

Epilogue

By John M. Last¹

In his presidential address in 1972, CPHA President Vince Matthews (1922–1988) spoke to the title “What’s past is prologue” and, alluding to the future, ended his inspiring speech on the state of public health and public health services in Canada by saying, “You ain’t seen nothing yet!” His title fits well with the contents of this book, and his concluding phrase is a fitting one to apply to this epilogue. Vince Matthews did not live to see how far we have come since he spoke. He would have relished this book, and so would many other women and men of Canadian public health, some mentioned by name in this book, others not. In past years when public health leaders in Canada gathered, conversations sometimes turned to the need for a history of public health in Canada. This history has started to tell that story, but it ends when major developments in Canadian public health were just beginning, and the story was becoming more interesting than ever before.

This book provides a chronological history of public health in Canada from its early colonial period until 1986. This entire period could be viewed as prologue to advances in public health sciences and practice that were beginning around the time that this history ends. It would have been unwise, however, to write the “history” up

until the present day, because it is difficult and sometimes impossible to determine until years later how significant particular events and the people involved in them have been in the grand scheme of things. It is also difficult, sometimes impossible, to write impartially about events and the people who made these events happen, or attempted to prevent them from happening. It is preferable to delay until it is easier to determine which developments have had lasting significance. The *British Dictionary of National Biography (DNB)* has a 50-year rule, whereby no one is included until 50 years after the person’s death. For the release of Cabinet Papers and other confidential government documents, a 20- or 30-year rule is often used. Fifty years would be too long for a history of public health in Canada. Much of great importance has happened since 1960. The second half of the 20th century was a remarkable period of scientific discoveries, technical developments, innovative conceptual thinking, and re-orientation of values and beliefs about family roles and responsibilities, gender and racial differences, racial equality. These profound changes have accompanied and contributed to improved population health and have affected many aspects of public health practice, as well as clinical medical and nursing practice, in some ways bringing these previously diverging branches of the health sector closer together. Some of the discoveries, technical developments, and concepts

¹ With contributions from Gerry Dafoe, Margaret Hilson, Trevor Hancock, Jamie Hockin, Cory Neudorf, Klaus Seeger and Erica Di Ruggiero

since 1960 are mentioned in this book and others must be mentioned in this epilogue, 50- or 20-year rule notwithstanding. In this epilogue we mention some events that have occurred since 1986 that seem very likely to influence the future development of public health services in Canada, and the health of the Canadian people. Whether their mention in this epilogue displays exceptional insight or merely hubris will be for future historians to judge.

The past, described in detail in previous chapters, can be briefly summarized. Beginning late in the 19th and early in the 20th century, public health services began to take shape in Canada, with some inspirational leaders helping to guide their development. Wherever they were made, important discoveries about ways to promote, improve, protect and preserve the health of the Canadian population have for the most part been applied promptly, especially in the major cities. Sometimes, for example with fluoridation of public water supplies and access to facilities that ensure reproductive choice for women, application has been patchy, incomplete and varied among provinces, cities and rural regions, but in general Canada has kept pace with the other wealthy industrial nations and in some respects has led the charge.

In the 1970s, Canadian conceptual thinking about determinants of good health led the world; the concepts were set out in *A New Perspective on the Health of Canadians*² (the Lalonde Report). These concepts helped to reorient public health towards promotion of improved health, without taking emphasis away from protecting health and

2 Marc Lalonde, *A New Perspective on the Health of Canadians: A Working Document* (April, 1974) Ottawa: Government of Canada, available from: <http://www.phac-aspc.gc.ca/ph-sp/pdf/perspect-eng.pdf>

preventing disease by control of environmental hazards and enhancing immunity by using an increasing array of vaccinations. The health promotion concepts are embodied in the Ottawa Charter for Health Promotion,³ a statement of principles that was refined into final form and signed at a conference organized by CPHA and co-sponsored by the World Health Organization (WHO) and Health and Welfare Canada, in Ottawa in 1986. Coinciding with this conference, the Minister of Health and Welfare, Jake Epp, released *Achieving Health for All: A Framework for Health Promotion*⁴ (the Epp Report). Ron Draper (1935–1997), first Director-General of the Health Promotion Directorate, was instrumental in crafting this report and the WHO document that became the Ottawa Charter. He was a world leader in health promotion principles and practice in the 1970s and 1980s. Further refinements of conceptual thinking and practical applications of health promotion and protection and prevention of disease and injury were made at subsequent WHO conferences on health promotion in Adelaide in 1988 and most recently in Bangkok in 2005, but the credit for the original concept belongs in Canada and primarily to Canadians, Ron Draper especially. All Canadians, not just those in the health sector, can be proud of this achievement, which found immediate application in the Healthy Cities movement. Toronto was a Healthy City in the vanguard of the WHO Healthy Cities movement, not only because of the drive, diligence and dedication shown by Trevor Hancock and his colleagues who

