


## REPORT

 OF THE Massachusetts-Halifax Health Commission With AppendicesOCTOBER 1919
TO
SEPTEMBER 1924

HALIFAX, NOVA SCOTIA April 30Th, 1925

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# MASSACHUSETTS-HALIFAX HEALTH COMMISSION 

G. Fred Pearson, - - - Chairman.<br>Hon. Richard G. Beazley, - - Vice-Chairman.<br>Mr. Justice T. Sherman Rogers.<br>Judge William B. Wallace.<br>Arthur C. Jost, M. D.<br>H. Allison Payzant, M. D.<br>William Patrick Mackasey, M. D.<br>Hugh R. Silver.<br>Joseph L. Hetherington.

Acting Chief Executive Officer, Thaddeus M. Sieniewicz, M. D.
Secretary to the Commission, Frances Jean Lindsay, B. A.

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# MASSACHUSETTS-HALIFAX HEALTH COMMISSION STAFF 

September 30, 1924.

## CENTRAL OFFICE:

T. M. Sieniewicz, M. D., - - Acting Chief Executive Officer. F. Jean Lindsay, B. A., - - Secretary to the Commission. Annie Spear, - - - - Office Secretary.

CONSULTING STAFF.
Dr. John Stewart, - - - Surgery and Venereal Disease.
Dr. Arthur Birt, - - - Medicine.
Dr. S. J. MacLennan, - - Nose and Throat.
Dr. R. E. Mathers, - - - Eye and Ear.
Dr. G. K. Thomson, - - - Dentistry.

MEDICAL STAFF.
Dr. Foster Murray, - - - Pathologist and Bacteriologist.

Health Centre No. 1.
Dr. G. B. Wiswell, - - - Pre-natal and Baby Welfare.
Dr. S. J. MacLennan, - - Ear, Nose and Throat.
Dr. J. N. Lyons, - - - Posture.
Dr. T. M. Sieniewicz; - - Tuberculosis.
Dr. M. Resnick, - . - "
Dr. Roberta Forbes, - - Pre-School Dental.

Health Centre No. 2.
Dr. H. A. Payzant, - - - Pre-natal and Baby Welfare. Dr. M. Resnick, - - - Tuberculosis, etc.

## NURSING AND CLERICAL STAFF

Health Centre No. 1.
Lauchlin K. MacInnes, R. N. Acting Chief Nurse, and Supervisor Jennie M. Hubley, R. N. - Public Health Nurse.
Marguerite S. E. Lee, R. N. Public Health Nurse.
Mary Hayden, R. N. - - - Public Health Nurse.
Jennie Davidson, - - - Public Health Nurse.
Mary E. Haszard, - - - - Public Health Nurse.
Catherine Graham, R. N. - Public Health Nurse.
Esther McWatt, R. N. - - Public Health Nurse.
Marjorie Trefry, R. N. - - Public Health Nurse.
Edna Johns, R. N. - - - - Public Health Nurse.
Gertrude Crosby, R. N. - Public Health Nurse.
Veronica White, - - - - Public Health Nurse.
Mary E. Coolen, R. N. - - Clinic Nurse.
Maude T. Hill, - - - - Clinic Clerk.
Hazel Keene, - - - - - Historian and Record Clerk.
Elizabeth Ellis, - - - - - Supervising Visiting Housekeeper.
Mary Burke, - - - - - - Office Secretary.

Health Centre No. 2.
Frances M. Fraser, R. N. - Supervisor.
Mrs. Clara B. Bligh, R. N. - Public Health Nurse.
Madeline Scott, - - - - - Public Health Nurse.
Marjorie Bell, - - - - - Visiting Housekeeper.
Marion Weldon, - - - - Office Secretary.

Health Centre No. 3.
(Dalhousie University Public Health Clinic)
Esther M. Beith, - - - - Supervisor.
Note-Four public health nurses were transferred to Health Centre No. 3 in November, 1924.

## PREFACE

THE Massachusetts-Halifax Health Commission is a direct outcome of the Explosion in Halifax on December 6th, 1917. When the Halifax Relief Commission was formed by the Dominion Government, $\$ 250,000.00$ of the generous contribution of $\$ 750,000.00$ from the people of Massachusetts toward emergent relief still remained unexpended.

Before determining how this balance should be applied, the Boston Committee consulted with their representatives in Halifax, and, with the idea of devoting it to the restoration and improvement of public health conditions-which had been considerably demoralized by the Explosion-it was decided to ask Dr. Victor G. Heiser of the Rockefeller Foundation to make a careful survey of the city and its environs.

During the summer of 1918, Dr. Heiser studied the public health situation in Halifax and made a careful analysis of the vital statistics for a period of seven years prior to the Explosion. The following extract from his report is worth noting:-

## Present Health Conditions in Halifax.

An epidemic of smallpox has followed the disaster. At the time of my visit it was variously estimated that there was between 50 and 100 cases. There is no compulsory vaccination law and the prospects for controlling the disease are none too good. Little thought has apparently been given to the sanitary construction of houses, port works, etc. Facilities for the proper collection and disposal of garbage are largely lacking. The Board of Health is composed of four city controllers and two representatives appointed by the Governor so that the only doctor on the Board is its Chairman. Meagre public health laboratory facilities are supplied by Dalhousie University, in return for which the city makes a small contribution. Dartmouth, which is across the bay, under a separate municipal jurisdiction, has also suffered considerably from the disaster. To a lesser degree, the same conditions exist in Dartmouth as in Halifax, and any assistance given to Halifax should be proportionately available to Dartmouth. It is obvious that with the foregoing conditions and many others which need not be discussed here, there must be more intelligent direction and additional facilities before any material improvement in the public health or tuberculosis situation can be expected. The city administration is constantly under attack by the newspapers
as being inefficient. Judging from conversation with a considerable number of prominent residents of Halifax, the criticisms are generally believed to be merited. It seems most desirable to create public sentiment which would support an adequate modern health program. There is little hope that this will be brought about unless outside influences can make themselves felt.

As a result of his findings, Dr. Heiser recommended that the balance remaining in the hands of the Boston Committee should be expended in a Public Health Demonstration extending over a period of years, which should include the equipment and staffing of Health Centres, the provision of laboratory facilities, educational propaganda through newspaper articles, posters and pamphlets, the establishment of a pure milk and water supply, and other municipal sanitary reforms.

In order to carry out the recommendations set forth in detail in Dr. Heiser's report of July 25th, 1918, the Massachusetts-Halifax Health Commission was organized on May 29th, 1919.

At a meeting of the Commission held on October 2nd, 1919, on the recommendation of Dr. Heiser, who was present, Dr. B. Franklin Royer, formerly Acting Commissioner of Health for the State of Pennsylvania, was appointed Executive Officer of the Commission. Dr. Royer accepted the appointment and continued in this position until July 19th, 1923, when his resignation was accepted by the Commission.

Following his resignation, Dr. Royer prepared a detailed report on the work with several appendices which included a series of recommendations for the further improvement of public health conditions in Halifax.
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FT: The Report and Recommendations were presented at a meeting of the Commission held on December 28th, 1923. It was decided that the Acting Chief Executive Officer, Dr. T. M. Sieniewicz, together with the three medical men on the Commission, should form a subcommittee to consider the recommendations section by section. The report of this sub-committee was presented on March 5th, 1924.

At a meeting of the Commission held on March 12th, 1924, it was decided that a report of the four years' work of the Commission ended September 30th, 1923-which would cover Dr. Royer's periodof service-together with such of Dr. Royer's recommendations as had been approved by the Commission, and also including additional recommendations presented by the Acting Chief Executive Officer and approved by the Commission should be published in pamphlet form,
and the Secretary was instructed to prepare such a report for publication. As the publication of this pamphlet was unavoidably delayed it was decided by the Commission, at a later meeting, to extend it to September 30th, 1924, making it a five year report.

The report which follows is largely based on Dr. Royer's report to the Commission, dated November, 1923. Constant reference was also made to the Minute-Book of the Commission, to the Scrap Book compiled by the office staff, and to the monthly staff letters.

A study of this report will show that during Dr. Royer's period of service, much was accomplished along the lines of Dr. Heiser's original recommendations.

The lower death rate is undoubtedly attributable to the Medical Profession and to all welfare agencies, and in part to the activities of the staff of this Commission, who have been teaching the people in the clinics and at their homes those principles of positive health and preventive medicine which have been instrumental in abolishing so much sickness and in increasing the expectancy of life. These agencies are:-The Association for Improving the Condition of the Poor; Children's Hospital; Children's Aid Society; Halifax City Home; Halifax City Charities Committee; City Health Board; Halifax County Anti-Tuberculosis League; Halifax Infirmary; Halifax Visiting Dispensary; I. O. D. E. Home for Feeble Minded; Infants' Home; Home of the Guardian Angel; Jost Mission; Provincial Health Department; Red Cross Society; Salvation Army; Victoria General Hospital; Victorian Order of Nurses. Halifax and Dartmouth; School Nursing Staff; Welfare Bureaus, Halifax and Dartmouth, and all church and local clubs.

The two charts which follow show this more convincingly than columns of figures or mere words.



The credit for this interesting experiment in life-saving must go to the people of Massachusetts who have made it possible. The Massachusetts-Halifax Health Commission wish to place on record its sincere appreciation of the sympathy and understanding with which members of the Boston committee have always met the public health problems of Halifax.

The Massachusetts-Halifax Health Commission, the City of Halifax and the Town of Dartmouth are under a debt of obligation to Dr. B. Franklin Royer for his unremitting labours during the three and one-half years he spent in Halifax. It is to his efforts that we owe, among other things, the establishment of Health Centre work in Halifax and Dartmouth, which has, both here and elsewhere, proven itself such an essential part of modern public health, and which has formed the central feature of the work of this Commission.
G. Fred Pearson,

Chairman.

## POSTSCRIPT.

AFTER the five-year report had been completed and placed in the printers' hands, Dr. Victor G. Heiser of the International Health Board, New York, who had made the original recommendations upon which the work of the Commission has been modelled, came to Halifax at the request of the Massachusetts-Halifax Relief Committee and the Massachusetts-Halifax Health Commission, in order to make an appraisal of what had been accomplished. His report contains the following significant statement:-
"On evaluating the results of the Commission's activities during the past five years, I cannot help but be most favorably impressed with the excellent organization which was installed by Dr. Royer, and the satisfactory results which followed. The general mortality during the period fell from an average of 20 to 11.7 per thousand. While all the improvement may not have been due to the efforts of the Commission, it may justly claim the major share. It will no doubt be a source of much gratification to the people of Massachusetts that their funds have relieved so much suffering and prevented so many deaths. The drop in the mortality of 8 per thousand means approximately a saving of 480 lives annually.'


Health Centre No. 2, Dartmouth


Health Centre No, 1, (Admiralty House) Halifax, N. S.

# The Massachusetts-Halifax Health Commission Report 

October 1919-October 1924

ON May 17th, 1919, an Act to incorporate the MassachusettsHalifax Health Commission was passed by the Nova Scotia Legislature. Section 2 sets forth its constituent membership:-
"There shall be constituted the Massachusetts-Halifax Health Commission, composed of the Provincial Health Officer for the time being, the Chairman of the Board of Health of the city of Halifax for the time being, the Medical Officer of Dartmouth for the time being, two members appointed by the Halifax Relief Commission and four members appointed by the MassachusettsHalifax Relief Committee, each for a term of two years. Such Commission shall be a body corporate under the name of the Massachusetts-Halifax Health Commission, and by that name shall have perpetual succession and a common seal."

The objects and powers of the Commission are later set forth:
(a) To undertake and carry into effect whatever in its opinion may make for the restoration and improvement of the sanitray conditions of the city of Halifax and the town of Dartmouth, and the health of the inhabitants of said city and town.
(b) To collaborate with and assist the constituted authorities in the said city and town, including the City Board of Health, the Halifax Relief Commission or any other public body who may exercise any powers of jurisdiction with respect to the purpose of the Commission.
(c) To receive, hold and invest from time to time, all monies and property, paid, voted or contributed by any person or government to the Commission for the purposes of the Commission.
(d) To expend, distribute and appropriate all such monies and property in such manner as the Commission shall in its discretion deem proper, provided, however, that in case any money or property has been contributed or voted for any particular purpose or purposes, the Commission shall expend, distribute or appropriate the same in accordance with the expressed intention of the donor.
(e) To aid any institution, association or public body which undertakes or has heretofore undertaken any work which in the opinion of the Commission conduces to the improvement or the restoration of the health of the inhabitants of the city of Halifax and the town of Dartmouth, or any other purposes of the Commission.
(f) To collect, publish and distribute information to promote good health and improve sanitation.
(g) To appoint, and hire such officials, servants, agents and workmen as the Commission may think proper, for the purpose of the proper exercise of the powers exercisable by the Commission, and in particular the Commission may employ experts in municipal sanitation and public hygiene, or otherwise.
(h) To enter into agreements and contracts for the purpose of carrying out the powers exercisable by the Commission.
(i) To acquire, hold and dispose of real and personal property of every kind and description and to deal with the same in any way the Commission may think fit.
(j) To effect from time to time temporary loans with any chartered bank if for any reason, funds to be supplied to the Commission are not presently available.
(k) To make reports and recommendations to the City Board of Health, the City Council or Board of Control of the city of Halifax, the Town Council of the town of Dartmouth and the Halifax Relief Commission, on any matter which in the opinion of the Commission may conduce to the improvement of Public Health.
(b) To do all such other things as are incidental or conducive to the attainment of the above objects and powers or any of them.

The Massachusetts-Halifax Relief Committee, Boston, comprised the following: Henry B. Endicott, Chairman; J. J. Phelan, ViceChairman; Matthew Luce, Secretary; Robert Winsor, Treasurer; James J. Storrow, A. C. Ratshesky, J. B. Russell, R. F. Herrick, G. H. Lyman, Mrs. N. Thayer, J. F. O'Connell, B. Preston Clark, J. Frank O'Hare, Charles S. Baxter, Edwin U. Curtis, George C. Lee, Walter C. Bäylies, James Jackson, W. Rodman Peabody, Henry Endicott, Jr.

The following members have since died: Henry B. Endicott, Edwin U. Curtis, W. Murray Crane. Since the death of Mr. Endicott, Mr. J. J. Phelan has acted as Chairman of the Committee.

The Massachusetts-Halifax Relief Committee, Boston, appointed G. Fred Pearson, Hon. R. G. Beazley, J. L. Hetherington and H. R. Silver, as its four members; the Halifax Relief Commission appointed T. S. (now Mr. Justice) Rogers and Judge W. B. Wallace. These,
with Dr. W. H. Hattie, Provincial Health Officer, Doctor M. A. MacAulay, Chairman of the City Health Board, and Doctor H. A. Payzant, Medical Health Officer of Dartmouth, constituted the personnel of the Massachusetts-Halifax Health Commission at its first meeting, which took place on September 22nd, 1919. G. Fred Pearson was elected Chairman, and Hon. R. G. Beazley, Vice-Chairman of the Commission, until May 1st, 1920.

On September 25th, 1919, the members of the Commission held an informal conference with the following Welfare Agencies-Halifax Welfare Bureau, Halifax County Anti-Tuberculosis League, I.O.D.E. Home for Feeble-Minded, School Nursing Staff, Halifax Visiting Dispensary, Children's Hospital, Victoria General Hospital, Halifax Infirmary, Infants' Home, Children's Aid Society, City Home, Victorian Order, Salvation Army. Their mutual problems in Tuberculosis, Pre-natal, Child Welfare and Mental Hygiene work were discussed, together with the great need for co-operation.

Since that time, this Commission has consistently sought to co-operate with all these agencies and with the medical profession and wishes to acknowledge the assistance and sympathetic consideration which have been shown. It also wishes to place on record its appreciation of the valuable services which they have rendered and are still rendering to this city.

Doctor Victor G. Heiser, who had made a survey of the city conditions in 1918 at the request of the Boston Committee, returned to Halifax on October 1st, 1919 accompanied by Dr. B. Franklin Royer. After a further survey, on the recommendation of Dr. Heiser, Doctor Royer was appointed the Executive Officer of the Commission.

One employee had already been temporarily appointed to gather statistical data for the information of the Commission, and was installed in a vacant room in the Provincial Annex. This appointment was later made permanent.

For a period of ten years approximately, some local interest in tuberculosis had been kept up-at times quite actively-by an organization known as the Halifax County Anti-Tuberculosis League. A public clinic in charge of a doctor and nurse was being held several times a week.

The Victorian Order of Nurses, a District Nursing organization with headquarters in Ottawa, had carried on bedside and maternity nursing in Halifax and Dartmouth for a number of years. During the war, and subsequent to the explosion in 1917, the work of this
organization had been expanded to meet the growing need. The Victorian Order had also tried to satisfy the feeling that something should be done for Child Welfare. A Baby Clinic had been organized and one nurse was giving the greater part of her time to it, being assisted a few hours each week by volunteer physicians.

The Halifax Welfare Bureau had been created several years before. This organization, supported by voluntary local funds, had an office in the Halifax Dispensary and was undertaking social service investigation work without disbursing relief. The work of the Welfare Bureau had already set a high standard for community service, and was proving most valuable to the regular relief agencies.

During the summer of 1919, the Halifax Branch of the Local Council of Women initiated a movement in the interest of Baby and Child Welfare. They had asked for the co-operation of all charitable and philanthropic organizations in the communities of Halifax and Dartmouth. It was planned to hold a Baby Saving Week in November and set forth in an Exhibit the needs of the baby.

The Executive Offices of the Commission were opened just at this opportune time. It was the privilege of the newly appointed Chief Executive Officer with his assistant and stenographer, to give practically full time for a month to the work of this movement. He served on the Programme Committee, was assistant to the Publicity Committee and gave innumerable addresses on Baby Welfare before different organizations and at the various public meetings held during Baby Saving Week. His clerical assistant acted as Secretary to the General Committee.

In this way, contacts were made with the provincial and civic government authorities, the Catholic and Protestant clergy and the leaders among the city business men which proved invaluable later in promoting the Commission's campaign of Preventive Medicine.

