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THE VICTORIA DECLARATION

on Heart Health



DECLARATION OF THE ADVISORY BOARD • INTERNATIONAL HEART HEALTH CONFERENCE • VICTORIA, CANADA, MAY 28, 1992



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BC MINISTRY OF HEALTH AND
MINISTRY RESPONSIBLE FOR SENIORS





THE VICTORIA DECLARATION on Heart Health

**Declaration of the Advisory Board
International Heart Health Conference
Victoria, Canada, May 28, 1992**

The Honorary Patron of the Conference

- The Honourable David C. Lam, CM, KStJ, LLDB
Lieutenant-Governor of British Columbia

The International Heart Health Conference was sponsored by

- Health and Welfare Canada
- British Columbia Ministry of Health
- Heart and Stroke Foundation of B.C. & Yukon
- Heart and Stroke Foundation of Canada

The Conference was co-sponsored by

- World Health Organization / Pan American Health Organization
- World Hypertension League



Minister's Message

The International Heart Health Conference brought together scientists, policy makers and health professionals from around the world — underscoring that heart health is indeed a global issue. I am proud of the role my country played in hosting this landmark event and am confident that the Victoria Declaration will contribute significantly towards the goal of a healthy Canada.

The Declaration of the Advisory Board delivers a clear message: cardiovascular disease is largely preventable. We have the capacity to virtually eliminate this world-wide epidemic by applying what we know and working together in a spirit of collaboration and partnership.

The cornerstones of heart health, put forth by the Declaration, provide a clear prevention agenda for all: governments, international health agencies, social and economic development organizations, the scientific community, health coalitions and the private sector.

As the Minister of National Health and Welfare, I join the Honourable Elizabeth Cull, British Columbia Minister of Health and Minister Responsible for Seniors, Dr. Anthony F. Graham, President of the Heart and Stroke Foundation of Canada and Mr. Gary Sutherland, President of the Heart and Stroke Foundation of British Columbia and Yukon, in thanking all those who contributed to the Conference for their participation. Let us maintain the momentum of the Conference and help make the vision of the Victoria Declaration a reality.



The Honourable Benoit Bouchard
Minister of National Health and Welfare
Government of Canada



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Foreword

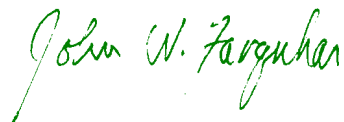
On the occasion of the International Heart Health Conference, the Advisory Board wishes to issue the Victoria Declaration on Heart Health, supported by two documents, a Call for Action and a Policy Framework. This Declaration is intended to give a sense of urgency to the prevention and control of the most important cause of death in most of the world's countries. The Declaration's contents were inspired by the Conference theme, "Bridging the Gap: Science and Policy in Action." The document is an instrument with the potential to bridge gaps between theory and practice, between philosophy and reality, between societies whose main battle with cardiovascular disease is behind them, and those whose struggles are beginning or intensifying.

The Declaration is authored by the individual Advisory Board members, and not by their respective organizations. The Board acknowledges comments and advice from the Scientific and Program Committee of the Conference. Also, Conference participants were invited to contribute knowledge, ideas and perspectives, and many of their valuable ideas were incorporated.

On behalf of the Advisory Board of the International Heart Health Conference, 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 Call for Action, to examine the Policy Framework, and to work towards the implementation of the recommendations that are most appropriate to their needs and resources.

We also call upon you to actively use this Declaration. Use it to influence your professional associations and your municipal, state, provincial or national governments. But we ask more than this. No "declaration" on cardiovascular disease policy can ever be complete, so complex is the field. We urge you to build upon the Victoria Declaration and use it as a starting point for critical re-examination of its relevance to you, your institutions, your community and your country. The Advisory Board, in turn, will pursue adoption of the Declaration through continued advocacy coupled with refinement of the recommendations as needed.

Some view this period in the history of cardiovascular disease with alarm; billions of people in countries previously spared the worst of the heart disease epidemic are beginning to adopt the high-risk lifestyles that have brought disaster to so many countries in decades past. We prefer to see it as a time of great hope. We know now, beyond a doubt, how cardiovascular disease can be prevented. Let's help each other in this endeavour.



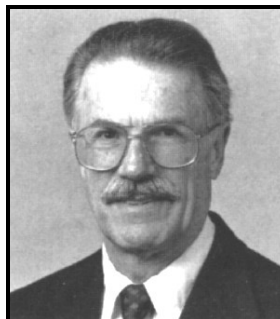
John W. Farquhar, MD
Chair, Advisory Board
International Heart Health
Conference



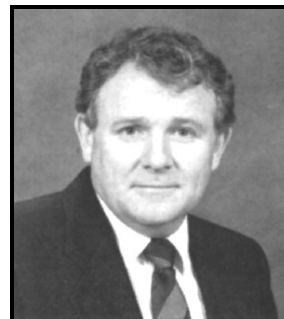
David R. MacLean, MD
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International Heart Health Conference

*I*nternational Heart Health Conference

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Yukon

Declaration

Recognizing that both scientific knowledge and widely tested methods exist to prevent most cardiovascular disease, the Advisory Board of the International Conference on Heart Health calls upon

- health, media, education and social science professionals, and their associations –
 - the scientific research community –
- government agencies concerned with health, education, trade, commerce and agriculture –
 - the private sector –
- international organizations and agencies concerned with health and economic development –
 - community health coalitions –
 - voluntary health organizations –
 - employers and their organizations –

to join forces in eliminating this modern epidemic by adopting new policies, making regulatory changes and implementing health promotion and disease prevention programs directed at entire populations.

Advisory Board
International Heart Health Conference
Victoria, Canada

May 28, 1992



A Call For Action



Cardiovascular disease is largely preventable. We have the scientific knowledge to create a world in which most heart disease and stroke could be eliminated. In such a world, 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. The theme of the International Heart Health Conference, “Bridging the Gap: Science and Policy in Action,” tells us what we need to do — unite health professionals, scientists and policy-makers at all levels in the effort to implement a global policy for cardiovascular disease prevention.

We already know, from studying downward trends in cardiovascular disease in many countries, how to reduce its toll. The primary challenge now is to maintain the downward trend while assisting and encouraging countries where rates of heart disease are increasing (i.e. those of the developing world and Central and Eastern Europe).

Most cardiovascular disease is brought about by some combination of smoking, high blood pressure, elevated blood cholesterol, unhealthy dietary habits — including excessive alcohol consumption — obesity, a sedentary lifestyle, and psycho-social stress. These risk factors are woven into the very fabric of life in many societies around the world. Reducing or, ideally, eradicating

We have the scientific knowledge to create a world in which most heart disease and stroke could be eliminated.

them will lead to a reduction not only in cardio-vascular disease but also in other noncommunicable diseases that share similar risk factors (e.g. many types of common cancers and lung and liver disease).

The prescription is simple. To implement it is much more difficult. Cultural and socio-economic factors have a major influence on people's lifestyles. Moreover, people's access to heart health is often limited by such things as inadequately trained health professionals, a lack of healthy food choices, inadequate health information and skills, illiteracy, adverse living and working conditions and, sadly, a lack of courageous and effective action on the part of governments.

The Advisory Board of the International Heart Health Conference calls on the following individuals and organizations to join forces in the promotion of heart health worldwide:

- health, media, education and social science professionals, and their associations;
- the scientific research community;
- government agencies concerned with health, education, trade, commerce and agriculture;
- the private sector;
- international organizations and agencies concerned with health and economic development;
- community health coalitions;
- voluntary health organizations; and
- employers and their organizations.

The first requirement is a commitment to a set of policy principles or ideals. Following this is the implementation of a heart health policy, one that allocates resources to transform the ideals into reality. Given the diversity of institutions and sectors involved, the formation and continual strengthening of partnerships is essential if the vision of a heart-healthy world is to be realized.

Policy Principles

There are six principles:

1. Adoption of a public health approach to the prevention and control of cardiovascular disease. Such an approach seeks:

- to prevent the onset of risk factors in children and youth everywhere, and in entire populations not yet affected by widespread prevalence of risk factors;
- to eliminate or reduce risk factors in all populations, but especially in countries where cardiovascular disease has not yet reached epidemic proportions; and
- to foster social norms and cultural practices that support heart health.

2. Adoption of the “four cornerstone” approach to heart health:

- health-promoting dietary habits;
- a tobacco-free lifestyle;
- regular physical activity; and
- a supportive psycho-social environment.

3. Extension of the benefits of prevention and treatment to all population groups, regardless of age, sex, race or socio-economic status. This includes equitable access to health services for individuals who are at high risk for cardiovascular disease or who already have it, and involves the strengthening of existing health promotion and disease prevention programs. It means supporting community development approaches that empower whole communities to address the many social and economic conditions that stand in the way of healthy living. Of particular importance are the identification and management of the following:

- high blood pressure;
- abnormal blood lipid levels;
- abdominal obesity; and
- diabetes.

4. Support for research in the many areas that touch on the prevention and treatment of cardiovascular disease, and development of intervention approaches at both the individual and the community level.

5. Support from richer countries to enable those with limited resources to develop health promotion and disease prevention policies and infrastructures and to improve access to health services.

6. Achievement of a balance between the resources currently applied to prevention of cardiovascular disease and those applied to treatment of it.

*I*mplementation Processes

Recognizing that the capacity of different countries around the world to implement heart health policy varies widely, the Advisory Board nevertheless urges the adoption of the following six strategies. Each is a continually evolving process, to be expanded and adapted as needs change.

1. Marshalling institutional support for the implementation of heart health policies, specifically those related to the creation of living and working environments and social supports that sustain a healthy lifestyle;

2. Educating the public and providing the skills and information people need to adopt health-promoting dietary patterns, to refrain from smoking, and to make physical activity a part of their daily lives;

3. Promoting and supporting organized health promotion and heart health activities in all communities by ensuring that communities are genuinely involved in assessing their own needs and in planning and implementing preventive interventions;

4. Strengthening the capacity of the primary care sector to educate, train and motivate individuals and communities to adopt healthy lifestyles, and to provide state-of-the-art treatment for the management of cardiovascular disease and its attendant risk conditions;

5. Influencing employers to create heart-healthy working environments and to reduce work-related stress, which will, in turn, increase productivity;

6. Setting up appropriate, affordable information systems to monitor cardiovascular disease, its attendant risk factors and the social and economic conditions that contribute to these, and to evaluate preventive interventions.

The Partnerships

The task is daunting, but challenge may be turned into opportunity. In our world of rapid social and political change, it is possible to create new ways of thinking and working. To promote a spirit of collaboration and partnership among all who are concerned about heart health, the Advisory Board issues this Call for Action. It urges:

1. the cooperative development of public policies that support heart health, and health in general. Such policies are particularly needed to:

- eradicate tobacco use and the advertising of, promotion of, and trafficking in tobacco products;
- increase the availability of, and access to, healthy food choices;
- provide opportunities for regular physical activity; and
- create positive living environments.

