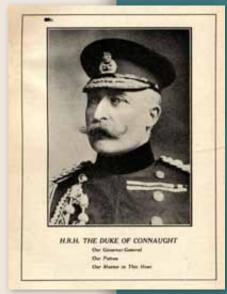
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departments of health. The conference called for the establishment of a federal council of health, government action to prevent pollution of public water supplies, establishing subsidized federal and provincial tuberculosis sanatoriums and funding for an educational campaign against the white plague (tuberculosis). The conference also recommended the creation of a laboratory to conduct research and manufacture vaccines and antitoxins.

Canadian Public Health Association

On October 12, 1910, at an evening meeting chaired by Peter Bryce, Toronto physicians Duncan MacKenzie Anderson and Lester McDonnell Coulter met with 14 public health officials attending the conference to formally organize the Canadian Public Health Association. Anderson and Coulter had started publishing a new national public health journal in January 1910, 18 years after **Edward Playter** stopped publishing the *Canada Health Journal*. The *Public Health Journal* was developed and published monthly by the York Publishing Company, which had been established by Anderson and Coulter in 1909.

The new journal's editors directed their efforts towards the creation of the new Association, which they incorporated in Ontario on September 22, 1910, along with Toronto dentist A.J. Harrington, Toronto Medical Officer of Health **Charles J.O. Hastings**, and T. Aird Murray, who had recently been appointed as a sewage system consultant to the Saskatchewan Bureau of Health. The Association's purpose was to establish professional public health standards, conduct research and provide technical and scientific information. CPHA's objective was "the development of the science and art of general **prophylaxis** with promotion of social welfare, in judicious conservation of natural resources, popularization of **eugenics** and more effective national and international co-operation along all lines of public health."¹³



Prince Arthur William Patrick Albert, 1st Duke of Connaught and Strathearn

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The Canadian Public Health Association's first president was T.A. Starkey, Professor of Hygiene at McGill University, its secretary was Major Lorne Drum, Chief Officer of the Military Laboratory of Hygiene, and its treasurer was **George Porter**, Secretary of the Canadian Anti-Tuberculosis Association. The Governor General, the Duke of Connaught, served as CPHA's Patron and the Association was granted a federal charter in April 1912. Membership was open to all, as either active or associate members, subject to \$3 or \$2 membership fees respectively, including a one-year subscription to the *Public Health Journal*. A journal editorial promised that the Association would help overcome the isolation of provincial public health workers. "Everywhere health officers were too often looked upon as necessary evils, like the nuisances they were supposed to abate, rather than as most important elements in the construction of the social fabric of a modern State." ¹⁵

Eugenics

Coined by one of the great men of 19th century science, Francis Galton, the term describes the application of the emerging scientific understanding of genetics to encourage the breeding of those deemed to be worthy of reproducing, such as outstanding scholars and fine athletes, and to discourage perpetuation into new generations of others deemed to be 'unfit' because of low intelligence, mental disorders, or certain classes of chronic illness and disability such as tuberculosis, alcoholism, and 'criminal proclivities.' Enabling laws and regulations to apply eugenics, notably by the practice of 'sterilization of the unfit' were enacted in many enlightened jurisdictions

including Sweden, various states in the USA, and Canadian provinces. Some of these laws and regulations remained on the statute books long after the practice of eugenics had been thoroughly discredited by close study of the patterns of health and disease among the aristocracy and the ruling families of Europe, and by the infamous racial purification policies advocated and practised by the Nazi party in Germany in the 1930s. Among the last jurisdictions to erase such laws from the statute books were Sweden and the Canadian province of Alberta; both rescinded their laws in 1970, although they had not been applied so far as is known for many years prior to 1970. —John Last



George Dana Porter

Leader in Anti-Tuberculosis Movement in Canada and CPHA Charter Member

In 1908, Dr. Porter left the practice he had established in Toronto to devote himself to the control of tuberculosis in Canada. He was known from coast to coast as the leader of the anti-tuberculosis movement, encouraging and inspiring laymen everywhere to organize local anti-tuberculosis societies and to provide sanatorium accommodation for needy patients. He was one of CPHA's charter members and its first honorary treasurer, serving from 1910 to 1914. It was through his interest and financial participation that the Association gained ownership of the Canadian Public Health Journal (originally published as *The Public* Health Journal) and he assisted generously in its maintenance.

