



Gaining Health

The European Strategy for the Prevention
and Control of Noncommunicable Diseases





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and Control of Noncommunicable Diseases**

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Summary

Gaining better health for the people of Europe is achievable. It is possible to significantly reduce the burden of premature death, disease and disability in Europe through comprehensive action on the leading causes and conditions. Investing in prevention and improved control of noncommunicable diseases (NCD) would improve the quality of life and well-being of people and societies. Given the strong social gradient associated with morbidity and premature mortality from NCD, a more equitable share of the benefits from effective interventions would make the greatest impact as well as bring significant health and economic gain to countries.

The greatest disease burden in Europe comes from NCD, a group of conditions that includes cardiovascular disease, cancer, mental health problems, diabetes mellitus, chronic respiratory disease and musculoskeletal conditions. This broad group is linked by common risk factors, underlying determinants and opportunities for intervention.

The European NCD strategy promotes a comprehensive and integrated approach to tackling NCD which simultaneously:

- promotes population-level health promotion and disease prevention programmes,
 - actively targets groups and individuals at high risk, and
 - maximizes population coverage of effective treatment and care,
- while systematically integrating policy and action to reduce inequalities in health.

The goal of this strategy is to avoid premature death and significantly reduce the disease burden from NCD, improving quality of life and making healthy life expectancy more equitable within and between Member States in Europe. **The objectives of the strategy** are to combine integrated action on risk factors and their underlying determinants across sectors with efforts to strengthen health systems toward improved prevention and control.

There are six key messages to guide action.

- Prevention throughout life is effective and must be regarded as an investment in health and development.
- Society should create health-supporting environments, thereby also making healthy choices easier choices.
- Health and medical services should be fit for purpose, responding to the present disease burden and increasing opportunities for health promotion.
- People should be empowered to promote their own health, interact effectively with health services and be active partners in managing disease.
- Universal access to health promotion, disease prevention and health services is central to achieving equity in health.
- Governments at all levels have the responsibility to build healthy public policies and ensure action across all concerned sectors.

The strategy puts forward a **framework for action, to assist countries** in formulating the response to NCD, building on existing strategies and actions already in place. It reiterates the importance of intersectoral action and leadership by the ministry of health, going through the steps that a country might take in first assessing their current approaches and then refining them in order to develop or further strengthen their public health policies for tackling NCD in a comprehensive and integrated way. While all European countries are different, and there is a wide variety in the NCD challenges that countries face and in their resource and capacity levels, it is possible for all to effectively respond. This strategy is relevant to all of Europe.

Introduction

This comprehensive, action-oriented Strategy for the Prevention and Control of Noncommunicable Diseases was developed in response to the request made by Member States at the fifty-fourth session of the WHO Regional Committee for Europe in 2004¹. It has been developed through an extensive consultation process with countries, experts, nongovernmental organizations and other stakeholders. As requested through resolution EUR/RC54/R4, it is integral to the updated Health for All framework, takes account of existing Member States' commitments through WHO ministerial conferences, relevant strategies and resolutions, as well as the experience gained through the countrywide integrated noncommunicable disease intervention (CINDI) programme.

The document is organized into eight sections and starts by presenting the rationale for action, based on the challenges faced by countries in the WHO European Region and the potential for health gain that already exists. It puts forward a strategic approach for action with a clear vision, goal and objectives and six key messages for guidance. A strategic framework is proposed to assist Member States in strengthening their response to NCD, building on existing strategies and actions already in place. Further detail, illustrations and examples of actions will be supplied in the forthcoming WHO European report on non-communicable diseases due for publication in early 2007.

¹ It was endorsed by resolution EUR/RC56/R2 on 11 September 2006 at the fifty-sixth session of the WHO Regional Committee for Europe (Annex 1).

Challenges

Challenges to health and equity

A few conditions, linked by common risk factors and underlying determinants, are responsible for a large part of the disease burden in Europe (see Table 1). These leading conditions, their risk factors and determinants are more or less the same for every part and country of Europe and have overtaken communicable diseases in terms of the burden of ill-health, with some countries facing a “double burden” of both NCD and communicable disease. Cardiovascular disease is the number 1 killer in Europe, causing more than half of all deaths across the Region, with heart disease or stroke the leading cause of death in all 52 Member States². Where gender-divided data are collected, different patterns of NCD become apparent between women and men.

Table 1. Burden of disease and deaths from NCD in the WHO European Region, by cause (2005 estimates)

Group of causes (selected leading NCD)	Disease burden (DALYs ^a)(000s)	Percent of all causes	Deaths (000s)	Percent of all causes
Cardiovascular diseases	34421	23%	5067	52%
Neuropsychiatric conditions	29370	20%	264	3%
Cancer (malignant neoplasms)	17025	11%	1855	19%
Digestive diseases	7117	5%	391	4%
Respiratory diseases	6835	5%	420	4%
Sense organ disorders	6339	4%	0	0%
Musculoskeletal diseases	5745	4%	26	0%
Diabetes mellitus	2319	2%	153	2%
Oral conditions	1018	1%	0	2%
All NCD	115339	77%	8210	86%
All causes	150322		9564	

^a DALYs: disability-adjusted life years.
Source: *Preventing chronic diseases: a vital investment (1)*.

² Montenegro became the fifty-third Member State on 29 August 2006. All related data and groupings in this publication predate this event and therefore refer to the one Member State, Serbia and Montenegro.

