II. the public health way

The Public Health Way is the title that we give to the philosophy by which we operate as a public health unit. The Public Health Way sets out how we see the world, the nature of our business and why we practice in the way we do.

The Roots of Public Health

"Public health" is often confused in the mind of the public with publicly funded health care. They are not the same. Public health actually predates publicly funded health care by many centuries. From the beginning of recorded history, there have been instructions about measures, (usually to do with hygiene and diet) to prevent ill health. Early civilizations recognized that there was a need to take collective action to safeguard the health of all, particularly against contagion. Elementary measures, such as those concerning the disposal of waste, quarantine, and, later, vaccination against smallpox, were introduced hundreds of years ago.

Additionally, public health has long concerned itself with health issues ranging far beyond the prevention of infectious diseases. Occupational hazards, scurvy, nasal cancer, scrotal cancer, and lead poisoning are examples of non-infectious diseases which were tackled long ago in classic public health fashion – establishing the cause and taking action, often through policies, to reduce the risks.
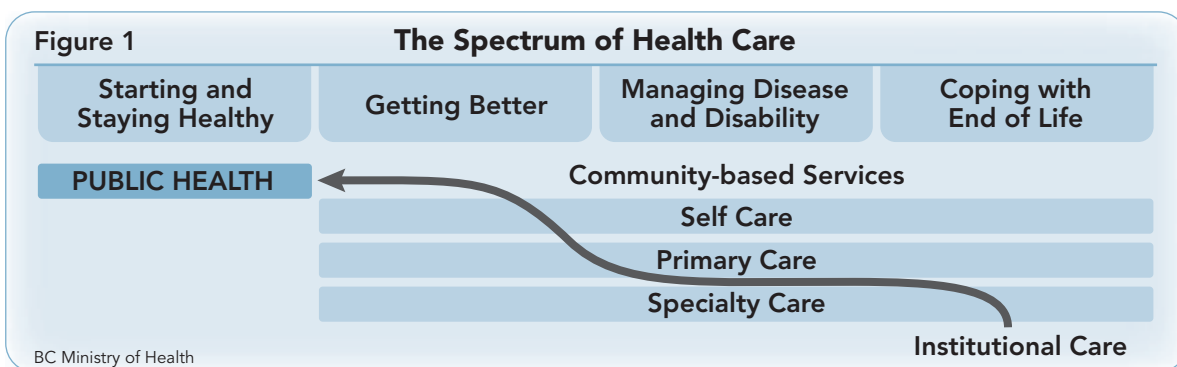
The use of data has long characterized public health – registration of births and deaths, analysis of mortality patterns, the census, and epidemiological investigations have all been in use for over one hundred years.

The events which led to the establishment of a system resembling public health as we know it today occurred in the nineteenth century, when rapid population increase and migration to cities resulted in squalor and disease. The response was the Sanitary Movement, whose efforts led to the provision of clean water, pure food, proper disposal of waste, and improved housing. With this came the beginnings of the interest in the causes of disease and the determinants of health.

Today, this work continues. We still struggle to measure health, to find causes and to take or urge preventive action against infectious and non-infectious diseases and injuries. But we should not forget that, by any measure, our health has improved greatly over the centuries, and this improvement can be largely attributed to the successes of public health.

Contemporary Public Health

Figure 1 shows that, in the context of today's thinking, health care deals simultaneously with how health and disease develop over time, especially as we age, and also in terms of the type of health service needed. A strong and effective health-care system must achieve a balance, rather than over-emphasizing acute restorative care. Public health deals with prevention – the "Starting and Staying Healthy" box shown on the model below. A sustainable system must increasingly direct its resources towards prevention in the community – upward to the left in the diagram.

Figure 1   The Spectrum of Health Care

Starting and Staying Healthy	Getting Better	Managing Disease and Disability	Coping with End of Life

PUBLIC HEALTH ← Community-based Services

Self Care

Primary Care

Specialty Care

Institutional Care

BC Ministry of Health

As shown in the model, public health is a part of the health-care system – it is not the entire system. We have our own role, which we must understand and communicate. In some places in the past, before the advent of publicly-funded health care, public health included curative and supportive care for the indigent. This is still the case today in the United States. In Canada, this is no longer an appropriate role for public health.

