

Making decisions on public health: *a review of eight countries*

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Foreword

Public health has come a long way from its early focus on hygiene and, at least in industrialized countries, many of the historical threats to health have been virtually eliminated. Yet in a world that is constantly changing, humanity is continually faced with new threats to health, as illustrated by the epidemic of cardiovascular disease that struck the western world in the twentieth century, or the HIV epidemic that emerged in the 1980s. The recent appearance of SARS (severe acute respiratory syndrome) has reminded us of the continuing evolutionary struggle in which microorganisms and we are engaged. We can also anticipate a growing burden of chronic diseases, many of which are only preventable if we can implement the effective policies in time. We also need to ensure that, as we celebrate our success in improving overall population health, we leave no societal groups behind, and that inequalities in health narrow, rather than widen, as they have in many countries.

As a consequence, governments must ensure that their public health systems and policies can respond to continually changing circumstances, anticipating emerging threats and identifying ways to tackle them. In doing so, there is much we can learn from each other. One of the lessons of this study is that the public health capacity needed for such response is decidedly insufficient in many countries, and should be strengthened. Another important lesson is that there is a lack of well-documented research on the complex mechanisms of decision-making in real life. It would be useful to understand the policy processes involved better, even if it is clear that they cannot be applied directly in other contexts. Experiential knowledge can, nevertheless, be systematized.

This publication represents an initial attempt to map priority-setting in public health in eight countries. I welcome the publication of this book and congratulate the authors and editors on synthesizing a wealth of information on public

health policies in eight countries. It will pave the way for more detailed analyses in this field, enabling us to better understand how governments can address emerging threats to health – and provide their citizens with the greatest opportunity to make healthy choices.

Kimmo Leppo
Director-General
Ministry of Health and Social Affairs, Finland

Section 1 Introduction

Public health is defined as the science and art of preventing disease, prolonging life and promoting health, through the organized efforts of society. It has a population rather than an individual focus and involves mobilizing local, regional, national and international resources to ensure the conditions in which people can be healthy.

This report describes the models of public health decision-making in eight countries: Denmark, Finland, France, Germany, the Netherlands, Sweden, Australia and Canada. It has been written to inform the debate on future policy options. It is a summary of key findings from a more detailed analysis documented separately¹.

Historically, public health has achieved a great deal, initially by means of its traditional roles in ensuring water purity, clean air and effective sanitation. While remaining vigilant to threats to these achievements – often in new forms such as the ill effects of vehicle emissions – its reach has been extended to confront other threats to health, such as smoking, hazardous alcohol consumption, and poor nutrition, as well as a factor that underlies many of the causes of ill health: poverty. The complex origins of these threats to health, and the many bodies that can contribute to tackling them, require an intersectoral public health response. For example, while tobacco is the single biggest contributor to the burden of disease, controlling smoking involves not only those in the health sector but also in agriculture (eliminating subsidies for tobacco production), trade (tackling innovative ways of circumventing advertising bans), education (raising awareness of the tactics of the tobacco industry), fiscal policy (raising tobacco taxes), and law enforcement (tackling industry involvement in smuggling). Furthermore, action is needed at all levels, from local to global.

¹ Allin S et al. *National approaches to public health in eight countries* [unpublished]. London, European Observatory on Health Systems and Policies, 2003. The full report is available at <http://www.observatory.dk>.

The complex intersectoral and multilevel nature of public health means that, unlike defence for example, it is not possible to speak of an explicit, all-embracing national public health policy in any country (possible exceptions might have been in the communist bloc prior to 1989 where all government activity was controlled centrally and civic society organizations were virtually non-existent). It is, however, possible for governments (at national or regional level, depending on the distribution of responsibility within the country) to develop policies that lead directly to actions by the state or those acting on its behalf, as well as facilitating actions by others that promote public health. This study examines the experiences of selected industrialized countries in deciding upon such policies and implementing them.

Section 2 describes the methodology used in preparing this report. Section 3 analyses the key findings in the eight countries in terms of:

- the organization of public health
- funding health care and public health
- national strategies
- criteria used for priority-setting and decision-making
- health inequalities
- health targets
- intersectoral collaboration
- monitoring and evaluation of public health policies.

Section 4 reports case studies of public health interventions that largely correspond to the countries' national priorities and strategies. Finally, section 5 draws conclusions and focuses on future research priorities for public health, while also broadly outlining prerequisites for effective public health policy.

Section 2 Methodology

This report draws on material from official reports, links from government web sites and the literature on public health from these countries. The search strategy was iterative, based initially on searches using PubMed and Google as well as detailed searches of ministries of health and relevant government agencies. References identified on initial searches were then followed up. In addition, public health experts in each country were contacted to contribute specific case studies describing relevant public health interventions and, where possible, evaluations of the interventions. These case studies were complemented with additional information identified from the published literature on each country, with a particular emphasis on economic analyses. With the exception of Germany, where there are no explicit national priorities (reflecting the decentralized responsibility for health), these case studies reflect the broad national priorities of the different countries. More specifically, they illustrate how public health priorities are implemented, and in some cases evaluated.

The examples included are, of necessity, selective. They reflect, firstly, what has been studied and documented. In all countries there are many active examples of good practice that are never recorded in a retrievable format. Secondly, they reflect the judgement of the editors and the national public health experts on which policies are likely to provide valuable lessons for an international audience. Finally, they reflect the true diversity of decisions about both the problems facing each country and the priorities for developing responses to them.

Turning to the nature of decision-making in each country, this report does not claim to offer a comprehensive assessment of structures and processes, as this would require a major programme of primary research. Rather, the aim is to identify the main entities contributing to public health policy; describe (as far as possible) how decisions currently are made; identify national priority areas for public health; and examine goals and strategies to achieve them. Fol-

lowing a description of public health policies in each country, a series of case studies will be presented. Although these case studies do not provide a comprehensive review of public health interventions in each country, they serve to exemplify the extent to which national strategies are implemented and the extent of evaluation in the decision to do so.

The case studies that are presented for each country are categorized into four areas that, while not exhaustive, cover some of the main areas in which public health interventions may be beneficial:

- altering individual behaviours/lifestyles
- controlling and preventing infectious disease
- tackling the broader determinants of health
- secondary prevention, in particular screening for disease.

The first three areas can be classified as primary prevention, which is defined as the attempt to remove the cause of disease or illness. Thus, there is an implicit recognition of risk factors and determinants of disease. Classic examples of primary prevention are tobacco control policies aimed at stopping people from smoking, water quality monitoring, and immunization campaigns. Secondary prevention identifies individuals at an early stage of disease or illness when the disease/illness is reversible. Screening remains the most important aspect of secondary prevention. Tertiary prevention is concerned with preventing disability in individuals who have a disease or illness, for example persuading heart attack patients to stop smoking or eating fatty foods. Those who would identify themselves as working in public health have been traditionally concerned most with primary and secondary prevention; tertiary prevention has been largely the focus of the health care system.

It was hoped to provide rather more information on the economic impact of interventions. Unfortunately, it soon became clear that many had not been subject to evaluation of effectiveness and even fewer to evaluation of cost-effectiveness. Consequently, few countries are in a position to assess priorities on economic grounds.

There are many reasons for the limited economic evaluation of public health policies. An obvious one is the long time scale necessary to achieve outcomes, whether because of the natural history of the disease (a fall in lung cancer deaths attributable to reducing initiation of smoking among teenagers will become apparent only when they reach their sixties) or the time that it takes to implement a large-scale intervention. Another reflects how improvements in health often require the combined actions of a series of complementary interventions so that it is difficult to disentangle the effects of a single element. Finally, there are often difficulties in both obtaining necessary data and the methods used to analyse them. However a further report is being undertaken with the objective of determining the extent to which economic evaluation

is used in health promotion and public health and identifying in more detail the barriers to doing so.

Section 3 The organization, financing and decision-making processes in public health in eight countries

This section describes the organization, financing and priority-setting of public health actions in eight countries, supplemented by Tables 1 and 2 in Annex 1. Specifically, this report addresses policies pursued by each country in relation to the organization of public health, the funding of health care and public health, the development of national or local health strategies (including a description of the main agencies involved in policy development), the criteria used for priority-setting and decision-making, health inequalities, health targets, the extent of intersectoral collaboration, and mechanisms to monitor and evaluate public health policies. Before describing the organization and decision-making processes in public health in the eight countries, it is important to raise some conceptual issues.

Firstly, while ideally public health should be a responsibility for all levels of government, there is generally some degree of imbalance between central and local authorities. It is crucial, however, that there be four levels of public health authority: international, national, regional and local. International collaboration is important since diseases do not obey national boundaries. The national level should provide guidance for national policies and specialist support for lower levels. In a large country like the United Kingdom, public health priorities will differ across regions and a regional level public health authority is needed as a source of expertise and guidance. Furthermore, authority is needed at the local level, which along with the regions, will have defined administrative bodies that are able to coordinate activities efficiently. The operational level must be local because only at that level is there sufficient access to the population in order to implement public health policies. In the United Kingdom, for instance, it is important for health and local authorities to be coterminous in order to facilitate coordination and integration of policies to improve health for defined populations (1).

Secondly, when examining public health activities it is important to recognize that many behavioural characteristics and lifestyles are dependent on

structural factors. Thus, while it is common for public health professionals to seek to alter lifestyles to improve health, structural supports must be in place in order for these to change. For instance, people are not likely to exercise if there are no playing fields. Therefore, to promote healthy behaviours, often there need to be changes in the structural environment as well.

Thirdly, the method of funding for health care plays a role in defining public health responsibilities. The two most common methods of financing health care in industrialized countries are taxation and social health insurance (SHI). It has been noted that countries with SHI models of funding have less comprehensive national public health activities than those with tax-funded systems. This discrepancy relates to the initial focus of each system. While social insurance funds initially would have been responsible for a population defined on the basis of membership of the fund, health authorities (e.g. in the United Kingdom) were responsible for a population in a geographical area. This focus in tax-funded systems led health authorities to adopt a population approach, creating links with other sectors that influence health, while the social insurance funds adopted more of an individual perspective. Thus, national health service models, funded through taxation, may have had more developed infrastructure and links in place to facilitate more developed public health strategies and targets (2).

More specifically, public health requires new roles that depart from the traditional model of social insurance, such as: shifting towards actively purchasing care, seeking to determine the health needs of those for whom they are responsible and defining models of care within which these can be met, and the provision of collective health services (3). These roles can be discussed in relation to three countries with SHI financing: France, Germany and the Netherlands.

Health reporting is viewed as a necessary tool for identifying population health needs and addressing these through public health interventions. It also serves to evaluate programmes in order to highlight their deficiencies and needs. While France and the Netherlands have health reporting methods based on national surveys, in Germany the Länder (states) publish their own health reports, thus some have more sophisticated reports than others. However, in many cases, these reports are relatively descriptive although some, such as those in the United Kingdom, are increasingly analytical. Problems with limited public health expertise, data protection laws and scarce disease registries may explain this limitation, particularly in Germany (3).

In terms of actually purchasing services, there seem to be few examples of structures enabling close links between those producing health reports, typically public health services run by government, and either purchasers (in the form of sickness funds) or providers, such as associations of physicians or hospitals. Recently France has established a series of new mechanisms to foster such coordination. Also, in North Rhine-Westphalia, a state health conference has

been established that brings together a wide range of interest groups. Overall, it seems that considerations of public health play relatively little part in strategic purchasing in the SHI countries for two reasons: the system of financing creates a disincentive to seek unmet need, with its potential cost implications; and the very limited ability of any of the sickness funds that function at a national level to influence the configuration of services in a particular area (3).

In the provision of collective services, there are three models of a social insurance-based system. Firstly, they can be provided outside of the relationship between the sickness funds and providers, typically (but not invariably) by public health authorities (e.g. immunizations in France and the Netherlands). Secondly, they can be undertaken within this relationship: funded by sickness funds, delivered by private physicians and overseen in some way by public health authorities (e.g. immunization and screening in Germany, which are not very successful). Thirdly, they can be provided by other organizational structures, bringing together sickness funds, providers, public health authorities and others (e.g. cancer screening in the Netherlands) (3).

In general, more limited progress in public health activities may result from various structural impediments inherent to SHI systems, most importantly the inability to meet the fundamental requirement that these activities should be part of an organized programme, rather than a set of disjointed activities. Finally, neither public health systems nor networks of sickness funds and providers are able to implement these activities on their own. When they work closely together, in formal structures with clear lines of responsibility, much can be achieved.

Fourthly, while it is important to determine the levels of spending on public health actions in different countries, many difficulties arise in defining and measuring these expenditures. Definitions of public health are likely to vary across countries and over time. Additionally, public health interventions may be funded by various sectors, including the social, environmental and health sectors. Thus, these complexities cast doubt on available data on public health expenditures.

Fifthly, decision-making in public health, and policy in general, represents a complex process with both informal and formal influences. Often the full story emerges many years later, as illustrated by a recent historical study of events surrounding the 1979 Black Report on health inequalities (4), or where for some reason (whether through unofficial leaks or, in the case of the tobacco industry, under court order) internal documents are released to researchers. The case of the tobacco industry is instructive, as it demonstrates the complexity of policy formulation and how it may be manipulated by strong vested interests. For example, effective action on smoking in public places has been delayed in many countries partly because of the success of the industry's multi-million dollar programme to undermine the evidence of the harm caused by

second-hand smoke, as well as working through front organizations to argue, incorrectly, that the hospitality industry would lose out financially (5). The necessary research to address these issues is a major undertaking, bearing many of the features of investigative journalism, often at considerable risk to the researchers involved. Thus, while informal networks and processes are clearly important to consider, this report primarily focuses on the formal processes as they are outlined in the government documents.

Finally, the use of health targets as a tool in health policy has been widely debated in recent years. Although health targets typically are defined as specific, quantifiable and measurable objectives designed to improve the health of the population, or subgroups of the population, often they are expressed in terms that are broad and aspirational (6). The United States of America was the first country to undergo a comprehensive national target-setting exercise (7). A total of 226 quantifiable objectives for the nation were published in 1980, which set out to improve health, reduce risk and improve services and protection. Despite this initial progress in health targets in the United States, it is widely believed that there were no mechanisms for implementing the actions necessary to achieve these targets. More specifically, while this exercise led to a developed monitoring system, there was limited success in terms of resulting actions.

Health targets were officially and internationally promoted by the WHO Health for All programme, launched in 1980. For the European countries, this programme led to the formation of 38 targets that were endorsed in 1984. These targets focused on reducing health inequalities, reducing mortality and morbidity from certain disease groups, improving health of specific groups and targeting health determinants. Furthermore, each country was expected to elaborate these targets in its own way and monitor progress in these areas. Data from all countries were organized in the *European health for all database*. In 1998, revisions were made to the original targets, and “21 targets for the 21st century”, part of a Health for All policy framework for the European Region, was established.

While the WHO targets had a significant influence on health policy developments in the European region, no European country has formally incorporated this strategy into its health policy (6). Thus, they remain political constructs that ultimately have no force, not having been translated into national strategies. The use of health targets in public health policy is important in several countries, however, they are often qualitative and used as sources for inspiration rather than technical tools (6).

When comparing health targets in different countries, in addition to variations in focus there are also differences in the motivations behind setting targets (8). Three general goals of health targets have been noted: to launch debate on the development of health policy strategies within a country or region; to

contribute to reorienting health care, for instance to increase funding for prevention; and to contribute to the improvement of population health while challenging health care structures and processes. These variations create difficulties in evaluating the success of health targets, and there is a growing need to develop reliable evaluation systems to be used within countries and in international comparison (9).

In examining the organizational structure of public health, several commonalities can be seen among the eight countries, although a distinction can be drawn between those countries with considerable national involvement, and those with more decentralized public health systems. For instance, in all eight countries, the national level is generally involved in enacting legislation that affects public health, guiding and regulating the regional and local levels in their delivery of public health services, and monitoring population health. Additionally, there are several supporting agencies in these countries that serve largely similar functions namely: research, public health expertise, surveillance and health promotion. In several countries, this national role is relatively minor compared to the responsibilities and autonomy of the regions. For instance, in Sweden, Finland, Denmark and the Netherlands, the county/municipal level has considerable autonomy in public health (e.g. in funding, setting priorities and implementing activities), while the national level monitors implementation, coordinates national programmes and develops national public health policies. See Box 1 for a more detailed description of the organization of public health in Denmark.