Almost 60% of the disease burden in Europe, as measured by DALYs, is accounted for by seven leading risk factors: high blood pressure (12.8%); tobacco (12.3%); alcohol (10.1%); high blood cholesterol (8.7%); overweight (7.8%); low fruit and vegetable intake (4.4%); and physical inactivity (3.5%). It should also be recognized that diabetes is a major risk factor and trigger for cardiovascular disease (CVD). These are the same leading risk factors in all epidemiological subregions of Europe (Eur-A, -B, -C³) and in most European countries, although the rank order may differ (2). In 37 of the 52 European Member States of WHO, the leading risk factor for deaths is high blood pressure; in 31 Member States, tobacco is the leading risk factor for disease burden. Alcohol is the leading risk factor for both disability and death among young people in Europe.

These leading risk factors are common to many of the leading conditions in Europe. Each of these seven leading risk factors, for instance, is associated with at least two of the leading conditions and, in return, each of the leading conditions is associated with two or more risk factors. Furthermore, in many individuals, particularly the socially disadvantaged, risk factors frequently cluster and interact, often multiplicatively.

Diseases also cluster in individuals, so that several co-morbidities can exist at once. At least 35% of men over 60 years of age have been found to have 2 or more chronic conditions and the number of co-morbidities increases progressively with age, with higher levels among women. There are strong interrelationships between physical and mental health, with both related through common determinants such as poor housing, poor nutrition, or poor education, or common risk factors such as alcohol. Depression, for example, is more common in people with physical illness than the healthy, with prevalence of major depression in up to 33% of people with cancer, 29% of those with hypertension and 27% of those with diabetes.

NCD have a multifactorial etiology and result from complex interactions between individuals and their environment, including their opportunities for promoting health and countering their vulnerability to risks. Individual characteristics (such as sex, ethnicity, genetic predisposition) and health protective factors (such as emotional resilience), together with social, economic and environmental determinants (such as income, education, living and working conditions), determine differences in exposure and vulnerability of individuals to health-compromising conditions. These underlying determinants, or “causes of

³ Eur-A: 27 countries with very low mortality in both children and adults.

Eur-B: 16 countries with low mortality in both children and adults.

Eur-C: 9 countries with low child mortality and high adult mortality.

causes”, influence health opportunities, health-seeking and lifestyle behaviours as well as onset, expression and outcome of disease.

A person’s genetic make-up is likely to be important in the probability of developing certain diseases, such as diabetes, cardiovascular disease, cancers, schizophrenia and Alzheimer’s disease. Although patterns of inheritance are not clear-cut, gene-environment interactions may play a major role. Furthermore, patterns of disease differ by ethnic group: type 2 diabetes mellitus is up to six times more common in people of South Asian descent and up to three times more common among those of African and African-Caribbean origin, for instance.

Gender influences the development and course of risk factors and diseases such as obesity, cardiovascular disease and mental health problems. Throughout the life course, women and men are attributed, and take, different roles in society, which are valued differently. This affects risk-taking behaviour, exposure to risks and health-seeking behaviour; it also determines the degree to which women and men have access to and control over the resources and decision-making needed to protect their health. These result in inequitable patterns of health risk, access to health services, use of health services and health outcomes.

The foundations of adult health are laid in early life, even before birth, and a good start in life is fundamental to later development. Young mothers, poor mothers and those of low educational achievement are more likely to produce a low-birth-weight baby and less likely to breastfeed; in turn, low birth weight is associated with increased risk of developing coronary heart disease, stroke, high blood pressure and type 2 diabetes mellitus. Good health-related habits, such as eating sensibly, exercising and not smoking, are learnt early in life and associated with parental and peer group examples. Slow growth and poor emotional support in childhood lead to a lifetime risk of poor physical and mental health: exposure to child abuse and other violent and adverse events of childhood, for example, has been associated with an increased risk of smoking, physical inactivity, severe obesity and alcoholism in later life.

There is an uneven distribution of conditions and their causes throughout the population, with higher concentration among the poor and vulnerable. People in low socioeconomic groups have at least twice the risk of serious illness and premature death as those in high socioeconomic groups (3). Inequalities in health between people with higher and lower educational level, occupational class and income level have been found in all European countries where measured. The increasing concentration of risk factors in the lower socioeconomic groups is leading to a widening gap in future health outcomes.

When improvements to health do occur, the benefits are unevenly distributed within society, with few exceptions. When all groups in society are exposed to some extent to health interventions, those in higher socioeconomic groups have tended to respond better and benefit more. Mortality rates are declining proportionally faster in the higher than lower socioeconomic groups, particularly for CVD, widening further the differences in life expectancy between the two groups (4). Within Lithuania, increasing inequalities (by education) in mortality due to all major causes of death for men and women were noted between 1989 to 2001, owing to a considerable decline in mortality among those with a university education and a sharp increase among those with primary or no education.

These conditions and their causes contribute to differences in healthy life expectancy between and within European countries. While CVD mortality rates have been decreasing in western Europe in recent decades, there is an up to 10-fold difference in premature CVD mortality between western Europe and countries in central and eastern Europe, with the highest rates in the east. Common preventable conditions are contributing to a 20-year difference in healthy life expectancy across Europe, and to differences within countries.

