Growth in Research, Services and Funding

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Growth in Research, Services and Funding

The 1950s saw the continuation of significant expansion in federal and provincial funding for health services. Federal health grants to the provinces supported a variety of specific disease control and treatment programs as well as research projects, a key focus of which was research into developing a polio vaccine while the country experienced serious epidemics of the disease. The incidence of most infectious diseases declined, particularly from immunization programs targeting children, aided by the introduction of the Salk polio vaccine and the wide use of new antibiotic drugs. Dental health became a public health preoccupation and water fluoridation programs expanded, while preventable injuries among children and chronic diseases such as cancer and cardio-pulmonary diseases became major causes of death among adults.

Federal research grants had supported a variety of provincial public health initiatives since 1948, including TB, VD and cancer control, mental health care, support for crippled children and professional public health training. The National Health Program also provided grants for provincial health surveys and hospital construction and it was expanded in 1953 to include support for provincial child and maternal health services, medical rehabilitation, and laboratory and radiological services. In 1957, legislation was enacted allowing the federal government to enter into an agreement with the provinces to establish a comprehensive, universal plan covering acute hospital care and laboratory and radiology diagnostic services. British Columbia, Alberta, Saskatchewan and Newfoundland had implemented their own

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**Harry Knowlton Brown**

*Soldier and Public Health Dentist*

Dr. Harry Knowlton Brown distinguished himself as a public servant and member of the dental profession. Born in Nova Scotia, he served as a machine gunner in World War I and in the Dental Corps in World War II where he attained the rank of Lieutenant Colonel. He attended the University of Toronto’s School of Hygiene after the war and graduated with a Diploma in Dental Public Health. After a short time in private practice, he was appointed Director of Dental Public Health in the Department of National Health and Welfare in Ottawa. There, he organized and directed one of the first scientific research studies of water fluoridation conducted in North America.

government-sponsored hospital care programs by that time and by the end of the decade, all provinces had agreed to participate in the national hospital services insurance plan.

In the fall of 1950, the first national population-based health survey, the Canadian Sickness Survey, was launched. The National Health Program, initiated in 1948, had resulted in an increased use of health services and the government needed to be able to plan and evaluate costly new programs. The Canadian Sickness Survey collected household data over a 12-month period and was designed to provide an overall picture of the health problems of Canadians in the context of their social, physical and economic environment. A growing demand for health services exceeded the supply of professionals, most notably with nursing.

**Aboriginal Health Services**

Federal health programs for the Inuit were provided later than for First Nations people in Canada. Inuit contact with non-Aboriginal people increased considerably in the 1950s, initiating a period of accelerated social change. Health services north of 60°L expanded along with increased military activity. Indigenous people relocated close to military bases and towns for employment opportunities and where centralized health services were being provided.

Extremely high infant mortality among First Nations and the Inuit was a major concern of the Northern Health Services, created in 1954 (later replaced by the Medical Services Branch). Non-Aboriginal midwives were recruited to work in nursing stations and became part of a concerted effort in the 1950s to have women deliver their babies in nursing stations or hospitals.

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**Peter J. Moloney**

*Distinguished Scientist, Teacher and Vaccine Developer*

Dr. Peter J. Moloney earned an MA in Chemistry from the University of Toronto and in 1919, was appointed research chemist in the Connaught Laboratories. Dr. Moloney was given the responsibility of preparing the diphtheria toxoid for Connaught Laboratories in 1924, making its early use possible in Canada. He was Assistant Director of Connaught until 1955 and contributed to the development of the so-called “reaction test” for diphtheria toxoid. In studies with tetanus toxoid, he developed methods for its assay and purification and elucidated its antigenic constituents. Dr. Moloney was also one of a team that successfully devised methods for the preparation of penicillin during World War II, which was an urgent and complex challenge. Similarly, the call for a potent polyvalent gas gangrene antiserum was successfully met through the work of his colleagues and his own studies at the close of the war.