In Australia, while the states and territories have considerable responsibility in public health, the national government has become increasingly involved as represented by the Australian National Public Health Partnership of 1996. This partnership facilitates communication between all levels of government in Australia. At federal level, responsibilities include developing national public health programmes and policies, financing state activities and monitoring and guiding the lower levels. Most core functions of public health lie at the state/territory level, such as: surveillance, monitoring health outcomes, developing policies, implementing programmes and acting in emergencies. However at local level, public health involvement varies considerably generally interacting with activities involving environmental management, land use planning, public safety and provision of community services.

In Germany, the federal role in public health is minimal, and the Länder have almost complete autonomy, while adhering to the basic law that the structure of state government must “conform to the principles of republican, democratic, and social government based on the rule of law”. The Länder are further subdivided into administrative regions that decentralize Land administration and are run by district presidents appointed by the Land president and reporting to the Land minister of the interior. The smallest administrative units are the

Box 1. The organization of public health in Denmark (10)**National level**

- Ministry of Health initiates legislation, coordinates a comprehensive programme on health promotion and is responsible for several national agencies, including those listed below.
- The National Board of Health guides local authorities and health professionals and participates in the regulation and planning of education of health professionals.
- The National Food Agency oversees legislation pertaining to food and plays a regulatory role in the Danish food industry.
- The Danish Institute for Clinical Epidemiology undertakes national surveys; conducts epidemiological, health service, health promotion and disease prevention research.
- The Patients' Complaints Board considers complaints about professional errors made by health personnel.
- The Danish Council of Ethics provides advice and recommendations on various ethical matters.
- The Council on Health Promotion Policy follows developments in health promotion, provides advice to local authorities and health professionals and supervises health professionals.
- The Danish Council on Smoking and Health seeks to reduce the health damage from smoking and the number of new smokers, secure smoke-free environments and reduce the rate of smoking amongst existing smokers.
- The State Serum Institute is the central public health institute for Danish hospitals and GPs in the field of microbiology, immunology and related disciplines, and a national and international research centre. It also provides vaccines and blood products.

Regional level

- County councils provide health care services, specifically they are responsible for hospital care, primary and curative care and health promotion initiatives.
- The counties are also responsible for hospitals and health insurance, upper secondary schools, care of those with mental and physical disabilities, and regional public transport.

Local level

- Municipalities are responsible for a number of preventive programmes including public health nurses, school health, child dental services and most of the social welfare system (e.g. nursing homes for the elderly).
- Municipalities are also responsible for primary education, childcare, local sports facilities, social benefits, employment projects for the unemployed, public utilities, environmental measures and emergency services.

municipalities that constitute the district/region. The Land level is most relevant to decision-making in public health, the lower levels assisting with implementation. Recognizing the limited federal role in Germany, a new law on prevention is expected to be passed in the near future which will facilitate the coordination of the disparate prevention activities at national level.

Both France and Canada are on the brink of a reform in public health. The proposed French public health bill seeks to consolidate and strengthen national level public health agencies and to define more clearly the roles of the multitude of regional and national governmental bodies. In Canada, the provinces are responsible for public health; local level public health departments located in the cities/areas are involved in implementation and service provision (as in Australia). Thus, there are well-developed regional and local authorities in public health, but not as much of a national role in Canada, for example there is no federal funding for public health activities. In response to this limitation, while no formal proposals have been made, there has been considerable discussion about strengthening the national leadership in public health. Overall, there is widespread recognition of the importance of public health, particularly of increasing the national role in planning and coordinating public health strategies.

When comparing the sources of funding and expenditures for public health in the eight countries, it seems that public health is under-funded. Although it is difficult to measure accurately the expenditure on public health and prevention, the range has been found to be from 2.5% to 6.9% of total health expenditure (11). It is important to stress that expenditure estimates are unlikely to be accurate for several reasons: some public health programmes may be unaccounted for, such as those related to GP services; public health activities may be coordinated by other ministries, thus costs may fall in the budgets of others e.g. social and environmental sectors; or costs for some activities, such as health and safety programmes, may fall on private enterprises. Nonetheless, it appears that the countries with the lowest levels of spending are France, Sweden and Finland, while the highest spenders are Canada, Denmark and Australia. It is likely that the low levels of public health spending in Sweden and Finland result in part from the considerable intersectoral collaboration between the health, environment and trade sectors, to name a few, such that many activities do not fall within the health budgets. When comparing the expenditure levels of public health with dental care, for example, the differences are striking. In Germany and Sweden, the proportion of total health expenditure spent on dental care is about 2.5 times that spent on public health (11). While in some countries this difference is not as extreme, it is clear that health spending may be misallocated and thus not maximizing population health.

It is also interesting to note that as a proportion of total health expenditure, it seems that public health spending has increased gradually since 1980, with

the exception of Germany, which has experienced a decline². Likewise, when expressed as a proportion of GDP, spending on public health and prevention appears to have increased over the last two decades in all countries, except Germany.

In examining methods of health care funding in general, one can draw some conclusions about the relationship between funding method and progress in public health actions. Among the eight countries reviewed, France, Germany and The Netherlands are the only ones with health care systems funded largely through social health insurance. These may differ from the other, tax-financed, countries in terms of cohesion of public health responsibilities. In France, for instance, a new public health bill has been proposed (see Box 2), largely to deal with the current fragmented and disjointed system of decision-making in public health (12). Similarly, the recent public health contract in the Netherlands arose out of the perceived need to define more clearly the roles of each of the players in public health (13). Germany remains the one outlier with a very limited public health infrastructure in place.

Box 2. The 2003 proposed French public health policy bill (12)

The Ministry of Health proposed a new public health policy bill in March 2003, stating “it is time today to give to public health the visibility and place that it deserves in the national debate, to integrate it fully into public decision-making processes” (12).

The proposed bill:

- outlines a revised public health law (*code de la santé publique*) that defines the process for the implementation of policy objectives on a national and regional level;
- sets out a five-year public health policy based on the achievement of 100 designated objectives (targets) in key areas of public health;
- determines the tools needed to implement this public health strategy;
- focuses accountability for the achievement of these objectives on the government, which is expected to present its results to Parliament every five years;
- strives to engage the public in public health policy and implementation; and
- reinforces the state’s accountability for dealing with public health threats such as medication errors, bio-terrorism and epidemics.

A central objective of the proposed bill is the development of an improved public policy process with the following components.

- Public health policy objectives are to be determined through a broadly based consultative process (*Conférence nationale de santé publique*), which then informs five yearly discussions in the National Assembly.

² These data are from the *OECD health 2002*. Data for Denmark and Sweden are not available.

- Expertise in public health is to be consolidated in a single High Committee of Public Health (*Haut comité de santé publique*).
- Similarly, two organizations responsible for medical safety are to be merged into one national committee (*Comité national de santé publique*).
- The coordinating role of the national institute of prevention and health education (*Institut National de Prévention et d'Education pour la santé*) is to be strengthened. Equivalent organizations at the regional level are to be established to perform surveillance, epidemiology, prevention and health education within the regions (*groupement régional de santé publique*).
- The national surveillance agency (*Institut national de veille sanitaire*) will maintain its function of national epidemiological surveillance.
- All efforts will be made to coordinate and standardize public health information data collection throughout the health care system in order to allow for better surveillance and public health effectiveness studies.
- Public health training is to be standardized through a new national public health school (*Ecole des hautes études en santé publique*). This new school will replace the current national institute of public health. Based in Rennes, Brittany, this school would coordinate and harmonize public health education throughout the country, and offer training to medical as well as non-medical professionals.
- Finally, the regions are defined as the appropriate level of implementation and accountability for public health policies. A regional public health grouping of stakeholders (*Groupement d'intérêt public régional*) will be responsible within each region for the coordination of regional programmes and the implementation of national policy objectives. This body would include patient representatives.

The eight countries examined can be separated into those with comprehensive national strategies for public health and those without. Sweden (14), Finland (15) and Denmark (16) fit in the former category, the remainder in the latter. See Box 3 for a description of the Swedish national public health policy.

Box 3. The Swedish national public health policy

In 2003, Sweden established for the first time a comprehensive national public health policy with the goal of creating the “societal conditions that ensure good health on equal terms for the entire population” (14).

Three health issues were identified: steadily increasing life expectancy; the pattern of declining self-estimated good health among young people; and the remaining health gap between social strata. The national policy highlighted the following goals based on determinants of health:

- participation and influence on society
- economic and social security
- secure and favourable conditions during childhood and adolescence
- healthier working life
- healthy and safe environments and products
- health and medical care that more actively promotes good health
- effective protection against communicable diseases
- safe sexuality and good reproductive health
- increased physical activity
- good eating habits and safe food
- reduced use of tobacco and alcohol
- a society free from illicit drugs and doping
- a reduction in the harmful effects of excessive gambling.

While there has been no systematic evaluation of contemporary Swedish public health policies, there has been increasing awareness of the need for monitoring and evaluation. It has been proposed that progress towards the national public health goals should be reported on every fourth year in two reports – one on public health policy from the National Institute of Public Health (NIPH) and the other as part of the national Public Health Report from the National Board of Health and Welfare. In parallel, the NIPH has placed a high priority on developing the evidence base for public health policy, in particular to understand better the relationship between health determinants and outcomes (17).

While the Netherlands and Australia currently have no comprehensive national strategy, there have been efforts to facilitate the development of this approach to public health. This is reflected in the signing of the National Contract for Public Health in the Netherlands (18), and establishing the National Public Health Partnership in Australia (19). Among those countries with explicit national strategies, the overall priority areas are reducing health inequalities and improving healthy life expectancy. Similarly, these priority areas are recognized by the Netherlands (explicitly in the recent contract, with the additional priority of improving public health infrastructure) and Canada (implicitly in the government's "population approach" to public health) (20). See Box 4 for more information on the Canadian population approach to public health.

Box 4. The population health approach to public health in Canada (20)

In 1994, the Advisory Committee on Population Health (ACPH) identified broad population health strategies on which the provincial, territorial and federal government could collaborate. The ACPH adopted an approach focusing on the broad determinants of health. This framework groups the determinants of health into five categories to form the basis for intervention: social and economic environment; physical environment; personal health practices; individual capacity and coping skills; and health services. It argues that effective population health strategies should be built on sound evidence of health impact although it concedes that, while considerable evidence currently exists, many gaps remain. The ACPH concludes that the population health framework should provide a rational basis for setting priorities and investing in population health.

Furthermore, in recognizing the many challenges to improving health, the ACPH highlights the need for three broad priorities for action: renewing the health sector through collaborative efforts; investing in the health and well-being of key population groups: children, youth and aboriginal people; and improving health by reducing inequities in literacy, education and income distribution.

In 2001, Health Canada devised a population template that sought to improve the health of the entire population, with an emphasis on reducing health inequities. This template seeks to consolidate current understandings of population health by outlining the key elements needed to implement the population approach, and the actions that are required for mobilization. There are eight key elements.

1. Focus on the health of populations.
2. Address the determinants of health and their interactions.
3. Base decisions on evidence.
4. Increase upstream investments.
5. Apply multiple strategies.
6. Collaborate across sectors and levels.
7. Employ mechanisms for public investment.
8. Demonstrate accountability for health outcomes.

To achieve the objectives of improving health and reducing health inequalities, this approach addresses the broad range of factors that have a strong influence on health, acting at all levels of society. The Canadian government recognizes that there are challenges in implementing this approach but proposes a long-term investment plan with six strands:

1. theory: to develop concepts and theoretical frameworks;
2. policy: to adapt the approach in policy development;
3. evidence: to develop the evidence base to ensure that decisions about health and health care are based on the best available knowledge;
4. marketing: to advance the population approach through marketing, communication and education;
5. mobilization: to mobilize through partnerships and intersectoral action; and
6. institutionalization: to establish the organizational infrastructure to sustain the approach.

This plan has several elements. Firstly, health promotion seeks to assist the development of programmes and policies that support healthy living. Secondly, risk management is designed to place risk in a broader perspective, in a consistent and comprehensive manner. Thirdly, prevention strategies will be developed to address a wide range of health determinants. Fourthly, results will be monitored, with an increased focus on health outcomes and determining causation so as to inform decisions on the best investment of resources, and to give priority to strategies with the greatest potential for health gain. Fifthly, accountability and evaluation increase transparency and responsiveness to public expectations.

Furthermore, the Population Health Working Tool facilitates implementation. Eight necessary elements for implementation are outlined, relating to determination of health status; measurement of health determinants; basing decisions on evidence; applying a set of criteria for setting priorities (including the magnitude of the health issues and the ability to have an impact and cost-effectiveness); utilizing multiple strategies; intersectoral collaboration; ascertaining baseline measures; and setting targets for health improvement.

While the overall aim of public health strategies is largely common to these countries the specific targets and strategies vary, reflecting the national context and political choices. Among the countries with detailed priority areas, Sweden's policies emphasize health determinants such as social involvement and the physical environment, whereas the public health policies of Denmark (16), France (12) and Australia (19) focus on risk factors such as tobacco and alcohol, and disease categories such as cardiovascular disease, cancer, mental illness and diabetes.

This investigation revealed that none of the eight countries has explicit, systematic procedures for making decisions affecting public health or setting priorities among different public health interventions. The methodology used for making decisions and setting priorities in public health across the eight coun-

tries is consistently related to population health status, epidemiological data, burden of disease and, often, scope for prevention. Also important in this process (although less documented) are political negotiations, pressure from interest groups and informal processes as mentioned previously. In addition to the other methods, Sweden bases decisions on an “ethical framework” encompassing human dignity, need and solidarity (21). Likewise, France highlights the importance of ensuring that decisions fit with societal values (22). Australia and the Netherlands increasingly are utilizing economic evaluation and evidence of interventions’ effectiveness to guide decision-making. In this way, they are progressing more rapidly towards creating an evidence based policy environment. See Boxes 5 and 6 for a more detailed description of the methodology for decision-making in Australia and France.

Box 5. Decision-making in public health activities in Australia

The National Public Health Partnership (NPHP) recently developed a series of mechanisms to improve planning and resource allocation for public health activities, including: a public health expenditure study (23); a study aimed at defining core functions for public health (24); a planning framework for public health (25); a review of resource allocation for public health (26); and a schema for using evidence in public health (27). The schema provides a framework for assessing evidence concerning public health interventions.

Australia is devoting increasing attention to the use of economic evaluation in public health, working through the Public Health Evidence Based Advisory Mechanism. Also, there have been efforts to calculate the returns on investment in public health activities (28).

While Australia is in the advantageous position of having many economic evaluations of public health interventions, these are not necessarily used for decision-making. Rather, decision-making can be categorized by the following characteristics (29).

- Within broad programme areas, funding is mainly historical which is favoured by bureaucratic methods of budgeting and staffing. However, generally there has been enough growth and flexibility to fund new initiatives.
- The accountability and reporting requirements of the commonwealth government have a major influence on both direction and organization.
- There is considerable overlap between specific preventive activities and broader service programmes.

- Current activity measures – and unit costs based on them – generally support decision-making *within* programme areas, but not *between* them.
- Public health managers believe that they should develop natural measures of health gain that would be comparable across programmes (e.g. reductions in mortality, morbidity and disability), thus more appropriate for cost–effectiveness analysis.

Box 6. Criteria for public health decision–making in France (12)

Public health decision-making currently involves multiple players acting in a disjointed fashion, institutes and other governmental bodies with overlapping functions and little evaluation of effectiveness.

Therefore, in September 2002 a broad public consultation was conducted in order to determine the priority areas for future public health policy in France. These areas were selected on the basis of:

- significance in terms of burden of illness;
- fit with societal values and priorities;
- evidence of inequalities in health outcomes for the condition/problem within the country, or of poor outcomes in France compared to other countries; and
- current state of knowledge about the condition/health problem's etiology, determinants or risk factors, treatment options and the effectiveness of actions to impact upon it.