Challenges to societies and health systems

NCD result in a significant impact on health and social welfare systems, through premature death, long-term illness or disability. In some countries, such as Denmark, an estimated 40% of the population is living with long-term conditions; this proportion is likely to increase with an ageing Europe. Seventy to eighty per cent of health care expenses are allocated to chronic conditions, and patients with long-term conditions are heavy users of health services. Health care costs and the risk of avoidable inpatient admission increase dramatically with the number of co-morbidities. The United Kingdom has estimated that eight of the top eleven causes of hospital admissions are long-term conditions and 5% of inpatients, many with a long-term condition, account for 42% of all acute bed days (5).

Dying young or living with long-term illness or disability has economic implications for families and society. Employers and society carry a burden of absenteeism, decreased productivity, and employee turnover. Families and society carry a burden of health care costs (direct and indirect), reduced income, early retirement and increased reliance on social care and welfare support. In Sweden, the estimated total cost of musculoskeletal conditions was largely indirect, relating to sick leave (31.5%) and early retirement (59%).

In 2005, the loss in national income from heart disease, stroke and diabetes in the Russian Federation was estimated to be 11 billion international dollars.

Treatment may not be accessible, available or affordable, and the burden of costs can push families further into poverty. One salbutamol inhaler (for treating asthma) can cost the equivalent of 15 days' wages for the lowest paid government worker in parts of Europe. Given the cluster of co-morbidities among the poor, and the potential number of drugs needed for effective treatment, it is no wonder that adherence to long-term therapy can be a challenge (6). Further, stigma and discrimination associated with certain diseases such as diabetes and mental health problems can close employment opportunities for some and further compound the interrelationship between poverty and ill-health.

Demographic change in Europe presents further economic, budgetary and social challenges in coming decades owing to people living longer and a potential drop in the workforce from the falling birth rate. In the western part of the Region, the number of people over 64 years has more than doubled since the 1950s, while the number of those over 80 years has quadrupled. While in many ways this can be seen as a triumph for public health, it also poses a particular challenge for the health and social sector. Predictions are that the ratio of elderly, economically inactive people (> 65 years) to people of working age could more than double between 2005 to 2050 in the European Union. It is more important than ever that people remain healthy and independent to as late in life as possible, so that premature deaths among the middle-aged working population are avoided and morbidity is "compressed" towards the end of life.

Globalization and urbanization pose particular challenges to society. Globalization is associated with the trend for populations in low- and middle-income countries to consume unhealthy diets high in energy, saturated fats, salt and sugar. In many countries, people are dependent on only a few retailers for their daily purchases of food, and local markets are disappearing; this trend started in western Europe and is now seen in parts of eastern Europe. The growth of trade agreements, common markets and transnational marketing of tobacco and alcohol undermines the efforts of government to exert effective controls on their supply and availability. Urban populations are becoming increasingly sedentary, for example from rapidly increasing levels of motorized transport, urban sprawl and reduced opportunities for daily physical activity in housing, occupational and school settings. Our modern "obesogenic" environments, with the combination of unhealthy diet and physical inactivity, have serious implications for obesity levels, particularly among children, as well as contributing to other NCD such as diabetes.

Health promotion and the prevention of NCD have a relatively small share of the health system budget.

According to the Organisation for Economic Co-operation and Development (OECD), on average only 3% of total health expenditure in OECD countries goes toward population-wide prevention and public health programmes, while most of the spending is focused on “sick care.” Added to this, donor agencies and international aid efforts are mainly directed at communicable diseases, deflecting attention from the main contributors to death and disease burden in a region such as Europe. CVD causes 46 times the number of deaths, and 11 times the disease burden, caused by AIDS, tuberculosis and malaria combined in Europe.

Health services are frequently oriented towards care rather than prevention, and acute rather than chronic

models of care, leading to missed opportunities for prevention, early detection and treatment. Fifty per cent of people with diabetes mellitus may be unidentified; in those that are, 50% of patients may have unsatisfactory metabolic, lipid and blood pressure control, even though it is known that up to 80% of people with diabetes will die of cardiovascular disease. Quality of care for some common diseases is still woefully inadequate and public health capacity may be insufficient in the face of the challenge. There is a major gap in implementing effective interventions. For example, 30 000 women die each year from cervical cancer in Europe, with death rates between two and four times higher in countries of central and eastern Europe than in western Europe: these deaths could be largely prevented through early detection and treatment.

Potential for health gain

Effective interventions already exist for the prevention and control of NCD. It is already possible to: prevent or modify risk factors; prevent the onset or progression of disease; prevent disability; and prevent early or painful death. Health outcomes can be improved by early detection, appropriate treatment and effective rehabilitation. The challenge lies in ensuring that this existing knowledge is better, and more equitably, applied so that all stand to share in the benefits. While significant achievements have been made in some countries, gaps within and between countries demonstrate that there is still enormous potential for health gain in Europe.

The greatest potential for gain lies with prevention. Taking the example of coronary heart disease (CHD), altogether 80% of the reduction in CHD mortality in Finland during 1972–1992 has been explained by a decline in the major risk factors. Similarly, in Ireland, almost half (48.1%) of the reduction in CHD mortality rates during 1985–2000 among those aged 25–84 years has been attributed to favourable trends in population risk factors. In both countries, the greatest benefits appear to have come from reductions in mean cholesterol concentrations, smoking prevalence and blood pressure levels.

