



Public health in the 21st century

Why public health is the most challenging specialty of all

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■ Cite as: *CMAJ* 2017 October 16;189: E1301. doi: 10.1503/cmaj.171133

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The health of the population is not the responsibility of the health care system, but of society as a whole. So, while public health may be *within* the health care system, it necessarily operates to a large extent *beyond* that system, at a community and societal level. “The science and art of promoting health, preventing disease, prolonging life and improving quality of life through the organized efforts of society,” was how public health was defined by a 1988 UK independent inquiry report. In the same year, the Institute of

Medicine (now the National Academy of Medicine) in the United States defined it as “What we, as a society, do collectively to ensure the conditions in which people can be healthy.”

The core business of public health differs markedly from that of clinical medicine; public health physicians must acquire very different forms of knowledge and sets of skills from their clinical colleagues. Public health's focus is on prevention of onset (primordial and primary prevention) rather than on reacting to an illness or injury with treatment and care (secondary and tertiary prevention). Primordial prevention — or population health promotion — looks upstream at the environmental, social, cultural and economic factors that either contribute to or harm physical, mental and social well-being. Primary prevention involves more conventional health-protection and disease-prevention approaches such as clean water; vaccination; safe and healthy food; prevention of tobacco, alcohol and other substance use; or injury prevention, to name but a few.

Although some of these actions are taken in family practice at the individual level, public health focuses on the health of populations and communities rather than individuals, and on creating the con-

ditions that enable people to make healthy choices. For example, how do we control the marketing of, access to and consumption of unhealthy foods and beverages, tobacco or alcohol in the homes, schools, workplaces, communities and other settings where people lead their lives? How do we change urban planning and design to make roads and streets safe, to encourage active transportation and physical activity, and to improve access to nature?

Public health often operates in a time-scale of years or even decades. Certainly, there are situations where responses are urgent and results — good or bad — are quickly apparent. However, one only needs to think of the long fight to control tobacco, or the decades of struggle to reduce poverty and ecologically unsustainable ways of life, to see that public health takes the long view.

This is why I believe that public health may well be the most complex and challenging medical specialty. The scope is vast. Not only do public health physicians need to have a broad knowledge of medicine and a clear grasp of epidemiology, they need knowledge in the social sciences (from anthropology to psychology, sociology and political science), in the design professions (engineering, architecture and urban planning) and in toxicology, environmental health and ecology. In addition, knowledge is needed in policy-making, public administration, public communications and community development.

All this points to a final distinction; public health requires holistic systems thinking and a generalist approach, recognizing what Gregory Bateson called “the pattern that connects.” In fact, what society has largely failed to grasp — including the medical profession as part of society — is that holistic and generalist systems thinking is a specialty in its own right; this also applies to family practice, another area of medicine that requires such thinking and yet has not been offered the recognition it deserves. Public health is a challenging field, one that should attract the best and brightest. Its personal rewards may be less immediately tangible, but the benefits to society are immense.