Results of Venereal Disease Control in Canada*

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THE venereal disease control movement in Canada began during the Great War. Previous to the war factors had begun to operate which were calculated ultimately to call the problem to public attention. The most potent of these was the discovery of the Wassermann reaction. The gradual application of this test, especially in institutions, revealed that syphilis was far more prevalent than anyone had suspected. One recalls that in pre-Wassermann days the relationship between such conditions as aortic aneurysm, general paralysis of the insane, and tabes dorsalis with syphilis were not considered to be invariable. With the development of the Wassermann technic the relationship was confirmed but in addition positive diagnosis was established in thousands of other cases and the discovery of additional thousands of cases of entirely unsuspected disease created a growing appreciation of the fact that in syphilis we had a problem of major public health importance. There was also a growing appreciation of the seriousness of gonorrhea as a major cause of disability. In 1913, a group of British physicians, headed by Sir William Osler, Regius Professor of Medicine at Oxford, and Sir Clifford Albutt, Regius Professor at Cambridge, wrote a letter to a morning newspaper in London, England, calling attention to the need for governmental action. The result was the Sydenham Royal Commission appointed by the Asquith Government which sat for 3 years and brought in a startling report in April, 1916.

Evidence was presented to this Royal Commission to the effect that 10 per cent of persons living in cities in Great Britain were infected with syphilis, that there were 100,000 fresh infections of this disease a year, and that gonorrhea was much more prevalent than was syphilis. The two diseases were responsible for an enormous amount of disability, and the beds of hospitals, insane asylums, and institutions for the blind and defective were filled by thousands of their victims. The rôle of syphilis as a major cause of death was recognized.

While interest in the subject was rapidly growing war broke out. During previous wars scientific knowledge had not progressed enough to suggest particularly strenuous methods of control, but in the Great War venereal diseases were from the beginning treated as a serious problem. The routine Wassermann was not instituted as a means of keeping syphilitics out of the army, and many syphilitics became soldiers. Regular inspection resulted in the detection of many new

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cases of gonorrhea and syphilis in enlisted men. All cases when discovered were promptly isolated and treated. Venereal disease hospitals were erected, and in every army the segregation of thousands of venereal cases provided visible evidence that the prevalence of venereal disease seriously interfered with army efficiency.

It was also realized that all of these cases originated in the civil population and in order to prevent fresh infection methods were evolved to trace and treat civil cases. The use of the so-called social case sheet in connection with investigating the origin of infection in soldiers made it possible in the Province of Ontario to arrive at an estimate of the prevalence of the two diseases.

In 1916, a deputation from Toronto to the Canadian Conservation Commission submitted that 12.8 per cent of patients in the Toronto General Hospital showed a positive Wassermann reaction. The following year, 1917, routine Wassermann reactions in Montreal General Hospital showed that 26 per cent of the patients in that hospital were infected. The seriousness of the situation both in military and civil life resulted in the appointment of a Royal Commission on Venereal Diseases in Ontario, and in 1918 the Ontario Legislature passed the Ontario Act for the Prevention of Venereal Diseases. This legislation provided a standard type of legislation upon which legislation in most other provinces was based.

There has been much discussion of the results of the Scandinavian program and of Scandinavian legislation. Typical Canadian legislation included most of the characteristic features of the Scandinavian law. Legislation of nearly all of the provinces included a provision whereby the physician was required to report cases of venereal disease to the local health authority by number. Where the patient neglected treatment the physician was instructed to report the case by name, whereupon the medical officer of health was empowered to give such direction for the treatment of the patient and, if necessary, for his detention, isolation, and prevention of infection from him, as he deemed necessary and as authorized by regulations which were subsequently drawn up. Persons under arrest or in custody could be examined by the medical officer of health and treatment carried out under his direction. Another important section of the typical venereal disease legislation provides that where the medical officer of health is credibly informed that any individual is infected with venereal disease and may infect others, steps may be taken to ascertain the condition of such person and institute treatment if necessary.

Hospitals are required to make effective provision for the examination and treatment of venereal disease. Persons other than legally qualified medical practitioners are forbidden to treat venereal disease. The advertising of venereal disease remedies is forbidden.

Under various venereal disease acts, of which the above provisions are typical, most of the Canadian provinces undertook to place venereal disease in a category similar to that in which other communicable diseases are placed. Venereal disease literature of a standard character was printed in most of the provinces in order that the personal education of the venereal disease patient might not be neglected. It was felt that the Canadian legislation was at least as adequate and far reaching as any other for the control of these sinister maladies.