Overall, population-based prevention is the most sustainable strategy in the long term, and it is a means of addressing a number of NCD and their common risk factors at the same time. Examples of effective interventions to reduce the overall prevalence of risk factors in the population include taxation of tobacco products or lowering the fat, salt and sugar content of processed foods. Multiple risk factor interventions at the population level can bring about changes in risk factor profiles, which, while modest at the individual level, can lead to significant impact on NCD mortality at that scale. For the United Kingdom, for example, it has been predicted that CHD mortality could be halved by small changes in cardiovascular risk factors: a 1% decrease in cholesterol in the population could lead to a 2–4% CHD mortality reduction; a 1% reduction in smoking prevalence could lead to 2000 fewer CHD deaths per year; and a 1% reduction in UK population diastolic blood pressure could prevent around 1500 CHD deaths each year.

Attention should be focused on reducing health inequalities. Morbidity from diabetes complications is three and a half times higher among the poorest people in the United Kingdom than the richest; research has also shown that males between 20 and 64 years of age in semi- and unskilled manual occupations run a three times higher risk of premature death from CVD compared to those in professional and managerial

positions. Evidence of the impact of social gradients and health inequalities is overwhelming. Interventions built on the implementation of policies tackling the wider health determinants like economic growth, income inequalities and poverty, as well as education, the working environment, unemployment and access to health care, represent the main options for substantial health gains. This broad range of population-wide measures requires broad societal efforts, with both health and non-health sectors working together. The health sector needs to reach out to different sectors of society to make them more aware of the role they play in determining certain conditions and the responsibility they bear for their improvement. By their nature, efforts to reduce social inequalities in health should mainly be regarded as integral to social and economic policies, rather than separate activities targeted at health inequalities.

Prevention needs to take place simultaneously at the population level and at the individual level. Unless people at high risk are treated, there will only be limited impact on morbidity and mortality from NCD in the short to medium term. In individuals with impaired glucose tolerance, who are at high risk of developing diabetes, an intensive lifestyle modification programme can reduce the risk of diabetes by 58%, and pharmacological intervention can reduce the risk of diabetes by 31%. For example, combination drug therapy (such as aspirin, beta blocker, diuretic and statin) can lead to a 75% reduction in myocardial infarction (heart attack) among those at high risk of having one. Yet many of these effective measures are not implemented: the EUROASPIRE II study, for example, found that there were still considerable opportunities in Europe to reduce the risk of recurrent CHD through lifestyle changes, rigorous control of other risk factors, and more effective use of proven drug therapies, with for example about half of coronary patients in Europe still requiring more intensive blood pressure management.

Medical screening can prevent disability and death and improve quality of life, if it is effectively implemented and if effective, affordable and acceptable treatment is available to those who require it. The number of proven screening tests to identify individuals at high risk of disease is limited, and those that do exist require sufficient health systems capacity for effective implementation. Screening, and then treating, individuals for elevated risk of cardiovascular disease using an overall or total risk approach, which takes into account several risk factors at once, is more cost-effective than focusing just on individual risk factors or on those based on arbitrary cut-off levels of individual risk factors (7). In countries with sufficient resources to provide appropriate treatment, it is also effective to screen individuals for early detection of breast and cervical cancer, particularly if this takes place through organized, population-wide screening programmes (8,9). Diabetic retinopathy is an easily identifiable and treatable complication of diabetes, but it is an important cause of visual loss in Europe: regular screening, and treatment, of individuals at high risk could prevent blindness.

Both population-based and high-risk approaches are relevant in Europe in the 21st century, although their potential for further gain and applicability is likely to vary by country and over time. For those European countries where relatively simple and cheap strategies, such as tobacco taxation and replacement of saturated with unsaturated fats, have yet to be widely implemented, population strategies are likely to have the greatest impact, although individual strategies targeting patients at high risk should be introduced in parallel. On the other hand, in those European countries where there have been decades of population-level strategies to tackle risk factors with successful outcomes, an increasing potential for *additional* health gain may now lie with individual strategies targeting patients at high risk, although population-level approaches should continue.

The personal risk of developing disease can be dependent on the interaction between the individual, his or her personal susceptibility and the wider environment. While the reduction and control of the more modifiable risk factors and wider determinants remain the cornerstone of action in prevention and control of NCD, it is likely that in the next 5–10 years an increasing number of tests will be developed for single-gene disorders and for genetic predisposition to common disease. It will be possible to test asymptomatic individuals for genetic disorders and to identify those at higher genetic risk, thus enabling earlier, more targeted interventions to be made before symptoms appear; it will also be possible to test symptomatic individuals to confirm diagnosis and offer novel treatments. The scale of the potential for health gain from these scientific advances is as yet unknown but is likely to have significant consequences for the organization, staffing and delivery of health services, as well as to raise issues of ethics and equity of access.

Preventive interventions need to be combined with efforts to strengthen health protective factors that can enhance people's resilience and improve their resistance to risk factors and disease (10). Promoting a good start in life with early attachment and adequate support to parents and young children is an important investment in physical and emotional development, with lifelong consequences. Belonging to a social network, and feeling connected with others, can have a powerful protective effect on health. Good social support can help give people the emotional and practical resources they need, particularly for coping with difficult life transitions. Effective interventions include: improving the social environment in schools, the workplace and community; enhancing social support for elderly people; and providing programmes to equip people with problem-solving and social skills, as well as those to manage stress.

Focusing on evidence-based and cost-effective interventions, and improving the quality of interventions, can be an efficient way to use resources and achieve the potential for health gain. In disease management, effective interventions exist for reducing morbidity, disability and premature mortality, although these

often rely on early detection and organized systems of care for greatest success (11). Treatment of stroke, for example, through stroke unit care, has been shown to reduce the proportion of those dying or dependent on others for their primary activities of daily living (ADL) by 25%. The challenge lies in the ability of health systems to adopt effective interventions on a large scale – although the quality of care can be improved even in low-resource settings.

