



# **THE CATALONIA DECLARATION**

*Investing in heart health*

DECLARATION OF THE ADVISORY BOARD OF THE SECOND INTERNATIONAL HEART HEALTH CONFERENCE, BARCELONA, CATALONIA (SPAIN) - JUNE 1, 1995



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**Declaration of the Advisory Board of the  
Second International Heart Health Conference  
Barcelona, Catalonia (Spain). June 1, 1995**



*The honorary patron of the Conference*

- The Honorable Jordi Pujol i Soley  
President of the Autonomous Government of Catalonia

*The Second International Heart Health Conference was sponsored by:*

- Department of Health and Social Security. Autonomous Government of Catalonia.

*The Conference was co-sponsored by:*

- United Kingdom's Health Education Authority
- United States' Centers for Disease Control and Prevention
- Health Canada
- World Health Organization

*Other co-sponsors of the Conference were:*

- British Columbia Ministry of Health
- College of Nurses of Barcelona
- College of Physicians of Barcelona
- European Heart Network
- Francophone Network
- Heart & Stroke Foundation of B.C. & Yukon
- International Atherosclerosis Society
- International Olympic Committee
- International Union for Health Promotion and Education
- Ministry of Health of Spain
- National Institute of Public Health (Czech Republic)
- Netherlands Heart Foundation
- Pan American Health Organization
- Spanish League Against Arterial Hypertension
- UNESCO
- World Health Organization, Regional Office for Europe
- World Hypertension League

# *Minister's Message*

It was a pleasure and a great honour for the Department of Health and Social Security of the Autonomous Government of Catalonia to organize the 2nd International Heart Health Conference in Barcelona, devoted to a topic of such fundamental importance as "Investing in Heart Health".

Health system reform and financing of the health services are global challenges. The Declaration rightly stresses that resources spent on promotion and prevention -in this case of cardiovascular diseases- must be considered not as non-productive spending but rather as truly productive investment. Governments throughout the world need to use the experience of others and share available information to solve the problems facing them. The Catalonia Declaration will, I am sure, serve these ends, providing the basic - conceptual and pragmatic- tools to make their health policies fit the issues that force us today.

The Declaration would not have been possible without the dedication of the Advisory Board, led by Prof. Farquhar, and all those who contributed their suggestions to enriching the final text. Special gratitude is due to the World Health Organization, the United States' Centers for Disease Control and Prevention, the United Kingdom's Health Education Authority, and Health Canada, who contributed to the success of the Conference and will be taking the lead in the worldwide dissemination of the document.

I trust that the chosen in Victoria (British Columbia, Canada) in 1992 and followed to Barcelona (Catalonia, Spain) will go forward in the future, thus contributing to solving one of the major challenges of the modern world, enabling us to face up to the task of promoting the heart health of the nations of the whole world with hope and optimism.



X.Trias i Vidal de Llobatera  
Minister of Health and  
Social Security  
The Autonomus  
Government of Catalonia



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## List of case studies

**These success stories represent an important part of *The Catalonia Declaration*. You will find references to them throughout the text.**

- California Tobacco Tax Initiative
- Canadian Heart Health Initiative
- Catalonia Health Minister's Accountability for the Health Plan
- Certification for Heart Healthy Food
- Countrywide Integrated Noncommunicable Disease Intervention Programme
- Czech National Programme of Health Promotion
- Czech Republic: Healthier School Meals
- Eastern Europe Invaded by Tobacco Companies
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- European Economic Community's Common Agricultural Policy
- Finland's Agricultural Policy
- Food Service Programmes in Canada
- German Cardiovascular Prevention Study in Bremen City
- Great Filipino Workout
- Guatemala: Antitobacco Education Programme
- Healthy People 2000
- Heart Foundations
- Hypertension Control in Houston
- Integration of Prevention in the Primary Health Care
- InterHealth
- International Chinese Heart Health Network
- Japanese Success in Reducing Stroke Mortality

- Latin American Committee to Coordinate the Control of Tobacco Use
- National Intervention in Portugal
- Nonpharmacological Management of Hypertension in Israel
- North Karelia, Finland: Community Intervention
- Pawtucket, Rhode Island: Community Intervention
- Physical Activity Counseling and Evaluation Project
- Political Battle of Passing the California Tobacco Tax
- Portugal's Path to Implementing Cardiovascular Disease Prevention
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- Salt Reduction in Portugal
- Stanford Community Projects
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- State-Based Plan for Action
- Tianjin, China: Cardiovascular Disease Intervention
- Tunisia's National Programme to Control Cardiovascular Disease
- United Kingdom: Health of the Nation
- Victorian Health Promotion Foundation
- Western Pacific Antitobacco Policies
- Worksite Cardiovascular Disease Control

# Foreword

As an outgrowth of the Second International Heart Health Conference, the Advisory Board issues forth the *Catalonia Declaration: Investing in Heart Health*. The Declaration's purpose is both to inspire and to inform by providing new and compelling evidence: investing in policies and programmes for cardiovascular disease prevention succeeds in saving both lives and money and that failing to make such investments does the opposite.

The *Catalonia Declaration* is a sequel to the *Victoria Declaration on Heart Health*, issued on May 28, 1992 on the occasion of the First International Heart Health Conference held in Victoria, British Columbia, Canada. The *Declaration* is authored by the individual Advisory Board members, not by their respective organizations.

Following the Victoria Conference, the Victoria Declaration Implementation Group was constituted. This thirty-three member international body has accepted responsibility for dissemination of the policies contained in the two Declarations. The Third International Heart Health Conference, scheduled to take place in Singapore in 1998, will provide an opportunity to assess progress and to carry the dissemination process forward.

On behalf of the Advisory Board and the Implementation Group, we call upon international agencies, all levels of government professional associations in health and education, media organizations, the private sector and community health coalitions to heed the Declaration and its twelve recommendations.

We also call upon you to promote these recommendations actively in order to influence your colleagues, policy makers and governments and to use the *Declaration's* forty-one case studies as vehicles for dissemination of intervention methods that can benefit all countries at all stages of development.

The need is great, the methods are known; let us all work together in common cause for health and economic and social well being.

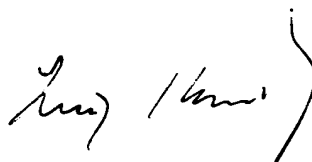
The passing of Dr. Francisco Grande, member of the Advisory Board, after the Barcelona Conference, is a cause for sorrow. Grande's landmark contribution to the prevention of hyperlipidemia and atherosclerosis laid the foundations for dietary public health policy. The memory of his dedication and scholarship should inspire us in our endeavor.



John W. Farquhar, MD  
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# Acknowledgements

**T**he Catalonia Declaration would not have been possible but for the leadership shown by the ministry of Health and Social Services of Catalonia which supported the organization of the Conference. The Advisory Committee expresses its gratitude to Minister Xavier Trias and to Professor Lluís Salleras, Chair of the Organizing Committee.

While the basic content of the Catalonia Declaration was agreed upon by the Advisory Board at the time of the Barcelona Conference, the nature of the document required additional research, expert reviews and documentation of the information provided in the case studies. Follow-up and technical review was enhanced by support from the Centers for Disease Control and Prevention (CDC).

The Advisory Board acknowledges the thorough examination of the final draft of the Declaration by Dr. Thomas Pearson, Professors Kenneth Warner and Allen Garber were invaluable guides to the health economics issues, Professor Carlos Vallbona contributed to successive drafts.

Thanks are extended to Tara Grabowsky for the scholarship which she applied to the preparation of the case studies. There is a debt of gratitude to Rick Hull, of the CDC, and to Prudence Breitrose, both of whom devoted many hours to the editing process.

Drs. Hèlios Pardell and Ricard Tresserras and the staff of the Conference Secretariat in Barcelona provided excellent technical support during many intense days before and following the Conference.

Lastly, the Advisory Board thanks the Director and the staff of the Stanford Center for Research in Disease Prevention for their dedication which made possible the completion of the work following the Barcelona Conference.



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# *D*eclaration

*Recognizing that investing in heart health prevents cardiovascular disease, reduces suffering and disability for untold millions, and avoids waste of resources and increases productivity, thereby contributing to economic growth and well-being, the Advisory Board of the Second International Heart Health Conference calls upon*

*health, media, education and social science professionals and their associations*

*the scientific community*

*government agencies concerned with health, education, trade, commerce, and agriculture*

*the private sector*

*international organisations and agencies concerned with health and economic development*

*community health coalitions*

*voluntary health organisations*

*employers and their organisations*

*to join forces in eliminating this modern epidemic by mobilizing the public and society as a whole to invest in heart health and to use resources more efficiently.*

**Advisory Board**

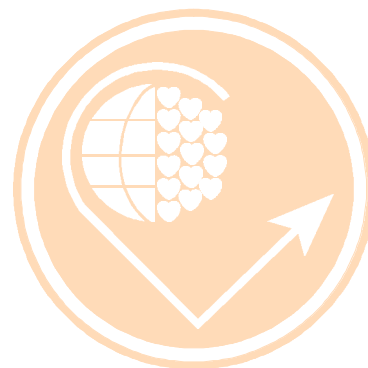
**Second International Heart Health Conference**

**Barcelona, Catalonia (Spain)**

**June 1, 1995**



# Preface



Each year, about 10 million of the world's people die of cardiovascular disease. Even though methods of prevention are now well known, it is predicted that by the year 2005 the number of cardiovascular deaths will have risen to 20 million, including 13 million from developing countries and Eastern Europe.

The Second International Heart Health Conference was convened in Barcelona on May 28th, 1995, to address this increasing burden of cardiovascular disease and the unnecessary human suffering it causes, and above all to address the global inequalities that exist in the rates, trends, and causes of cardiovascular disease and in the resources available for control efforts.

A final product of the conference is this document *The Catalonia Declaration* whose purpose is to show how investing in heart health will decrease heart attacks, strokes, and resulting disability and loss of life. Through improvements in health and the decrease in medical costs resulting from a reduction in cardiovascular disease, economic benefits will follow.

The First International Heart Health Conference, which took place in Victoria, British Columbia, in 1992, used the theme *Bridging the Gap: Science and Policy in Action* to approach the question of global inequality and the need for investment. The aim of that conference was to explore methods of applying our existing knowledge about cardiovascular disease to the task of prevention on a global scale. To that end, the Advisory Board published *The Victoria Declaration on Heart Health* (1992), a document that was published in 13 languages and distributed worldwide. This declaration called for governments, the private sector, and international bodies to adopt specific policy principles, to implement policies based on those principles, and to forge partnerships that would facilitate the application of those policies worldwide. *The Victoria Declaration's* Implementation Committee

was formed then, and it continues as the body responsible for carrying out the policies of this and future conference reports and declarations.

*The Victoria Declaration* highlighted as its primary challenge not only the maintenance of the downward trend of cardiovascular disease in countries where the burden is declining but also the provision of policy guidance and assistance when requested to those countries where the incidence of cardiovascular disease is on the increase. The document outlined the following five broad areas for action:

- Educating the public and building consumer demand for such education.
- Applying the science base in a timely manner.
- Creating the political will to promote public health.
- Building partnerships to marshal the required resources.
- Promoting a new way of working by coordinating the efforts of groups within countries and around the world.

In focusing on the issue of global health, *The Victoria Declaration* complemented calls from other bodies for a worldwide approach to preventing disease. Similarly, in the World Development Report *Investing in Health* (1993), the World Bank recommended a three-pronged approach to the problem: fostering an environment that enables people to improve their own health, redirecting health spending, and promoting diversity and competition when financing health. The World Bank's involvement is significant because it emphasizes the importance of economics in all health issues, including cardiovascular disease prevention.

In *The Catalonia Declaration*, as we take up the theme of investing in heart health and its attendant humanitarian benefits, we recognize that financial constraints represent the greatest challenge the world faces today in controlling cardiovascular disease. Without attention to economics, we are unlikely to close the time gap between scientific discoveries in cardiovascular disease research and the broad application of that knowledge through worldwide policy change.

This declaration will build on the strategy recommendations of *The Victoria Declaration* and will describe many worldwide examples of how investing in heart health not only reduces the occurrence of cardiovascular disease but can provide economic benefits as well. *The Catalonia Declaration's* goal is to demonstrate these successes to leaders of government, industry, community groups, the media, the educational establishment, and the health care system worldwide and thus suggest effective steps to prevent cardiovascular disease.

Of course, the effective steps will vary. Differences in economic conditions, health status, education, and culture, both between and within countries, make it unwise to propose any single policy. Cardiovascular disease shows a different profile from one region to another; thus, measures to prevent it must also be different, defined

by the risk factors that most affect each population and the customs that may help or hinder the attempt to change those risk factors.

The final design of policy, therefore, must be determined according to regional needs and customs. For that reason, in this declaration we not only discuss the process of developing and applying policy but also include specific examples from many different regions of the world to serve as guides or inspirations for the possible forms that a policy might take.

After discussing the interaction between health and economic issues, this document presents the following:

- A discussion of the resources and assets available and how best to utilize them.
- A description of the barriers we face and the techniques needed to overcome them.
- Examples of successes, along with a step-by-step action plan that will assist countries in identifying problems and in planning, carrying out, and evaluating programmes.

The document's major points are highlighted by examples of research, policy, and programmes that have already been implemented around the world. It is hoped that these case histories will not only illustrate what can be done but also inspire others to attempt similar programmes and policies to prevent and control cardiovascular disease, once and for all.





## Chapter 1

# *The world's heart health: a challenge for investment*



**I**n many countries, the rate of cardiovascular disease mortality is in steep decline, and the world now has the means to prevent heart attack and stroke from reaching epidemic proportions in regions that have not yet been badly affected. Countries in the developing world and those that are newly moving into a market economy can learn from the mistakes made decades ago by so many developed countries.

The purpose of *The Catalonia Declaration* is to demonstrate that a worldwide effort can decrease cardiovascular disease where it exists now and prevent it from gripping nations that have not yet contended with it. We also examine global inequalities in heart health and discuss methods of reducing those differences. We are dedicated to the concept of investing in heart health; a financial preemptive strike can curb the cardiovascular disease epidemic and diminish unnecessary suffering worldwide.

## *Preventing the increase of the cardiovascular disease burden*

The cardiovascular disease burden that affected so many of the developed countries earlier this century is now diminishing in many places. There are alarming signs however, that incidence is rising to new heights in those very countries whose economies may be least able to withstand it. For example, after socioeconomic development and urbanization occurred, an increasing rate of heart disease mortality has been documented in several countries of the World Health Organization's Eastern Mediterranean region, such as Cyprus, Egypt, Iran, Iraq, and Jordan (Alwan, 1993). Similarly, disease rates in Central and Eastern Europe are rising at an extraordinarily rapid rate. It would be tragic if such trends were to continue, considering that they are preventable.

The facts surrounding cardiovascular disease today are alarming:

- Of the 10 million people who now die from heart attack and stroke each year, 40% are in developing countries and Eastern Europe, even though current disease rates are lower in much of the developing world than in developed countries.
- It is predicted that by the year 2005, the worldwide number of deaths from heart disease will double, and the proportion from the developing countries and Eastern Europe will rise to 65% as disease rates in developing countries continue to increase (Murray and Lopez, 1994).

Besides bringing the world this very high death rate, heart attack and stroke are responsible for a significant deterioration in the quality of life of people as they age. The societal cost of this death and disability is massive.

The reasons behind the increasing rates of cardiovascular disease in certain parts of the world are not hard to find. Although the causes of cardiovascular disease as it affects different countries are strongly influenced by different social and cultural norms, the major risk factors in general are diets high in saturated fat and sodium, cigarette smoking, sedentary lifestyles, and alcohol abuse. In some countries, the widespread prevalence of untreated hypertension, high blood cholesterol, and diabetes – all associated with rising affluence – is aggravated by a lack of access to primary care. Contributing factors often include a general deterioration in living conditions and the pervasive psychosocial stress of accelerated social and economic change. Of these risk factors, a major cause of increased cardiovascular disease in the developing world will undoubtedly be the continued growth of tobacco use. **It was estimated in 1992 that 10% of the world's peoples currently alive – or some 450 million persons – will suffer and die prematurely because of the effects of cigarette smoking and tobacco use (Peto et al, 1992).** Control of smoking is thus a favourable place to begin preventing cardiovascular disease.

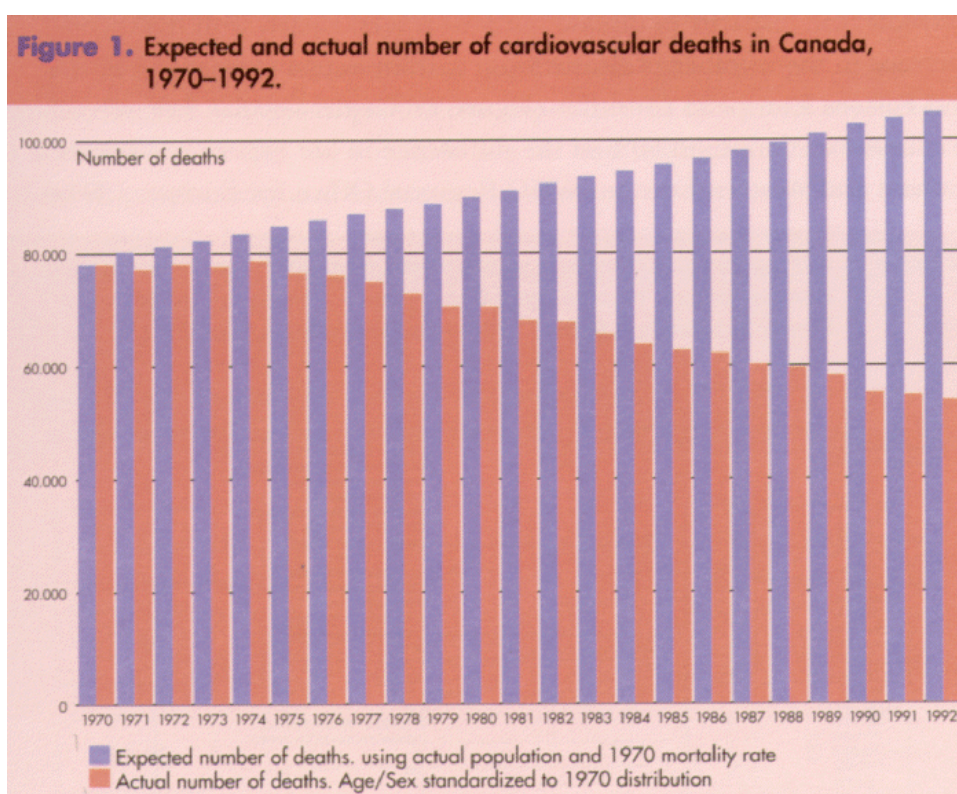
An approaching inequality of death related to tobacco use between the newly developed and the developing world is the most egregious of the predictable inequalities we confront in this report, because it is at least partly deliberate. As tobacco sales shrink in more developed countries, thanks to those countries' success in limiting smoking, the tobacco companies have launched aggressive worldwide campaigns to target third-world markets. For example, as is discussed in Chapter 6, the tobacco industry has predicted that tobacco sales in the Asian-Pacific region will increase by 33% during the 1990s.

The developed countries have a responsibility for technology transfer that will decrease the health burdens of developing countries. The transfer of the tobacco habit, however, consists of an assault on the future health of billions of the world's people, undermining the good that more benign technology transfers and resources can effect.

