Epidemiology in Health Promotion: 
A Canadian Perspective

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During the second half of this century, Canada has made major organizational advances in providing universal hospital and medical care programs. Although these advances have largely overshadowed public health issues, the focus is now shifting back to public health with an emphasis on health promotion as a guiding philosophy.

Epidemiology has played a key role in these developments. However, as we seek to address matters such as "enhancing people's capacity to cope," "healthy public policy," and "self-care," we find ourselves with a limited data base. So it is now necessary for epidemiology to integrate concepts that have their origins in the social and behavioral sciences, and also to deal with new measures of functional and self-assessed health status.

A scientific approach to all this is essential, especially in developing and evaluating health promotion initiatives. In addition, national health goals and objectives are needed to help allocate resources rationally and hold health promotion activities accountable for their own performance.

I am sensitive to a recent statement by a colleague who, on addressing a Brazilian audience on the subject of health care financing in Canada, declared that "health service patterns are rooted so firmly in the history and culture of the countries where they are developed that they tend to self-destruct when they are exported!" (1). Conceding that point, I hope this account of the Canadian experience will be of interest.

As the Declaration of Alma Ata indicates (2), epidemiology and health promotion are fully consonant with the primary health care concept in its broadest sense. Nevertheless, in order to appreciate the role of epidemiology in Canadian health promotion, it is first necessary to understand something of the history, structure, and priorities of the Canadian health care system.

BACKGROUND

Ever since the Confederation of Canada in 1867, most of the responsibility for the nation's health services has rested with the 10 provincial governments. Although the Department of National Health and Welfare has a mandate making it responsible for "the health of all Canadians," direct federal responsibility has been limited to aspects deemed to affect the national interest such as food and drug regulation, quarantine and immigration, certain aspects of environmental protection, and (until recently) the health of indigenous populations and health...
services in the Yukon and Northwest Territories. In addition, the Federal Government maintains substantial expertise in epidemiology and health statistics which is used increasingly to assist the development of policies, programs, and research.

Despite a lack of authority over the actual development of provincial health services, the Federal Government has provided leadership in policy development and financing. Cost-sharing agreements enabled the provinces to adopt hospital insurance schemes in the 1950s, and by the early 1970s all of them had also adopted medical care insurance. Principles were determined at the national level: universality, portability, accessibility, comprehensiveness, and public administration with no direct charges. Methods of financing, which have varied with the province, consist of a combination of publicly administered insurance, taxation, and federal-provincial cost-sharing arrangements. Cost-control compares favorably with that in most Western countries.

Although Canada has made these major organizational advances in illness care, health status has its origins mainly in the environment and how people live. Thus, socioeconomic and morbidity patterns are strongly associated: Our lifestyles include smoking, alcohol consumption, high-fat diets, and sedentary living; we suffer from self-imposed plagues such as heart disease, lung cancer, traffic accidents, and the AIDS epidemic; and our society is rapidly aging at a time when traditional family and community structures are less secure than in the past.

In contrast to the above-mentioned medical and hospital programs, although a commitment to public health services was made in all Canadian provinces long ago, no explicit cost-sharing incentives were developed. Partly as a consequence, over much of the past 40 years political debate surrounding the development of hospital and medical insurance programs has largely overshadowed public health issues. This situation is changing—slowly in the 1970s and more rapidly in the 1980s—at least as far as stated policy is concerned.

The new interest in public health has been driven by several forces: recognition that further significant gains in health status are unlikely to result from merely increasing the investment into illness care; devotion of more attention to ways of maximizing the return on investment in health policies and services; an increase in the credibility of preventive and community approaches; an aging population that is now more interested in viewing health in terms of personal independence and ability to function; and a growing political constituency advocating healthy living.

RECENT MILESTONES

The most significant recent milestone in federal health promotion policies was the release, in 1974, of the Lalonde Report, A New Perspective on the Health of Canadians (3). This document advanced the "health field" concept giving equal recognition to four broad elements of health—human biology, the environment, lifestyles, and health care organization. The report stimulated much debate nationally and internationally, highlighting the fact that most of our attention had been given to only two elements: human biology (through the biomedical sciences) and the development of health care organization. Our lifestyles and the environment were neglected.

Another important landmark was creation of the Task Force on the Periodic Health Examination. Since 1980, this body has published a series of guidelines for the assessment of evidence regarding
prevention activities in clinical practice (4). I will return to this matter later.