In improving the management of chronic diseases, **programmes need to take account of both common approaches to chronic care and disease-specific approaches for greatest benefit.** Models that focus on improving the care of chronic conditions exist and are being implemented in a number of countries, such as England and Denmark. In addition, there are frameworks or guidelines for the care of specific conditions. Given the high degree of co-morbidity, care that is oriented to overall patient needs is likely to be a more promising strategy than care oriented towards individual diseases. Guidelines for single disease management may not acknowledge the extent and impact of co-morbidity. In this, the primary care physician plays an important role in providing integrated care. Active participation of the patient in disease management can improve health outcomes; for example, training for self-management strategies in people with type 2 diabetes mellitus is effective in improving fasting blood glucose levels, glycated haemoglobin and diabetes knowledge and in reducing systolic blood pressure levels, body weight and the requirement for diabetes medication.

Investment in tackling NCD would have significant impact on health and economic gain in many low- and middle-income countries. For countries of eastern Europe and the former Soviet Union, for example, reduction of adult mortality to the level found in the European Union, through focusing on NCD and external causes, would have a significant impact on life expectancy at birth, with an average gain of eight years (12). Potential economic gains as high as 29% of 2002 gross domestic product (GDP) have been estimated for the Russian Federation if EU-15⁴ rates were achieved by 2025 (13). Similarly, a focus on prevention and the wider determinants of health to improve the health of the whole population and reduce health inequalities is considered essential in high-income countries struggling to contain spiralling health care costs (14).

In summary, overall the greatest potential for health gain lies in a comprehensive strategy that simultaneously promotes population-level health promotion and disease prevention programmes and actively targets groups and individuals at high risk, while maximizing population coverage with effective

⁴ European Union, when it consisted of 15 Member States, up until 2004.

treatment and care. Tackling the wider determinants of health and reducing inequalities within and between countries has the potential to contribute to major improvements.

Guiding principles

The framework for this European strategy is integral with that of the Health for All policy framework for the WHO European Region (15). As such, it shares the vision of health as a fundamental right, its core values of equity, solidarity and participation, and its call for policy-makers to link these values to action in terms of ethical governance of their health systems. Within this framework, the strategy reaffirms five key principles that should guide policy development at all levels in a country.

- The ultimate goal of health policy is to achieve the full health potential of everyone.
- Closing the health gap between and within countries (i.e. solidarity) is essential for public health.
- People's participation is crucial for health development.
- Health development can be achieved only through multisectoral strategies and intersectoral investments that address health determinants.
- Every sector of society is accountable for the health impact of its own activities.

In line with the Health for All vision and the definition of health in the WHO Constitution, health is a positive state of well-being and “not merely the absence of disease”, and health policy is much more than just patient care. Health as a right extends not only to timely and appropriate health care but also to the underlying determinants of health. A government has the responsibility to act on the social determinants of health and to translate this responsibility into policy, providing the enabling conditions that make health opportunities, and ultimately good health outcomes, available to all, regardless of age, gender, ethnicity, etc. Therefore, in line with the Health for All approach, this strategy addresses all four types of programme efforts needed for health improvement: addressing health determinants; promotion of healthy lifestyles; prevention and early detection programmes; and health-centred patient care.

Strategic approach

The focus of the strategy is on both the prevention and control of NCD. It aims to balance action on the avoidable causes of disease, disability and premature death with action to improve the health outcomes and quality of life of those already suffering from disease. The strategy seeks to prevent or modify risk factors; prevent onset or progression of disease; prevent disability; and prevent painful or premature death.

The scope of the strategy covers all those NCD that are linked by common risk factors, underlying determinants and opportunities for prevention. This is considered a more effective and efficient approach, given the multifactorial causation of these major conditions and the frequent clustering of risk factors and comorbidities that occurs in individuals, particularly the most vulnerable in society.

A comprehensive approach requires efforts across the “continuum” of health promotion, disease prevention and disease management, with interventions directed at the whole population, the individuals at highest risk and those with early or established disease. **The strategic approach is based on a number of key components (see Box 1).**

Box 1. Strategic approach

A comprehensive approach to tackling NCD simultaneously:

- promotes population-level health promotion and disease prevention programmes,
 - actively targets groups and individuals at high risk, and
 - maximizes population coverage with effective treatment and care,
- while systematically integrating policy and action to reduce inequalities in health.

To be effective, such an approach requires integrated action on risk factors and their underlying determinants across sectors, combined with efforts to strengthen health systems towards improved prevention and control. **The vision, goal and objectives of the strategy are set out in Box 2.**

Box 2. Vision, goal and objectives**Vision**

A health-promoting Europe free of preventable noncommunicable disease, premature death and avoidable disability.

Goal

To avoid premature death and significantly reduce the disease burden from NCD by taking integrated action, improving the quality of life and making healthy life expectancy more equitable within and between Member States.

Objectives

To take integrated action on risk factors and their underlying determinants across sectors.
To strengthen health systems for improved prevention and control of NCD.