Legislation, however, was not sufficient to control venereal diseases. It was necessary to provide clinics for the thousands of patients who were likely to apply for diagnosis and treatment, lacking the necessary funds to pay for it. In addition we had scarcely emerged

from the stage where it was considered highly improper to use the words gonorrhea or syphilis in public. Obviously people in general knew little or nothing about the signs or symptoms or seriousness of venereal diseases. Even if infected they were unlikely to realize the importance of prompt and efficient treatment. An educational campaign was necessary.

Partly because public opinion was aroused and to a degree because of the interest of a far-sighted member of the Dominion Cabinet, the Honourable N. W. Rowell, first Minister of Health for Canada and now Chief Justice of the Supreme Court of Ontario, a conference was called in Ottawa, May, 1919, for the discussion of a national venereal disease control program. All Provincial Chief Officers of Health, as well as representatives of many national organizations, were present.

There had been in the United States a fine wartime venereal disease control program. The Chamberlain-Kahn Bill had provided what seemed to be the beginning of a fine civil program. Secretary of War Baker kindly sent two army officers to the Canadian conference to describe the activities commencing in the United States—and largely because of the fact that the Chamberlain-Kahn Bill had provided for state subsidy in this field, at the Canadian conference the sum of $200,000 annually was set aside out of Dominion funds for this purpose:

1. The maintenance of a Division of Venereal Diseases at Ottawa
2. The partial subsidy of a voluntary association to undertake public education
3. The making of grants to the various provinces in proportion to their population and on condition that each province spend in addition an amount equal to their Dominion grant.

This Dominion-wide scheme came into existence simultaneously with the establishment of the Dominion Department of Health in 1920.

The subsidizing of a voluntary organization was an extremely important part of the plan. It was felt that in the absence of organized public opinion a change in the federal government might easily result in a Dominion administration unfriendly to Dominion participation in the scheme or that failure to keep the public fully informed as to the need for the continued appropriation of public funds for venereal disease control might result in an apathy which would destroy the scheme with equal effectiveness. Therefore it was resolved to make no mistake about insuring the continuance of organized public education. This was a definite part of the scheme which resulted in the machinery of the plan remaining intact for 11 years. The Canadian scheme came into effect to a degree as the result of the example set by the United States in their fine wartime plan and by the possibilities which seemed to be opened up by the Chamberlain-Kahn Bill. It preceded the present splendid coördinated plan in the United States by 15 years.

The expenditure on venereal disease control in Canada, with a population of 10,000,000, amounted to $400,000 annually by the Dominion and the provinces alone for a number of years. The amount of Dominion grants for venereal disease control was later reduced and, in 1931, as the depression became acute and partly as a result of the depression, the Dominion grants were discontinued altogether. Later the grant to the voluntary association, now known as the Health League of Canada, an organization with a broad program of health education, including venereal disease, was restored in part and a grant of $50,000 was made this year (1938) by the Dominion to pay for drugs used by the provinces in the treatment of venereal disease. It is

hoped that this action by the Dominion Government indicates the renewal of Dominion leadership in this field.

The assumption of Dominion leadership in Canada, in 1920, in the venereal disease control program, had immediate effects. The provinces stimulated by the financial support of the Dominion Government immediately commenced to organize special departments under specialist officers. Clinics rapidly sprung into existence in all of the provinces so that, while previous to the development of the Dominion-wide scheme there were a few scattered clinics and no coördinated action, soon all provinces were coöperating. Shortly there were a hundred clinics in operation and the number of treatments increased year by year. The machinery of clinic management including social follow-up methods progressively improved.

The voluntary association which from the beginning was an integral part of the scheme was for the first year of its existence called the National Council for Combating Venereal Disease. This organization took the lead in the necessary educational program. Chief officers of health for the province became executive members of the association and with prominent citizens, lay and medical, assisted in the public spreading of information on all phases of the subject. The utilization of a moving picture, "The End of the Road," a wartime film developed through the coöperation of the American Social Hygiene Association and the Young Women's Christian Association, shown to hundreds of thousands, was instrumental in attracting thousands of patients to the newly established clinics.