Although the spread of tobacco use, increases in cholesterol and



blood pressure levels, and other determinants of heart health are contributing to an increasing burden of cardiovascular disease in many areas of the world, there are areas where cardiovascular disease mortality has decreased in recent years. These regions provide an opportunity to consider just how many lives can be saved when a population's risk is reduced. Consider the case of Canada, one of the countries that has experienced a major decline. If the 1970 age-specific death rates from cardiovascular disease had remained the same for the next two decades, approximately one-half million (500,000) more deaths from cardiovascular disease would have occurred from 1970 to 1992 than actually did (see Figure 1). When one considers that for every death from cardiovascular disease there are at least three nonfatal cases, Canada, a country of 30 million, has avoided approximately 2 million cardiovascular events between 1970 and 1992.



The decline in cardiovascular disease mortality that has occurred in countries like Canada has been due primarily to decreased disease rather than better management of disease. The reduction in cardiovascular disease mortality appears to have been largely due to a populationwide decline in the level of risk factors. There is no room for complacency, however; there is no guarantee that this decline will continue if appropriate measures are not taken to sustain it.

Canada developed a vigorous programme to reduce multiple risk factors, but only after its epidemic of cardiovascular disease had reached a strikingly high level. A major purpose of *The Catalonia Declaration* is to emphasize that developing countries and those new to the market economy should take steps to reduce their own

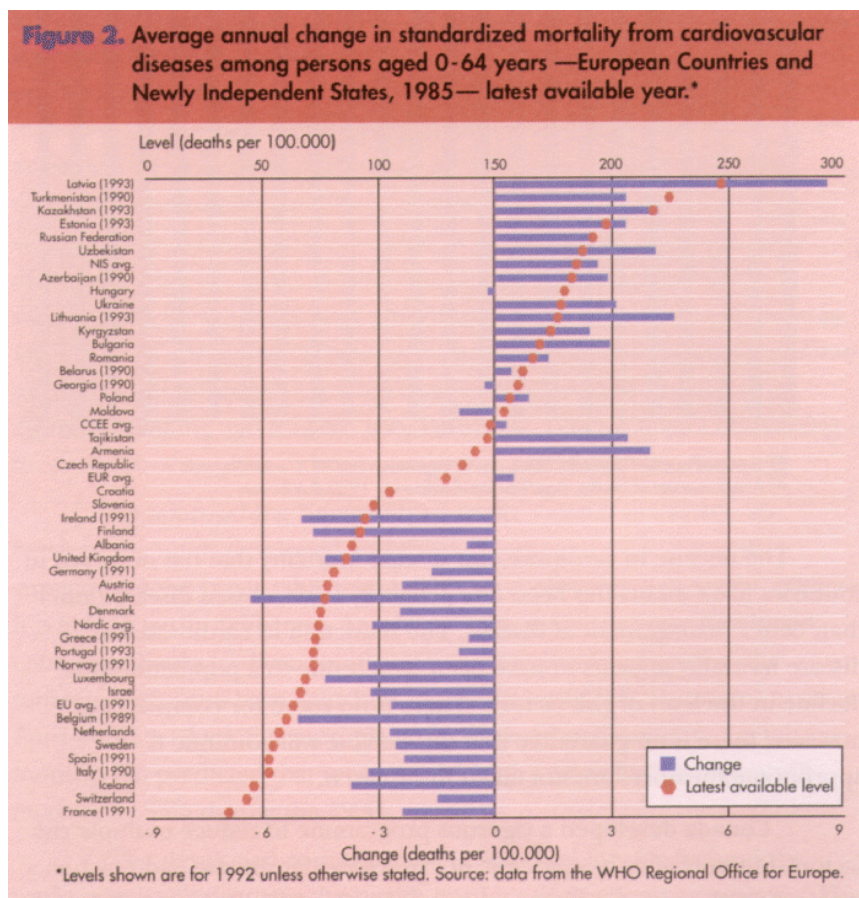
population's levels of risk factors before cardiovascular disease reaches such proportions.

## Inequalities within and among countries

The second principal theme of this chapter relates to existing inequalities in death and disability within and among countries as well as to inequalities of resources available to prevent or reduce cardiovascular disease.

At least three levels of inequality can be identified. First, there is disparity *within* countries. All countries have groups who are burdened by a higher level of disease, including cardiovascular disease. Differences in socioeconomic status and restricted access to health care education are among the factors that contribute to varying types and severity of disease (Kaplan and Keil, 1993). Addressing this form of inequality represents the major health challenge for the developed countries of the Western world.

Second, disparities exist *among* countries. Within Europe, for example, the disparity in disease burdens is seen clearly with the recent increase in the number of deaths from cardiovascular disease in Central and Eastern European countries (see Figure 2). Cardiovascular disease accounts for more than 50% of the difference in life expectancy between Eastern and Western Europe (WHO Regional Office for Europe, 1994).



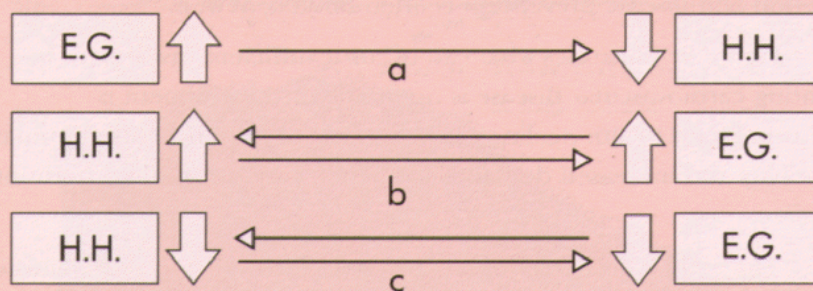
This disparity among countries may be partly based on their levels of development. Developed countries tend to be more affected by chronic diseases especially cardiovascular disease whereas developing countries have a higher incidence of infectious diseases, including those that cause rheumatic heart disease (Farquhar, 1982). The worst situation, however, is the transition between these two phases. Indonesia, for example, is in a stage of development in which it is experiencing two major problems at once: the country has experienced a recent dramatic increase in coronary heart disease and stroke while it continues to be saddled with problems of communicable diseases.

Finally, and this is perhaps the most critical of the three inequalities, countries have unequal capacities and policies with which to prevent or combat cardiovascular disease, particularly in the resources that are available and in the knowledge needed to avoid the many mistakes made by developed countries.

## Health, economics, and policy

It is generally accepted that good health makes people more productive and reduces unproductive expenditures of societal resources. It is also accepted that the converse is true: bad health has an adverse effect on productivity and increases expenditure of resources. It is less widely accepted, however, that expenditures in health are necessarily justified or that good health outcomes lead to substantial economic benefits.

**Figure 3. Heart health (HH) and economic growth (EG).**



(a) Initial phases of economic growth lead to decreases in heart health (developing countries).

(b) Investment in heart health contributes to economic growth (industrialized market economies).

(c) Disinvestment in heart health increases health care expenditures, curtailing economic growth (industrialized countries moving toward a market economy).



Figure 3a illustrates the common situation that develops some years after populations experience economic growth. A general improvement in living conditions, accompanied by at least some access to health services, may result in dramatic reductions of communicable disease. But as the population adopts smoking and sedentary living and increases its intake of saturated fat, heart health deteriorates. As a consequence, the initial returns produced by economic growth are eroded by the cost of increasing rates of cardiovascular disease and other chronic diseases, such as diabetes, chronic lung disease, and lung cancer.

Decades ago, when there was little scientific knowledge on how to prevent cardiovascular disease, the epidemic increase in response to economic development seemed inevitable. Now, however, methods of prevention are well known and can be implemented without advanced technology. Continuing a passive acceptance of past practice will lead to needless tragedy in human and economic terms.

Figure 3b shows what can happen when a developed country has reached high levels of cardiovascular disease, as occurred in the 1960s in many countries. By developing appropriate health policies and dedicating resources, countries such as the United States, Canada, and Australia have achieved significant reductions in cardiovascular disease mortality (Rose, 1989). A decline in cardiovascular disease and other chronic diseases in turn frees up resources that can contribute to economic growth.

Unfortunately, economic forces can also act in the opposite direction. Countries in Central and Eastern Europe and newly independent states in Central Asia provide examples. Rapid social changes, including increases in saturated fat intake and tobacco use, coupled with deteriorating economic situations and uncertain access to health care, contribute to a deteriorating health situation. In many of those countries, health policies are not established, and investment in health promotion and disease prevention is often limited, at best.

Figure 3c illustrates what can occur if sufficient investment in preventing cardiovascular disease is not made or if investment is withdrawn. Heart health declines, and because of both decreased human productivity and increased demands for health care, economic conditions also suffer.

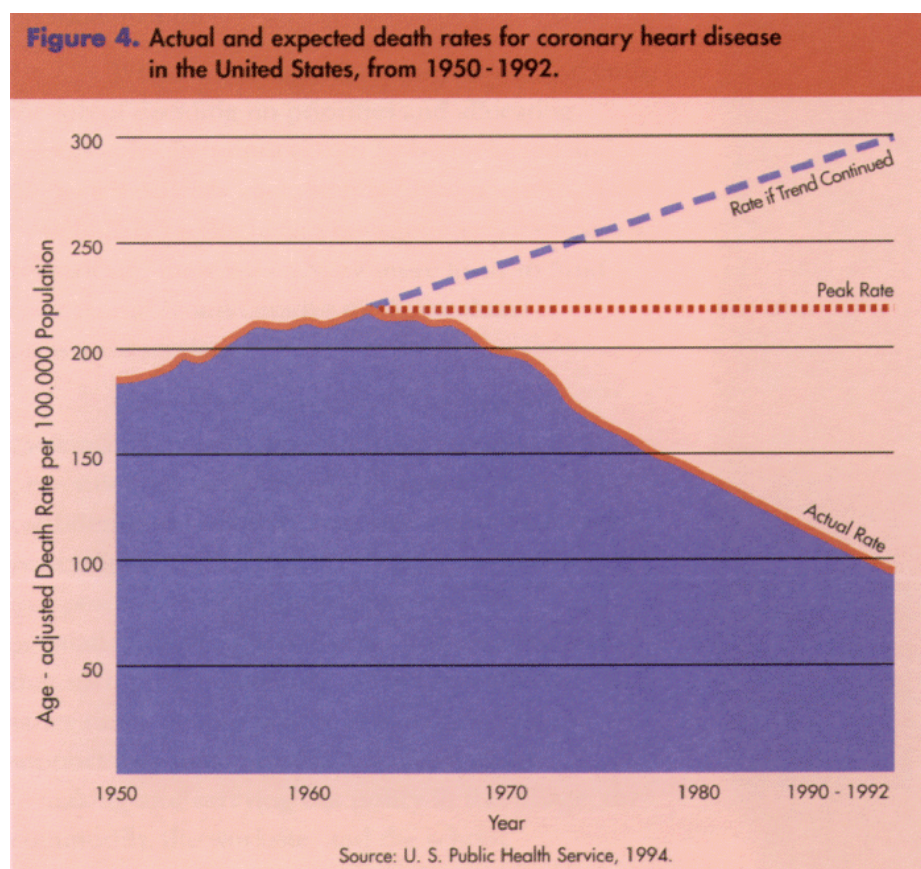
The 1993 World Development Report *Investing in Health* (Jamison, 1993) clearly outlines many of the principles involved in these relationships. This report includes other valuable findings that support our thesis (presented in Figure 3) regarding the prevention of chronic disease in developing countries. For example, the report states that an emphasis on primary care, coupled with measures to improve both education level and household income, not only avoids diversion of funds into secondary and tertiary care but also accelerates economic development and encourages social policies that bring an increase in household income. *Investing in Health* further stresses the importance of cost-effectiveness in selecting preventive as well as clinical interventions and the importance of research for developing interventions appropriate to different levels of income.

The concept is simple: moneys saved from unnecessary expenditures on cardiovascular disease could be put to better use for overall development in all countries. The reduction in unnecessary health care costs will help decrease existing inequalities among and within countries and will help prevent future inequalities. These concepts were addressed in *The Victoria Declaration*:

*Cardiovascular disease is largely preventable. We have the scientific knowledge to create a world in which most heart disease and stroke could be eliminated . . . . The primary challenge now is to maintain the downward trend while assisting and encouraging countries where rates of heart disease are increasing. (p. 3)*

Even small reductions in the major risk factors for cardiovascular disease can have a substantial impact on mortality and morbidity. For example, a 1% reduction in blood cholesterol level or a 1 mmHg reduction in diastolic blood pressure in a population can each result in a 2-3% decrease in the risk of heart disease. People who quit smoking can reduce their risk of heart attack by as much as 50%.

In the United States, such measures have helped save numerous lives. Multiple public health approaches, including community monitoring, widespread education, and mobilization of practitioners, have resulted in significant reductions in most risk factors, and these reductions have been major contributors to the dramatic decline of deaths from coronary heart disease during the past 30 years (Figure 4).



## Summary

Thus far we have discussed the idea that countries throughout the world are in different stages of the cardiovascular disease epidemic, which often arises in the early stages of economic growth and will only fall when countries take preventive action. To avoid an unacceptable toll of preventable death, all countries must work together to control or prevent the risk of cardiovascular disease. This cooperative effort will help decrease the inequalities that exist in the burden of heart disease and in the resources available to combat this modern epidemic. Cardiovascular disease prevention thus has economic implications, and economic trends have a role in determining the heart health of a nation.

In the remaining chapters, we will consider the assets countries have at their disposal as well as the barriers that must be overcome in fighting cardiovascular disease. We will also present policies and programmes that have been successful around the world in preventing and controlling cardiovascular disease.

## Chapter 2

# Assets



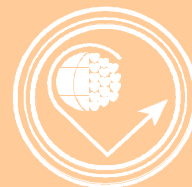
**I**n this chapter, we examine what the concept of investing in health means in practical terms. What assets are available today through policy and personnel, and what methods or means do we have for intervening (investing) in heart health? How does investment specifically apply to policy, where health promotion and disease prevention are concerned? How can countries best allocate scarce societal resources to promote health?

When it comes to matching means and ends, the job of deciding on priorities and allocating resources is often undertaken by both elected and unelected officials, including medical scientists, not by people from the health constituencies themselves. Historically, these officials are more likely to fund basic research and curative medicine than preventive services.

One of the purposes of *The Catalonia Declaration* is to give those who are engaged in the prevention of cardiovascular disease at all levels the confidence to seek resources and create their own policy. Sometimes, elected officials or others who are in a position to fund programmes may be persuaded to allocate resources if there is evidence that such programmes are indeed cost-effective. In other cases, people may be able to generate the support they need without help from above – making and carrying out policy in the village, the community, the worksite, and the school.

### Recommendation No. 1

*All those concerned with furthering the heart health agenda should recognize the resourcefulness and the power to effect change that is inherent in well-informed, organised, and mobilized communities and should form alliances with them.*



First, those in the field of prevention should take inventory of their assets – learn their own strengths and thus determine how best to set priorities. This chapter will describe potential assets in the following areas:

- The existing, extensive knowledge base on cardiovascular disease prevention.
- The infrastructure through which this knowledge base may be applied.
- The partnerships and coalitions that may already exist or that can be established.
- The applicable public policies.

## *T*he asset of a knowledge base

Probably the most undervalued asset in the field of heart health is the considerable body of knowledge that has accumulated over decades of research and experience. It is *known* how to prevent the development of risk factors for cardiovascular disease (e.g., high blood pressure and abnormal blood lipids). It is *known* how to prevent not only the first episodes of heart attacks or strokes but also a sizable proportion of second episodes in those who survive their first. It is *known* how to bring the benefits of that knowledge to entire populations. As *The Victoria Declaration* stated, were this knowledge applied worldwide,

*... preventive practices would be incorporated early in life as a matter of course; everyone would have access to positive, healthy living, smoke-free air, good nutrition, regular physical activity, and supportive living and working environments. (p. 3)*

*The Victoria Declaration* itself gathered knowledge that had been accumulated over decades through studies involving millions of subjects in highly varied situations. Even studies that were not successful had lessons to teach us and thereby enriched the field of health promotion and disease prevention.

## *I*nfrastructure as an asset

Some groups might be deterred from the task of mounting a programme to prevent heart disease because they think the infrastructure in their country, region, or community is deficient. In many parts of the world, the infrastructure is indeed inadequate to support organised efforts in prevention through primary care or to mount sophisticated campaigns modelled after classic community intervention research projects. Compared with some of the more highly developed countries, those countries in an early phase of development might feel concerned about their mass media system's capacity, their population's literacy levels, their health care or educational system's sophistication, or those systems' abilities to



mobilize the resources of organisations in other sectors.

In many cases, however, unrecognized components of an infrastructure are only waiting to be discovered and activated; most societies have services that can serve as building blocks of infrastructure. A country with a functioning primary care system and community health centres has an infrastructure; public health units or hospital-based community services can serve as a foundation from which to organise communities around specific health issues, carry out health education, or provide counselling and group services in support of primary care. Prior success in family planning or immunization programmes may provide confidence that cardiovascular disease prevention campaigns can also succeed. Schools, voluntary health organisations, religious congregations, professional associations, and worksites are all part of a community's infrastructure and can all be looked upon as potential resources, whether they are mobilized themselves or serve as catalysts to mobilize others.

Because of their potential usefulness in promoting community health, we must single out the increasing availability of public and private installations for the practice of sports. Often these facilities are staffed by exercise monitors and teachers who are knowledgeable about the health benefits of physical activity; they in turn can educate their community. By recommending the use of these facilities to people of all ages who wish to participate in noncompetitive exercise in their leisure time, a community can influence the adoption of a healthy form of activity that is often accompanied by other equally important habits. Those who exercise regularly tend not to smoke, are more likely to eat a balanced diet, and are more able to cope with stress.

The most elaborate buildings and institutions in the world will not help improve heart health in a community, however, if the people who staff them lack the training or the inclination to contribute. As *The Victoria Declaration* pointed out, it is often necessary to develop a new way of working that involves training people to fill the needed roles. The infrastructure will be enriched as schools in the health professions train people to deliver cost-effective preventive care and education. To serve this goal, curricula will have to include newer methods of health promotion, such as social marketing and community organising (Farquhar et al, 1991).

Where infrastructure is concerned, people are the greatest assets. A hut in a village may be infrastructure enough if dedicated, trained people can turn it into a centre for education or health care. Training need not be formal. Relatively untrained individuals in communities may even be more effective (as natural opinion leaders) than those who have undergone lengthy training. For example, a demonstration project in one community may inspire opinion leaders from a nearby community to launch a similar programme. As the Pawtucket intervention shows (see inset) may only take a few dedicated leaders to gather citizen volunteers, who in turn can implement the programme and extend its reach to others.

## *Pawtucket, Rhode Island: Community Intervention*

The Pawtucket Heart Health Program (PHHP) in the State of Rhode Island, USA, was initiated in 1980 to change behaviour patterns in and attempt to control cardiovascular disease. The programme originated in the community hospital with a decision by the Board of Directors to work actively to reduce the city's high rates of cardiovascular disease. The first step was to hire a hospital director with a background in preventive health care. This person helped to design the PHHP preventive programmes, which were targeted at the entire population. By avoiding costly one-to-one professional-to-client consultations and by attempting instead to build education and support into the established community structure, the PHHP was designed to limit the cost of the risk-reduction programme. The PHHP used existing community resources to implement the plan, including social organisations, local government, libraries, public and private schools, colleges and universities, religious organisations, mass media, local

businesses, supermarkets and smaller grocery stores, restaurants, and medical establishments. In addition, the Department of Parks and Recreation built cardiovascular health trails and remodeled a quarter-mile track.

The most important resource in the Pawtucket community intervention was its volunteers. During a seven-year period, more than 3,600 people throughout the community and surrounding areas volunteered their services, contributing a total of at least 200,000 hours to the project. Forty percent (42,000) of the citizens and over 500 organisations in the study community participated in behaviour change programmes.