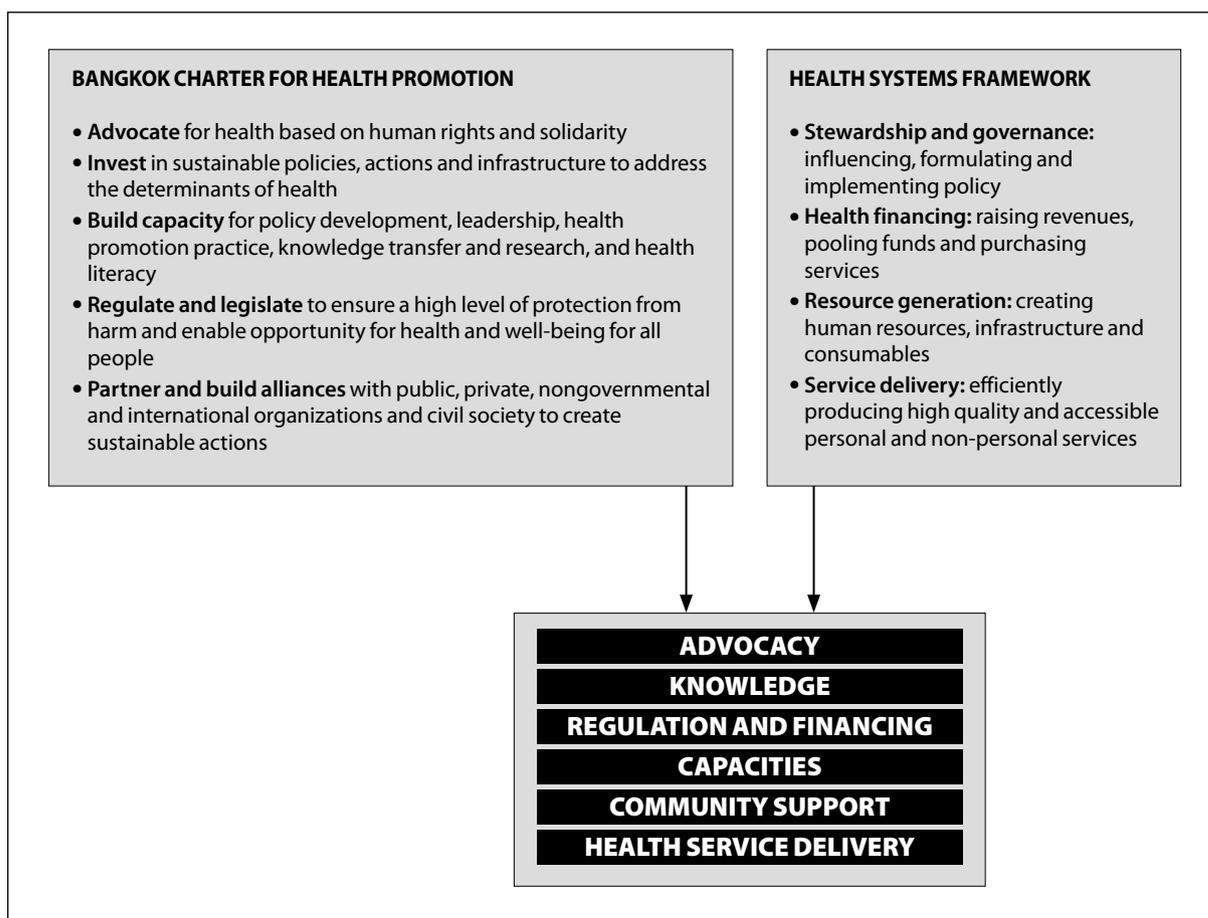
Action is guided by the **key messages** of the European NCD strategy (see Box 3).

Box 3. Key messages

1. Prevention throughout life is effective and must be regarded as an investment in health and development.
2. Society should create health-supporting environments, thereby also making healthy choices easier choices.
3. Health and medical services should be fit for purpose, responding to the present disease burden and increasing opportunities for health promotion.
4. People should be empowered to promote their own health, interact effectively with health services and be active partners in managing disease.
5. Universal access to health promotion, disease prevention and health services is central to achieving equity in health.
6. Governments at all levels have the responsibility to build healthy public policies and ensure action across all the sectors concerned.