Also significant was the 1984 release of a report sponsored by the Canadian Medical Association on the allocation of health care resources (5). This report was important not only because it called for a major refocusing of the health care effort on prevention, health promotion, and the needs of the elderly, but also because it was sponsored by a traditionally powerful professional organization and enjoyed high visibility.

Budgetary shifts are taking place more slowly. In 1977 passage of the Established Programs Financing Act freed the provinces from having to spend all cost-shared health dollars on hospitals and medical care, so that other developments such as home care programs and public health could benefit. A decade later, however, there is no evidence of a major shift in expenditures, although there is some evidence of regional innovation in community-based health services.

I will not delve further into our recent history. Suffice it to say that public health is now undergoing a renewal, while health promotion principles are becoming a guiding philosophy.

EPIDEMIOLOGY PAST AND PRESENT

Like other countries, Canada owes a debt to the international epidemiology community. We have gained knowledge from the entire range of published works—from classical descriptive and analytical studies to literature explaining the development of new methods and their application.

But what are the roles of epidemiology in Canadian health promotion? In my view, these are similar to the roles epidemiology plays in disease prevention and control: to describe and assess the patterns and magnitude of health problems, to identify causes and generate knowledge, and to contribute to the planning and evaluation of policies and programs. There are also some important limitations to epidemiology that will be encountered as this discipline grapples with the philosophy and practice of health promotion.

Lalonde's "health field" concept was based largely on an epidemiologic approach (3). The concept took morbidity and mortality trends into account. Knowledge of disease etiology, especially etiology relating to lifestyle, placed the limitations of acute care in perspective and attracted attention to prevention and health promotion. One chapter in the Lalonde Report entitled "The Limitations of the Traditional View" declared: "There is little doubt that future improvements in the level of health of Canadians lie mainly in improving the environment, moderating self-imposed risks, and adding to our knowledge of human biology" (3).

At that time, population health status was assessed using three main indicators: (a) life expectancy and mortality, (b) causes of death, and (c) morbidity (measured imperfectly using hospitalization data) (3). Although these indicators continue to be the backbone of our health information systems today, several more elaborate methods for analyzing morbidity and mortality are now in general use. More information is also available on specific risk factors and lifestyle characteristics.

Mortality analysis has been advanced through increasing use of the Potential Years of Life Lost (PYLL) indicator. Although the modern development of PYLL has been largely pioneered in Canada, its origins apparently date back to Petty's Political Arithmetic published in

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In any case, the PYLL due to a particular cause is the sum of the added years that all persons dying of this cause in a given society would have lived had they experienced normal life expectancy, divided by the number of people in the particular study population. PYLL highlights the loss to society resulting from youthful or early deaths. Thus road accidents, which age-standardized mortality figures indicated were the seventh leading cause of death among males and the eighth leading cause among females in 1985, actually ranked second in terms of potential years of life lost among both sexes because of a predominance of decedents in their late teens and early twenties (8). The measure remains controversial, especially because of problems in deciding what age cutoffs should be used. For example, a choice of 85 rather than 75 years for life expectancy would increase the relative importance of late-onset diseases. If we choose 75, do we infer that life beyond that age has no value to society? Similarly, if conception were taken as the criterion for the start of life rather than birth, then abortion would emerge as a leading cause of PYLL.

Computerized record linkage techniques, pioneered in Canada for mortality follow-up of nuclear energy workers, have recently been applied to hospitalization data. We are now able to distinguish persons from episodes and to cross-link to mortality files, thereby permitting calculation of fatality:case ratios on an ongoing basis (9, 10). The methods used include both employment of common identifiers and probabilistic linking of names and dates of birth. The latter has proven successful in research studies where common identifiers were not available. Such techniques hold promise for evaluating the morbidity and mortality outcomes of specifically focused health promotion and prevention programs where population samples have been identified.

Morbidity analysis has been augmented through use of national and regional surveys that are providing new information on risk factor prevalence (11). This is permitting characterization of various groups—such as disabled people, women, low-income populations, middle-aged men, native groups, immigrants, and the elderly—in terms of their risk profiles and in relation to behaviors such as smoking, alcohol consumption, exercise, sleep patterns, eating patterns, seat belt use, immunization, and various combinations thereof.

The use of such health surveys in Canada, which is not a new phenomenon, really dates from the Canada Sickness Survey of 1950–1951. What is new is their increased frequency, their contribution to policy development, and the application of new measures such as “health expectancy,” “activity limitations,” and “self-assessed health status.” Furthermore, our surveys are increasing in usefulness as greater attention is given to improving their validity and reliability.