An arrangement with the distributing company whereby the words, "venereal disease," must be used in all advertising copy in all parts of Canada soon accustomed Canadian newspapers to the frank discussion of a subject which had previously been studiously avoided, in both news and editorial columns. As a result of this early arrangement there has been for many years now little tendency on the part of Canadian newspapers to avoid the frank discussion of the Venereal Disease problem. In the second or third year of the scheme the voluntary association, by this time known as the Canadian Social Hygiene Council, was fortunate in procuring the services of Mrs. Emmeline Pankhurst, the famous leader of the Suffrage Movement in England. Mrs. Pankhurst, a great and sincere woman, for several years a member of the staff of the Canadian Social Hygiene Council, made a wonderful contribution to the cause. Campaigns were organized in which Dr. J. J. Heagerty, at that time Director of the Venereal Disease Division at Ottawa, Mrs. Pankhurst, the General Secretary of the voluntary association, and provincial health officers addressed great meetings in various parts of Canada. Campaigns instituted throughout the Dominion using these methods at this time were extraordinarily successful in enlisting public sympathy and support.

An unusual type of campaign was instituted in the Province of Quebec. In this province it was decided to depend almost entirely on a voluntary scheme. No very definite legislation was put on the Statute Books. Instead Dr. A. H. Desloges, Director of the Division of Venereal Diseases, instituted a unique method of obtaining public coöperation and developing his educational campaign. In the Province of Quebec we have a population composed largely of French-Canadians of the Roman Catholic faith. A direct appeal was made to the Church for cooperation in a great campaign of enlightenment. The response was prompt and striking. Meetings were arranged in all parts of the province presided over by priests, bishops, and even archbishops. Competent medical men lec-

tured, films were shown, and literature was distributed.

Organization of centers for free treatment was developed and trained physicians administered treatment.

I refer to this coöperation of the Roman Catholic Church in Quebec because I believe it to be unique in the history of organized educational methods for the control of this particular type of disease. Meanwhile work was carried on throughout the other provinces of Canada, all of which coöperated in the coördinated scheme under Dominion leadership.

The Canadian scheme had 3 essential factors:

1. Federal leadership resulting in coöperative action among the Dominion, the provinces, and municipalities.
2. A strong voluntary association to keep up a continuous educational program. This educational program not only educated the individual to seek treatment if infected, but it induced the tax payer to endorse the expenditure of public funds on venereal disease control.
3. Adequate legislation in all but one province.

This plan was continuous between 1920 and 1931. The withdrawal of federal grants in 1931 might well have been calculated to wreck the entire Canadian scheme. However, the passage of years had meant the stabilization of provincial efforts and the result was that although the provinces were compelled to carry on by themselves, and although in some cases budgets were reduced, still venereal disease control work continued throughout the whole of Canada.

The voluntary association lacked government subsidy in the lean period, yet managed to develop the moving picture, " Damaged Lives," which since 1933 has been shown in practically all English speaking countries as well as in some others. This year this picture is reported as showing for the first time in South Africa, Singapore and the Straits Settlements, the Philippines, India, and China. As a result of the Canadian scheme we have records of the treatment of several hundred thousands in clinics, and although the reporting by physicians has been inadequate, unquestionably many other thousands have sought treatment from private physicians who otherwise would not have done so.

It is extremely difficult to appraise the results of a venereal disease control plan as statistics in this field are likely to be misleading. Surveys have been done by the Canadian Social Hygiene Council, now the Health League of Canada, in 3 cities—Toronto, Winnipeg, and Ottawa. The first surveys showed a lower incidence in Toronto and in Winnipeg than in 17 American cities surveyed at about the same time, in 1929. Subsequent surveys have brought out some extremely interesting results. The last two surveys done in 1937 were in Toronto and Ottawa. These surveys undertaken by a joint Committee of the Health League of Canada and the Academy of Medicine were carried on by writing circular letters to all practising physicians and to all clinics and all institutions in an attempt to ascertain the number of cases of gonorrhea and syphilis under treatment at one time. The Toronto survey and the Ottawa survey showed approximately the same percentage of venereal disease in the population. For example, the rate of incidence of the two diseases in Ottawa was 9.95 per 1,000 population as compared with 9.56 per 1,000 in Toronto. The total number of cases of syphilis and gonorrhea reported through the survey in Toronto, in May, 1937, showed 6,188 in an estimated population of 645,462. There were 3,639 cases of syphilis and 2,549 of gonorrhea, rates of 5.6 and 3.94 respectively per 1,000 population.

The first survey done in Toronto was in 1929 and since that time the actual

number of cases under treatment had increased, but there was a remarkable change in the type of case under treatment. In the 1929 survey there were 909 cases of "early" syphilis under treatment. In 1937 this number had been more than cut in half. There were 433 cases under treatment.