-Canadian Public Health Journal, Vol. 33, 1942

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Typhoid

Not long after CPHA's initial meeting, the city of Ottawa provided a compelling demonstration that poor sewage control could result in a major outbreak of typhoid. There had been cases of typhoid in the area for several years, but they were largely confined to the poorer areas of the city and all but ignored by city officials. In January 1911, typhoid cases suddenly appeared in all areas of the city, leaving 987 stricken and 83 dead by

March. Amid considerable alarm and criticism of the local government, Ontario's chief officer of health, J.W.S. McCullough, and the secretary of the Dominion Board of Health, Charles Hodgetts, joined the local health commissioner to investigate. They found sewagecontaminated water from the Ottawa River was entering the city's water supply. There was little action taken on a recommendation to begin a water treatment program as rival water treatment plans from city aldermen with mayoralty aspirations had turned the public health crisis into a political one. When a second epidemic sickened 1,378 and killed 91 in July 1912 McCullough imposed a \$100 per day fine on the city. 16

Cities in North America first began building sewers in the late 1800s. Sewers were originally designed to deposit raw sewage directly into the nearest body of water. Untreated waste washed up on beaches and contaminated the lakes and bays where drinking water was drawn from. The management of sewage and water systems was gradually improving but typhoid from contaminated milk supplies fuelled increased local, provincial and federal action during

The disposal of sewage should be taken up. The outhouses are a menace in the breeding of flies. Waste is thrown outside the door, making another breeding place for them. This waste could be put in a garbage can and afterwards covered in a heap to make fertilizer. Many septic tanks are being put in today in the most progressive parts of our country, but there are thousands of our farms that still have no way of disposing of sewage except by throwing it out.

-Mr. W. Stephen, Dominion Council of Health minutes, 1919

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the 1910s. Cities were the first to organize the control of milk supplies (Quebec City in 1884, Winnipeg in 1885), followed later by some provinces. The Canadian Medical Association appointed a Milk Commission in 1908 to work with local and provincial health boards to investigate milk supply, especially the spreading of communicable diseases such as tuberculosis. Charles Hastings launched an aggressive approach to the issue as Toronto's Medical Officer of Health and in 1911, Ontario passed a series of amendments to its *Public* Health Act and enacted a separate Milk Act to strengthen local health board powers and strictly regulate the production and sale of milk in the province. The *Public Health* Journal noted that "Ontario has at last realized the importance of prompt action in State prophylaxis."17 Milk regulation was also an important part of Manitoba's comprehensive new Public Health Act of 1911.

Inspection in Schools

Concerns about the milk supply were part of a growing interest in the physical and mental health of children, which was gradually applied through medical inspection in schools in Canada beginning in 1910. The United States had begun earlier, with the first school physician employed in Boston in 1894 and the first school nurses in New York City in 1902. Canadian school inspections began in the Ontario cities of Hamilton (1907), Brantford (1908) and Toronto (1910). British Columbia was the first province to provide medical inspection in schools, conducted by local boards of education. Lina L. Rogers moved from New York to lead Toronto's school inspection initiative in April 1910, marking a growth in demand and prominence for public health nurses. Rogers was soon supported by several nursing assistants, two medical inspectors and a dental inspector. The state of dental health among school children was particularly alarming during this period and initial inspections in Toronto revealed that only 1,864 of 5,850 children inspected had ever used a toothbrush.¹⁸

It is true that on many farms they do not value milk as a food and the milk is all sent to the creamery and only a very little kept in the home. Frequently the cream is taken from that and the child has only skim milk. There should be a corrective factor and that factor is education. It has proved beyond doubt that no food is equal to milk for children. I would say that 50% of the children born in the country do not get enough milk to drink, where milk is plentiful. I think there has not been given enough attention to the balancing of foods given to the children in the farm communities. The farmer gives attention to the food for his live stock but no attention to that for the children.