I hasten to add that analysis of survey results by itself is not sufficient. Rather, epidemiologists should play a major role in the subsequent translation of such analyses into information that is useful to policymakers, planners, and the general public.

In the past the Federal Government took the lead in developing national surveys, and the resulting data bases permitted some regional analyses. Now, however, the initiative is being taken increasingly by provincial and local health departments (12). A recent example of one such initiative is the Nova Scotia Heart Health Survey providing new data on cardiovascular risk factors (13).

Epidemiologic information has played a major role in Canada’s emerging health promotion policies. Thus, we have good
epidemiologic evidence of inequities (14), good evidence that our disease pattern is amenable to prevention, and good information about the actual provision and use of health services. Nonetheless, when we turn to address such challenges as "enhancing people’s capacity to cope," such strategies as "healthy public policy," and such mechanisms as "self-care" we find a more limited data base. To confound matters further, workers in health promotion are scattered across many disciplines, and communication is difficult because of differences in the constructs and terminologies of those disciplines.

HEALTH PROMOTION

The principles of health promotion in Canada have much in common with those presented in the WHO document Health Promotion (15), with which you may be familiar. However, few will be familiar with this document’s Canadian counterpart, an article entitled "Achieving Health for All" presented by our Minister of Health, the Honorable Jake Epp, and published in the Canadian Journal of Public Health in 1986 (16). This article sets out a general framework (shown in Figure 1) that expresses what is, in effect, Canada’s national response to the World Health Organization’s call for achieving "health for all by the year 2000."

In particular, it recognizes as specific challenges the needs for (1) "reducing inequities," (2) "increasing the prevention effort," and (3) "enhancing people’s capacity to cope." The first challenge, "reducing inequities," refers to the fact that, despite an equitable health care system, people’s health remains directly related to their economic status. The second challenge, "increasing the prevention effort," asks us to go beyond the primary prevention activities that had their roots in the nineteenth century (like sanitation and potable water) to address contemporary high-risk behaviors more actively. And the third challenge, "enhancing people’s capacity to cope," refers explicitly to helping people with chronic conditions, disabilities, and mental health problems.

By way of responding to these challenges, three related strategies are advanced, these being (1) "fostering public participation," which means helping people assert control over factors that affect their health (i.e., helping people to help themselves); (2) "strengthening community health services," an activity expressly oriented toward promoting health and preventing disease by allocating a greater share of resources to community health agencies; and (3) "coordinating healthy public policy," which means coordinating all policies that have a direct bearing on health, including policies in the areas of income security, employment, education, housing, business, agriculture, transportation, justice, and technology.

These interrelated challenges and strategies are tied together within an overall framework by three elements termed health promotion mechanisms, these being (1) "self-care," (2) "mutual aid," and (3) "healthy environments" (see Figure 1). The first of these, self-care, refers to the decisions and actions individuals take in the interests of their own health—such as people choosing a balanced diet, planning leisure activity, or doing regular exercise, or an older person using a cane when the sidewalks are icy, or a diabetic self-injecting insulin. The document points out that "encouraging self-care means encouraging healthy choices" (16).

The second element, mutual aid (or social support), refers to the actions people take to help each other cope within their
families, neighborhoods, voluntary organizations, or self-help groups (16). There is good evidence that people who have social support are healthier than those who do not (17). In Canada, the size and scope of the "self-help" movement is impressive. In my own city, Halifax, with a quarter million people, a directory of community services has over 500 listings—of mostly voluntary organizations (18).

The third element, healthy environments, means ensuring that policies and practices are in place to provide Canadians with a healthy environment at home, school, work, or wherever else they may be (16).

Policy coordination within the overall framework is important. For example, consider smoking cessation—a goal that can be viewed as an individual responsibility, but one that is more likely to suc-
ceed with support from a self-help group in a society that has adopted strong legislation to protect the rights of nonsmokers. Within this context, it is noteworthy that the Canadian Parliament recently passed an act banning tobacco advertising (which is now being challenged by the tobacco industry in the courts), and various public and private jurisdictions have regulations restricting smoking.

THE FUTURE OF EPIDEMIOLOGY IN HEALTH PROMOTION

For purposes of health promotion, Canadian epidemiology must come to terms with various new challenges. Our improved health status has stimulated us to shift the emphasis somewhat away from traditional morbidity and mortality indicators toward measures of self-assessed health status, while our aging society has made functional health measures more relevant. At the same time, the policy of increasing public participation is requiring us to move beyond health status assessment itself and to address the competence of individuals and communities to contribute to decisions that affect their own health.