2. the establishment of national and international partnerships to provide technical and financial support for:

- the development and strengthening of health services infrastructures;
- training programs for health and social science professionals, educators, community organizers and media professionals;
- the development of culturally appropriate programs for health promotion and disease prevention;
- research related to the promotion of heart health, as identified in the Research Agenda of this Declaration.

The Advisory Board believes that all who are concerned with improving the health and quality of life of people around the world have a responsibility to heed this Call for Action.

Victoria, Canada, May 28, 1992



A Policy Framework

Preamble



Cardiovascular disease — in particular, coronary heart disease and stroke¹ — is the main cause of death in industrialized countries and is rising at an alarming rate in much of the developing world. Decades of research have provided the knowledge that is required to reduce its occurrence considerably. Research has also established that action taken to reduce the incidence of heart disease and stroke can also be effective in preventing many chronic diseases, including diabetes, osteoporosis, and many types of cancer.

In brief, a firm scientific basis exists for the promotion of healthy living. Fully translating research knowledge into action requires collaboration and communication between scientists and those who design public policy and programs. Also essential is the creation of social and economic conditions that help and encourage people to make healthy choices.

*Cardiovascular disease prevention is an area rich with opportunity
for the achievement of global health gains.*



This Declaration is a call for scientists, health, education and social science professionals, policy-makers, media organizations, program planners and representatives of the private and non-profit sectors to recognize the importance of working together to improve cardiovascular health worldwide. By combining forces, they can bridge the gaps between current knowledge concerning cardiovascular disease — its causes, its prevention, its management — and current policies and programs aimed at promoting heart health.

Only 30 years ago, cardiovascular disease was regarded by many as a medical condition that afflicted certain unfortunate individuals. Perhaps not surprisingly, since the contributing factors had not yet been clearly defined, preventive approaches were virtually non-existent, and the concept of engaging whole populations in heart-healthy activities was completely unknown.

Starting in the 1950s, much of the industrialized world — with the notable exception of a few countries such as Japan and France — witnessed an explosion in the occurrence of cardiovascular disease. As mortality and morbidity rates soared, health care systems struggled to keep pace with the demand for treatment, care and rehabilitation. More and more countries recognized cardiovascular disease as a major threat to public health. However, the steady advances in identification of the major contributing factors have shown that cardiovascular disease is preventable. This has encouraged some countries to try a fresh approach to the problem — one which holds out, and has already begun to fulfil, the promise of high returns. It is an approach that seeks to forestall the development of cardiovascular disease in whole populations through the promotion of healthy lifestyles and the creation of environments and policies that encourage healthy choices.

Cardiovascular disease remains the principal cause of death in much of the industrialized world; nevertheless, many countries have achieved dramatic reductions in their mortality rates. For example, in the United States, coronary heart disease now claims 40 per cent fewer lives than in 1975, and stroke 55 per cent fewer lives. Similar reductions have occurred in Canada and Australia.

There is less cause for optimism in much of the developing world and in some other industrialized countries, where cardiovascular disease mortality and morbidity rates are rising rapidly. In some Central and Eastern European countries, there have been sharp increases (30 to 80 per cent) over the last 20 years.

There has been significant progress in unravelling the relationship between people's cardiovascular health and the food they eat, their levels of physical activity, and other lifestyle practices. We know, for example, that the Japanese diet is linked to low mortality rates. A less positive illustration of the "lifestyle

connection” can be seen in certain parts of Latin America where cardiovascular disease is now the major cause of death and illness. In many of these countries, traditional lifestyles and diets have given way to increasingly harmful eating patterns and sedentary ways of life.

Research has also highlighted the important role that people’s social and economic circumstances play in heart health. Even though the overall decline in mortality from cardiovascular disease has been dramatic in many countries, it has nevertheless been uneven, with fewer gains generally being made in lower socio-economic groups than in those who enjoy higher living standards.

These geographic and socio-economic variations — coupled with the large swings seen in the occurrence of cardiovascular disease over short time periods — underline the vast potential of population-wide prevention approaches, both to accelerate downward trends in mortality and morbidity where these have already begun, and to prevent a cardiovascular disease epidemic from sweeping the rest of the world.

Science has shown that the major risk factors for cardiovascular disease are either preventable or controllable. Studies of hundreds of thousands of individuals over the past 30 years have consistently shown that smoking, high blood pressure, elevated serum cholesterol and diabetes increase the risk of cardiovascular disease. In turn, these risk factors are strongly linked to abdominal obesity, diets high in saturated fat, and inadequate physical activity. In any prevention effort, lifestyle and environmental factors are clearly of paramount importance.

Admittedly, some of the factors associated with cardiovascular disease are unalterable, such as genetics, advancing age and male gender. There have been encouraging biomedical advances that now make it possible to identify and manage the heart health of individuals with genetic traits that put them at risk. However, when unmodifiable risk factors are present, they magnify the effect of the preventable or controllable risk factors.

These geographic and socio-economic variations — coupled with the large swings seen in the occurrence of cardiovascular disease over short time periods — underline the vast potential of population-wide prevention approaches... and approaches to prevent a cardiovascular disease epidemic from sweeping the rest of the world.

A coordinated global campaign is needed to combat cardiovascular disease, one that includes a mixture of strategies for health promotion and disease prevention, community-level public health approaches, and health care programs to identify and manage individuals at risk and treat cardiovascular disease. To accomplish this requires the dedication and long-term support of many disciplines, governments and professional organizations in the private and non-profit sectors, as well as an appropriate commitment of resources.

Cardiovascular disease prevention is an area rich with opportunity for the achievement of global health gains. A wealth of experience is available from major intervention projects worldwide, public concern is mounting in many countries, and consumer interest in prevention is on the rise. Since many of the risk factors for cardiovascular disease are also common to other types of chronic noncommunicable diseases, such as cancer, the spin-off benefits of prevention could be far-reaching. In brief, a concerted international movement to combat cardiovascular disease through prevention and health promotion can result in enhanced productivity and quality of life on a global scale.



Since many of the risk factors for cardiovascular disease are also common to other types of chronic noncommunicable diseases, such as cancer, the spin-off benefits of prevention could be far-reaching.

Broad Areas for Action



Cardiovascular disease prevention involves issues at both the individual and the population level. Treatment approaches aimed at individuals must apply state-of-the-art biomedical science — that is, to the extent that it is cost-effective and can be afforded by the health care system. For the population at large, broad prevention and health promotion approaches are needed to ensure adoption and maintenance of healthy lifestyles, and to improve socio-environmental conditions for all (e.g. to provide better access to a healthy diet, and to ensure smoke-free air).

The challenge is two-fold: to secure a place for heart health on the political agenda, and, at the same time, to support and advance the program agenda (i.e. program and research activities to address specific risk factors and target particular population groups).

The success of any country's heart health effort depends on the degree to which it is integrated into a national-level health promotion and disease prevention strategy. Every country will need to identify and build on its own strengths in health and other sectors.

Educating the public and building consumer demand is a vital first step towards building long-term political support and resources for broadly based health promotion and disease prevention initiatives. Scientists and health professional organizations need to publicize their knowledge about risk factors and the powerful cultural and economic forces that drive them. Decision-makers and the general public need this knowledge if heart health is to receive the necessary political and financial support.

Creating the political will to ensure that the health of the public is not compromised constitutes a central task in building a heart-healthy environment.

The timely application of the science base in support of health promotion and disease prevention initiatives presents a challenge to scientists and practitioners alike. These two groups must work together to decide at what point policy action is justified by the scientific evidence. Heart health is full of instances in which the science base, although not complete, has been considered sound enough to justify action — for example, national food guidelines have been revised in recognition of the need for population-wide dietary changes. Informed, open scientific debate is needed to ensure that the public benefits fully from opportunities for prevention, that non-health considerations (e.g. economic factors) do not take precedence over people's health, and that health considerations are taken fully into account in all areas of policy-making.

Creating the political will to ensure that the health of the public is not compromised constitutes a central task in building a heart-healthy environment. Resources in all countries are scarce, and trade-offs are inevitable at the political level. Governments will require courage to support health promotion approaches that call for cooperation among sometimes competing sectors of the economy. In the area of tobacco, a number of countries have demonstrated the effective use of such approaches. The goal must be to create an environment in which people have access to information and preventive health services, are motivated to follow a healthy course of action and are provided with the skills to do it.

Partnership building is necessary to marshal the required resources at the local, national and international levels. Heart health provides an opportunity for senior public and private sector management to play a part in the creation and implementation of healthy public policies. Private sector goals need not conflict with those of public health; in some countries, for example, industry has taken steps to modify food products and to provide health information for the benefit of consumers. Only by working together can the medical, nursing, nutrition, education, media and social service professions maximize the benefits of health promotion and disease prevention and ensure their practical application.

The informal networks and coalitions... have enormous potential to facilitate the rapid exchange of information and to decentralize decision-making, while remaining adaptable to new circumstances and priorities.

A new way of working is needed to coordinate the efforts of the many groups and organizations concerned with heart health, bearing in mind their varying constituencies and objectives. The informal networks and coalitions needed to promote heart health (involving players from both inside and outside the health sectors) have enormous potential to facilitate the rapid exchange of information and to decentralize decision-making, while remaining adaptable to new circumstances and priorities.



Population Groups



The General Population

In most industrialized countries, more than two thirds of the population have one or more of the risk factors for cardiovascular disease. Large numbers of people worldwide are taking up smoking, adopting detrimental dietary habits, abandoning traditional forms of physical activity, and experiencing the stress of family and community disruption. These trends provide a compelling argument for adopting a broad health promotion approach. Policy measures are needed to create healthy family, community and work environments, as well as initiatives to promote the population-wide adoption of healthy lifestyles.

Heart health policy-makers need to recognize these two facts:

- The hallmark of cardiovascular disease is its multifactorial nature. Cardiovascular disease generally results from a combination of risk factors, many of which affect most people to some degree. Reaping the fullest benefits of prevention means adopting an integrated approach to intervention, one that simultaneously addresses the various risk factors that play a role in cardiovascular disease.

In most industrialized countries, more than two thirds of the population have one or more of the risk factors for cardiovascular disease.

It is recommended that:

1	2	3	4	5	6	7	8
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- The presence of several risk factors places an individual at markedly increased risk. This applies even though there may be only slight elevations of the risk factors concerned. The fact that large numbers of people have such elevations in more than one risk factor explains why cardiovascular disease is so widespread. It also underlines why preventive interventions targeted to the population as a whole are likely to yield the greatest benefits, both in terms of their impact on heart health, and in the area of cost containment.

Given the extent of the problem, the role of governments is critical. Many of the corresponding recommendations, although directed to specific population groups, also apply to the general population.