The following priority areas were retained:

- | | |
|-----------------------------------|---|
| • alcohol | • respiratory disease |
| • tobacco | • chronic inflammation of the intestine |
| • nutrition and physical activity | • chronic renal insufficiency |
| • occupational health | • gynaecological disorders |
| • environmental health | • musculoskeletal disorders |
| • iatrogenic infections | • antenatal care |
| • pain | • rare disorders |
| • poverty and inequalities | • oral health |
| • handicaps and disabilities | • violence |
| • infectious disease | • learning disabilities |
| • maternal and perinatal health | • reproductive health, fertility and in vitro fertilization |
| • cancer | • health of the elderly |
| • endocrine disorders | • sensory organ disorders. |
| • neuropsychiatric disorders | |
| • cardiovascular disease | |

On the basis of the priority areas, an expert committee set out an assessment framework of 100 objectives or targets for public health to be achieved over a five-year period. Achievement of these targets is to be assessed using specific indicators at the national and regional level. The government is then expected to review progress after five years.

Objectives are divided into four categories:

1. those that are quantifiable in light of current knowledge;
2. those that will lead to further epidemiological data collection;
3. those that will help strengthen scientific knowledge; and
4. those that will help to evaluate existing or pilot public health programmes.

While reducing inequalities is widely recognized as an important priority area in public health, none of the countries that were examined had any coherent strategies to address this issue, with the exception of the Netherlands. To date, the Netherlands is the only country with a well-developed inequalities reduction strategy that is guided by research and evaluation (see Box 7 for an outline of this strategy) (30).

Sweden also places considerable emphasis on reducing inequalities, although their approach is less scientific and perhaps more ethically driven (14). However, there have been recent efforts to increase the knowledge base for policy-making in this area, by implementing pilot projects with concurrent research programmes (31). As in the case of improving the scientific basis for prioritizing among public health interventions, international collaboration may facilitate the development of evidence based inequalities' programmes in each country.

Box 7. The Dutch programme on socioeconomic inequalities in health

Research

Two comprehensive research programmes were commissioned to increase understanding of health inequalities. The first, 1989–1993, generated considerable knowledge about the extent of inequalities and their determinants in the Netherlands. The causes of inequalities were revealed to be both structural, such as living and working conditions, and behavioural, such as smoking and exercise. A second programme was initiated in 1995 in order to generate more knowledge on the effectiveness of interventions and policies to reduce these inequalities. Some of the interventions that were evaluated were workplace interventions and school-based programmes to promote healthy behaviour in young people, e.g. preventing children from starting to smoke.

The strategy

The Dutch Programme on Socioeconomic Inequalities in Health, established in 2001, has four policy strategies (30):

1. to reduce inequalities in education and income;
2. to reduce the negative effects of health problems on socioeconomic position;
3. to reduce the negative effects of socioeconomic position on health (for example, reduce prevalence of smoking in the lower socioeconomic groups); and
4. to improve access and effectiveness of health care for low socioeconomic groups.

In addition to these four general strategies, there are a number of quantitative targets.

Targets relating to socioeconomic disadvantage

- The percentage of children from poorer families who enter secondary education is to be increased from 12% in 1989 to 25% by 2020.
- The income inequalities in the Netherlands are to be maintained at the level of 1996 (Gini coefficient = 0.24).
- The percentage of households with an income below 105% of the “social minimum” is to be reduced from 10.6% in 1998 to $\leq 8\%$ by 2020.

Targets to reduce effects of health on socioeconomic disadvantage

- The disability benefit for total work incapacity due to occupational health problems is to be maintained at the 2000 level.
- The percentage of chronically ill people aged 25–64 in paid employment is to be increased from 48% in 1998 to $\geq 57\%$ by 2020.

Targets related to factors mediating the effect of socioeconomic disadvantage on health

- The difference in smoking between those with lower and those with higher education is to be halved, by decreasing the percentage of smokers among those with only primary school education from over 38% in 1998 to $\leq 32\%$ by 2020.
- The difference in physical inactivity between those with lower and those with higher education is to be halved, by decreasing the percentage of the physically inactive among those with only primary school education from over 57% in 1994 to $\leq 49\%$ by 2020.
- The difference in obesity between those with lower and those with higher education is to be halved, by decreasing the percentage of obese persons among those with only primary school education from over 15% in 1998 to $\leq 9\%$ by 2020.

- The difference between lower and higher education groups in percentage of those engaged in heavy physical labour is to be halved, by decreasing the proportion of people with complaints resulting from physical labour among those with primary school education only from 53% in 1999 to $\leq 43\%$ by 2020.
- The difference in control in the workplace between those with lower and those with higher education is to be halved, by increasing the percentage of persons who controlled the execution of their work among those with only primary school education from 58% in 1999 to $\geq 68\%$ by 2020.

Targets related to accessibility and quality of health care services

- Differences in use of health care facilities (consultation with GPs, medical specialists and dentists; hospital admissions; prescribed drugs) between lower and higher education groups are to be maintained at the level in 1998.

Target-setting in public health appears to be an area of growing importance (32). While little is known about the target-setting process and methodology used by the various countries, it can be argued that when targets in public health are used, they are generally vague and aspirational in nature. The recent Swedish national public health strategy outlines general priority areas, with the intention of developing more specific and measurable targets (14). However, the overly general nature of previous Swedish health targets raises doubts as to the extent to which measurable targets will be developed for the recent national strategy. General target areas have also been developed in Germany; however, there is no indication of connecting these target areas with action plans or measurable indicators of progress towards tackling these problems.

The issues of health reporting and target-setting were addressed in Germany at an international conference in 2001 (33). While the German Ministry of Health has political responsibility for federal health reporting, organizational responsibility lies with the Robert Koch Institute, operating closely with the Federal Statistics Office (33). A catalogue of criteria is used to identify priority areas for forthcoming health reports. These criteria include prevalence of diseases/health problems; distribution of specific risks; individual importance (e.g. risk potential, case fatality, social and financial consequences); group-specific importance (e.g. age or sex differences, social gradients, regions); social importance; international importance; legal and political framework; and population-based dynamics (e.g. incidence and prevalence changes). Improvements have been made in facilitating close cooperation between the health reporting systems at the federal and Land levels, by increasing comparability of

data sets for example. This progress in health reporting has been an important first step in defining and evaluating national health targets. Significant advances in developing health targets have been made in one of Germany's Länder, North Rhine–Westphalia (see Box 8).

Box 8. Health targets in North Rhine–Westphalia

North Rhine–Westphalia (NRW) has the most-developed system of health reporting in Germany (34). Systematic health reporting (which began in 1998) focused on describing, analysing and evaluating the health status of the population and the background situation. The objectives of health reporting are to use the resources more efficiently, to increase the accuracy of targets and become more outcome-oriented, and to develop a sound basis for rational quality management. Health reporting is believed to be an effective health policy instrument in NRW in terms of collecting and analysing relevant information, defining health targets, developing measures to achieve targets and evaluating implementation of the measures.

NRW is, to date, the only Land in Germany to have set health targets, and the first German state to be involved in a comprehensive, systematic and rational process of health targeting. In 1995, ten major health targets were outlined for NRW related to reducing CVD, controlling cancer, identifying settings for health promotion, tackling tobacco, alcohol and drugs, environmental health, improving primary and hospital care, community services for people with special needs, and improving health information support.

These targets were largely based on the 38 WHO Health Targets, revised to fit the epidemiological and social structures of North Rhine–Westphalia. They are related to three levels of action: orientation towards disease patterns; health care; and methods and instruments. More specifically, the targets were selected and weighted according to the following criteria:

- the current incidence of diseases;
- life-years lost, risk involved, and mental suffering from the perspectives of those affected and the community;
- medical prevention;
- addressing social determinants of health;
- rate of uptake of existing prevention options;
- amenability to treatment in medical–scientific terms;
- rate of uptake of existing treatment options;
- direct and indirect costs of disease;
- costs of disease prevention and of attaining the health target; and
- reliability of the prioritization as health target.

The health target-setting experience of NRW is believed to have led to health gain in addition to an improvement of the functioning of the health system.

Significant efforts to develop specific health targets are seen in Finland and Denmark, such as reducing smoking by a certain percentage (15, 16); however, little is known about the methods used to set these targets, or whether they will be effective in achieving the public health goals (see Box 9 for a description of the health target experience in Finland). The use of specific, measurable targets is also seen in the Netherlands' inequalities reduction strategy (30). While current proposals in France highlight the importance of targets, the large quantity of targets selected – 100 – may limit the degree to which they can be monitored effectively (12). Overall, targets are used to guide policy-making in a general and aspirational manner, and focus on disease areas or lifestyle changes; however, more information is needed to determine how targets should be set in order to better achieve public health goals.

Box 9. Health targets in Finland

The recent decentralization in the planning and management system has led to a reconsideration of the use of health targets in policy-making. Furthermore, there has been a shift away from qualitative targets that are believed to be more appropriate for a centralized system, towards more easily understandable and quantitative targets. In 2001, Finland developed a resolution drawing on the WHO Health for All strategy, setting national health policy targets for the next 15 years, with an emphasis on reducing health inequalities and increasing healthy life expectancy (15). These broad goals are complemented by specific targets and corresponding action plans.

Health 2015 targets

Targets for different age groups are to:

- increase children's well-being and health;
- decrease the number of young people smoking to less than 15% for those aged 16–18;
- deal appropriately with health problems associated with alcohol and drug use among the young so that they remain at or under the level of the early 1990s;
- cut by a third from the late 1990s level the rate of accidental and violent death among young adult men;
- improve working and functional capacity among people of working age as well as their workplace conditions. Helping people to cope longer in working life so that retirement will extend to three years beyond the retirement age of 2000; and
- improve average functional capacity among people over 75 to continue as it has during the last 20 years.

Targets for the whole population are to:

- increase healthy life expectancy by two years;
- maintain the present level of satisfaction with health service availability and functioning, and personal health; and
- reduce inequalities and increase welfare and relative status of those population groups in the weakest position.

The Finnish government identified certain preconditions that must be fulfilled in order to achieve these goals:

- involvement of all sectors and levels of government;
- involvement of the private sector;
- incorporating the social dimension into the public sector's long range policies, programmes and action plans;
- monitoring of progress using indicators devised for this purpose;
- inclusion of all main arenas of everyday life, such as homes, schools, workplaces, leisure environments, transport and public services, into public health policy; and
- health promotion during all phases of life, from birth to old age.

Finland's national health policy targets were guided by criteria, set by the National Public Health Committee in 1999, stating that health targets should:

- include all main arenas of everyday life;
- not be too numerous, in order to emphasize the importance of each target;
- be wide enough to cover major public health problems and facilitate action, and should not focus on specific narrow problems just because progress is more easily monitored;
- be realistic, easily understandable and appreciated by the public and politicians in order to remain credible and retain wide commitment;
- lend themselves to evaluation and measurement;
- be formulated in partnership with key implementers; and
- be devised in conjunction with process targets to show how outcome targets are to be achieved.

Most countries recognize the importance of intersectoral collaboration in public health activities. The intersectoral nature of public health makes it necessary to develop linkages with actors from many sectors. Several of the poli-

cies described in the summary tables at the end of this report are examples of such linkages, whether at national level, among ministries (e.g. in Denmark (16)), or at local level, as in community development projects in the Netherlands that bring together local government, health care providers and universities. For these reasons, several countries are seeking ways to coordinate the extensive activity that is taking place, as illustrated by the Australian National Public Health Partnership – which facilitates communication and collaborative work between the levels of government and different sectors. The Dutch National Contract also serves as a formal link between the Ministry of Health and the municipalities as well as encouraging cooperation from other sectors.

The extent of monitoring and evaluation of public health policies appears to be quite limited in the countries examined. This is perhaps one of the weakest areas of public health, requiring the most attention and investment. However, it is unclear whether or not this limitation reflects a lack of political will, or the fact that many countries have newly introduced programmes therefore it is too early to judge whether adequate evaluation will take place. Some existing programmes in several countries have been evaluated and proven effective but others have not. For example, tobacco control clearly saves lives, whereas the benefits of home visits to the elderly and occupational health interventions are less well documented. All countries recognize that one of the major challenges facing public health is to develop a more systematic methodology of setting priorities and making decisions among different interventions. However this widespread recognition has not materialized into concrete actions. Australia offers an example of a country that appears to be making greater progress than most towards this aim, through its growing use of economic evaluation in public health activities (see Boxes 10, 13 and 14). It is clear, however, that there is a need for a much broader evidence base for policy-making in public health. International collaboration will be necessary to facilitate the development of this evidence base.

Section 4 Case studies of public health interventions

Having discussed the issues relating to decision-making in public health it is important to review, in some detail, some of the priorities that have been translated into operational activities. Most of these interventions reflect the national priorities of the public health systems in each country. Thus, this section examines the following examples of public health interventions.

- Altering individual behaviours and lifestyles:
 - o tobacco control in Sweden, Australia and Canada;
 - o alcohol and drug control in Denmark, Finland and Canada;
 - o promotion of exercise and healthy nutrition in Sweden, Finland, France, Canada and the Netherlands;
 - o infant sleeping position in Denmark;
 - o sun safety strategy in Australia; and
 - o care for mothers and infants in France.

- Controlling and preventing infectious disease:
 - o immunization strategies in Australia, Canada and the Netherlands
 - o policies on HIV/AIDS in Australia and Germany.

- Tackling the broader determinants of health:
 - o reducing inequalities in Sweden and the Netherlands
 - o road injury prevention in Australia.

- Secondary prevention:
 - o screening for cancer in Sweden, Finland, Denmark, France, Australia, and Canada.

Unfortunately, as yet, very little economic evidence has been generated to support these case studies. However, some evidence from Australia is presented in Boxes 10, 13 and 14.

4.1 Altering individual behaviours and lifestyles

4.1.1 Tobacco control

Smoke-Free Children is a nationwide programme initiated in 1992, coordinated jointly by the Swedish Cancer Society, the Swedish Heart Lung Foundation, and the National Institute of Public Health (35). It aims to give children a tobacco-free start to life and to reduce the prevalence of smoking among Swedish women. However, Sweden is the only country in Europe to achieve the WHO target of bringing down the rate of smoking to below 20% by 2000, due in part to the Tobacco Act of 1993. This Act banned almost all tobacco advertising and sales to children under the age of 18, and placed restrictions on smoking in settings where children were present, in the workplace and public areas. Some of the interventions initiated through the Smoke-Free Children programme include: facilitating information exchange on tackling tobacco use; distributing a newsletter; collecting and analysing data on smoking prevalence to raise awareness of the issue in society. This programme has not been evaluated, and more efforts are needed, particularly in helping smokers to quit.

In Australia, reducing tobacco consumption is seen as an important public health goal, one where considerable progress has been made (36). A decline in smoking prevalence occurred in the 1980s (37). This decline has been attributed predominantly to mass media campaigns (e.g. QUIT campaigns); provision of information on the potential health effects of tobacco consumption (e.g. through labelling); regulations that restrict the promotion and use of tobacco products; restrictions on where smoking can take place; and price increases through tobacco taxation (37). The National Tobacco Strategy 1999 to 2002–03 (38) built upon the National Tobacco Policy of 1991 and highlights the importance of strengthening community action, reducing availability of tobacco products, regulating tobacco, open communication and informational exchange. This strategy has a considerable evidence base, resulting from detailed monitoring and evaluation of previous tobacco initiatives (39).

The Government of Canada has established a multifaceted strategy to curb the tobacco epidemic and launched a National Strategy to Reduce Tobacco Use in Canada (40). To monitor this strategy, every year the Canadian government publishes a progress report stating prevalence rates, information on sales, tax rates and progress on specific interventions linked to the initial goals and strategies (41). Overall smoking prevalence in Canada is decreasing. In April 2001 the Government of Canada launched the Federal Tobacco Control Strategy, which represents a comprehensive, integrated and sustained approach to tobacco control (42). It is a multi-agency initiative being carried out in collaboration with other federal government departments, as well as provincial, territorial and nongovernmental organizations, researchers, educators, advocates, health professionals, policy-makers, and service providers. It represents the most

significant effort Canada has ever undertaken to fight the tobacco epidemic and it is supported with a substantial investment of more than Can \$500 million.