In the original recommendations of Doctor Heiser, two health centres-chiefly to meet the tuberculosis problem-were contemplated, with a medical staff for diagnosis and advice, and, associated with it, a certain number of public health nurses for clinic and visitation service. With this in mind, on his way to Halifax, the Executive Officer had stopped over at Framingham, in order to inspect the work of the Tuberculosis Demonstration being conducted there under the auspices of the National Tuberculosis Association and the Metropolitan Life Insurance Company on very similar lines to the work projected for Halifax.

It was soon found that there were practically no public health nurses resident in Halifax or the Maritime Provinces. The Victorian Order of Nurses was constantly having difficulty in getting sufficient suitably trained nurses for the work.

In November, 1919, the Executive Officer took part in a conference, held by the Provincial Red Cross Society, on a suitable peace-time programme for Nova Scotia, in harmony with the ideals of the League of Red Cross Societies as set forth at its organization meeting in Caimer, France, April, 1919. He contributed largely to the work of this Conference, especially in the drafting of a plan to serve as a working basis. The plan as outlined, included the training and development of a nursing personnel of a high type, to put into practice a public health programme much wider than originally contemplated. It was approved by the Provincial Health Officer, by this Commission, by local organizations, and finally adopted by the Provincial Red Cross Society and put into operation.

The Medical Faculty of Dalhousie University forthwith organized a course in Public Health Nursing. The Executive Officer of the Commission was made Director of this Course and the Chief Nurse was subsequently made Assistant Director. The Provincial Red Cross Society provided free scholarships. The Massachusetts-Halifax Health Commission, the Provincial Department of Health, the Victorian Order of Nurses, the Halifax Welfare Bureau, the Infants' Home, the School Medical and Nursing staffs provided the teaching personnel and facilities for practical observation work.

A great deal of time was given by the Executive Officer to planning the curriculum and directing the course. Owing to an epidemic of influenza it was necessary to delay its opening until March, 1920. In September of the same year, a class of thirteen nurses completed the six months' course and was the first class of public health nursing graduates in Canada. Since then, three other courses have been held, and 38 public health nurses in all have graduated and are carrying on public health work, for the most part in Halifax and in the province of Nova Scotia.
A. somewhat extensive correspondence had been carried on in the early months of 1920 looking toward the immediate engagement of a few suitably trained persons to organize the health centre work recommended in the Heiser report.

In May, 1920, Miss Jessie L. Ross of Tunkhannock, Pennyslvania, was appointed Chief Nurse. Miss Ross had considerable experience as
a public health nurse, especially in the branches of tuberculosis and child welfare, In July 1920, Miss Clennie Inglis was appointed Supervising Nurse.

The Halifax County Anti-Tuberculosis League had been stimulated to undertake larger responsibility in the hospital care of far-advanced cases of Tuberculosis through a grant from the Halifax Relief Commission and through additional funds which had come to them by the sale of Victory Bonds; but it involved too great an expenditure of funds for an organization whose main work was that of relief. It was deemed advisable to recommend a grant of $\$ 5,000$ to this League for hospital maintenance, with the understanding that relief work would be carried on only until such time as the city erected a tuberculosis hospital. At the same time, at the League's request, the Commission took overthe maintenance of its ambulatory clinic and home nursing service.

On the recommendation of the Executive Officer, early in 1920 the Commission decided to secure an expert tuberculosis worker, as a diagnostician and supervisor of clinical facilities. His services as a consultant would also be available to the practitioners of Halifax and Dartmouth. Dr. D. A. Craig, who for a period of years had been Medical Superintendent at the Queen Alexandra Sanatorium, London, Ontario, was appointed Tuberculosis Examiner in June, 1920. Dr. Craig resigned in February, 1921, to become Red Cross Commissioner for Nova Scotia. Dr. T. M. Sieniewicz was appointed in his place. After a month's study and observation in Boston, New York and Philadelphia, Dr. Sieniewicz commenced active work in July, 1921. Owing to the stress of work consequent upon his appointment as Acting Chief Executive Officer, an Assistant was appointed to the Tuberculosis Clinic in October, 1923.

The Commission was fortunate in being able to secure from the Department of Naval affairs, Ottawa, permission to use Admiralty House on Gottingen St., as the first Health Centre-a building admirably fitted for the work, and, to a large extent, furnished and ready for occupation. Further, it was convenient of access to families who had suffered most in the great disaster, and were most in need of its service. It was an ideal centre also, because of its location in that part of the city where nearly half of the city's babies were born.

From the time the first tentative plan for a Health Centre was worked out on paper and placed before the public, on November 11th, 1919, until the first centre was actually opened and operating in May, 1920, the Executive Officer had seized every opportunity for a public discussion of the Health Centre programme, had told of the nature
of the work proposed, explained the operation of the clinics and shown the value of Health Centre work in a community.

On May 5th, 1920, Health Centre No. 1 was opened with a reception to representative citizens, and on the two succeeding Sundays, May 9th and May 16th, the general public was invited to inspect the building and grounds.

It was pointed out repeatedly that a health centre would be required for the south end of the city as well as for the north end, and that because of its separation by Halifax Harbor, Dartmouth and its environs would be best served by a third Health Centre in Dartmouth, both of which are now accomplished facts.

Health Centre No. 1 is surrounded with spacious grounds, and at one side, separated by an old stone wall, is a large garden. In the spring of 1920, the garden was divided into plots and apportioned to some thirty families possessing no yard of their own. Here they grew a supply of vegetables for their own use. This plan has been carried out with great success each year.

One of the ten points in the Red Cross programme, previously mentioned, provided for Travelling Clinics for those rural sections of Nova Scotia, where doctors are few and far between. The first "Health Caravan" consisting of 11 motor ambulances and cars, and, with a full medical, dental and nursing staff, set forth from the City Hall, Halifax, on the morning of July 12th, 1920. The second section of six ambulances and cars proceeded through another section of the Province two days later. Travelling Clinics, though not on so elaborate a scale, have toured sections of the province each summer. The Commission's staff has rendered great assistance in this splendid work, especially in 1920, with the full belief that every large community, profiting as it does and feeding as it does upon the rural districts, should, in turn, do all that it can to help the people in those more distant sections.

Prior to the war, a loan of $\$ 200,000.00$ had been authorized for building a Tuberculosis Hospital and Sanatorium in the vicinity of Halifax, to serve Halifax County and city, and possibly the neighboring counties. No co-operation having been secured from other districts or counties, a separate district was then made of Halifax. The city had accepted plans which, according to tenders received, would mean an expenditure of $\$ 350,000.00$ with an engineering estimate of an additional $\$ 100,000.00$ for water, electric light and sewerage.

The Executive Officer, on studying the situation, recommended that the plan to erect such a hospital be abandoned. A suitable build-
ing at a very low cost could be erected on the grounds of the City Home, where, with some improvements, the heating and laundry plant now operating, might serve the Tuberculosis Hospital as well, and result in saving the wages of an extra set of firemen and engineers. The Anti-Tuberculosis League and the City Council agreed to this recommendation and His Worship, Mayor Parker appointed a special committee consisting of certain members of Council, the Chairman of the City Health Board, the Provincial Health Officer, the Chairman of the Anti-Tuberculosis League, and the Executive Officer of this Commission to prepare plans and specifications for a suitable structure.

The plans, finally accepted, were prepared on the basis of sketches made by the Executive Officer. A building has since been erected that will comfortably and safely take care of sixty-five patients. The building is situated across the street from Dalhousie Medical College and furnishes its students with ample and varied clinic material.

Clinics in Baby Welfare and in Ear, Nose and Throat were opened at the Health Centre in June, 1920, under competent doctors. As each new clinic service commenced, other medical attendants were appointed. With the graduation of each class in public health nursing as many of these graduates were appointed to the staff, as could be justly claimed for the work, the time of appointment being set out in the Appendix covering appointments. At the close of the fifth year of service, September 30; 1924, a staff of 16 public health nurses and two visiting housekeepers was actively engaged in the work of the Commission.

From September, 1920 to November, 1921, 144 children were ad-: mitted to a temporary ward in Health Centre No. 1, where operations were performed for removal of adenoids and tonsils. From that time until 1924, 339 operations were performed at the Dispensary, or one of the Hospitals. In January, 1924, a special arrangement was made with the Victoria General Hospital and the Children's Hospital whereby a certain number of nose and throat cases would be taken each week, thus reducing our waiting list which had assumed considerable proportions. From January to September 30, 1924, 169 operations have been performed.

With the approval of the Commission, the Executive Officer made a careful study of the public water supplies of Halifax and Dartmouth. He had gone over the water-shed with Dr. Heiser, who felt that treatment of our water supply by a modern chlorinating plant was an urgent measure by which he believed that 150 lives would be saved each year. The Commission therefore passed a resolution urging upon the City


Clinics at the Health Centre

Health Board the continuous treatment of the public water supply by germicidal agents.

During the summer of 1920, an epidemic of diarrhoeal diseases broke out in Halifax. Epidemiological studies were made by the Executive Officer at this time, and further resolutions, urging the chlorination of the water supply were sent the City Health Board. The Board finally directed the City Engineer to arrange for the treatment of the public water supply by means of a germicide. The chlorination outfit installed at that time is still in use, but, as operated at present is undoubtedly inefficient.

The installation of modern chlorinating equipment in both Halifax and Dartmouth became a live issue again in the fall of 1924, owing to an epidemic of diarrhoeal diseases, but nothing definite was accomplished.*

In 1920, the Commission entered into negotiations with the Dominion Government, which led to the rental of the Old Post Office Building at Dartmouth for a Health Centre. In February, 1921, Health Centre No. 2 was opened. It is in an excellent location, just above the Ferry Wharf. Besides its function as a Health Centre, it is being used for many community purposes, such as meetings of the Welfare Bureau, the Victorian Order and Chapters of the I.O.D.E.

In February, 1921, a Pre-School age Dental Clinic was organized under Dr. Arrabelle MacKenzie, to whom the title of Paedodontist was given. Babies and young children attend this clinic for prophylactic and remedial work; and in addition, instruction in dental hygiene and nutrition is given to them and to the expectant mother. The good results of this service-the first organized in Canada-are increasingly visible in the teeth of the entering school children.

Up to 1924 the City School Board employed part-time dentists for dental work in the public schools. In May, 1924, Dr. Hazel Thompson was appointed full-time school dentist, to commence work in September. This Commission voted a contribution of $\$ 600.00$ towards her salary for the first year, in return for which Dr. Thompson will be at the disposal of the Commission for pre-school age work, two half-days weekly.

Dr. Arrabelle MacKenzie resigned on August 15th, 1924, and on August 18th, Dr. Roberta Forbes reported for duty as the Commission's full-time paedodontist. This will mean an enlargement of the dental service at Health Centre No. 1 and an extension of the
*Halifax is now (May, 1925) arranging for the purchase of a modern chorinating
equipment.
same service to Health Centre No. 2, Dartmouth, and to the Dalhousie Public Health Clinic just opened. In co-operation with the School Board, arrangements have already been made whereby Dr. Forbes and Dr. Thompson can work together in the examination and treatment of the teeth of all children up to seven years of age.

Following out Dr. Heiser's recommendation, Dr. Harry Morse was appointed Pathologist in May, 1921, to make tests and examinations at the Provincial Laboratory for the Health Centres. The services of this Laboratory appointee were also at the disposal of those who could not afford the services of such a specialist. A Laboratory technician was appointed to the staff a month later. Dr. Morse resigned in June 1922, and his position was not filled until October, 1923, when Dr. Foster Murray was appointed. The position of Technician, left vacant by the resignation of Miss Haines in June, 1923, is unfilled.

The ever-recurring problem of mal-nutrition was faced in 1921. A Nutrition Class was organized at each Health Centre and, in addition, a special clinic was held each week by the doctor in charge, for children very much under-weight-as high as $15 \%$. This latter clinic included the mothers as well. A trained nutrition specialist was engaged from October to December, 1921. In 1922 the work was further consolidated by the appointment of three Visiting Housekeepers to conduct Nutrition Classes at both Health Centres and to visit those homes needing help in arranging their diet or planning their budget.

In the summer of 1921, a Day Camp for some 20 undernourished children predisposed to tuberculosis, was held on the Health Centre grounds, under the joint auspices of the Halifax County Anti-Tuberculosis League and this Commission with most beneficial results. Since then, the Commission has provided lists of names of undernourished children to attend a Fresh Air Camp at the seashore, planned a schedule of menus for the camp and furnished a public health nurse to supervise the health of the children.

During the summer of 1921, a special Dental Clinic was.conducted by the Commission in co-operation with the Dental Faculty of the University, to which 547 school children were admitted for treatment.

A Baby welfare sub-station to meet the needs of families at a distance from the Health Centre was opened on Quinpool Road during the summer months of 1921 and 1922.

Ever since the beginning of the Commission's work, it has seized every opportunity to urge pasteurization of the entire supply of milk. In the opinion of trained veterinarians, fully thirty percent. of the cattle in herds supplying milk to Halifax and Dartmouth are tubercu-
lous, that is, show a reaction to the tuberculin test. Over $25 \%$ of the tuberculosis infection in glands, bones and joints is contracted through milk from such cows-and we have only to look around the schools and streets of Halifax to see evidences of such disease. Diarrhoeal diseases, Septic Sore Throat, Scarlet Fever and Diphtheria infections may also at any time be transmitted through a raw milk supply. Protection against these ills lies in pasteurization.

In the summer of 1921, the City Health Board appointed Dr. Philip A. Gough as a full time veterinary inspector. On the recommendation of the Executive Officer, made with the approval of the City Health Board, the Commission granted Dr. Gough a travelling allowance to study and investigate milk supervision in the city of Toronto, and, to a certain extent in the Province of Ontario, and the city of Rochester, N. Y. This officer has given the city the advantage of these studies and has at all times co-operated with the Commission's staff.

In December, 1921, the City Health Board passed a regulation requiring the city's entire milk supply to be bottled, and cans and bottles to be sterilized before being refilled, etc., the whole of this work to be under the supervision of the Veterinary Inspector. This regulation became effective in May, 1922, but it was not generally, observed for some months later.

Unfortunately the City Health Board has not yet seen its way clear to make pasteurization compulsory, and further educational work is required to accomplish this end. Various milk dealers however, have seen that pasteurization was coming, and have installed pasteurization plants. As soon as it becomes compulsory, they will be able to conform immediately with the regulations. 40 to $50 \%$ of the city's milk supply is now pasteurized, though not under supervision.*

In April, 1922, the Executive Officer prepared a plan for the survey of undernourished children in the city of Halifax. This was approved by the Commission and the School Board, but has been held up, pending approval by the Halifax Medical Society.

With the generous permission of the School Trustees, a substation at Tufts Cove was opened at the school house on June 24th, 1922, and was maintained there until December 7, 1923, when it was arranged that those seeking medical advice should attend the regular clinics at Health Centre No. 2. Weekly visits are paid by the nurses and visiting housekeepers, who have met with splendid co-operation from the residents.

[^0]A sub-station at Africville was opened on August 30th, 1922 and a thorough survey of the district was later made by a member of the Commission's staff. Visits to this district are still made periodically by a staff nurse.

The corner stone of the Public Health Clinic was laid on November 9th, 1922. This building, which was erected by Dalhousie University out of a $\$ 250,000.00$ fund, given by the Rockefeller Foundation, will serve as an out-patient department for the group of hospitals in the immediate vicinity and will form an integral part of the university system. As a Health Centre it will perform for the south end of the city the same functions that Health Centre No. 1 does for the north end.

Opportunity will be given the medical students studying cases from the out-patient department, to go to their homes, study the environment, make a thorough inquiry into the causes of the complaint and discover what needs to be righted to prevent a recurrence, or what must be done to prevent the spread of the disease-which constitute essential phases of social and preventive medicine.

It has been arranged that the Halifax Visiting Dispensary and the Halifax Welfare Bureau be transferred to this building, and it is hoped that in the course of time, it will become a centre of community welfare work.

The building is now completed and partially equipped. On September 25th, 1924, Miss Esther Beith, formerly of the Toronto Public Health Department entered upon her joint duties as Superintendent of the Public Health Clinic and Supervisor of Health Centre No. 3. This Commission has also undertaken to furnish a staff of four public health nurses for the ensuing year, (1924-25). It is hoped that the clinic services will commence at an early date.

In October, 1923, arrangements were made with Dr. Eliza Brison, Superintendent of the Home for Mental Defectives to hold a clinic for mentally defective children from time to time.

Since November, 1923, a Special Posture Clinic has been sicheduled for those children enrolled in the Nose and Throat Clinic, who had been operated upon and required to be taught correct breathing and posture.

It has always been found difficult to induce mothers living at a great distance from Health Centre No. 1 to come to clinic. In order to give them the service they so urgently need, it was decided to open sub-stations at Greenbank and at Lower Water St., and to hold clinics there several times a month. G. S. Campbell \& Co. generously offered space in the upper floor of their office building on Water St., for such a purpose, and a room in a dwelling at Greenbank was obtained at a small rental. Both substations were opened March, 1924.

Since Dr. Gandier's resignation from the Eye Clinic, Dartmouth, in June, 1923, no Eye Clinic had been held at either Health Centre. The Commission was therefore particularly glad to accept Dr. S. H. Keshen's offer to hold Eye Clinics in both Halifax and Dartmouth. This temporary clinic service lasted from February to July 1924, with a clinic attendance of 582 .

With the co-operation of those in charge of the Jost Mission, a scheme of intensive health work is being mapped out for that institution. This Mission carries on a Day Nursery and Kindergarten, where mothers who go to work by the day can leave their babies. It also conducts an Employment service for those mothers. It is therefore a most strategic centre for public health work, as, on account of their daily absence from home, no contact could be made there. Health Classes have already been organized for the children. It is planned to give practical talks to the mothers at their regular meetings. It is hoped also that a clinic may be held at regular intervals.

An Evening Chest Clinic has been authorized by the Commission and will be opened at an early date. This has been found necessary on account of the number of working people who cannot come in the day time.

At a meeting of the Commission on June 4th, 1924, it was decided that two Commissioners should visit the Health Centres each month. A schedule was drawn up and put into effect, already with good results.