A National Polio Crisis

The menace of “the crippler” grew to unprecedented levels from east to west and into the Arctic. Polio epidemics increased in scope and severity and also involved growing numbers of adults, putting a greater strain on stressed public health and hospital infrastructures and requiring increasing financial support from government to cover the growing costs of care. What used to be a mostly harmless gastrointestinal infection among very young children became increasingly serious as sanitary improvements delayed exposure to the polio virus. Federal health grants buttressed increasingly generous provincial polio treatment and hospitalization policies, provided iron lungs and other equipment, and supported longer term care of polio cases through the crippled children health grants.

Canada’s polio epidemic peaked in 1953. During that summer and fall and into the winter months, epidemic polio touched the whole country, causing nearly 9,000 cases and claiming some 500 lives—the greatest epidemic crisis since the 1918 influenza pandemic. In communities such as Winnipeg, polio incidence climbed beyond anything ever seen, with disturbingly high numbers of bulbar cases among young adults.

Joseph Donovan Ross

Alberta Minister of Health

Dr. Joseph Donovan Ross was born at Waldo, British Columbia in 1911. In 1951, he founded the Alcoholism Foundation of Alberta, and served as President and Chairman of the Board. In 1952, he was elected as a Social Credit candidate in the Alberta Legislature and for 12 years served as Minister of Health. Dr. Ross was responsible for developing the Alberta Health Plan, which paved the way for Alberta’s entry into the National Medicare Plan. He expanded preventive health programs, developed services in occupational health, and initiated programs of environmental protection, especially in relation to the petrochemical industry. After leaving political life, Dr. Ross became increasingly interested in the provision of health care to less affluent countries and directed Project Concern Incorporated, providing services in Mexico, Indonesia, Hong Kong and elsewhere.

and many hospital rooms filled with iron lungs. Doctors and nurses were particularly vulnerable and a number of women gave birth while confined in an iron lung. The Royal Canadian Air Force was enlisted to make emergency deliveries of iron lungs across the country as the need grew. At the peak of Winnipeg’s polio crisis, 92 cases were dependent on the respirators at the same time. This dramatic and desperate situation was repeated on a slightly smaller scale in many parts of Canada and Health Minister Martin declared a national emergency.

Boston researchers led by Dr. John F. Enders had developed a way to grow polio virus in test tubes in 1949 and this Nobel Prize-winning discovery motivated other researchers, including at Connaught Medical Research Laboratories. In an effort to develop the volume of polio virus required for vaccine development, Dr. Arthur E. Franklin tried a synthetic nutrient base known as Medium 199, which provided a non-allergenic base for a vaccine, and with this key development, Dr. Jonas Salk of the University of Pittsburgh became confident that an inactivated polio vaccine could stimulate the immune system enough to prevent polio in humans. In 1952, residents of a disabled children’s institution near Pittsburgh were the first to receive Salk’s vaccine produced with Connaught’s Medium 199.

An unprecedented vaccine field trial followed in the United States in 1954, with an elaborate tracking system of some 1,800,000 children. The Canadian government took part in the trial on a limited basis, when surplus vaccine from the U.S. was offered and used in Manitoba (except Winnipeg), Alberta, and Halifax. The American field trial found the Salk vaccine to be 60% to 90% effective in protecting children against the paralytic disease, depending on the type of polio virus. In 1955, the vaccine was licensed and six American vaccine producers rushed to supply it and unlike in the field trials, the U.S. government did not test each batch of new vaccine produced. Subsequently, 79 American children contracted polio due to incomplete inactivation of the polio virus in selected lots. Canada was successful in
manufacturing and freely distributing a safe polio vaccine, and Connaught director Dr. Robert D. Defries was awarded the American Public Health Association’s highest honour upon his retirement in 1955, for his long service and personal leadership during the development and introduction of the Salk polio vaccine.5

Immunization with the Salk vaccine struck a decisive blow to paralytic polio and national incidence remained low during 1956 and 1957, but an unexpected wave of polio outbreaks and epidemics in several provinces in 1958 through 1960 prompted more aggressive polio immunization campaigns across the country, especially among adults. Polio persisted, especially among groups slow to take advantage of the Salk vaccine, and there was an intensive research effort in 1959 to provide an oral polio vaccine based on attenuated polio virus strains developed by Dr. Albert Sabin.