3 Ottawa Charter for Health Promotion, First International Conference on Health Promotion (21 November 1986) WHO/HPR/HEP/95.1, available at: www.who.int/hpr/NPH/docs/ottawa_charter_hp.pdf

4 Jake Epp, *Achieving Health for All: A Framework for Health Promotion* (1986) Ottawa: Health and Welfare Canada

launched the movement at the Beyond Health Care conference in Toronto where the Healthy Cities concept was launched, but also because the mayor and other elected municipal officials collaborated, establishing the first Healthy City office in Canada, the first municipal food policy council, and other initiatives such as improving facilities for walking and cycling. Toronto's Healthy City office ensured that health impacts were considered in municipal departments, and encouraged and supported neighbourhood actions, bridging environmental, social and economic dimensions. This achievement has been insufficiently celebrated in Canada or anywhere else. This history provides an opportunity to celebrate it and to give due credit to those who led the charge, and countless others who worked in and supported these activities. Working with Ron Draper, Trevor Hancock and others, Dr. Ilona Kickbusch of the World Health Organization took the concepts and methods back to Europe where they were applied to good effect in the WHO Europe Healthy Cities project which began in 1986, whence it spread around the world.

Canadian individuals and Canadian organizations have long played an important part in international health. Norman Bethune's role as a war surgeon first in the Spanish Civil War, then as a member of the Chinese communist forces under Mao Zedong, and his death from blood poisoning during the Long March are well known. Many lower profile Canadian doctors and nurses have dedicated their lives to more effective though less flamboyant activities than war surgery, contributing by strengthening capacity in public health systems and services, notably by protecting and restoring the health of infants and children in developing countries. As an example of dedication and devotion to

this cause, consider the work of Drs. Donald and Elizabeth Hillman, McGill University-trained pediatricians who worked for many years in East Africa, Uganda, Tanzania, Kenya, Zambia and later in Malaysia and Kuwait, among other places. Their work was recognized when both received the award of Officer of the Order of Canada. Their recognition by thousands who are alive today in Africa because of their work, and by many students and young doctors and nurses who have seen them as role models and are following in their footsteps are ultimately more significant distinctions. Many other dedicated Canadian doctors and nurses like the Hillmans are quietly going about the business of improving the health and lives of the least fortunate people of the world, in low income countries, in refugee communities, in war zones, and in regions afflicted by natural disasters. There is never a shortage in the world of communities and regions in need, nor, it seems, a shortage of dedicated, altruistic Canadian nurses, veterinarians, sanitary engineers, health educators, and physicians able and willing to provide help where and when it is needed. Many nurses, physicians, and other health professionals have had distinguished careers in public health, working for Canadian non-governmental organizations (NGOs) such as CUSO, for international NGOs such as the International Committee of the Red Cross/Red Crescent and Médecins Sans Frontières, and for religious missions, enhancing Canada's reputation as a nation that does good work in the world.

The international immunization program against all vaccine-preventable diseases in developing Commonwealth and Francophone nations launched by CPHA and other NGOs in 1986, in partnership with WHO and UNICEF became the Canadian International Immunization Initiative

and in 2010 when this epilogue was written, was still ongoing. CPHA's role in these international activities was recognized in 1992, when CPHA was awarded WHO's Sasakawa Award, the first time ever that a Canadian organization received this prestigious distinction. Further recognition came when the CPHA's Director of International Health Programs, Margaret Hilson, was appointed an Officer in the Order of Canada in 2004.

The Canadian Public Health Association and other public health workers have been active over the past three decades in many environmental health programs and projects across Canada and sometimes beyond. Examples include investigation and control of environmental arsenic as a contaminant of gold-mining in and near Yellowknife, NWT, and in Bangladesh where arsenic in high concentration occurs as a soil contaminant, and made the Canadian-funded water-pumps (initiated by the International Development Research Centre) to provide clean drinking water a potential source of lethal arsenic poisoning. The Bangladesh arsenic problem was still being dealt with in 2010. Other important environmental problems in which CPHA and other organizations and individuals have been involved include industrial fluoride contamination in Newfoundland and (primarily affecting First Nations communities) on both sides of the Canada-USA border near Cornwall-Massena. An unusual environmental health problem was investigation of impacts of low-level supersonic training flights by NATO aircraft over parts of Labrador; possible impacts both on wildlife and on the sparse human population in the region have been studied. Another environmental health challenge was development of vector control programs to reduce the risk to humans from West Nile Virus disease,