On September 30th, 1924, the following clinics were being regularly conducted at both Health Centres:-

Clinics
Tuberculosis. .Health Centre No. 1, taken over from

> Halifax Co. Anti-tuberculosis League. . . . Mar.

Child Welfare..................Health Centre No. 1.... June 10, 1920 Ear, Nose, and Throat....... "" "" " 1....June. 10, 1920
Pre-Natal................... "، "" " 1....Feb. 10, 1921
Pre-school Dental............. "، "" " 1.....Feb. 23, 1921

Tuberculosis................. " " " 2..... Mar. 9, 1921
Child Welfare................ " " " 2....Mar. 9, 1921
Eye, Ear, Nose, and Throat... "" " " 2.....Mar. 23, 1921
Nutrition Classes............. " " " 1....May 7, 1921
Posture..................... "، "، " 1.....Oct. 14, 1921
Nutrition Class.............. " " " " 2.....Nov. 12, 1921
Skin............................. "
*Baby Welfare................... ". "
Special Posture................ ". "
Child Welfare substations at
Greenbank and Lower Water St. . . . . . . . . . . Mar. 1924
*This is a sub-division of the Child Welfare Clinic which was too large.

The Provincial Department of Health holds a Venereal Diseases Clinic twice a week for which this Commission provides accommodation and a special nurse, at Health Centre No. 1.

The total clinic attendance from the time of the opening of the first clinic, March, 1920, until the end of the fifth year of the Commission's work was 35,075 . During this period, 15,418 examinations were made in the 4,344 clinics conducted.

A more detailed report of these clinics (for List, see Appendix II.) and their aims and accomplishments will be found in the forms and reprints that have been published from time to time, particularly in reprints from the Journal of the American Medical Association, October 14, 1922, Canadian Medical Journal, May, 1923, and the Australian Medical Journal, June, 1923, and in Appendix 4 (Tables illustrative of Health Centre work).

153,584 home instruction visits were made by the Public Health Nurses and Visiting Housekeepers, and contact has been established with 6,644 families.

The following table shows the number of home instruction visits of Public Health Nurses and Visiting Housekeepers from all Health Centres arranged by month, from the opening of the Tuberculosis Clinic taken over from the Anti-Tuberculosis League to the end of September, 1924.

| MONTH | 1920 | 1921 | 1922 | 1923 | 1924 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Jan. | $\cdots$ | 679 | 2580 | 3615 | 3812 |
| Feb. |  | 737 | 2394 | 3374 | 4313 |
| Mar. | 221 | 884 | 3037 | 3182 | 4708 |
| Apr. | 200 | 940 | 2215 | 3366. | 4943 |
| May. | 232 | 1579 | 3349 | 4076 | 5376 |
| June. | 304 | 2301 | 2921 | 3240 | 5089 |
| July | 299 | 2481 | 3584 | 3428 | 4745 |
| Aug. | 670 | 2601 | 4403 | 4141 | 5750 |
| Sept | 406 | 2289 | 4205 | 3127 | 5770 |
| Oct. | 534 | 2275 | 4111 | 3682 |  |
| Nov | 671 | 2292 | 3809 | 4927 | $\ldots$ |
| Dec. | 622 | 2341 | 3409 | 3345 |  |
|  | 4159 | 21399 | 40017 | 43503 | 44506 |
|  |  | Gran | Total. |  | 53584 |

In order to give maximum home teaching at seasons when sick rates and death rates were high, holidays were not granted to the nursing staff (except in an emergency) during the months of March and April when respiratory diseases are prevalent, and in August and

September when diarrhoeal diseases are so much to be dreaded especially among infants.

Mention must be made of the co-operation of the Provincial Department of Vital Statistics, through which access is obtained weekly to the sheets recording births and deaths in Halifax and Dartmouth. Through this Department and the Provincial Department of Health we have been enabled to compile those statistical sheets and graphs which show so convincingly the upward trend of health since 1919.

The civic and provincial authorities have done everything in their power to facilitate the Commission's work. The City Health Board, in addition to the support given through its Chairman, an ex-officio member of the Commission, has, through its Secretary furnished much necessary information regarding health and sickness conditions in the city to the Executive Office. The Provincial Government authorities have, in addition to the departmental co-operation already mentioned, provided excellent office accommodation in the Provincial Annex, and have furnished our Laboratory assistant with space in the Provincial Laboratory.

This is in accordance with the recommendations of Dr. Heiser, for, in planning the budget for annual expenditure, "facilities to be supplied by the Province of Nova Scotia and the city of Halifax" are included. together with annual contributions by the Massachusetts-Halifax Relief Committee and the Halifax Relief Commission. This latter Commission, through its representatives on the Massachusetts-Halifax Health Commission, Mr. Justice Rogers and Judge Wallace, has been intimately connected with the work of this Commission, and for their services, as well as for the annual money contribution, the Massachu-setts-Halifax Health Commission is deeply grateful.

The Commission acknowledges frankly and unreservedly its great debt of gratitude to the newspapers of Halifax and Dartmouth. They have freely granted space at all times, with the result that the Central Office has been able to plan and carry out a regular system of educational publicity as recommended by Dr. Heiser. The monthly reports of the Commission's work, Health Centre news items and articles on health topics have been published. In November, 1923, a series of weekly Health Talks-short popular articles on health and preventive medicine-was commenced and has continued ever since.

Positive health is taught in the home by the public health nursing staff. To assist them, a number of pamphlets have been prepared
for distribution. They include such topics as Pre-natal and Baby Welfare, Diet, Posture, Fresh Air, Teeth, Tonsils, Flies, A Simple Cook Book. Health Songs and Rhymes have been compiled and reprinted again and again for use in the Children's Health Classes.

Formal papers on the work of this Commission that were prepared for delivery at Association meetings, etc., have been printed in pamphlet form and mailed to a large number of people in Halifax and Dartmouth (see Appendix V of this report for list of these papers). Many lectures and talks have been given by the Executive Officer, Chief Nurse and other members of the medical and nursing staff. A list of the more important of these has been prepared and is on file in the Central Office.

Health Posters, framed and unframed, decorate the walls of all Health Centres and teach health pictorially. Posters for distribution among the schools are contemplated, and one on personal hygiene for boys has already been sent framed to every school in Halifax and Dartmouth.

Other means of publicity that are being used are shop windows decorated to teach a health lesson and Moving Picture houses where health slogans provided by the Central Office are occasionally thrown on the screen. Moving Pictures and Lantern Slides illustrating health topics have also been used with good effect.

The Visitors' Book at Health Centre No. 1 contains the names of some 300 individuals from out of town, as well as of numerous city visitors, whose interest in the Health Centre was sufficient to justify spending time in a personal visit. The most noteworthy visitors were, in December, 1920, The Duke of Devonshire, Governor-General of Canada; in July, 1923, Channing H. Cox, Governor of Massachusetts, and in August, 1923, Baron Byng of Vimy, Governor-General of Canada.

The statistical results are most significant. The general mortality of the city has dropped from an average of 20.2 per thousand population, reckoned on the statistical years 1909-10 to 1918-19 inclusive, to 11.7 for 1923-24.* The infant mortality dropped from 187. to 97.5 in 1921-22, rose to 124.1 in 1922-23, and for the year just ended has dropped again to 97.4. An epidemic of diarrhoeal diseases and a decrease in the number of live births caused the increased rate in 1922-23. Until the city has a clean water and milk supply, it cannot be fully protected from such epidemics. The following figures show it more graphically:-

[^1]

| $\left.\begin{array}{c} 1909-10 \\ \text { to } \\ 1918-19 \end{array}\right\} \text { (Average }$ |  | Deaths <br> 1028 | $\begin{gathered} \text { Rate per } \\ 1000 \\ 20.2 \end{gathered}$ |
| :---: | :---: | :---: | :---: |
|  |  |  |  |
| $\left.\begin{array}{c} \text { 1919-20 } \\ \text { to } \\ 1922-23 \end{array}\right\} \text { (Average). }$ |  | 905 | 15.5 |
| 1923-24. |  | 682 | 11.7 |
|  | Births | Deaths | Rate per 1000 Births |
| $\left.\begin{array}{c} 1909-10 \\ \text { to } \\ 1918-19 \end{array}\right\} \text { (Average) }$ | 1464 | 274 | 187. |
| $\left.\begin{array}{c} 1919-20 \\ \text { to } \\ 1922-23 \end{array}\right\} \text { (Average) }$ | 1808 | 243 | 134.4 |
| 1923-24... | 1448 | 141 | 97.4 |

If the General Death Rate for the 10 year period had been maintained in 1923-24 using the census population of $58,372,1179$ people would have died. But only 682 died-which means that 497 less people died in one year than might have died according to the former average rate.

In the judgment of those who have watched this notable public health progress in Halifax, a very large share of credit must be given to the newer methods of public health teaching, although every contributing agency must receive some credit. If one-half the credit is assigned to the official agencies, working in old established methods, then the other half belongs to those forms of public health education operating through the health centres and the public health nursing staff, and through the schools and their staff of nurses and doctors.

If we maintain this saving of 500 lives annually, it means that 5,000 will be added to the population of this city.

What is a life worth to the Dominion?

$$
\begin{aligned}
& \text { In } 1920-21, \text { Halifax collected in taxes } \$ 1,800,000 \text {. Average } \\
& \text { per capita............................................ } \$ 30.00
\end{aligned}
$$

In 1920-21, Nova Scotia collected in taxes $\$ 5,000.000$.
Average per capita
In 1920-21, Canada collected in taxes $\$ 350,000,000$. Aver- age per capita ..... 40.00

Merely as a subject for taxation, a living person is worth $\$ 80.00$ to his country. Add to this the enormous additional saving from illness averted, savings in physicians' bills for sickness prevented, and increased annual earnings on the part of those engaged in gainful occupations who were able to work more regularly.

The gain of 500 lives to Halifax in 1923-24 is worth $\$ 40,000.00$ to the country that year and every succeeding year they live. Capitalize this amount of $\$ 80.00$ and a life is worth $\$ 1600.00$ because $\$ 1600$ put out at $5 \%$ will yield that amount. So five hundred lives are worth $\$ 800,000.00$.

But life is more than meat-or money. Less death, less sickness means more health, more happiness. The people are being taught not merely to live, but to live well.

The Commission's programme to date has made a notable demonstration of the possibilities of intensive public health work which is being followed with interest, not only in this country and the United States, but in England and Australia as well. It is hoped that in the short lease of life yet left to it, it will further convince the general public of Halifax and Dartmouth of the real value of Public Health and Preventive Medicine.

## APPENDICES

1. Recommendations.
2. Clinical Services conducted at close of 5th year, September 30th, 1924.
3. Commission staff to September 30, 1924.
4. Tables illustrative of Health Centre work.
5. Formal papers and other publications of the Commission's staff from the beginning to September 30, 1924.
6. Selected statistical tables with graphs.
7. Financial section.

## APPENDIX I.

## RECOMMENDATIONS.

Explanatory Note:-In an appendix to his four year report, Dr. B. Franklin Royer made certain recommendations to this Commission for further improvement of the health conditions in Halifax. After being carefully considered by a special Committee of the Commission, these recommendations were presented to the Commission, and those approved by the Committee were ordered to form the recommendations of the Commission and to be published as an Appendix to the Commission's report, together with such other Recommendations as the Commission deemed necessary in the prosecution of its programme.

## (1)-Pasteurizing Public Milk Supply.

The Commission supports any movement leading to the pasteurization of the milk supply of Halifax and Dartmouth.

Pasteurization having been secured, it recommends the purchase of automatic recording thermometers which will place an effective check on every pasteurizer. These thermometers shall be kept locked, the key being in the possession of a recognized public health official.

With the approval of the City Board of Health, the Commission would be willing to set aside the sum of $\$ 1500.00$, or such amount as might be required, either for the purchase of these thermometers, or to bring to Halifax a trained Supervisor of Pasteurizing Stations to support the public health officials for a period of several months following the establishment of universal pasteurization.

The Commission would recommend the permanent appointment by the City Health Board of such Supervisor.

The Commission is ready to co-operate with the Board of Health in framing a set of rules and regulations for the production and distribution of Certified Milk for those who have not seen the necessity of pasteurization. Owing to its high cost, it is not likely that there would be sufficient demand to justify any dairyman meeting its rigid requirements. It might be noted that. Toronto requires pasteurization of even the Certified Milk supply.

With the establishment of universal pasteurization, the Commission's campaign for the use of more milk should be vigorously promoted. At the present time, the average Halifax and Dartmouth family uses only about one-half the amount of milk necessary for growth and health.

## (2)-Securing a Safe Public Water Supply.

The second great municipal need for Halifax is a pure water supply, To attain this, the Commission has constantly urged the City Health Board to install a modern chlorinating equipment.

In 1911, Professor T. A. Starkey, of McGill University, made an examination of the water supply, for the City Health Board, and found it polluted. Several examinations made since that date have confirmed his findings. In 1920, the City Health Board installed an outfit for the continuous introduction of Chlorine into the water supply. A casual glance would convince one of its primitive and makeshift nature. Every morning the man in charge pours the required amount of chloride of lime into huge puncheons and keeps these barrels filled with water. The chloride of lime solution, on its way to the main, runs through a copper tap on which at all times a large amount of corroded material can be seen. The man's own statement brought out the fact that occasionally this corroded material stops all flow of the solution.

To ensure safe water, there should be from .2 to .3 parts of chlorine per million. With the present equipment, only .08 parts are added,
which is even less than the oversupply required, and could not destroy the pathogenic organisms present. Professor Starkey, in his report, recommended giving up the use of Chain Lake water for drinking purposes. Chain Lake water is still being used, and, as has been noted, is insufficiently protected by the present system of chlorination.

A modern chlorinating plant using liquid chlorine, and operating automatically-such as is in use in all the principal cities of Canada and the United States-would cost $\$ 2,500.00$ for Halifax and $\$ 1,000.00$ for Dartmouth, and would protect them from those epidemics to which they are constantly exposed under the present conditions.*

## (3)-Changes in Health Laws for the City of Halifax.

Health laws should be simple, direct and readily understood. The Commission should lend its aid to a complete redrafting of the health legislation for the city of Halifax and the town of Dartmouth:

At the present time, the city public health work is being carried on by the City Board of Health, the City Board of Works, the Provincial Registrar of Vital Statistics, etc., instead of in one central office.

Provision should be made in the legislation for the creation of a Board of Health, with specific provision for the appointment of outstanding citizens not holding public office. It should be stipulated that it is the duty of this Board to determine the policy and promulgate regulations for the better enforcement of Health Laws, and that the Health Officer be the executive head, acting and speaking for it at all times and places.

Specific provision should also be made for the appointment of the Secretary of the Health Board, or the City Health Officer, as District Registrar of Vital Statistics, to receive all certificates of births and deaths and to transmit them in turn to the Provincial Registrar. It is essential that the City Health Board be at all times cognizant of the city's health, which is only possible in this way.

Provision is now made in the City Charter for the appointment of a full-time medical Health officer. It is urgently recommended that this appointment be made in the near future.
(4)-Follow-up of Patients Discharged from Hospitals and Institutions.
The Commission recommends that the city hospitals and institutions be urged to adopt the practice successfully carried out at the *Steps are now (May, 1925) being taken to bring this about.

Nova Scotia Sanatorium, of regularly notifying the University Health Centre of all patients belonging to Halifax and Dartmouth who have been admitted or discharged from those institutions, so that an immediate contact may be made by a public health nurse, where follow-up work in the homes is not undertaken by a social service worker or public health nurse attached to the hospital staff,

It is also recommended that a notice of discharge be forwarded the physician or organization who sent the patient to hospital, covering diagnosis, treatment followed and further treatment recommended.

## (4)-(a) Dalhousie Health Centre Staff.

The Commission would be justified in providing four public health nurses and possibly a visiting housekeeper for a year at least.* These nurses can be detached from Health Centre No. 1-residence being furnished them by the University in the new Health Centre.

Additional nurses needed for medical and dental teaching in the clinics of this Health Centre could be drawn from the nurses in training in hospitals in the vicinity.

Within a two-year period, Dalhousie Health Centre should have become so firmly established as a great public need, that endowment should be forthcoming, providing in perpetuity for a staff of field nurses sufficiently large to meet the needs of the south end of the city.
(4)-(b) Extension of Public Health Work among Non-Clinic Familles.

Contact with a family is obtained in various ways. A friend or neighbor may tell the nurse for that district about them; possibly an interested school teacher, policeman on the beat, or member of one of the welfare agencies may report them; one of the children may be brought to the Saturday morning health class; or the nurse herself may make the first move. Through the co-operation of the Deputy Registrar of Vital Statistics, the Commission is now able to obtain a weekly list of births and deaths from which its nurses may make contacts with other families and instruct more mothers in these first months when instruction and training are so necessary.

The man or woman entitled to clinic service has a real opportunity to be convinced of the value of Health Centre work in a practical way,

[^2]but it is more difficult to obtain a contact with those others who form the bulk of our population, whom we call Non-Clinic. In many cases they are very little better off than the clinic patient and they are in the same need of the help and advice a public health nurse can give. From these 'border-line' people, there is a gradual rise to the well-to-do, educated class, who may not realize that the public health nursing service can do anything at all for them. They present a very different and a difficult problem:

How can we rid non-clinic families of their prejudices against the nurses' visits? Having obtained a contact, how enlist interest and sympathy so that the contact may be continued? How reach and teach those with whom the public health nurses may never obtain a contact?

Newspapers and magazines, through interesting, well-written and scientifically accurate articles and advertisements, are doing invaluable work in educating the general public along the lines of preventive medicine.

It is recommended that every effort be made to extend the work of public health education among the non-clinic families, that the Commission continue to publish and circulate widely its pamphlets and folders on all phases of public health work and to furnish the local press with accounts of its work and with popular articles on public health.

## (4)-(c) Contact with the Newly Married.

In the interest of public health as well as family welfare, it is most essential to obtain contact with every new family as soon after marriage as possible. Reference to the marriage certificates on file in the District Registrar's Office would furnish the ideal means of approach.

The Commission feels however that the Halifax public will need considerable public health education before such a measure could be put in practice.

## (5)-Public Health Education through the Schools.

Within recent years, the educationists have endeavoured to provide better books and material for the teaching of health in the public schools. Some of the text books and source books recently published are a very great advance over the kind of books still in general use.