Box 10. Economic evaluation of tobacco control policies in Australia

National antismoking campaigns are believed to have been successful in reducing smoking prevalence in Australia. At a national level the proportion of adult male smokers fell from 75% in 1945 to 45% in 1974 and then 27% in 1995. The proportion of adult female smokers declined from 33% in 1976 to 29% in 1986 and 23% in 1995 (36). Further, daily per capita cigarette consumption has reduced significantly since the 1960s, and real expenditure per adult on tobacco products has dropped (37).

This reduced tobacco consumption has led to large health benefits, particularly reductions in premature deaths from lung cancer, chronic obstructive pulmonary disease (COPD) and coronary heart disease (37). In 1998, for example, an estimated 17 421 premature deaths were averted: 6492 deaths from coronary heart disease; 3998 deaths from lung cancer; 3581 deaths from COPD; and 2900 deaths from stroke and other cancers.

It has been estimated that the present value of the expenditure savings for government would provide savings of about \$2 for every \$1 of expenditure on public health programmes to reduce tobacco consumption (37).

4.1.2 Alcohol and drug control

Finland's Alcohol Programme for the 2000s: Collaboration and Responsibility, was implemented in 2001 under the coordination of the Committee on Alcohol, Drugs and Temperance Affairs (43). It is a multifaceted programme embracing prevention, alcohol control policies and rehabilitation. It is an update of the previous action programme, and is based on three sources: WHO's new European Alcohol Action Plan, the evaluation of changes in the Finnish alcohol scene and evaluation of the previous action programme, Got Any. The Finnish government outlined ten concrete proposals relating to areas where intervention is possible and where there is scope for improving on the previous campaign. Since this programme is in the early stages of implementation, little evaluation has taken place. More recently, the Finnish government has proposed the preparation of a National Alcohol Programme for 2004–2007 involving multiple sectors and levels of government (44).

The 1999 Danish Programme on Public Health and Health Promotion outlines alcohol as one of the targets for public health (16). In order to increase public awareness of sensible drinking limits and motivate people and organizations to support new preventive measures such as alcohol policies in workplaces, in 1990 the National Board of Health initiated a nationwide campaign called

Alcohol-Free Week 40 (45). The main aim of the campaign was to get people to keep the 40th week of the year alcohol-free, with intensive safe drinking campaigns using television, radio, newspapers, and local events. Each year between 1994 and 1999, the level of knowledge of “sensible” drinking limits was evaluated by telephone interviews. This evaluation showed that knowledge of sensible drinking limits increased in all groups in the population throughout the period. Although knowledge may not necessarily translate into behaviour change, these findings are seen as encouraging.

Canada has a national drug strategy coordinated by the Drug Strategy Division of Health Canada with the goal to reduce the harm associated with alcohol and other drugs to individuals, families and communities. This division seeks to provide national leadership and coordination on substance abuse issues, conducts research into the risk factors and root causes of substance abuse, and synthesizes and disseminates leading-edge information and best practices to key partners. A comprehensive review of best practice in preventing substance use among young people formed much of the scientific basis for Canada’s drug strategy (46). This review outlined principles of effective substance use problem prevention programmes for youth in order to guide future development of effective interventions. These efforts highlight the growing importance of evaluation and national coordination of public health programmes tackling alcohol and drug use in Canada.

4.1.3 Promotion of exercise and healthy nutrition

In Sweden, increased physical activity and good eating habits are two components of the Swedish National Public Health Policy (14). In response to the growing need for evaluation of public health interventions, the Swedish Heart & Lung Foundation funded a cost-effectiveness analysis of interventions aimed at reducing the risk factors for cardiovascular disease. As one component of this analysis, Lindgren et al. (47) developed a model based on results from a randomized controlled trial in a Swedish county to simulate costs and effects of different preventive measures. Despite the study’s many limitations, dietary advice emerged as the most cost-effective strategy. This study is illustrative of the growing emphasis on economic evaluation of public health in Sweden.

Finnish achievements in reducing cardiovascular disease have attracted worldwide attention, with interventions aimed at smoking, excess alcohol consumption, unhealthy diets and lack of physical exercise (48). In 1972 the North Karelia Project was launched to reduce the high levels of heart disease in that province. It was integrated as far as possible into local networks. It adopted a range of approaches: provision of information (through mass media, meetings, campaigns, etc.); development of referral and screening procedures in health services; encouragement of environmental changes (such as smoking restrictions, promoting vegetable growing, collaborating with food manufacturers);

preventive work directed at children and young people; training and education of health personnel; and monitoring of the results (48). Additionally, behaviour in tradespeople changed; for instance butchers altered their sausage recipes to reduce fat content. Especially among men, smoking has fallen markedly and diets have changed considerably, particularly in terms of fat consumption. This improvement in risk factors explained most of the decline in death rates from cardiovascular diseases, which, in north Karelia, declined by 73% in the working-age population (49).

Furthermore, type 2 diabetes is recognized as a serious health problem in Finland, often leading to premature death from cardiovascular disease (50). The Finnish Diabetes Association proposes three concurrent strategies addressing prevention in the general population, monitoring high-risk groups and preventing diabetic complications among diagnosed groups. From 2003 to 2007, four hospital districts will implement the programme while being evaluated. The results of the evaluation will inform the roll-out of the programme nationally. It is intended that the population-level impact of the programme will be assessed in 2010, looking at uptake, effectiveness and sustainability.

The risk-factor approach to public health is seen in recent plans to tackle obesity in Denmark. In 2001 the National Board of Health took steps to develop a proposal for a national action plan for prevention and treatment of obesity (51). The goal of the action plan is to contribute to cultural norms in the Danish population that promote normal weight. It seeks to counteract habits that lead to overweight while also contributing to reducing body weight for persons who already suffer from, or have a special risk of developing, obesity.

In France, health promotion typically takes place in three social arenas: the school, the family and the community, with effective collaboration between each sector. Public health interventions for school children traditionally have centred on standardized, routine health checks (*bilans de santé*) upon entry to primary school at age six. Government evaluations of school health checks have concluded that they are not particularly effective public health tools if carried out in isolation. More recently, the Ministry of Education proposed embedding school health checks within a comprehensive policy framework coordinated around the interests of the child (52). The components of this plan were outlined in February 2003 along three axes: routinely screening children who attend kindergarten and the first few years of primary school for developmental, linguistic and other difficulties; developing focused screening programmes based on local needs; and drafting a health plan in each district to determine how local organizations can provide individualized support to families in need.

Furthermore, in 2001 in France, a strategic plan on nutrition was set out with its main focus the promotion of good nutritional habits (*Programme national nutrition santé*, described in English at <http://www.santé.gouv.fr/htm/pointsur/>

nutrition/index.htm). The plan targets a 20% reduction in the incidence of adult obesity and prevention of childhood obesity continuing into adulthood. While the success of this programme has been difficult to evaluate, there have been some promising local initiatives in school nutrition promotion. Examples include a nutritional health education programme targeted at the entire family but offered within the school; individualized obesity management programmes for adolescents within schools; and links into physical education programmes combined with nutritional education (12). An extensive four-year strategy was launched in 2002 to tackle type 2 diabetes with five objectives: prevent type 2 diabetes through a comprehensive policy on nutrition; reinforce the practice of screening in target adult populations; guarantee quality of care and follow-up to people with diabetes; improve coordination of diabetic care; and enable people with diabetes to self-manage their care. No evaluations of these policies have yet been identified.

In the Netherlands, a cardiovascular disease prevention programme, *Hartslag Limburg* (Heartbeat Limburg), was recently initiated with its basis in the community and the involvement of the health care system. It includes strategies aimed at the population in general and those at highest risk. The basic principles of the project are continuity and long-term sustainability. Within the health sector, the goals of *Hartslag Limburg* are “to fit with what already exists”, quality assurance, innovation, transferability of knowledge and ownership. In the community, additional principles are community participation; participation of civil servants; intersectoral collaboration; and improved collaboration between regional and national health promotion agencies. Specific examples of new health promotion activities include a computerized nutrition education programme and a daily television programme promoting physical activity for those aged 55 years and over. Examples of policy change include decisions by Valkenburg and Maastricht municipalities to make additional investments in local sport clubs. Evaluation, including cost-effectiveness, of the overall project and its various elements is under way.

The Dutch government aims to promote greater awareness of the importance of an active, healthy lifestyle and to encourage everyone to exercise. Exercise promotion in the Netherlands culminated in the Sports for All campaign to support the work of local authorities in optimizing the benefits of sport (53). It represents a cooperation between national and regional levels. The overall goal is to improve sports infrastructure, and the objectives include developing sports and recreational facilities, introducing new forms of local sports organizations, improving management of sport facilities and strengthening administrative support for local authorities. The Health Research Council has advised that a specific research programme be established to measure the effectiveness of exercise promotion interventions in terms of health-related outcomes.

In Canada, the costs of physical inactivity have been estimated to be more than \$2.1 billion annually in direct health care costs. Health Canada and the Canadian Council for Health and Active Living at Work have developed an on-line resource, entitled Stairway to Health (54). This new web site encourages stair climbing as a convenient and cost-effective way to build healthy physical activity into our daily lives, particularly in the workplace. It summarizes relevant research in order to provide an evidence base for the programme. No evaluation has taken place to date, however, it will be interesting to see how many people visit the web site and if organizations promote its use.

In Germany, occupational health promotional interventions were initiated by social health insurance funds. Within the last fifteen years, a new type of worksite health promotion has been developed in Germany. "Health circles" led by professional moderators guide workplace interventions to reduce stress, increase transparency, improve communication and enhance mutual support. In 2001, two large German organizations, the Hans Böckler Foundation and the Bertelsmann Foundation decided to tackle this problem by establishing the Expert Commission on Worksite Health Policy. The commission recommends that employers and trade unionists jointly define "work and health" as one of their central topics for action, and that they join forces in raising awareness of this issue by introducing common data banks, offering professional qualifications and providing both technical and organizational help geared to the special needs of firms of differing sizes.

4.1.4 Infant sleeping position

Although not currently a national priority for public health interventions, a health programme targeting sudden infant death syndrome (SIDS) was initiated by the Danish National Board of Health in 1991. This programme outlined revised guidelines for health personnel and parents that recommended the supine sleeping position. The guidelines were primarily promoted through maternity wards and health visitors and were successful in reducing the incidence of SIDS. This experience demonstrates that health promotion in the form of education can be effective in changing individuals' behaviours (55).

4.1.5 Sun safety strategy

Australia has the highest skin cancer rates in the world and also the most developed and successful skin cancer prevention programmes (56). Several epidemiological studies in the 1970s were conducted to determine the main risk factors associated with skin cancer and formed the basis of the present sun safety programmes, currently entitled SunSmart. The aim of SunSmart is to lead, coordinate, implement and evaluate action to minimize the human cost of skin cancer (57). Several research projects have been undertaken in order to develop the evidence base for setting priorities and evaluating current programmes. The

success of the programme is described as having been built on two key foundations: the integration of research and evaluation, and a strong basis of consistency and continuity (58).

4.1.6 Care for mothers and infants

France has a long-standing programme of maternal and infant preventive care (*Protection Maternelle et Infantile*, or PMI). The main objective of this programme is to ensure that all social and medical care and support for mothers and their young children are delivered within a coordinated framework. Responsibility for these programmes has been devolved to local level since the early 1980s so implementation varies significantly. As a result, no country-wide evaluation has been carried out to assess the overall impact of these programmes. One of the country's most deprived areas runs a comprehensive prevention and surveillance programme in collaboration with a research team from the University of Lille. Children and their families are assessed several times throughout infancy and early childhood. Coverage rates of the programme have reached 87%. Its success has hinged on the efficient coordination of social, educational and public health services and the focus on the needs of children within the broader context of their families (12). It is important to note that there are financial incentives for mothers to participate in preventive care. The benefit system is organized in such a way that mothers only receive benefits once preventive measures, such as maternity care, are taken.

4.2 Controlling and preventing infectious disease

4.2.1 Immunization strategies

Despite the dramatic reduction of vaccine-preventable deaths in Australia since the introduction of childhood vaccinations, vaccination coverage has declined in recent decades (59). As a result, the commonwealth government introduced the Immunize Australia programme: the Australian Childhood Immunization Register (ACIR) was set up, parent and provider incentives were offered, the Measles Control Campaign was set in place and the National Centre for Immunization Research and Surveillance (NCIRS) was established. Incentives were created to increase vaccination coverage, for example, means-tested child care benefits and maternity allowances are withheld if a child is not fully immunized. Also, governments across Australia have adopted the National Health and Medical Research Council (NHMRC) recommendation that parents provide evidence of immunization status of children enrolling at child care facilities, preschools and schools. These initiatives were successful in increasing coverage of childhood vaccinations to 95%.

In January 2001 the Netherlands was confronted with several outbreaks of meningitis caused by meningococcus C. Subsequently the Minister of Health

requested the Health Council to add vaccination against meningococcus C to the national vaccination programme. In 2002, the Minister decided to implement a local campaign covering 9 000 and 500 children in affected areas. The plan was that all Municipality Health Services had to take responsibility for the implementation of the campaign in their own region. Furthermore, the plan was to vaccinate in two waves: an initial wave to vaccinate the groups at highest risk i.e. children from 12 months to 5 years and adolescents between 15 and 19 years, followed by a second wave during which children aged 6 to 15 years were vaccinated. In total 3.5 million children have been vaccinated, achieving 94% coverage. The experience of implementing this campaign has left the Dutch communicable disease infrastructure better prepared for epidemics, with stronger mechanisms that will enable it to respond quickly, coordinating national and regional agencies.

Canada, in 2000, began the development of a national immunization strategy to optimize the safety, effectiveness and efficiency of immunization programmes. In 2003, a five-year investment of \$45 million was made to pursue the National Immunization Strategy with the objective of improving access to recommended vaccines. Currently, the process by which the provinces can adopt policies arising from the National Advisory Committee on Immunization (NACI) is not straightforward. Additionally, Medicare does not fund some recommended vaccines and this varies across provinces. Thus, while national guidelines may be in place through NACI, it is unclear to what extent the provinces follow them. There is also a lack of information and data on immunization indicators and a need for an immunization registry. It is hoped that the recent national strategy will address some of these shortcomings. It is important to note that there has been much research into the benefits and costs of childhood immunization programmes in Canada. For example, a cost-benefit analysis supported the implementation of the NACI recommended catch-up programme and two-dose immunization programme to prevent measles (60). Also, cost-effectiveness analyses support publicly funded routine infant immunization with pneumococcal conjugate vaccine, as opposed to catch-up programmes for older children (61). Thus, it is largely believed that implementing a nationwide immunization programme would be more cost-effective than continuing to have varied programmes across provinces, with differences in financing and practice guidelines.

4.2.2 Policies on HIV/AIDS

Australia's response to the HIV/AIDS epidemic has three main components built on the platform of partnership with affected communities: recognition of the social context and impact of HIV/AIDS; cooperative partnerships between all levels of government, community organizations, health professionals, clinical and social researchers and people living with HIV/AIDS; and non-parti-

san political support for a pragmatic and open approach to HIV/AIDS (62). The response has focused on the provision of information about the virus and the consequences of infection in order to achieve behavioural change. The first of the national HIV/AIDS strategies was introduced in 1989–1990 to develop social policies that complement steps taken in the health sector (63). Australia has been successful in containing epidemics among intravenous drug users, sex workers and heterosexuals (64). The fourth, and current, national HIV/AIDS strategy (1999/2000 to 2003/2004) builds on the foundations established through previous HIV/AIDS strategies – partnerships between and within affected communities, governments at all levels and medical, scientific and health care professionals. This strategy is situated within a broader communicable diseases framework in order to establish and maintain links with other national population health strategies. The successful response to HIV/AIDS is owed in part to the national strategies and in part to the high level of community participation and the leading role played by community groups. Economic evaluations have demonstrated considerable savings between 1985 and 1988, however, fewer savings (and potential costs) between 1989 and 1993 due to fewer infections prevented.