notably in Winnipeg and southwestern Ontario. Initially these vector control programs had unfortunate ecological adverse effects, but with more careful management, harm to ecologically and economically important insects has been reduced. Yet another environmental health problem was control of outbreaks of listeriosis in meat processing plants. Public health inspectors in Canada accepted the use of Hazard Analysis Critical Control Points (HACCP) in Canadian food safety programs. Public health inspectors and environmental public health professionals were the first in Canada in the early 1990s to adopt the HACCP program for assessing and inspecting all retail food establishments. The HACCP concept was first used in the space program and was developed by NASA. A very important step forward in enhancing environmental health in Canada was enactment of the *Ontario Tobacco Control Act* (1994) and similar legislation in provinces across Canada. This legislation decreased smoking in public places, increased the rate of tobacco smoking cessation in general and reduced uptake of smoking by teenagers.

Since at least the 1970s and to some extent earlier, most Canadian provinces have tried several variations of organization and provision of public health services, usually with the stated or unstated aim of containing and if possible reducing costs. Repeated reorganization and "reform" of community and public health services have punctuated the half century from the 1960s to 2010. Sometimes governments have cut staff and services as part of the reorganization in drastic and in what some consider over-zealous endeavours to save taxpayers' money. The outbreak of lethal and disabling *E coli* O157:57 in Walkerton, Ontario in 2000 and cryptosporidiosis in North Battleford, Saskatchewan demonstrated yet again that essential public health

services cannot be cut without risking harmful consequences. Sometimes budgetary belt-tightening is the result of conflicting priorities for funds from provincial health “envelopes” that include the costs of staff and infrastructure in hospitals, emergency medical services, and family physicians. At times provincial and federal health departments appear to have confused essential public health services and infrastructure with community-based personal health care, i.e. medical care, even considered them one and the same.

Personal care services and public health services have, however, joined forces in one important and particular way in recent decades. A historically significant development of lasting public health importance that began in the 1970s linked public health services and personal care services in a new way. The Canadian Task Force on the Periodic Health Examination was established in 1974, originally as a way to find out whether the popular general practice procedure known as the annual check-up was worth its cost to the recently established public health insurance program. This task force merits mention because the screening procedures used in clinical preventive medicine from fetal development to palliative care and care of the elderly play an increasingly prominent role in population health: they have become an essential part of the complete range of materials for public health services—a connecting link between public health services and personal preventive care services. The task force gave birth to the new tools of evidence-based medicine and evidence-based public health and evaluated the methods and procedures used for early detection of a wide range of life-threatening and disability-inducing conditions. The Canadian task force was emulated in the United States

and both groups have worked closely together since the mid-1980s and are now recognized as an integral part of public health services and they systematically evaluate the evidence on which recommendations and advisory notices on screening procedures and early detection methods are based.

Since the 1980s, a series of unfortunate events cascaded to produce pressure for a greater emphasis on the health of the Canadian people, steady and reliable funding for infrastructure, and greater numbers of skilled professional staff in all the professions involved in providing public health services. These events included the increasing prominence of the HIV/AIDS pandemic. In 1993, in response to the global spread of AIDS, the Lac Tremblant Declaration from the Expert Working Group on Emerging Infectious Disease Issues called for action on surveillance, research, outbreak response and laboratory capacity targeting emerging diseases, as well as a national immunization strategy. In the late 1980s, the public health catastrophe of HIV/AIDS and hepatitis C infection among recipients of contaminated blood and blood products afflicted many thousands of people in several countries, including Canada. The appointment of Mr. Justice Horace Krever to study the safety of the donated blood supply in Canada led to a series of recommendations, including a call to improve public health services.⁵ One organizational response was the consolidation in 2000 of many public health activities of Health Canada, including the Laboratory Centre for Disease Control and the Health Promotion Directorate, into the Population and Public Health Branch.

5 *Krever Commission Report* (1997) Ottawa: Public Works and Government Services Canada

The Canadian public was alarmed by the occurrence of outbreaks and epidemics of several other infectious diseases, including West Nile Virus disease and an outbreak of *E Coli* O157:H7 in 2000 at Walkerton, Ontario caused at least seven deaths and about 2,500 cases, some of whom had permanent damage to liver and or kidneys. Contaminated groundwater had not been properly tested, professional staff were reduced and existing water-testing facilities downgraded on the grounds that the private sector could do this more efficiently (i.e., at lower cost) than government bureaucrats (i.e., trained water quality scientists).