-Mr. W. Stephen, Dominion Council of Health minutes, 1919

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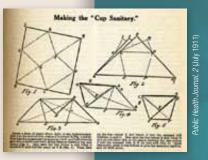
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Forty percent of the rural school houses are not fit to raise swine in. As far as heating was concerned, it would be nearly noon before the temperature was fit to live in. There were no playing areas. The gospel of Public Health should be preached to the rural districts.

-Dr. W. H. Hattie, Dominion Council of Health minutes, 1919

The health of children in Indian Residential Schools was even more alarming. Peter Bryce reported in 1907 that the schools were underfunded, rife with disease and lacking proper medical facilities. His examination of survey data over a 15-year period found that between 25% and 35% of students had died, primarily from tuberculosis but also from other diseases, such as measles.19



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Growth of Public Health Education

Scientific discoveries and preventive medicine became a central element of local and provincial public health disease control strategies. Inspired by major exhibits in the United States and Europe, increasingly elaborate provincial exhibits became a key part of public health education strategies.

Of particular interest for public health education were a number of specific disease threats that had recently been identified through bacteriological investigations. Houseflies, public drinking cups, and kissing were particular concerns. Microscopic attention to common insects identified flies as "germs with legs" that could contaminate food and household items, leaving a trail of filth and bacteria.²⁰ To prevent the "massacre of the innocents," people were advised to "screen therefore your doors, your windows and your food against this pilot of pollution. Swat Musca Domestica and sweep him from the confines of your home."21

It is a pity the old-fashioned cup or dipper from which all humanity imbibed in a care-free, democratic fashion should have to go. But today, whoever hangs out such a vessel is simply issuing an invitation to a house party for germs. If every public institution, particularly schools, hotels, railway stations and trains would do away with the public drinking cup the percentage of tuberculosis and other communicable diseases would be surprisingly lowered.

-Mr. W. Stephen, Dominion Council of Health minutes, 1919

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The common drinking cup, which was widely used in public parks, schools and railway stations, had been marked by public health authorities as unhygienic and "a conveyor of disease germs sometimes of the most serious type."22 Science had also revealed the dangers of kissing. An experiment at an international tuberculosis congress in Paris, demonstrated that swabs taken from lips, particularly bearded lips, swarmed with microbes, including germs

that caused tuberculosis and diphtheria. A young woman, who volunteered to be kissed for one such experiment, survived, "but had her lips not been so carefully sterilized, she might have become the victim of one of several diseases which could easily have cost her life or have left her an invalid.... Kissing may be nice. Kissing may or may not be naughty—authorities disagree. But kissing is dangerous—in more ways than one."23

Charles Hodgetts, Ontario's chief officer of health and Secretary of the Provincial Board of Health from 1903 to 1910, demonstrated his belief in public education by having a traveling tuberculosis exhibit developed, with charts, maps, photographs, sanatorium models, and demonstrations of the value of fresh air. This exhibit was often set up at fall fairs and Hodgett's successor, John W.S. McCullough, took the idea of a traveling public health exhibit in a more literal direction. He had an exhibit installed in a train car that stopped at railway stations around the province, where materials were displayed and public demonstrations and lectures held.



John W.S. McCullough

Ontario's Long-Serving Chief Officer of Health

As the long-serving chief officer of health in Ontario, Dr. McCullough strengthened provincial

public health education and infrastructures and contributed to the provision of essential biological products at prices within reach of everyone in Canada. He promoted public education and set up traveling public health exhibits in a train car that stopped at railway stations around the province, promoting vaccination, venereal disease control and other public health issues. Dr. McCullough pressed for more comprehensive public health legislation, more transparent and efficient local health boards, a comprehensive revision of Ontario's Public Health Act in 1912 and a stronger Vaccination *Act*. He developed a set of regulations in 1917 for the Provincial Board of Health to control venereal diseases. In 1923, Dr. McCullough initiated a campaign to advance pubic health in North America, starting with the establishment of competent health departments with an efficient organization overseen by a full-time officer of health.