One of these "Health Training in Schools"* is in the Commission's Library and is strongly recommended.

The Commission would like to see some improvement in the method of teaching hygiene in the schools of Halifax and Dartmouth. It would suggest that two teachers, one from Halifax and one from Dartmouth, who have already proven their efficiency, be given a year's leave of absence for special study in this subject. The American Child Health Association offers scholarships of $\$ 500.00$ each to teachers in the United States and Canada, and the first awards have been made to 46 teachers. The School Board might well continue the salaries of the teachers selected, for such time as they are taking the course. Several teachers, thus trained in the latest methods of health education, and provided with suitable syllabi and reference books, might be attached to the teaching staff as special teachers of health, as are the teachers of Art, Music, etc.

If, on trial, this method be found a very great improvement over the old, additional teachers might be sent away until sufficient teachers are trained to cover all the health teaching in all grades.

Alternatively, if the first two selected for scholarship award are exceptionally capable teachers, they might form a normal class in Halifax and Dartmouth for the training of additional teachers.

This recommendation is made, not with the thought of limiting the work done by the School Nurse, but rather with the thought of having all the teaching of curriculum subjects done by the teacher, assigning to the School Nurse occasional health talks based upon the findings of the day, her chief service being to obtain remedial relief for the physically handicapped, to look after the nutrition classes, and to give special instruction in the home.
2. The Commission should lend its influence to an expansion of Domestic Science teaching in the public school, and should urge the commencement of work in this subject at an earlier age, as many who need it most, leave before they have a chance to learn it.

The Commission should multiply the Cooking and Sewing Classes started in Health Centre No. 1 during the summer of 1923. It should encourage the establishment of additional classes by the Nova Scotia Technical College for those who marry without having had any training at home or in Domestic Science Classes.

[^3]

Sample of illustration used on our leaflets.


Day Camp conducted by Halifax County Anti-Tuberculos s League, at Health? Centre No. 1.
3. The Commission recommends the teaching of Mothercraft among school girls through the personnel of the Junior Red Cross.
4. The Commission also recommends the promotion of public health education in the schools through the distribution of posters, leaflets, song-books, etc.*

## (6)-Averting Still Births.

Statistical studies of the frequency of still births over a period of years show that births of this character have d ubled both in the city of Halifax and in the province as a whole, since the conclusion of the Great War. To the medical mind, this probably means uncured syphilis, and calls for further extension of clinics for treatment of this disease, and more intensive education along the lines both of prevention and cure. Medical hygienists are already anticipating increased feeble-mindedness and mental disease. The Commission should co-operate to the fullest extent in the clinics conducted at the Health Centre by the Government appointee.

## (7)-Preventorium Care of Children Exposed to Tuberculosis.

Some preparatory publicity and correspondence has been carried on through the Commission's Executive Office for several years, looking to the establishment of a Preventorium that might be supported by private philanthropy for a few years until its usefulness and practicability has been appreciated by the community. The Parker home in Dartmouth, formerly used as a Tuberculosis Hospital by the Anti-Tuberculosis League, would serve for this purpose.

The Commission thoroughly endorses the idea of a Preventorium and plans to enlist the co-operation and support of such organizations as the Halifax County Anti-Tuberculosis League, and the I.O.D.E. in initiating active work along this line. It should be noted that Upper Canada and the western provinces have preventoria maintained directly by the I.O.D.E.

Besides contributing professional services, this work merits financial co-operation on the part of the Commission, as it is purely

[^4]preventive work and practically means the diminishing of adult tuberculosis.

The Commission wishes to record its appreciation of the establishment of open-air class rooms in the city schools and an extension of this work should be encouraged.*

## (8)-Public Health in Industry.

An effort should be made to make all employers of labor, whether in shop or factory, realize that success in business depends largely upon the health and well-being of each employee. and that the health of their employees is directly dependent upon the conditions under which they work.

Industries employing a large number of men or women should have a doctor attached to the staff,-as is the case at Imperoyal, not only for accident or sickness emergencies, but for making a physical examination of each applicant, and for subsequent yearly examinations of each employee.

All factories and large business firms should employ an industrial nurse. This nurse would look after the health and well-being of all employees, investigate the nature of each kind of work engaged in and the conditions under which they are performed, and would recommend needed improvements.

In order to promote and extend public health work in the industrial life of the community, posters and literature should be distributed to all factories and business houses through Halifax and Dartmouth.

Certain of the larger concerns should be personally approached and an attempt should be made to enlist their support in the enlargement of this most essential section of public health.

## (9)-Immunization Against Diphtheria.

The preventive value of Toxin-Antitoxin when administered to children susceptible to diphtheria has been definitely proven.

[^5]Toxin-Antitoxin is obtainable through the Provincial Health Department and should be made available to every physician in Halifax and Dartmouth who may desire to administer this immunizing agent to children whose parents are not able to pay for such services.
**In co-operation with the Medical Society a general educational campaign should be promoted. Schick Test Clinics should be established at both Health Centres. The Schick test should be urged upon the attending physicians and trustees of all institutions housing any number of children,-Home of the Guardian Angel, Halifax Infants' Home, Protestant Orphanage, Industrial School, School for the Feeble-minded, etc.

The use of this immunizing agent may eventually result in entirely wiping out diphtheria. The sick rate and death rate from diphtheria in Halifax and Dartmouth has recently been low. The possibility of this victory is greater while the incidence is low than when it is high.

## (10)-Researches and Surveys.

## (1)-Undernourished School Children.

In 1922, it was recommended by the Executive Officer that an intensive study of undernourished school children in Halifax and Dartmouth be undertaken for the purpose of determining the number of such children who are tuberculous or pre-tuberculous, and of disclosing all those associated affections that may militate against their mental and physical development. It was further recommended that the investigation be carried into the homes of these children, in order to furnish the doctor with full information about living conditions that may be a hindrance to the child's well-being and are remedial, e. g., diet or sanitation.

This recommendation was approved by Dr. V. G. Heiser, by the school officials and by the Commission, but no action has been taken to date pending the decision of the Halifax Medical Society.

It is recommended that the co-operation of the Canadian Tuberculosis Association and the Red Cross Society be invited in carrying out this proposed survey.

[^6]
## *(2)-Housing Survey.

A report on the social and housing conditions of each family enrolled at the Health Centre is made by the public health nurse and kept on file. Similar information about every family in Halifax would be invaluable. It is essential to the proper working of a Health Board, and it is recommended that this body undertake such a survey in the near future.

## (3) Tuberculosis Survey.

In the interests of public health, every effort should be made to trace and list all cases of tuberculosis, whether incipient, moderately advanced or far advanced, as well as all pre-tuberculous cases.

According to the regulations of the City Health Board, every case diagnosed as tuberculosis, must be reported, and this regulation should be more strictly enforced.

A survey of Undernourished School Children, and a Social and Housing Survey-Recommendations 10 (2) and 10 (3)-would disclose many pre-tuberculous and tuberculous cases that can be followed up.

In order to obtain an authoritative, exhaustive case list, it is recommended that a special Tuberculous Case-finding survey be conducted in Halifax and Dartmouth. In addition to being of great assistance to the City Health Board and the medical profession in looking after cases and preventing the spread of infection, this list. would form a basis for a spot map of the city, showing its danger zones; and also for statistical tables compiled according to locality, age, sex, occupation, etc.

## (11)-Control of the City Tuberculosis Hospital.

The Massachusetts-Halifax Health Commission has already rendered valuable service in helping to determine the present site of the Tuberculosis Hospital, in assisting in drafting the plans of this Hospital, and in lending the services of its Tuberculosis Examiner as a Consultant.

It was the intent of the Act under which this Hospital was created to avoid the stigma of pauperism and to make it easy for advanced cases of tuberculosis to secure admission.

[^7]If this institution were under the control of the City Health Board,-as is the Infectious Diseases Hospital-then all those cases of tuberculosis who were a menace to the public health could be readily admitted. This institution should be open to all types of tuberculosis.

The Commission should support a movement to have the hospital placed under a Board of Trustees, or the City Health Board, as it feels that such a measure would enable it to meet its responsibilities more fully.

## (12)-Erection of a Modern Infectious Diseases Hospital.

The great improvement which has resulted from the use of the 'unit-plan' in hospital architecture justifies one in recommending a hospital in which Scarlet Fever, Measles, Whooping Cough, Diphtheria, and other diseases-Small Pox only excepted-may be treated at the same time.

Because of the high type of personnel required, and the rigidity of technique that must be imposed, it is recommended that a hospital be erected upon a plot of ground entirely separated from any other institution in the hospital area. An ideal location is already owned by the city, on Morris and Summer Streets, between the Anglican Cathedral property and the garden of the Convent of the Sacred Heart.

It is recommended that this hospital be directly under the supervision of the City Health Officer. It is also recommended that it be made available to Dalhousie Medical College for clinical teaching, and for training in the precautions to be observed in taking care of acute, infectious diseases.

In order that the technique may at all times be of high standard and that the City Health Officer may have the support of the leaders in the Medical profession, it is recommended that a Committee of the Medical Faculty, in co-operation with the City Health Officer, shall frame the rules, regulations and technical requirements to be observed by all doctors, nurses, students and visitors entering or leaving this institution.

If arrangements can be made for the city to float a loan for the partial cost of erecting a hospital of this high type, which would serve as a model Infectious Diseases Hospital for Eastern Canada, overtures might be made to one of the great Foundations for their co-operation and financial assistance.

[^8]
## (13) Continuance of Health Centres In Halifax and Dartmouth.

The Health Centre has proven its usefulness in cities and towns throughout Canada and the United States. Halifax and Dartmouth are no exception.

Arrangements should be made whereby both Halifax and Dartmouth will be assured of a continuance of Health Centre service after the Massachusetts-Halifax Health Commission ceases to exist.
*It is further recommended that continued effort be made to group "all of the public and private health, welfare and relief agencies under one roof"-so that they will be 'Health Centres' in fact as well as in name. This plan is being followed by such organizations as the Health Centre in St. John, New Brunswick, the East Harlem Health Centre, New York City, and the Blossom St. Health Unit, Boston.

## (14)—Appraisal Committee.

An Appraisal Committee should be secured to evaluate all the work of the Commission since its organization, to study the plans made for the expansion of its activities, and to approve arrangements made for transfer to the proper local authorities and for the compilation; publication, and distribution of the Commission's final report with all recommendations and findings.
(A detailed plan for securing the personnel of such a committee is on file in the Executive Office.)

[^9]
## APPENDIX II.

## Clinic Services Conducted <br> by <br> Massachusetts-Halifax Health Commission.



Note:-Dr. E. Brison holds a Clinic for the mentally defective at irregular intervals.

## HEALTH CENTRE No. 2, (incl. Tufts Cove)

| Baby Clinic. | hurs. | 10.00-11.00 | Dr. H. A. Payzant |
| :---: | :---: | :---: | :---: |
| Pre-natal Clinic. | Thurs. | 10.00-11.00 | Dr. H. A. Payzant |
| Tuberculosis Clinic. | W | 3.00-5.00 | Dr. M. Resnick |
| Eye, Ear, Nose and Throat | Wed. | 3.00-4.30 | Dr. Resnick acting. |
| Nutrition Class (Boys) | Thurs. | 4.00-5.00 | Vis. Housekeeper |
| Nutrition Class (Girls). | Sat. | 2.00-3.00 | Vis. Housekeeper |
| Weighing Clinic |  | 3.00-4.00 | Public Health'Nurs |

## APPENDIX III.

Members of Commission and staff, September, 1919 to September 30, 1924.<br>G. Fred Pearson, Chairman, Sept. 22, 1919 to date.<br>Hon. Richard G. Beazley, Vice-Chairman, Sept. 22, 1919 to date. Mr. Justice T. Shernian Rogers, Sept. 22, 1919 to date. Judge William B. Wallace, Sept. 22, 1919 to date. William H. Hattie, M. D., Sept. 22, 1919 to Dec. 1922. Arthur C. Jost, M. D., Dec. 8, 1922 to date. H. Allison Payzant, M. D., Sept. 22, 1919 to date. Murdoch A. MacAulay, M. D., Sept. 22, 1919 to May 1921. John Locke Churchill, M. D., May 1921 to May 1924. William Patrick Mackasey, M. D., May 1924 to date. Hugh R. Silver, Sept. 22, 1919 to date. Joseph L. Hetherington, Sept. 22, 1919 to date.

| name | POSITION | APPOINTMENT | RESIGN |
| :---: | :---: | :---: | :---: |
| B. Franklin Royer. | Chief Executive Officer. | .Oct. 1,. 1919 | Jul. |
| T. M. Sieniewicz. | Acting Chief Executive Officer | July 19, 1923 |  |
|  | CONSULTING STAFF. |  |  |
| Dr. John Stewart. | .Surgery and Venereal Disease. | Apr. 23, 1920 |  |
| Dr. Geo. H. Campbell | . .Pre-natal and Baby Clinic. | Apr. 23, 1920 | Died. |
| Dr. Arthur Birt. | Medicine. | Apr. 23, 1920 |  |
| Dr. S. J. Maclennan. | ....Nose and Throat. | .Apr. 23, 1920 |  |
| Dr. R. E. Mathers. | . Eye and Ear | Apr. 23, 1920 |  |
| Dr. Frank Woodbury. | Dentistry. | .Apr. 23, 1920 | Died. |

ATTENDING MEDICAL STAFF.

## Health Centre No. 1 and Tuberculosis Clinic, Halifax Dispensary.

| Dr. M. J. Carney | Tuberculosis Clinic | air. | 1,1920 | Oct. | 1920 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Dr. D A. Craig. | Examiner | Jun. | 15, 1920 | Feb. | 1,1921 |
| Dr. H. G. Grant. | Clinic | .Nov. | 11, 1920 | Mar. | 1,1923 |
| Dr. W. E. Daley. |  | .Nov. | 15,1920 | Mar. | 1,1921 |
| Dr. T. M. Sieniewicz | Examine | . June | 1, 1921 |  |  |
| Dr. S. H. Keshen. | Clinic. | .Mar. | 28, 1923 | Aug. | 21, 1923 |
| Dr. Archibald McCallum. | " ${ }^{\text {a }}$ | Jun. | 25, 1923 | Oct. | 16, 1923 |
| Dr. M. Resnick. | " ${ }^{\text {" }}$ | . Mar. | 17, 1924 |  |  |
| Dr. Gordon Wiswell. | .Pre-natal and Baby Clinic | Jun. | 10, 1920 |  |  |
| Dr. Hugh Schwartz. | .Nose and Throat Clinic. | Jun. | 10, 1920 | Feb. | 1921 |
| Dr. J. A. M. Hemmeon. | .Nose and Throat Clinic | . May | 2, 1921 | Aulg. | 1,1922 |
| Dr. Allan Cunningham. | ، " " ، | Jul. | 1, 1921* |  |  |
| Dr. S. J. Maclennan | " " ، ، | . May | 2, 1921 |  |  |
| Dr. W. L. Muir. | . Anesthetist | . Jul. | 1, 1920** |  |  |
| Dr. S. H. Kesien. | Additional Anesthetist | .Nov. | 15, 1920 | June | 1921 |
| Dr. J. G. MacDougall. | .Psychopathic Clinic | .Nov. | 1,1920 $\dagger$ |  |  |
| Dr. Kenneth Mackenzie. | . " ، | .Nov. | 1, 1920 $\dagger$ |  |  |
| Dr. F. W. Tidmarsh. | Nutrition Classes | Dec. | 1,19?0 | Apr. | -26, 1923 |

Note-The Tuberculosis Clinic has been conducted by the Tuberculosis Examiner, or a substitute, ever since the opening of the Health Centre, March, 1921.
Duke of Devonshire, Governor-General of Canada, at Health Centre No. 1, December, 1920.


# Health Centre No. 1. 

| name | position | APPOINTMENT |  | RESIGNED |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Dr. Alan Curry. | . .Posture Clinic. | Jan. | 28, 1921 | Mar. 31, 1923 |  |
| Dr. J. N. Lyons. | " | Apr. | 1, 1923 |  |  |
| Dr. S. J. Turel. | . Child Welfare Clinic. | Mar. | 23, 1922 | Sept. | 1924 |
| 7) Etemrison | - whehintrie C.liric.a. Health Centre No. 2. |  |  |  |  |
| Dr. H. A. Payzant. | Pre-natal and Baby ${ }^{\text {che }}$ Clinic. | Mar. | 1, 1921 |  |  |
| Dr. T. M. Sieniewicz. | Tuberculosis Clinic. | .Jun. | 1, 1921 |  |  |
| Dr. M. Resnick. | " ${ }^{\text {a }}$. | .Mar. | 17, 1924 |  |  |
| Dr. G. G. Gandier. | Eye, Nose and Throat Clinic. | . Mar . | 1, 1921 | Jun. | 15, 1923 |
| PATHOLOGICAL STAFF. |  |  |  |  |  |
| Dr. Harry S. Morse. | .Pathologist and Bacteriologist. | . May | 11, 1921 | June | 1922 |
| Miss Geraldine B. Haines. | Technician. | .June | 1, 1921 | June | 10, 1923 |
| Dr. Foster Murray. | Pathologist and Bacteriologist. | .Oct. | 19, 1923 |  | Ti 2 ; 192J- |
| DENTAL STAFF. |  |  |  |  |  |
| Dr. Arrabelle Mackenzie. | . Paedodontist, H. C. No. 1. | Jan. | 1921 |  | 15, 1924 |
| Dr. J. Stanley Bagnall. | .Holiday Dental Clinic. | Jun. | 9, 1921 | Aug. | 9, 1921 |
| Mr. Greene... | " ${ }^{\text {a }}$ | Jun. | 9, 1921 |  | 6, 1921 |
| Mr. Purdy. | ، " " | .Jun. | 9, 1921 |  | 6, 1921 |
| Dr, Roberta Forbes.. | .Full-time paedodontist. | Aug. | 18, 1924 | due | 142.13 |

## PUBLIC HEALTH NURSING STAFF.




## VISITING HOUSEKEEPERS.

| Miss Elizabeth Ellis | Visiting Housekeeper | Oct. | 1, 1921 | Jan. | 1, 1922 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Miss Enid Macfarlane. | " ${ }^{\text {" }}$ | .Apr. | 4, 1922 | Aug. | 1, 1922 |
| Miss Martha A. MacFarlane | " ${ }^{\text {a }}$ | . Oct. | 3, 1922 | Dec. | 31, 1923 |
| Miss Marjorie Bell | . " . ${ }^{\text {c }}$ | . Sept. | 5, 1922 |  |  |
| *Miss Elizabetif Eilis. | Supervising Visiting | Sept. | 5, 1922 |  |  |

## SECRETARIES AND CLERKS.


*Reappointed.