In 2003, an epidemic of a new disease, severe acute respiratory syndrome, commonly known as SARS, caused about 330 definite cases and 32 deaths in Toronto and had serious economic consequences when WHO issued a travel advisory, warning people of the risk of travel to Toronto. The SARS epidemic was estimated to have led to economic losses of \$35 million a day in Toronto. Microbiologists discovered that SARS was due to a corona-virus transmitted mainly by droplet spread at close quarters and Dr. David Naylor's subsequent inquiry resulted in a 2003 report by the National Advisory Committee on SARS, which recommended for the establishment of an independent "Agency for Public Health," among other things.⁶

In response to Naylor's recommendations, the Public Health Agency of Canada was established in September 2004 confirmed as a legal entity in December 2006 by the *Public Health Agency of Canada Act*. Although Naylor's vision of the

proposed agency was more arms-length than the government department that was created, an important aspect is that the post of Chief Public Health Officer is also the Deputy Minister, with a mandate to communicate directly with Canadians and with government on important public health matters. The Annual Report of the Chief Public Health Officer is also a legislated requirement of the office and the first of these reports focused on health inequalities and was presented to Parliament in 2008.⁷

In 2000, the Canadian Institutes of Health Research were established, with a bold vision to transform health research in Canada by excelling "according to internationally accepted standards of scientific excellence, in the creation of new knowledge *and its translation* into improved health for Canadians, more effective health services and products and a strengthened Canadian health care system"—a vision that clearly distinguished it from its predecessor, the Medical Research Council. Through its creation, the government called for CIHR to support interdisciplinary and integrative health research that not only included biomedical and clinical research but also research respecting health systems, health services, the health of populations, societal, cultural and environmental influences on health. As part of the organization's transformation, thirteen virtual institutes were created, including the globally unique Institute of Population and Public Health (IPPH).

IPPH's mission was to support research into the complex interactions (biological, social, cultural, environmental), which determine the health of

6 *Learning from SARS: Renewal of Public Health in Canada* (2003) Ottawa: Health Canada, available at: <http://www.phac-aspc.gc.ca/publicat/sars-sras/naylor/>

7 David Butler-Jones, *Report on the State of Public Health in Canada: Addressing Health Inequalities* (2008) Ottawa: Public Health Agency of Canada, available at: <http://www.phac-aspc.gc.ca/publicat/2008/cpho-aspc/index-eng.php>

individuals, communities, and global populations and its application into public health policies and practices. Its inaugural scientific director, Dr. John Frank led the institute until mid-2008 and was responsible for several initiatives to bolster research capacity to address public health problems and their underlying determinants (i.e. reducing health disparities, the impacts of physical and social environments on health and global health were among the institute's priorities). The institute was also among several leaders signaling the fragility of the public health system in Canada by undertaking a multi-stakeholder led study of the organization and funding of public health services in comparative nations, which was initiated several months before SARS. The recommendations of this report entitled *The Future of Public Health in Canada: Developing a Public Health System for the 21st Century* were ratified at an institute-led think tank at the 2003 CPHA conference in Calgary. Since July 2008, the institute has been led by Dr. Nancy Edwards (Professor at the University of Ottawa) and is further demonstrating the potential for research to be relevant to pressing public health problems. The institute's current mission and strategic research priorities are closely aligned with several global and national calls to action to reduce health inequities within and between countries and to place greater emphasis on research oriented towards the policies and programs that lead to population health improvements and the promotion of health equity.

Conclusion and Some Recommendations

It is tempting to suggest that in the last quarter century public health in Canada has “come of age”

but it would be unwise to yield to this temptation, which has often seduced prominent people in the learned professions, the arts, and commerce. *Fin de siècle* intellectuals in 19th century Paris, London and New York believed their society had “come of age” if not achieved perfection in science, the arts, and social organization and rejected critics who pointed to blemishes such as high infant death rates and the absence of female suffrage. We have come a long way since those days, but there is further to go in the unknowable future and some obvious challenges confront us. For instance, public health systems and services, one of the most important foundations of a stable, healthy society, have a low public profile, are taken for granted, hardly known let alone appreciated by the society they serve and protect and often only noticed when that society is threatened by a public health emergency like a lethal epidemic. Too often these vital systems and services are at the mercy of ill-informed elected officials and under perpetual threat from politicians who are elected with false promises to cut taxes. When that threat is carried out, essential infrastructure is eroded and disasters like the *E Coli* outbreak in Walkerton, Ontario can occur. The professions that comprise public health services need to speak louder and advocate more forcefully than sometimes in the past. The first Chief Public Health Officer for Canada, Dr. David Butler-Jones, has proved to be an excellent advocate. He and all who succeed him in the future will have to guard against threats to the health of the Canadian people, and also against threats to politicize the position or muzzle it. A politically influential Canadian Public Health Association that speaks for the entire public health workforce in Canada could help by standing in solidarity should that danger ever arise and help defend Canadians against inappropriate politically motivated actions.