**Preventable Injury and Death**

A growing proportion of preventable injuries and death affected children in the home due to falls, cutting and piercing, and poisonings in the 1950s. Prevention required co-operative efforts by administrators, public health nurses, doctors, sanitarians, and health educators,
as well as a two-pronged attack on personal and environmental hazards. In addition to research and educational efforts, a network of poison control centres was established across Canada through the efforts of provincial deputy ministers of health. By 1958, there were 13 such centres based in selected hospitals, providing emergency treatment and information about the nature of the substances involved in the poisoning, their possible antidote, treatment options and general advice by telephone.

**Food Safety**

*Botulism* caused by improperly sterilized canned foods occurred most often in home-preserved produce and food-borne illnesses required a rapid local public health response to identify and isolate the source of the infection. However, educational efforts were increasingly directed at food handlers and owners in restaurants in the 1950s, and proper food sanitation concepts were better integrated into restaurants. The health education of food handlers and regular sanitation inspection and correction remained challenges for local public health departments throughout this decade.

Industrial production, processing and distribution of food products drew greater federal attention in the late 1950s, especially of packaged, ready-to-eat meat products. A strengthened, more pro-active *Food and Drugs Act* was implemented in 1954 and prohibited the preparation and sale of food, drugs or cosmetics under unsanitary conditions, with violations a matter of criminal law. This required a growing team of federal inspectors from the Food and Drug Directorate, working in close cooperation with provincial and local health departments to systematically monitor unsanitary conditions, particularly in food production. They started with cheese factories, then slaughterhouses, flour mills and poultry plants. While their scope was national, the legislative focus of federal inspectors in matters

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**Alex Cross**

*Highest Standard of Professional Practice in Canadian Environmental Health*

Alex Cross started a five-year apprenticeship in 1923 as a pipe-fitter with the Canadian National Railways and through education and experience became District Inspector at the Winnipeg Health Department in 1931. During the war, he was posted to the 11th Canadian Field Hygiene Section of the 5th Canadian Armored Division, and on discharge returned to the Winnipeg Health Department where he eventually became Assistant Chief of the Health Department. Mr. Cross was a Charter Member of the Canadian Institute of Sanitary Inspectors and in honour of his lifetime contribution to public health the Institute created the Alex Cross Award in 1984, to be presented annually to a member who had displayed “The Highest Standard of Professional Practice in the Field of Environmental Health In Canada.”

—Tim Roark, Historian, Based on a 1977 biography of Alex Cross
of environmental sanitation still remained limited. “We consider unsatisfactory conditions only as they may affect the product,” noted O.B. Petursson of the Food and Drug Directorate. In addition to being concerned about whether the condition of the product represented a health hazard, the Directorate focused on “whether the product contains filth or foreign substances which should not be there.” The new Food and Drugs Act provided stronger legislative muscle but there was a limited team of federal inspectors working to regulate a rapidly growing food industry and opinions tended to be dominated and constrained by economies of production and the preservation and expansion of the standard of living.

Assessing the safety of food grew increasingly complex as new chemical, biological and technological tools were used to preserve the quality and shelf life of food products. The potential health impact of pesticide residues on fruits and vegetables, the addition of various kinds of chemicals in the production of foods, and the use of antibiotics in foods to serve as preservatives became issues of growing public health concern in the late 1950s. The Dominion Council of Health discussed the large number of new pesticide products “being presented with inadequate evaluation of toxicological factors” and noted that “once a product is licensed there is no further control which can be exercised over its use.”

Douglas A. Strong
Chief Public Health Inspector for Newfoundland

Douglas Anderson Strong was said to be an outstanding public servant and community leader in his 27-year tenure as Provincial Chief Health Inspector in Newfoundland. In 1949, he was the first Newfoundlander to receive a certificate in public health inspection. When Mr. Strong retired from government service in 1981, he was Director of Emergency Health Services. In 1967, he chaired the Steering Committee leading to the formation of the Newfoundland and Labrador Branch of CPHA and became its first president. He was a founding member of the Atlantic Branch of the Canadian Institute of Public Health Inspectors.

—CPHA Health Digest, 1993
Environmental Contamination

Rapidly increasing usage of new industrial and agricultural chemicals introduced toxins into the air and soil, but the main focus of environmental concern was water pollution. The International Joint Commission on Boundary Waters was reactivated after the war and conducted surveys of the pollution of the Great Lakes and other boundary waters. A report issued in 1951, indicated that water pollution, particularly from the rising volumes of untreated and partially treated industrial wastes, had created a health hazard as well as adverse economic effects.