Children And Youth

There is broad agreement that the most effective way of curbing the global epidemic of cardiovascular disease is to prevent the early onset of risk factors in children and youth. Research has shown that children who have risk factors early in life are likely to carry them into adulthood. In many developing countries, young people make up the largest proportion of the population. This emphasizes the importance of targeting youth with preventive measures. Good dietary habits, avoidance of smoking, regular physical activity and maintenance of appropriate weight are areas where goals need to be set by public and private agencies concerned with child health and welfare.

Heart health programs for children and youth need to recognize the underlying psychological and social issues that mediate the adoption of healthy behaviours. School heart health programs should be part of a comprehensive approach to school health that addresses factors in the curriculum, the school environment and health services provided through the school system. Every effort must be made to harness the enthusiasm of children and youth through school and after-school activities related to health promotion.

Currently, there is a dearth of information on the prevalence of risk factors and related behaviours in children and youth. Risk

Research has shown that children who have risk factors early in life are likely to carry them into adulthood.

factor data in children need to be analyzed in light of longitudinal studies that examine the relationship between the presence of risk factors early in life and in adulthood. Such analyses are essential to target programs effectively and to evaluate the impact of interventions.

For human development, sustenance and education, children depend on their families, communities and society as a whole. Approaching puberty, they become subject to social pressures to adopt harmful behaviour. Simultaneously, the influence of their parents declines. Children are highly vulnerable to the ravages of poverty and they are easy targets for marketing campaigns that have the potential to undermine their chances of a healthy life.

Governments and international organizations have recognized the need to protect the well-being of children everywhere. But above all, it is in the family setting that most children acquire their behaviour patterns. Policies that support the well-being of families, especially mothers, are therefore fundamental to the health of children. Governments and the private sector should recognize that moving from policy to concrete accomplishments requires financial commitment and support.

It is recommended that:

1	2	3	4	5	6	7	8
---	---	---	---	---	---	---	---



It is recommended that:

1	2	3	4	5	6	7	8
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Men

Until late in life, men are at higher risk of heart disease than women, although the risk of stroke is about the same for both sexes. Rates of smoking, elevated blood cholesterol and alcohol consumption are higher among men than women. Also, men have significantly more abdominal obesity than women, a type of obesity that is particularly associated with excess cardiovascular disease risk.

Most public health and clinical guidelines for the identification and management of individuals at risk for cardiovascular disease make no distinction between men and women, except in the area of elevated blood cholesterol, where guidelines assign higher priority to middle-aged men. However, the scientific evidence suggests that cardiovascular disease prevention should begin long before middle age. Young men are at high risk with respect to their diet and smoking, and they tend to seek health care less often than women.

It is recommended that:

9	10	11	12	13	14	15	16
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Women

Heart disease in women tends to manifest itself later in life. Stroke and peripheral vascular disease affect the two sexes about equally. Although there is a relative lack of scientific data on women, what is known is worrisome. In many countries, the number of young women smokers is growing. Certain risk factors, such as diabetes, place women at particular risk of heart disease. Studies have shown that women who smoke and take oral contraceptives are at much higher risk for myocardial infarction than those who use neither. It is also suspected that hormonal changes at menopause increase the risk to older women. The lack of data and the consequent difficulty of determining the cost-effectiveness of preventive interventions reduce women's access to prevention. Differential prevention policies should be based on a broad consensus among health professionals, and women should be involved in the development of these policies.

9	10	11	12	13	14	15	16
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Over one third of elderly individuals experience some manifestations of cardiovascular disease, often along with other chronic disease. The prevalence of risk factors such as high blood pressure and elevated blood cholesterol tends to be high late in life, justifying the use of primary and secondary prevention measures among older adults. In a number of industrialized countries, the overall decline in cardiovascular disease mortality rates has extended to older age groups. The adoption of healthy lifestyles (including appropriate nutrition, smoking cessation and an active life) and the provision of social and psychological supports have the potential to improve the quality of life of the elderly.

There are other compelling reasons for emphasizing the need for prevention of cardiovascular disease in the elderly rather than placing too much reliance on pharmacological or surgical methods of treatment. The high cost of providing care is one factor; another is the risk of the over-treatment of older adults. A third consideration in many countries is the shortage of appropriate caregivers and pharmacological agents.

Disease trends and scientific developments suggest that there is good potential for using health promotion approaches with the elderly that will enhance quality of life. In addition to providing care, health and social science professionals have a responsibility to ensure that all efforts are made to prevent or postpone the onset of cardiovascular disease in the elderly.

It is recommended that:

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Disadvantaged Groups

In some countries, cardiovascular disease and its risk factors are more likely to be found in people at the lower end of the socio-economic scale. Among the most vulnerable are those who are poor, inadequately educated, or of a different culture than the majority, as well as migrant workers and elderly people living on fixed incomes. The health information available through public channels does not appear to reach these groups. Moreover, they often live in environments that do not support healthy choices.

There has been some success in using community development to engage disadvantaged groups and communities in tackling health problems they have identified as important. The value of such approaches is supported by social, psychological and epidemiological research, which suggests that the health of individuals and groups benefits when they gain greater control over their lives and circumstances.

Health and social science professionals can play a key role in assisting disadvantaged groups and communities to define their own needs and to increase their access to health services. Professionals can also support advocacy for social and economic development.

Risk Factor Reduction



Smoking, high blood pressure, abnormal blood lipid levels and diabetes account for a significant proportion of the current epidemic of cardiovascular disease in many countries. Other factors also contribute to the development of cardiovascular disease. Recent biomedical research has revealed the role of genetics and blood agents that cause or prevent the formation of blood clots. Inappropriate diets, sedentary lifestyles and obesity contribute in a major way to the widespread prevalence of certain risk factors (high blood pressure, diabetes and abnormal blood lipid levels).

Psychosocial factors, such as work-related stress, and stress responses (e.g. hostility and anger) are also believed to be important in the development of cardiovascular disease. In most industrialized countries, social and economic disadvantage (in particular, a low education level) is associated with a higher risk of cardiovascular disease. Continued biomedical, psychosocial and social research can help to close the many gaps in our understanding of the causes of cardiovascular disease and the appropriate avenues for prevention.

The main thrust of heart health policy must be a public health approach. Smoking prevention and smoking cessation are the two most effective means of improving the health of the public.

The Cornerstones of the Public Health Approach

The vast majority of adults in industrialized and developing countries are affected by one or more risk factors for cardiovascular disease. Since these factors are ingrained in the lifestyle and conditions of daily living, the main thrust of heart health policy must be a public health approach, with four cornerstones:

- improvement of dietary habits, in particular a reduction in the total consumption of fat and saturated fat;
- eradication of tobacco use;
- increased physical activity in all population groups, commensurate with age and health status; and
- alleviation of deleterious psychosocial factors related to cardiovascular disease.

Achievements in these areas would lead to profound cardiovascular health benefits in industrialized countries and would help prevent further deterioration of the situation in the developing world.

For developing countries, the public health approach is clearly the strategy of choice to stem the increasing rates of cardiovascular disease and also their impact on health care costs. Implementation of a public health approach to cardiovascular disease will drastically reduce the number of individuals requiring treatment for high blood pressure, abnormal blood lipid levels, diabetes and obesity.

Many countries lack the capacity to set preventive policies and programs in motion. Programs of assistance for these countries should be part of the global heart health agenda. A massive infusion of resources is not needed. Concerted action on a few lifestyle issues can have profound effects on the health of today's adults and tomorrow's children.

Implementation of a public health approach to a cardiovascular disease will drastically reduce the number of individuals requiring treatment for high blood pressure, abnormal blood lipid levels, diabetes and obesity.

Dietary Habits

There is broad consensus on the kind of dietary changes needed to promote health and reduce the occurrence of certain noncommunicable diseases, including heart disease. The following are recommended dietary changes: increased intake of fruits, vegetables and cereal grains, reduced intake of foods high in saturated fat and cholesterol, and maintenance of energy balance. Public interest in nutrition is high in some countries, providing opportunities for education and for collaboration among governments, health professionals, commercial producers and suppliers of food to the public, and other concerned parties.

However, knowing what needs to be done is not enough. Nowhere is the challenge of bridging the gap between science — what we know — and prevention policy more apparent than in the area of nutrition. Although nutrition recommendations have been available in many countries for almost two decades, large numbers of people in these countries are still not following them. Also, it appears that education messages have been much less effective in reaching the lower socio-economic groups of the population than the upper socio-economic groups.

The goal of nutrition policy is to make healthy eating a social norm. This requires a comprehensive strategy that includes: regulatory changes in food labelling and food supply; nutrition education at all levels of the school system; population-wide nutrition education; and involvement of health, education, media and social science professionals.

Governmental action can bring about changes in the composition of specific food products. Legislative and regulatory measures are needed to ensure that the public receives adequate information. Specifically, governmental strategies should include the following:

- the provision of accurate, practical and clear information to consumers, health professionals and the media . Messages must be consistent and must take into account cultural factors, and knowledge and beliefs about foods that influence food consumption patterns.
- the creation of environments that support the adoption of official nutrition recommendations. Healthy food choices must be available and accessible. Also, consumers need accurate information on nutrient content at the point of purchase if they are to make proper choices. Nutrition labelling can support educational initiatives targeted to the public and to health professionals.

It is recommended that:

9	10	11	12	13	14	15	16
17	18	19	20	21	22	23	24

It is recommended that:

17	18	19	20	21	22	23	24
25	26	27	28	29	30	31	32

Members of the health, education, social science and media professions are ideally placed to inform people about the benefits of proper nutrition; growing public interest in prevention means that they are more likely to have a receptive audience. In order to step up their involvement in nutrition education, these professionals will need easy access to scientifically accurate information on the links between diet and noncommunicable disease.

Nutritionists and dietitians are needed to provide direct nutritional counselling and to train other health professionals in this area. Certain nutrition-related disorders put people at risk for cardiovascular disease. These disorders, which are widespread in the industrialized world and are becoming increasingly common in many developing countries, include abnormal lipid values, high blood pressure, diabetes and obesity. To control these disorders, non-pharmacological approaches involving improved nutrition (sometimes complemented by drug therapy) are the methods of choice. However, in many countries, there is a shortage of nutritionists and dietitians to provide nutritional counselling for high-risk individuals as well as community-based nutrition education.

Messages from the commercial sector on the importance of making healthy food choices can make a major contribution to public education initiatives. In general, nutrition education, whether offered through commercial, professional or government channels, should be carried out within the context of health promotion. Greater collaboration among commercial food advertisers, health professionals and governments can lead to consistent educational messages.

Eradication of Tobacco Use

Smoking prevention and smoking cessation are the two most effective means of improving the health of the public. It is generally accepted that, in addition to its role in the development of cancer, smoking contributes substantially to all cardiovascular disease. Some countries have implemented comprehensive anti-tobacco programs covering a range of strategies, including smoking prevention and cessation, and the rights of non-smokers. Such comprehensive strategies to deal with tobacco use have resulted in marked decreases in smoking rates in a number of industrialized countries. The business, government and health sectors can jointly influence international agreements that deal with tobacco advertising and international trade in tobacco products. Policy-makers in the importing and exporting countries must accept responsibility for ending such practices.