-Canadian Public Health Journal, Vol. 27, 1936

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Ontario's public health exhibits set the national standard during this period, with the largest exhibits mounted at the Canadian National Exhibition in Toronto. In 1911, exhibits included "charts for the conservation of vision, the prevention of infant mortality, and models for ventilation," as well as health talks by public health leaders. An elaborate exhibit loaned by the Chicago Health Department portrayed "by means of sleeping dolls and smoke the unhealthy effect of sleeping in a poorly ventilated room." The *Canada Lancet* said, "We hope that this feature of Toronto's great exhibition may be repeated in future years. Knowledge is power. Nowhere is this power of more value than in the fight with disease." 24



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Itinerant push cart and food safety

Venereal Disease and Social Hygiene

Association Journal estimated that in 1916, 50% to 60% of adults would have gonorrhea at some time in their lives. In 1912, the Public Health Journal proposed that this serious public health threat could be prevented through sex hygiene education targeted at public school children. The journal had reported the previous year that a number of private schools in the United States had demonstrated the practicality of sex instruction and that the state of Washington made it mandatory. Also, sex hygiene lectures at Canadian universities had "caused a notable reduction of immorality among college men in the last five years.... It is either education in the home or education in the streets." News that Oakland, California had opened public schools in the fall of 1911 with lectures and classes in sex hygiene was reported with approval in the Public Health Journal:

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There are reactionary and ignorant prudes in Oakland who are blushing violently and noisily and this "destruction of modesty and sense of propriety".... The folly and barbarity of prudish parents is responsible for from 50 to 60 per cent of the inmates of the insane asylums, for half the "specialists" in medicine; for boys, girls, men and women who die, some of them insane, or blind, or deaf, or speechless, or in idiocy.... Sexual ignorance has desolated more homes and ruined more lives than any inherent laxity of morals, and they all decry the persistent prudery that has already wrought such havoc in the rising generation. ²⁷

The *Public Health Journal* called Ohio's 1912 legislation for education of the young in sexual matters "the most radical step in the direction of social hygiene ever taken by Public Health officials, and it is the initial effort to make practical a theory that is becoming widely accepted as being of paramount importance from the viewpoints of health and morals." 28

At a presentation to the annual convention of Alberta school trustees, L. Barrow had raised the question of venereal diseases and their relation to the work of the schools, saying "that if children were enlightened as to the causes and the results of venereal diseases, they would know what they had to face and would be on their guard." Barrow's views reflected a growing awareness that the traditional policy of silence and repression in matters of sex hygiene had to end. As "parents are extremely loath to do anything in the matter," it was thus up to school authorities to take responsibility.²⁹

An editorial reprinted in the *Public Health Journal* from the *Journal of the American Medical Association* declared, it was "an inherent and unique responsibility" of the medical profession to further this educational work, "and every physician can participate either privately or publicly." A modern social sentiment thus demanded "a new style of treatment and a new point of view in considering venereal disease, and it behooves the physician to be a leader in this great work." 30



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Exhibition

There was a growing public debate about whether school children should be taught about sex at all, however. Citing an inability to add to the workload of teachers, the Toronto Board of Education decided not to introduce sex instruction into schools in 1913. "It is still the general opinion of school men that sex instruction is, to say the least, a doubtful school duty." 31

Provincial Structures

In the fall of 1911, Ontario's newly appointed chief officer of health, John McCullough, pressed for more comprehensive public health legislation, targeting local health organizations and responsibilities. In 1912, the Ontario government thus implemented a comprehensive revision of its *Public Health Act*, creating 10 health districts (although three in northern Ontario were "left in abeyance"). Each district would have

full-time medical officers of health, who would be "paid a reasonable salary fixed by law" and be independent of municipal control, provided they pass a post-graduate course at the University of Toronto's Department of Hygiene. Similar health districts were created in Quebec and Saskatchewan, while Manitoba strengthened its control of infectious diseases and provided free supplies of smallpox vaccine and diphtheria antitoxin.³²

In the spring of 1913, **John A. Amyot**, Director of the Ontario Provincial Laboratories and Professor of Hygiene at the University of Toronto, invited **John G. FitzGerald** to assume the position of part-time Associate Professor of Hygiene and produce the first made-in-Canada supply of the rabies treatment. FitzGerald built a small backyard stable and lab so he could make the antitoxin available at a much lower cost than was being paid for the imported

Prohibition

In 1901, Prince Edward Island became the first province to prohibit intoxicating beverages and the rest of the country followed suit during the First World War. Alcohol could be purchased through government dispensaries for exceptions, such as scientific, industrial, artistic, sacramental and medicinal uses. Prohibition culminated decades of effort by the temperance movement and much of Canada was "dry" before the war by local plebiscite. However, illicit alcohol was widespread and manufacturing resumed after the war as bootlegging and speakeasies proliferated. Quebec was the first to overturn prohibition in 1919 and rest of the country gradually followed suit in the 1920s, except Prince Edward Island—"the last bastion"—until 1948.