To be credible, CPHA must represent the entire public health work-force. At present this is not the case. Most recent graduates of the proliferating graduate training programs across Canada identify with the discipline they majored in, not with public health. Some have never heard of CPHA and very few have joined because they perceive CPHA as irrelevant to their professional work. Changing this perception is a challenge to which CPHA must respond vigorously.

Despite the hazards of making predictions, it seems safe to say that recent advances in biology, ecology, communications and information technology are likely to find many applications in public health practice. Genomics and genetic engineering are already being applied in vector control by releasing genetically modified vector species that are infertile or are incapable of carrying the pathogen they might otherwise transmit. Closer linkages between ecosystem health and human health must be developed to safeguard ecosystem sustainability. Applications of electronics in information processing and storage for instance on computer chips for use in personal care and in public health are increasing at a spectacular rate. It is necessary to achieve agreement and consensus between health information specialists and technologists on one hand, and guardians of privacy on the other hand, about essential information required to identify individuals, and essential steps in safeguarding individual privacy. This, and other ethical issues and problems, are insufficiently understood and seldom discussed in public health practice.

Public health's strength is well-trained, knowledgeable, skilled and dedicated people to protect and improve the health of Canadians and others around the world. So the recent surge

in graduate programs in public health bodes well for strengthening and renewing the public health workforce, and creating a cadre of new professionals who will exert a positive effect for decades into the future. That impact will depend upon governments—because the “public” in public health means not only the public good but the public sector in which most public health workers are employed. Governments must increase their investment in public health above the present inadequate level.

Preventing disease and injury and promoting personal and community health and well-being will remain a central concern of public health in the decades to come. This must be complemented by an equal focus on the environmental, social, economic and cultural determinants of health, consistent with the tradition of public health and its recent evolution. Some major areas of work focused on these broad determinants are likely to be particularly important in the 21st century:

A focus on maternal health, infant and early child development as part of a long-term investment in human development that will bring improved health over the lifetime and an array of other social and economic benefits to families, communities and society as a whole.

A focus on health and the built environment is critical in a rapidly urbanizing world, in lower and middle income countries as well as in Canada, where we are 80% urbanized and where we spend 90% of our time indoors. The influence of built environments on safety, indoor and outdoor air pollution, physical activity, food access, mental health and social cohesion, among other issues, must become a focus of more research and active intervention.

A focus on health equity as identified by the 2008 report of the WHO Commission on Social Determinants of Health, which Canada supported. The reduction of inequalities in access to basic determinants of health such as clean water, food, shelter, education, health and social services, an adequate income and safe and healthy living and working conditions, both in Canada and globally, will be fundamentally important in addressing the gradient in health and reducing the gap in health between rich and poor. This will also require addressing the health implications of globalization, an issue also highlighted by the WHO Commission. Within Canada, urgent attention must be given to correcting the iniquitous status of First Nations Canadians, many of whom live in shamefully inadequate housing on remote reservations, sending a signal that they are “out of sight, out of mind.”

A focus on the ultimate determinant of the human health, ecosystem health is needed. CPHA explored this issue with its 1992 report on “Human and Ecosystem Health,” but the global situation has considerably worsened since then, as numerous UN and other official reports attest. Four broad areas of global environmental change, climate and atmospheric change,

pollution and ecotoxicity, resource depletion, and loss of habitat, species and biodiversity, and their synergistic interactions, represent significant threats to human health now and in coming decades. Human well-being and human survival—the fundamental concerns of public health—will require a transition to a more environmentally sustainable way of life. This shift, which public health will need to facilitate and support, will likely bring many health benefits, but the transition itself will be challenging.

A focus on appropriate application of scientific discoveries and technical developments is required in public health practice. Some innovations, for instance in methods for collection, processing, storage, and retrieval of relevant biomedical, social, economic and other information are applied promptly—even occasionally too promptly—in forward-looking health departments. In other settings, such developments are lagging behind or lacking altogether.

It can safely be said that what’s past is prologue—and the details will no doubt be unfolded and fully described in future instalments of the history of public health in Canada.