Regular Physical Activity

One outcome of modernization and increased affluence in both industrialized and developing countries is a sedentary lifestyle, especially for adults. For example, it is estimated that about one in two North American adults leads a sedentary lifestyle. Given the relationship between regular physical inactivity and the risk of coronary heart disease, the promotion of regular physical activity can clearly benefit the health of the population as a whole.

Children, in particular, should be provided with the means to develop life-long personal activity habits. In many countries, they lead more sedentary lifestyles since the introduction of television, video games and computers, combined with the disappearance of daily physical education in schools, especially at the secondary level.

The reasons most frequently cited by adults for not maintaining a reasonably active life are lack of time, lack of facilities or competing sedentary leisure-time activities. In some countries, social marketing programs have been effective in promoting public acceptance of physical activity as a normal part of everyday life.

Psychosocial Factors

Psychosocial factors have been clearly shown to play a role in the development of cardiovascular disease. Surveys have shown that the public perceives stress as a major risk factor. While we might speculate that stress makes individuals more prone to smoke, drink or overeat, it is clear that more research is needed on the effects of stress and other psychosocial factors on behaviour. Recent findings implicate job strain and certain traits of anger and hostility as risk factors for cardiovascular disease.

Poverty and social disadvantage in many countries have been associated with higher levels of cardiovascular disease and many other illnesses. Much, but not all, of the relationship between poverty and cardiovascular disease can be explained by higher levels of cardiovascular disease risk factors among disadvantaged groups.

If followed, the actions recommended in support of the four cornerstones will, in turn, contribute to the reduction of the major risk factors for cardiovascular disease: high blood pressure, abnormal blood lipid levels, obesity and diabetes. However, additional measures need to be taken with respect to these risk factors.

It is recommended that:

25	26	27	28	29	30	31	32
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It is recommended that:

25	26	27	28	29	30	31	32
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It is recommended that:

33	34	35	36	37	38	39	40
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High Blood Pressure

In both the industrialized and the developing world, arterial hypertension is one of the most prevalent cardiovascular disorders. In many countries, blood pressure tends to rise with age. There is scientific evidence that dietary factors (such as sodium and alcohol intake) and obesity play a major role in raising blood pressure levels. Control of these factors can contribute to the primary prevention of hypertension.

In the United States, an approach to educating the population as a whole on high blood pressure, in conjunction with organized detection and care, has been implemented with remarkable success. It has been effective even in regions where some segments of the population are at high risk, and in certain cases, disadvantaged.

When left untreated, high blood pressure is a risk factor for stroke, coronary heart disease, heart failure and renal failure. Clinical and fundamental research have resulted in advances in therapy. However, although hypertension control has improved considerably in a number of countries, it still lags behind scientific advances made in the field. Epidemiological surveys in a number of countries show that the proportion of unaware hypertensives remains high (nearly 50 per cent of those with elevated blood pressure), and that, even among those who are aware of their condition, a large proportion are not taking adequate measures to control it.

One barrier to the improved management of high blood pressure is the lack of practical treatment guidelines for primary care. Other issues include the insufficient attention paid to the need for community support, and the need for making the patient a partner in the control of high blood pressure. In addition, patients with high blood pressure are often treated for this condition in isolation from other risk factors (e.g. smoking and abnormal blood lipid levels). The goal of treatment should be to lower overall cardiovascular disease risk.

Non-pharmacological approaches have been shown to be effective, and cost-effective, in managing high blood pressure, although many individuals experience difficulty in achieving lifestyle changes to the degree needed to control elevated blood pressure. The potential of non-pharmacological approaches in the prevention and management of high blood pressure has not been tapped to its fullest extent. Cultural and behavioural barriers to change, although powerful, can be overcome by concerted efforts on the part of health care professionals working within a broad, multifactorial heart health program. In developing countries, where the cost of anti-hypertensive medication can be prohibitive, the non-pharmacological management of high blood pressure can provide a practical means of addressing this public health issue effectively.

Abnormal Blood Lipid Levels

Evidence accumulating from a number of the industrialized countries suggests that the widespread prevalence of abnormal blood lipid levels is a precondition for an epidemic of coronary heart disease. In many developing societies and in Japan, where population blood lipid levels are generally lower than in some industrialized countries, cardiovascular disease mortality rates are correspondingly lower. Scientific studies show that lowering of elevated blood cholesterol and its main atherogenic fraction — LDL cholesterol — can reduce the risk of cardiovascular disease.

While many factors, including advancing age, can influence blood lipid levels, diet is the most modifiable factor in the vast majority of individuals. A diet rich in saturated fats and dietary cholesterol can play a critical role in increasing blood lipid levels. This suggests that in countries where the mean population cholesterol levels are high, there is considerable potential for the prevention of cardiovascular disease through the achievement of progressive changes in diet composition. However, in developing countries, economic development and the adoption of harmful habits present a different challenge — that of maintaining those aspects of the traditional diet that have afforded the population a comparative advantage when it comes to cardiovascular disease.

In most countries, implementation of existing nutrition recommendations will go a long way towards lowering the blood cholesterol levels of the majority of people. To achieve this, nutrition education programs must equip consumers with self-help methods for changing their diets, methods that are simple, practical and easy to follow.

Nutrition recommendations on fat intake are not intended for infants under two years of age; their fast rate of growth requires a higher proportion of calories from fat than that recommended for older individuals. This need is met naturally through breastfeeding, a practice that should be universally promoted.

Identifying individuals with elevated blood cholesterol levels and with inappropriate levels of other lipids is desirable, provided that they receive effective follow-up care (whether through a modified diet or drug therapy). It is essential that blood lipid levels be measured in an accurate and precise manner. In most countries,

It is recommended that:

33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48

In most countries, implementation of existing nutrition recommendations will go a long way towards lowering the blood cholesterol levels of the majority of people.

it is in the primary care setting that individuals at risk tend to be identified. To increase overall cost-effectiveness, such individuals should also be assessed for the presence of other cardiovascular disease risk factors such as smoking, high blood pressure, obesity, diabetes or existent heart disease, and assisted in managing their condition.

For all individuals with elevated blood cholesterol levels, diet will likely be a major component of therapy, even for those requiring lipid-lowering drugs. This being the case, professional education and human resource programs are needed to ensure that individuals at high risk have access to nutritional education and counselling. Implementing a preventive nutrition policy calls for the support and involvement of health, education and social science professionals, private sector organizations, and governments.

There have been considerable advances in the understanding of the role that LDL- and HDL-cholesterol, triglycerides and other lipoproteins play in the genesis of coronary heart disease. Research in this area is also beginning to clarify the role of abdominal obesity in the development of abnormal blood lipid levels leading to heart disease.

Since abnormal blood lipid levels are, for the most part, inextricably linked to nutrition, the adoption of recommendations for both must be coordinated.

It is recommended that:

41	42	43	44	45	46	47	48
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Obesity

Obesity, particularly abdominal obesity, is associated with several of the major risk factors for heart disease: high blood pressure, elevated blood cholesterol and triglycerides, low HDL-cholesterol and non-insulin dependent diabetes mellitus (NIDDM). Obesity is reaching epidemic proportions in the industrialized world and is becoming increasingly common in developing societies. This is largely due to the sedentary lifestyles prevalent in many industrialized countries. Many major population groups have a genetically determined susceptibility to developing the physiological consequences of obesity. Elimination of obesity could result in the control of NIDDM conditions for the majority of people affected. A similar result would be achieved in the case of hypertension and the lipid abnormalities cited earlier. Complete normalization of weight is not necessary: even a modest reduction in the weight of most obese people would be of great benefit from a public health perspective.

In many industrialized countries, barriers to the control of obesity through physical activity include: lack of awareness of the primary role of physical activity as a determinant of obesity; the difficulty of incorporating physical activity into daily life and leisure time due to inadequate social and environmental support,

and lack of incentives; and inadequate training of educators and health professionals in behavioural methods for achieving and maintaining an active lifestyle.

Since obesity, nutrition and physical activity are, for the most part, inextricably linked, the adoption of the recommendations concerning those conditions should be coordinated.

Diabetes

Both insulin-dependent and non-insulin dependent diabetes mellitus (NIDDM) are risk factors for vascular and cardiovascular disease. NIDDM is associated metabolically with abdominal obesity, abnormal blood lipid levels and elevated blood pressure. Prevention of NIDDM is most often possible through maintenance of normal body weight using a combination of appropriate diet and adequate physical activity. Primary prevention measures are particularly important in rapidly industrializing societies where economic development and an increase in the prevalence of obesity often bring increases in the prevalence of NIDDM.

Disabilities caused by the complications of diabetes — affecting eyesight, kidney function, the peripheral nerves and the cardiovascular system — have a major impact on society. Recent technological developments have helped to improve the management of diabetes. At issue are both the ability of diabetics to gain access to this technology, and the capacity of the health care system to educate patients and to capitalize on the existence of the new technology.

NIDDM is the tip of the iceberg for the more prevalent conditions of insulin resistance, moderate glucose intolerance, hypertension, hypertriglyceridaemia, and low HDL-cholesterol levels. The ultimate prevalence of NIDDM is strongly influenced by the degree of obesity found in genetically susceptible populations. The strategies for prevention of NIDDM are therefore analogous to the recommendations for preventing obesity.

Since NIDDM is, for the most part, inextricably linked to physical activity and obesity, the adoption of recommendations for all three must be coordinated.

It is recommended that:

41	42	43	44	45	46	47	48
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It is recommended that:

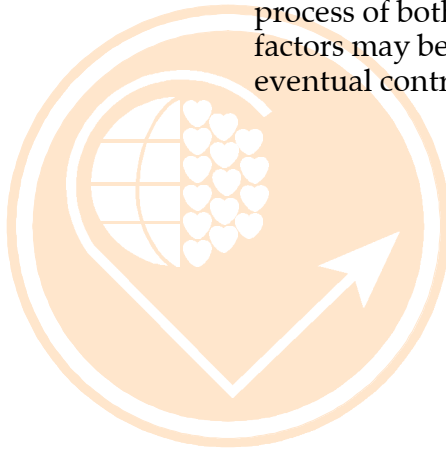
41	42	43	44	45	46	47	48
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Other Factors

Excessive alcohol consumption constitutes a major public health problem in many countries. There is firm evidence that alcohol consumption, even at rates not generally considered to be excessive (more than two drinks per day), is a risk factor for high blood pressure. General education programs to gain public support for broad policy measures to deal with the consequences of excessive alcohol consumption should have a beneficial effect on cardiovascular disease prevention.

Very recent research has implicated low dietary intake of the anti-oxidants present in many fruits and vegetables as a potential risk factor for both cardiovascular disease and for certain common types of cancer. Implementation of internationally recognized nutrition recommendations should address the importance of adequate intake of anti-oxidants through fruits and vegetables.