The PHHP studies show that virtually any community group can become involved in primary prevention and that community efforts, once entrenched, can be used as a model for expansion to other areas.

*T. Lasater et al, 1984*

## *The asset of partnerships*

With the help of partnerships, no community is lacking the means to develop effective programmes in heart health. Irrespective of the system of local and national government, in all countries, in all defined communities, and in all rural areas one finds organisations such as schools, worksites, religious institutions, social clubs, sports clubs, citizen centres, and a variety of hospitals, clinics, voluntary health agencies, and public health units. These organisations and others can all play a part in developing partnerships for the benefit of heart health.

Even if the resources of an individual organisation or administrative unit are small, partnerships with others, whether through informal networks or formal coalitions, can extend resources and bring far more power to the task than could be achieved by an organisation working alone. The field of heart health has pioneered the use of partnerships as a means of implementing an integrated approach to the prevention of noncommunicable disease. In Canada, such partnerships created a national network for heart health (see inset).

## Canadian Heart Health Initiative

In 1987 a Federal Working Group traveled across Canada with the mandate to develop a national strategy for preventing cardiovascular disease. The group recommended that cardiovascular disease should be seen as a public health issue and founded the Canadian Heart Health Initiative (CHHI). The group suggested that provincial public health departments prioritize prevention by conducting baseline surveys of risk factors and implementing community-level demonstration programmes.

The Federal Department of Health provided technical support and matching research funds for the surveys and demonstrations. A Nova Scotia newspaper published the baseline survey results that had found that two in three adults had one or more risk factors for heart disease. This media coverage raised public interest in the issue and validated the view that the public health approach was necessary.

Health and Welfare Canada, 1992

In the 15 years since the CHHI began, a national network of public health efforts has been created. Principal investigators based in provincial departments of health and university-based evaluation teams, are now responsible for developing a national risk factor database, for establishing provincial coalitions, and for implementing and evaluating the community demonstration projects. The CHHI links the Federal Department of Health with all 10 provincial departments of health and with individual demonstration communities. As a result, approximately 300 organisations in the public, voluntary, professional, and private sectors are working together. The management of the CHHI relies on coalitions, networks, and partnerships to implement the heart health policy (which is patterned after the principles of *The Victoria Declaration*). The provincial demonstration projects have begun disseminating the intervention programmes across the country.

## The assets of public policies and health policies

According to the World Health Organization (WHO), a policy is simply a consensus on action that should be taken on a given issue (Terminology for the European Health Policy Conference, 1994). True, any policy may take time and effort to develop; but a good one, whether it is simple or complex, will prove its worth.

Many policy documents that are available for general use have been developed over the last 20 years under the leadership of WHO as well as by scientific associations, voluntary agencies, and government health departments around the world. These documents can be used to provide national, regional, and local groups with a clear sense of direction, which in turn may help them gain the commitment of partners or of long-term political and financial support. For example, the report of a WHO Expert Committee, *Prevention of Coronary Heart Disease* (WHO, 1986); the Canadian public health working document, *A New Perspective on the Health of Canadians* (Lalonde, 1974); and the outline of U.S. health objectives in *Healthy People 2000* (U.S. Public Health Service, 1995) have proved invaluable in public health policy. *The Victoria Declaration* itself represents an important policy framework that is freely available for worldwide adaptation and

application. A recently developed plan for reducing cardiovascular disease in all 50 U.S. states (see inset) provides a useful policy example.

### *State-Based Plan for Action*

In the United States, leaders in chronic disease prevention, health promotion, and nutrition from all 50 state governments have joined together to create a state-based plan targeting cardiovascular disease. Catalysed by the call for action issued at the First International Heart Health Conference, held in Victoria, British Columbia, Canada, in 1994, these state leaders have collaborated with a host of national organisations to produce *Preventing Death and Disability from Cardiovascular Diseases: A State-Based Plan for Action*. In outlining the basic structure and core functions of state-based cardiovascular disease prevention and control programmes, this plan

emphasizes population-based strategies, including those that focus on underserved populations.

The plan is not designed to be prescriptive, but rather it empowers states by emphasizing flexibility in the overall conduct of prevention and control activities. The plan also discusses the role of other key partners, including federal and state agencies as well as national voluntary and community organisations. These groups can play a vital part in supporting and enhancing the efforts of state health agencies to prevent and control cardiovascular disease.

*CVD Plan Steering Committee, 1994*

In some cases, policies established by nonhealth sectors may be as useful as health policy itself. For example, it may be important to try to effect changes in agricultural and tobacco policy, taxation, health education in schools, commerce and food regulation policies (a good example is the governmental involvement in the promotion of the Mediterranean diet in various European countries). Sometimes attention must be paid through policy change regarding such issues as poverty, lack of education, and empowerment of women. Only when these issues have been addressed from a policy perspective may the population have the capacity to adopt healthy lifestyles and so reduce the prevalence of risk factors throughout the society.

Of course, policies are only as good as the people who implement them. A policy that sits on the shelf is useless; policies can have no effect unless they are implemented. Considerable persistence and powers of persuasion may be initially required to get a policy implemented. Once activated, a policy may develop a life of its own and serve as a catalyst for action far beyond its initial goal.

## The asset of the scientific community

As many of this document's examples show, scientists in several fields have played major roles either as originators and designers of community-oriented projects or as collaborators in specific aspects of such projects (for example, selection of heart health messages for professionals or the public, or evaluation of campaign effectiveness). Among the fields represented are those of academic medicine, public health, kinesiology, behavioural science, sociology, education, and communication. The scientific reach of those involved extends even further because scientists have surveyed the available knowledge base and have synthesized the important action steps that flow from this knowledge.

Thus the community of scientists, whether from universities, research organisations, or local professional associations, constitutes a major asset to citizens' groups, as can be seen in a national health intervention occurring in Portugal (see inset). As citizens' groups mobilize the community, they can base their course of action on the know-how, endorsement, and collaboration of health professionals with expertise in this area.

### *National Intervention on Portugal*

A Portuguese health programme sponsored by the World Health Organization was originally limited to one area of the country, but the Minister of Health took an interest in the results and decided to disseminate it to all of Portugal. The autonomous regions of Madeira and the Azores Islands have since joined the project.

A network of health professionals was established by involving university professors in disciplines including cardiology, oncology, nutrition, rheumatology, ophthalmology, and epidemiology. These experts were key leaders in directing the programme, and they acted on the Coordinating Council and the Steering Committee. The General Director of Health and the

Director of the Institute of Preventive Cardiology were selected as codirectors of the project in order to entrench the multidisciplinary approach.

An intersectoral approach formed the core of the programme; educational, administrative, media, community-level, and certain government organisations were all included in the efforts. Thus, schoolchildren compete to create the best plays and postcards about health, weekly magazines and local television disseminate health messages, restaurants and caterers work to improve nutrition, and the Ministries of Employment and Social Security provide financial support.

*F. de Padua, personal communication, 1995*

## Summary

Once a community or a country recognizes its assets, the next step is to capitalize on them, following the cardinal rule from the world of business: build on existing assets or strengths, while staying in your own sphere of competence. The next chapter will describe ways to use your assets within a given setting.

## Chapter 3

# *P*actical use of the assets



**I**n this chapter, we will discuss some aspects of the assets listed in Chapter 2 and the potential contribution they can make.

There is no need to start a project from the beginning each time. Hundreds or thousands of successful programmes or campaigns in scores of different countries have been planned, launched, evaluated, and written up. We can learn from what has worked. *The Catalonia Declaration* provides many such examples. Please note that the case studies included here do not compose an exhaustive list; certainly there are other excellent examples around the world.

## *U*Using the assets of international organisations, networks, and programmes

With its regional offices, the World Health Organization can help health campaigns in many ways. The same is true of international professional organisations and international voluntary health associations, such as the European Heart Network, the InterAmerican Heart Association, the International Society and Federation of Cardiology, the International Union for Health Promotion and Education, the Francophone Heart Health Network, and the Union of Cardiology Societies of South America. As was stated in *The Victoria Declaration*, these and other organisations can play a major role in providing leadership that can influence policies of individual countries, both through persuasion and through the development of demonstration projects that provide successful models to be emulated on a worldwide level.

One international example is that of the Multinational Monitoring of Trends and Determinants in Cardiovascular Disease programme (MONICA), which began in 1984 and has since been active in many countries. This WHO mandate has for the first time provided accurate data on risk factor levels and cardiovascular morbidity and mortality

(including trends over a decade) for countries from several WHO regions. MONICA has served to train epidemiologists in many countries and to reinforce epidemiology teams already there. It has also motivated countries to increase their efforts in cardiovascular disease prevention, because the data have shown patterns of disease not previously evident. The data can also be used to evaluate preventive programmes and to monitor progress (Tunstall-Pedoe et al, 1994).

A second international programme is InterHealth, founded in 1986 by WHO in Geneva. This project (see inset) has created demonstration projects for cardiovascular disease intervention in 12 countries in many parts of the world.

### **InterHealth**

Drawing on the considerable body of theory that then existed, in 1987 the World Health Organization (WHO) in Geneva began this important and successful community-based programme as an integrated approach to preventing and controlling noncommunicable diseases. InterHealth is global and action-oriented, involving 13 countries with 16 demonstration projects. The major role of InterHealth is to provide technical assistance to developing countries through demonstration projects in a core group of countries, modelling and forecasting, education and training, and research. The project guides its member states in delivering a variety of prevention and health promotion activities to the entire community.

Programme development is supported by WHO collaborating centres in Finland, the United States, Australia, and the United Kingdom.

One major finding that has emerged from the InterHealth programme suggests that animal fat intake is rising in all developing countries and that all of the countries have cardiovascular risk factor prevalences and disease event rates approximating those of developed countries in past decades. InterHealth successes include gathering impressive evidence that the integrated community intervention programmes are successful in decreasing both cardiovascular risk factors and noncommunicable disease mortality.

*N. Khaltayev, personal communication, 1995; X. Berrios et al, 1994*

A third example of international campaigns is the Countrywide Integrated Noncommunicable Disease Intervention programme (CINDI). This WHO programme (see inset) is based in the European region and is headquartered in Copenhagen. Like InterHealth, CINDI runs demonstration projects on interventions to prevent chronic disease, primarily cardiovascular disease. Currently, these projects are operating in European countries and in Canada. (Specific examples of CINDI projects from Portugal and Russia are described later in separate insets.)



## Countrywide Integrated Noncommunicable Disease Intervention Programme

Under the auspices of the World Health Organization (WHO), in 1984 several European countries created a collaborative network known as the Countrywide Integrated Noncommunicable Disease Intervention programme (CINDI). To date, CINDI has created a network of 23 countries throughout the WHO European region and Canada. CINDI has also developed a policy framework for preventing noncommunicable disease, has written guidelines outlining the role of prevention in primary care, has

designed a scientifically based monitoring and evaluation information system, and has published the CINDI-Eurohealth Action Plan.

With these tools, CINDI is able to provide member countries with a context to share experience in health promotion and disease prevention. The integrated approach fostered by CINDI builds on existing health infrastructures and strives to address major risk factors specific to different population groups.

*WHO, 1993; I. Glasunov, personal communication, 1995; S. Stachenko et al, 1995*

A fourth example of international programmes is the recently founded International Chinese Heart Health Network (see inset).

## International Chinese Heart Health Network

The International Chinese Heart Health Network (ICHHN) was founded in Vancouver, British Columbia, Canada, in 1994 as an effort to bring together government, professional, and voluntary agencies to cooperate in heart health initiatives targeted at ethnic Chinese communities. Representatives from China, Taiwan, Hong Kong, Singapore, Malaysia, Canada, the United States, and the United Kingdom are working to (1) share and disseminate information regarding heart health, (2) improve the knowledge and skills of cardiovascular health personnel, (3) encourage and promote heart health research, and (4) collaborate with other organisations who hold common interests.

The network was organised through the efforts of a few individuals in the Heart and Stroke Foundation of British

Columbia and the Yukon. They recruited a number of prominent Chinese Canadians as supporters and then broadened to include representatives of the countries listed above. The stimulating impetus for the network came from ideas put forth in *The Victoria Declaration* (1992). The ICHHN fully endorses that document's principles and recommends that governments, public health organisations, and private agencies implement its policies. To this end, the ICHHN has sponsored symposia, in conjunction with the Scientific Congress of the Hong Kong College of Cardiology, to work toward implementing *The Victoria Declaration* in the Asia Pacific Region. ICHHN will also assist its Singapore colleagues in planning the Third International Heart Health Conference, to be held in Singapore in 1998.

*K. Ng, personal communication, 1995*

An additional example of international collaboration is that of INTERSALT. This study involving 21 countries has made an important contribution to the scientific basis for public health action in hypertension control (The INTERSALT Cooperative Research Group, 1988; Stamler et al, 1989).

## Regional collaborations

Some countries benefit from strong regionwide collaborative efforts. In support of the objectives of equality in health and Health for All pursued by the WHO Eurohealth initiative, the CINDI countries are developing an action plan for collaboration with Central and Eastern European countries and newly independent states.

Another regional organisation was formed relatively recently in Latin America – the Latin American Committee to Coordinate the Control of Tobacco Use (see inset). Latin America is served by the Pan American Health Organization, which is the WHO programme in the Americas. It and many other Latin American organisations support the Latin American Committee to Coordinate the Control of Tobacco Use.

### *Latin American Committee to Coordinate the Control of Tobacco Use*

It is exciting to realize that an international meeting can stimulate action in the region in which it is held. The Latin American Committee to Coordinate the Control of Tobacco Use (CLACCTA: Comité Latinoamericano Coordinador del Control del Tabaquismo) provides an excellent example of a productive aftermath to a scientific meeting and of productive coalition formation at a regional level. The idea for CLACCTA was born at a 1983 meeting of the Tobacco and Health conference in Buenos Aires. The following year, representatives from several Latin American countries met in Panama to discuss the formation of CLACCTA, and in 1985, the first official meeting was held. Health professionals from Mexico, Guatemala, Honduras, El Salvador, Nicaragua, Costa Rica, Panama, Brazil, Colombia, Argentina, Bolivia, Chile, Ecuador, Paraguay, Peru, Uruguay, Venezuela, Cuba, and the Dominican Republic have now joined forces to fight tobacco use in their countries. CLACCTA has also added members from certain international organisations (such as the Pan American Health Organization and the World

Health Organization) and from other regional groups, such as the Association of Latin American Women for the Control of Tobacco Use.

As part of their involvement with CLACCTA, many Latin American countries have been working toward passing tobacco control regulations:

- In 1994, Ecuador prohibited smoking in enclosed public areas, including theatres, public offices, waiting areas, and elevators.
- The National Medical Board of the Bolivian Medical College prohibited smoking in their institution's conference rooms and offices to support World No-Tobacco Day, whose theme was Healthy Environments: A Window to a Tobacco-Free World.
- Panama has enacted legislation to prohibit smoking in public offices, public transport, theatres, restaurants, hospitals, and pharmacies and has regulated cigarette advertising and promotion.

*Latinoamérica se moviliza frente al tabaquismo, 1994*

## Using the assets of countrywide organisations

At the country level, policies are most effective if they bring together a collaborating coalition of ministries of health, education, labour, agriculture, and commerce. Such policies, giving priority to maintaining the population's health, need to be made at the highest level of government to create cooperation between sectors that results in a pooling of resources.

What is the process that leads to such governmental action and hence to a fruitful collaborating coalition? In many instances, the first impetus towards commitment by the national government may come from a clear call for action from the public health sector and from national and international professional organisations.

For example, in Tunisia (see inset) the Minister of Health recently supported a group of prominent health professionals in their plans to create a set of chronic disease health guidelines that promise to further the health promotion agenda in that country.

### *Tunisia's National Programme to Control Cardiovascular Disease*

In the 30 years since independence, important changes in the Tunisian health infrastructure have accompanied various socioeconomic indicators of development.

Thirty years ago, the health care system was essentially geared to infectious disease. That was the time of improvement in sanitary conditions and rates of vaccination. Since then, the level of education and the standard of living have risen, and currently Tunisia is in a period of transition for health care needs. Now, the health care system must simultaneously face both infectious disease and chronic disease, the latter as evidenced by increased rates of hypertension and diabetes.

Aware of the potential threat to national health posed by the increasing incidence of chronic disease, in 1988 the Tunisian health authorities agreed to launch a national programme for its

control. Public health officials held a scientific meeting of primary care physicians, university professors, nurses, and other health care professionals to discuss the rise in chronic diseases and establish an implementation committee. The Chronic Disease Commission was created in 1992 and began work on the programme, which will be implemented first in specific regions and later will be expanded to a nationwide network.

This programme first plans to standardize the primary care approach to the identification, diagnosis, treatment, and follow-up of chronic conditions. Second, the programme will execute a large-scale educational campaign that uses schools and mass media to combat the acquisition of lifestyles that lead to cardiovascular disease.

*H. Ghannem et al, 1992; Ministère de la Santé Publique, 1993*

A recent example of intersectoral collaboration comes from the Czech Republic (see inset), which demonstrated effective collaboration among the nation's schools, hygiene stations, and the National Public Health Institute. The Canadian Heart Health Initiative, which was described in Chapter 2, is also a countrywide effort.

### *Czech Republic: Healthier School Meals*

In 1993, the National Public Health Institute initiated a campaign to improve the standard of school meals. Because most children take their midday meal at school, school meals were a good opportunity to institute behaviour changes to improve heart health. Traditional school meals had contained excessive amounts of animal fat and inadequate amounts of vitamins C and E and of dietary fibre relative to daily recommended allowances. Through regional health institutes and hygiene stations, workers in school kitchens were taught to modify meal

preparation to improve nutritional value while preserving taste. A booklet entitled *Recipes for Healthy School Meals* and a video were produced to aid in training. A high proportion of school kitchens changed their procedures according to these distributed materials. One major change that helped reduce fat intake was the replacement of hardened fats with vegetable oils. The caloric contribution of fats decreased significantly, and the consumption of vitamins C and E and linoleic acid showed a significant increase.

*L. Komárek, personal communication, 1995*

A third example of countrywide collaboration comes from Japan (see inset), where a coalition of government, medical care, and food industry leaders succeeded in dramatically reducing the incidence of stroke.

### *Japanese Success in Reducing Stroke Mortality*

*If I were to put an ultimate valuation on my health, I should probably adopt a Japanese diet, as the Japanese are the longest-lived people in the world. (G.Rose 1992)*

In the 1970s, stroke was the major killer in Japan. In the last two decades, however, Japan has experienced the largest reduction in stroke mortality in the world. This reduction has contributed substantially to Japanese longevity.

The identification of risk factors for stroke led to Japan's recognising the importance of diet in preventing cardiovascular disease. Particular emphasis was given to reducing dietary sodium and increasing other nutrients, such as potassium and calcium. Japan's school lunch system provided an opportunity for basic nutritional

education. Housewives received education from regional public health service organisations of the local government and from the private sector. Mass media has also been used to influence home meal preparation.

Free annual health checkups provided at worksites and throughout communities have also helped reduce cardiovascular disease mortality by detecting persons with a high level of risk. In addition, the socialised health care system, by covering individual medical expenses and therefore encouraging more people to see a doctor, has increased early detection and treatment. Lifestyle patterns, however, including nutritional habits, were probably the most important determinant of the reduction in stroke mortality observed.