In 1929 there were 2,259 cases of "late" syphilis under treatment. In the 1937 survey this number had increased to 3,266. In other words there was an actual decrease in "early" cases under treatment of over 50 per cent, and an increase in the number of "late" cases under treatment of considerably over 50 per cent. It is a little difficult to understand what such statistics mean unless one considers them side by side with the records of the results of routine Wassermanns in institutions. Table I gives the record of syphilis in Toronto General Hospital, 1916–1935.

TABLE I

Routine Wassermanns Positive in Toronto General Hospital

	Per cent		*Per cent*
1916.....	10.4	1926.....	4.5
1917.....	9.95	1927.....	3.8
1918.....	5.9	1928.....	3.5
1919.....	8.8	1929.....	3.2
1920.....	9.0	1930.....	3.4
1921.....	6.3	1931.....	2.7
1922.....	6.0	1932.....	2.5
1923.....	6.2	1933.....	2.5
1924.....	5.6	1934.....	1.7
1925.....	5.8	1935.....	1.5

In the same time in the nearby hospital for Sick Children the percentage of routine Wassermann tests which were positive fell from 5 per cent to less than 1 per cent. In St. Michael's Hospital, Toronto, the percentage of positives over the last 5 years has averaged 2.03 per cent. In Kingston General Hospital in Eastern Ontario the latest report is 1.3 per cent.

Considering these statistics with the statistics concerning the number of early and late cases under treatment, one is forced to the conclusion that in the period under review there has been a marked fall in early syphilis. In addition, hospital statistics prove that there is much less late syphilis. In spite of this a greater number of cases of late syphilis are under treatment. One must conclude that the detection of late syphilis, particularly by means of the routine Wassermann reaction, has improved.

Dr. Parran [1] in discussing a paper by Dr. Einar Rietz, Commission of Health in Stockholm, Sweden, states that in the Rigs Hospital in Copenhagen, the Dean of the Medical Faculty and Professor of Obstetrics, said that among nearly 2,000 deliveries over 3 years the number of cases of syphilis as shown by routine Wassermann tests and careful histories, varies from 30 to 35 per year. A recent survey in the Lying-in Hospital of Toronto General Hospital showed that in 1,000 successive pregnancies the Wassermann was positive in but 3 cases. Apparently the Copenhagen rate was 1.7, the Toronto rate 0.3.

After every great war in history the late end results of syphilis have become more evident. The Canadian Department of Pensions and National Health stated that shortly after the war two reliable sources of information, one European and the other American, forecast that 2.5 to 4.5 per cent of syphilitics would have developed tabes or general paralysis of the insane in 20 years from the date of initial infection but that as a matter of fact only 0.5 per cent of known cases of syphilis in the Canadian Expeditionary Force have developed either of these serious nervous system sequelae. Similarly there has been a marked decrease in congenital syphilis and in other end results such as heart disease of syphilitic origin. I can find no evidence whatever that there has been any decrease in gonorrhea.

There are many other additional evidences of decrease in syphilis. University medical schools report the greatest difficulty in finding primary cases of syphilis to demonstrate to students. Dr. Harold Orr of the Social Hygiene Division of the Department of Public Health of the Province of Alberta, reports that the incidence of syphilis in Alberta jails has been reduced from 16 per cent in 1920 to 4 per cent in 1937. He states that in a clinic in Edmonton during the past year there has only been one primary sore and not a single case of secondary syphilis.

I believe that I am correct in saying that up to 1931–1932 in spite of deficiencies which might be demonstrated Canada had a venereal disease control scheme which was second to none in efficiency. The withdrawal of Dominion grants in 1932 had a serious effect on the venereal disease control scheme in Canada. These grants by the Dominion Government to the provinces were withdrawn in the face of recommendations made by the groups of specialist clinicians representing all of the provinces, called in conference in different parts of Canada. A review of the recommendations is interesting in that they summarize a number of the essentials for venereal disease control in the future.

The Canadian Conferences of Clinicians (specialists in the venereal disease field) recommended as follows:

1. That intensive propaganda and education in this field be continued and that the value of concerted action throughout the Dominion be emphasized.

2. That more attention be paid to the personal education of venereal disease patients in order to insure continuous attendance.

3. That clinics be kept open from 8 a.m. to 12 p.m. in order to provide for early treatment (within 8 hours after exposure).