Self-Assessment of Health Status

Traditionally, epidemiologists have been trained to view problems objectively. For example, we develop objective criteria for case definitions and other standardized measurements and apply these to populations being studied. We generally assume that our professional knowledge is superior to the health beliefs of lay people, and that our collective experience overrides the phenomenon of individual variation.

The whole concept of self-assessed health, therefore, is like coming full circle in the development of epidemiology and public health. Now we must confront from a fresh vantage point the reality that what the individual says is important may conflict with the findings of conventional morbidity and mortality analyses.

In his introduction to The Active Health Report, a work based on a recent national survey, Minister of Health Jake Epp states: "This is the first national survey to ask Canadians how they feel about their own health. Past surveys have studied the nature and causes of people's health problems. This report . . . offers us something new: a comprehensive picture of the health knowledge, attitudes, behavior, and intentions of Canadians" (19).

The perspective is historically accurate, but is it progress? I submit that in any society that has not developed objective measures of health status, this subjective approach would be highly questionable. However, if a continuing commitment is given to these more conventional measures, then the acquisition of new data on knowledge, attitudes, behaviors, and intentions is of equal importance, and even more so if the focus is on health promotion. That is, if we really wish to change contemporary disease patterns, which are so intimately tied to the habits of people, we are not likely to succeed without knowing about people's attitudes and beliefs. Such subjective measures do not compete with conventional indicators; rather, they are complementary. However, all new measures must be developed with careful attention to validity and reliability (20).

The Active Health Report contains eight chapters, three of which illustrate the relevance of individual, subjective information to health status (19). "Making Changes" (Chapter 4) looks at the changes Canadians have made and want to make in their health habits. The chapter also finds that what people think they should do to improve their health and what they actually intend to do (if
anything) are often quite different. This should give us pause about merely providing health "information" and nothing more.

"Knowledge, Attitudes, and Beliefs" (Chapter 5) affirms what has been understood from other sources: that health knowledge, attitudes, and beliefs do not lead directly to behavior change. Again, this suggests that health promotion campaigns should be multifaceted and should not rely entirely upon the dissemination of information.

"Family, Friends, and Health" (Chapter 6) looks at how a person's family and friends can influence health and health behavior. The influence is very strong. Most people who persist in poor health practices have family members and friends who do the same. Similarly, people with good health habits tend to share these with their families and friends. These findings suggest that those undertaking health promotion efforts should look beyond individuals to social environments in order to develop strategies and initiatives that enable people to make real changes. This is borne out by international experience (e.g., the North Karelia project in Finland—21), although it is often difficult to sort out independent and interactive effects, a circumstance that can create an important problem for program evaluation.

One might challenge the notion that the sort of information being dealt with here is really within the realm of epidemiology. I submit that a debate over this point would not be useful—because epidemiologists, working in a multidisciplinary environment, should have the necessary perception and skills to address these attitudinal and behavioral issues. In the same cooperative spirit, we also need the social and behavioral scientists to advance our understanding of the relationship between human behavior and health.

Functional Measures of Health

The importance of functional health outcomes is increasingly recognized in many countries, largely due to the phenomenon of aging. Health promotion in the elderly focuses on independent living, rather than upon disease prevention and treatment. For the elderly, their families, their neighbors, and supporting services a pathologic diagnosis, unless curable, is of limited value (22). More important is the functional ability to cope with daily life despite chronic morbidity. This principle, which can be extended to all age groups, is reflected in the recent emergence of the International Classification of Impairment, Disabilities, and Handicaps (ICIDH) (23), which provides a conceptual framework of disablement and also defines and classifies many functional problems.

A new indicator called "health expectancy," developed in Canada by Wilkins and Adams (1982), also attempts to take function into account. It is basically a life expectancy calculation adjusted for years of disability estimated from a national survey (24). This indicator is exciting because it considers an element of health that usually escapes measurement—namely, the quality of life. A related indicator addresses the theoretical gains in life expectancy free of disability that would be obtained if deaths and activity restrictions due to specific causes did not occur (25). Experience with such indicators is still very limited in Canada, and their validity and reliability need to be further explored. (For example, disparities in the interpretation of particular activity restrictions may exist across the country.)