The German response to AIDS is viewed as highly successful (65). In 1987 the Ministry of Health developed an emergency programme to fight AIDS with three components: protecting the population against infection, counselling, and care for those infected. The principal slogan in this campaign was “AIDS concerns everyone” (later “Don’t give AIDS a chance”), thus highlighting its non-aggressiveness and the attempt to avoid further marginalization of people infected with HIV. Innovative policy-making in Germany stems from the use of pilot projects; these serve as field trials preceding the launch of new policies. Since 1987, there has been ongoing research on the various aspects of the national AIDS campaign revealing considerable decline in risky behaviours and incidence of STDs. Thus it is believed that the potential spread of HIV in the German population has been successfully averted due largely to this campaign.

4.3 Tackling the broader determinants of health

4.3.1 Reducing inequalities

Since the 1930s, Sweden has pursued the goal of equity through its policies on family and child welfare, education, housing and regulation of the labour market. Some noteworthy community development projects are under way and subject to ongoing evaluations. One is called South in Change and concerns a deprived neighbourhood called South (31) in the town of Helsingborg. This effort consists of changing the physical environment by creating parks and green areas; reducing traffic flows through the neighbourhood; and creating meet-

ing points for adolescents and playgrounds for children. Local residents are involved at all stages from planning to implementation. The process began with focus groups discussing the physical environment, leading on to assessments of the health impact of various options. It is hoped that the programme will increase social cohesion. The evaluation concentrates on health effects from an equity perspective, providing an opportunity to understand better the association between social capital and health.

Box 11. Comprehensive strategies to reduce inequalities in Sweden

Since the mid-1980s, reducing inequalities has been a major policy objective in Sweden (66). The formation of the National Institute for Public Health in 1991 further strengthened the support for equality in health. More recently, Sweden has undergone structured policy developments in the area of health inequalities (67). To recognize the relationship between the labour market and working conditions and health inequalities, Swedish labour market policies offer strong employment protection and actively promote participation in the labour market for people with chronic illness. These policies have been found to protect these vulnerable groups from labour market exclusion. In addition, Sweden has made considerable progress in health impact assessments, specifically in assessing the effect on health inequalities of the European Community agricultural policy. Furthermore, general social policy measures are in place to improve the health and well-being of lone mothers, such as subsidized public childcare.

The recent national public health programme has the goal of creating the “societal conditions that ensure good health on equal terms for the entire population” (14). This programme emphasizes social connections such as social capital, supportive social environment and a secure bond between children and their parents. In addition, there are strong ethical undertones, such as a sense of solidarity. While for many years Sweden has been pursuing equality-oriented health and social policies, there are some indications that this progress is eroding and inequalities are now increasing. Therefore, continued efforts to research and develop wide-reaching policies are needed.

In the Netherlands two important research programmes paved the way towards evidence based policy-making in the areas of inequalities (68). The first, from 1989 to 1993, generated considerable knowledge about the extent of inequalities in the Netherlands and their determinants. The causes of inequalities were revealed to be both structural, such as living and working conditions, and behavioural, such as smoking and exercise. A second programme was initiated in 1995 in order to generate more knowledge of the effectiveness of interventions and policies to reduce these inequalities. This research led to the establishment of the Dutch Programme on Socioeconomic Inequalities in Health

in 2001 (30). Ongoing monitoring and evaluation of the interventions and the corresponding targets that the Dutch Programme outlines will be vital to increase the knowledge base for future policies.

Box 12. The use of evaluation in the Dutch inequalities reduction strategy

There are three noteworthy elements of the Dutch approach to reducing inequalities: consensus building, step-by-step approach and dealing with inequalities separately from other public health issues (68). In terms of consensus building, it is necessary to put inequalities on the political agenda and for all relevant parties to be involved and share the responsibilities. The systematic way in which the two national research programmes studied inequalities is another important feature of this strategy. Specifically, the emphasis on evaluating the effectiveness of current interventions for reducing inequalities was vital to creating an evidence based policy. Finally, in dealing with inequalities separately from other public health issues, it retains special attention and separate resources in order to prevent it from becoming less of a political priority.

In terms of building the evidence base for this strategy, twelve evaluation studies were conducted to study the effectiveness of different interventions. Of the twelve, seven gave positive results:

- an integrated programme to prevent school children starting to smoke;
- programmes for tooth brushing at primary school;
- adapted working methods and equipment for bricklayers;
- rotation of tasks among dustmen;
- formation of local care networks;
- peer education for patients of Turkish origin with diabetes; and
- introduction of nurse practitioners for patients with asthma or chronic obstructive pulmonary disease.

The remaining intervention studies failed or produced negative results.

Following these studies, there was a series of meetings with scientific experts and policy-makers in different areas (income, education, health promotion, working conditions, housing conditions and health care). It was recognized that significant progress had been made in developing evidence of what works, however there remained important gaps in the knowledge base. Therefore, the Dutch strategy recommended interventions in addition to continued evaluation efforts. It is too early to determine what evaluation has been done since, and the extent of progress towards achieving the targets of the strategy.

4.3.2 Road injury prevention

Road injury prevention interventions in Australia have been highly effective. In 1970 public safety programmes began with the mandatory fitting of safety belts in all new vehicles (69). Since then, a number of interventions have been introduced, such as enforcing the use of seat belts, random breath testing, speed limit enforcement, educational programmes designed to promote safe driving (70), improvements to the road system including construction of high standard roads and improved safety features in vehicles (71). State and territory governments mainly have been responsible for developing and enforcing specific programmes, most notably Victoria and New South Wales. The overall trends in Australia support the view that behavioural road safety programmes (education, speed reduction, drink-driving reduction) are responsible for a significant part of the fall in road crashes since 1970.

Box 13. Returns on investment in road injury prevention in Australia

Road injuries are a serious public health concern in Australia. There has been a high level of sustained commitment to road safety at the state, territory and federal level in the form of funding, and ongoing research, evaluation and monitoring.

The number of people killed in motor vehicle crashes has fallen from a peak in 1970 of 3798 to 1758 in 1998. The road fatalities per registered road vehicle also have fallen steadily (69, 70). This decline has been achieved despite the fact that the amount of road travel has almost doubled since 1970 (71). Persons hospitalized due to vehicle accidents also fell by 30% between 1982 and 1997, from 30 654 in 1982 to 21 531 in 1997 (69). This trend reflects the general improvements in roads (e.g. construction of high-standard roads, skid-resistant pavement, road delineation and staggered T-intersections), vehicles (e.g. anti-burst door latches and hinges, energy-absorbing steering columns), driver skills and road safety education.

Furthermore, fatalities have fallen from 776 in 1989 to 435 in 1994. Hospitalization rates fell from 242 per 100 000 people in 1988 to 133 per 100 000 people in 1992. Using monthly data, Newstead et al. estimate that minor engineering works, declining alcohol sales, unemployment and road safety programmes reduced serious crashes by 46% below the expected trend in Victoria (72). They also estimate that random breath testing, speed cameras, traffic infringement notices and supporting media publicity were responsible for a 25–27% reduction in serious crashes.

Road safety programmes are estimated to have saved governments \$750 million a year in the late 1990s (69). The Traffic Accident Commission (TAC) in Victoria administers the no-fault accident compensation scheme and provides funds for specific enforcement activities, intensive media campaigns, school and traffic safety education and research. TAC estimate these activities achieve a benefit–cost ratio of at least 3:1 (71).

4.4 Secondary prevention

4.4.1 Screening for cancer

Sweden does not have a national screening policy but has produced national recommendations on different aspects of the screening process. Recently there has been considerable debate about the effectiveness of mammographic screening. In the 1980s a study in two Swedish counties reported the beneficial effects of screening on mortality, and the Swedish Cancer Society reviewed the evidence and confirmed the beneficial effects. This led to pressure for a national policy on mammography and subsequently most councils adopted it. More recent effectiveness studies further support the use of mammography (73). However, challenges persist as a result of the decision-making authorities at the regional (as opposed to national) level lacking political will.

Finland was the first country to introduce a nationwide breast cancer screening programme, initiated by the Finnish National Board of Health in 1987 (74). Research has continually guided the policy-making and implementation process. Initially, implementation was linked to a formal evaluation, based on a controlled trial with women born in odd years designated as controls and those born in even years as the intervention group. Results from several studies indicated that the breast screening programme achieved a significant reduction in mortality from breast cancer (75–77). Finland is thus one of relatively few countries linking implementation of major screening programmes to formal evaluation.

In 1986 the National Board of Health published guidelines for cervical cancer screening in Denmark. A natural experiment was used to study the effect of organized screening on the incidence and mortality of cervical cancer in Denmark. From 1968 to 1987 the decline in both incidence and mortality was 25% higher among women in the counties with organized screening programmes compared to women in counties with no organized screening. In 1994 organized screening programmes were running in 15 out of the 16 counties, however, only 4 followed the national guidelines completely. It is believed that improved organization of the policy would have resulted in improved compliance and lower costs (78).

In France, a strategic plan for cancer (similar to the British National Service Framework for cancer) was launched in 2003. This plan creates a national cancer institute (*Institut National du Cancer*), which coordinates all research, training, evaluation and surveillance efforts in cancer. The need for coordination of efforts was widely recognized in an area where traditionally there has been little synchronization due to low compliance rates, opportunistic screening and poorly organized communication campaigns. It is believed that rigorous quality assurance features highly in the new protocols and the elimination of opportunistic screening should help raise participation levels, thus increasing the programme's public health impact.

Also in France, neonatal screening is a central feature of the Maternal and Child Care (PMI) system. There do not appear to have been any economic evaluations of neonatal screening for cystic fibrosis in France, however, studies have demonstrated significant benefits conferred by this programme (79).

Until the early 1990s screening in Australia was largely opportunistic, but since has become increasingly structured. In 1995, the screening programme became known as the National Cervical Cancer Screening Programme. The programme seeks to reduce morbidity and mortality from cervical cancer by increasing participation by eligible women in routine biennial screening; encouraging practitioners to collect cervical smears containing adequate samples of cervical cells; instituting a uniform and reliable reporting system; developing appropriate evaluation and management protocols for women with screen-detected abnormalities; and promoting effective treatment and follow-up for women with screen-detected abnormalities with significant malignant potential (80). States and territories actively recruit women in the target age group of 20 to 69 years through campaigns using television advertising and print media. These are aimed at increasing awareness of cervical cancer screening among women and the importance of screening at the recommended biennial intervals (81).

Box 14. Economic evaluation of cervical screening in Australia

The state and territory anti-cancer councils and the Australian Cancer Council play a lead role in cancer prevention and advocate for improved screening and treatment for cervical cancer. Since the 1960s, most states have implemented public education programmes to encourage women to attend regular screening (71). The proportion of women aged 15 and above having cervical smears through the public health system increased from 16.9% in 1984/1985 to 27.5% in 1992/1993. More recently, participation rates among targeted women aged 20 to 69 years have increased from 62% in 1996/1997 to 64% in 1997/1998.

Widespread screening, particularly of high-risk groups, has been shown to be a cost-effective method of detecting precursors to cervical cancer. The cost per life saved, if screening is carried out biennially, is approximately \$30 000. If detected early, particularly at the premalignant stage, the cost of treatment is minimal (71). It is believed that selective screening of high-risk populations is inappropriate as identifiable groups are either too large or have too low a level of increased risk.

The Canadian Breast Cancer Initiative (CBCI) was launched in December 1992 by the federal government with ongoing funding of \$25 million over five years (82). The National Committee on the Canadian Breast Cancer Screening Initiative (CBCSI) a federal/provincial/territorial working group, was formed to implement and evaluate breast cancer screening in Canada. One major activi-

ty undertaken by the CBCSI has been the development and implementation of the Canadian Breast Cancer Screening Database, which is derived from provincial breast screening data. This offers a means to monitor the screening process. While the national screening programme in Canada represents necessary central leadership in this area, screening is not yet reaching the entire target population.

Box 15. Performance of screening mammography in Canada

Breast cancer screening programmes in Canada have been evaluated for their effectiveness in reducing breast cancer mortality (83). In 1999, all provinces and one of the territories had organized screening programmes. In 1996, seven provincially organized screening programmes were evaluated in terms of screening outcomes and performance indicators. Participation rates within organized programmes varied from 10.6% to 54.2%, depending on the province. The cancer detection rate per 1000 women screened was 6.9 for first and 3.8 for subsequent screens. These rates were found to meet or exceed many interim measures used in international programmes.

While these indicators were found to be quite promising, there is still a great need to increase organized screening in order to have more comprehensive monitoring and fewer discrepancies in effectiveness across provinces. Furthermore, some researchers argue that it is difficult to determine whether breast cancer screening actually leads to earlier diagnosis and is more efficient than opportunistic screening (84). Support for screening has been shown in the province of Manitoba.

The Manitoba Breast Screening Programme began in 1995, before which radiologists delivered mammography screening on a fee-for-service basis in three urban centres (85). Following its introduction, overall rural coverage rose from 12.6% in 1991 to 52.7% in 1999; and urban coverage increased from 22.6% to 46.9% over that period. Also, the programme led to a more equal use of screening among residents of wealthy and poor areas. Similar results were found with the introduction of a more centrally organized provincial childhood immunization programme. These findings support the shift of responsibility for preventive activities from the individual to an organized, provincial programme.

4.5 Key findings

Overall, the case studies of public health interventions correspond to national strategies or priority areas. Furthermore, these case studies reveal that almost all countries chosen recognize the need to develop public health strategies to improve health that are independent of clinical services. Although all countries have well thought out plans and programmes, it is far too soon to determine whether they are effective in changing population health since most activities take sever-

al years to show any effect. Furthermore, none of the case studies describes specific actions that are properly evaluated, with the exception of the North Karelia Project in Finland, the road safety programme in Australia and the inequalities strategy in the Netherlands. Evaluation of interventions is critical to policy-making, as is research to develop an evidence base for public health initiatives. These two areas seem to be the weakest, as revealed through this investigation.

In terms of basing decisions on evidence, the most progress has been made in the Netherlands, Finland and Australia. For instance, the Dutch programme to reduce inequalities was developed on the basis of two long-term research studies providing evidence of the effectiveness of specific actions. Also, Finland is one of relatively few countries linking implementation of major screening programmes to formal evaluation, thus providing an important example of evidence based policy-making. Similar progress has been seen in Australia where there has been considerable use of cost-effectiveness analysis. For instance, interventions for cancer screening, road safety and tobacco control have been subjected to economic evaluations that will help to inform future public health policy decisions. It can be largely concluded, however, that there is still much that needs to be improved in evaluating public health interventions and making decisions to implement based on evidence of effectiveness.

In addition, in reviewing the 28 case studies presented in this report, one can see an emphasis on interventions that seek to alter individual behaviours or lifestyles. This represents an overall shift in public health policy away from addressing more structural or environmental arenas and towards focusing on the individual's responsibility for his or her own health. It is important, however, as Sweden emphasizes in its recent national strategy (14), not to "blame the victim", but to recognize the roots of behaviours, which are largely structural and socioeconomic.

Finally, the case studies demonstrate the importance of subdividing overall plans into specific actions and utilizing multilevel, intersectoral approaches to implementation. Tobacco policies in Canada and Australia highlight the importance of targeting different population groups simultaneously; using multiple methods of disseminating information; and being consistent with legislation and education. A country cannot have education against smoking and still promote cigarettes through advertising.

Section 5 Conclusions

In examining the public health policies and decision-making frameworks in the eight countries, several issues arise. Most importantly, the political context within which public health policies are developed varies greatly. Although the broad goals are often similar, as are the strategies pursued, both the political values that guide the choice of priorities and the strategies used, and the organizational structures within which decisions are made, vary greatly. Thus, countries differ in the relative emphasis they place on individual and collective actions, reflecting both long-standing views about the role of the state and the autonomy of the individual, as well as medium-term changes in the political balance of power. They also differ in terms of the structure of government, in particular whether the country has a centralized or federal structure, and the role played by nongovernmental organizations.