-Canadian Encyclopedia Online

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antitoxin. After McCullough expressed Ontario's interest in purchasing the antitoxin, FitzGerald convinced the University of Toronto Board of Governors to establish the Antitoxin Laboratory in the Department of Hygiene with the assistance of Robert D. Defries, the first to graduate with a Diploma in Public Health from the School of Hygiene in 1914. FitzGerald continued to direct the laboratory after enlisting in the military in 1915, where he was assigned to take charge of the Bacteriological Unit at the Camp Niagara. In February 1916, the Ontario Board of Health began distributing the Antitoxin Laboratory's products for free and made it the official source of public health biological products in Ontario, practically eliminating commercial firms competing in the province. With new buildings constructed with money donated to the university by Toronto Distiller, Colonel Albert E. Gooderham, the laboratories were named the Connaught Antitoxin Laboratories after his friend and then former Governor General, and CPHA Patron, the Duke of Connaught.³³

Ongoing Challenges

After the First World War began in August 1914, the Canadian Public Health Association's annual meeting was cancelled. Physicians and nurses were called into military service in growing numbers and the public health field struggled with limited personnel to manage ongoing challenges, including polio, venereal disease and influenza. Uncertainties persisted about the financial health of CPHA and the *Public Health Journal*. CPHA's annual meetings resumed in 1915, but it was clear that the journal's subscriber base was declining and an effort to expand its readership by including literary articles, poetry and profiles of Canadian artists was unsuccessful. In 1916, Anderson and Coulter gave up their editor positions and left the York Publishing



John Gerald FitzGerald

Founder of Connaught Laboratories and School of Hygiene, University of Toronto

Born in Drayton, Ontario on December 9, 1882, Dr. John Gerald FitzGerald graduated from the University of Toronto

in 1903. While studying at the Pasteur Institutes in Paris, Brussels and Freiburg, he visualized the possibilities of an antitoxin centre in Canada and then developed Connaught Laboratories, which served as one of the country's most active research laboratories. Another great achievement which lies to his credit is the School of Hygiene at the University of Toronto. He served as a member of the Health Committee of the League of Nations from 1930 to 1936 and gave his time to many national, provincial and local organizations. He was a charter member of the Dominion Council of Health and served on the executive of the Canadian Public Health Association and the Canadian Medical Association, Dr. FitzGerald was for many years a regular attendant at Dominion Health Council meetings and his contributions to their proceedings were greatly valued.

-Canadian Journal of Public Health, Vol. 31, No. 8, August 1940

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Company. **Gordon Bates** volunteered to assume the editorship, but substantive financial support was needed for the journal to survive. At CPHA's annual meeting in September 1917, 10 members led by FitzGerald pledged their personal financial support to keep the journal and York Publishing afloat.

Beginning in July 1916, one of the most severe polio epidemics ever seen developed in the north eastern United States, causing some 27,000 cases and 6,000 deaths. Cases were soon reported north of the border, raising considerable alarm among Canadian public health authorities. McCullough and FitzGerald traveled to Windsor, Ontario to investigate a significant outbreak where 38 cases and one death had occurred. While it was thought to be of a "rather mild nature," a report presented to a conference of Ontario officers of health, described the Windsor polio epidemic as "one of the worst calamities that had ever befallen our city." A strict quarantine was imposed, "thereby quarantining the wage earner. By quarantining these families in such a drastic measure, we were obliged to feed all these people, costing our city an immense sum of money, but money, I dare say, well spent for the protection of our people." 35

Dominion Director-General of Public Health, **Frederick Montizambert**, monitored the polio situation from his office within the Department of Agriculture, receiving regular updates from the Superintendent of Immigration, provincial and local officers of health and American doctors and health officials. In mid-July, Canadian quarantine regulations were amended to include polio.