The environment of the elderly can also be assessed—in terms of such things as the availability of transportation, provisions for wheelchair access to shopping and toilet facilities, and the availability of
government grants to help older people organize to help themselves. The concept of functional health for the elderly is taken up by questions such as: Can you walk? Can you get in and out of bed? Can you bathe yourself? Do you have trouble getting to the toilet on time? Can you get to places out of walking distance? Can you prepare your own meals? and How many people do you know well enough to visit in their homes? (26)

Functional outcomes are obviously relevant to health promotion concepts. Yet there is a large gulf between this emerging body of theory and what goes on in everyday practice. A recent study of the feasibility of relating ICIDH disability codes to patient charts was carried out in a Halifax hospital. It was found that health professionals rarely documented the type, nature, or severity of disabilities, and that no charts used terminology compatible with the ICIDH (27). Similar problems were said to be encountered during an attempt to classify disability from records in an Australian center (28). It therefore seems likely that the use of this classification of functional outcome, on a retrospective basis, would not be feasible in many settings at the present time. Despite such limitations, the emergence of new measures in response to new morbidity patterns and new ways of looking at health should encourage epidemiologists and health professionals generally to increase their emphasis on functional outcomes in a manner compatible with the philosophy of health promotion.

Assessment of Community Competence

The community development approach inherent in health promotion is not always reasonable. That is, the community may be disintegrated, may lack an appropriate leadership or infrastructure, or may contain insurmountable barriers. In addition, the local management of community affairs may be compromised by transcommunity networks of competing powers and special interests (29). Therefore, a purely epidemiologic assessment of community health needs and priorities is not sufficient—even if augmented by information on community members’ knowledge, attitudes, and behavior.

It is thus essential to assess the strengths and limitations of communities before proceeding with health promotion initiatives. Examination of various intracommunity parameters may be useful for this purpose—including such qualities as community members’ commitment to the community, the awareness of a community identity, the community’s ability to view situations clearly, its ability to articulate, its capacity for conflict containment and accommodation, the extent of participation in community affairs, community management of relations with the larger society, and the nature of machinery for facilitating participant interaction and decision making (30).

The overall condition assessed here is the community’s intrinsic ability to take control of its own interests and to plan and implement changes. Such an assessment would also help to identify ways to strengthen that ability—such as by promoting personal involvement, enhancing leadership skills, determining community boundaries, stimulating voluntary support, and developing resources like a community organization.

THE IMPORTANCE OF GOOD SCIENCE

Health promotion derives from the social behavior end of the science spec-
trum, where Leighton described three areas of concern: lack of a frame of reference, difficulty initiating and maintaining a volume of research sufficient to bring about major advances in understanding, and problems utilizing research once it has been done (29). Having identified these hazards, however, the question remains as to whether the criticisms involved can be fairly applied to the field of health promotion.

For example, one can point to a clear exposition of supporting literature in Nancy Milio’s book Promoting Health through Public Policy (31). This is a truly impressive reformulation of epidemiologic and social science evidence into a format that is both readable and relevant to public policy. Indeed, there is no shortage of policy-relevant epidemiology and related social and behavioral science supporting several important areas of public health action (e.g., seat belt legislation, smoking cessation, heart health promotion, and occupational health and safety).

However, we must also consider some of the theory-building in this field. In examining the relative failure of the community mental health movement, Leighton noted that “the research suggests not so much that the theories were wrong (although some were) as that they were insufficient and did not take into account many factors of major importance” (29). Another author, M. H. Becker, is more polemic in addressing what he terms “the tyranny of health promotion” (32).

My point here is that theory is not enough, even if supported by data relating to need and plausible underlying relationships. We must go further and demonstrate not only that we have a basis for action, but that in practice health promotion initiatives really do make a difference.

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**PLANNING AND EVALUATION**

At this stage in its development, health promotion is more a philosophy of action than a mature discipline. Many of its exponents have declared its separateness from more established approaches such as preventive medicine and health education. I agree with this, but would add two caveats—that the approaches are complementary and that health promotion must be held to equivalent standards of evidence in order to justify increasing allocations from the health budget.

A decade ago, much the same was said of the discipline of preventive medicine in its struggle for more of the medical care dollar. Although that discipline is far from having succeeded in this ongoing struggle, I cite it as an example because of the work of the Task Force on the Periodic Health Examination in Canada in setting out standards of evidence for the inclusion or exclusion of various preventive maneuvers in the clinical setting (4). That approach has stimulated similar calls for a review of evidence in relation to community health interventions. By implication, this includes health promotion.