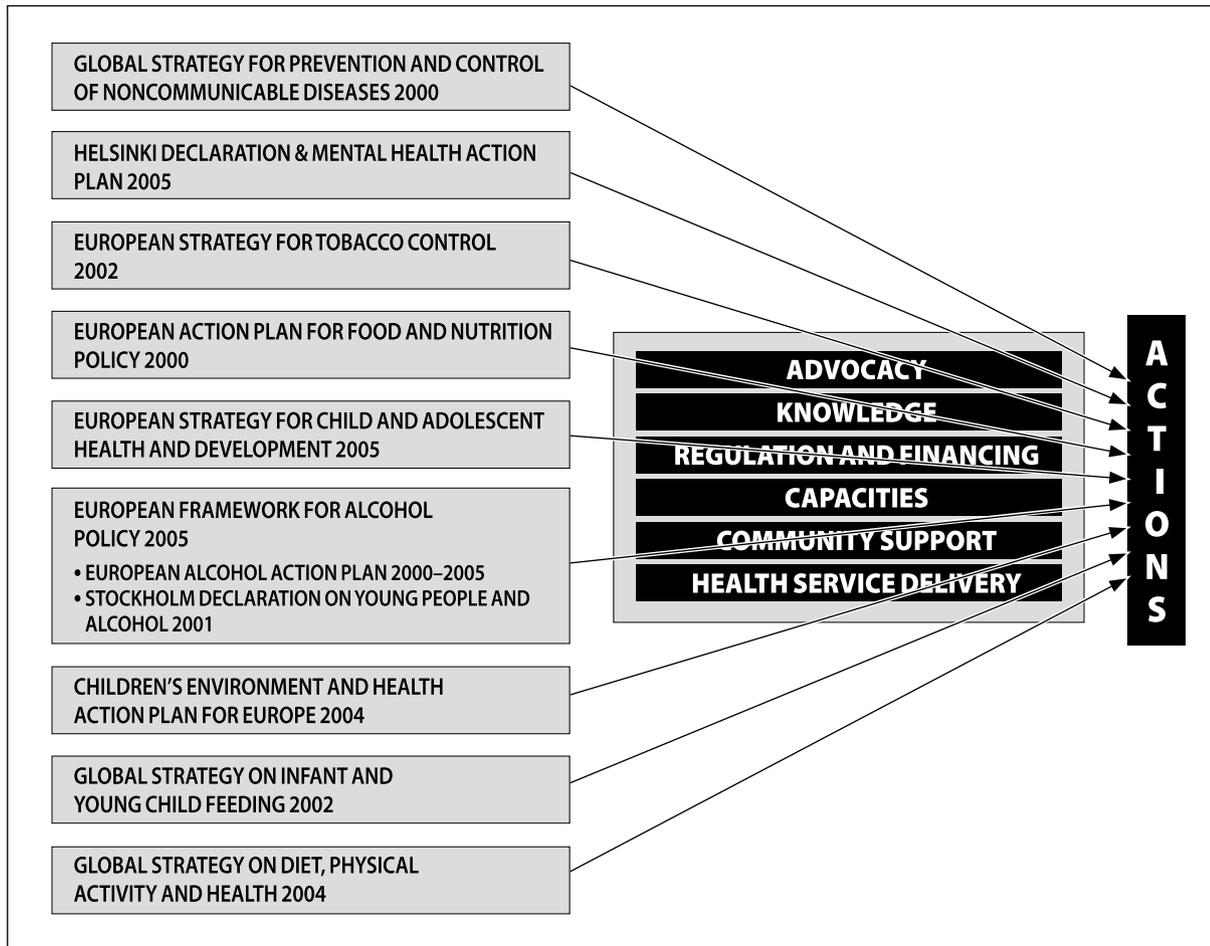
To help Member States review and strengthen the prevention and control of NCD, a composite framework is proposed for organizing action and building on existing commitments. **The NCD framework for action** (see Fig. 1) is drawn from two existing and highly relevant frameworks, the Bangkok Charter for Health Promotion in a Globalized World (16) and the WHO Health Systems Framework (17), combining health promotion, disease prevention and health care. The framework is also informed by, and consistent with, the frameworks for implementation put forward in the global report *Preventing chronic diseases: a vital investment* (1) and the CINDI Vision (18).

Fig. 1. A composite framework for action on NCD



The European NCD strategy provides Member States with an opportunity to bring together, within a coherent and mutually reinforcing framework, those WHO strategies and action plans relevant to tackling NCD comprehensively throughout the life course (Fig. 2 and Annex 2). It does not seek to repeat or replace these strategies and action plans, but rather to draw on their experience, enhance their delivery and work together to achieve a common goal. A combination of both horizontal and vertical approaches is required, but these need to be well coordinated and integrated in order to achieve the potential synergies.

Fig. 2. A comprehensive, action-oriented approach



In the following section entitled “Framework for action” (pp. 21–30), the six areas highlighted in Figs. 1 and 2 are further elaborated and examples of actions are given to illustrate how these might be brought together. The framework also provides an opportunity to respond to the key messages, identify what is not already covered by other strategies and action plans, and underline the importance of the determinants of health and the need to reduce inequalities in health.

The European NCD strategy challenges all governments, and other decision-making bodies concerned, to explore and judge which policy options are likely to best accomplish the intent of the strategy. While all European countries are different, and there is a wide variety in the NCD challenges that countries face, as well as in their resource and capacity levels, it is possible for all to effectively respond. This strategy should, firstly, guide Member States in assessing their current approaches and, secondly, assist them in refining these in order to develop or further strengthen their national public health policies for tackling NCD in a comprehensive way. Most actions require tools, actors and settings, and these are covered in different ways within the next two sections. The section entitled “Taking action” (pp. 31–36) will go further into the role of government, and particularly that of the ministry of health, in the development, implementation, monitoring and evaluation of policy for NCD prevention and control. Political commitment is decisive to any action that can be taken.

Framework for action

This section goes through each of the six areas of the framework introduced in the section entitled “Strategic approach” (pp. 16–20), describing what the area covers and giving examples of actions that could be included. It draws on existing WHO strategies and action plans, as well as other relevant material such as documents for the forthcoming WHO European Ministerial Conference on Counteracting Obesity, e.g. *Promoting physical activity for health – a framework for action in the WHO European Region*, the next WHO European Food and Nutrition Action Plan, and the proposal for the next phase of the WHO Regional Office for Europe’s Country Strategy: Strengthening Health Systems (19). This section is primarily directed at ministries of health and public health policy-makers, although other stakeholders such as nongovernmental organizations, private sector and community groups will recognize examples of relevance for their own work.

Advocacy

Advocacy for health is a combination of individual and social actions designed to gain political commitment, policy support, social acceptance and systems support for a particular health goal or programme. The purpose is to create living conditions that are conducive to health and the achievement of healthy lifestyles. As a major strategy for health promotion, advocacy can take many forms, including use of the mass media, direct political lobbying and community mobilization through, for example, coalitions of interest around defined issues. Public health policy-makers, in particular ministries of health, have a responsibility to act as advocates and demonstrate visible leadership for health across government and with other sectors, most notably with policies that impact on health and its determinants.