Cardiovascular disease is the result of a combination of numerous genetic and environmental factors that affect the process of both atherosclerosis and thrombus formation. Other risk factors may be uncovered through ongoing research, leading to the eventual control of cardiovascular disease.





In keeping with the multifactorial nature of heart health, many different strategies and channels can be used to pursue preventive approaches. By marketing heart health to the public and to various institutions and organizations, it is possible to reach large segments of the population and rally the support and resources needed to form effective partnerships. People can be reached through their communities, schools and work sites, and, most importantly, through the primary health care system. It is important to establish databases and information systems to monitor mortality due to cardiovascular disease and other diseases, and the presence of their attendant risk factors. Appropriate information is essential, not only for the planning and evaluation of programs, but also to secure political support for prevention through the instruments of advocacy and legislation.

Scientists, health and social science professionals and community leaders who understand the potential value of cardiovascular disease prevention policies must convince governments and the private and voluntary sectors of the need to act.

It is recommended that:

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Marshalling Support for Heart Health

Implementing community-level heart health programs requires more than scientific knowledge and practical know-how. It requires political and financial support from the various sectors in society that have a stake in the success of heart health policies. Marshalling this support requires a commitment from those who influence political and corporate agendas. Scientists, health and social science professionals and community leaders who understand the potential value of cardiovascular disease prevention policies must convince governments and the private and voluntary sectors of the need to act. Support can be obtained by publicizing research and survey findings, pointing to the cost-effectiveness of using existing structures and community resources, and emphasizing the degree of public interest that already exists.

To governments concerned with the rational organization of programs and services, heart health offers an entry point for other health promotion activities. It provides a framework for the integration of risk factor reduction activities (e.g. diet, physical activity, smoking) and bridges the gap between health promotion, disease prevention and clinical approaches. The scientific base concerning the efficacy of prevention is sufficiently well developed to justify increases in funding that will yield considerable returns in the health status of the population and in the quality of life.

Private sector industries with a stake in heart health policy include, among others those in agriculture, food-processing, pharmaceuticals and life insurance. Consumers who are well informed about the prevention and treatment of cardiovascular disease provide a sound base for long-term marketing policies. There are valuable opportunities for industry to join with governments and voluntary associations in the promotion of health messages and the education of health professionals. Indeed, a partnership between government and industry could lie at the heart of any long-term strategy for cardiovascular disease prevention. Heart health can be good for business; it is also good government. The development of such a partnership is a challenge to all concerned with the promotion of heart health.

Public Education

Lifestyle change, advocacy, the empowerment of communities to address health issues, and the creation of environments conducive to heart health will not occur unless both the public and the political leadership are properly informed about the value of

prevention. Scientists and health professionals have the opportunity to educate the media about cardiovascular disease prevention and, at the same time, to learn how to present issues to the media effectively.

Health education may be targeted to individuals, small groups, or whole segments of the population and to decision-makers in the public and private sectors. Governments and the business sector both provide messages to the public that have relevance to cardiovascular disease prevention. Examples range from mass media campaigns against smoking to the marketing of food products by referring directly or indirectly to their disease-preventing attributes.

Considerable social marketing research has been carried out as part of cardiovascular disease demonstration projects in North America over the last 20 years. To be successful, social marketing in the context of heart health must define its target groups precisely. Social marketing techniques help to develop an understanding of how specific groups perceive health issues, and to determine the most effective ways of reaching them.

In the developing world, social marketing has been used successfully to strengthen health education programs that promote the benefits of immunization and environmental hygiene. The challenge now is to apply the knowledge gained to large-scale public education programs in heart health.

Community Programs

Wherever possible, heart health activities should be integrated with existing health promotion and public health programs. Heart health activities also provide an opportunity to start or contribute to more comprehensive health improvement programs. Local organizers should develop their own coalitions with government and non-government agencies. The ultimate success of health promotion programs depends on community support and commitment. There is an increasing appreciation of the value of involving communities in the needs assessment, planning, implementation and evaluation stages of health promotion programs. For example, community advocacy may be required to obtain municipal legislation on smoke-free spaces, or to create recreation areas and urban facilities that encourage physical activity. Other reasons for community involvement are to develop a sense of ownership and, thereby, sustainability of the programs

It is recommended that:

41	42	43	44	45	46	47	48
49	50	51	52	53	54	55	56

It is recommended that:

49	50	51	52	53	54	55	56
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The value of community-based heart health programs in reducing cardiovascular disease and its risk factors has been demonstrated.

and to increase the relevance of programs to local values and perceptions.

There is a wealth of information on how to mobilize communities in support of health promotion initiatives, including heart health programs. Health promotion programs are sometimes limited by the technical capacity and experience available in the community. Lack of managerial expertise in implementing preventive interventions at the community level sometimes leads to poor outcomes. The development of local expertise will empower communities to address not only issues related to cardiovascular disease prevention, but also other pressing community health issues.

The value of community-based heart health programs in reducing cardiovascular disease and its risk factors has been demonstrated. What is needed now is to determine the most cost-effective mix of programs, and to decide how to adapt and diffuse the experience and knowledge gained to different countries, cultures and localities. A commitment to evaluate intervention activities is vitally needed. By supporting evaluation, governments and research funding agencies will increase the credibility in the science field of community interventions, and help identify the most cost-effective approaches for particular populations and settings.

It is recommended that:

49	50	51	52	53	54	55	56
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Primary Care

In most countries, primary care practitioners such as physicians and nurses come into regular contact with a large proportion of the population. Primary care can be an important partner in the development of cardiovascular disease prevention. Public health initiatives in this field need to be coordinated with those of professional associations and with the daily activities of practitioners.

There are abundant opportunities for practitioners to increase their involvement in such areas of preventive health as smoking cessation, nutrition, promotion of physical fitness, and the systematic risk assessment and follow-up of their patients. Professional associations can have a critical role to play by educating their members in the promotion of heart health and the prevention of cardiovascular disease.

Health professionals in many countries face a number of barriers to becoming more involved in prevention. Chief among these are a lack of appropriate preventive guidelines for primary care practice, inadequate dissemination of guidelines when they do exist, a lack of skills and knowledge in the area of prevention, and a lack of incentives for practising prevention.

Primary care delivery systems can be organized in a way that

promotes heart health. For example, the interdisciplinary primary care team is well placed to undertake comprehensive health risk assessments, provide continuity of care at the community level, and follow up with management and counselling as appropriate. Meanwhile, community health centres and hospitals may provide a suitable vehicle for heart health programs aimed at broad segments of the population. They have the advantage of operating at the community level, and many have the capacity to deliver multidisciplinary care and programs.

Monitoring And Evaluation

A prerequisite to the effective planning, implementation and evaluation of heart health programs is the establishment of epidemiological databases on cardiovascular disease mortality, morbidity, behavioural and environmental risk factors and their socio-economic determinants. The World Health Organization has pioneered the development of statistical systems and epidemiological methodologies that provide a basis for international comparisons. The MONICA research network has demonstrated the potential value of information systems that measure the incidence of cardiovascular disease and its attendant risk factors. Data on incidence of disease and on risk factors permits the identification of populations for early intervention and facilitates the monitoring of progress and effectiveness in a shorter period.

Currently, most health information systems in the public health and primary care sectors are concerned with the control of communicable disease or with the administrative and financial aspects of health care systems. With the exception of mortality data, other information on the occurrence of cardiovascular disease and its risk factors is not systematically collected. The absence of comprehensive data represents a serious obstacle to the establishment of priorities, to the targeting of programs to specific population groups, and to the long-term evaluation of interventions aimed at preventing cardiovascular disease and promoting heart health.

The capacity of different countries to develop health information systems for cardiovascular disease prevention varies. The best, and perhaps the most economical route, is to make more efficient use of the information being collected through existing administrative systems in the public health and primary care sectors. For example, the occurrence of disease can be tracked by linking up information on individuals that is stored in different databases (e.g. death files and hospital separation data).

The evaluation of heart health programs is essential. A prerequisite to evaluation is the clear articulation of health goals (i.e. program outcomes) and process goals. Program performance

It is recommended that:

49	50	51	52	53	54	55	56
57	58	59	60	61	62	63	64

and effects should be defined at different levels. For example, in terms of mortality, the reduction of morbidity, risk factor changes, or improvements in health behaviours would be looked at. Changes in outcome indicators may result from a combination of specific actions taken by the various parties and from social trends that influence health behaviour. An effort should be made to differentiate between changes resulting from the program and those attributable to social trends. Most heart health programs will be unable to evaluate programs with sufficient control to determine whether a change in indicators is attributable to specific interventions. Nevertheless, it is important for those responsible for heart health programs to gain access to data to monitor the general trends in the indicators that interventions are designed to influence.

Community-based heart health programs stand to gain the most by establishing practical and economical systems for process evaluation. This type of evaluation requires the identification of the process or short-term objectives that the project is intended to achieve. A relatively simple set of process indicators should be specified and tracked routinely to determine if the project is achieving its process goals. This process information should be available before the program is disseminated to the whole population. It can also be used in mid-course to indicate whether the project is achieving its intended impacts or, if not, to help understand why.

Some heart health programs may have the capacity to undertake evaluation research on some of their interventions. Typically, this will involve appropriate experimental or quasi-experimental designs and, on occasion, the utilization of control areas or groups to assess the effectiveness of the experimental intervention. Evaluation research should be encouraged if resources permit. However, most heart health programs have limited intervention resources. While evaluation helps to focus the definition of the goals and methodology of intervention, routine evaluation should not be overburdened with evaluative research questions beyond those specifically required for project purposes. Otherwise, the evaluation component of a project may end up siphoning resources required for the effective implementation of the program.

A relatively simple set of process indicators should be specified and tracked routinely to determine if the project is achieving its process goals.

Perspectives from the Developing World



Developing countries are increasingly being affected by noncommunicable diseases, cardiovascular diseases in particular. The problem is all the more serious for these countries because many have not yet conquered communicable diseases, and their health systems are ill-prepared to provide the costly care required for chronic diseases.

The Pan American Health Organization recognizes, as a regional problem, that most countries in the American region have reduced their social spending, thus exacerbating deficiencies in public services and creating a great need for social and health services. Other regions of the world share similar problems.

Cardiovascular disease prevention is closely tied to the urgent need to improve social conditions — education, housing, food and income. The promotion of healthy living conditions is a key issue for international and national agencies working in health promotion and disease prevention.

There is a growing recognition that health can make a decisive contribution to sustained social and economic development.

It is recommended that:

57	58	59	60	61	62	63	64
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There is a growing recognition that health can make a decisive contribution to sustained social and economic development. Countries are accepting that this requires a new way of thinking about the organization of health services, the involvement of many sectors, and the commitment to goals for guaranteeing equitable access to services.