Fish and wildlife were being threatened and the Commission ordered that all wastes discharged into the waters be treated to comply with the Boundary Waters Quality Control. Unlike the United States, where state and local governments received federal funding assistance to construct new sewage treatment plants, full responsibility for waterworks and sewage treatment and disposal in Canada rested with local municipalities. Since the early 1930s, there had been little to no upgrading, expansion or new construction of sewage and waterworks infrastructures in Canada and municipalities opted for the cheapest and easiest methods of sewage disposal.

Some work on water and sewage treatment works had been done in the western provinces with support from National Health Grants and in Ontario with funding from the recently established Pollution

 Margaret Isobel Whelan

First Female Sanitary Inspector in Ontario

Margaret Isobel Whelan was born in 1919 in Buffalo, New York and became the first qualified female Sanitary Inspector (SI) in Ontario. She originally worked in the Bacteriology Department at Connaught Medical Research Laboratories, doing technical work on antibiotic and immunization research. She encountered many public health professionals at Connaught, which raised her interest in pursuing a career as a SI. Ms. Whelan began with the inspection of food stores, beauty parlours and restaurants, working for the Township of Etobicoke Department of Health. Ms. Whelan later moved to Peel Public Health in Brampton, Ontario where she worked as a Public Health Inspector until her retirement in the mid 1980s.

— Dennis Persaud, Public Health Inspector, Peel Public Health

R.C. Harris Purification Plant, view from tunnel shaft, September 2, 1953
Control Board. The Dominion Council of Health (DCH) noted in 1953 that public health authorities may have lost sight of environmental issues in the expansion of their interests in other fields. The development of needed facilities had not kept pace with the rapid industrial and housing expansion taking place and environmental health issues were growing beyond the control of public health authorities. In 1956, Ontario established a Water Resources Commission, which brought water and built sewage plants for three million people across the province.12

The Dominion Council of Health formed a panel on water pollution and one on air pollution, with each including industry representatives. Water pollution challenges included depletion of sub-surface water supplies and the receding of the water table due to increasing urban demands for water, aggravated by rapid industrial expansion and fuelled by “the continual rise in the standards and comforts of living.” As the Council noted, “No matter how abhorrent the thought, in populated areas mass drinking water consists largely of diluted sewage which has been subjected to artificial or natural processing to recover it from its more or less non-polluted original condition.... Many urban municipalities have no alternative but to use the liquid wastes from one or more municipalities above-stream or on the same watershed, without benefit of natural dilution.” The industry representatives resisted a single legislated provincial standard of water quality. “It is our view then that the stream should be utilized for disposal of wastes both domestic and industrial on the basis of the assimilation capacity consistent with the program for that stream.”13

The industry representative on the air pollution panel also saw the air as “a natural medium for the disposal of useless residues and, as in the case of water, subscribe to the principle of ‘use—not abuse.’ In our view, it should be utilized to the greatest possible extent consistent with public safety, welfare and comfort whenever it is the more economical method of disposal. We believe this because, by definition, other methods would be more expensive
and as the extra cost is ultimately borne by the public would be reflected in a reduced standard of living.” Building higher chimneys to disperse air pollutants was preferred over any of the many engineering techniques that existed for preventing the discharge of smoke, mists and other gaseous effluents into the air.14 Such views represented the dominant economic, political and popular attitude of 1950s towards environmental health. Suburbanization also increased physical distance from public health and hospital services and a reliance on automobiles. As was noted, without two cars in the family, suburban housewives would otherwise be “marooned” in their homes in the absence of public transportation.15

Public Health

Persistent personnel shortages amidst rising public and government demand for health services caused CPHA to consider how to further the needs of the profession. As was noted at the first annual meeting of the Ontario Public Health Association, held in conjunction with CPHA’s annual meeting in June 1950 in Toronto, “an outstanding problem in the functioning of the Canadian Public Health Association over the years has been one of geography.” CPHA’s annual meetings were held in the east, central and western regions, leaving long gaps between meetings in a particular province.