CLIIIIC ATPELIDANCE
MARCH, 1920 to SEPTEABER 30. 1926


# MASSACHUSETTS-HALIFAX HEALTH COMMISSION. NURSING VISITS. 

March, 1920 to September 30, 1924.

|  | $\begin{array}{\|c} \text { Mat. } 1920 \\ \text { to } \\ \text { Sept. } 1920 \end{array}$ | $\begin{gathered} \text { Oct. } 1920 \\ \text { Sept. } 1921 \end{gathered}$ | $\left\|\begin{array}{c} \text { Oct. } 1921 \\ \text { Sept. } 1922 \end{array}\right\|$ | $\left\lvert\, \begin{gathered} \text { Oct. } 1922 \\ \text { Sept. } 1923 \end{gathered}\right.$ | $\left\|\begin{array}{c} \text { Oct. } 1923 \\ \text { Sept. } 1924 \end{array}\right\|$ | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Prenatal. |  | 160 | 651 | 703 | 258 | 1772 |
| Baby Welfare, H. C. 1.. |  |  |  | 3146 | 6201 | 9347 |
| Child Welfare Gen., H. |  |  |  |  |  |  |
| C. 1 | 479 | 3752 | 9390 | 5345 | $\ldots$ | 18966 |
| Child Welfare Gen., H. <br> C. 2. |  | 357 | 631 | 509 | 403 | 1900 |
| Child Welfare Special, H. C. 1. |  |  |  | 2618 | 6297 | 8915 |
| Dental |  | 982 | 3213 | 4176 | 8121 | 16492 |
| Nutrition |  | 196 | 1403 | 2299 | 4550 | 8448 |
| Posture. |  |  | 199 | 314 | 648 | 1161 |
| Ear, Nose and Throat.. | 23 | 2332 | 4633 | 4343 | 6033 | 17364 |
| Eye. |  | 54 | 154 | 268 | 897 | 1373 |
| VD and GU . |  |  | 91 | 51 | 120 | 262 |
| Tuberculosis | 1818 | 3499. | 4616 | 4065 | 5100 | 19098 |
| Skin. |  | 13 | 325 | 379 | . 468 | 1185 |
| Clinic Visits. | 2320 | 11345 | 25306 | 28216 | 39096 | 106283 |
| Non Clinic Visits. | 12 | 4973 | 9510 | 11400 | 14632 | 40527 |
| Vis. Housekeepers |  |  | 780 | 3262 | 2732 | 6774 |
| Grand Total . | 2332 | 16318 | 35596 | 42878 | 56460 | 153584 |
|  |  |  |  |  | : |  |

Up to Feb., 1923, clinic and non clinic pre-natal visits were grouped together; from that date, only clinic visits are tabulated.

Child Welfare, Health Centre No. 1 has been divided into Baby Welfare and Child Welfare, Special. Health Centre No. 2 has only one general clinic.
Homo Instruction Visits Public Health Iurses \& Visiting Housekeepers.

| MONTH | 1920 | 1921 | 1922 | 1923 | 1924 | 1925 | 1926 | 1927 | 1928 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Jan. | - | 679 | 2580 | 3615 | 3812 | 3689 | 2467 | 1784 | 2476 |
| Feb。 | -••• | 737 | 2394 | 3374 | 4313 | 3912 | 2259 | 2653 | 2275 |
| Harch | 221 | 884 | 3037 | 3182 | 4708 | 5711 | 3198 | 2822 | 1707 |
| April | 200 | 940 | 2215 | 3366 | 4943 | 5267 | 2332 | 2714 | 1312 |
| May | 232 | 1579 | 3349 | 4076 | 5376 | 5722 | 2389 | 2961 | 1938 |
| June | 304 | 2301 | 2921 | 3240 | 5089 | 3524 | 2597 | 2998 |  |
| July | 299 | 2481 | 3584 | 3428 | 4745 | 2798 | 2770 | 2012 |  |
| August | 670 | 2601 | 4403 | 4141 | 5750 | 2238 | 2789 | 1668 |  |
| Soptember | 406 | 2289 | 4205 | 3127 | 5770 | 2583 | 2528 | 2839 |  |
| october | 534 | 2275 | 4111 | 3682 | 4576 | 1789 | 2321 | 2564 |  |
| November | 671 | 2292 | 3809 | 4927 | 4606 | . 1843 | 2389 | 2823 |  |
| Decembor | 622 | 2341 | 3409 | 3345 | 3534 | 2766 | 2553 | 2718 |  |
|  | 4159 | 21399 | 40017 | 43503 | 57222 | 41942 | 30592 | 30556 | 9709 |

MASSACHUSETTS-HALIFAX HEALIH COMAISSIOIT
MARCH, 1920 to SEDTEMBER $30,1926$. NURSING VISITS.


## APPENDIX V.

## A List of the more Important Formal Papers and Publications by Members of the Staff of the MassachusettsHalifax Health Commission. <br> $\qquad$ -

1919. 

Dr. B. Franklin Royer:-"Prevention of Disease, Aim of the Commission," Halifax Morning and Evening Papers, Oct. 8, 1919.
"Peace time Program of the Nova Scotia Red Cross Society," Bulletin 47, Canadian Red Cross Society, October, November, December, 1919. Also Bulletin "League of Red Cross Societies, Geneva, Switzerland, Mar. 1920.

Clara B. Bligh; and E. M. Murray:-"Saving Babies in Halifax" Canadian Nurse and Hospital Review, Vol. 15, No. 12, Dec. 1919.
1920.

Dr. B. Frankiln Royer:-Annual Address, "Combatting Venereal Diseases" Canadian Nurse and Hospital Review, Vol. 16, No. 6, June, 1920.
"Syllabus in Public Health Nursing" Dalhousie University, February, 1920.
1921.

Dr. B. Franklin Royer:-"Halifax-Dartmonth Health Program" The X-Ray, Kentville, Vol. 2, No. 3, February 1921.
"Public Health Program for Halifax and Dartmouth," Social Welfare, Tor., Vol. 3, p. 123, Feb. 1921.
"Public Aspects of Tuberculosis," Can. Pub. Health Journal, Vol. 12, No. 5, May 1921.
"Child Welfare," Can. Pub. Health Journal, Vol. 12, No. 7, p. 289-293, July, 1921.
1922.

Dr. B. Franklin Royer:-"A Link in the Control of Tuberculosis," The Pub. Health Nurse, Vol. XIV., No. 3, p. 141-144, Mar., 1922.
"Work of the Massachusetts-Halifax Health Commission," The Med. Journal of Australia, Vol. I., 9th Year, No. 17, p. 451-456, April 29, 1922. Published also in Amer. Jour. Pub. Health, Vol. XII., No. 3, p. 193-201, Mar., 1922.

Dr. B. Franklin Royer:-"Halifax and Dartmouth as Centres of Health, How the Capital City could reduce its Death Rate and make Halifax a place to be proud of." Statistics and Graphs, Magazine Section Sunday Leader, April, 16, 1922.

Jessie L. Ross, R. N.:-"Public Health" Public Hearth Nurse, Cleveland, Ohio, May, 1922
Also X-Ray, May 1922.
Also Social Welfare, Toronto, Canada, May, 1922.

Dr. B. Franklin Royer:-"Special Health Centre Clinics of the MassachusettsHalifax Health Commission.' The X-Ray, Kentville, Nova Scotia, Sept., 1922 "Health Centers of the Massachusetts-Halifax Health Commission," with special Reference to the Pre-School age Dental Clinics and Nutrition Classes." The Journal of the American Medical Association, Oct. 24, 1922. Vol. 79,, pp. 1308-1310. Also published in Amer. Jour. of Dentistry, Dec. 1922
"Health Building in Halifax, a Story based on Observation and a series of interviews with the staff representatives of the Massachusetts-Halifax Health Commission." The Canadian Child, Vol. 3, No. 5 and 6, November and December 1922. Reprinted in pamphlet form.

Dr. B. Franklin Royer:-"Decline in City of Halifax Death Rates." A brief discussion of results, credits, and economics of Health Activities. Evening Mail, Halifax, N. S., Jan. 18, 1923. Reprinted in pamphlet form.
"Vitamins," Canadian Public Health Jour, May 1923. Also in X-Ray June, 1923. Previously published in four parts without illustrations, Halifax Morning Chronicle and Evening Echo, Jan. 20, 22, 26, 29, 1923. Reprinted in pamphlet form.

Dr. T. M. Sieniewicz:-"The Tuberculous Problem of the School Age, with special reference to the need of a Preventorium". The X-Ray, Kentville, N. S., Vol. 4, No. 3, pp. 5-6. Reprinted in pamphlet form.
1923.

Jessie L. Ross, R. N.:-"Attacking Infant and Maternal Mortality," The Halifax Experiment, The Public Health Nurse, Cleveland, Ohio. Mar, 1923.

Dr. B. Franklin Royer:-"Public Health Nursing versus Bedside Work," The Public Health Nurse, May, 1923.
"Post-War Health Programme, Halifax, Nova Scotia." International Amity Exemplified, The Canadian Medical Association Journal, May, 1923.
"The Public Health Programme for Halifax and Dartmouth,". The Canadian Nurse and Hospital Review, June 1923. Vol. XIX., No. 6.
"Progress Report on the Health Programme of Halifax and Dartmouth.". The Australasian Medical Journal, Sydney, Australia, June 23, 1923.

Dr. F. W. Tidmarsh:-'Malnutrition." The Canadian Medical Association Journal,' June 1923.

Dr. Arrabelle MacKenzie:-"Preventive Dentistry, Canadian Nurse, August, 1923.

Dr. T. M. Sieniewicz:-"Clinical Value of D'Espine's Sign"; Canadian Medical Association Journal, Dec., 1923.

## APPENDIX VI.

## SELECTED STATISTIGAL TABLES WITH GRAPHS.

1. General Death Rate, City and Province, October 1909 to September 1924.

Graph for City Death Rate.
2. Comparative Table of Mortality Statistics-Halifax, Toronto, London, New York,. Calendar year, 1909-1923.

Graph to cover Table 2.
3. Infant Mortality Rate, City and Province, October 1909 to September 1924.

Graph for City Infant Mortality Rate.
4. Comparative Table of Infant Mortality Statistics-Halifax, Toronto, London, New York, 1910-24.

Graph to cover Table 4.
5. Birth Rate, Halifax, N. S., October 1909 to September 1924.

Graph to cover Table 5.
6. Tuberculosis Death Rate (All forms and Pulmonary), Halifax, N. S., October 1909 to September 1924.

Graphic chart to cover Table 6.
7. Dartmouth. Vital Statistics.
8. Halifax and Dartmouth Census, 1921. Miscellaneous Tables.
9. Set of graphs from Provincial Health Department, illustrating Vital Statistics in the City and Province.

Note:--Halifax City figures up to 1921-22 are taken from Reports of the Registrar of Vital Statistics. From 1921-22 they are obtained from the Provincial Department of Health.

TABLE 1.

## GENERAL DEATH RATE, GITY AND PROVINGE.

## October-September year.

| CITY |  |  |  | PROVINCE |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Year | Population | No.Deaths | ${ }_{\substack{\text { Rate per } \\ 1,000}}$ | Population | No.Deaths | ${ }_{\substack{\text { Rate per } \\ 1,000}}$ |
| 1909-10 | 45,514 | 829 | 18.2 | 505,000 | 7,120 | 13.8 |
| 1910-11 | 46,619 | 995 | 21.3 | 492,338 | 8,237 | 16.7 |
| 1911-12 | 47,794 | 843 | 17.6 | 492,338 | 7,126 | 14.5 |
| 1912-13 | 48,970 | 912 | 18.6 | 497,666 | 7,225 | 14.5 |
| 1913-14 | 50,145 | 1031 | 20.5 | 497,666 | 7,527 | 15.1 |
| 1914-15 | 51,320 | 1128 | 22.0 | 503,162 | 7,675 | 15.3 |
| 1915-16 | 52,496 | 1103 | 21.0 | 507,880 | 8,052 | 15.9 |
| 1916-17 | 53,671 | 991 | 18.4 | 507,880 | 7,583 | 14.9 |
| 1917-18 | 54,846 | $\dagger 1115$ | 20.3 | 511,186 | 9,125 | 17.9 |
| 1918-19 | 56,021 | 1330 | 23.7 | 514,484 | 9,200 | 17.9 |
| 1919-20 | 57,197 | 1120 | 19.6 | 520,399 | 7,439 | 14.3 |
| 1920-21 | 58,372 | 888 | -15:2 | 523,837 | 6,573 | $\cdots 12.5$ |
| 1921-22 | 58,372 | 768 | 13.1 | 523,837 | 6,628 | 12.6 |
| 1922-23 | 58,372 | 845 | 14.5 | 523,837 | 6,900 | 13.2 |
| 1923-24 | *58,372 | 682 | 11.7 | 523,837 | 6,564 | 12.5 |

*Using 59575, the figure obtained on the Directory census the General Death Rate would be 11.4.
tadiusted for Explosion.

| $1924-25$ | 58,372 | 643 | 11.02 | $1-23.837$ | 6078 | 11.5 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $1925-26$ | -8372 | 744 | 12.7 | 523837 | 6424 | $12: 07$ |
| $1926-2 y$ | 58372 | 739 | 12.6 | 523837 | 6259 | 11.9 |

 Average
$1909-10$
$1918-19$
$1920-21$
$\therefore$
$1921-22$
$1922-23$
$\vdots$
$1923-24$
Average
1918-19
to
$1923-24$

TABLE 2.
COMPARATIVE TABLE OF MORTALITY STATISTICS.

## Calendar Year.

(Rate per 1,000)

| YEAR | halifax | TORONTO | LONDON | NEW YORK |
| :---: | :---: | :---: | :---: | :---: |
| 1909. |  | 15.3 | 15 | 16 |
| 1910. | 18.3 | 15.1 | 13.7 | 16 |
| 1911. | 21.1 | 14.5 | 15 | 15.3 |
| 1912. | 18.0 | 13.9 | 13.6 | 14.4 |
| 1913. | 19.4 | 14.1 | 14.2 | 14.2 |
| 1914. | 20.3 | 12.1 | 14.4 | 14.0 |
| 1915. | 22.4 | 12.0 | 16.1 | 13.9 |
| 1916. | 20.4 | 12.9 | 14.3 | 13.9 |
| 1917. | 16.9 | 11.8 | 15 | 13.7 |
| 1918. | 26.2 | 15.5 | 18.7 | 16.7 |
| 1919. | 17.3 | 11.4 | 13.6 | 12.4 |
| 1920. | 18.1 | 14.1 | 12.6 | 12.9 |
| 1921. | 15.5 | 11.2 | 12.5 | 11.2 |
| 1922. | 13 | 10.5 | 13.4 | 11.93 |
| 1923. | 14.2 | 11.4 | 11.2 | 11.72 |
| 1924 provisional. | 11.6 | 10.3 | 12 | 11.8 |
| 1925 |  | 10.28 | 11.7 | 12.2 |
| 1926 |  | 11.3 | 11.6 | 12.8 |
| 1927 provisional |  |  | 11.9 | 11.8 |


Note: 1924 figures-Halifax, 11.6; Toronto, 10.3; London, 12; New York, 11.8.