Developing countries, therefore, have an opportunity to curb the cardiovascular disease epidemic by adopting principles of public health that are universally accepted.



A Research Agenda



The wide-scale prevention and control of cardiovascular disease has been made possible by research. Advances in many disciplines have increased knowledge of both the causes of cardiovascular disease and the means of preventing or controlling it in individuals and populations. The research agenda of the future should cover a continuum, from genetic and molecular studies to methods of reducing risk in society's disadvantaged groups due to poor lifestyle habits such as smoking, inadequate diet and physical activity.

To ensure that the potential for prevention and control is not denied to high-risk individuals or to the population at large, there should be a balance between bench, clinical and population research.

Multidisciplinary research is needed in a wide spectrum, from basic laboratory research to research at the clinical and the community level. Community interventions require contributions

Multidisciplinary research is needed in a wide spectrum, from basic laboratory research to research at the clinical and the community level.

from fields such as health education, exercise physiology, epidemiology, social psychology and community development. Basic research on risk factors should encompass epidemiology, clinical pharmacology, genetics, and cellular and molecular biology.

The following points represent a cross section of priority issues in prevention and control, in population groups, and related to major risk factors and intervention strategies highlighted in this Declaration.

Community Interventions

- Methods of diffusing existing knowledge about community heart health and health promotion interventions to various agencies and communities.
- Methods of promoting the adoption of heart healthy lifestyles by different social and cultural population groups.
- Most effective strategies and administrative mechanisms for developing and delivering health promotion and disease prevention programs.
- Evaluation of community mobilization approaches in support of heart health programs, including their impact on cardiovascular disease risk factors, on social supports and on the empowerment of the individuals and groups to which they are targeted.
- Evaluation of the effectiveness of health promotion interventions to determine which interventions, and in what sequence and combination, are most effective for a range of target groups in different social and cultural settings. End points should include health outcomes, risk factor profiles and quality of life.

Community interventions require contributions from fields such as health education, exercise physiology, epidemiology, social psychology and community development.

Demonstration Projects To Develop Intervention Knowledge And Experience

Smoking

- Comprehensive strategies that combine education, taxation and regulatory policies.
- Studies on the effectiveness of the advocacy methods for smoking control.
- Studies on methods of reducing children's access to tobacco.

Nutrition

- Effective methods for achieving progressive dietary change in populations.
- Education of families on how to provide their children of all ages with a nutritious diet that will sustain healthy growth and development while reducing their risk of cardiovascular disease as adults.

Children

- Age-appropriate health education methods that consider the developmental phases of children.
- Innovative ways to promote heart health to children and youth through national programs implemented in school, in youth organizations and in the health system. Projects need to take into account the values of young people, as well as the powerful role of the family, the school and peer groups in the acquisition of healthy lifestyles.

High Blood Pressure

- Comprehensive models for identifying individuals at risk, diagnosing high blood pressure, raising public awareness of the risks associated with high blood pressure, and (for

Innovative ways to promote heart health to children... need to take into account the values of young people, as well as the powerful role of the family, the school and peer groups in the acquisition of healthy lifestyles.

those with hypertension) ensuring availability of follow-up care.

- Education of health professionals, patients and the population on the prevention and control of high blood pressure.
- Population strategies to prevent the development of the precursors of hypertension.

Physical Activity

- Comprehensive community-based approaches to increasing physical activity through schools, work sites and adult programs.

Primary Care

- Combine training of primary care practitioners in clinical preventive medicine with public health activities and programs relating to heart health, and promote the use of other community services that promote and support environmental and lifestyle change.
- Studies of hospitals as sites for community outreach for cardiovascular disease prevention.

Heart Health Inequalities and Access

- Innovative community mobilization and community development approaches to promote heart health and cardiovascular disease prevention to disadvantaged groups, including the poor, immigrants and elderly people.

Epidemiology And Cost-Effectiveness Of Interventions

- Ongoing national and regional surveillance for children, youth and adults, covering:
 - mortality-morbidity trends for the major diseases and all-cause deaths;
 - trends in the major cardiovascular disease risk factors, and their socio-economic determinants;
 - trends in eating habits and food consumption patterns.
- Cost-effective methodologies for monitoring the occurrence of coronary heart disease and stroke (e.g. through the use of registries and with links among systems using information from death files, hospital admission and separation files, and ambulatory and primary care files).

- Follow-up studies of children and youth to assess the impact of risk factors and lifestyle behaviours and their changes on risk profiles and subsequent adult morbidity.
- Technology transfer studies among countries in all areas of cardiovascular disease control.
- Cost-effectiveness models to estimate the value of preventive interventions relative to morbidity, mortality, demand for health services, health care costs, and quality of life of the population.

Heart Health Education

- Theories of human learning, social marketing, adoption and diffusion of innovations and community organization as applied to health promotion.
- Scientific controversies will inevitably continue to arise in relation to heart health risk factors. There is a need to study how communication with the public concerning risks can be designed to enable individuals to assess conflicting evidence and adjust their lifestyles accordingly.

Evaluation Methodology

- Formative research methods that improve the quality and effectiveness of communication about health to the population and to health professionals.
- Methods to track the process whereby heart health interventions achieve their effects.
- Innovative quasi-experimental outcome evaluation methods for school, work site and community-wide heart health interventions.
- Evaluation designs and process evaluation methods to assess the combined effect of multifactorial heart health interventions.
- Relationships among risk factor trends, lifestyle behaviours and program interventions at the national and local levels.

Evaluation designs and process evaluation methods to assess the combined effect of multifactorial heart health interventions.

Policy Research

- Case-study analyses of the development and implementation of heart health programs at the national, regional and community levels, including community interventions, the creation and maintenance of partnerships and the marshalling of corporate and political support.
- Development of nutrition and smoking policies that involve international and government agencies (health, commerce, agriculture, taxation), the private sector (agriculture, food industry, tobacco industry) and professional associations.
- Considerable evidence has been accumulated from clinical and community trials on the efficacy and effectiveness of health promotion and disease prevention in reducing the risk of heart disease. There is a need to study which educational, organizational and economic measures can achieve wider application of these approaches in patient counselling and screening, and in community education and organization for heart health.
- There is compelling logic, if not evidence, regarding the importance of partnership-building to marshal the resources required for heart health. It is important to investigate which methods of community organization, and in what kinds of communities, gain the greatest cooperation among agencies and sectors and the greatest mobilization of resources in support of programs and policies conducive to heart health.
- Political will and cooperation among different societal sectors are needed to bring about greater support for policies and programs conducive to heart health, while recognizing competing priorities in health and other human service concerns. Studies are needed to see how education of the electorate and of advocacy and community organizations can produce a greater demand for and a greater linkage of heart health needs with other priorities.

There is compelling logic, if not evidence, regarding the importance of partnership building to marshal the resources required for heart health.

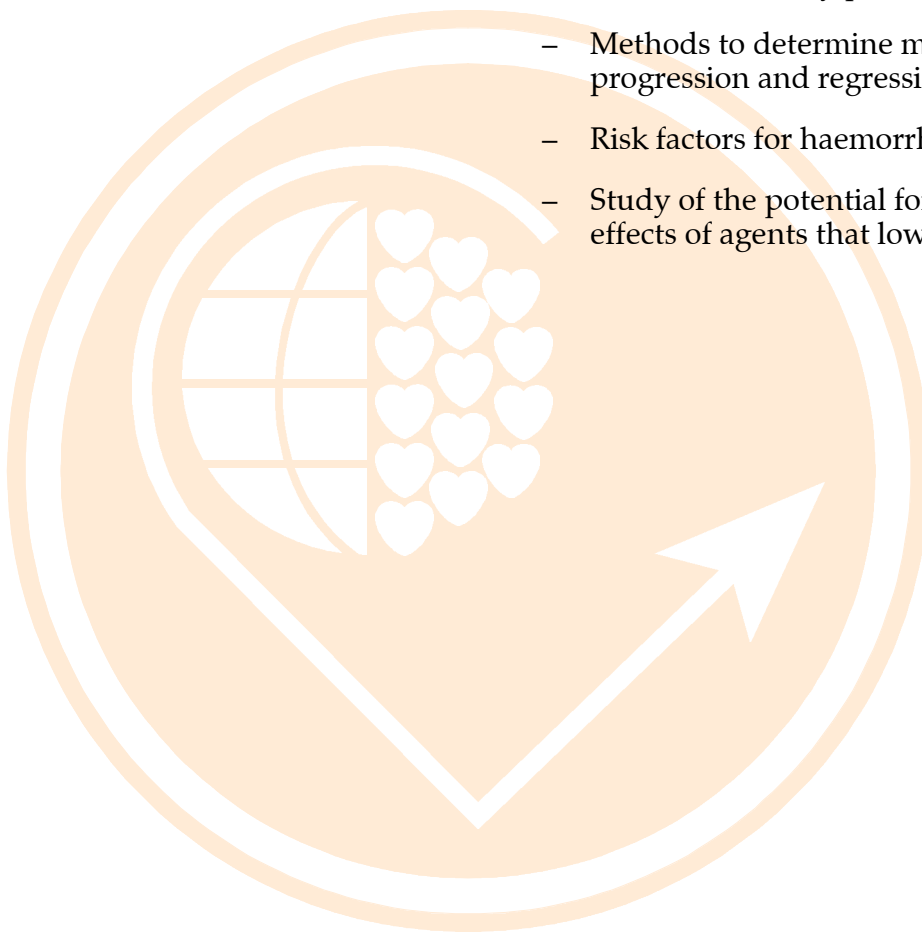
Etiological And Management Issues:

Biomedical, Clinical And Epidemiological

- Mechanisms of the impact of nutritional factors, such as alcohol and dietary micronutrients, on cardiovascular disease risk factors, including haemostatic factors.
- Coordination of experimental research using animal models and epidemiological data on human populations, with controlled dietary trials on human subjects.
- Mechanisms by which physical activity protects against cardiovascular disease.
- Methods of achieving and maintaining appropriate levels of physical activity throughout life.
- Mechanisms by which diabetes increases risk of cardiovascular disease.
- Major risk factors for cardiovascular disease have been established. Research is needed to determine other protective factors or risk factors, for example:
 - role of insulin resistance;
 - role of anti-oxidants;
 - psychosocial factors, including research on job strain and the attributes of hostility and anger; and
 - socio-environmental factors such as poverty.
- Causes and development of cardiovascular disease in women and minorities, as well as the health effects of interventions on them.
- Risk factors and mechanisms for sudden death, as well as possible preventive interventions.
- Pharmacological and non-pharmacological management of high blood pressure, obesity, and hyperlipidaemia and haemostatic factors in all groups, including the elderly.

Causes and development of cardiovascular disease in women and minorities, as well as the health effects of interventions on them.