*Y. Yamori et al, 1979; Y. Yamori et al, 1990; S. Kobayashi, 1992; S. Mizushima and Y. Yamori, 1992*

## Working with provincial and state governments

The Department of Health and Social Security of Catalonia presents a good example of a health plan at the provincial level that now has far-reaching beneficial effects. This provincial plan (see inset) has also produced a consensus document that has led to many heart health promotion activities. This document was written and disseminated by government officials and health care professionals.

### *Integration of Prevention in the Primary Health Care*

In Catalonia, the development of a Parliament-endorsed health plan the Catalan Health Minister's Accountability for the Health Plan) has reinforced health promotion and disease prevention as important components of health care. The most significant result of this focus is the consensus document *White Paper: Basis for the Integration of Prevention in Health Care Practices*, written in 1995 by the General Directorate of Public Health in conjunction with other sections of the Department of Health and social security, scientific societies, and primary health care professional organisations.

Eighteen health promotion and disease prevention activities, including several for heart health, are proposed in the document, which suggests that the population be screened through case-finding for hypertension,

hypercholesterolemia, and obesity and that they be counselled on proper nutrition, physical exercise, and smoking cessation.

The partners of the consensus document were also partners for its distribution and dissemination. The dissemination was executed through a training of trainers process, which was carried out in physician-nurse teams. Health professionals who received the training were then further committed to training their colleagues. The process has been developed most thoroughly in primary health care settings, public sector services, and private practices, where the activities of the *White Paper* are covered by contracts between the Catalan Health Service and various groups of health care providers, like health maintenance organisations.

*Ll. Salleras et al, 1994*

*Department of Health and Social Security, 1995*

Many subnational interventions have achieved proven economic benefits and dramatic reductions in cardiovascular risk factors. Two examples will show how the system of state-imposed taxes on cigarettes has been harnessed to bring multiple benefits to people in Australia and in North America.

In Victoria, Australia, a statewide tobacco control programme funded by a tobacco tax (see inset) produced a significantly greater decrease in cigarette smoking than occurred in the rest of the country. A well-funded, stable organisation, the Victoria Health Promotion Authority, has been created and now serves many other functions beyond those involving heart health, including substance abuse prevention and maternal and child health.

### ***Victorian Health Promotion Foundation***

In 1987, the Victorian government in Australia passed the Tobacco Act and thereby implemented a tobacco tax, which is dedicated to the Victorian Health Promotion Foundation, known as VicHealth. VicHealth promotes health through schools, in community and health settings, in worksites, through the media, and through sports, arts, and culture.

The passage of the Tobacco Act should serve as a model because it provides an example of an effort that was not government initiated but was spearheaded by the Director of the Victoria Division of the Australian Cancer Council. This official received widespread support from colleagues and others in the community, including the Archbishop of Melbourne, who

lobbied the legislature for passage of the Tobacco Act.

The Tobacco Act was designed to reduce the recruitment of new smokers by limiting advertising, prohibiting free samples of tobacco products, instituting on the spot fines to vendors who sell to minors, and restricting tobacco sponsorship of athletic events. Since the approval of the Tobacco Act, VicHealth has been able to establish a network of over 5,000 organisations and supporters throughout Australia. Physicians and medical students have also become involved in the fight against tobacco. The Minister for Health has agreed to VicHealth performance objectives and is thus ultimately accountable for its implementation.

*Victorian Health Promotion Foundation, 1994*

In California, U.S.A., after a 1988 citizen-sponsored referendum that had gathered over one million signatures passed by a simple majority vote, the state implemented an additional \$0.25 per-pack tobacco tax, 20% of which was earmarked for a three-pronged programme dedicated to combating tobacco use. As with the example from Australia, the California Tobacco Tax Initiative (see inset) began with the people, not the government. The results showed a clear reduction in smoking.

## California Tobacco Tax Initiative

In California, citizens who gather enough signatures may place an initiative on the ballot and submit it to the voters for approval. In the case of the Tobacco Tax Initiative, more than two years were required to form the core coalition, write the initiative, gather over one million signatures on a petition, and carry out the election campaign. In the state election of 1988, the Tobacco Tax Initiative (Proposition 99) was passed convincingly, raising the tax on cigarettes from 10 cents to 35 cents per pack. Twenty percent of the revenues from the new tax (more than U.S. \$100 million each year) were set aside for health education.

Populations specifically targeted in this health education intervention include children in schools, women, and current smokers. Four programmes have been implemented to (1) support and offer guidance for locally planned,

community-based efforts to prevent tobacco use, (2) provide financial resources through competitive grants to statewide and regional projects to prevent tobacco use and to help smokers quit, (3) initiate an antitobacco media campaign, and (4) evaluate the intervention strategies and recommend methods to improve the programme as a whole.

In the first few months (between September 1988 and May 1989), the increase in the cost of cigarettes contributed to a 13.7% decline in tobacco consumption. As the education programmes took effect, the decline continued at a rate three times the rate in the nation at large. If the decline in prevalence of tobacco use observed in California between 1988 and 1993 continues through the 1990s, smoking prevalence will have been reduced by 61%.

*J. Pierce et al, 1994*

## Drawing on community resources

Many successful projects have been conducted in smaller geopolitical areas—communities that share political, social, and educational systems. Here are some examples.

The earliest intensive community project conducted in the United States was that of the Stanford Three-Community Study (1972–1975), which compared two northern California agricultural towns, with a total population of 27,000, with a control community of 15,000. The intervention (see inset) used newspapers, television, radio, and mass-distributed print materials in an education campaign to reduce the prevalence of multiple risk factors for cardiovascular disease. A considerable decrease in the cardiovascular risk factors of obesity, smoking, blood cholesterol, and blood pressure occurred as a result (Farquhar et al. 1977).

The lessons learned in these small communities were applied in the subsequent Stanford Five-City Project. This project (see inset) was carried out from 1978 to 1986 (follow-ups in 1987–1996) in larger California cities with a total population of 360,000. Resources within the community included the cooperation of mass media, schools, hospitals, local physicians, voluntary health agencies, and the local department of health. Again, a major reduction in cardiovascular disease risk factors occurred. Local community organisations and media outlets have continued many of the programmes and have also



applied the methods of the Five-City Project to other health problems. Furthermore, the Stanford projects have served as a model for community-based interventions in many parts of the world, and the education materials produced for those studies are in use worldwide.

### *Stanford Community Projects*

The Stanford projects stemmed from a growing recognition by scientists and public health officials in the late 1960 s that primary prevention strategies were needed to oppose the rise in cardiovascular disease that had begun after World War II. With federal government assistance, the Stanford projects were begun by a few Stanford University professors, including a cardiologist, a social psychologist, and a lipid chemist. This group was the first in the United States to attempt a comprehensive, communitywide educational approach in noncommunicable disease prevention.

In the Three-Community Study (1972–1975), results demonstrated a 24% decline among adults in estimated risk of future heart attack and stroke. While one community served as a control, one received media education only, and the third gave media education communitywide plus intensive instruction to those at high risk. The major lesson learned was that a media-only treatment condition was

effective in achieving significant improvements.

The Five-City Project that followed (1978–1996) was able to adapt the methods of the Three-Community Study for use in much larger communities. In this study, all risk factors except body weight improved, producing a decline of estimated future coronary risk of about 15%. Campaign expenses, excluding the research evaluation costs, amounted to approximately US \$2 per person per year from sources external to the community—an amount about 1% of the cost of cigarettes purchased by smokers in the community. A major benefit came from the successful maintenance of a cardiovascular disease prevention programme at the conclusion of the active Stanford intervention in 1986. This continuation was undertaken largely by the local county health department, assisted by local hospitals and health professionals, and had the support of local politicians.

*JW. Farquhar et al, 1977; 1990*

Another example of a community-based programme took place in the county of North Karelia (population 300,000) in Finland (see inset). A major demonstration project both inside Finland and beyond, the North Karelia intervention began at the same time as the Stanford project. Scientists from the two studies have collaborated extensively over the years. Initiated in 1972, the study had a unique genesis: a group of residents had petitioned the government to respond to the results of an international study that showed Finland (and notably North Karelia) to have the highest rate of cardiovascular disease mortality in the world.

A series of planned interventions took place over a 15-year period, and the project succeeded in demonstrating greater reductions in both mortality and morbidity than occurred in a neighbouring county. Many national policy changes in agricultural and tobacco policy, among others, have occurred in Finland as a result.



## North Karelia, Finland: Community Intervention

Finland's North Karelia project to prevent cardiovascular disease, initiated in 1972, combined educational, environmental, and policy interventions to combat cardiovascular disease. Partners linked with the World Health Organization and local and national authorities and experts backed the project. Government support was obtained more readily because of a citizens' petition for action in response to the release of information that North Karelia had the highest rate of cardiovascular disease mortality in the world. In addition to risk factor screening programmes, the project comprised many educational elements, including professional education, and innovative methods to effect changes at the community level, such as low-fat cooking classes. Close collaboration with the housewives' association helped influence dietary habits, and competitions between villages contributed to a reduction in cholesterol.

All major risk factors decreased in North Karelia throughout the course of the study, and cardiovascular mortality rates fell by 57% between 1970 and 1992. In the 1970s, a significantly greater decline occurred in North Karelia than was observed in the rest of the country. Overall fat intake was reduced by decreasing the amount of fat used on bread (in 1972, some 90% of people reported using butter on their bread; in 1992, that number had decreased to 15%), by changing the standard milk consumption from high-fat to low-fat and skim, by replacing animal fats with vegetable fats, and by shifting to leaner meats. In addition, fruit and vegetable consumption increased from approximately 20 kg per person in 1972 to 50 kg in 1992. Smoking among men decreased dramatically. Besides these changes at the community level, the project contributed to policy changes in health, agriculture, and commerce within the whole of Finland.

*E. Vartiainen et al, 1994; P. Puska, 1994; P. Puska et al, 1995*

Another case demonstrates how an effective national campaign was initiated by the vision of a handful of dedicated physicians supported by medical students, retired nurses, teachers, and community leaders (de Padua, 1988). After 10 years of persistence and painstaking collection of evidence, this group persuaded the authorities of Portugal to fund a national plan that in a relatively short time has led to a significant reduction in stroke mortality in Portugal (see inset).

Although both the Stanford and North Karelia projects were begun with the help of outside funds (largely from government sources), they would not have succeeded without mobilization of support and resources from the community. In return, benefits to the community continue even when outside intervention has ceased. Thanks to successful technology transfer to existing organisations in the community, programmes have been continued in the field of cardiovascular disease prevention and expanded into other health areas with the creation of a new health promotion infrastructure. The example from Portugal is testimony to the work it takes to achieve countrywide activities in hypertension control and to the process of partnership and coalition building it requires.

## Portugal's Path to Implementing Cardiovascular Disease Prevention

Heart disease before eighty: It is man's fault, not God or Nature's will. In 1952, these words of Paul Dudley White touched a young Portuguese graduate student named Fernando de Padua at Harvard and the Massachusetts General Hospital. When he returned to Portugal, he tried to follow White's example, using newspapers to disseminate cardiovascular disease prevention messages, with particular emphasis on the very high salt intake that characterized the Portuguese diet. He was unable to publish in journals because health promotion articles were not acceptable in Europe at the time. Only when he became a professor in 1972 was he able to start involving the community in a national fight against hypertension. He initiated this battle with short messages like "reduce salt consumption, run, run my heart, and quit smoking." He was then able to disseminate these preventive messages via journals and eventually used radio, movie theatres, and national television.

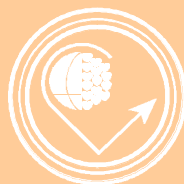
A television programme that featured F. de Padua explaining the risks associated with hypertension and offering advice on how to correct the problem became very popular. At the same time that the programme was gaining popularity, volunteers were checking blood pressure in the subway and train stations, printed materials were distributed to those who

were interested, and conferences and festivals were organised.

In this campaign, awareness was raised from the bottom up by a handful of dedicated physicians supported by medical students, retired nurses, teachers, and community leaders. The next step in gaining credibility for these preventive measures was to alert Portuguese health authorities to the problem. To this end, baseline blood pressure data were collected; these showed that more than 30% of the Portuguese were hypertensive.

Finally, to convince the scientific community, a plea for help was sent to three eminent cardiovascular epidemiologists. These foreign scientists visited Portugal, produced a booklet on cardiovascular disease prevention with de Padua, and gave an hour-long interview on the only television station at the time. This visit proved to be the turning point in the struggle to gain credibility for cardiovascular disease prevention in Portugal. Thereafter, the country's stroke mortality decreased by 30%, and ischemic heart disease mortality decreased by 25%. In addition, the Centre for the Study of Preventive Cardiology, the Portuguese Heart Foundation, and the National Institute of Preventive Cardiology were founded.

*F. de Padua, 1979*



### Recommendation No. 2

*International health organisations, health departments, voluntary health agencies, health professional organisations, educators, the academic community, and the private sector should take the following actions:*

- a) Support the development of community-based heart health programmes at the community level by involving appropriate resources from the health and nonhealth sectors.*
- b) Promote heart health activities in developing and developed countries alike that focus on preventing children and youth from adopting unhealthy behaviours.*
- c) Form alliances to advocate for heart health and to develop and implement comprehensive policies for promoting heart health and preventing heart disease according to the principles set forth in The Victoria Declaration.*
- d) Develop strategies and assign appropriate resources to adopt and use relevant knowledge and experience from heart health interventions, including community mobilization and worksite and school programmes for preventing cardiovascular disease and promoting good health.*
- e) Provide resources for creating and nurturing partnerships to support the development of heart health policies and programmes, to exchange knowledge and experiences, to provide technical support to partners, and to assist each other in identifying sources of funding to ensure that activities can be coordinated and sustained.*

## Working with the voluntary sector

A powerful infrastructure for heart health may be found within communities themselves. This information consists of individual volunteers and to a much greater extent the organisations to which the individuals belong. Experience shows that if communities and concerned citizens are provided with some degree of organisational and technical support, they are often able to reach specific population groups (such as the disadvantaged), advocate effectively for health promoting public policy, and help deliver health promotion programmes.

Voluntary groups that have been exposed to quality (and repetitive) health education can provide a ferment of grass-roots energy that can sometimes overcome even entrenched interests. For example, in many countries the political influence of certain food interests and the tobacco industry coupled perhaps with inertia on the part of many scientists and practitioners in the health field can delay or even prevent concerted government action. In an approach that can be termed from the bottom up rather than from the top down, a welling up of public opinion, fostered by formal and informal community groups, can demonstrate the political will of an enlightened citizenry. This public opinion can furnish the pressure needed to induce governmental action and testifies to the power of health education.

Community projects in the United States and North Karelia have relied heavily on voluntary health associations and women's clubs. By bonding together in partnerships and coalitions, the resources available to the communities have been greatly increased.

One of the major assets in preventing and reducing cardiovascular diseases and stroke throughout the world is the presence of active heart foundations in most developed countries. These heart foundations (see inset) are volunteer driven, not-for-profit organisations uniting professionals and citizens from all walks of life in the fight against cardiovascular diseases and stroke. They are able to mount programmes throughout an entire country via local chapters.

## *Heart Foundations*

The European Heart Network brings together 18 countries to achieve a European societal climate that will support the prevention of cardiovascular disease and to work towards the creation of a wider international heart network. This partnership has established an office in Brussels to influence policy and legislation of the European Union. Current priorities are health promotion, particularly nutrition.

Recently the InterAmerican Heart Foundation was formed. Currently 12 countries representing 16 foundations have come together to reduce disability and death from cardiovascular diseases and stroke in the Americas. The goals of

the foundation are to promote a heart healthy environment, facilitate the development and growth of heart foundations, and foster partnerships between health professionals and other sectors of society, including business and government. The foundation is working to publish a document on cardiovascular disease in the Americas and to encourage physicians to stop smoking.

These two continental foundations are helping to develop and support global initiatives to reduce disability and death due to coronary heart disease and stroke.

*B. Champagne, personal communication, 1995*

Two foundations that promote healthy nutrition in Australia and Canada provide specific examples of successful projects (see insets).

## *Pawtucket, Rhode Island: Community Intervention*

The National Heart Foundation of Australia operates a very successful seal of approval programme in which grocery products that meet strict criteria are licenced to use a standardized certification mark on their packaging and labelling. Food manufacturers pay a licence fee that covers programme costs, including an extensive healthy eating campaign directed at both the public and health professionals. The programme has been accepted by both large and small manufacturers of food, and many leading national brands are included in the programme.

The programme has achieved high recognition with the public in Australia,

and numerous products have been reformulated to meet the criteria. All products are laboratory tested to qualify for the programme, and an ongoing audit and testing process ensures continual compliance.

The highly visible certification mark reminds consumers of healthy eating as they purchase their groceries. The success of the programme has led to similar initiatives in other countries, notably in New Zealand and in the United States, where the American Heart Association's Heart Check programme was recently launched.

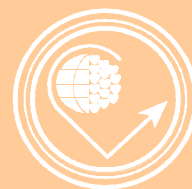
*R. Rees, personal communication, 1995*

Heart foundations reflect and complement the structure of health care in a country and fulfil many roles. These roles, as determined by each foundation, include translating scientific findings into programmes for educating the public and health professionals, funding research, setting standards such as those for emergency cardiac care, providing patient support, and encouraging public affairs/advocacy approaches.

Heart foundations are supported by funds raised from the public and corporations. Independent control of funds and a nonbureaucratic structure allow the foundations to be innovative and unbiased advocates for heart health.

### **Recommendation No. 3**

***Existing voluntary health organizations, particularly associations concerned with heart disease and stroke, cancer, lung disease, tobacco control, and diabetes, should provide technical assistance and appropriate resources to countries and regions of the world desiring to establish similar voluntary health organisational structures.***



## **Using existing civic and religious organisations**

Religious and civic organisations can all play a valuable role in implementing educational campaigns by disseminating materials, offering classes, providing volunteers, and serving as a local focus of community activity. Volunteers who work without pay provide the major workforce in heart foundations (discussed earlier in this chapter) and can make a similar contribution to civic and religious organisations.

The key to partnership with organisations not traditionally identified with health – such as religious organisations and libraries – is to ask how the health programme can best meet *their* needs. For example, religious organisations may be eager to attract additional members to their congregation by offering health screenings. Libraries appreciate advice about what books to buy and may be glad to serve as distribution sites for health education materials. Officials in charge of recreation facilities and parks are often grateful when health groups suggest activities that are popular as well as beneficial. Because worksites and commercial businesses often advertise, they may be willing to pay the cost of health education materials in return for having their name on the products. Television and radio programmes often find health programming very popular.

## Reorienting the health care system toward prevention

Use of the existing health care system can provide valuable assets for heart health promotion at many different levels. However, as we noted earlier, in some cases it may be necessary to reorient the people who operate the system and to encourage them to emphasize prevention.

At the local community level, use of primary care is cost-effective (Pearson et al, 1993). In particular, this may be true in the area of rehabilitation after cardiovascular events. Such clinical management interventions, such as the Stanford Coronary Risk Intervention Project (see inset), have achieved significant reductions in second heart attacks or strokes and have a benefit-to-cost ratio of at least 2:1 (Haskell et al, 1994). Given the large total expenditures incurred from second events, these studies can be invaluable in complementing activities in primary prevention.

### *Stanford Coronary Risk Intervention Project*

The Stanford Coronary Risk Intervention Project, which began in 1988, is one of a group of secondary prevention studies that have demonstrated the benefits of aggressive risk factor management in high-risk individuals with established coronary artery disease. In the four years of the study, second episodes of myocardial infarction or surgical interventions (angioplasty or bypass graft surgery) were reduced by half.

Interventions were led by nurse case managers and included aggressive lifestyle changes and lipid-lowering pharmacologic intervention. The benefit-to-cost ratio was 2:1 for the entire four years and 4:1 for the last three years. This study and others have produced a wave of optimism by demonstrating that secondary prevention of coronary disease can have unexpectedly large effects.