## TABLE 3.

## INFANT MORTALITY RATE-GITY AND PROVINCE.

October-September Year.

| CITY |  |  |  | PROVINCE |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| YEAR | BIRTHS | DEaths | RATE | BIRTHS | DEATHS | RATE |
| 1909-10 | 1379 | 241 | 175 | 12,588 | 1469 | 116.6 |
| 1910-11 | 1332 | 278 | 209 | 12,322 | 1614 | 130.9 |
| 1911-12 | 1308 | 201 | 154 | 12,681 | 1298 | 102.3 |
| 1912-13 | 1402 | 272 | 194 | 12,553 | 1441 | 114.7 |
| 1913-14 | 1464 | 281 | 192 | 12,771 | 1471 | 115.1 |
| 1914-15 | 1492 | 302 | 202 | 13,171 | 1546 | 117.4 |
| 1915-16 | 1614 | 309 | 191 | 12,770 | 1554 | 121.6 |
| 1916-17 | 1600 | 301 | 188 | 12,382 | 1461 | 118.0 |
| 1917-18. | 1465 | 280 | 190 | 12,421 | 1292 | 104.0 |
| 1918-19 | 1595 | 273 | 171 | 12,508 | 1409 | 112.6 |
| 1919-20 | 1904 | 316 | 166 | 13,346 | 1486 | 111.3 |
| 1920-21 | 1804 | 244 | 135 | 12,793 | 1314 | 102.7 |
| 1921-22 | 1808 | 200 | 110.6 | 13,164 | 1190 | 90.4 |
| 1922-23 | 1716 | 213 | 124.1 | 11,856 | 1146 | 96.6 |
| 1923-24 | 1448 | 141 | 97.4 | 11,698 | 1080 | 92 |
| 1924-25 | 14.59 | 117 | 80.2 | 11596 | 914 | 76.8 |
| $1925=26$ | 1496 | 120 | 80.2 | $1 / 605$ | 784 | 67.5 90.8 |
| 1926-2y | 1521 | 106 | 69.6 | 11134 | 1011 | 40.8 |



## TABLE 4.

## INFANT MORTALITY RATE.

per 1,000 Live Births.
Comparative Table.
1909-10 to 1923-24.

| year | halifax | TORONTO | London | NEW YORK | year |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1909-10. | 175 | 182 | 103 | 126 | 1910 |
| 1910-11. | 209 | 149 | 129 | 112 | 1911 |
| 1911-12. | 154 | 144 | 91 | 105 | 1912 |
| 1912-13. | 194 | 144 | 105 | 102 | 1913 |
| 1913-14. | 192 | 137 | 104 | 94 | 1914 |
| 1914-15. | 202 | 111 | 112 | 97 | 1915 |
| 1915-16. | 191 | 109 | 87 | 93 | 1916 |
| 1916-17. | 188 | 108 | 103 | 88 | 1917 |
| 1917-18. | 190 | 92 | 107 | 92 | 1918 |
| 1918-19. | 171 | 105 | 85 | 82 | 1919 |
| 1919-20. | 166 | 89 | 76 | 85 | 1920 |
| 1920-21. | 135 | 85 | 80 | 78 | 1921 |
| 1921-22. | 110 | 75 | 74 | 75 | 1922 |
| 1922-23. | 124 | 74 | 60 | 66 | 1923 |
| 1923-24. | 97 | 71 | 69 | 68 | 1924 |

*Note:-Halifax Rates on Oct.-Sept. year. Other rates on calendar year.

| $1924-2 J$ | 80.2 | 70.8 | 67 | 65 | $192 N$ |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| $1925-26$ | 50.2 | 73.2 | 64 | 67.8 | 1926 | $\vdots$ |
| $1926-2 y$ | 69.6 |  |  |  |  |  |



## TABLE 6. <br> TUBERGULOSIS DEATH RATE.

## All forms and Pulmonary.

Statistics from 1909-10 to 1923-24.

| Year | Population | All | Rate per 100,000 | Pulmonary | $\begin{aligned} & \text { Rate per } \\ & 100.000 \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1909-10. | 45,514 | 108 | 237.3 | 88 | 193.3 |
| 1910-11. | 46,619 | 114 | 244.5 | 92 | 197.3 |
| 1911-12. | 47,794 | 101 | 211.3 | 83 | 173.7 |
| 1912-13. | 48,970 | 95 | 194.0 | 86 | 175.6 |
| 1913-14. | 50,145 | 114 | 227.3 | 91 | 181.5 |
| 1914-15. | 51,320 | 124 | 241.6 | 103 | 200.7 |
| 1915-16. | 52,496 | 125 | 238.1 | 106 | 201.9 |
| 1916-17. | 53,671 | 112 | 208.7 | 91 | 169.5 |
| 1917-18. | 54,846 | $\left.\begin{array}{r} * 92 \\ 4 \end{array}\right\}$ | 175.5 | $\left.\begin{array}{r}* 68 \\ 4\end{array}\right\}$ | 131.1 |
| 1918-19. | 56,021 | 104 | 185.6 | 94 | 167.8 |
| 1919-20. | 57,197 | $\left.\begin{array}{r}\dagger 109 \\ 12\end{array}\right\}$ | 211.5 | $\left.\begin{array}{r}+74 \\ 12 \\ +6\end{array}\right\}$ | 150.3 |
| 1920-21. | 58,372 | $\left.\begin{array}{r}+86 \\ 7\end{array}\right\}$ | 159.3 | $\left.\begin{array}{r}+67 \\ 7\end{array}\right\}$ | 126.8 |
| 1921-22. | 58,372 | 73 | 125.1 | 49 | 87.4 |
| 1922-23. | 58,372 | 89 | 152.5 | 68 | 116.5 |
| 1923-24. | 58,372 | 78 | 133.6 | 59 | 101.1 |

* Addition for Explosion year.
tAddition for deaths, Farker Hospital, Dartmouth.
N. B.-From 1921, the figures are obtained from the Provincial Dept. of Health. Prior to 1921, the figures are from the Prov. Dept. of Vital Statistics.

| $1924-21$ | 14372 | 69 | 118.21 | 57 | 97.61 |
| :--- | :--- | :--- | :--- | :--- | :--- |
| $1921-26$ | 58372 | 90 | 154.18 | 72 | 123.34 |
| $1926-27$ | 18372 | 71 | 128.4 | 64 | $109.6 \%$ |



DARTMOUTH, N. S.

## Vital Statistics.

1912-13 to 1919-20.

| Year | Popu- <br> lation | Births | Birth <br> Rate | Infant <br> Deaths | Infant <br> Death <br> Rate | Deaths <br> Pulm <br> Tbc | Rate <br> Pulm <br> Tbc | All <br> Deaths | Ceneral <br> Death <br> Rate |
| :--- | :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $1912-13$ | 5626 | 124 | 22 | 14 | 112.9 | 4 | 70.5 | 71 | 12.6 |
| $1913-14$ | 5910 | 114 | 19.3 | 17 | 149.1 | 12 | 203 | 99 | 16.7 |
| $1914-15$ | 6194 | 128 | 20.6 | 18 | 140.6 | 10 | 161 | 93 | 15 |
| $1915-16$ | 6478 | 122 | 18.8 | 23 | 188.5 | 4 | 64.6 | 92 | 14.2 |
| $1916-17$ | 6763 | 118 | 17.4 | 23 | 194.9 | 9 | 133 | 93 | 13.7 |
| $1917-18$ | 7047 | 137 | 19.4 | 22 | 160.5 | 9 | 170 | 112 | 15.8 |
| $1918-19$ | 7331 | 134 | 18.3 | 19 | 141.8 | 10 | 136.4 | 142 | 19.4 |
| $1919-20$ | 7615 | 244 | 32 | 32 | 131.1 | 8 | 105 | 121 | 15.9 |

DARTMOU'TH, N. S.
Vital Statistics.
1920-21 to 1923-24.
$\left.\begin{array}{l|c|c|c|c|c|c|c|c|c}\hline \text { Year } & \begin{array}{c}\text { Popu- } \\ \text { lation }\end{array} & \text { Births } & \text { Rate } & \begin{array}{c}\text { Infant } \\ \text { Deaths }\end{array} & \begin{array}{c}\text { Infant } \\ \text { Death } \\ \text { Rate }\end{array} & \begin{array}{c}\text { Deaths } \\ \text { Pulm } \\ \text { Tbc }\end{array} & \begin{array}{c}\text { Rate } \\ \text { Pulm } \\ \text { Tbc }\end{array} & \begin{array}{c}\text { All } \\ \text { Deaths } \\ \text { General }\end{array} \\ \hline 1920-21 & 7899 & 252 & 31.9 & 25 & 99.2 & 10 . & 126.6 & .75 & 9.5 \\ \text { Death } \\ \text { Rate }\end{array}\right]$

## HALIFAX AND DARTMOUTH.

## Population according to nationality.

|  | Halifax | Dartmouth |
| :---: | :---: | :---: |
| Total population, last census. | 58,372 | 7,899 |
| British. | 50,409 | 7,320 |
| French. | 3,000 | 165 |
| Austrian and German. | 754 | 89 |
| Dutch. | 1,303 | 116 |
| Scandinavian. | 284 | 18 |
| Russian. | 97 | 10 |
| Other European. | 398 | 2 |
| Asiatic. | 411 | 9 |
| Hebrew. | 585 | 11 |
| Negro. | 940 | 154 |
| Indian. | 13 | - |
| Unspecified.......... | 178 | 4 |

$\because \quad \therefore \quad 65^{\circ} \quad \because \because \because$

Literacy Tables.
Halifax.

| Total population | Over <br> 10 yrs . | Can read and write | \% | Can read | \% | Cannot read or write | $\%$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| .58,372 | 46,445 | 45,261 | 97.45 | 230 | . 50 | 954 | 2.05 |
| 28,357 M | $22,426 \mathrm{M}$ | 21,827 M | 97.33 | 116 | . 52 | 483 M | 1.96 |
| 30,015 F | 24,019 F | 23,434 F | 97.56 | 114 | . 48 | 471 F | 2.12 |

## Dartmouth.

| 7,899 | 6,137 | 6,058 | $\frac{98.71}{}$ | $\frac{18}{}$ | $\frac{.29}{}$ | $\frac{61}{}$ | 1.00 <br> 3,865 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 4,034 | 3,012 | $\frac{2,964}{}$ | $\frac{98.41}{9}$ | $\frac{.30}{39}$ | $\frac{39}{1.29}$ |  |  |

## School Attendance.

Halifax-Population, census of 1921 . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 58,372

Dartmouth-Population, census of 1921 . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 7,899
School population. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 1,295

| At school any period |  | $\% \underset{\text { born }}{\text { Canadian }}$ | At school any period |  | British born | At school any period | \% Foreign born. | At school anyperiod |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 8,177 | 94.37 | 8068 | 7630 | 94.37 | 405 | 373192 | 881 | 760 | 86.27 |
| 1,212 | 93.59 | 1184 | 1110 | 93.75 | 83 | 7590.36 | 28 | 27 | 96.43 |

Percentage in Halifax Vaccinated
Up to Grade IV-70\%
From Grade IV up-90\%
üchoo/TPpiPartmouth (Paported by Sikeol Podrd)
1422 - 1637
$1923-1758$
$1494-1717$
1985-1668.


INFANT MORTALITY, HALIFAX, N. S.

## 5 Year Period.

DEATHS. 1 YEAR AND UNDER.

| Year | 1 year to <br> 1 month | month to <br> 1 week | 1 week to <br> 1 day | 1 day <br> and under | Still <br> Born | Not <br> stated | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $1919-20$ | 192 | 47 | 25 | 38 | 111 | 4 | 417 |
| $1920-21$ | 142 | 39 | 26 | 32 | 82 | 3 | 324 |
| $1921-22$ | 122 | 29 | 26 | 25 | 78 | 3 | 283 |
| $1922-23$ | 135 | 23 | 29 | 22 | 81 | 2 | 292 |
| $1923-24$ | 84 | 12 | 15 | 27 | 69 | 3 | 210 |

CAUSES OF DEATH.
(excluding still births)

| Year | Respi- <br> ratory | Diges <br> tive | Congenital, <br> Premature, <br> etc. | Infec- <br> tious | Nervous <br> system | Others | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $1919-20 \ldots \ldots \ldots \ldots \ldots$ | 43 | 77 | 113 | 24 | 23 | 26 | 306 |
| $1920-21 \ldots \ldots \ldots \ldots$ | 36 | 56 | 87 | 30 | 21 | 12 | 242 |
| $1921-22 \ldots \ldots \ldots \ldots \ldots$ | 30 | 26 | 68 | 41 | 20 | 20 | 205 |
| $1922-23 \ldots \ldots \ldots \ldots \ldots$ | 56 | 43 | 57 | 7 | 24 | 24 | 211 |
| $1923-24 \ldots \ldots \ldots \ldots \ldots$ | 18 | 25 | 56 | 22 | 9 | 11 | 141 |

INSTITUTIONAL DEATHS.
(including still births)

| Year | C.H. | I.H. | S.A. | V.G.H. | Inf. | H.G.A. | City <br> Home | Miscell. <br> Hosp. | Gen. <br> Prac. | Others |
| :---: | ---: | ---: | ---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $1919-20$ | 25 | 15 | 27 | 6 | 3 | 32 | 5 | 2 | 299 | 3 |
| $1920-21$ | 16 | 8 | 7 | 7 | 4 | 37 | 3 | 9 | 229 | 4 |
| $1921-22$ | 11 | 11 | 10 | 5 | 1 | 27 | 1 | 5 | 215 | - |
| $1922-23$ | 11 | 6 | $* 30$ | 3 | 2 | 11 | - | 8 | 221 | - |
| $1923-24$ | 7 | 7 | 31 | 1 | 2 | 5 | - | 3 | 154 | - |

CH. Children's Hosp.; I.H. Infante' Home; S.A. Salvation Army Institutions; V.G.H Victoria General; Inf. Halifax Infrmary; H.G.A. Home Guardian Angel.
NOTE:- The above tables are the reault of an independent compilation of Death Certificates and the

- Sudden increase due to opening Maternity Hospital.






APPORTI ONWENT OF EXPERD ITURE.


[^10]
CHART of the PROVINELAL PGPRRTMENT of HEALTH

CHART of the PROVINCLAL AEPARTMENT of MEALTH

CHART of the "PROVINCIAL OEPARTMENT OF HEALTH


## APPENDIX VII.

## FINANCIAL.

APPORTIONMENT OF EXPENDITURE.

|  | $\left\lvert\, \begin{gathered} \text { Oct. } 1919 \\ \text {-Apr. 1920 } \\ \hline \end{gathered}\right.$ | $\begin{aligned} & \text { May } 1920 \\ & \text {-Apr. } 1921 \end{aligned}$ | $\begin{gathered} \text { May } 1921 \\ \text {-Apr. } 1922 \end{gathered}$ | $\begin{aligned} & \text { May } 1922 \\ & \text {-Apr. } 1923 \end{aligned}$ | May 1923 <br> -Apr. 1924 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Central Off. Salaries. | \$4,170.04 | \$9,695.52 | \$ 9,959.23 | \$12,938.20 | \$ 8,775.86 |
| Health Centre Staff |  | 7,259.79 | 22,417.89 | 31,266.16 | 30,855.28 |
| Domestic Staff | 312.00 | 1,680.70 | 2,793.93 | 2,631.26 | 2,906.32 |
| Car and Ferry fare. |  | 76.23 | 216.41 | 32272 | 328.59 |
| Health Education and Publicity. | 63.40 | 546.10 | 263.45 | 879.73 | 365.57 |
| Books and Periodicals |  | 53.35 | 89.48 | 83.60 | 120.09 |
| Office Equipment | 336.20 | 92.37 | 261.42 | 546.03 | 23.72 |
| Health Centre Equip't |  | 1,185.89 | 1,678.27 | 742.54 | 432.02 |
| Office Expenses. | 535.60 | 470.48 | 343.32 | 452.29 | 446.23 |
| Health Centre Expenses. | 24.25 | 796.16 | 1,523.01 | 597.62 | 784.06 |
| House Expenses. | 94.13 | 907.86 | 696.09 | 296.97 | 297.80 |
| Telephone and Telegraph | 37.35 | 186.75 | 206.96 | 208.77 | 211.73 |
| Laundry. |  | 102.95 | 613.23 | 499.94 | 550.37 |
| Light and Fuel | 74.00 | 1,786.17 | 2,768.90 | 1,722.65 | 2,135.44 |
| Repairs and Const | 1.00 | 1,775.96 | 724.03 | 197.20 | 514.11 |
| Insurance. |  | 402.50 | 192.50 | 227.50 | 210.00 |
| Taxes. |  |  | 42.37 | 31.40 | 61.62 |
| Rent H. C. 2. |  | 300.00 | 600.00 | 600.00 | 600.00 |
| Laboratory. |  |  | 4,050.16 | 1,428.10 | 1,507.54 |
| Motor. |  | 3,236.77 | 3,163.75 | 1,383.08 | 2,408.97 |
| Other Clinics. | 603.15 | 1,011.00 | 1,864.72 | 432.00 | 126.75 |
| Travelling Exp........ . . . . . . . . | 100.75 | 111.30 | 1,143.97 | 479.32 | 113.05 |
| Research Allowance. |  |  | 800.00 | 450.00 | 820.00 |
| Donations. | 5,300.00 | 1,500.00 |  | 500.00 | 500.00 |
| Discount, Audit, etc. . . . . . . . . . |  |  |  | 103.20 | 47.89 |
| Petty Cash........... . . . . . . . . | 85.80 | 450.00 | 275.00 | 325.00 | 270.00 |
| Miscellaneous. |  | 115.00 | 15.00 | 333.30 | 70.02 |
| Total. | \$11,737.67 | \$33,742.85 | \$56,703.09 | \$59,678.58 | \$55,483.03 |



## EXPENDITURES OF CITY BOARD OF HEALTH.



## Massachusetts-Halifax Health Commission



(N.B .-From March, 1921, work was carried on in Dartmouth; and the population of



MEMBERS:
G. FRED PEARSON

HON. R. G. BEAZLEY. VICE-CHAIRMAN MR. JUSTICE ROGERS JUDGE W. B. WALLACE ${ }^{3}$ A. C. JOST, M. D. H. A. PAYZANT. M. D W. D. FORREST, M. D. H. R. SILVER. H. R. HETHERINGTON. ACTING CHIEF EXECUTIVE OFFICER: T. M. SIENIEWICZ, M. D. SECRETARY: -M. G. CORRIE


Halifax, Nova Scotia march 3rd, 1928.

Dr. T. M. Sienievicz, Acting Chief Executive Officer, Massachusetts-Halifax Health Commission, CITY.

Dear Dry Sienievicz:-
It is with a full measure of regret that the members of the Massachusetts-Halifax Health Commission are obliged to notify you that due to the funds at their disposal nearing depletion, your services will not be required after the third day of June next, three months from this date.

Ever since you have been associated with the Commission your activities in its behalf have been eminently satisfactory, and wo trust that in the interest of the general health of the community that others may be induced to assume the financial responsibility no longer possible for the commission to continue, and that your services to them may be available to continue the superstructure on the well laid foundation.

May you enjoy strong health in happy anticipation of many more years of useful service

Most sincerely yours,


Vice -Chairman.

THE PROVINCIAL MEDICAL BOARD OF NOVA SCOTIA
HALIFAX, NOVA SCOTIA
REGISTRATION OF PHYSICIANS \& SURGEONS



MEDICAL EDUCATION



## THE PROVINCIAL MEDICAL BOARD OF NOVA SCOTIA sir charles toper medical building halifax, nova scotia

| 3 | RESIDENCIES—Give in chronological order details of specialties, hospital, province, country and dates. |
| :--- | :--- |
|  | B. |
|  | C. |
|  | D. |
|  | E. |


| 4 | OTHER RELEVANT TRAINING—Give details, where taken, dates, etc. |
| :--- | :--- |
|  |  |
|  |  |



PROFESSIONAL APPOINTMENTS—PAST AND PRESENT hospital, university, research, other relevant



| PATIENT CARE SUBDIVISIONS | 100 PERCENT |  |
| :--- | :--- | :--- |
| 1. | INTERNAL MEDICINE |  |
| 2. | SURGERY (Major Minor or Both) |  |
| 3. | ANAESTHESIA |  |
| 4. | OBSTETRICS |  |
| 5. | PAEDIATRICS |  |
| 6. | OPHTHALMOLOGY |  |
| 7. | OTOLARYNGOLOGY |  |
| 8. | PSYCHIATRY | $\mathbf{1 0 0 \%}$ |
| 9. | OTHER (Specify) |  |


| MODE OF PRACTICE |  | $\begin{gathered} \hline \text { NUMBER } \\ \text { GROUP }(1) \\ \hline \end{gathered}$ |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| A. SOLO |  |  |  |  |  |
| B. INFORMAL GROUP | 1.E. MAINTAIN OWN RECORDS AND |  |  |  |  |
| C. FORMAL GROUP | IN ADDITION TO ABOVE ALSO |  |  |  |  |
|  |  |  |  |  |  |

CONTINUING MEDICAL EDUCATION
HOW MANY HOURS C.M.E. IN LAST 12 MONTHS
FORMAL COURSES $\square_{(1)} \quad$ PROFESSIONAL MEETINGS $\square_{(2)}^{\square} \quad$ PERSONAL STUDY $\square_{\text {(3) }}$

Halifax, N. S., Friday, March 30, 1928.