Secondly, the countries differ in terms of the nature of the contemporary challenges to population health. Again, there are long-standing factors as well as those acting over the medium and short term. An example of the former is the way that patterns of diet often reflect climate and geography, and thus agricultural practices. An illustration might be the difference between traditional Italian and German diets. An example of the latter is the way in which rates of smoking and hazardous drinking are influenced by government policies on fiscal policy and advertising. For these reasons, it is entirely to be expected that governmental policies on public health will differ among countries.

Thirdly, the accounts available largely reflect the highly selective views of those most intimately involved in the relevant policies and often assume a rational model of policy development and implementation, which, as more detailed research in public policy shows, is very rarely the case. In the absence of primary policy research it is not possible to comment on the ways in which some items appear on the policy agenda while others do not, or the informal, but extremely important, mechanisms by which policies are developed.

For all these reasons, while this report brings together a large amount of information on public health policies in different countries that can inform the policy process, it is not possible to draw firm conclusions about the relative merits of different systems for identifying, prioritizing, developing and implementing public policies in the countries reviewed. Consequently one of the main findings of this study is the need for much more detailed international comparisons of public health policy-making and implementation, including the role of informal networks and mechanisms. However, this must be informed by a clear understanding of differences in systems of government, in particular defining the roles of different bodies in relation to the three elements of government: the executive, legislature and judiciary. It is clear from some of the policy documents reviewed that these three roles are often confused, although this may reflect confusion by those responsible for policy-making rather than just those commenting on it. The situation is complicated further by the very different degrees of decentralization and the extent of pluralism in policy-making in different countries. Thus, even countries with superficially similar systems of government, such as Canada and Australia, differ considerably in the ability of the federal government to influence policies at province/state level. However, assessment of formal structures is insufficient; even where there is a legal division of powers there may be ways in which one tier of government can exert considerable influence on another. Again, two countries that are superficially similar, Finland and Sweden, display important differences of detail. In some countries civil society bodies play a major role, such as the physicians' associations in Germany and the Netherlands, by placing a constraint on what governments can do. And the situation is dynamic: Canada is an example of a country where the balance between the levels of government appears to be changing as the federal government seeks a stronger public health role.

Finally, to add even more complexity, the intersectoral nature of public health makes it necessary to develop linkages with actors from many sectors. Several of the policies described below provide examples of such linkages whether at national level, among ministries, or at local level such as community development projects. Such projects in the Netherlands bring together local government, health care providers and universities. For all these reasons, several countries are seeking ways to coordinate the extensive activity that is taking place, as illustrated by the Australian National Public Health Partnership.

In addition to these intersectoral linkages, there needs to be a comprehensive registry of population health and diseases. While Denmark and Sweden have universal disease registries, most other countries have only cancer registries. Thus, there is a need to link events, such as the Acheson Record Linkage Study in Oxford region (86). It is believed that more comprehensive registries would be helpful for programme and policy evaluation.

Many, although not all, countries have seen a need to initiate national public health strategies accompanied by relevant goals. The strategies differ, reflecting the national context and political choices, but also have much in common, for example the widespread emphasis on tackling inequalities in health. Unsurprisingly, there is often an emphasis on the major determinants of health and, in particular, tobacco, which is among the leading causes of premature death and disability in all of the countries.

The concept of health strategies has echoes at international level. In the European Union (EU), following the Maastricht Treaty in 1993, eight priority areas were identified for community action programmes based on the burden of the disease; its socioeconomic impact; the degree to which it is amenable to preventive action; and whether the programmes would be valuable and complementary to current practice in the member states (87). These priority areas were identified as: health promotion, cancer, AIDS, drug dependence, health monitoring, injuries, rare diseases and pollution-related diseases. In 2002, the EU established a new programme of community action in public health to be implemented in 2003 (88). This programme identifies the general objectives to improve information and knowledge for the development of public health; to enhance the capability of responding rapidly and in a coordinated fashion to threats to health; and to promote health and prevent disease through addressing health determinants across all policies and activities.

The WHO's Health for All strategy (89) and subsequent Health 21 policy have been influential in many countries, advocating the principles of equity, health promotion, community participation, multisectoral cooperation, primary health care and international cooperation.

In all countries reviewed, there are important weaknesses in the public health infrastructure. Public health infrastructure includes information and surveillance systems in addition to human resources and evaluation resources. An effective information/surveillance system is vital in order to enable the identification of the emergence of health hazards, and to determine whether the policies for disease control are effective. There is also a need for mechanisms to train public health workers and provide them with opportunities for career progression.

As this analysis makes clear, much more evaluation of public health programmes is needed. This is changing, as is noted in many of the examples where it is stated that an evaluation is underway. However remarkably few of the policies reported have been subject to an evaluation of effectiveness and, with the notable exception of Australia, even fewer have been examined for cost-effectiveness.

There are several explanations for this situation. One is that the evaluation of complex interventions is difficult. Even in clinical medicine, evaluation has largely been limited to single interventions, such as drugs, in highly controlled

circumstances that cannot be generalized. Only recently have surgical procedures been assessed rigorously and evaluations of more complex interventions, such as stroke units or new systems of organizing clinics, are rare. In the field of public health the challenges are even greater. The time taken to implement a project, coupled with the frequently long lag period before (even in the most optimistic scenarios) an outcome might be detected, mean that by the time results are available the intervention has already moved on. There is frequently a problem of attribution as researchers seek to differentiate the effect of the intervention from underlying trends in, for example, diet or smoking. While in clinical trials it is relatively easy to have controls, this is much more difficult with some population-level interventions, especially those involving behaviour change, as news of the intervention leaks into the control population. However, perhaps the greatest obstacle is the lack of funding for such research. While pharmaceutical companies clearly have an interest in paying for large-scale and very expensive studies of drugs, governments have much less interest in paying for large-scale, population-based interventions to improve public health.

This report has been written to inform a discussion about the scope for investing in population health. However its ability to do so is clearly limited by the relative lack of evidence about the economic benefits, at least in terms of which particular interventions to choose. The question of whether to invest in health in general is, of course, quite different and one that has been explored in detail elsewhere. The case for doing so is based on several arguments, including the facts that improved health is in itself a measure of the progress of nations; that a healthy population contributes to economic growth through greater productivity and reduced health care costs; and as the experience of the United States illustrates, despite health being valued highly by the population it cannot be assumed that policies designed to create economic growth will necessarily lead to improved health.

To understand better the lack of economic evaluations, in addition to the reasons for the lack of evaluations of effectiveness discussed above, it is necessary to reflect on some of the issues involved. Firstly, there are numerous difficulties in measuring both the costs and the health effects of prevention. In considering the costs and benefits of an intervention, one cannot solely include those falling on the health sector but should also include a societal perspective.

Secondly, if a narrow health or social sector perspective is taken public health interventions may not necessarily be cost saving, since increasing longevity may increase the health care and social costs, such as the costs of pensions (90). For example, delaying the onset of chronic disease, or preventing it altogether, may translate into increased health care because people live longer and may fall ill for other reasons, in particular degenerative neurological disease and musculoskeletal disorders. These diseases account for about the same proportion of health care budgets as cancer and heart disease (91), or even more (92).

Most health care expenditure takes place in the last few years of life (93–96). In this case, prevention programmes which lengthen life ultimately do not save money (since the probability of a person dying is 1) unless healthy life expectancy increases at a faster rate than overall life expectancy. This may be happening but further research is needed. Finally, it cannot be assumed that, from the health sector perspective, prevention is always cheaper than cure (97).

The obvious problem is that such a narrow perspective denies the value of a human life. However those taking a broader perspective face the challenge of deciding what its value should be. Although there are many methods of addressing this problem, all have significant weaknesses. Yet while economic evaluation is often of little help in deciding whether to undertake an intervention in the first place, it has rather more potential in helping to decide which of a series of options should be chosen to achieve a specified goal, by means of cost–effectiveness analysis.

While recognizing the potential benefits of cost–effectiveness analysis, it should also be noted that it is more applicable in some areas of public health than in others. For instance, secondary prevention initiatives like screening, for example, have been subject to numerous cost–effectiveness analyses, to help choose between different methods of screening or target groups. However primary prevention has been subject to rather less economic evaluation to date, in part due to the aforementioned difficulties of measuring costs and effects and determining causation.

However, it is important to understand that, even if the best possible economic evaluations were available, they would be only one element in a complex process of decision-making that is also shaped by what is politically feasible in a world in which many powerful vested interests seek to undermine the scientific evidence. The growing catalogue of research on the actions of the tobacco industry as they attempt to subvert the evidence on the harmful effects of passive smoking illustrates the enormous scale of this problem. Thus, the final findings from this study are, first, the need for more research on the decision-making process in public health. While this study recognizes the importance of information processes and networks in decision-making, as previously discussed, of necessity it has been limited to publicly available documents. Inevitably, these are simply the end result of a lengthy process that usually involves a compromise between differing views. A process of learning from experience elsewhere can be most successful when informed by the process by which policies develop as well as the nature of the policies themselves.

Second, there is a need for a much broader evidence base for policy-making in public health. Yet it should not be assumed that having more evidence will lead automatically to better policies. The challenges of evidence-based policy-making are well documented. In a recent policy note the British Parliamentary Office of

Science and Technology stated, “little is currently known about how policy-makers actually use science” (98). This statement clearly is true for public health.

Some important issues arise when determining how to plan an effective public health policy. Firstly, there is a need for complete political commitment from all levels of government and across all sectors. As previously discussed in this report, it is essential that public health is a responsibility for all levels of government. This is seen in the recent reforms, in some of these eight countries, that strengthen national involvement in public health in order to have strong national and regional leadership in this area. Also noted previously is the importance of intersectoral commitment to public health, as seen in the collaborative efforts of several ministries in the planning of public health programmes in Denmark and use of health impact assessments in Sweden, for example.

Secondly, there needs to be an appropriate degree of preparation of the population for the introduction of measures that may or may not restrict personal liberty. For example, it is widely agreed that cigarette smoking is one of the most important risk factors for disease. However, it is vital that there is societal acceptance of the harm of smoking in order to implement effective anti-smoking campaigns. For instance, in the United Kingdom, support for banning smoking on the London underground railway was garnered only after a major fire broke out as a result of a cigarette. Furthermore, there is a need for public health law in order for public health activities to be sustained by a clear legal framework. While this is common in other European countries, such as France, the United Kingdom currently does not have a modern public health law.

Thirdly, it must be recognized that public health involves both individual behavioural changes and structural or environmental changes. It is extremely important not to “blame the victim”, as is happening increasingly with the emphasis on stopping smoking and drinking and encouraging healthy lifestyles. While these initiatives are important, it is vital to recognize the determinants for these unhealthy behaviours, which are largely rooted in the social and economic context of the individuals. Thus, in order to tackle these behavioural risk factors, one must also deal with improving the conditions in which people live – specifically, alleviating poverty. The case studies of public health interventions reviewed in this report reveal that considerable emphasis is currently placed on altering individual lifestyles. While this is important and effective in improving health, it must not be at the expense of activities directed at the broader socioeconomic determinants that might have an even greater effect on population health.

Fourthly, it is important that there is adequate infrastructure and resources for public health. Although this is an area of increasing attention in the countries that were reviewed, little has been done to ensure its improvement. Furthermore, the voice of public health must be independent of political control. For instance, practitioners must be able to say freely what are the weaknesses of the current

system, and what are the needs, without prejudice. In the United Kingdom, prior to 1974, public health professionals had security of tenure and could make judgments counter to political views. This security was not upheld after the reorganization of public health in 1974. Following this the community physician became an independent consultant without a team, and public health practitioners had to work within the constraints of corporate governance, therefore with reduced security in independence (99). Also, for some years after 1974, departments of health were no longer required to produce annual reports on the health of the local population, due in part to fears of some politicians and administrators that they would highlight deficiencies in service provision or policies. Thus, it is vital that public health maintains its independence from political and other pressures in order to focus on achieving the goal of improved population health.

Fifthly, it is essential that there is proper organization, funding and support for research into factors influencing public health and how to mitigate and evaluate these factors. In the Netherlands and Australia, for example, there is considerable effort to evaluate public health programmes and support continual research in this area.

Finally, public health policies must be realistic. While most countries have broad, aspirational targets such as reducing inequalities, there must be measures in place in order to achieve these goals. Thus, one must disentangle the various components of inequalities and then identify those factors that are remediable. In the Netherlands, policies have been implemented that focus on the areas of health inequalities that can be effectively targeted and improved. This case provides a good example of effective public health policies that other countries may emulate.

Annex 1

The following tables detail public health processes for the eight countries in this study. Table 1 describes organization, funding and decision-making particulars for Sweden, Finland, Denmark and the Netherlands, while Table 2, which begins on page 74, describes them for France, Germany, Australia and Canada.

Table 1. Public health organization, funding and decision-making processes in Sweden, Finland, Denmark and the Netherlands

Organization of public health	
Sweden	Finland
<p>National level</p> <p>The Ministry of Health and Welfare is responsible for regulation and setting policy frameworks (21).</p> <p>Local level</p> <p>The county councils (independent regional government bodies) are responsible for public health services (21).</p> <p>Each county council has a department of public health that plans services, based on epidemiological data, and in particular, strengthening prevention.</p> <p>Supporting agencies³</p> <p>The National Institute for Public Health (NIPH, 1992)⁴ is responsible for health promotion, disease prevention, and reducing inequalities (21). The National Public Health Committee (1997) assists in developing national strategies (21). The Commission on National Targets (1997) guides the formation of health targets (100). The National Board of Health and Social Welfare publishes a national public health report every 3 years (since 1987) (101), describing patterns of health and disease, living conditions and risk factors, and the distribution of health resources, which has led to a strengthened central public health function (21).</p>	<p>National level</p> <p>The Ministry of Social Affairs and Health (MOSAH) initiates legislation and monitors its implementation (102).</p> <p>Local level</p> <p>Municipal health committees set priorities and provide public health services.</p> <p>The 1972 Primary Health Care Act created health centres that provide curative, preventive and public health services at a primary level; municipalities retain considerable autonomy in their operation (48, 102).</p> <p>Supporting agencies</p> <p>The National Public Health Institute (KTL) is responsible for surveillance and health promotion, and providing research to inform decision-makers (49, 102).</p> <p>The Finnish Centre for Health Promotion strengthens cooperation between NGOs and other actors (102).</p> <p>The Intersectoral National Public Health Committee evaluates programmes, and informs target-setting (103).</p> <p>The National Research and Development Centre (STAKES) assists in the evaluation of policies (48, 102).</p>
Funding health care and public health ⁵	
Sweden	Finland
<p>Sources of funding: taxes levied by the county councils and government contributions allocated to the councils according to a per capita formula (83.8%), private sources, mainly out-of-pocket payments (16.2%) (11).</p> <p>Approximately 3% of total health expenditure is allocated to public health services (37).</p>	<p>Sources of funding: municipal taxes (43%), federal taxes that are allocated to the municipalities (18%), national health insurance (15%), private insurance (2.5%), out-of-pocket payments (20.6%) (11).</p> <p>Federal funding to municipalities takes the form of block grants, taking into account population size, age structure and mortality (102). Approximately 3.4% of total health expenditure is spent on public health and prevention (11).</p>

3 The supporting agencies listed in the table are those that have been identified in government documents as key agencies in public health; this is not an exhaustive list.

4 When years are mentioned, they refer to either a) the year a committee or organization was established; or b) the year a document was published.

5 While the data on expenditure on public health and prevention seem quite low, it is possible they are underestimates, since public health may be a part of budgets outside the health sector, and public health services may be defined differently across countries.