It is useful, therefore, to review the task force’s approach and to consider that approach’s strengths and limitations (4). Very briefly, the task force graded various research methods according to their likely internal validity and used this as a basis for assessing the scientific evidence in support of a specific preventive clinical maneuver. In essence, the grades used were as follows:

- **Grade I.** At least one well-conducted randomized controlled trial.
- **Grade II-1.** Controlled clinical trials without randomization.
Grade II-2. Cohort or case-control analysis.

Grade II-3. Comparisons between times and places with and without treatment/prevention.

Grade III. Expert judgment.

Recommendations were made largely on the basis of the grade of evidence obtained, using the following categories:

Category A: Good evidence for inclusion (usually grade I evidence).

Category B: Fair evidence for inclusion (usually grade II evidence).

Category C: Poor evidence for inclusion, but recommendations could be made on other grounds (usually grade III evidence).

Category D: Fair evidence for exclusion (usually grade II evidence).

Category E: Good evidence for exclusion (usually grade I evidence).

Adjustments were made according to the strength of the evidence, as distinct from the method used; and where several aspects of a health issue showed a variance in the quality of evidence, the recommendations took account of all aspects (4).

While the task force’s approach was controversial, it has effectively directed the medical profession’s attention to a range of appropriate preventive maneuvers and has alerted the profession to a lack of evidence supporting some measures that have enjoyed popular support. The task force has also carried forward a vigorous debate regarding the importance of employing a scientific approach in medicine and the need for critical appraisal of the literature.

Nonetheless, there are serious problems involved in extrapolating from this experience to the field of health promotion. The task force, in considering the periodic health examination, dealt mainly with “secondary prevention” in a clinical setting (i.e., the early detection of individuals at high risk of disease, often at a sufficiently early stage in the disease process to permit prompt and effective intervention). With a few exceptions, this context does not involve true primary prevention, that being the modification of personal, community, and environmental risk factors so as to reduce disease incidence (7). Nor does it involve extensive tertiary prevention—prevention relating to the reduction of impairments, disabilities, and handicaps.

In contrast, health promotion—using this now traditional paradigm of preventive medicine—deals mainly with primary and tertiary prevention. Also, the unit of analysis is the community more than the individual, and the mechanisms are more complex—involving policy coordination, social animation, varying levels of participant control, and longer time frames. Therefore, it is unreasonable to suggest that the task force’s methodologic approach could be fairly applied to this type of intervention.

There is, however, a need for health promotion efforts, and for public health programs generally, to adopt standards of evidence against which community-level interventions could be assessed. Greater weight should be accorded here to descriptive and analytical studies that have provided consistent, strong, and reproducible results elucidating natural history in a variety of settings. The causality criteria originally put forward by Hill should be reexamined for potential application (33). Quasi-experimental designs could be accorded a relatively high level of acceptance; and more weight could be given to criteria such as public health importance and social impact, and
to indicators such as population-attributable risk.

In order that such an exercise receive the respect and credibility it deserves from the public health community, it would be necessary to assemble an expert group intellectually independent with respect to its composition, methodology, and priorities. If this were done, however, and if the exercise were carried out, it should make an important contribution that would greatly assist health administrators, program planners, service providers, and researchers in their work.

Finally, I would like to say that health promotion and disease prevention initiatives would gain from a clear statement of goals, objectives, and time frames. Such a statement would promote more rational resource allocation and would encourage accountability to the stated goals. Although no statement of this kind has yet been developed nationally in Canada, our two largest provinces (Québec and Ontario) have developed such statements and are setting a good example for the rest of the country.

CONCLUSIONS

The health promotion field, an emerging force in Canadian public health, can trace its origins to various disciplines—including philosophy; community development; the political, social, and behavioral sciences; and epidemiology. Much of the evidence of need in this area derives from epidemiology, but major new knowledge gaps have emerged—such as knowledge of functional and self-assessed health status, how to assess the competence of communities to engage in their own health promotion, and how to develop evidence that health promotion initiatives will actually work. Epidemiologists can sometimes play a leading role in developing this new knowledge, but in so doing they must at least demonstrate that they are team players able to adopt and integrate concepts that have their origins in the social and behavioral sciences.

Acknowledgments. My thanks to Hemali Kulatilika, Karim Kurji, Alex Leighton, Karen Mann, Peter Ruderman, Brenda Ryan, and Elizabeth Townsend for stimulating discussion and helpful advice.

REFERENCES