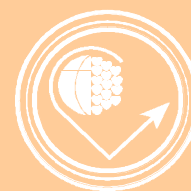
*WL. Haskell et al, 1994*

Reorienting the activities of primary care physicians toward prevention is an important feature of a complete national programme of cardiovascular disease prevention. Such reorientation is greatly needed in many countries, since physician training programmes often do not provide clinicians with skills needed to persuade patients to change their lifestyle. In the United States, national educational programmes have begun to standardize and improve methods of reducing blood pressure and serum cholesterol at relatively low cost. Examples of such success were seen in Texas, during a programme carried out by a local medical school, and in a programme initiated by the Centers for Disease Control and Prevention (see insets).

## Recommendation No. 4

*Health departments and other agencies responsible for health, in partnership with relevant agencies, organisations, and community coalitions in the health and nonhealth sectors, should take the following actions:*

- a) *Initiate heart health programmes using whenever possible the existing health system (e.g., public health or primary care).*
- b) *Support activities to enhance the effectiveness of preventive practices of health care professionals.*



## Recommendation No. 5

*Schools and government departments responsible for training health professionals, social scientists, and educators should ensure that the following occurs:*

- a) *The training of health, social science, and education professionals includes the development of attitudes, knowledge, and skills in community-based programming for disease prevention and health promotion, community consultation, patient behaviour change counselling, advocacy, and lobbying.*
- b) *Incentives are provided to support research in technology transfer to ensure development, testing, and dissemination of cost-effective methods for preventing and controlling cardiovascular disease risk factors at the community and individual levels.*



## Hypertension Control in Houston

In the mid-1970s, many at-risk or currently hypertensive patients in Houston, Texas, were unaware of their condition, and of those under treatment, only 33% were controlled to <160/95 mmHg. With the guidance of Baylor College of Medicine's National Heart Research and Demonstration Center, a hypertension diagnosis and treatment protocol was developed and implemented throughout the city's primary care network. The protocol included components of patient, physician, and pharmacist education.

Within five years, the percentage of unaware hypertensive patients dropped considerably because most were appropriately screened for hypertension and informed about their condition or at-risk status. The percentage of patients controlled to <160/95 mmHg increased from 33% to 79%.

The success of this demonstration project led to the widespread acceptance and implementation of the

protocol. A recent analysis of a large sample of hypertensive patients treated at participating health centres shows that 80% were controlled at <160/95 mmHg and that 43% at <140/90 mmHg.

It is not possible to project the impact of this kind of programme on the U.S. population at large, but success can be inferred by comparing local and national levels of awareness. A recent survey of 956 people who live near the clinics that adopted the hypertension protocol in Houston found higher levels of awareness, treatment, and control than in the U.S. population as a whole, as determined by the 1988–1991 National Health and Nutrition Examination Survey. The experience of the Baylor-Harris County Hospital District programme with the management of hypertension thus provides an important example of how changes within the health care system can improve heart health, one risk factor at a time.

*C. Vallbona et al, 1985; S. Baker et al, 1993*



## Physical Activity Counseling and Evaluation Project

The Centers for Disease Control and Prevention (CDC) and researchers from San Diego State University have developed the Physical Activity Counseling and Evaluation Project (PACE), which is a low-cost, efficacious physical activity counselling protocol for physicians and other health care providers. PACE has conducted a successful intervention programme by delivering 3–5 minutes of structured physical activity counselling during a

well visit or follow-up consultation. In a study to measure the effects of this programme, intervention patients reported increasing their exercise by 37 minutes per week (control patients had a 7-minute gain per week). This significant increase in moderate physical activity occurred in previously sedentary individuals and thus potentially provides considerable benefit to overall health, particularly cardiovascular health.

*KJ. Calfas et al, (in press)*

Those who would teach or influence others on lifestyle issues of smoking, diet, and exercise must model the behaviours they advocate. In fact, research studies have confirmed this supposition that *we must heal ourselves before we can heal others*. Nonetheless, it is rare to see policies on this issue. An additional reason beyond the modelling role is that teachers, counsellors, or practitioners learn behaviour change methods during the process of changing their own behaviours.

The Department of Health and Social Security of the Autonomous Government of Catalonia has evidence (see inset) that programmes such as those called for in this last recommendation work.



### Recommendation No. 6

*Health and educational professional associations and schools that train health professionals should do the following:*

- a) *Develop special programmes to help health professionals, opinion leaders, educators, members of the media, and political leaders adopt healthy lifestyles and serve as societal role models for healthy living.*
- b) *Promote nonsmoking among their members and advocate for smoke-free training environments.*



## *Reduction of Tobacco Use in Catalanian Health Professionals*

In 1983, the Department of Health and Social Security of the Autonomous Government of Catalonia started a comprehensive tobacco-reduction plan based on legislative measures, information campaigns, and special activities directed at health professionals. Health professionals were targeted because at the time their rate of tobacco use was higher than that of the general population. Physicians, nurses, and pharmacists were provided with smoking cessation programmes and with continuing education programmes implemented in close collaboration with the Catalanian Colleges of Physicians, Nurses, and Pharmacists. These programmes include educational activities to develop active antismoking

campaign skills, technical reports introducing scientific knowledge about tobacco use, and educational materials to augment previously minimal antismoking advice for patients.

Technical support activities for smoking cessation have been implemented among health professionals and medical students to stimulate more antismoking advice and to begin a generation of nonsmoking health professionals.

Smoking prevalence among physicians has decreased from 53% in 1982 to 38% in 1990 (a 28% reduction in eight years, presumably due in part to this educational programme).

*H. Pardell et al, 1993; 1995*

## *Using the educational system*

It is during childhood that many unhealthy lifestyles and behaviours that lead to heart disease are developed. It is thus essential to reach children early and to do whatever can be done to protect them from the commercial interests that target them at an early age. Then, as young people become young adults, the adult world must continue to show them the way toward healthy behaviours, or the benefits of early prevention will be lost.

Schools have generated numerous examples of successful reduction of risk factors for cardiovascular disease; the most prominent improvements have been in decreased cigarette smoking and increased healthy eating and exercise. Children can be taught not only the facts about cardiovascular risk factors but also behaviour change skills that increase their sense of self-efficacy, which in turn has been shown to enhance behaviour change (Bandura, 1986). Thus armed, students are better able to resist peer pressure (for example, pressure to smoke or to consume fast foods high in saturated fats) and advertising influences. School curricula that lead to a sense of mastery, empowerment, and self-reliance have been found to be particularly successful, especially with older students (Killen et al, 1988).

Meanwhile, schools and colleges can be used extensively to provide classes in nutrition, smoking cessation, exercise, and heart health in general. Guatemala's antitobacco education programme (see inset) provides an excellent example.

## Guatemala: Antitobacco Education Programme

As a member of the Latin American Committee to Coordinate the Control of Tobacco Use (see inset earlier in this chapter), Guatemala has developed a programme to prevent school-age children from smoking. At the core of this programme is a guide for teachers, entitled *The Pleasure of Not Smoking*, published by the Guatemalan National Commission Against Tobacco. The booklet discusses the problem of tobacco use as it relates specifically to Guatemala, stresses the importance of preventing tobacco use before it starts, outlines the role teachers can play in that prevention, and presents a specific teaching plan to incorporate into the curriculum. Each of the five teaching

units contains goals, activities, and basic information but allows the teacher to adapt the programme as it applies to his or her students. The units cover the following topics: (1) the effects of cigarettes on health, (2) social influences on the decision to smoke, (3) the influence of the media, (4) social action and personal compromise, and (5) a review of information and the decision-making process.

This booklet has been disseminated to the entire Guatemalan school system and is being publicized as part of an international antitobacco campaign.

*L. Arango, personal communication, 1995*

## Reaching people through worksites

Worksite-based health promotion began in the 1960s, and many successful experiences in this area have been reported throughout the world. There is evidence that worksite intervention can be cost-effective. One comprehensive analysis of costs and benefits in American worksites showed that for each dollar invested in health promotion, there was a saving of approximately US \$3 in costs (Pelletier, 1993). The savings were related to increased productivity, decreased absenteeism, and lower health care costs, much of which could be traced to the decrease in cardiovascular events.

The examples of successful worksite intervention validate the theme of *The Catalonia Declaration*, as discussed in Chapter 1: namely, that a bidirectional relationship exists between economic growth and the level of investment in health. In the microcosm of its tightly controlled economic environment, the worksite intervention can provide fiscal proof that an investment in health provides an economic advantage, liberating for other use resources that might have gone into health care costs. Interventions conducted through a U.S. automaker and through a Russian CINDI worksite (see insets) provide good examples of successful worksite efforts.

## *Worksite Cardiovascular Disease Control*

Using a company's existing benefits programme as a framework to carry out a worksite programme to reduce risk factors for cardiovascular disease has been proven effective in many studies, most notably in one the University of Michigan conducted in the late 1980s among worksites of the large U.S. automaker General Motors Corporation. After conducting a common baseline screening in four worksites, researchers compared four different approaches to reducing risk factors for cardiovascular disease, including hypertension, obesity, and cigarette smoking. Site 1 had no postscreening activity and served as a control. At Site 2, information about risk factors was supplied, but no active programmes for change were offered. Site 3 provided the same education as Site 2, but also offered a series of support measures (such as one-to-one wellness counselling and classes) and actively followed up the employees who had demonstrated risk factors at the baseline survey. Site 4, in addition to the services offered at Site 3, created

health communication networks, including peer support groups, specific-interest health promotion groups, and plantwide health activities.

The two sites where active intervention followed baseline screening (Sites 3 and 4) showed the following results: (1) significant decreases in blood pressure among hypertensive employees, (2) maintenance of weight loss over the three-year period of the study among overweight employees, and (3) lower smoking prevalence in the overall population at the worksite.

Intervention at these two sites was shown to be more cost-effective than at Sites 1 and 2, because the active intervention sites reduced significantly more risks and did so at a lower cost per employee for each additional percentage of risks reduced. Indeed, Sites 3 and 4 were five to six times more cost-effective than Site 2 in reducing or preventing cardiovascular disease risks among at-risk employees.

*JC. Erfurt et al, 1991*

## *Electrostal, Russia: Worksite Intervention*

A CINDI project in the town of Electrostal, Russia, proved successful in decreasing hypertension. The project began in 1987 by introducing a hypertension control programme for 13,000 employees at a plant that makes machinery used to provide material for pipelines. Health care units, staffed largely by nurses, were placed in virtually every department of the company. The nurses introduced the

programme, which included detection, lifestyle counselling, nonpharmacological reduction of risk factors, and drug treatment. After five years of follow-up, 73% of detected hypertension cases were under control, and 54% maintained blood pressures <160 mmHg systolic and/or 90 mmHg diastolic. Absenteeism due to hypertension and related conditions decreased by 30%.

*R. Potemkina, 1995*

## Building partnerships with the private sector

The private sector has many roles to play in facilitating beneficial changes in areas such as food supply, food marketing, and the promotion of physical fitness. The previous examples on worksite health promotion clearly demonstrate the value of such partnerships, where an intrinsic economic incentive occurs.

In the early stages, private companies within a country may be reluctant to put funds and resources into projects that show no immediate prospect of a return. However, as the example of many of the large multinational corporations will show, companies may be quick to join a health movement once it has started whether they expect financial returns or simply want to gain name recognition through association with a popular cause. For example, McDonald's, the fast-food giant, has begun to offer lower fat choices. In Europe several food industries, in close collaboration with the governments are promoting actively the traditional Mediterranean diet. Cereal companies use their advertising budget to educate the public about the benefits of fibre, and athletic shoe companies and other companies sponsor exercise events. In some countries, a few private health insurance companies are becoming supporters of preventive health services, again as a means of remaining competitive. Intrinsic economic incentives thus create partnerships between private and public organisations.

## Using the mass media

The mass media have the potential to play a vital role in disseminating of health information. The challenge for advocates is to harness this power in the cause of preventing and reducing cardiovascular disease. This task may involve an approach on two fronts:

- 1) Encouraging the mass media to model beneficial behaviours (in entertainment programming and elsewhere) and to cease modelling harmful ones, such as smoking.
- 2) Persuading media organisations to use their considerable influence in programmes and materials that provide positive messages, encouraging the population to adopt healthy lifestyles. Many countries have achieved considerable success in using television and radio, mass-distributed newsletters, booklets, and newspaper features to promote health.

In some cases, educating media executives and producers may pay off in years of improved programming, as was the case in Salinas, California (Schooler, 1995). Here, the local television station was initially reluctant to provide free air time to the Stanford Five-City Project; but once they were persuaded to broadcast health-oriented programming, they found that there was an enthusiastic audience waiting for it. As a result, they continued to include this programming

in their schedule after the end of the intervention to the benefit of the community and the television station itself. Health professionals must make sure as many people as possible write or call stations after such programmes to provide positive feedback to media decision makers.

## Dissemination

We have talked about the effectiveness of many types of projects on the general population and on the organisations, communities, or regions directly affected. The benefit of these projects and campaigns can also extend far beyond the immediate geographical area. Particularly in this era of rapid transfer of information and technology, each successful project has the added dimension of serving as a potential model to others.

For example, since the North Karelia project began to demonstrate its successes in the 1970s, various health-oriented policies have been adopted throughout Finland. As a result, considerable changes in agricultural policy, first found feasible in North Karelia, have been adopted throughout Finland (see inset).

Dissemination is particularly evident in the case of the most visible cardiovascular risk factor, smoking. In the United States, after one state demonstrates the effectiveness of regulatory policies on smoking, others tend to follow suit. For example, Massachusetts and Michigan have passed laws similar to those of California on tobacco taxation. In addition, many counties and municipalities in the states of California and Massachusetts have banned cigarette vending machines from public places.

### *Finland's Agricultural Policy*

After the success of the North Karelia Project in the 1970s (described earlier in this chapter), new reference values for normal cholesterol were announced (below 5 mmol/L), meaning that most Finns had elevated levels. This information spurred widespread public interest in food and agricultural production and prompted agricultural and other interests to seek more healthful products and production methods.

The food industry started to produce and promote low-fat products and products made with vegetable oils. The milk-pricing policy was changed to be based on protein content rather than fat content. Supplementation of fertilizers with selenium, a mineral helpful in preventing the development

of atherosclerotic plaques but low in the soil of Finland, tripled selenium intake. Programmes were initiated to convert dairy farms to berry farms. The government developed a cash crop industry based on rapeseed and canola to replace the jobs lost by decreasing the dairy industry and to provide alternative, highly unsaturated oils. Finally, sausage manufacturers were encouraged to decrease fat content by adding mushrooms to the recipe. Today, the Finnish diet once so high in dairy fat has one of the lowest fat contents reported in Europe. Consumption of vegetables and vegetable oil has increased. Associated with these changes has been a 50% reduction in premature mortality from cardiovascular disease.

*P. Pietenen et al, (in press)*

In addition to the lateral movement of innovation to neighbouring communities, states, and countries, the influence of an effective intervention can continue over time. A successful intervention may thus bestow benefits on the host community long after its official ending; that community will feel empowered to continue making and changing policies for health.

Technology transfer and the dissemination of workable policies and well-tested intervention methods for controlling cardiovascular disease are not traditionally considered to be in the purview of most health professionals, including medical scientists and many decision makers on public health. Yet their involvement and collaboration in these activities could be pivotal.

Lack of such involvement may reflect the inclination of many scientists to do what their training modelled for them: to work at the frontier – to seek more knowledge on what they do not know, rather than attending to applying, adopting, and disseminating strategies known to be effective in controlling disease, including cardiovascular disease.



#### **Recommendation No. 7**

*Health and education professionals and their institutions, agencies concerned with public health, university departments, and relevant governmental organisations should form partnerships to facilitate technology transfer and dissemination of workable policies and well-tested heart health intervention methods.*

## **Summary**

The world has plenty of blueprints for heart health, whether the circumstances call for a top-down approach, originating with government, or a bottom-up effort that starts with a ferment among the people themselves as they demand (and help to organise) action. (These two approaches are discussed at greater length in the next chapter.) Ideally, a programme should use elements of both approaches, since they are mutually reinforcing.

Regardless of the direction the process takes, the involvement of the scientific community is essential.

To effectively use the various kinds of assets described in this chapter, programmes must overcome certain barriers. The next chapter will expand on this theme of barriers to action.

## Chapter 4

# *Barriers to effective action*



**A**s the examples used in *The Catalonia Declaration* show, cardiovascular disease prevention not only saves lives and decreases suffering, but can result in a significant saving of resources.

If steps to curb cardiovascular disease make such good sense for both our health and the economy, why are they not being taken in an efficient, widespread, and timely fashion? Why does an epidemic of cardiovascular disease mortality continue to occur in the developing world and in Eastern Europe?

The answer must reside ultimately in the thoughts, actions, and behaviour of individuals at all levels of society and of the organisations and systems to which they belong.

In this chapter, we will address the barriers to progress that can be held at least partly responsible for the lack of adequate action in so many countries of the world. We will consider the following barriers that, in the case of heart health, can represent major obstacles to progress:

- Aversion or resistance to change.
- Gaps between scientific knowledge and its applicability.
- Conflicting commercial and marketing interests.
- Lack of collaboration.

We will see how these determinants may influence people and institutions at many levels, in individuals and families, in small groups and communities, in organisations and systems, and lastly in governments.

If these barriers are not addressed, the results of any intervention will be fragmentary and ineffective; policies will be hampered by the problems that stem from lack of intersectoral collaboration.

In this chapter, we will look one by one at the four potential barriers listed above. In Chapter 5, we will examine strategies to overcome these barriers.



## Aversion or resistance to change

Custom – the social norms of any particular culture or subgroup within a country – may present an automatic barrier to change. Norms by definition resist the adoption of innovations or provide buffers against them. This resistance is of course natural; indeed, human survival depends on a certain degree of resistance to self-destructive innovations. For example, historically, people were protected against poisoning by avoiding certain plants that custom dictated should be left alone. But sometimes customs can impose a barrier to health. Here are two examples:

- When certain African peoples avoided eating a local plant rich in beta carotene, it was because custom dictated that the plant caused diarrhea. A widespread blindness in the region, however, was caused by a vitamin A deficiency, which would have been avoided if even small amounts of this plant had been regularly consumed.
- Customs associated with smoking remained ingrained in Western societies even after its harmfulness was known. For example, Sir Richard Doll, a British epidemiologist, continued to offer cigarettes to his visitors – years after he had been credited with the discovery in 1940 that cigarette smoking was a cause of lung cancer.

Custom can be protective, but epidemics require rapid response. The challenge is to encourage the population in general, and decision makers in the sphere of health in particular, to adopt innovations that are conducive to health. In encouraging change, one must overcome the basic pessimism that often characterizes late adopters – those who resist change even after examples of its benefits are available within the society. A project in Portugal (see inset) provides an example of how this custom barrier can be overcome.

Despite successes such as this intervention in Portugal, an aura of pessimism may be found at all levels of society regarding the benefits of planned, constructive social action. Too often, opinion leaders and policymakers simply do not believe that planned social action will have any impact, whether through provision of education, training, or incentives.

This pessimism may be rooted in fatalism. In the absence of successes in health promotion and disease prevention, the ingrained tendency is to resist innovation.