Denmark	The Netherlands
<p>National level</p> <p>The Ministry of Health (MOH) coordinates a comprehensive programme on health promotion, with the involvement of 12 other ministries (10).</p> <p>The MOH is responsible for surveillance and communicable diseases control (10).</p> <p>Local level</p> <p>The Primary Health Care Act increased municipalities' public health responsibilities. The health care system is quite decentralized, and the county councils are responsible for health promotion initiatives, which, along with other health services, are financed through county councils' income taxes (10).</p> <p>Supporting agencies</p> <p>The National Board of Public Health (2001) assists with disease prevention and health promotion initiatives (10).</p> <p>The Institute for Clinical Epidemiology conducts public health research (10).</p> <p>The Council on Health Promotion Policy develops and evaluates promotion programmes (10).</p> <p>The Danish Council on Smoking and Health develops programmes targeting smoking (10).</p>	<p>National level</p> <p>The Ministry of Health, Welfare and Sport enacts legislation (e.g. the Tobacco Act and the Public Health Act) and offers guidance to municipalities (104).</p> <p>Local level</p> <p>The 1990 Collective Prevention Provision Act requires all municipalities to organize a Municipal Health Department (104).</p> <p>Municipalities are responsible for implementing preventive health policies including health education, infectious disease control, and screening (104).</p> <p>Supporting agencies</p> <p>The Council for Public Health makes recommendations for public health programmes (104).</p> <p>The National Institute for Health Promotion and Disease Prevention develops preventive measures and methodology (104).</p> <p>The National Institute for Public Health and Environmental Issues (RIVM) plays an important role in the research and monitoring of health indicators (e.g. prevalence of cardiovascular disease) and environmental indicators (e.g. air quality) (104).</p>
Denmark	The Netherlands
<p>Sources of funding: state and local taxation (82%), out-of-pocket payments (16.5%), voluntary health insurance (1.5%) (105).</p> <p>Public health expenditure accounts for 9% of total public spending, and 6.7% of total health expenditure (10).</p>	<p>Sources of funding: social insurance (69%), private insurance (14%), government subsidies (10%), direct payments (8%) (104).</p> <p>About 4% of health expenditure in the Netherlands is spent on preventive and public health services (11).</p>

National strategy

Sweden

The Swedish national strategy was established in 2003 to ensure good health on equal terms for the population (14).

The methodology used was determinant- rather than outcome-based (i.e. instead of being focused on targets, this strategy focuses on promoting societal level determinants of health) (14).

Main priorities

- Reduce health inequalities; and
- target lifestyle factors supporting healthy choices.

Specific goal areas

- Participation and influence on society;
- economic and social security;
- favourable conditions during childhood and adolescence;
- healthier working life;
- healthy and safe environments and products;
- health and medical care that more actively promotes good health;
- effective protection of communicable diseases;
- safe sexuality and good reproductive health;
- increased physical activity;
- good eating habits and safe food; and
- reduced use of tobacco, alcohol, illicit drugs, doping, and gambling.

Finland

Health 2015 public health programme (2001) sets targets for national health policy for the next 15 years (15).

There are 36 policy guidelines concerning the lines of action underlined by the government, incorporating challenges and guidelines related to citizens' everyday environments and various actors in society (e.g. indicators of psychosocial well-being among children must be devised and a monitoring system built upon them; the standing of health policy research at universities and research centres must be strengthened) (15).

Main priorities

- Improve healthy life expectancy
- reduce health inequalities.

Preconditions for achieving these goals

- Take intersectoral action;
- involve the private sector;
- incorporate the social dimension into all policies;
- monitor progress using specified indicators;
- include all arenas of everyday life; and
- adopt a life-course approach.

Criteria used for priority-setting and decision-making

Sweden

Public health reporting on epidemiological, demographic and household survey data form the basis for local policy-making (21).

Reports published by the National Board of Public Health and Social Welfare informs central policy (106).

Priorities are set based on an "ethical platform" of human dignity, need and solidarity, and cost-effectiveness (21).

Finland

Local needs assessments and informal reviews of existing programmes guide decision-making (102).

Decision-making and priority-setting is inclusive and intersectoral at the local and national level (102).

Denmark	The Netherlands
<p>The national strategy is the Danish Government Programme on Public Health and Health Promotion 1999–2008 (1999) (16).</p> <p>Major strategies for implementing the programme have been devised: health promotion policies at all levels; new services offered to the population; professional guidelines and action plans; develop guidelines and evidence of good practice; financial incentives (16).</p> <p>Main priorities</p> <ul style="list-style-type: none"> • Increase life expectancy and quality of life; and • improve equity in health. <p>Specific target areas</p> <ul style="list-style-type: none"> • Lifestyle factors: tobacco, alcohol abuse, exercise, nutrition, obesity, traffic accidents; • HIV/AIDS and drug abuse; • age groups: children (top priority), young people, senior citizens; • areas: primary schools, the workplace, local communities, health services; • cooperation across all levels; • research; and • education. <p>Strategies to achieve the goals</p> <ul style="list-style-type: none"> • Legislation (e.g. ban tobacco commercials, ban sales of alcohol to minors); and • information campaigns (e.g. nutritional advice, promoting exercise, safe sex). 	<p>The National Contract for Public Health Care was signed in 2001 by the Minister of Health, Welfare and Sport, the Minister of the Interior and Kingdom Relations, the municipalities and GGD Nederland (the Association of Municipal Health Services) (13).</p> <p>Main priorities</p> <ul style="list-style-type: none"> • Strengthen public health infrastructure • reduce health inequalities • encourage healthy lifestyles. <p>Goals of the National Contract</p> <ul style="list-style-type: none"> • Best possible health opportunities for all residents; • promoting healthy living; • cooperation between the curative care sector and the public health sector; • fostering a coherent policy on public health care, both nationally and locally; and • enhancing the administrative and policy-making power of local authorities and municipal health services.
Denmark	The Netherlands
<p>Decisions are based on evidence of the burden of disease and scope for prevention (10).</p> <p>Research informs national level policy-makers, however, there is a more limited role of research at local level; thus there is a centralized approach to the application of research to policy (105).</p> <p>The Institute for Clinical Epidemiology conducts the national health interview survey programme, epidemiological and health services research to guide decision-making (10).</p>	<p>Dutch Public Health Status and Forecasts Reports guide decision-making, and attempt to provide a scientific basis for health policy (107).</p> <p>Evidence plays a key role in policies aimed at reducing inequalities; a long-term research programme launched in 1995 analysed the effectiveness of several interventions to reduce inequalities (30).</p>

Health inequalities

Sweden

Explicitly addressed in national strategy, as one of two broad goals; strategies emphasize social cohesion and healthy environments (14).

Recent interventions, e.g. South in Change (2001), a community development project focusing on a deprived neighbourhood, will be evaluated in order to guide future policies and programmes addressing the reduction of inequalities (31).

Finland

Explicitly addressed in national strategy as one of two broad goals, with a corresponding target (15). Specific objective is to reduce mortality differences between the genders, educational and social groups, by one fifth (15). Previous national programmes have addressed inequalities (108); however, the programmes have not been systematically implemented (109).

Targets

Sweden

Due to limited national role in public health, national targets have not been utilized explicitly (100). Previous national targets for public health (2000) set six distinct preconditions for health:

1. healthy physical environment
2. increased social capital
3. improved working conditions
4. health-sustaining lifestyles
5. good start in life for all children
6. good infrastructure for health work.

It also identified 18 broad targets (e.g. high employment, equal growing-up conditions, education and green recreation areas, and family-friendly policies) with limited success in improving health (100).

Specific, measurable targets for the 11 goals of the 2003 National Strategy have not yet been developed.

Finland

The National Public Health Committee outlined criteria for targets in 1999, namely, that they be realistic, be neither too specific nor too numerous, be formed in partnership with key implementers, and lend themselves to evaluation (103).

The 2001 strategy has general targets (e.g. improving health by reducing chronic disease, accidents and other health problems) and specific targets (e.g. reducing smoking by 15% among youth, increasing healthy life expectancy by two years) (15).

The MOSAH is planning to develop indicators to assess the achievement of the targets (15), but has not done so to date.

Denmark

Explicitly addressed as an overall goal in the national strategy (16). Strategy emphasizes the continual monitoring of health status across social groups to assess progress towards reducing inequalities (16). For all targets, the programme seeks to ensure significantly more favourable development in health among the socially disadvantaged.

The International Conference on Reducing Social Inequalities in Health (Copenhagen, 2000), addressed policies and good practice on reducing inequalities in health, spreading this knowledge to other countries, and urged all communities “to tackle social inequalities in health using documented and effective methods” (110).

The Netherlands

Explicitly addressed as a main priority area in public health (13). Evidence-based Dutch Programme on Socioeconomic Inequalities in Health (2001) (30).

Goals

- To reduce inequalities in education and income;
- to reduce the negative effects of health problems on socioeconomic position;
- to reduce the negative effects of socioeconomic position on health (for example, reduce the prevalence of smoking in the lower classes); and
- to improve access to, and effectiveness of, health care for low socioeconomic groups.

Denmark

A total of 17 target areas and goals to be achieved were adopted targeting risk factors: tobacco, alcohol, nutrition, exercise, road traffic accidents; age groups: children, young people, senior citizens; arenas: primary school, the workplace, local community; communication across levels of government; research and education (16). Each target area has corresponding measurable specific targets with initiatives for achieving them, outlining ministries responsible for implementation, e.g. the proportion of heavy cigarette smokers should be reduced by 50% (16).

Denmark introduced a policy document called *Healthy throughout life – the targets and strategies for public health policy* (2003). It focused on the following issues:

- smoking
- alcohol
- diet
- physical activity
- obesity
- accidents
- work environment
- environment.

Disease prevention targets include:

- diabetes
- cancer
- cardiovascular diseases
- osteoporosis
- muscular disorders
- asthma/allergies
- mental disorders.

The Netherlands

The Dutch national contract has no explicit targets (13). Eleven quantitative targets have been set for reducing inequalities, to serve as milestones for assessing goals in poverty, labour participation of the chronically ill, smoking, obesity, education, heavy physical labour, and accessibility and quality of health care services (30). Despite an earlier failed attempt to set health targets on the national level, in 2003 the Netherlands published a white paper, titled *Langer gezond leven (A longer healthier life)*, on national health targets that are meant to be achieved by 2020. Part I includes 13 targets:

- coronary heart disease
- stroke
- heart failure
- lung cancer
- breast cancer
- intestinal cancer
- diabetes mellitus
- depression
- anxieties
- asthma
- chronic lung disease
- neck and back pain
- arthritis
- rheumatism.

Part II has seven health and safety priorities:

- infectious diseases
- child/youth health care
- population surveys
- prevention of injury
- food safety and nutrition
- health and environment
- crisis management and aftercare.

Intersectoral collaboration

Sweden

There was considerable intersectoral involvement in formation of the national strategy, for instance involving political and non-governmental organizations, county councils, municipalities, trade unions and academic institutions (111).

In Swedish health policy, there is an emphasis on assessing the health impacts of all policies, e.g. identifying how agricultural policies impact on health (112).

Finland

The Health 2015 public health programme recognizes that a commitment to local and national level intersectoral action is one precondition for achieving the public health goals (15).

Health impact assessment was also highlighted in the recent programme (e.g. the government proposes to produce guidelines for assessing the health impacts of central and local government policies and decisions) (15).

The national programme also highlights the importance of strengthening the health-promoting role of business and industry (15).

A national intersectoral advisory board for public health was created to assist the formation of national public health programmes.

The WHO report (2002) recommended strengthening the intersectoral mechanisms for policy-making (113).

Monitoring and evaluating public health policies

Sweden

The national programme started in 2003 so evaluations have not yet taken place.

The NIPH is expected to monitor the eleven objectives of the national strategy (14).

Every four years, NIPH is expected to report on progress towards the national health goals (14).

Monitoring is to be carried out through the Swedish survey of living conditions, however, no results have yet been reported.

Finland

Monitoring of health promotion activities across sectors and levels takes place at a national level (102).

Annual surveys are conducted for health related behaviour in the working age population; bi-annual surveys for the elderly (102).

STAKES and KTL contribute to national health monitoring and public health research.

Progress reports are planned every four years (15).

External evaluations conducted by WHO recommended: strengthening intersectoral mechanisms; ensuring adequate human resource capacity for both planning and implementation; introducing health impact analysis to health initiatives; ensuring robust implementation of the Health 2015 strategy; assisting municipalities in health promotion activities; assigning and managing the national level roles in supporting and facilitating local health promotion; and making more use of evidence based policy-making (113).

Denmark	The Netherlands
<p>There is considerable intersectoral involvement in decision-making (e.g. the Ministry of Labour is responsible for prevention in the work environment and for sickness benefits) (105).</p> <p>The MOH and 12 other ministries were involved in the recent comprehensive public health programme, reflecting its intersectoral nature (16).</p>	<p>The Ministry of Health, Welfare & Sport recognizes intersectoral collaboration as a key element in successful interventions, e.g. tackling inequalities.</p> <p>One of the goals of the National Contract is to incorporate health into all areas of policy (13).</p>
Denmark	The Netherlands
<p>Monitoring of progress towards achieving the national targets (e.g. the proportion of heavy cigarette smokers should be reduced by 50%) will be coordinated by the MOH (16).</p> <p>The MOH proposes to revise the programme on public health and promotion in 2005 (16).</p> <p>Evaluation of the public health interventions recommended in the most recent programme has not yet taken place.</p> <p>In addition to the lack of systematic evaluation procedures, there is a need to improve health impact assessment of government policies outside of the health sector.</p> <p>It is not clear whether the programme can be transformed into effective action as relatively limited resources have been allocated and the structural and organizational elements of the programme are vague.</p>	<p>While there is a growing awareness of the need for evaluation, little progress has been made in evaluating public health interventions, with the exception of those targeting inequalities.</p> <p>There have been significant efforts to evaluate inequalities interventions, monitor targets, and develop evidence based policies (30, 68).</p> <p>Dutch policy-makers recognize a need for a greater evidence base for public health policies, with more explicit and measurable targets, however, it is unclear whether policies to monitor the progress of public health programmes will be developed (104).</p>

Table 2. Public health organization, funding and decision-making processes in France, Germany, Australia and Canada

Organization of public health	
France	Germany
<p>National level</p> <p>The national government has overall responsibility for the public health system. Currently, decision-making involves multiple players acting in a disjointed fashion, governmental bodies have overlapping functions and very little evaluation of effectiveness (12).</p> <p>The government has proposed a new health bill (2003) outlining responsibilities for different actors, to consolidate and strengthen national level agencies (e.g. High Committee of Public Health and National Institute for Prevention and Health Education) and to ameliorate the public health system (12).</p> <p>Local level</p> <p>Regions implement public health programmes. The establishment of regional authorities in surveillance, epidemiology, prevention, and health education was proposed in the 2003 health bill (12).</p> <p>The new health bill also proposes to standardize public health training (12).</p> <p>Supporting agencies</p> <p>The National Surveillance Agency is responsible for tracking and projecting disease (114).</p> <p>The National Institute for Health and Medical Research undertakes public health research.</p> <p>The High Committee of Public Health and National Institute for Prevention and Health Education contribute to defining goals and proposing policies.</p> <p>Other agencies involved in public health policy include: The Pharmaceuticals Agency; The French Blood Agency; and the French Committee for Health Education.</p>	<p>National level</p> <p>The Federal Ministry of Health has a small, but growing role, assisted by supporting agencies specializing in communicable disease, health education and environmental health (see below) (115).</p> <p>Local level</p> <p>The federal states (Länder) are mainly responsible for public health services (115, 116).</p> <p>Social health insurance funds</p> <p>Social health insurance has an increasing role, since 2000 social insurance funds have again covered some primary prevention services (116).</p> <p>Supporting agencies</p> <p>Federal Institute for Pharmaceuticals and Medical Products (115).</p> <p>The Institute for Communicable and Non-communicable Diseases (the Robert Koch Institute) (115).</p> <p>The Federal Centre for Health Education (115).</p> <p>The German Institute for Medical Documentation and Information (115).</p> <p>Advisory Council for Concerted Action in Health Care (1986) provides guidance on monitoring health and economic trends and health care reform, and prepares reports addressing issues such as how to incorporate prevention and health promotion within the social health insurance system (115).</p>
Funding health care and public health	
France	Germany
<p>Sources of funding: statutory health insurance (75.5%), Voluntary Health Insurance (12.4%), out-of-pocket payments (11.1%) (119).</p> <p>Approximately 2.5% of total health expenditure is allocated to prevention and public health services (11).</p>	<p>Sources of funding: statutory health insurance (68%), taxation (10%), out-of-pocket payments (10%), and private insurance (6.6%) (116).</p> <p>Approximately 4% of total health expenditure is allocated to prevention and public health (11).</p>