The "Public" in Public Health

What is the meaning of the "public" in public health? Firstly, public health is what economists would term a public good. All members of the community share the benefits and costs, just as they do for policing or environmental protection. The costs cannot be charged to individuals based on use.

Secondly, society has an interest in good health for all. Indeed, the origins of insurance systems for health care in the late nineteenth and early twentieth centuries were in response to a perceived need to ensure a healthy population for economic advancement and military service. Today, there is a consensus that safeguarding and promoting health produces benefits for all of society.

The levers used by public health to achieve its goals are societal levers – legislation, regulation, policy, taxation, funding, etc. Public health has therefore come to be associated mainly, though not exclusively, with government. It follows that public health must be publicly accountable – for its services, its results, the restrictions it places on individuals, and its use of public funds. Decisions must be based both upon the best scientific evidence available, and the priorities and values of the population served. Doing nothing is also a policy decision – both action and inaction require justification.

The effectiveness of our work depends heavily upon securing and maintaining the public's trust. This, in turn, necessitates clear communications, transparency, reliability, and responsiveness in delivering services, consultation, scientific credibility and the proper handling of confidential information. In addition, as public servants, we are called upon to act in the public interest only, to avoid conflicts of interest, to treat all with fairness and civility, and to act in a politically neutral fashion.

The Goals of Public Health

The first step in understanding the nature and role of public health is to consider its goals. At Peel Public Health, we concentrate on the four goals described here:

1. *The improvement and maintenance of the health status of the population.*

    The health status of the population is represented by a number of well-accepted measures of disease, its precursors, consequences and burdens. This is the main measure of the effectiveness of public health activity. From this, it follows that we must measure health status and track its changes over time in order to determine needs and to evaluate programs.

A measure of health status, however, is only part of the story – we must also strive for:

2. The reduction of disparities in health status.

This goal reflects the recognition that an average health status does not show the degree of variability of the health status of the individuals and/or groups who comprise the population. Some have a lesser portion of good health than others. It is fit and proper that our goals include a reduction in the gap between the less advantaged and the majority.

Balancing these two goals is a complex challenge. For example, many health promotion interventions are initially more effective in the higher-income and better-educated portion of the population. Thus, although the health status of the population may improve, disparities may actually increase.

3. Preparation for and response to outbreaks and emergencies.

This goal represents a role that is well known to the public. People expect that public health officials will deal with outbreaks of infectious disease and the health consequences of natural and man-made disasters. Rapid and effective responses to such incidents, in addition to preventing disease and death, serve to build trust and confidence in public health.

4. Enhancing the sustainability of the health-care system.

Public health and medical care have complementary roles, but without adequate attention to public health, especially in its role of preventing (or delaying the onset of) chronic diseases, the rest of the system has little hope of coping.

The relationship between public health and the medical care part of the health-care system requires conscious management. We each have our own roles to play but we often work together, for example in the control of communicable diseases. Family doctors, in particular, are important partners in reaching

the public. It is not our role, however, to respond to every "gap" in the health-care system or to drift away from our public health mandate.

The Functions of Public Health

In order to achieve its goals, public health engages in a number of "functions", or ways of working. There is no universally accepted list of functions, but the six laid out by the Federal/Provincial/Territorial Advisory Committee on Population Health are widely used.

1. Health Surveillance.

Health surveillance enables the early recognition of outbreaks, disease trends, and cases of illness. Early detection, in turn, allows for early intervention. Surveillance also assists in our understanding of the impacts of specific programs to improve health and reduce the impact of disease.

2. Population Health Assessment.

Population health assessments allow us to understand the health of populations, the factors which underlie good health and those which create health risks. These assessments can be used to establish priorities and lead to better services and policies.

3. Disease and Injury Prevention.

Many illnesses can either be prevented or delayed and injuries can be avoided. This category of activity also includes investigation, contact tracing and preventive measures targeted at reducing risks of outbreaks of infectious disease. This function overlaps with health promotion, especially in regard to educational programs targeting safer and healthier lifestyles.

4. Health Protection.

This is a long-standing core function for all public health systems. The assurance of safe food and water, the regulatory

framework for the control of infectious diseases, and protection from environmental threats are essential to the public health mandate and form much of the body of current public health legislation worldwide.