- Genetic studies on the predisposition to non-insulin dependent diabetes and obesity among various racial groups.
- Development of new pharmacological agents for control of high blood pressure, abnormal blood lipid levels, and clot formation.
- Disclosure and characterization of genes involved in the transmission of cardiovascular disease, especially those related to high blood pressure and lipoproteins, including discovery of factors that increase susceptibility to environmental influences.
- Study of lipoprotein structure and function.
- Perinatal factors as determinants of adult risk factors.
- Studies of the biology of blood vessels, platelets and white blood cells as they pertain to atherosclerosis.
- Methods to determine more accurately the changes in progression and regression of atherosclerosis.
- Risk factors for haemorrhagic stroke.
- Study of the potential for unexpected deleterious side effects of agents that lower blood cholesterol.



Disclosure and characterization of genes involved in the transmission of cardiovascular disease...

A Global Heart Health Partnership



Extending the benefits of cardiovascular disease prevention and control to people everywhere requires commitment and collaboration on the part of those working in the health and public and private sectors. The health sector on its own lacks the capacity, the resources and the policy levers to carry out a comprehensive program of cardiovascular disease prevention aimed at the entire population, including those at high risk. Rather, the health sector has a responsibility to take the lead in advocating policies that support heart health, for providing resources for implementation of preventive programs, and for conducting research on cardiovascular disease prevention and control. Partnerships are needed among all levels of government; health and education and social science professionals and associations; media organizations; voluntary agencies; the research community; and industry and community coalitions. Each partner has a major role to play.

International health agencies and those concerned with economic and social development have a major role to play in ensuring that governments and non-governmental organizations adopt and implement broad policies for cardiovascular disease prevention.

International Agencies

International health agencies and those concerned with economic and social development have a major role to play in ensuring that governments and non-governmental organizations adopt and implement broad policies for cardiovascular disease prevention. Their tasks include the following: providing leadership in heart health policy development by facilitating political decision-making; promoting international program development and research activities; creating opportunities for training; and providing mechanisms for international transfer of expertise and resources.

Governments

Governments — be they municipal, regional, national or multinational — have the main responsibility for achieving agreement on broad health promotion and disease prevention issues, for elevating these to the level of government policy, and for helping to ensure that policies are implemented. Frameworks of policy are needed to guide specific heart health interventions. For example, a national commitment to reducing health and social inequities is needed to stimulate action to promote heart health among disadvantaged and lower socio-economic groups.

A better balance is needed between the resources available for treatment and those available for prevention. In some countries, governments have provided support for community heart health programs with good results. In an incremental approach, intervention capacity is developed (e.g. through training), while resource allocations to prevention are gradually increased. Even modest levels of government funding can help to catalyze the process and promote the development of the necessary partnerships. These funds, or “seed monies,” may also help to mobilize resources — financial or other — from other sectors. The same principle applies to research in prevention.

Compared to the cost of treating cardiovascular disease, the resources needed to implement health promotion and disease prevention programs are very few. Governments should recognize

Governments should recognize that major savings in health care costs will be realized by the avoidance of mass behaviours such as smoking, and by achieving positive changes in food consumption patterns.

that major savings in health care costs will be realized by the avoidance of mass behaviours such as smoking, and by achieving positive changes in food consumption patterns. Primordial prevention — that is, preventing risk factors from appearing in the first place — is likely to be highly cost-effective.

In both the developing and the industrialized world, economic constraints limit the government's ability to provide state-of-the-art treatment and prevention programs to all who might benefit. Governments will increasingly be required to strive for broad public consensus on how limited health care resources can be distributed equitably to deal with the many issues in cardiovascular disease prevention and treatment.

Governments must accept responsibility for the influence of their policies on public health. To improve nutrition, promote physical activity and reduce smoking, coordinated approaches, involving all sectors, are needed.

Health/Education/Social Science/Media Professionals and Their Associations

The participation of these professionals, both individually and collectively, in the advancement of heart health policy is of critical importance. Professionals working in primary care and in other areas of the health system have regular contact with the public. They can also contribute to the development of government policies and programs. They are the ones who implement heart health policy, and, as a result, are well placed to advocate a balance between treatment and prevention. (If all these professionals are themselves prepared to adopt healthy lifestyles, this will add to their credibility and skill in promoting heart health to the public and to their individual patients.)

For health professional associations, there are two urgent tasks: to develop evaluation and treatment guidelines for cardiovascular disease prevention; and to keep governments and funding agencies informed about priority areas for research in health promotion and disease prevention and control. There is also a role for such associations to play as advocates for strong public health policy. In a number of countries, for example, they have lobbied effectively for anti-smoking legislation.

Associations of education professionals should work with their counterparts in health to develop school health education programs. Social science and media organizations also need to be linked to health professional associations to enhance the effectiveness of collaborative health and education programs.

Voluntary Organizations

Private non-profit organizations, such as heart foundations, have long been active in cardiovascular disease prevention. In many countries, they have recruited large numbers of volunteers and raised private funds to support research and education programs. Such organizations bring together representatives of the scientific, clinical, business, labour, government and community sectors, and they facilitate bridging the gap between scientific discoveries and the potential for preventive action. Counterpart organizations in other areas of health — cancer societies, for example — have been targeting many of the same risk factors that are of concern to those in heart health. Voluntary organizations can be major partners, along with governments and health professional associations, in the development of policy and in the implementation of heart health programs. They also play an important role in mobilizing corporate and community support and in advocating healthy public policy.

Community Coalitions

Coalitions of hospitals, health departments, health professionals, schools and educators, media and workplace representatives, voluntary organizations and concerned citizens are required for community action in heart health. The activities of these coalitions should be linked to existing regional, state/provincial or national programs.

Scientists and Research Institutions

The work of scientists forms the foundation of preventive policy; it reveals both the potential of prevention and the promise of various intervention approaches. It is up to the scientists, individually as well as collectively, to ensure that governments, research funding agencies and society as a whole, are aware of the opportunities for prevention. Funds devoted to research are an investment in society's future. New scientific findings will inevitably be open to interpretation; nevertheless, scientists have a

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responsibility to decide as a group when the knowledge base is sound enough to justify action. Throughout the history of public health, there have been many instances in which valuable preventive measures were instituted long before the scientific picture was complete.

Ideally, scientific research studies of cardiovascular disease prevention should adopt an interdisciplinary perspective, with contributions from the biomedical sciences, psychology, epidemiology, economics, health communication and health education, among others.

Research and demonstration programs in heart health require multidisciplinary collaboration of medical, health, education and social science professionals, media professionals, nutritionists, exercise physiologists, epidemiologists and other researchers. They also require collaboration with and, therefore, assistance from community coalitions. If academic institutions need to accord recognition to “team work research,” this will provide an incentive for researchers to participate in demonstration programs.

The Private Sector

Government policy decisions clearly have an impact on the private sector. Conversely, the private sector can exert considerable influence on public policy development. Heart health is a prime example. The agricultural sector, the food and drug manufacturing industries and (in some countries) the media can either support or undermine governments, health professionals and the scientific community in their efforts to promote heart-healthy policies. Many opportunities are open to private sector organizations seeking to make a positive contribution to heart health.

Corporate leadership in the agricultural sector and the food industry worldwide has a particular responsibility to support nutrition recommendations made by scientific review committees. New food production strategies and new marketing approaches will be needed to bring about the reductions in fat intake and the increases in fruit, vegetable, legume and cereal grain intake recommended by such committees. Achieving population-wide dietary changes takes time. There will be many opportunities for the harmonization of private sector marketing policies with the long-term goals of nutrition policies designed to prevent cardiovascular disease. Corporations in the food industry that are prepared to respond to the demands of an informed public for a heart-healthy diet stand to profit financially.

For their part, drug manufacturers have an obligation to undertake professional education and to ensure that they make accurate claims regarding the benefits and side effects of their products. There are likely to be considerable advances in the pharmacological management of some cardiovascular disease risk

It is recommended that:

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factors in the coming years. Some drugs (e.g. lipid-lowering agents) are now available that may be able to protect medium-risk, but otherwise healthy, individuals from coronary heart disease. In view of the large numbers of potential candidates for drug therapy, it is crucial that the pharmaceutical industry work closely with clinical researchers and epidemiologists to assess the long-term effects of drugs on population groups likely to use such therapy.

Summary



Cardiovascular disease is largely preventable. We have the scientific knowledge to create a world in which heart disease and stroke are rare. In such a world, everyone, beginning in infancy and extending to old age, would have access to, and would practise, positive healthy living.

Most cardiovascular disease is brought about by some combination of smoking, high blood pressure, elevated blood cholesterol, unhealthy dietary habits — including excessive alcohol consumption — obesity, a sedentary lifestyle and psychosocial stress.

Healthy living includes good nutrition, a tobacco-free lifestyle, regular physical exercise and a supportive environment. To implement a global policy of cardiovascular disease prevention, individuals and their communities must unite with health professionals, scientists, industry and policy-makers.

From studying downward trends in cardiovascular disease in certain industrialized countries, we are learning how to reduce its toll, although it still remains a major problem.

The primary challenge now is to maintain the downward trend while assisting and encouraging countries where rates of heart disease are increasing — those of the developing world and Central and Eastern Europe — to prevent the epidemic from spreading.

The prescription is simple. To implement it is more difficult. The promotion of heart health on a global scale requires clear agreement on policy principles, implementation processes and partnerships to make it happen.

Prevention of cardiovascular disease requires the prevention of the onset of risk factors in children and youth everywhere, and in entire populations of countries where cardiovascular disease has not yet reached epidemic proportions. It requires the elimination or reduction of risk factors in all populations everywhere.

Control of cardiovascular disease requires healthy living for all population groups regardless of age, sex, race or socio-economic status. It also includes equitable access to health services and appropriate treatment for people at high risk or who have cardiovascular disease.

This requires mutual assistance involving people and communities, both within countries and among nations. It requires balance between prevention and treatment, and among basic, applied and evaluative research. It requires extensive communication, education and evaluation at all levels. It requires action by individuals, professional associations, communities and their governments.

The Advisory Board believes that all who are concerned with improving the health and quality of life of people around the world have a responsibility to heed this Call for Action. It can be done.

¹ Rheumatic fever and rheumatic heart disease present serious problems in many developing countries. The means of control of these problems have been addressed in various WHO documents (e.g. Prevention in childhood and youth of adult cardiovascular diseases: time for action, Report of a WHO Expert Committee, WHO Technical Report Series No. 792), but are not covered here.