Australia	Canada
<p>National level</p> <p>The federal government provides broad policy leadership and financing (117).</p> <p>Local level</p> <p>The states and territories deliver public sector health services and regulate health workers in the public and private sectors.</p> <p>Supporting agencies</p> <p>The National Public Health Partnership (NPHP, 1996) develops national agenda for public health, improves collaboration, coordinates strategies and strengthens public health infrastructure. The NPHP group comprises one senior representative from the commonwealth and each of the states and territories, along with the Director of the Australian Institute of Health and Welfare (AIHW) and the Chair of the Health Advisory Committee of the National Health and Medical Research Council (NHMRC) (19).</p> <p>The Public Health Association of Australia is an evidence-based advocacy group used as a reference point for governments at all levels as well as other interested parties.</p> <p>The Public Health Research Advisory Group (1997) promotes and advocates public health research. The National Health and Medical Research Council (NHMRC) has played a key role as an authoritative standard- and priority-setting body since 1937.</p> <p>The Australian Health Ministers' Advisory Council helps consolidate priorities and reach consensus.</p> <p>The Australian Institute of Health and Welfare (AIHW) provides authoritative reports on the health and welfare of Australians to inform community discussion and decision-making.</p>	<p>National level</p> <p>The federal role is located in the Population and Public Health Branch (PPHB) of Health Canada. Federal responsibilities include policies, programmes and systems relating to prevention, health promotion, disease surveillance, community action and disease control where action is necessary at the federal level.</p> <p>Local level</p> <p>Public health is primarily a provincial responsibility; each province has its own public health legislation, with varying capacities and expenditures. There are significant disparities between provinces/territories; some have relatively strong public health systems (e.g. Quebec) while others do not (e.g. Northwest Territories).</p> <p>Supporting agencies</p> <p>The Advisory Committee on Population Health (ACPH) develops strategies for policy development and implementation (20, 118).</p> <p>For each national strategy, there are advisory agencies for surveillance, research, funding, and implementation support e.g. The National Diabetes Surveillance System (NDSS; 1996) coordinates federal and provincial governments, NGOs, and researchers, and provides a strategic support function for the Canadian Diabetes Strategy.</p> <p>The Standing Senate Committee on Social Affairs, Science and Technology plays a significant role in health and health care research in Canada.</p>
<p>Australia</p> <p>Sources of funding: federal (and some state) taxation (71%), out-of-pocket payments (16%), and private insurance (7%) (120).</p> <p>Around 5.3% of total health expenditure is allocated to public health and prevention (11).</p>	<p>Canada</p> <p>Sources of funding: provincial and federal taxes (73%), supplementary insurance, employer-sponsored benefits and out-of-pocket payments (27%) (121).</p> <p>Around 7% of total health expenditure is allocated to public health and prevention (11).</p>

National strategy

France

Currently there is no national public health strategy in France; however, one has been put forward in the proposed health bill.

Proposed health bill of 2003 (12)

Proposed comprehensive framework to:

- improve the public health policy process;
- improve surveillance and effectiveness studies;
- increase government accountability;
- outline process for implementation; and
- determine the tools needed to implement this public health strategy;
- engage the public in public health policy and implementation; and
- set out a five-year public health policy based on the achievement of 100 designated objectives (targets) in key areas of public health.

Main priorities

- Cancer;
- environmental health;
- violence and behavioural risks (especially tobacco control);
- rare disorders; and
- chronic illness.

Additional priorities

- Alcohol
- tobacco
- nutrition and exercise
- occupational health
- environmental health
- iatrogenic infections
- pain
- poverty and inequalities
- disabilities
- infectious disease
- maternal and perinatal health
- endocrine disorders
- neuropsychiatric disorders
- sensory organ disorders
- cardiovascular disease
- respiratory disease
- chronic inflammatory disease of the intestine
- chronic renal insufficiency
- gynaecological disorders
- musculoskeletal disorders
- antenatal care
- rare disorders
- oral health
- violence.

Germany

While there is no national strategy, there are some individual national programmes, e.g. National AIDS Campaign (115).

Decisions in public health are largely left to the individual Länder (115).

The goal of the Reform Act of Social Health Insurance 2000, which increases the sickness funds' contributions to primary prevention, is to improve overall health and reduce inequalities; however, the funding amounts to less than 2% of total sickness funds' health expenditures (115).

A new Law on Prevention is expected to be passed. This seeks to coordinate the disparate prevention activities across the country and will involve the health insurance funds. It is unclear how this will translate into workable actions.

Main priorities

Priorities are determined regionally, and can vary considerably between, and even within, Länder (115).

More concerned with cost-containment than health issues, as reflected by the Advisory Council Report to the Health Minister (1994), stating that funding for primary prevention and health promotion interventions should come from social insurance funds rather than federal government (122).

However, in 2003, a health target document was drafted which identified the following target areas:

- diabetes;
- breast cancer;
- tobacco control;
- growing up healthy (nutrition, physical activity); and
- empowerment and patient sovereignty.

Australia	Canada
<p>Several important national strategies coordinated by the NPHP: HIV/AIDS41, National Indigenous Australian's Sexual Health Strategy (123), National Tobacco Campaign (38), and the National Injury Prevention Activities (124).</p> <p>The government intends to develop a national child public health policy focusing on health inequalities and evidence based interventions (19).</p> <p>Main priorities identified by the NPHP</p> <ul style="list-style-type: none"> • Cardiovascular disease • cancers • injuries • mental problems • diabetes • asthma. <p>The National Health Priority Action Council (NHPAC) identifies, advocates and facilitates action within and across national priorities. The national health priorities are guided by the following principles (117):</p> <ul style="list-style-type: none"> • promotion and protection of the health of all Australians and minimizing the incidence of preventable mortality, illness, injury and disability; • access to cost-effective medical services, medicines and acute health care for all Australians; • support of healthy ageing for older Australians and quality and cost-effective care for frail older people and support for carers; • improved quality, integration and effectiveness of care; • improved health outcomes for Australians living in regional, rural and remote locations; • reduced consequences of hearing loss for eligible clients; • improved health status for Aboriginal and Torres Strait Islander peoples; • viable private health industry to improve the choice of health services for Australians; • knowledge, information and training for developing better strategies to improve the health of Australians. 	<p>Health Canada recognizes the need to develop a national strategy with specified goals; means of monitoring progress towards them; and mechanisms to ensure collaboration at all levels of government (125).</p> <p>Currently there are separate national strategies, e.g. for immunization, tobacco (42), screening (82), alcohol and drugs (46).</p> <p>Main priorities</p> <p>The goals of the Ottawa Charter, launched at the First International Conference on Health Promotion in 1986 were to: reduce inequalities, increase prevention and enhance coping. The Charter highlights the fact that health promotion involves building healthy public policy, creating supportive environments, strengthening community action, developing personal skills and reorienting health services (126).</p> <p>The government adopts a population approach, developed by the Advisory Committee on Population Health, with the goals to improve health and reduce inequalities (20).</p> <p>The population health framework is believed to provide a rational basis for setting priorities and investing in improving population health (20).</p>

Criteria used for priority-setting and decision-making

France

Priorities for public health are based on (22):

- their significance in terms of burden of illness;
- their fit with societal values and priorities;
- evidence of inequalities in health outcomes for the condition/problem within the country, or poor outcomes in France compared to other countries;
- current state of knowledge about the condition/health problem's etiology.

Germany

Since priority-setting at the national level is very limited, it is not clear whether a formal mechanism is in place.

Responsibilities for decision-making are generally shared between the Länder and the federal government.

The process for deciding priority areas in health involves many players, e.g. the 2003 national health target document called *Gesundheitsziele.de* was drafted by more than 70 stakeholder groups and over 200 experts. The methodology consisted of reviewing priority-setting criteria in other countries; developing a matrix of morbidity and mortality information on the risk factors/disease areas; and subjecting a short list to political negotiations.

Health inequalities

France

Inequalities in health are outlined as a priority area in public health, for which government is currently developing strategies. These strategies will rely on evidence of inequalities in outcomes for particular health problems.

Germany

Reform Act of Social Health Insurance Act 2000 addressed reimbursement of primary prevention services but amounts to insignificant funding.

There are no specific strategies for reducing inequalities.

Australia	Canada
<p>Priority-setting and decision-making is broadly based on studies documenting burden of disease and evidence of effectiveness, including cost-effectiveness, of public health approaches.</p> <p>The Public Health Research Advisory Group was formed in 1997 to promote and advocate public health research and development so that members, stakeholders and the Australian community will benefit from a sound, strategic and shared research base in public health.</p> <p>The Australian Institute of Health and Welfare provides reports on the health and welfare to inform decision-making (e.g. the burden of disease, 1999).</p> <p>Conferences impact decision-making, e.g. a 2003 bipartisan and independent meeting of consumers, doctors, nurses and health leaders discussed ways to improve Australia's health system; outlined urgent priorities for government, including Aboriginal health, primary health care, safety and quality control, mental health; and suggested the formation of a national health reform council (127).</p>	<p>The population health approach accounts for the broad determinants of health and creates a framework to guide the development of policies and strategies (20).</p> <p>Key elements of the population approach: address determinants of health; base decisions on evidence; increase investments; apply multiple strategies; collaborate across sectors and levels; employ mechanisms for public investment; and demonstrate accountability for health outcomes (20).</p> <p>Health Canada reports on the economic burden of illness in Canada to aid priority-setting in health care. In 1998, the illnesses with the highest total costs were cardiovascular diseases, musculoskeletal diseases, cancer and injuries (128).</p> <p>The Standing Senate Committee on Social Affairs, Science and Technology published a report in 2003 examining the infrastructure and governance of the public health system in Canada, as well as Canada's ability to respond to public health emergencies arising from outbreaks of infectious disease. They made recommendations, and generally promoted a strengthened federal role and increased federal funding for public health (129).</p>
Australia	Canada
<p>Health inequalities are addressed by the NPHP.</p> <p>The NHPAC has an explicit goal of reducing inequalities, however, to date there has been no systematic implementation of interventions.</p> <p>Inequalities were also addressed by the National Strategies Coordination Reference Network (a work programme set up by the NPHP to facilitate capacity building), which identifies how NPHP agenda affects inequalities (130).</p>	<p>The government highlights the importance of achieving equitable access to opportunities and supportive environments.</p> <p>There is no systematic implementation of interventions to reduce inequalities.</p> <p>One objective of Health Canada's 2000 Sustainable Development Strategy: Sustaining Our Health was to reduce health inequities between Canada's First Nations and Inuit and the general population for selected health problems (131).</p>

Targets	
France	Germany
<p>The Ministry of Health (MOH) is responsible for setting public health targets.</p> <p>There are four requirements for targets that have been proposed by the MOH. They should be quantifiable; lead to further data collection; strengthen scientific knowledge; and be used to evaluate existing interventions.</p> <p>The 2003 Health Bill outlined 100 targets based on the national priorities. The targets are due to be achieved in 2008.</p>	<p>Target-setting is difficult due to the division of health policy responsibilities, thus, no public health targets are explicated currently in policy documents.</p> <p>In 2003 a national health target document was accepted by the government. This included five targets: diabetes, breast cancer, tobacco control, growing up healthy (nutrition, physical activity and stress relief), and empowerment and patient sovereignty.</p> <p>Prior to the 2003 national health target document, only one of the Länder (North Rhine-Westphalia; NRW) actually set targets for public health (115); in 1995, 10 priority health targets were agreed by the State Health Conference of NRW (132):</p> <ol style="list-style-type: none"> 1. reducing cardiovascular disease 2. controlling cancer 3. settings for health promotion 4. tobacco, alcohol and psychoactive drugs 5. environmental health management 6. primary health care 7. hospital care 8. community services to meet special needs 9. health research and development 10. health information support. <p>The GVG established a programme to develop health targets, addressing prevention and health promotion (133).</p>
Intersectoral collaboration	
France	Germany
<p>Not explicitly discussed in policy documents.</p>	<p>Intersectoral involvement has not been a high priority.</p>

Australia	Canada
<p>Throughout the 1990s, targets were set for national health priority areas, e.g. in 1994, several objectives were outlined in order to tackle the priority disease/risk areas (smoking, alcohol, diet, cholesterol, overweight, high blood pressure, and cancer) (134).</p> <p>The rationale for developing this programme was centred around equity, morbidity and mortality (135). This represented a balanced programme with a significant focus on outcomes, and inclusion of health service-oriented targets (135).</p> <p>The focus of priority-setting was guided by three criteria: the condition must be of major concern for the health of Australians; effective interventions to improve outcomes must be possible; and progress must be measurable (136).</p>	<p>National targets are not explicated specifically in the policy documents.</p> <p>The sustainable development strategy outlined 12 objectives along with short and long-term targets, which are monitored by Health Canada biannually, e.g. one objective is to address the links between health needs throughout the human life cycle and sustainable development. The long-term target is to create and maintain community capacity and tools to promote the healthy development of children, young people and their families; the short-term target is to promote better practices leading to practical solutions to key issues of child development to at least 10 organizations of health professionals by the end of March 2004 (131).</p>
Australia	Canada
<p>The NPHP was established to facilitate collaboration between public health efforts, and in order for the commonwealth, states and territory governments to come together to develop a joint Australian intergovernmental agenda for public health.</p>	<p>Viewed as a necessary step in taking a population approach to public health.</p> <p>The population health approach recognizes that collaboration across parties will enable resources to be pooled, common priorities addressed and reduce duplication in interventions to obtain the best return on investment. However, specific strategies to support these ideas have not been explicated (20).</p>

Monitoring and evaluating public health policies

France

A new evaluative framework was proposed in the 2003 Health Bill, however, it is unclear what progress has been made.

Targets should be reviewed on a five-year basis by the national government.

It is proposed to measure achievement of targets using specific national and regional indicators, however, the large quantity of targets will likely impede this process.

Germany

There is no official federal or state monitoring of public health activities. Only research exercises, separate from government, contribute to this process.

The Federal Health Surveys, organized by the Robert Koch Institute, carry out some monitoring of population health and take-up of prevention services. Recent efforts have been made to increase cooperation between federal and state health monitoring, such as introducing comparable indicators. The federal government hopes more effectively to define and evaluate health targets through improved health monitoring.

Australia	Canada
<p>There is considerable and growing use of economic evaluation in making decisions and strategies.</p> <p>There has also been progress in identifying returns on investment in public health, in order to evaluate current public health programmes and make decisions about future policies.</p> <p>A schema for using evidence in public health has been devised, to provide a framework for assessing evidence concerning public health interventions.</p> <p>The Public Health Evidence Based Advisory Mechanism makes use of economic evaluation in public health decision-making; however, in practice this effort is limited.</p>	<p>There is a perceived need for an improved evidence base for policy-making.</p> <p>There is monitoring of separate strategies, e.g. tobacco control strategy progress reports.</p> <p>Health Canada maintains a web site, <i>Tools of change – proven methods for promoting health</i>, outlining case studies of community programmes to illustrate approaches that have worked and to guide future programme implementation.</p> <p>Annual health reports provide information on the health of the population and factors associated with certain health problems, based on national surveys, in order to develop the research base for interventions (137).</p> <p>There is growing use of process evaluation in public health, in addition to evaluating outcomes; however, this effort is limited in scope.</p>

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Smoking, hazardous drinking, fast driving, unhealthy eating, unsafe sex. These are just some of the things that pose a threat to the health of populations everywhere. Although they are to some extent under the control of individuals, the decisions that people make are powerfully shaped by societal, commercial and other forces. If these threats to health are to be tackled effectively, then there must be an effective societal response, involving governments at all levels, civil society and international agencies. The diversity of policies that have been adopted by different countries provides enormous scope for mutual learning. However, too many of these policies are poorly documented and many are little known outside their countries of origin. This book begins to tackle this situation by bringing together accounts of public health policies from eight industrialized countries. Originally assembled to inform the UK Treasury's Wanless Report, it provides much information that will be of value to health policy-makers elsewhere.

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