## THE HEALTH COMMISSION

WROM the beginning of the English settlement of North
America, the yolation between Nova Scotia and Massachusetts has been of the closest. In mally ways it would be true to say, that there is more in common between Massachusetts and Nova Scoita than between Massachusetts and many another state in the Union. The revolutionary war has not severed that closeness of feeling. We are neighbors and good neighbors and, please Providence, will remain good neighbors and ding as time shall last.

When in 1917 the explosion wrecked this city, bringing suffering, Gisaster and ruin, Massachusetts was only running true to form wher, a special train came speeding down bearing doctors, iurses and sapplies. That action can never be forgotten. . Massachisetts may never know the depth of gratitude that kindly action aroused but now that the Massachusetts Health Commission is closing its work here, it is well to express it in what broken words we can. Our American friends may take home with them the knowledge that fova Scotia has not forgotten and will not forget.

## WHAT IT HAS DONE

THE report of the Massachusetts Health Commission only sets out in bald figures a part of what it has been able to do. The original relief committee had $\$ 750,000$, the gift of the people of Massachusetts. It refurnished in whole or in part 1800 homes. Then the Health Commission was formed and, with the balance and a grant from the Halifax Relief Commission, it established clinics and dealt, in the eight years of its existence, with 50,000 cases. Its nurses, a staff of 17 , nade some 274,000 visits. By the information and work it carried on, in co-operation with Health Boards and other agencies, it has done a great deal to improve the public health.

From 1913 to 1920 the average annual number of deaths in Halifax was 1117. In the period from 1920 to 1927 it had iallen to 758 . Infants' deaths have been greatly reduced. From 1913 to 1920 they averaged 295. From 1920 to 1927 they a eraged 163; And during last year the rate fell to the lowest point in the history of Halifax. The Health Commission would not take credit for the entire change, but it may credit itself with a great part of this betterment.
$3-2$ It is clostng its work here now. As it does, so, it may Cury away with it the deep gratitude of Halifax, not only for its help in the hour of Halifax's extreme need, but also in that it has done work in the years following which is of a lasting beneficial character. May the report of the Commission's eight'years of fruitful labor carry to Massachusetts the linowledge that its work has done much to cement more closely still the centuries old feeling of affection of this Province of the Mayflower for the neighboring New England State.

# Firemen Asked To Take Salary Cuts 

(By LORNA INNESS)

"The overhead has got to come down," said Alderman J. Walker when he recommended salary cuts for firemen to the city finance committee.
The cuts ranging from 10 per cent on a salary of $\$ 1,000$ to $\$ 1,200$ to 20 per cent for salaries in excess of $\$ 1,850$, were made necessary, the alderman said because of "the state the city is in."

Fire Chief Churchill stated that his men were already underpaid compared to firemen in other cities in the country. Further, they were already voluntarily giving 10 per cent of their wages back to the city because of its difficult financial position.

When the committee considered the next item, an expenditure of $\$ 450$ for laundering bed clothes used by firemen in station houses, Alderman Walker said: "Do you mean to say they go to bed in station houses? Why, it would take them an hour to get up and go to a fire."
"They don't stop to shave," said committee chairman, Alderman W. A. Gates.

Said Fire Chief Churchill: "In the old days, the firemen got out of bed, dressed, made a three-horse hitch and the driver was in his seat ready to go and all within 15 seconds." In those days, the horses used to draw the fire trucks were so trained that when the alarm sounded, they would leave their stalls and stand in position at the vehicles so that the harness could be dropped down over them. Hitching them to the truck was literally only a matter of seconds.

Churchill added that his men could dress, slide down the station pole and be aboard the fire truck within 12 seconds.

At a meeting of the city health board, the T. B. Hospital came under discussion. "Everything in this hospital has been allowed to go to pieces," said Dr. W. D. Forrest.
"I think you will have to replace

Some years later, the Great Eastern, which made history when it laid the first cable across the Atlantic also called at Halifax. Local boatmen had a booming business rowing people out to see the huge ship at first hand.

During the first World War, the Olympic, known affectionately as "Old Reliable," made many trips to Halifax in her role as a troopship.

Following the war, the Majestic, of the White Star Line, also called here. On her first trip, her captain said "Halifax is the finest natural harbour in the world."

All the ships had entered the port without difficulty and there had been no need to wait for tides.

Of the ports along the eastern seaboard of North America, it was stated that only Halifax, Boston and New York could handle the Cunard line's new pride.

It was announced at Portland, Maine, that U.S. naval reservists would again make Halifax their "liberty port" on their annual training cruise. They were scheduled to visit the city from September 15 to 25 , aboard the USS Arkansas.

Highlights of the visit of the HMCS Champlain to Port Arthur, Texas, were contained in a letter from Harve H. Haines, of the Port Arthur Chamber of Commerce, which was published in The Halifax Mail.

One of the events was the presentation of medals to members of the Port Arthur high school girls' drum and bugle corps, the "Red Hussars," by Lieut. Commander Bidwell.
A number of former Nova Scotians living in the city joined in welcoming the visitors.
Lloyd's surveyor at Port Arthur, Capt. R. D. Steele, who was then in his 90 s , was born in Prince Edward
the best schooners on the Atlantic coast."
"Sailing vessels," he commented, "are completely lost when it comes to fishing now with everything operated under power."

The four local ice companies concluded the annual harvest on the Dartmouth lakes and reported 45,000 tons, valued at $\$ 270,000$, stored in the ice houses.

They reported a good season, with no accidents, and good quality ice -14 -18 inches thick.
The industry, a major one in Dartmouth, gave work to about 150 men during the season.
Fishermen reported hundreds of sea birds coated with tar and oil and dying off the entrance to Halifax Harbour and in the North West Arm.
At the annual meeting of the Royal Nova Scotia Yacht Squadron, W. R. MacAskill was elected commodore. Col. A. W. Duffus was elected a life member and James W. Power was named an honorary member.
The 20th Century Liberal Club of Halifax held its annual grand Liberal ball at the Nova Scotian Hotel.
More than 1,000 people attended the dinner and dance, which lasted until three o'clock in the morning. Music was supplied by Jerry Naugler and his orchestra.

Chaperones were: Mrs. A. L. Macdonald, wife of the premier of Nova Scotia; Mrs. W. E. Donovan, wife of the president of the Halifax County Liberal Assoc.; Mrs. R. K. Kelley, president of the Halifax City and County Liberal Women's Assoc.; and Mrs. Jack Finn, president of the 20th Century club.
The Blue Sunocos beat the Dartmouth Ancient Order of Hi bernians, $8-2$ after losing to them in the first of the two games.

Commented a local sportswriter: "A previous setback gave them a new lease on life. Before the period
seconds." In those days, the horses used to draw the fire trucks were so trained that when the alarm sounded, they would leave their stalls and stand in position at the vehicles so that the harness could be dropped down over them. Hitching them to the truck was literally only a matter of seconds.

Churchill added that his men could dress, slide down the station pole and be aboard the fire truck within 12 seconds.

At a meeting of the city health board, the T. B. Hospital came under discussion. "Everything in this hospital has been allowed to go to pieces," said Dr. W. D. Forrest.
"I think you will have to replace every bit of pipe in the place, soon," added Dr. T. M. Sieniewicz, medical superintendent.

Health board secretary, A. C. Pettipas, added that the pipes were so bad, they were expected to give way at any time and it was necessary to have a plumber on hand for an emergency call.

A pared-down estimate of $\$ 1,000$ was finally approved for hospital maintenance.

There was growing enthusiasm in the city for the suggestion that the newest "pride of the British passenger fleet," the Cunarder, Queen Mary, might visit Halifax on her maiden voyage scheduled for May. The ship, being completed at her builder's yards on Clydebank, was ranked with the Normandie as one of the two greatest liners in the world.

Haligonians were quick to point out that the first of the great Cunarders, the Britannia, called at Halifax on her maiden voyage.
remunerative, but more sympathetic.

If there were even one, it would be most unfortunate because it would indicate that our press foils and thwarts the efforts of fairdealing school boards concerned with the welfare and the morale of the teachers in their employ.
A. W. JACK CONRAD

42 Crichton Park Road,
Dartmouth
niginigils of the visit of the HMCS Champlain to Port Arthur, Texas, were contained in a letter from Harve H. Haines, of the Port Arthur Chamber of Commerce, which was published in The Halifax Mail.
One of the events was the presentation of medals to members of the Port Arthur high school girls' drum and bugle corps, the "Red Hussars," by Lieut. Commander Bidwell.
A number of former Nova Scotians living in the city joined in welcoming the visitors.

Lloyd's surveyor at Port Arthur, Capt. R. D. Steele, who was then in his 90s, was born in Prince Edward Island, and had lived for a time in Halifax.
Haines said: "Commander Bidwell and the officers and men under him have made a wonderful reputation for themselves here and have proven most worthy representatives of Halifax and Canada."
Fire raged through the boiler room of the SS Canadian Highlander while she was in drydock at the Halifax Shipyards. For two hours, men from the Shipyards fire brigade and from the city fire departments fought the blaze, while the salvage tugs, Banshee and Bon Scot, stood by.

The CNS vessel had only arrived from Australia a short time before and was being overhauled then the fire broke out.

Capt. Ben Pine, skipper of the Gertrude L. Thebaud, arrived in the city from Gloucester, Mass., to direct repair work on the schooner at the Dartmouth marine slip.

In an interview in The Halifax Mail, Captain Pine discussed the possibility that the Thebaud might race the Bluenose again, but said: "If I race, it will probably be the last. The racing game needs new blood to bring it back to what it used to be . . . .
"The Thebaud will stand a good chance with the Bluenose if the race is carried out this autumn."
Stating that the Thebaud had been "all out of shape" when she raced Bluenose in 1931, he added: "When she is right, she is one of
until three o'clock in the morning. Music was supplied by Jerry Naugler and his orchestra.

Chaperones were: Mrs. A. L. Macdonald, wife of the premier of Nova Scotia; Mrs. W. E. Donovan, wife of the president of the Halifax County Liberal Assoc.; Mrs. R. K. Kelley, president of the Halifax City and County Liberal Women's Assoc.; and Mrs. Jack Finn, president of the 20th Century club.
The Blue Sunocos beat the Dartmouth Ancient Order of $\mathrm{Hi}-$ bernians, 8-2 after losing to them in the first of the two games.
Commented a local sportswriter: "A previous setback gave them a new lease on life. Before the period ended, they had rifled home two lighting fast tallies. They carried the drive into the second frame and tied the series score when a Dartmouth player shot the puck into his own net, but fell behind a few minutes later when Jim Lovett scored from Marty Nicholson.
"That was the last Dartmouth threat. After that, Sunocos sent wave after wave against a crumbling Irish defence, crashing in on acrobatic Gerald Gray for five markers before the final whistle."

Halifax County Academy's basketball team toured the Annapolis Valley and beat Horton Academy, 42-20, and Wolfville High, 73-13.

At Fredericksburg, Virginia, Walter Johnson, baseball's "Big Train," hurled a silver dollar across the Rappahannock River in a repetition of the feat attributed to George Washington.

Standing at a spot on the Ferry farm, where Washington had stayed, the former strikeout champion Johnson sailed the coin across the river and cleared it by 30 feet. The distance covered by the throw was estimated at 317 feet.

And, that was the week.

## Human Nature

(From The Calgary Herald)
Some make a mountain out of a molehill.
Others just put up a bluff.

## 12

HEALTH COMM.

## CITY WILL SUFFER

 REAL LOSS: WORK CONCLUDES MAY 31Massachusetts-Halifax Health Commission to Cease Local Efforts-Have Wonderful Accomplishments Over Period of Eight Years, to Their Credit.
THE Massachusetts-Halifax Health Commission will cease to function on May 31, 1928, it was announced yesterday in a statement issued on behalf of the Commission by R. G. Peazley, vice chairman. function on May 31, 1928, it was announced yesterday in a statement issued on behalf of the Commission by R. G. Peazley, vice chairman.

In a report summarizing the work and record of the Commission during the eight years of its existence, several striking facts are noted. Chief of these is the marked decline in the number of deaths in Halifax of recent years. From 1913 to 1920, the average annual number of deaths in this City was 1117. From 1920 to 1927, the average annual number was 758. The decline in infant mortality was striking during this latter period. From 1913 to 1920, a total of 2062 babies of one year and under died in Halifax, as compared with a total of 1135 from 1920 to 1927. Halifax had the lowest iuiant mortality rate in its history last year, when only 106 babies died out of 1521 births, giving a rate of 69.6 deaths per 1000.
"These lower death rates," says the report, "are undoubtedly attributable to the efforts of the medical profession and to all welfare agencies, and in part to the activities of the staff of the Commission."

The Commission has spent a total of $\$ 379,000$, the report says, of which $\& 191,000$ was paid out in salaries to nursing, clerical and domestic staff, $\$ 42,439$ to various funds, $\$ 67,000$ to executive officers, and for special medical services, $\$ 17,242$ for transportotion accounts, and $\$ 61,000$ for other expenses. Of the total amount $\$ 75,000$ was contributed by the Halifax Relief Commission and the balance by the good people of Massachusetts through the Massachusetts-Halifax Relief Committee at the time of the great

22,000 complete physical examinations were made; while the nurses of the Commission made more than 274,000 visits in the homes of the people of Halifax and Dartmouth for the purpose of instructing them in the principles of preventive medicine and in the improvement of their living conditions so far as they affected the health of the family. If in the eight, years during which the Commission: has functioned the number of visits made by persons to the clinics conducted by qualified medical men under the auspices of the Coinmission were added to the physical examinations made in that same period, the totali would exceed in number the combined population of Halifax and Dartmouth. During the sane period the qualified nurses and the visting house-keepers, on the staff of the Commission made 274,000 visits to the homes of persons a number which would suffice to visit every home in Halifax and Dartmouth at least hree times a year for eight years.

## DOCTORS' GENEROUS SUPPORT

The work thus carried on by the Commisstion was made possible by the very generous support of leaders in the medical profession of Halifax and Dartmouth, wh, gave liberally of their time and ability without reward save in the knowledge that they were faithfully serving their fellow citizens. Among those who conducted clinics, for the Commission and placed their professional services freely at the disposal of the ctizens may be men-tioned:-

Consulting staff-Dr. John Stewart, the late Dr. Geo. H. Campbell, Dr. Arthur Birt, Dr. S. J. MacLennan, Dr. R. E. Mathers, and the late Dr. Frank

Commission and the balance oy une good people of Massachusetts through thie Massachusetts - Halifax Relief Committee at the time of the great explosion.

## TEXT OF REPORT.

TTHE text of the Commission's report on its labors is as follows:
The Massachusetts-Halifax Healthi Commission which has been carrying on a demonstration in Public Health; work in Halifax at the instigation of, iand with the support of funds subascribed by the people of Massachusetts, announce that its activities as a Commission will cease on the 31st of May next. Originally intended as a five year demonstration of what the introduction of public health methods could do for a community, the work of the Commission has been already extended three years beyond that period. It will be resmbered that on the day of the explosion, Decemiber 6th, 1917, the people of Massachusetts dispatched a special train with doctors and nurses, medical and relief supplies to Halifax. Subsequently a fundi of $\$ 750,000$ was subscribed of which a large sum was spent on emergent relief. A committee was formed in Halifax and 1800 homes were refurnished in whole or in part. In. these two helpful projects about $\$ 500$,000 was generously expended. There remained some $\$ 250,000$, which, under the advice of Dr. Victor G. Heiser, of the International Health Board of the Rockefeller Foundation, was set aside to be expended on a five-year public health programme in Halifax. To this sum so set aside, the Halifax Relief Commission contributed $\$ 75,000$. On! May 17th, 1919, a Commission was created by statute of Nova Scotia Legislature and a programme was enteredi upon. Dr. B. F. Royer was appointed. executive officer on October 1st, 1919, and resigned in July, 1923. The work actively commenced in May, 1920.

## 50,000 ATTENDED CLINICS

From the opening of the first Public Health Clinic at Admiralty House in May, 1920, to the end of February, 1928, the total attendance at all clinics conducted by the Commission exceeded 50,000 . In the same period more thani

Consulting staff-Dr. John Stewart, the late Dr. Geo. H. Campbell, Dr. Arthur Birt, Dr. S. J. MacLennan, Dr. R. E. Mathers, and the late Dr. Frank Woodibury.

Attending Medical Staff-Dr. H. G. Grant, Dr. W. E. Daley, Dr. S. H. Keshen, Dr. Archibald McCallum, Dr. Gordon B. Fiswell, Dr. Hugh, Schwartz, Dr. J. A. M. Hemmeon, Dr. Allan Cunningham, Dr. S. J. MacLennan, Dr. W. L. Muir, Dr. J. G MacDougall; Dr. Kenneth A. Ma Kenzie, Dr. F. W. Tidmarsh, Dr. A Curry, Dr. J. N. Lyons, Dr. S. Turel, Dr. Eliz. Brison, Dr. Ir. A. ac Payzant, Dr. G. G. Gandier.