4. That methods be evolved to insure the continuous treatment of transient patients by providing them with a form upon which records of treatment given them may be inscribed by successive clinics or physicians.

5. That the problem involved in the treatment of indigents in rural areas be dealt with by provincial departments of health.

6. That provision for fever treatment of cases of general paralysis of the insane be provided in all large general hospitals.

7. That in view of the fact that many physicians still give voluntary service in venereal disease clinics provision be made for the proper remuneration of all physicians attached to venereal disease clinics.

8. That all venereal disease clinics be equipped with darkfield apparatus for the diagnosis of primary syphilis and that all hospitals with venereal disease clinics procure such apparatus.

9. That in view of the ever increasing number of patients attending genitourinary clinics showing the effects of mal-treatment of gonorrhea, teaching of medical schools of this subject be improved.

10. That similar facilities for the improved teaching of syphilis be established and that special reference be made to darkfield examination.

11. That the inclusion of specific questions on the subject of gonorrhea and syphilis in the annual examinations in medicine and surgery would be a distinct contribution in the campaign against venereal disease.

12. That medical associations be asked to include papers on venereal disease in their programs for meetings.

13. That meetings of specialist clinicians be held once a year possibly in connection with the meetings of provincial medical associations at which the latest methods and information on the subject might be discussed.

14. That a specific publication for the instruction of physicians in all phases of the question of venereal disease be developed.

These are but some of the recommendations which were brought forward as essential to the further development of the Canadian venereal disease control scheme and in order that these recommendations might be made effective it was urged that the contribution of the Dominion Government to the plan be increased.

I am able to report that there has been a renewal of interest, that this year for the first time since 1932 the Dominion Government has made a contribution to the scheme in the form of

payment for drugs used in treatment in clinics. This amounts to $50,000.

A committee of the Health League of Canada has completed a book of instruction for the guidance of the physician which will be issued generally to physicians by the Dominion Department of Health. Plans for the carrying on of treatment in rural areas have been improved by the provision in some provinces of funds for the payment for treatment of indigents by private physicians, and necessary drugs are provided free. The provision of facilities for taking specimens for darkfield examination in outlying districts and transportation of such specimens to a central laboratory in a convenient mailing packet has facilities for diagnosis of early syphilis in remote areas.

Many of the improvements in the Canadian scheme still remain to be achieved. We have had a fine coöperative effort which has accomplished a great deal, yet we must acknowledge that during the last few years the progress which was characteristic of the early years of the movement has not been made. Essential and specific improvements in the scheme are suggested by the recommendations of physicians especially interested in the ultimate success of the venereal disease program, a few of which are described in this paper. Venereal diseases are controllable although as a problem they are more difficult to deal with than are most of the other major problems in public health.

Both in the United States and in Canada these dangerous maladies are a national problem, common to all states and all provinces. As such they deserve the attention of federal authorities. I believe that we have proved in Canada that under Dominion leadership a great deal can be accomplished. With the fine coöperative scheme you have developed in the United States you are achieving similar results. I suggest that *only* under central leadership can such a problem be effectively dealt with.

Syphilis, toward the end of the Great War, was characterized by Sir William Osler as the greatest single cause of death among the infections. This meant that he considered that syphilis as a killer outranked tuberculosis, cancer, and pneumonia. As a matter of fact syphilis for a time in England was characterized as the "great killer." Syphilis in Canada is no longer the great killer. Hospital statistics prove that. Yet, syphilis we still have with us in spite of a yearly reduction in the incidence of primary cases, and the fact that in 1936 392 fresh cases of general paralysis of the insane were admitted to Canadian hospitals for the mentally ill, is proof that syphilis, although many of its end results have been almost eliminated, still does a great deal of damage. As for gonorrhea, serious though the disease is, there is little evidence that its incidence has been reduced either in Canada or elsewhere.

I believe that the future holds great possibilities not particularly because the seriousness of venereal diseases alone is recognized but because of the fact that it is becoming more generally recognized that most illness is preventable, that there is no logic in filling expensive hospital beds with people who should not become ill and cemeteries with the bodies of those who should still live. As nations recognize the fact that their greatest asset is long-lived healthy and efficient men and women, and as we build machinery for the preservation of health on a national scale these most tragic of maladies will disappear with the rest of the unnecessary germ-borne maladies which have destroyed the health and shortened the lives of humans in the past.

REFERENCE

1. Parran, Thomas. *A.J.P.H.*. 26, 4:329 (Apr.), 1936.