Pressure built on the federal government to do more "to protect the Dominion from invasion of the disease." Federal border inspectors in Kingston, Ontario, began to check for medical certificates for children entering Canada from the United States. While the American crisis abated in October, an alarming polio outbreak in Montreal prompted Ontario to apply provincial border restrictions against Quebec. In early November, Montizambert felt that



Well Baby Clinic,
St. Christopher House,
1915

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"all these matters keeping the feelings and fears of our people so keenly alive that I do not think it would be wise to recommend any modification of our regulations for the present." However, all border restrictions were lifted at the end of the month.

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Venereal Disease

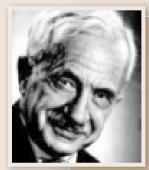
The threat of venereal diseases became a dominant issue as the war progressed.

An estimated 28.5% of Canadian troops were infected by venereal diseases in 1915.

Public interest spiked after a report by the British Royal Commission on Venereal Diseases in February 1916 said some 13% of public ward patients at Toronto General Hospital had positive tests for syphilis. In May 1916, the *Public Health Journal* began to dedicate considerable attention to the subject of venereal disease, including a detailed article on medical measures taken by the Royal Navy to prevent syphilis and gonorrhea, based on a paper presented to the Sanitary Inspector's Association of Western Canada.³⁷

With his new position as Editor of the *Public Health Journal*, Gordon Bates, who was also the Officer in Charge of the Venereal Disease Section at the Base Hospital for Military District Number 2 in Toronto at the time, used the platform to lead a Canadian campaign against venereal disease and what were seen as related threats, such as feeble-mindedness, alcohol and prostitution.³⁸

The high incidence of syphilis prompted a delegation of Toronto physicians to take their concerns to the Commission of Conservation in January 1917, in hopes of prompting some federal action. The Commission members were impressed by what they heard about what other countries were doing, particularly Australia's comprehensive 1915 venereal diseases legislation. The Commission asked the Toronto Academy of Medicine to demonstrate that the Canadian medical profession supported legislative action, so Bates chaired a meeting



Gordon Bates

Founder and Director of the Health League of Canada

Dr. Gordon Bates was the long-serving Founding Director of the Health League of Canada and a

rough-and-tumble crusader for public health. Alarmed by the syphilis and gonorrhea rates in Canada during World War I, Dr. Bates became the first Canadian physician to use the words syphilis and gonorrhea in public speeches. His activities led to pioneer legislation in Ontario for the control of VD as well as the establishment of hundreds of clinics. Dr. Bates' persistent badgering of health authorities led to compulsory pasteurization of milk in Ontario and Saskatchewan, as well as hundreds of municipalities. In 1930, he formed a Diphtheria Toxoid Committee in Toronto to show that diphtheria could be banished by using immunization effectively. Dr. Bates also succeeded in making a national issue of the fluoridation of water.

-MacLeans, November 26, 1955

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and published an extensive report in the *Public Health Journal*. Recommendations included applying to the general community the same type of efficiency the military used to diagnose, treat and prevent venereal diseases, free diagnostic and treatment services, and a broad public education campaign. Bates' work at the Base Hospital focused on increasingly detailed examinations and case histories of troops being treated in Toronto, tracking down when, where and from whom—whether prostitutes or "pick ups"—they contracted venereal disease from. This investigative work led to "certain conclusions as to the social conditions surrounding infections in Toronto, Hamilton" and particularly Montreal, where "we have the recital of details of the most flagrant and vicious prostitution of such a degrading character that I cannot describe them in this paper." Bates "found no evidence of what might be called organized vice in Toronto," which was "much to the credit of our energetic police department."39