## *Salt Reduction in Portugal*

The effect of a health education programme designed to reduce salt intake and thought to lower blood pressure was studied in two matched rural communities in Portugal, each with approximately 800 inhabitants. The two villages were chosen for their high levels of salt intake, high prevalences of hypertension, and strong community awareness of their blood pressure and stroke problem. The intervention community was chosen because communications with its leaders were better than in the village selected as the control. The intervention strategy focused entirely on health education. Residents in the intervention community were encouraged (1) to cook with less salt and instead use other flavoring, like herbs, (2) eat less codfish and fewer sausages, which are heavily salted in the Portuguese tradition, and (3) add less salt when baking bread. The intervention was strongly supported by village leaders, doctors, and nurses. The study team visited the intervention community regularly to speak at

meetings and to show villagers how to cook with less salt. In addition, competitions were held to encourage villagers to grow herbs and use them for cooking.

Initial salt intake was high (approximately 360 mmol/person/day), and 30% of people were hypertensive (diastolic blood pressure >95 mmHg). After one year, both dietary surveys and urine samples suggested that salt intake had decreased in the intervention community by 50%; average blood pressure fell by 3.6/5.0 mmHg. After two years, average blood pressure had decreased by 5.0/5.1 mmHg. In the control community, diastolic blood pressures remained the same, and systolic blood pressures increased. This difference in trends was highly significant. It is suggested that a decrease in blood pressure by 5.0 mmHg would cause a 25% decline in hypertension and that this in turn would contribute to a substantial reduction of cardiovascular disease.

*JG. Forte et al, 1989*

A key problem here may be lack of self-efficacy—the confidence, willingness, and self-appraised skill needed to make a particular change (Bandura, 1986). This shortcoming can affect institutions as it affects the individuals in them, resulting in a lack of collective efficacy. Self-efficacy requires a belief that the problem is relevant and that change will be beneficial. People with low self-efficacy, and groups or institutions with low levels of collective efficacy, would tend to have less experience with change and express more pessimistic beliefs than others about the chance of success. They would therefore be less likely to move past old customs.

In health promotion, the path towards self-efficacy and collective efficacy (and with it, a willingness to adopt innovation) may begin with education. That may include verbal persuasion, the effects of modelling, or the incentives supplied by new laws. In the individual, the educational phase may be followed by the acquisition of new skills of behaviour change through practice of those skills. The community learns those skills through the gathering of experience offered through a demonstration project. This learning process in turn may be gradually reinforced by more widespread campaigns for change, in which the society as a whole can inch its way toward change by successive increments, as each success provides a foundation for the next. (Chapter 5 will elaborate on these stages of change and the way they may be achieved for the purpose of investing in heart health.)

## Gaps between scientific knowledge and its applicability

Over the past half century, extensive and successful research has been conducted on the prevention of cardiovascular disease. In return for this investment, society expects that the knowledge gained will be used and disseminated in a timely fashion. Yet in the field of cardiovascular disease, new knowledge on risk factors has taken 20–30 years to filter into public health policy.

Because of this unfortunate delay in the adoption of what is known, opportunities for prevention are too often passed up in favour of curative approaches. Furthermore, those who are charged with the responsibility of meeting health goals are not held accountable. The decision-making apparatus often makes it easier for elected officials and programme directors to fall back into inertia and conservatism rather than aim for the innovation that would bring long-term gain and true value for money.

Policymakers share resistance to change, partly perhaps because of their personal inexperience with prevention and partly because of commercial pressure to remain inactive, but also out of a general fascination with single and simple solutions. The custom of providing funding to cure disease rather than prevent it is partly rooted in obvious human need – people who are sick require immediate help. But this lack of funding can also be attributed to the fact that the long-term human or financial benefits of prevention are often unrecognized. *The Catalonia Declaration* will attempt to bring forth persuasive evidence to convince policymakers that long-term preventive measures are cost-effective.

The need to think of the long term may be more urgent where cardiovascular disease is concerned than for other health issues, simply because planning and commitment of funds need to be done so far ahead. Coalition building between sectors of the government is often required, as are new ways of working.

Plainly, accountability is important; in this regard, some countries are further along than others. Two cases in which accountability was built into the planning process are the *Healthy People 2000* objectives from the United States and the Catalan Health Plan (see insets). In these cases, issues have been systematically documented, clear objectives have been set, a structure is in place to keep track of whether objectives are attained, and both elected and unelected officials are held accountable to legislative bodies.

## Catalonia Health Minister's Accountability for the Health Plan

Catalonia, like other autonomous regions of Spain, has a health plan that was developed following the introduction of the Spanish General Health Act and the Catalan Health Services Law. This health plan was initially drawn up by the Department of Health, which received strong input from health professionals and the community. Approximately 4,000 Catalonians participated in drafting the final document.

The plan was approved by the Catalanian Autonomous Government in 1994 and then was submitted to Parliament. The plan did not need to be approved by Parliament by law, but by having it presented to Parliament and by asking for its endorsement, the Catalan Minister of Health made a public commitment to achieve the

plan's objectives. The Minister thus became accountable to both Parliament and to the public for the plan's successes and failures.

Different models of this approach, supported by law at national and regional levels, are being developed in several Spanish autonomous regions. The process of involving many people in designing a health plan represents progress in policy development for health promotion and disease prevention. In addition, the institutional commitment is useful, not only because it forces policymakers to develop rational and achievable proposals, but also because it sets the precedent of holding individuals responsible for implementing policies as they are approved.

*Ll. Salleras et al, 1994*

*Department of Health and Social Security, 1993*

## Healthy People 2000

*Healthy People 2000*, the national prevention agenda for the United States, was issued by the U.S. Public Health Service in 1990. The document sets out 300 specific, measurable objectives to be achieved by the year 2000 in 22 priority areas related to health promotion, health protection, and clinical preventive services. The objectives are deemed vital to achieving three overarching national goals: increasing the quality of life, narrowing the disparities that exist in health status among various population groups, and achieving universal access in basic primary care and preventive services for all.

*Healthy People 2000* was deliberately designed as a national rather than a federal programme. Although federal agencies of the U.S. Public Health Service have lead

responsibility for the 22 priority areas for health improvement, primary leadership for developing and carrying out the objectives comes from the nonfederal sector. A consortium of some 300 nonfederal organisations and agencies served as the steering committee for the three-year process of developing the objectives, and 85% of states (and many municipalities) have since developed their own goals and objectives targeted to the needs and conditions of their own populations. Progress toward the objectives is reviewed monthly, annual updates are provided in the statistical review *Health US*, and a mid-course review will broadly indicate course corrections needed at the midpoint of the decade. As a vehicle for signalling priorities and recruiting participants, *Healthy People 2000* has been a striking success.

*U.S. Public Health Services, 1995*

When scientific knowledge is applied to solving problems in cardiovascular health, the specific health problems of a region must be taken into account, since risk factors will vary greatly from one part of the world to another. Thus, if international help is available to bridge the gap between scientific knowledge and its application, it should be provided first for risk factor assessment, particularly in developing countries.

## Conflicting commercial and health interests

Countries at all levels of economic development experience pressures that can militate against policies that promote health. For example, the need for jobs in a high-pollution industry may conflict with the need for clean air. Or it might be politically expedient to protect traditional agricultural practice, even if the crops are not beneficial to health or, as is the case with tobacco, they kill. Subsidies may be carried past the logical point, and the short-term gains too often outweigh long-term prospects. For example, a policy study conducted for the European Economic Community (see inset) has found that subsidies to the agricultural industry as a whole favour large-scale production of dairy products, eggs, pork, and beef, thereby leading to an unhealthy consumption of cholesterol and saturated fat.

### *European Economic Community's Common Agricultural Policy*

During the 1990s, the Common Agricultural Policy (CAP) of the European Economic Community (EEC) has analysed the factors that influence food production. The policy has stated that primary production is determined more by price than by anything else, including nutrition and health. Beef and lamb are not becoming leaner, because food producers believe that there is no financial incentive to remove fat. CAP is

investigating ways to subsidize lower-fat dairy product production. Although CAP can cite some successes in promoting more healthful food production, the general experience is that political pressure from the powerful dairy and meat industries in countries in this region has prevented the EEC from proceeding vigorously on agricultural policies that would aid heart health.

*L. Stockley, 1993*

Meanwhile, cash-starved countries and those in the process of transition to a market economy seem destined to fall victim to the tobacco trade, which represents a prime example of commercialism and profit in exchange for death and disease on a global scale. In the case of tobacco, the extraordinary profitability of the international tobacco companies has allowed them in recent years to expand their market rapidly in various parts of the world, either through purchasing and renovating existing tobacco companies or through building new facilities for more efficient manufacture of cigarettes. Coupled with extensive advertising of locally popular tobacco products, this commercial expansion allows tobacco companies to

exert considerable political pressure that directly conflicts with measures sought by the health sector (see inset).

### *Eastern Europe Invaded by Tobacco Companies*

The fall of the iron curtain opened a window for capturing a lucrative market for American-style cigarettes. Because American products had great appeal at the time, strategic marketing of less harsh tobacco like that found in American cigarettes could both displace the brands sold by government-owned firms and widely extend the use of cigarettes. A clear example of this marketing tactic occurred in 1992, when the American tobacco company Phillip Morris purchased Tabac, the tobacco company owned by the then-Czechoslovakian government. Phillip Morris outbid its rivals by U.S. \$100 million in the \$400 million purchase and proclaimed the wisdom of the expenditure by declaring the purchase would furnish a splendid opportunity to enter the large potential markets of Eastern Europe, particularly Russia.

Although other large tobacco companies are also planning or have made large investments, Phillip Morris alone plans to spend U.S. \$1 billion on marketing in this part of the world,

because they estimate that 700 billion packs of cigarettes are currently sold each year—40 percent more than are sold each year in the United States. In view of this simple statistic, Andreas Gembler, head of Phillip Morris operations in this region stated, No one can ignore the customer in this part of the world.

Although governments in this region welcome foreign investment, the health sector is concerned about the consequences. For example, in a letter sent in September 1993 to President Clinton, public health officials in 13 former Soviet Bloc nations, including the Czech Republic, wrote, The transitional tobacco companies exploit our countries' desperate need for immediate economic investment, but in so doing they damage our health and ruin our economic well-being. Despite such resistance, the economic incentives those companies provide have met with little legal resistance.

*Chicago Tribune, 1993*

How to counter the tobacco companies' efforts is indeed a policy challenge for all concerned with heart health. Advocacy needs to be complemented by other tobacco control strategies, which can be adopted from countries where they have been successful. Above all, advocates must make persistent, pertinent, and economically well-grounded arguments, demonstrating that by blocking tobacco production and trade, a country is actually making sound investments in health (Warner and Fulton, 1994).

There are success stories. Many industrialized countries have shown that systematic, well-organized advocacy from health professionals has been able to counter the strong commercial pressure from the tobacco lobby. Also, as *The Victoria Declaration* states, heart health can be good for business—and business can be good for heart health. There are also many examples of effective collaboration between health advocates and commercial interests in the private sector. This collaboration is indeed essential for carrying out the intersectoral health policies that this report advocates.



## Recommendation No. 8

*Health professionals should form lobbies and advocacy groups to counteract the commercial interests whose policies, practices, and products are detrimental to heart health.*

As a practical matter, it may be advisable for health promotion groups to be trained in techniques of countering pressure from commercial lobbyists. In many countries, the tobacco industry, agricultural interests, and the food-processing industry have well-financed lobbies that pour considerable resources into influencing ministries and the legislature. Trained counter-lobbyists may be able to counteract this pressure by forming advocacy groups especially if they can persuade key officials and politicians to adopt healthful habits themselves. It is easier to persuade elected officials about the need for clean indoor air, for example, if they do not smoke.

## Lack of collaboration

Collaboration between institutions and bureaucracies is plainly valuable for heart health, and more and more instances have been reported of successful collaboration, particularly at the community level.

At the higher, central levels, however, evidence of collaboration is often lacking. Especially within the health system itself, territoriality may make it difficult to collaborate fruitfully with other institutions or bureaucracies.

Of special concern are conflicting philosophical perspectives on prevention that have at times hindered collaboration between constituencies concerned with health promotion and those involved with health care. These different perspectives largely stem from different views of the importance of nonurgent preventive problems in the face of urgent care needs. Unless health threats are perceived as being immediate, the need for action does not seem pressing. Health problems that could be prevented are permitted to linger, while action is diverted to the care of clearly manifest diseases whose diagnosis and treatment require complex technologies and labour-intensive efforts.

No customary behaviours that increase the risk of heart disease are unchangeable, especially as successes in investing in heart health become known. As we stated in Recommendation 5, schools and government departments responsible for training health professionals should provide incentives to favour research in technology transfer. The goal should be to develop, test, and disseminate cost-effective methods of intervention against cardiovascular disease risk factors.

## Summary

Although they may seem formidable, the four major barriers we have analysed should not stand in the way of developing and implementing policies and programmes aimed at controlling cardiovascular disease in specific population groups or countries, regardless of economic stage of development. To support these policies and programmes, countries have the following resources at their disposal:

- Sound theories on which to base the rationale for specific plans of action.
- A large body of scientific knowledge on the effectiveness of communitywide interventions.
- A growing experience with health promotion campaigns that have succeeded in spite of barriers and distractions.

In the next chapter, we will give suggestions to help overcome the barriers to action that we have discussed here.





## Chapter 5

# Strategies for investing in heart health: a framework for action



**N**ever doubt the capacity of a few dedicated individuals to change the world: in fact, it is the only way it ever has. - Margaret Mead (the late prominent anthropologist)

## Policy as an instrument for change

In *The Victoria Declaration's* Call for Action, coalitions or partnerships were asked to carry out processes of change and processes of policy implementation through interventions at all levels of government, using all resources available to these partnerships and coalitions.

In *The Catalonia Declaration*, we provide additional guidance to assist countries and the appropriate institutions, coalitions, and governmental bodies to implement policies that will create an action plan applicable at any point on the globe.

Policy development for major or minor issues provides an opportunity to capture the power of synergism, creating linkages that make the whole greater than its parts. Such linkages, either formal or informal, permit the coordination of activities, sharing of resources, and provision of technical support to others. Partnerships and coalitions also increase the ability to disseminate information and gain political support.

Successful policy implementation requires interacting linkages for both policy and resources among governmental and nongovernmental organisations at the three levels: international and regional, country, and local, including the public and community groups. Examples of successful programmes that demonstrate these linkages, their interdependence, and their mutual reinforcement have been presented in previous chapters. Linkages apply to policy, available resources, data sharing, and monitoring of progress in action plans.



## Recommendation No. 9

*Governments at all levels should do the following:*

- a) *Develop and promote policies that support heart health.*
- b) *Accept responsibility for providing the appropriate resources necessary to link heart health activities at the country, local, and community levels; to clearly define the responsibilities and functions at each level; and to ensure that sustainable infrastructure and programmes are put in place.*

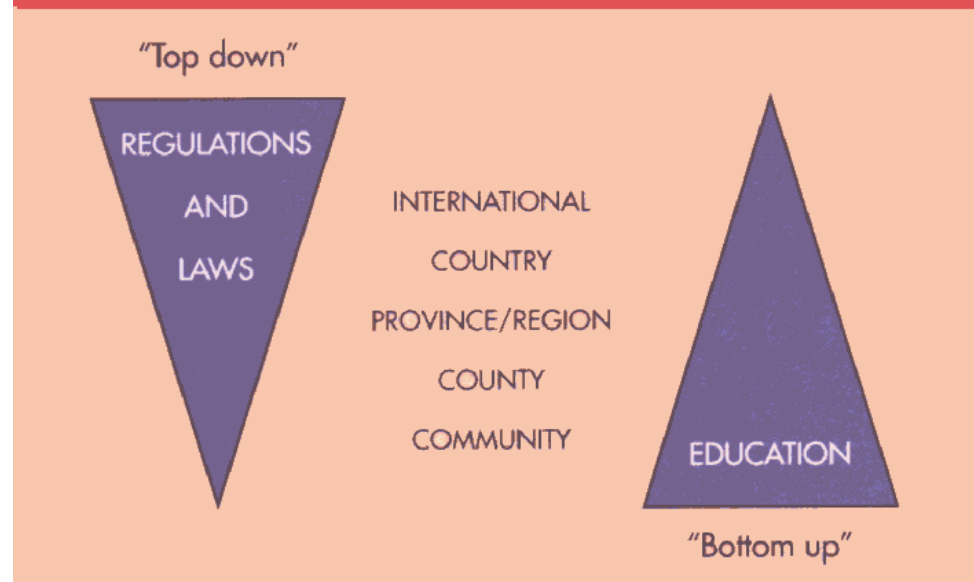
## Top down or bottom up?

How do relationships and functions differ as one spans the level of organisation from international to local community groups? The generalization can be made that higher levels of government, because of their top down relationship (see Figure 5) to health and other social areas, are effective in providing financial resources, policy recommendations, and regulatory actions that affect areas such as taxation, transportation, environmental conditions, education, recreation, and fiscal accountability. They can provide also the critical mass of pooled national or regional talents for research and the linkage with international resources.

By contrast, as one ascends from the community level up the ladder in a bottom up relationship (see Figure 5) to social areas like health the principal medium for achieving change in public health stems from education that informs, provides skills, and activates the public. Top down and bottom up relationships exist throughout the examples described in previous chapters.

Where the public and community groups, including advocacy groups, are sufficiently informed, the facts can enable them to

**Figure 5.** Relative roles of education and regulation within different levels of government.



apply the political pressure needed to influence governmental action. A notable example is the political battle involved in passing the California Tobacco Tax Initiative (see inset).

### *Political Battle of Passing the California Tobacco Tax*

California's Proposition 99 (see the inset on the California Tobacco Tax Initiative in Chapter 3) passed as the result of a two-year effort by a coalition of health agencies, medical organisations, and environmental groups. This long-term campaign involved conducting polls, planning strategy, gaining media exposure, and maintaining the pressure needed not only to bring the initiative to a vote but also to see the measure enacted.

Deliberately steering clear of the state legislature, where the tobacco lobby wielded considerable influence, the coalition presented its case directly to the general public through local channels to numerous for the tobacco industry to counter. In that open forum, advocates capitalized on public concern about tobacco and youth and took advantage of the tobacco industry's low credibility with the public.

Early in the campaign, the industry's own polling showed that it could not undermine the coalition's central argument that the tobacco tax would provide a health benefit. To deflect attention from this clear-cut issue, in the months before the election the industry saturated television, radio, and print media with paid advertising that tried to frame the initiative as a regressive tax that would chiefly affect blue-collar workers.

The tobacco tax coalition had limited resources to respond in kind.

*MP. Traynor and SA. Glantz, 1995*

Using the grass-roots network that it had established during the signature-collecting campaign needed to bring the measure to a public vote, the coalition largely relied on attracting free media coverage of its cause. The initiative met with widespread support in the media; for example, only three out of several hundred newspapers in the state ran editorials opposing the campaign.

As a last-ditch effort, the tobacco industry took legal action against the coalition. Not only did the lawsuit fail, but the publicity it generated made the initiative even more popular.

By election day, the tobacco industry had spent approximately US\$ 21.4 million, while the coalition had only spent US\$ 1.6 million. Despite this vast economic disadvantage, the coalition emerged the victor: on November 8, 1988, the voters of California passed Proposition 99 with a majority vote of 58%.

Organizations seeking to enact tobacco tax increases like Proposition 99 must be prepared to do more than mount an aggressive campaign to pass the initiative in the face of major tobacco industry opposition. Tobacco tax campaigns must also plan, as the California coalition did, to protect the programme in the legislature after voters pass the measure.

In this decade, we have greater opportunities to initiate top down interventions, given the increase in knowledge from successful demonstration projects around the world. This strategy relies heavily on policy development to build consensus at international, country, and local levels and to build coalitions and promote collaboration at various levels.