The Canadian Public Health Association and the Canadian Journal of Public Health prepared to celebrate their 50-year anniversaries. Both had struggled since the end of the war. The Executive Director position established in 1945 had only lasted for three years, leaving the Association to again rely on voluntary executive leadership, minimal staff and donated office space from the School of Hygiene. A special committee was formed in 1957 to look into ways to improve CPHA’s organization and finances. Among the recommendations made a year later was a plan to increase membership numbers and fees, adding a new

J. Arthur Melanson
New Brunswicker’s Distinguished Military and Public Health Service

Dr. J. Arthur Melanson was born in Shediac, New Brunswick and completed his medical studies in Scotland at Edinburgh University and the University of Toronto. During WWII, he was Assistant Director of Hygiene with the rank of Lieutenant Colonel with the Second Canadian Corps Headquarters. He was Deputy Minister of Health for New Brunswick and Chief Medical Officer of the Provincial Health Department from 1945–65, as well as Registrar General of Vital Statistics for New Brunswick. Dr. Melanson began his work in public health in New Brunswick as a tuberculosis diagnostian and district medical officer of health. Dr. Melanson was instrumental in organizing the New Brunswick-Prince Edward Island Branch of CPHA and served as its first president.

sustaining membership category for companies and institutions to provide financial support, and a more prominent role for provincial associations in shaping the policies of the national body. The national organization would provide services to the provinces and a full-time Executive Director would be hired once again, with full and part-time staff to provide professional leadership and co-ordination of the Association’s growing range of activities into the future.16

An article in the *Canadian Journal of Public Health* by the Dean of the School of Public Health at the University of North Carolina, E.G. McGavran, described the winds of change reshaping the profession at the end of the 1950s. He said public health seemed to be “losing ground” and was “falling into disrepute” as other parts of government were taking over some public health functions. New government bodies and commissions were “being formed without even public health representation to deal with matters of stream pollution, air pollution, hospital construction, medical care administrations, chronic disease control.” McGavran suggested a new concept of public health, “based upon the new and coming acceptance that public health is the scientific diagnosis and treatment of communities.” An excessive

Adelard Groulx

Nearly 30 Years as Montreal’s Medical Officer of Health

Dr. Adelard Groulx retired as Montreal’s Medical Officer of Health in 1965, a position he held since 1937. Born in Sainte-Scholastique, he graduated in medicine from the University of Montreal and entered civic service in Montreal as head of the division of child health in the Department of Health. He held a number of posts at the University of Montreal’s School of Hygiene and lectured at the School of Public Health Nurses, the Faculty of Dentistry, the Faculty of Pharmacy, and the Institute of Hospital Administration. He was also a director of the Institute of Microbiology and Hygiene of the University of Montreal. Dr. Groulx was CPHA’s President in 1943 and made significant and valuable contributions to the Association through his work on various committees. Dr. Adelard Groulx was appointed Chief Medical Officer of Health for Expo ’67.

focus on the treatment of individuals through new “magic drugs and refined diagnostic tools” had blinded the public health profession from seeing the real focus and importance of its work which, he noted, was always community focused. 17

With Canadians living longer, new public health challenges continued to emerge. Chronic diseases and injuries and “lifestyle” risks related to tobacco, alcohol and drug use and a resurgence of sexually transmitted infections would become the next major prevention issues. Growing automobile use would increase death and injuries due to traffic collisions, while environmental issues would rise to the forefront in the next decade as the public health field grappled with redefining itself.

Eleanore Louise Miner

Promoting Public Health Nursing and Primary Prevention

Eleanore Louise Miner, of Regina, Saskatchewan, was a leader in the field of public health throughout her 35 years involvement. At every opportunity, she promoted primary prevention and supported the expansion of community health staff to include dental hygienists, nutritionists, speech therapists, psychologists and physiotherapists. She worked to establish public health programs for the underprivileged, for workers exposed to health hazards, for mothers and the newborn. She was president of both her provincial and national nursing associations, and from 1959 to 1961 was president of the Saskatchewan Public Health Association. Ms. Miner published a series of articles on public financing of public health nurses in the Canadian Journal of Public Health, documenting the important contributions of public health nurses in the community.

—CPHA Health Digest, Vol. 5, No. 2, April 1981