Bates was determined to bring the details of the venereal disease problem to the general public, through newspapers, public lectures, motion pictures and any other medium possible. As his obituary in the *Globe and Mail* noted, "Bates was the first Canadian physician to use the words syphilis and gonorrhea in public speeches. He nagged newspaper editors until they admitted the words to their news and editorial columns."40 The Globe newspaper in Toronto, for example, reported in frank detail Bates' presentation on venereal disease before the 1917 Annual Meeting of the Canadian Public Health Association in Ottawa. One of Bates' most important allies was Ontario's John McCullough, who developed a set of regulations in 1917 for the Provincial Board of Health to control venereal diseases, along similar lines as Manitoba in 1910 and Saskatchewan in 1914. In January 1918, Bates provided McCullough with a platform in the Public Health Journal for the Provincial Board of Health to "contribute a few pages of material each month of particular interest to the Medical Officers of Health," venereal diseases dominating the reports during the first year.41

"Sexual intercourse is not necessary to preserve health and manly vigor. The natural sexual impulse can be kept under control by avoiding associations, conversations and thoughts of a lewd character."

Manual of Military Training (Moss)

Sanofi Pasteur Limited, Connaught Campus, Archives

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In 1918, following the deliberations of the Ontario Royal Commission on the Care and Control of the Mentally Defective and Feeble-Minded and the Prevalence of Venereal Disease, McCullough facilitated the passage of the province's comprehensive *Venereal Disease Prevention Act*, modeled on Western Australia's 1915 legislation. Social hygiene was based on psychiatric and medical theories that linked amoral "abnormal" sexuality with dubious measures of intelligence. Charles Clarke popularized his research from the

click to enlarge image

Toronto Psychiatric Clinic that claimed over 75% of prostitutes were "feeble minded" and that the "immorality" of sexually-active factory girls was linked to their "low mental capacity." Provincial venereal disease legislation focused on syphilis, gonorrhea and chancroid and gave public health the power to detain women suspected of having venereal disease. Those infected were required to seek professional medical treatment through provincially-funded hospitals and the provincial government or its agents were to be the only source of educational literature, a measure aimed at patent medicine vendors and medical quacks. 43

In the meantime, Bates, along with FitzGerald, had led in the formation of an Advisory Committee on Venereal Diseases for Military District No. 2 in August 1917. With the activities of its various sub-committees extensively published in the *Public Health Journal*, this committee assembled interested physicians, the National Council of Women, the Young Men's Christian Association (YMCA), the Young Women's Christian Association (YWCA), and the military to focus on educational, publicity, and legislative efforts. By the end of 1918, this advisory committee had launched a "nation-wide campaign against vice," although an official Canadian National Committee for the Control of Venereal Diseases would not be established until May 1919.⁴⁴

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"Spanish" Influenza

One reason for the delay in setting up a national venereal disease organization was the unprecedented national public health crisis brought on by the Spanish influenza epidemic sweeping across Canada in the fall of 1918. The Spanish flu pandemic of 1918–1919 had little to do with Spain, but was so named because it was first widely reported in that country. The new and unusually deadly influenza strain originated in China in February and likely first spread to France via a group of transient workers. The war provided an ideal environment for the flu to infect, multiply and spread across the globe with remarkable rapidity. It reached the United States in March 1918, appearing in a Kansas military camp. Troop, hospital and civilian ships sailing from England into Grosse Isle, Montreal and Halifax were the main routes of infection into Canada by late June and early July, followed by spread across the country via the railway in the summer. By the time the pandemic eased, at least one-sixth of the Canadian population, predominately young adults, had been stricken and 50,000 died, accelerated by complications from infections such as pneumonia. Quebec and Alberta were the most severely affected provinces. Indigenous communities were especially hard hit by the epidemic. The Department of Indian Affairs reported 3,694 deaths out of a national Indigenous population of 106,000—a mortality rate five times the national average. Influenza was so severe among the Haida living on islands off the north coast of British Columbia that entire settlements were wiped out.45

Influenza was not a reportable disease in Canada and most provinces recognized the impracticality and unenforceability of strict quarantine measures. With little understanding of its viral cause—the influenza virus was not isolated until 1933—the severity of the epidemic was not recognized in Canada until late September, when major outbreaks had occurred in most parts of the country and beyond. Local and provincial health authorities, already hampered by significant shortages of medical and nursing, saw many health workers