One example of top down initiatives that created opportunities for health groups and citizens groups to take action is the Canadian Heart Health Initiative (see Chapter 2). Here the organising force

came initially from enlightened members of the departments of health at the federal and provincial level, helped by the advice and support of a few persuasive medical scientists and public health officials. This project involved the allocation of financial resources to create provincewide demonstration projects that tested community mobilization for cardiovascular disease prevention. This enlightened use of resources from above has led to effective partnerships among the Canadian Ministry of Health, provincial public health officials, voluntary health associations, and university researchers.

A second example is the United Kingdom's Health of the Nation programme (see inset), which was initiated by the government with support from public health groups and private foundations. This top-down programme has recently launched an impressive number of programmes designed to prevent cardiovascular disease and other major health problems.

### *United Kingdom: Health of the Nation*

In 1992 the United Kingdom government decreed health promotion to be a central policy objective and set national targets for the prevention of cardiovascular disease. The *Health of the Nation White Paper*, developed after extensive consultation, provides a framework for action by all sectors at national and local levels. While the government coordinates action via a cabinet subcommittee, the Department of Health coordinates work across government departments and monitors progress towards the targets at the national level. The Department of Health also works with the Health

Education Authority, a not-for-profit organisation funded by the Department of Health, other government departments, the private sector, and international organisations. The Health Education Authority has been given the responsibility of developing major national health prevention programmes on tobacco control, physical activity promotion, and healthy eating. To this end, the organisation is undertaking major research programmes to study the effectiveness of health promotion programmes, including aspects of the Health of the Nation project.

*P. Lincoln, personal communication, 1995*

Successful countrywide programmes do not ordinarily occur without some prior evidence of success in a region of that country. Heartbeat Wales, a comprehensive programme carried out throughout the principality of Wales, demonstrated successfully that within an autonomous governmental unit, successful partnerships of communities, counties, health and professional associations, and practitioners may be formed and good results in cardiovascular disease prevention may be achieved (Parish et al, 1987). This success in Wales has led to the adoption of similar programmes throughout the United Kingdom. Similarly, the success of the North Karelia Project (see Chapter 3) led to extensive changes in agricultural policy throughout Finland.

As the examples provided throughout this document suggest, creating coalitions and partnerships can break down barriers to collaboration, increase political support for heart health initiatives, improve the efficiency of reaching the public through health education, and eventually achieve regulatory and environmental change. These results, coupled with education, yield health and economic benefits.

With its examples, *The Catalonia Declaration* attempts to demonstrate successes in developing and working successfully with partnerships that are based on a shared public health vision and a willingness for resource sharing. It is hoped that many organisations throughout the world will find these examples useful for fostering a new way of thinking about traditional management roles.

The attractiveness of this type of partnership building is that it taps into human and physical resources that already exist within any one community or country. This low-cost approach extends resources that would be limited if they had to be derived from a single agency.

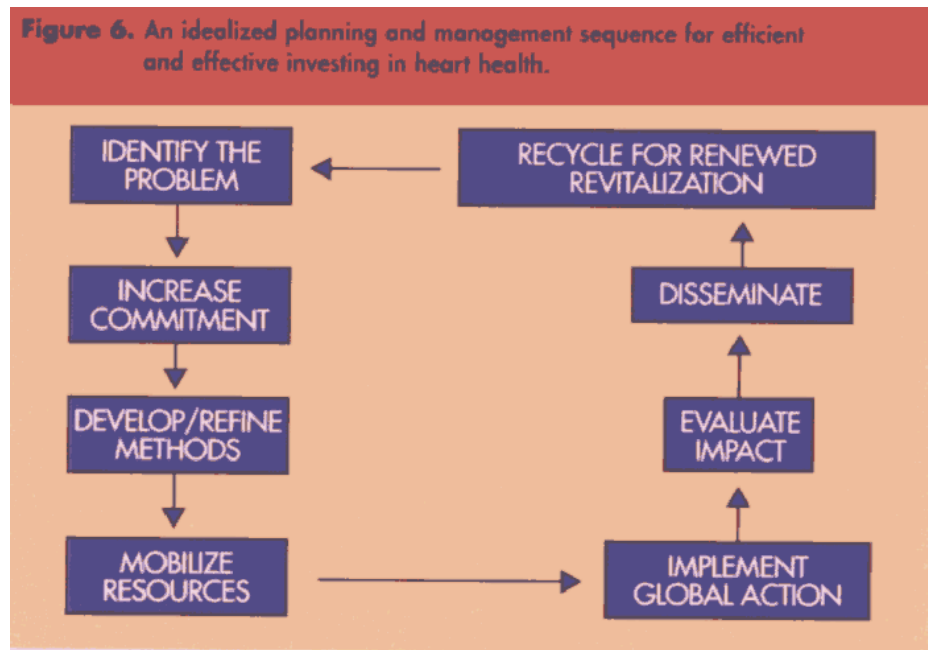
## Strategies for investing in heart health

In the remainder of this chapter, specific how-to suggestions are presented to provide guidance on developing programme strategies. Broadly speaking, strategy may involve any or all of the following actions:

- Working with international organisations.
- Using the assets of a country's government – ideally with policy coordination between sectors, such as ministries of agriculture and health, education, commerce, and labor.
- Working with the governments of cities, provinces, states, and regions.
- Drawing on the resources of county, city, or village government.
- Working with the voluntary sector and setting up training programmes to help professionals work with community members.
- Working with existing civic and religious organisations.
- Reorienting the health care system towards prevention.
- Using the existing education system from nursery school through to all levels of adult education and reaching children through schools, families, and the media.
- Reaching people through worksites.
- Building partnerships with the private sector.
- Working with the media (local, regional, and national).

- Educating the general public to create the demand for healthier food and environment (the pressure of public opinion).
- Educating policymakers, opinion leaders, and health professionals (including those in public health) to open doors for action.

Within the chosen framework of a top down or bottom up approach, or one that employs a mixture of the two, the next step is to apply an efficient managerial model to the task of developing a programme at any level, be it a countrywide initiative or a school or worksite programme.



The next part of this chapter describes a model for change that involves eight steps: identifying the problem, increasing commitment, developing and refining methods, mobilizing resources, implementing action, evaluating impact, disseminating results, and, if needed, recycling (see Figure 6). Adapted from a model developed by a research team experienced in carrying out comprehensive, integrated, community-based health promotion programmes (Farquhar, 1991), these steps will help planners avoid mistakes such as starting action without having the resources to complete it. The precede-proceed model, which has been widely applied in health promotion (Green and Kreuter, 1991) provides similar guidelines. Although these steps represent an automatic flow of progress within a health project, this sequence is not often recognized in a formal sense. Nonetheless, analogous forms of this model are commonly used in schools of business.

## Step 1: Identifying the Problem

In either a local or countrywide campaign, this step occurs when a few initiators (Margaret Mead's dedicated individuals), alarmed at a perceived heart health problem, assemble data from surveys, polls, and community needs assessments to set goals and pick potential topics for intervention. The topic will be specific to the campaign, as organisers choose whether to use a broad-based approach to many different risk factors—such as insufficient exercise, nonnutritious diet, hypertension, overweight, smoking, alcohol abuse, and stress—or whether to focus efforts on one topic.

The identification process should be based on surveys that gather local or national health data. These data should reveal the magnitude of the problem and how it compares with other problems requiring resources.

## Step 2: Increasing Commitment

In a community setting, the initiators of a programme often need to broaden their base by recruiting, organising, and empowering individuals and organisations within that community. Partnerships will result in coalitions of interested individuals and organisations (such as health professionals, voluntary health associations, worksites, citizens groups, public health units, and politicians.) This process is central to preparing fertile ground for receiving and amplifying the educational and regulatory programmes delivered.

As is evident in many of the examples described in *The Catalonia Declaration*, an incubation period of years may be needed for a relatively small number of individuals to build in strength to a point where they can carry out complete programmes, especially if political and commercially sponsored opposition is present. As noted in the state of Victoria's and the state of California's tobacco tax initiatives, for example (see Chapter 3), considerable effort by health advocates was required to gain the public support that influenced legislation. In practical terms, one agency generally takes the lead in a coalition, but considerable effort is needed by all to overcome protectionism and achieve sharing of resources.

## Step 3: Developing and Refining Methods of Action

After the need for the programme has been established and coalitions or task forces have been assembled, the group should devote adequate time to planning specific actions. These actions should be appropriate both to the task and to the needs, tastes, resources, and abilities of those people the programme is intended to affect.

To explore the true needs of the population to be served, this step may need to involve formative research (for example, through polls and surveys) or the development of pilot projects.

The group or groups assembled to implement an action plan can use these data to develop a consensus that the methods and tools at hand are in fact adequate.



## **Step 4: Mobilizing Resources**

This step is of course a necessary preliminary to vigorous implementation. If resources are not available, rather than abandon the project, organisers may be able to adapt their plans to projects on a smaller scale. The projects can then serve as pilot programmes to prove that the chosen methods work or to convince others that the project deserves to be given greater resources.

## **Step 5: Implementing Action**

This step can include a wide variety of actions, from the largest to the smallest, but should include the following elements:

- Education.
- Environmental change.
- Regulatory change.

### ***Education***

Generally speaking, successful projects employ a number of different channels to deliver consistent reinforcing educational messages. Examples of channels are radio, television, community events, classes, workshops, newspapers, newsletters, mass-distributed self-help print materials, videotape, computer-based educational systems, and volunteers reaching the community through word of mouth.

The sequence of educational steps should be based on sound theoretical principles that will guide people through the process of setting their agenda, increasing their knowledge, acquiring needed skills, and maintaining the behaviour (Farquhar et al, 1991). The social environment embraces components of the physical and information environments but includes broader consideration of issues such as employment, educational facilities, and social facilities – all of which also require changes to reach optimal heart health.

### ***Environmental change***

Environmental change may refer to changes in the physical environment, such as smoke-free zones and improved facilities for exercise, as well as to changes in the information environment. An area that is frequently ignored, the information environment encompasses advertising, entertainment, news media, food labels, and other sources of information.

### ***Regulatory change***

The third of the interacting processes under the heading of implementation concerns changes in laws and regulations. This component is an important part of top down interventions at the level of the national government. For example, changes in tax rates on cigarettes can have a considerable effect on rates of smoking.



Change initiated at the top can also include new regulations affecting matters such as insurance reimbursement—for example, to give physicians incentives to practice preventive medicine—or new guidelines for advertising in the media. Regulatory change can also be effective at the local level of government. As one example, ordinances to ban smoking in restaurants or workplaces can act as a powerful deterrent.

### **Step 6: Evaluating Impact**

Evaluation is essential to any programme, not only to show whether it was successful in achieving its objectives but to provide guideposts for future directions. Evaluating the process of change (that is, determining how change was achieved) may be just as important as evaluating the outcome of a programme or intervention.

### **Step 7: Disseminating Results**

Proof of good results through the evaluation phase will of course make it easier to encourage others to adopt the programme.

Many assume that dissemination will happen automatically when people hear about good results. However, dissemination requires considerable care and effort. For example, it will be much more efficient, and therefore cost-effective, to persuade a state education department to adopt a heart health curriculum systemwide than to attempt to persuade dozens or hundreds of individual schools. It is also important to ensure that programmes are applied in a way that will lead to continued effectiveness.

One of the purposes of *The Catalonia Declaration* is to encourage such dissemination—and also to encourage much-needed research in the field of dissemination itself (Farquhar, 1995). As you can see from the many successes described in this document, there is reason for optimism. It is to be hoped that these successful interventions will inspire many in the international community to adopt, adapt, and disseminate some of these remarkable successes.

### **Step 8: Recycling**

Recycling back to **Step 1** may be needed if there was inadequate success or if conditions have changed so that new strategies are needed.



### Recommendation No. 10

*Research agencies should allocate appropriate resources to accomplish the following:*

- a) Develop new methods and approaches that facilitate the dissemination and uptake of existing preventive knowledge and interventions by organisations concerned with heart health at all levels.*
- b) Carry out organisational and evaluative research studies to learn about the value and cost of alternative methods for organising, financing, and managing heart health programmes, including options for private sector funding of the delivery of such programmes.*
- c) Implement systems for surveillance of risk factors and cardiovascular disease, particularly in sentinel populations, including young people and people undergoing rapid social and economic change.*
- d) Implement systems for monitoring and reporting the progress and results of both planned and unplanned interventions.*

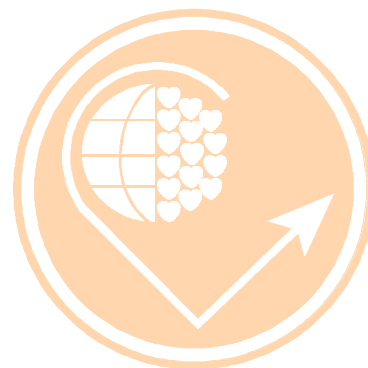
## Summary

In conclusion, the main purpose of this model is to provide a framework and to give sequential guideposts that direct us all in a manner that can lead to greater efficiency. Careful planning and preparation that uses such a model can ensure that the programmes we develop are practical, that we have the means to carry the programmes through to the end, and that the people affected are ready and willing to take advantage of them.

## Chapter 6

# Successes in investing in heart health

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We conclude *The Catalonia Declaration* by giving a number of examples to show that investment in heart health works.

In a sense, all the stories that are highlighted in this document are examples of successful investments in heart health. In some cases, especially in clinic, community, and worksite programs, economic benefits exceed costs. In other cases, economic benefits may be less clear-cut.

Frequently, one can see the success of investment by taking a broader view. For example, an investment success in heart health may occur when a partnership pools resources. Another example involves the strengthening of the social sector – especially those parts that involve public health and health care.

Success in investing is measured not only in projects and programmes that have a direct measure of cost saving but also in those that demonstrate beneficial changes in risk factors for cardiovascular disease, especially if viewed over the long term. Worksite programmes and activities carried out in clinical settings obviously offer greater opportunities to measure both costs and benefits. This section begins with those two categories.

## Investing in heart health through worksites

We have already mentioned two instances of successful investment in health through the worksite. In Chapter 3 is an account of a worksite programme in Electrostal, Russia. The multifactor health promotion programme introduced in this plant in the 1980s was directed largely towards cardiovascular disease and clearly represented a success in heart health investment. After a relatively short period of time, significant decreases in cardiovascular disease morbidity and mortality were noted, along

with a 30% reduction in absenteeism. These findings have led the company itself to continue the programme.

Another example described in Chapter 3 was that of four manufacturing plants of General Motors Corporation, a large American automobile manufacturer, in its home state of Michigan. As was the case in Electrostal and as is the case with most worksite programmes interventions at this automotive worksite emanated from a top down source. Varying amounts of activism, however, occurred among the workers themselves, and bottom up advocacy was seen from the worksite's health workers and occupational health staff. In this study, which had a research design, the two plants with the most intensive intervention were shown to produce the greatest return. Their benefit-to-cost ratios were five to six times greater than in the other two sites (Erfurt et al, 1991).

In both the Russian and American worksite programmes, the lesson for successful investing is that programmes addressing all the major cardiovascular disease risk factors and involving multiple approaches (such as screening, classes, self-help materials, and family involvement) are most likely to be cost-effective. Conclusions from these examples are born out by an extensive review of 23 well-designed worksite health promotion programmes, which showed an approximate US \$3 return for each US \$1 invested in programmes a ratio comparable to those described here (Pelletier, 1993). As mentioned earlier, we can justify investing in heart health merely by looking at the extensive countrywide declines (or countrywide increases) in cardiovascular events. However, in a more micro sense, one could also rest the case on worksite data alone, since worksite programmes have greater control over measures of costs and benefits.

## **P** primary care and clinic-based programmes

As with worksites, clinical settings often have better measurements of outcome than are possible in programmes carried out in larger units, such as communities, provinces, or countries. A study conducted in Israel (see inset) showed not only clear cost-benefits but also the value of achieving initial collaboration among geographically dispersed clinics.

Also described in Chapter 3 was a programme carried out in Houston, Texas, which showed that multiple clinics in a primary care network were able to increase the percentage of patients whose hypertension was controlled from 33% to 79% (Vallbona et al, 1985). This programme is an example of a medical school's ability to improve primary care within a large metropolitan area.

## *Nonpharmacological Management of Hypertension in Israel*

A study measuring the effectiveness of nonpharmacological management of high blood pressure was conducted in Israel. It was demonstrated that a well-trained nurse-doctor team personally instructing a patient could control many modifiable risk factors for cardiovascular disease and concurrently minimize medication. The study's patients, who were treated at five primary care clinics across the country, decreased their drug expenditures by 44% as a result.

This study has been extended to seven other primary care facilities, where it also achieved successful results. After six months, patients were spending 20% less on drugs. Primary care doctors and nurses around the country are now being trained to administer augmented nonpharmacological intervention to treat both hypertension and other risk factors for cardiovascular disease. This project is supported by CINDI-Israel, the Ministry of Health, and the Israeli Association of Family Medicine.

*JR. Viskoper, personal communication, 1995*

In Moscow, the Multifactorial Cardiovascular Disease Prevention Programme (Chazova et al, 1989) reached 3,000 people through the existing system of clinics. This project reduced cardiovascular disease mortality in a five-year period to a rate 41% lower than in a control group of 3,000 people. This remarkably large effect demonstrates the benefits of a multifactor programme carried out through clinical care settings.

A similarly large effect in secondary prevention was achieved in California in a randomized study of 600 survivors of initial coronary events (described in Chapter 3). Over a period of four years, the Stanford Coronary Risk Intervention Project reduced the number of second episodes of myocardial infarction or surgical interventions in an intervention group to half the number in a control group receiving conventional care from cardiologists. As stated earlier, the benefit-to-cost ratio of intervention to control group was 2:1 for the entire four years and 4:1 for the last three years.

A last example of cardiovascular disease prevention programmes emanating from clinical settings is from the Lehigh Valley Hospital in Allentown, Pennsylvania, U.S.A. (Nester and Thieme, 1995). This example typifies a promising trend in American hospitals, many of which now reach out to the community with preventive programmes in addition to performing their traditional role of caring for the sick. The Lehigh Valley Hospital, working with physicians in the community, began delivering comprehensive programming in cardiovascular disease risk factors. They also established links with other local hospitals initially with seven, then later with more, serving a wider area. Not only did they achieve success in delivering primary prevention services (through the mechanism of forming partnerships advocated in Chapter 3), but they also provided these services by using facilities that already existed in the communities they served. In that way, they demonstrated how local institutions can

restructure priorities and achieve benefits without additional funding.

In Chapter 4, we discussed aversion to change as one of the barriers to improvement in cardiovascular health. The worksite and clinical management programmes we describe in this document clearly show how aversion to change may be overcome by demonstrating that programmes to improve health can be effective and need not be costly. These programmes provide an additional note of optimism: they demonstrate how institutions and professionals achieved significant change by altering the opinions, customs, and even ingrained health habits of those concerned target populations as well as health care providers and policymakers. The main lesson to be learned from the clinical examples, however, is that a lack of collaboration among health professionals and decision makers (see Chapter 4) can be overcome.

## Comprehensive communitywide programmes

China is a country with a long history of successful community-based health education. In the past few decades, most of this effort was designed to combat infectious disease, but recently health officials in China have become concerned about the rapid increase in cardiovascular disease rates and about the likelihood that these diseases will become the major cause of death within the next decade. Accordingly, in many parts of China, intensive efforts have been made to redirect familiar health education methods toward cardiovascular disease prevention. One such effort is the Tianjin Cardiovascular Disease Intervention Programme. This well-organised and innovative health promotion (see inset) provides an excellent example of how a nation in transition need not experience delays when a new epidemic shows up on the horizon.