5. Health Promotion.

Public health practitioners work with individuals, agencies, and communities to understand and improve health through health-related public policies, community-based interventions, and public participation. Health promotion contributes to and shades into disease prevention by fostering healthier and safer behaviours. Comprehensive approaches to health promotion may involve community development or policy advocacy and action regarding the environmental and socio-economic determinants of health and illness.

6. Emergency Preparedness and Response

Public health plays a role in controlling threats to health emanating from natural disasters, man-made disasters (e.g. toxic spills, terrorism), contamination of food or water or outbreaks of communicable disease.

Some Constraints on Public Health

Having considered the positive actions available to public health to achieve its goals, we must pause to consider whether there are, or should be, any constraints on these activities.

One very obvious constraint is the ethical principle of individual autonomy. Some public health interventions consist of services that individuals willingly consent to on their own accord. In contrast, other interventions are intended to limit freedom of action. In the argot of the business, these are called "choice-directing interventions." One increasingly hears criticism of the more expansive choice-directing interventions, using terms such as "nanny state", "health imperialism" or "social engineering."

In the process of promoting the health of the population, it is important that there be a judicious balance between the restriction of individual choice on the one hand and individual autonomy on the other.

• There is more justification for prohibiting or restricting activities when those activities may affect the health of others. In this group would be:

  – control of environmental tobacco smoke;

  – reducing ill health related to food and consumer products and to conditions of the physical and built environment;

  – protecting the health of children and other vulnerable people; and

  – providing opportunities to lead a healthier life.

• The aim should be to achieve a balance between individual autonomy and the public good which is reasonable and proportionate and which avoids unnecessarily intrusive measures.

• Measures to limit the freedom of action of individuals should be legitimized by consulting those potentially affected and through democratic governance.

There are a number of actions – without resorting to the outright elimination of choice – that we can take to guide and facilitate healthy choices. These actions include, for example, providing information, incentives and disincentives, restricting unsafe products, and changing social and physical environments.

For the most part, people should be free to choose their own course. However, we must also take into consideration that people do not always make their choices based on complete information, full attention, or self-control. Furthermore, in the real world, many choices are already influenced by the environment and the actions of others. Thus, the opposite of a "choice-directing public intervention" is not "influence-free decision-making." In reality, the opposite is decision-making influenced by other factors, such as advertising, design elements and commercial interests, not all of which will be health promoting.

Population vs. Individual Health Strategies

If the goal is to increase the overall health status of a population (as it is for public health units), then, health strategies that achieve a reduction (even a small one) in the risk factors for a vast number of people will have a much more telling effect than strategies that produce a great reduction of risk but for only a few specific individuals. Thus, population-based health strategies are properly the focus of public health units such as Peel Public Health.

Both approaches are necessary in a comprehensive health-care environment. The population approach of public health and the individualized approach of clinical prevention are thus complementary. The opportunities for each vary according to the specific disease, the risk factors and the types of interventions that are available. What is important is to find the right balance.

In addition to medically identifiable risk factors, other factors (social, economic,

political and environmental – natural and man-made) further shape the health of populations and individuals. These factors interact with each other and with innate individual traits such as genetics, sex, and age. They become what we call the "**determinants of health.**" Determinants of health are different from risk factors in that the determinants are more fundamental – the "causes of the causes."

The more that researchers learn about the complex webs of causation that influence health-related behaviours and health status, the stronger the evidence becomes that population-based health strategies represent the best approach for public health units. These include regulation, education, community development and social policy.

Although the population approach is often the most effective and efficient, it is not always possible to direct interventions towards the entire population. Sometimes the known determinants or risk factors do not account for a great deal of disease incidence (e.g. breast cancer), and we must rely upon clinical preventive approaches (e.g. screening.)

One can envision a hierarchy of interventions, in descending order from population-based to individual:

- General population
- Sub-populations (e.g. by ethnicity, socio-economic status, interests, etc.)
- Site-specific (e.g. workplace, schools)
- Families and individuals

When working at any one level, it is helpful to consider other interventions further up the hierarchy. In some cases, such as the anti-smoking programs, the best approach will be to use several interventions simultaneously. With respect to obesity, for example, interventions might range from using mass media campaigns, through influencing the production and distribution of foodstuffs, to helping family physicians educate their patients about diet.