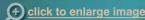


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fall ill to the flu. There was little that could be done to prevent, control or treat the disease, despite some misguided efforts to use surgical masks in the community. Torontonians, for example, were advised by their medical officer of health "against doing anything that will lower their vitality. People should secure proper nourishment, proper rest and sufficient exercise as a preventive." As was noted at a meeting of the American Public Health Association during the height of the epidemic, "in the face of the greatest pestilence that ever struck this country we are just as ignorant as the Florentine were with the plague described in history." 47

National Coordination

The end of the war in 1918, coupled with the influenza pandemic and the persistent venereal disease threat, brought growing pressure from national organizations with an interest in health for the establishment of a federal department. On the suggestion of military authorities, Prime Minister Robert Borden called a national conference in Ottawa on February 3, 1919 to organize a national Social Hygiene program aimed at controlling venereal diseases. This conference set in motion the political process that led to the drafting of legislation creating a federal department of health. Attending the conference were most provincial officers of health, as well as several provincial and federal cabinet ministers and officials, along with key leaders of the social hygiene movement. The conference's principal resolution said, "It is in the interests of the future health and life of the Citizenship of Canada that there should be immediately established a Federal Department of Health." The conference called for a shared 3:1 federal-provincial funding arrangement for the treatment of venereal diseases, "supplemented by the further development of the machinery necessary to enforce it." On February 20, 1919, the Speech from the Throne formally committed the federal government to create a Department of Public Health.

The Halifax Explosion

Just after 9 a.m. on December 6, 1917, a French ship loaded with munitions and TNT exploded in the Narrows of the busy Halifax Harbour. Halifax, population 50,000 was bustling with wartime activity when the largest explosion ever seen threw debris and obliterated everything in two square kilometres. About 1,500 were killed by day's end, many trapped in buildings, ensuing fires, or drowned in the tsunami created by the blast. About 9,000 people were injured and emergency personnel worked without stopping until relief came from nearby civilian and military resources. The Red Cross, Salvation Army and Saint John Ambulance shifted their efforts from overseas to the home emergency and local doctors performed surgeries on their kitchen tables.

-www.cbc.ca\halifaxexplosion



Victorian Order of Nurses, Halifax, 1917

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In early April 1919, this bill was first presented in the House of Commons by N.W. Rowell, who would later be named the first Minister of Health after the bill was passed in late May. It included provisions for "the conservation of child life and child welfare," the medical inspection and care of immigrants, the medical supervision of all methods of transportation under federal jurisdiction (such as the railway), and the "collection, publication and distribution of information to promote good health, and improved <u>sanitation</u>." The bill also created the Dominion Council of Health, made up of the federal Deputy Minister of Health, the provincial chief officers of health, and five appointed members, including representatives from organized labour, women's groups, social service agencies, agriculture and universities. The new federal Deputy Minister of Health, John A. Amyot, was named chair of the Dominion Council of Health, and he began building a new department, which excluded senior officials who had overseen health matters in other federal departments, such as Frederick Montizambert and Peter Bryce.

The 1919 annual meeting of the Canadian Public Health Association in Toronto was characterized as galvanizing the new Department of Health into action, as some of the Ottawa authorities were invited to hear CPHA views on fighting venereal disease. A Social Hygiene Conference held in Ottawa in May urged the federal government to provide provincial subsidies for fighting venereal diseases and to remove all restrictions on the importation, manufacture and sale of products used in the treatment of syphilis. These resolutions were quickly acted upon and the federal government permitted the Ontario Board of Health to manufacture arsenical products to treat syphilis and budgeted \$200,000 for combating venereal diseases. Of this amount, the Dominion Council of Health recommended \$10,000 be kept by the Department of Health for VD supervisory work and \$10,000 be granted to the new Canadian National Council for Combating Venereal Diseases "for educational and propaganda work." The balance should be divided among the nine provinces on a per capita basis, "on condition that each province vote a like sum for the same work."



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The new shared federal-provincial funding and enthusiasm for implementing a broad social hygiene program for venereal disease control would dominate the Canadian public health agenda during most of the early 1920s. At the same time, fuelled by the devastation of the war, the priorities of the Canadian public health community were driven by urgent demands for improvements in child and maternal health. After a decade dominated by war and plagues, public health leaders entered a new decade seeking to improve the health and education of mothers, sanitary conditions at home and school, and food safety with the support of new public health tools and financing from government.