Recommendations



IT IS RECOMMENDED THAT:

1. Governments take leadership roles:
 - a) in formulating national strategies for the active promotion of heart health and prevention and control of cardiovascular disease;
 - b) implementing comprehensive programs to educate the public on the potential for prevention of heart disease and stroke; and
 - c) developing public policy supportive of social, economic and marketing environments that are conducive to healthy lifestyles.
2. All organized sectors of society, public and private, incorporate heart health into a policy agenda for the improvement of children's health.
3. School programs include age-appropriate heart health education classes that emphasize the need to refrain from smoking, adopt health-promoting dietary habits, exercise regularly and abstain from alcohol or use it responsibly.
4. Governments provide schools with the support and resources they need to carry out effective health and heart health education programs and to provide facilities and opportunities for daily physical activity.
5. Governments and local authorities institute necessary regulatory change to ban children's access to tobacco and to create tobacco-free environments.
6. Governments and the private sector jointly develop health codes to ensure that advertising targeted to children and youth does not encourage or promote risky behaviour.
7. Innovative approaches be implemented in the workplace, military service, public health and primary care settings to reach men — particularly young men — with health promotion and disease prevention programs.

8. Primary care practitioners place special emphasis on the identification and management of men in all age groups who are at high risk for cardiovascular disease.

9. Health promotion programs dealing with the prevention of cardio-vascular disease address the risk-reduction needs of both women and men.

10. Public health and clinical guidelines to identify and manage women at high risk for cardiovascular disease recognize the risk factors and clusters of risk factors that particularly affect women.

11. Governments and all others concerned with anti-smoking programs direct special efforts to the prevention and cessation of smoking by women, particularly those in their teens and twenties.

12. Governments, health professionals and voluntary agencies ensure that:

- a) health promotion and disease prevention programs offered to the elderly — and the settings in which they are provided — are appropriate to the needs of this target group; and
- b) quality of life is a recognized goal of intervention.

13. Governments and associations of health, education and social science professionals ensure that health promotion and public health programs, and primary care services, extend the benefits of cardiovascular disease prevention to the elderly.

14. Health promotion and disease prevention programs — heart health programs in particular — incorporate activities especially designed to extend the benefits of prevention to disadvantaged groups.

15. Governments:

- a) develop nutrition policies aimed at gradually phasing in internationally recognized nutrition recommendations, that this be done in cooperation with concerned public and private sector organizations, and that policies be designed to consider the indigenous food supply;
- b) foster and encourage the production of food supplies by industry that are consistent with nutrition recommendations, and the development of appropriate product information to facilitate informed choice; and
- c) monitor food consumption trends through periodic population-based surveys.

16. Academic institutions provide more courses on human nutrition for health professionals, and that adequate knowledge in this field is a graduation requirement for all health professionals.

17. Nutrition education as a resource for daily living be an important component of health education at all levels in the school system, and that emphasis be placed on curricula for biology and science teachers to enhance the educational experience of students in high school.

18. Governments and academic institutions ensure that an adequate number of nutritionists and dietitians are integrated into health promotion and disease prevention programs.

19. The private sector:

- a) ensure that commercial nutrition messages aimed at the public are consistent with official nutrition recommendations; and
- b) recognize its responsibility to provide clear and accurate nutrition information that is not misleading and that consumers can understand and use, and to provide a greater variety of healthy food choices at prices consumers can afford.

20. Governments, professional associations and voluntary agencies make a commitment to the creation of a tobacco-free society and develop clear policy and program goals to achieve it.

21. Governments:

- a) adopt legislation to end the advertising and promotion of tobacco products and encourage those in the tobacco industry to make the transition to other areas of economic activity;
- b) use taxation liberally as an instrument to decrease tobacco use; and
- c) apply at least 10 per cent of the taxes raised through the sale of tobacco products to anti-tobacco education.

22. School and peer education programs be developed and maintained to prevent smoking among children and youth.

23. Health professional associations urge their members to serve as role models by encouraging and supporting their members who use tobacco to stop doing so.

24. Primary care practitioners and health and social science professionals increase efforts to provide smoking cessation programs of known effectiveness to their patients or clients. In particular, migrants and people in lower socio-economic groups require culturally appropriate smoking cessation methods.

25. All governments make representations to the United Nations and to international bodies that regulate trade among nations to ban the production, export and consumption of tobacco products. As an interim step, no nation should be forced by trade agreements to accept tobacco advertising or tobacco products from another country.

26. School curricula include daily physical activity as a requirement for all students.

27. After-school and work environments provide people with incentives and opportunities for enjoyable physical activity.

28. School and after-school programs provide aerobic activities for all young people.

29. Health promotion programs emphasize the value, pleasure and necessity of life-long physical activity, and provide the education, incentives and skills to all population groups, including the elderly, to build regular physical activity into daily life.

30. Municipal governments and employers in the public and private sectors create environments supportive of physical activity in the workplace and in other community settings.

31. Employers in the public and private sectors include, as part of their occupational health programs, measures to reduce work-related stress associated with lack of control over daily tasks and unhealthy physical environments.

32. Health promotion and disease prevention programs in heart health incorporate measures to enhance social support as a component of their activities.

33. Governments, professional organizations and community coalitions develop systematic high blood pressure prevention and control policies that are adapted to national, regional and local needs, with such policies supporting the creation of community coalitions to plan and implement programs on prevention, detection, evaluation and treatment.

34. Governments, schools and health organizations include education on blood pressure as part of general health education programs that promote healthy lifestyles by teaching people to avoid obesity, excessive alcohol consumption, high salt intake, and physical inactivity. Such measures may prevent or delay the onset of high blood pressure.

35. Health professional associations formulate guidelines for the prevention and management of high blood pressure, with attention to all cardiovascular disease risk factors. Routine non-pharmacological measures, such as weight reduction, salt restriction and limitation of alcohol use, require emphasis and should be complemented, when necessary, with appropriate anti-hypertensive drug therapy.

36. Population-wide nutrition programs be the principal strategy for the control of blood lipid levels.

37. Health professional associations develop guidelines for the identification and management of individuals with abnormal blood lipid levels.

38. Governments, professional associations and community coalitions develop policies and programs for the prevention and control of abnormal blood lipid levels, adapted to national, regional and local needs, with such policies supporting the creation of community coalitions to plan and implement programs on prevention, detection, evaluation and treatment.

39. Governments, schools and health organizations include education on blood lipids as part of general health education programs that promote healthy lifestyles by teaching people about nutrition, maintenance of energy balance and the importance of physical activity.

40. Quality control measures, including the standardization of laboratory procedures, be established to ensure the accuracy and precision of lipid measurements.

41. Professional education programs be developed so that individuals identified as being at risk due to elevated blood cholesterol levels or inappropriate levels of other lipids can be provided with appropriate nutritional counselling and guidance.

42. Health promotion programs encourage individuals to assess what their own healthy body weight should be; to reduce, increase or maintain (as appropriate) their caloric intake; and to build a level of physical activity into their lives that is consistent with their age and health status.

43. The health and other relevant sectors collaborate to develop culturally appropriate dietary and exercise programs in the workplace and community centres, providing healthy food choices and environments conducive to physical activity.

44. Health professional associations develop guidelines for the prevention, detection and management of diabetes mellitus and its chronic complications.

45. Health professionals:

- a) emphasize the use of exercise and diet for weight control in the management of NIDDM;
- b) ensure that educating the diabetic patient becomes an integral part of treatment. This requires the development of appropriate programs for both adults and children (in areas such as physical activity, weight control and nutrition); and
- c) offer professional education programs for dietitians, nurse educators and primary care practitioners.

46. Educational components of heart health programs include modules to decrease excessive alcohol intake.

47. Scientists, health practitioners and concerned citizen groups give priority to educating and advising decision-makers in the public and private sectors, at the international, national and local levels, on the merits of heart health policies and on the opportunities that exist to prevent cardiovascular disease and improve the quality of life of their populations.

48. Heart health programs develop expertise in the effective use of social marketing and other public health education tools.

49. Health departments and voluntary agencies develop, implement and evaluate public education programs that reinforce the importance of, and teach skills for: improved dietary practices; abstention from or cessation of smoking; and adoption of regular patterns of physical activity.

50. Health agencies involved in community-based heart health programs ensure that their interventions meet community needs and that they apply existing knowledge on heart health programs.

51. Universities and health departments train community health workers to help communities to participate effectively in the planning and implementation of local heart health programs. Training includes: assisting communities to undertake needs assessments; taking inventories of community resources; building and managing community coalitions; and planning and coordinating action on advocacy and program management and control.

52. International and national health agencies facilitate the comparison of knowledge and experience on approaches to effective implementation of community heart health programs, using standardized indicators of performance and effectiveness, where possible.

53. Teaching institutions, including medical and nursing schools, provide training opportunities in cardiovascular disease prevention, including the training of practitioners in clinical preventive medicine.

54. Health professional associations and health agencies:

- a) develop and disseminate appropriate guidelines for primary care practitioners on the prevention and control of cardiovascular disease; and
- b) influence hospitals and community health centres to undertake heart health programs aimed at broad segments of the population.

55. International and national health agencies support countries in developing affordable health information systems for cardiovascular disease prevention and control.

56. Health and research funding agencies require demonstration heart health programs to monitor outcome and process indicators to determine whether they are meeting their objectives.

57. Research funding and international health agencies encourage and support the collection of a standard core of process and outcome indicators that enable comparisons to be made among heart health projects with similar goals.

58. Governments, health professionals and the private sector fulfil a social responsibility to assist the governments, health care and other relevant sectors of developing countries:

- a) to formulate and implement social policy specific to health;
- b) to enhance their capacity to carry out epidemiological studies and other types of assessment of needs;
- c) to transfer and adapt, as appropriate, the body of experience in health promotion, disease prevention and heart health interventions;
- d) to provide training in health promotion and disease prevention to health care workers, as well as managerial training in the planning, implementation and evaluation of interventions.

59. Developing countries adopt policies that emphasize the public health approach, ensuring equitable access to health care services (including preventive services) and to a healthy diet, use of non-pharmacological treatments of hypertension and hyperlipidaemia, and the provision of social support.

60. International, national, regional and local governments and non-governmental organizations work to develop equitable policies, organizational arrangements and incentives -and, where necessary, appropriate regulations -to support the application of state-of-the-art technologies aimed at preventing heart disease, and the development of living conditions conducive to heart health.

61. Governments, health, education, social science and media professional associations, voluntary organizations, community health coalitions and the private sector form partnerships to provide resources for research into the prevention and control of cardiovascular diseases, with priority given to the development of effective community-level approaches in different cultural and socio-economic settings.

62. The private sector, especially the agriculture, food and pharmaceutical industries, continually re-examine their corporate marketing and production strategies to ensure that they support public policies for the prevention and control of cardiovascular disease.

63. Research funding agencies and academic institutions provide incentives for interdisciplinary research that is designed to translate basic prevention knowledge into a form that can be used effectively at individual and community levels.

64. Governments, health, education, social science and media professional associations, voluntary agencies, community coalitions, and the private sector foster the development of informal networks representing all relevant disciplines and sectors. These networks, operating nationally as well as internationally, would:

- a) share knowledge on health promotion and disease prevention interventions in the area of heart health;
- b) undertake collaborative activities involving the public, private, health and non-health sectors, different disciplines and the health professions; and
- c) advocate the discussion of issues that need to be resolved as a prerequisite to the implementation of effective heart health policies.