The following nedical men gave $p \in$ their services as part time or full time officials for which they were paid accordingly:
Dr. M. J. Earney, Dr. D. A. Craig, Dr. T. M. Sieniewiez, Dr. Mildred Resnick. Dr. Fiarry S. Morse, Dr. Fos: ter Murray, Dr. Arrabelle MacKenzie, Dr. J. Stanley Bagnall, and Missi Geraldine B. Haines, Technician, Pathologieal staff.

Tribute should also be paid to the faithful service of the nursing staff who dally visited in the homes of the people or attended the clinics. From first to last 43 nurses served upon the staff, the greatest number at any one time benig 17. Every nurse so serving was first of all a quailised nurs and in addition the majority had received university training in public health work. They each attained a high standard of proficiency in their profession and labored successfuily with faithfulness and zeal to improve puk,lic health conditions in Halifax and Dartmouth.

## H OW THE MONEY WAS SPENT

The Massachusetts-Halifax Health Commission has expended $\$ 379,000$ in caurying out its public health demonstration. Of this amount about \$191,0,00 has been paid out in salaries to itis nursing, clerical and domestic sistaff; $\$ 42,000$ has been donated to a fund for the care of the blind, medicall research allowances, and to various, institutions such as the Victorian Order of Nurses, Halifax Anti-Tuberculosis League, etc. Salaries paid to: the Executive Officers, Tuberculosis Examiners, Dentists and Pathologists account for $\$ 67,000$. On transportation of staff, nurses and patients, including motor, chauffeur, tram-car and

HOW THE MONEY WAS SPENT
The Massachusetts-Halifax Health Commission has expended $\$ 379,000$ in carrying out its public health demonstration. Of this amount about \$191,0,00 has been paid out in salaries to itis nursing, clerical and domestic sstaff; $\$ 42,000$ has been donated to a fund for the care of the blind, medicall research allowances, and to various, institutions such as the Victorian Order of Nurses, Halifax Anti-Tuberculosis League, etc. Salaries paid to the Executive Officers, Tuberculosis Examiners, Dentists and Pathologists account for $\$ 67,000$. On transportation of staff, nurses and patients, including motor, chauffeur, tram-car and ferry fares, and travelling expenses, $\$ 17,242$ was expended. Other expenses, including office expenses, Health, Centre expenses, telephone and telegraph, laundry, light and fuel, repairs and construction, insurance, taxes, rent, clinic expenses, discount, pudit and petty cash $\$ 61,000$ have been paid out.

The total amount expended by the Commi ion to date is therefore $\$ 379,-$ 802.18. With the exception of $\$ 75,000$ , which has been donated by the Halifax Relief Commission, which has-co-operated in every way possible to aid the Commission in its work, the balance has been made up of the donations of the good people of Massachusetts through the Massachusetts Halifax Relief Committee and premiums and interest earned therebj and refunds created through the sale of merchandise. At this point the Commission wishes to again publicly acknowledge the co-operation which was received from the Department of Naval Affairs at Ottawa througk whose offices permission was giveri for the use of Admiralty House or Gottingen Street as a Healch Centre, and that received from the Provincial Annex, which were used as the Commission's headquarters from October, 1919 to August, 1925.

|  | - |
| :---: | :---: |
|  | doubtedly attributable to the effiorts |
| $n$ | of the Medical Profession and to all |
| J. | welfare agencies, and in part to the |
|  | activities of the stafr of this Com. mission, who have been teaching the |
|  | people in the clinics and at their |
|  | homes those principles of positive |
| re | health and preventive medicine whicis |
|  | have been instrumental in abolishing |
| g, | so much sickness and in increasing the |
| S- | expectancy of life. The Commission |
|  | gratefully wishes to note the assist- |
|  | ance and co-operation received from |
| 35 | the following organisations during its |
| $\mathrm{n}^{\prime}$ | existence in the City, - The City Healtin |
|  | Board; the Provincial Department of |
|  | Health, The Association for Improving |
| [f | the Condition of the Poor, Children's |
| le | Hospital, Children's Aid Society, Hali- |
| m | fax City Home, Halifax City Charities |
| 1 e | Committee, Halifax County Anti-Tut- |
|  | culosis League, Halifax Infirmary, |
|  |  |
| - | Home for Feeble Minded, Infant's |
|  | Home, Home of the Guardian Angel, |
|  | Jost Mission, Red Cross Society, Sal- |
| a | viation Army, Victoria General Hos- |
|  | pital, Victorian Order of Nurses, Hall- |
|  | fax and Dartmouth, School Nursing |
| e | Staff, Welfare Bureaus, Halifax and |
| X | Dartmouth; all Church and local |
|  | Clubs, and the Nova Scotia Tubercul- |
|  | osis Commission. |
|  | G. Heiser's report after five years of |
|  | worls of the Commission had been com- |
| n | pleted. Dr. Heiser came to Halifax at |
|  | the request of the Boston Committee |
|  | and also our own Commission, to |
|  | make an appraisal of what had been |
|  | accomplished. His report contains the |
|  | following significant statement:- |
|  | "On evaluating the results of the |
|  | Commission's activities during the |
|  | past five years, I cannot help but |
|  | be most favorably impressed with |
|  | the excellent organisation which |
|  | was installed by Dr. Royer, and the |
|  | satisfactory results which followed. |
|  | The general mortality during the |
|  | period fell from an average of 20 |
|  | to 11.7 per thousand. While all the |

The general mortality during the period fell from an average of 20 to 11.7 per thousand. While all the improvement may not have been due to the efforts of the Commission, it may justly claim the major share. It will no doubt be a source of much gratification to the people of Massachussetts that their funds have relieved so much suffering and prevented so many deaths. The drop in the mortality of 8 per thousand means approximately a saving of 480 lives annuallý."
The members of the Commission are as follows: G. Fred Pearson, Chairman, Hon. R. G. Beazley, Vice-Chairman, Mr. Justice Rogers, Judge W. E. Wallace, A. C. Jost, M.D., H. A. Payzant, M.D., W. D. Forrest, M.D., H. R. Silver, J. L. Hetherington, M. G. Currie, Secretary.

The following have been members of this Commission during their term of office as Chairman of the Board of Health, and in the latter case as Provincial Health Officer: M. A. Macaulay, M.D., W. P. MacKasey, M.D., J. L. Churchill, M.D., W. H. Hattie, M.D.

ENGAGEMENTS
WOODBURN-BIGELOW - Mr. and Mrs. G. W. Bigelow, of Kingsport, N.S., wish to announce the engagement of their daughter, Lillian Valentine, to Mr. Robert Cox Woodburn, son of Mr. and Mrs. W. R. Woodburn, of Canning, N.S. Marriage to take place in the near future.

## DEATHS

WICKWIRE - At Halifax Infirmary, March 29, William K. Wickwire, son of the late Dr. W. N. Wickwire, aged 52 years, leaving a wife, 2 sons and one daughter, also his mother, to mourn their loss. Funeral Saturday at 2.30 p.m., from his mother's residence, 61 Hollis St.
Nova S.entia Ilndertakino $\mathrm{C}_{\mathrm{n}}$
1816. From that year until 1904 it served as the official residence for thirty-seven admirals of the North America Station, the name of the naval base at Halifax. It was the scene of many a glittering social affair and many important visitors were entertained there.

In 1906, the Canadian Navy took over the Dockyard, and Admiralty House remained empty Its furnishings were sold at auction. During the First World War it was re-opened as a hospital The Halifax Explosion caused serious damage to the building but after renovation it served from 1920 till 1924 as Health Clinic No. 1 of the Massachusetts Halifax Health Commission, From 1925 it was used as an officers' mess until its facilities became too crowded for the growing Navy, and a new ward oom was built.

In 1954, Admiralty House stood silent, alone with its ghosts, From articles that appeared in the Halifax papers, it is evident that the future of the house was a cause for concern. The imaginative use of the old landmark has ensured its preservation. Admiralty House is on active duty again.

Admiralty House has adapted itself to its new role with remarkably few alterations. The spacious reception rooms on the main floor now house the bookstacks. The smoking-room with its magnificent stucco ceiling is now the reading room where comfortable leather chairs invite naval personnel to browse through the numerous magazines laid out on the mahogany table. The second floo is mainly devoted to educational services.


Above is Admiralty House in Halifax. The painting below, entitled "Ocean Limited", is one of twenty-six by Alex Colville of Sackville, N.B., shown last month at the Banfer Gallery in New York. In addition to paintings for sale in the exhibition, pictures were borrowed from private and public collections, including the National Gallery of Canada, the Art Gallery of Toronto, and the Public Library and Art Museum of London, Ontario. Mr. Colville, who teaches at Mount Allison University, enjoys a wide reputation as one of Canada's leading painters. Born in Toronto, he grew up in Amherst, N.S., and studied fine arts at Mount Allison with Stanley Royale. From 1944 to 1946 he was an official war artist with the Canadian Army. In addition to this and previous shows in New York, he has exhibited in Toronto, Brussels, Sao Paulo, Amsterdam and London, England.


The Atlantic Advocate - pg. 78 - March 1963

Typed sheets added in to the report (included in the appendices as well).



## FINANCIAL

APPORTIONMENT OF EXPEID ITURI.

| May 1924 | May 1925 | May 1926 | May 1927 |
| ---: | ---: | ---: | ---: | ---: |
| -Apr. 1925 | aApr。1926 | -Apr.1927 | -June B)28 |


| Contral off.Salaries | 8,062.72 | 4,403.83 | 5,700.00 | 6,200.00 |
| :---: | :---: | :---: | :---: | :---: |
| Health Centre staff 3 | 35,362.26 | 18,172.93 | 12,124.74 | 12,956.29 |
| Domestic staff | 2,496.65 | 757.00 | 52.00 | 57.00 |
| Car \& ferry fare | 299.90 | 119.06 | 176.34 | 213.01 |
| Health Pducation \& |  |  |  |  |
| Books \& Periodicals | 135.92 | 118.42 | 150.20 | 59.05 |
| Office equipment | 26.60 | 66.50 | 1.00 | 3.82 |
| Health Centre E'quip t | t 26\%.88 | 75.45 | 80;20 | 3.53 |
| Office expenses | 769.76 | 301.32 | 136.82 | 128.90 |
| Health Centre expenses | s 649.81 | 162.64 | 151.92 | 78.46 |
| House expenses | 287.95 | 59.39 | 5.46 | 9.40 |
| Telephone \& Telegraph | 297.31 | 181.59 | 134.07 | 145.85 |
| Laundry | 511.01 | 152.12 | 44.00 | 65.31 |
| Light \& Fuel | 1,534.73 | 243.10 | 30.55 | 46.01 |
| Repairs \& Constr. | 1,005.92 | 39.92 | 1.00 | 6.75 |
| Insurance | 210.00 | -••• | - | . . . . . |
| Taxes | 22.85 | 34.77 | - . . . ${ }^{\text {a }}$ | . . . . . |
| Rent H.C.\#2 | 600.00 | 162.50 | 300.00 | 325.00 |
| Laboratory | 2,141.73 | 1,025.00 | -•..。○ | . . . . . |
| Motor | 2,331.98 | 727.71 | 759.03 | 395.65 |
| Other clinics | 377.66 | 27.89 | 10.00 | 18.00 |
| Travelling expenses | 324.91 | 151.67 | -... | . . . . . |
| Research allowance | 500.00 | 250:00 | . ..... |  |
| Donations | 100.00 | -... | . | - . |
| Discbunt, audit, etc. | 25.00 | 56.25 | 82.00 | 25.00 |
| Petty cash | 275.00 | 225.00 | 150.00 | 75.00 |
| Miscellaneous | 1.383 .88 | 33,530.38 | 225.46 | 50.00 |
|  | 60,354.72 | $\begin{array}{r} 361,792.76 \\ 32,189.10 \\ \hline \end{array}$ | \$20,847.90 | \$20,870.68 |
|  |  | 29,603.66 |  |  |

Note: Miscellaneous, gear 1925-26, includes Blind Fund (\$32,189.10): part of milk investigation, and donation to School Dentist's salary.

|  | $\begin{gathered} \text { Maro } \\ 1920 \\ \text { to } \\ \text { Sept. } \\ 1920 \\ \hline \end{gathered}$ | $\begin{gathered} \text { Oct. } \\ 1920 \\ \text { to } \\ \text { Sept. } \\ 1921 \\ \hline \end{gathered}$ | $\begin{gathered} \text { Oct. } \\ 1921 \\ \text { to } \\ \text { Sept. } \\ 1922 \\ \hline \end{gathered}$ | $\begin{aligned} & \text { Oct. } \\ & 1922 \\ & \text { to } \\ & \text { Sept。 } \\ & 1923 \\ & \hline \end{aligned}$ | $\begin{aligned} & \text { oct. } \\ & 1923 \\ & \text { to } \\ & \text { Sept. } \\ & 1924 \\ & \hline \end{aligned}$ | Oct。 <br> 1924 <br> to <br> Sept。 <br> 1925 | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Prenatal | ＊ 0 | 33 | 76 | 52 | 45 | 28 | 234 |
| Baby Welfare |  |  |  |  |  |  |  |
| H．C．\＃1 | 0000 | －＊○ | 1084 | 1325 | 948 | 1028 | 4565 |
| Child Welfare |  |  |  |  |  |  |  |
| Gen．H．C．\＃I | 219 | 1364 | 845 | $\bigcirc 000$ | － 0 | 448 | 2876 |
| Child Welfare |  |  |  |  |  |  |  |
| Gen。 H．C．\＃2 | $\cdots \bullet$ | 39 | 54 | 37 | 54 | 44 | 228 |
| Child Welfare |  |  |  |  |  |  |  |
| Special H．C．\＃I |  | － 0 | 231 | 297 | 497 | －•＊ | 1025 |
| Pre－school dental | －． 0 | 502 | 905 | 734 | 1184 | 1376 | 4701 |
| Nutrition | $\cdots$－ | 303 | 2705 | 4401 | 4839 | 3326 | 14574 |
| Posture | －．． | －．－ 0 | 56 | 102 | 336 | 180 | 774 |
| Far， $\mathbb{N}$ ose，Throat | 45 | 780 | 791 | 577 | 596 | 316 | 3105 |
| Eye | －．．． | 41 | 59 | 92 | 603 | 64 | 759 |
| VD and GU | 259 | 1067 | 1077 | 858 | 860 | 910 | 5031 |
| Tuberculosis | 537 | 1236 | 1058 | 857 | 866 | 659 | 5213 |
| Skin | －－ | $\cdots$ | 83 | 108 | 101 | 49 | 341 |
| Miscell aneous | $\bigcirc 0$ | 63 | 7 | 9 | 178 | 911 | 1168 |
| Total | 1060 | 5428 | 8031 | 9449 | 11107 | 9339 | 44414 |
| Examinations made | 1060 | 2792 | 3474 | 3500 | 4592 | 4099 | 19517 |
|  | CLINIC AT TENDANCE，OCTOBER 1， 1926 to |  |  |  |  |  |  |
|  | OCE. $1925$ | oct. | oct. |  |  |  |  |
|  | $\begin{gathered} 1925 \\ \text { to } \end{gathered}$ | $\begin{gathered} 1926 \\ \text { to } \end{gathered}$ | $\begin{array}{r} 1927 \\ \mathrm{t} 0 \end{array}$ | Tota |  |  |  |
|  | Sept． | Sept． | May |  |  |  |  |
|  | 1926 | 1.1927 | 1928 |  |  |  |  |
| Baby Welfare | 330 | 230 | 147 | 707 |  |  |  |
| Dental | 185 | 413 | 483 | 1087 |  |  |  |
| Child Health | 297 | 420 | 345 | 1062 |  |  |  |
| Pediatrics | 574 | 699 | 467 | 1740 |  |  |  |
| Chest | 781 | 884 | 815 | 2480 |  |  |  |
| Greenbank | 81 | 101 | 55 | 237 |  |  |  |
| Total | 2248 | 2747 | 2312 | 730 |  |  |  |
| No．clinics | 363 | 393 | 306 | 1062 |  |  |  |
| Examinations made | 1178 | 1505 | 1412 | 4095 |  |  |  |


[^0]:    *An ordinance passed by the City Health Board for the pasteurization of all but certified milk, to become effective June 1st, 1925, was disallowed by the Provincial Legislature, April 1st, 1925.

[^1]:    *Census population used. Using figures obtained at local census, 57,595, the general Death Rate would be 11.4.

[^2]:    *Four public health nurses were transferred to the Dalhousie Public Health Clinic on November 8th, 1924.

[^3]:    *"Health Training in Schools" was inspected by members of the Advisory Board at its Spring meeting, 1924, and was placed on the list of books recommended for the teachers in the province.

[^4]:    *With the consent of the authorities, a beginning has already been made in the framing and placing in the public schools of Halifax and Dartmouth, of Health Posters for boys that are attractive and carry a practical health lesson. A companion poster for girls is planned.

    A health poster competition among school chlldren is contemplated, which will serve to stimulate an interest in health as well as art and may provide originals for further school posters.

    The fullest co-operation exists with the school nursing staff and the Commission leafiets and songbooks are at their disposal.

[^5]:    *In the summer of 1921 the Halifax County Anti-Tuberculosis League in co-operation with the Massachusetts-Halifax Health Commission held a Fresh Air Camp for Undernourished children. A Fresh Air Camp is also held annually by a local newspaper. The children for this camp are with few exceptions chosen by the Commission's Health Centre Staff and the Commission has provided a trained nurse to look after them the past two years.

[^6]:    **Some progress has already been made in the educational campaign. A Health Talk "No more Diphteria" was published in the newspapers. The children of the Home of the Guardian Angel have been Schick tested.

[^7]:    ${ }^{*}$ In February, 1925, the Secretary of the City Health Board presented a report. on housing conditions in Halifax with tables.

[^8]:    NOTE:-Although an Infectious Diseases Hospital is urgently needed and therefore forms one of the Commission's recommendations, it realizes that the City will be financially unable to consider its erection for some time.

[^9]:    ${ }^{*}$ It has already been accomplished in part in Halifax with the opening of the Dalhousie Public Health Clinic on November 3rd, 1924 to which the offices of the Halifax Visiting Dispensary and the Halifax Welfare Bureau have been transferred.

[^10]:    Note: Misceqlaneous, year 1925-26, includes BI1nd Fund ( $332,189.10$ ): part of milk investigation, and donation to School Dentistis salarye