The Scope of Public Health

The scope of public health consists of primary prevention and other areas where the population-based approach is most appropriate.

In Quebec, this priority is set out in the provincial public health legislation:

> "Public health actions must be directed at protecting, maintaining or enhancing the health status and wellbeing of the general population and shall not focus on individuals except insofar as such actions are taken for the benefit of the community as a whole or a group of individuals." [2]

In Ontario, this emphasis is reflected in the Public Health Standards.

But within the range of possibilities presented by the mandate of prevention, should we be tackling "narrow" or "broad" issues? Is it our job only to provide services and enforce regulations, for example, or should we be addressing larger environmental issues? The larger issues seldom fall exclusively within the health domain. They more typically also involve social services, education and other sectors. In making these types of determinations, we are properly guided by such questions as what is the evidence that supports the need, do we have the requisite skills and what can we reasonably hope to accomplish? The answers will help us decide whether to be a "doer", a leader, a partner an observer.

Similarly, the question of how much to direct programs towards the general population and how much towards specific disadvantaged or high-risk groups has no simple answer. One interesting example is tobacco smoking. Total population approaches have achieved impressive results, but smoking is now heavily concentrated among identifiable groups, and it may be time to reallocate some of our resources to those groups.

Other Important Elements of the Public Health Way

Innovation

We are an innovative and creative group. This capacity has enabled us to improve our performance and to expand our reach. It helps us attract and retain the best employees. We are determined to stay on the cutting edge by introducing new ideas and methods based on evidence that has stood the test of intellectually rigorous evaluation.

Evidence-based practice

In public health, we have the privilege and responsibility of consuming resources provided from the public purse, and we exercise the power of limiting the freedom of action of others. We are obligated to use these resources and powers in ways that maximize the well-being of the public. The decisions we make must be guided by the rational use of the best evidence available.

The effective use of evidence requires that we have access to useable and relevant knowledge (published research and evaluations of our own programs), the skills to properly evaluate it and the insight to know how to translate the knowledge into improving our programs and practices.

Contributing to the wider public health community

We have a history of participating in activities that have helped to strengthen and develop public health provincially, nationally

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[2] Public Health Act R.S.Q., 2001 c60, s5

and internationally. We recognize that this also provides benefits which flow back to us through developing skills, gaining experience, influencing policies, helping to recruit staff, and assuring the future of public health. We also recognize that Peel Public Health will be most effective within a system of strong public health organizations at all levels and in all locations.

We intend to continue these activities in the future. We are also considering participation in public health committees and work groups, presenting at conferences, publishing papers, teaching at post-secondary institutions, mentoring students, and participating in research.

Partnerships

While we have some powers to act on our own to protect the health of the residents of Peel, our interventions are typically more effective when we act in partnership with other agencies, institutions, community groups, governments, and others. We will continue to work with others in ways that most effectively use our public health resources and achieve the best outcomes for the Region of Peel.

Continuous Quality Improvement

We have a long tradition of using data to understand health issues and to assess the success of our interventions. However, there is more that we can do. We progress by constantly challenging our current beliefs and practices. We evaluate to determine the worth of what we do. Our aim is to continually improve the effectiveness of our programs and services.

Skills

Our workforce is highly skilled, and many are members of regulated health professions. We accept the responsibility to maintain and enhance the skills of our people. We value the act of sharing knowledge with others and helping others develop additional skills.

Focusing On Priorities

We face large and complex problems every day. Dealing with these problems requires significant resources and sustained effort. At the same time, new issues arise that command our attention. There is pressure to expand our activities into areas outside our core mandate. To do so, however, would limit our capacity to make a real difference in the most important health issues.

We cannot do everything, but must choose those issues which are both important (in terms of the impact on health status) and feasible, and then apply sufficient resources to have a real impact. This requires measurement and investigation of health issues, the involvement of the public and stakeholders, and continuing evaluation of effectiveness.

This is a **proactive** process: our planning will be driven by **need**, not just demand. We should also strive not just to deliver programs and services, but to solve problems in ways which are long-term and **sustainable**.