Another study, carried out in the Netherlands, was a collaboration between a community health centre and the Department of Social Medicine in the state university. The study involved all lifestyle factors relevant to cardiovascular disease and was carried out with a large degree of citizen participation. Community organisations collaborated in an intervention mix that included mass media, group activities, and social network activities (de Vries et al. 1995). This project, which began in 1991, has achieved considerable success in increasing awareness, forming intersectoral project groups, and decreasing smoking rates. Plans are being made for dissemination that would result in a regional community-based programme. The project demonstrates how the status quo barrier can be overcome, and its extensive use of volunteers testifies to the ability of an imaginative project to extend available resources.

## *Tianjin, China: Cardiovascular Disease Intervention*

In 1991, the city of Tianjin, China, initiated a community-based programme to combat cardiovascular disease. Television game shows, newspaper quizzes, financial incentives, door-to-door consultations, and distribution of low-sodium recipes were used to target 400,000 people with intervention programmes for hypertension, smoking, and salt intake. Behaviour changes have been witnessed since the programme was initiated, as

evidenced by many new nonsmoking environments and the increased sales of low-sodium seasoning.

Building on the success of the Tianjin project, the World Bank is funding seven cities to implement a chronic disease prevention programme largely directed at the primary risk factors of cardiovascular disease: smoking, nonnutritious diet, lack of physical activity, and uncontrolled hypertension.

*JP. Koplan, personal communication, 1991*

The city of Bremen, Germany, has also reported the success of an innovative campaign to reduce multiple cardiovascular disease risk factors (see inset). This study was funded by the German government and carried out by the University of Bremen with the extensive collaboration of many organisations within the city.

Two of the better-known comprehensive community-based programmes for preventing cardiovascular disease (the Stanford projects and the North Karelia project – see Chapter 3) demonstrate both cost-effectiveness and favourable benefit-to-cost ratios. For example, the Stanford Three-Community study (1972–1975) showed surprisingly good results with the use of radio, television spots, newspaper columns, and mass mailings of self-help educational materials, even when more intensive (and expensive) health promotion activities (such as classes or counselling) were not used. This project demonstrated the effectiveness of the inherently cost-effective mass media approach (Farquhar et al, 1977).

The more extensive Five-City Project (1978–1996) has also demonstrated significant effects on cardiovascular risk at a relatively low campaign expense of approximately US \$2 per capita from resources external to the community – about 1% of the cost of cigarettes purchased by the 22,000 smokers in a total population of 135,000 people. Adding to the project's cost-effectiveness has been the extensive collaboration of the communities' schools, media outlets, hospitals, voluntary health agencies, and health professionals. These partnerships represent a change in the way of working – without added expense to those carrying out the collaborations. An equally important indicator of financial success is the fact that the local county health department, an initial collaborator, has increased the staff devoted to health promotion ninefold. Now, assisted by local hospitals, health professionals, and politicians, the health department applies the health promotion methods acquired from its partnership with Stanford to other health problems while continuing its major effort against cardiovascular disease. This community adoption of methods



## *German Cardiovascular Prevention Study in Bremen City*

From 1985 to 1991 Bremen, a harbour city in northern Germany, was part of the German Cardiovascular Prevention Study – a community demonstration project for the primary prevention of heart attacks and stroke that aims at modifying cardiovascular risk factors in the general population. In Bremen, the efforts were especially directed at two districts with a mainly blue-collar population (200,000 inhabitants). To accomplish preventive campaigns, a community network was established comprising the mass media (regional television, radio, and newspapers), health professionals (physicians, dentists, and pharmacists), sickness funds, sport associations, and professional associations of worksite cafeteria managers and restaurant chefs.

Most of the activities were organised or coordinated by staff of the Cardiovascular Prevention Study and at storefront health meeting points situated in different boroughs. Temporary coalitions with the bakers guild and with food supermarkets were formed. Local and state politicians and other key persons in the community,

including actors and athletes, were included in public events.

At the end of the study, successful risk factor modification was achieved in the control of hypertension, smoking (in males only), and change of nutritional habits (especially in women and in all people with elevated cholesterol levels). When compared with the rest of Germany, Bremen showed a significantly lower rate of risk factors after intervention. Effects in control of high blood pressure could be linked to physicians' efforts in that area, whereas changes in other risk factors were attributed to the programme's mix of interventions. After the completion of the study in 1991, successful campaign modules were adopted by various organisations in other regions of Germany, including the cities of Bremerhaven, Dresden, and Rostock. Special intervention media are currently being used throughout Germany, including the *Heart Healthy Cookbook* and the *Kindergarten Cookbook*.

*E. Greiser, 1992*

developed collaboratively, and the continuation of the programmes themselves, represents the final goal of any demonstration project carried out in communities.

The well-known North Karelia project, which began in 1972, also shows clear evidence of major success in investment. One striking finding is that the decrease in cardiovascular disease that resulted from the programme produced major savings in medical pensions that would otherwise have been required for those who would have suffered from cardiovascular events. These savings more than made up for the cost of the intervention programme (Puska, 1983). The countywide project, carried out for two decades, has also shown a significantly greater reduction in heart attack and stroke than has been experienced in the adjoining county and the rest of Finland; in both monetary and human terms, then, benefits have exceeded costs. As with the Stanford projects, North Karelia mobilized and created effective partnerships with local health facilities, physicians, women's clubs, voluntary health agencies, mass media outlets, and schools.



## Voluntary sector

Heart and stroke foundations in different countries have played a major role in preventing cardiovascular disease (see Chapter 3). Given their extensive use of volunteers, their partnership-building role, and their successes in educating the public, these foundations investment can be declared a success. Other voluntary sector groups in the fields of cancer, lung disease, and tobacco control have also proved effective. For instance, as was seen in the example in Chapter 3, these organisations were important to the passage of the California Tobacco Tax Initiative. Successful coordination between national heart and stroke foundations on a regional scale has occurred in both Europe and the Americas.

## Private sector

We will mention two other community programmes that demonstrated successes in the field of nutrition and involved the private sector. The Netherlands Heart Foundation organised market tours led by dietitians for small groups of adults within the framework of a national Beware of Fat campaign. The specific goal of the tours was to encourage participants to reduce the fat content of their purchases, and results showed that 75% of adults and 63% of schoolchildren reported reductions in fat intake. Managers were enthusiastic because of improved customer relations. The activity, which received considerable media attention, is being extended to other communities (van Dis et al, 1995).

Another collaboration with the private sector's food industry was reported from a mining district in New South Wales, an area with the highest mortality rates from cardiovascular disease out of five areas surveyed on the east coast of Australia. In this region, fast-food outlets were recruited to alter deep-fat frying practices in a way that reduced the amount of fat absorbed by the products. The food outlets also altered the type of fat, substituting oils containing a large proportion of monounsaturated fatty acids for the usual hardened fats. Although customers were not aware of any taste change, saturated fat intake was decreased from 6 grams to less than 1 gram per 100 grams of fried potatoes. This relatively small intervention should encourage those who despair about the fast-food industry and should boost the belief that industry collaboration for the benefit of health can be achieved (Roberts et al, 1995).

## Countrywide programmes

Many exciting programmes exist at the country level. The Great Filipino Workout is a good example from a developing country. This programme (see inset) was initiated by the Philippines Department of Health after recognition that 25% of deaths in the country were due to cardiovascular disease. The project clearly demonstrates how the discovery of a new health problem can spur the initiation of a national policy. More importantly, the intervention shows how a developing country can begin extensive prevention programmes *before* the emerging cardiovascular disease epidemic reaches the peak levels typical of many developed countries.

### *Great Filipino Workout*

This country of 7,100 islands has succeeded in mobilizing all sectors of the country through an imaginative multimedia campaign. *The Catalonia Declaration* asks the world to bridge the gap in health inequalities; as a developing nation, the Philippines, seeking to prevent an epidemic, is currently applying its resources to combat the inequalities that exist within the country.

The Filipino Heart Center reported that 40% of adults in 1988-1989 were smokers, 24% had hypercholesterolemia, and 50% led a sedentary lifestyle. With the collaboration of many different sectors,

in 1994 a National Steering Committee and Technical Working Group initiated a national programme, The Great Filipino Workout.

This project involves all sectors of society, including governmental and nongovernmental organisations and the private sector. All fitness groups have been mobilized in the effort to design a 15-20 minute exercise programme that is uniquely Filipino and that will improve cardiovascular fitness. The project hopes to have everyone in the Philippines doing the Great Filipino Workout, regardless of where they are—in communities, schools, and industries.

*M. Narvaez, 1995*

As we have seen earlier in this report (see Chapter 3), other countries have shown similar countrywide success: Guatemala's National Commission Against Tobacco, Portugal's success in combating hypertension, and Tunisia's national plans for preventing cardiovascular disease in the primary care sector. Also, Germany (as described earlier in this chapter) and the Czech Republic (see inset) have recently developed countrywide programmes that increase commitment to primary prevention of cardiovascular disease.

## Czech National Programme of Health Promotion

The National Programme of Health Promotion in the Czech Republic is an organisational, economic, and political framework focused on improving the health status of the population. The Czech Republic government provides U.S. \$1.25 million every year for different health promotion programmes. In 1995, the programme implemented 130 projects. The basic criteria for the selection of programmes are their social impact, their potential to improve health, and their economic viability.

The programme has the following priorities:

- Reducing basic risks: smoking, poor nutrition, and lack of physical activity.

- Formulating and implementing health promotion strategies at the community, family, school, and workplace level.
- Ensuring that health insurance conditions and state and community budgets provide for preventive measures.

The overall priority is to bring about lifestyle changes, including changing dietary habits, reducing smoking, controlling excessive stress, improving reproductive health, reducing alcohol consumption, increasing appropriate physical activity, and preventing drug dependence.

*L. Komárek, personal communication, 1995*

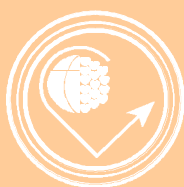
## International and regional programmes

As we saw in Chapter 3, CLACCTA, the Latin American Committee to Coordinate the Control of Tobacco Use, is a good example of a regional organisation; since it was founded in 1993, it has developed wide support among Latin American countries. The Guatemalan antitobacco activity (described in Chapter 3) is an example of a programme aided by CLACCTA. Clearly, a regional programme of this sort represents a victory in collaboration and in partnership formation. As an investment, its success is due partly to the pool of resources that it represents and partly to the sharing of information and resources that occurred. Its potential future health benefit is considerable.

The International Chinese Heart Health Network (described in Chapter 3) has been in existence only a short time, but it already represents a successful investment not only aiding in technology transfer but also representing a remarkable union of the Chinese communities of the Pacific Rim and holding the promise of an even greater chance in the future to prevent disease.

The InterHealth and CINDI programmes (see Chapter 3) meanwhile represent excellent examples of international collaboration. Cost savings are inherent in such countries through the efficiency of sharing intervention technologies.

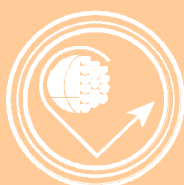
The Western Pacific region has seen a number of successes in tobacco control policies in the past few years that were stimulated in part through the efforts of one dedicated individual Judith MacKay of Hong Kong (see inset).



### Recommendation No. 11

*National and international organisations concerned with economic, social, and health development should do the following:*

- a) Recognize the inherent value of investing in health and provide financial and technical assistance to recipient and borrowing countries to undertake health promotion, cost-effective clinical management, and disease prevention initiatives in the context of their health care and social reform agendas.*
- b) Support the dissemination of information and the creation and maintenance of international networks of health, education, and social science professionals and of governmental and nongovernmental organisations at all levels, to reinforce each other's actions and to monitor change.*



### Recommendation No. 12

*The Victoria Declaration Implementation Committee should take the following steps:*

- a) Convene, as appropriate, in collaboration with other scientific associations, heart health conferences and workshops at the international, country, and local levels to examine prevention issues with a policy perspective; support the development of heart health coalitions; and provide guidance on public health approaches to cardiovascular disease prevention.*
- b) Establish linkages with national and international economic, social, and health development agencies to facilitate access to financial and technical assistance for developing countries and for developed countries moving toward market economies.*

## Western Pacific Antitobacco Policies

In recent years, the Asian Pacific region has become the major target of the transnational tobacco industry. In the September 1986 issue of the industry journal *World Tobacco*, a story on the 'Bright Future Predicted for Western Pacific' discussed the trade's growth potential in that area and the desire to create more smokers. The industry has predicted that tobacco sales in the region will increase by 33% between 1991 and 2000.

Despite the efforts of the tobacco industry, countries in the Asian Pacific region have enacted many policy decisions in the past two decades to limit the use of tobacco. The following examples highlight successes obtained throughout the region (some enacted with the support of the Asian Consultancy on Tobacco in Hong Kong) and support the notion that policy should play a significant role in limiting

tobacco use and hence in reducing the incidence of cardiovascular disease.

- In 1971, Singapore initiated a ban on tobacco advertising.
- In 1983, China became the first country to ban smoking on all domestic flights.
- In 1987, Hong Kong banned the manufacture, importation, and sale of smokeless tobacco.
- In 1993, the Philippines launched a campaign using a national mascot named Yosi Kadiri, whose goal is to raise awareness about the dangers of smoking.
- In 1994, Shanghai implemented government regulations that prohibited smoking in virtually all indoor public areas.
- Thailand has implemented a national campaign to resist U.S. trade pressures on tobacco and to preserve the country's national advertising ban.

*J. Mackay, personal communication, 1995*

## Summary

There is no doubt that investment in heart health can be cost-effective. We believe that the successes in fighting cardiovascular disease presented here can act as prototypes for future policies that address other problems.

Although accounts are given throughout *The Catalonia Declaration* of singular successes in achieving cost-effective programmes that involve policy change, we give these stories as examples and realize that many more, and perhaps better, stories could be included. Completeness is a lesser goal, however. Providing dramatic portrayals that create interest, motivation, and confidence and that spur others to action is the main purpose of The Catalonia Declaration







## Conclusion

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**T**he *Catalonia Declaration* is dedicated to the concept that investing in heart health is essential both for its humanitarian effect and for its attendant economic benefits. Examples of successes are given, largely in the form of stories, to demonstrate all stages of program development. We used the words of Margaret Mead:

Never doubt the capacity of a few dedicated individuals to change the world: in fact, it is the only way it ever has. We hope that *The Catalonia Declaration* helps you see yourselves as more dedicated than ever to the previous *Victoria Declaration*'s view that we have the information and methods to virtually eliminate heart attack and stroke from the world. If your dedication to this goal has grown, then we have succeeded.





# Recommendations



## All Individuals and Groups Concerned with Heart Health

1. All those concerned with furthering the heart health agenda should recognize the resourcefulness and the power to effect change that is inherent in well-informed, organised, and mobilized communities and should form alliances with them.

## Health and Private Sectors

2. International health organisations, health departments, voluntary health agencies, health professional organisations, educators, the academic community, and the private sector should take the following actions:
  - a) Support the development of community-based heart health programmes at the community level by involving appropriate resources from the health and nonhealth sectors.
  - b) Promote heart health activities in developing and developed countries alike that focus on preventing children and youth from adopting unhealthy behaviours.
  - c) Form alliances to advocate for heart health and to develop and implement comprehensive policies for promoting heart health and preventing heart disease according to the principles set forth in *The Victoria Declaration*.
  - d) Develop strategies and assign appropriate resources to adopt and use relevant knowledge and experience from heart health interventions, including community mobilization and worksite and school programmes for preventing cardiovascular disease and promoting good health.
  - e) Provide resources for creating and nurturing partnerships to support the development of heart health policies and programmes, to exchange knowledge and experiences, to provide technical support to partners, and to assist each other in identifying sources of funding to ensure that activities can be coordinated and sustained.

## **Voluntary Health Organizations**

3. Existing voluntary health organisations, particularly associations concerned with heart disease and stroke, cancer, lung disease, tobacco control, and diabetes, should provide technical assistance and appropriate resources to countries and regions of the world desiring to establish similar voluntary health organisational structures.

## **Health Services**

4. Health departments and other agencies responsible for health, in partnership with relevant agencies, organisations, and community coalitions in the health and nonhealth sectors, should take the following actions:
  - a) Initiate heart health programmes using whenever possible the existing health system (e.g., public health or primary care).
  - b) Support activities to enhance the effectiveness of preventive practices of health care professionals.

## **Health, Social Science, and Education Professionals**

5. Schools and government departments responsible for training health professionals, social scientists, and educators should ensure that the following occurs:
  - a) The training of health, social science, and education professionals includes the development of attitudes, knowledge, and skills in community-based programming for disease prevention and health promotion, community consultation, patient behaviour change counselling, advocacy, and lobbying.
  - b) Incentives are provided to support research in technology transfer to ensure development, testing, and dissemination of cost-effective methods for preventing and controlling cardiovascular disease risk factors at the community and individual levels.

## **Health and Educational Professional Associations and Schools**

6. Health and educational professional associations and schools that train health professionals should do the following:
  - a) Develop special programmes to help health professionals, opinion leaders, educators, members of the media, and political leaders adopt healthy lifestyles and serve as societal role models for healthy living.
  - b) Promote nonsmoking among their members and advocate for smoke-free training environments.

## **All Groups Concerned with Dissemination**

7. Health and education professionals and their institutions, agencies concerned with public health, university departments, and relevant governmental organisations should form partnerships to facilitate technology transfer and dissemination of workable policies and well-tested heart health intervention methods.

## **All Health Professionals**

8. Health professionals should form lobbies and advocacy groups to counteract the commercial interests whose policies, practices, and products are detrimental to heart health.

## **Policymakers**

9. Governments at all levels should do the following:
  - a) Develop and promote policies that support heart health.
  - b) Accept responsibility for providing the appropriate resources necessary to link heart health activities at the country, local, and community levels; to define clearly the responsibilities and functions at each level; and to ensure that sustainable infrastructure and programmes are put in place.

## **Research Funding Agencies**

10. Research agencies should allocate appropriate resources to accomplish the following:
  - a) Develop new methods and approaches that facilitate the dissemination and uptake of existing preventive knowledge and interventions by organisations concerned with heart health at all levels.
  - b) Carry out organisational and evaluative research studies to learn about the value and cost of alternative methods for organising, financing, and managing heart health programmes, including options for private sector funding of the delivery of such programmes.
  - c) Implement systems for surveillance of risk factors and cardiovascular disease, particularly in sentinel populations, including young people and people undergoing rapid social and economic change.
  - d) Implement systems for monitoring and reporting the progress and results of both planned and unplanned interventions.

## **Economic, Social, and Health Development Agencies**

- 11.** National and international organisations concerned with economic, social, and health development should do the following:
  - a)** Recognize the inherent value of investing in health and provide financial and technical assistance to recipient and borrowing countries to undertake health promotion, cost-effective clinical management, and disease prevention initiatives in the context of their health care and social reform agendas.
  - b)** Support the dissemination of information and the creation and maintenance of international networks of health, education, and social science professionals and of governmental and nongovernmental organisations at all levels, to reinforce each other's actions and to monitor change.

## **Victoria Declaration Implementation Committee**

- 12.** The Victoria Declaration Implementation Committee should take the following steps:
  - a)** Convene, as appropriate, in collaboration with other scientific associations, heart health conferences and workshops at the international, country, and local levels to examine prevention issues with a policy perspective; support the development of heart health coalitions; and provide guidance on public health approaches to cardiovascular disease prevention.
  - b)** Establish linkages with national and international economic, social, and health development agencies to facilitate access to financial and technical assistance for developing countries and for developed countries moving toward market economies.

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