Examples of specific actions are given below.

Advocate for health in all policies – within government and with other sectors

- Highlight the relationship between determinants and health, the location of most of these determinants outside the health sector and the need for all sectors to take a role in tackling these.
- Argue for the prevention of NCD as an investment with benefits for other sectors and development as a whole, such as gains in productivity, employment, social cohesion and economic development.

- Develop mechanisms to facilitate joint work across government, such as setting up intersectoral committees, identifying shared goals and resources, and adopting a common values system.
- Encourage macro-level strategies to reduce risks to health and improve the quality of life, such as improving access to healthy diet and better nutrition, housing, education, environmental conditions to facilitate physical activity, work environment, economic security, etc.
- Use health impact assessment as a tool for judging the potential effects of a policy, programme or project on the health of a population, and the distribution of those effects within the population.
- Advocate for family-friendly work policies, especially in supporting working women to breastfeed.

Advocate for action on the social determinants of health by taking a lead within the health sector

- Ensure that choices among investments to promote the health of the population are prioritized depending on their potential contribution to social and economic development.
- Review policies and services for sensitivity to age, gender, ethnicity and the needs of different vulnerable groups (for example, carrying out equity audits to assess access to health care services for different socio-economic groups).
- Enhance positive protective factors in health care services (for example, increasing social support and participation in work-related decision-making for caregiver teams).
- Reduce the consequences of ill-health on the poor, by facilitating the return to work of the chronically ill.
- Develop special services for “difficult to reach” groups such as the homeless and migrants.

Knowledge

Policy-makers are increasingly encouraged to base health policy, public health and service delivery on reliable knowledge, information and evidence: implementation of ineffective interventions wastes resources and could be counterproductive to individuals and populations (20). To fulfil their stewardship and governance function, health ministries need good routine information systems in place to support decision-making, inform health needs assessment and priority-setting, as well as to provide the means for monitoring process and outcomes. Collecting a broad set of indicators and disaggregating data down into important population categories, such as income level, age, sex and ethnicity, allows policy-makers to assess the distribution of health benefits among the different population groups and to analyse progress towards achieving equity.

For population-wide health policy decisions, the highest quality evidence possible should be drawn from a broad range of sources. Lack of definitive and conclusive evidence should not be a reason for inaction, particularly where the risk to health is high. Decision-making on public health needs to take place in a transparent and democratic manner, recognizing the conditions of complexity and uncertainty in which it operates, and in this the precautionary principle can serve as a useful tool in risk management.

Improving health literacy, i.e. people's access to health information and their capacity to understand and use it effectively in ways that are health-enhancing, is critical to informed decision-making and empowerment. Navigating health services, engaging in self-care and participating in decision-making are challenging for many people, especially when they are feeling vulnerable, ill, in pain or anxious about their health.

Examples of specific actions are given below.

Make better use of existing knowledge

- Highlight where evidence-based and highly cost-effective interventions could be better implemented and where interventions of proven low effectiveness could be reduced.
- Put in place mechanisms to get research into practice more quickly and effectively.
- Include the basics of disease prevention in undergraduate and continuing education programmes for health professionals, since the emphasis is frequently still on acute/curative models of care.

Generate new knowledge and information

- Make the evaluation and monitoring of policies and services routine.
- Create or strengthen institutions which are responsible for designing policies, giving policy advice or conducting policy evaluations and research.
- Identify and address gaps in research on public health interventions, shifting resources accordingly.
- Put in place public health surveillance systems to monitor broad (and disaggregated) data on population health, health risks and health determinants.
- Strengthen knowledge of the connections between social determinants and health outcomes.
- When funding new research, ensure that both women and men are included (unless justifiable to exclude either sex on evidence-based or clinical grounds), that all population subgroups are represented in sampling and that observed differences are reported in results.

Facilitate use of knowledge in policy-making

- Facilitate communication between scientists, policy advisors/developers and politicians, for example by strengthening or establishing national public health research institutes.
- Develop skills in using and appraising health information for health needs assessment and policy-making.

Use knowledge as a means of empowerment and engagement

- Work with the media to better communicate health risks and information to the public.
- Engage the public in priority-setting and public health decision-making.
- Ensure people have access to important health information that affects their health and encourage and facilitate information-seeking behaviour.
- Inform the public about developments in genetic technology, the options offered by such developments and their ethical implications.
- Use mechanisms to increase health literacy, such as patient decision-support aids and self-management courses, and address illiteracy and language as a barrier to health literacy.
- Build health literacy and capacity among non-health professionals who impact on health and its determinants, such as teachers, police, urban planners, social workers, and journalists.

Regulation and financing

Regulation and legislation are fundamental elements of public health policy and practice. Regulation is a widely recognized responsibility of health ministries and covers both the framing of rules to govern the behaviour of actors in the health system, not just those of the health ministry or public sector, and ensuring compliance with them. While regulatory frameworks can be highly cost-effective public health interventions, a lack of commitment and resources can hamper government capacity to carry out and enforce regulatory responsibilities.

Health financing can be an important means of translating policies and plans into action. Health financing is an umbrella term that describes three sub-functions: (i) raising revenues, (ii) pooling funds and addressing risks across the population with the aim of promoting social solidarity, and (iii) purchasing services, with resources allocated to providers and among health interventions in a way that maximizes population health outcomes. Various financing mechanisms can be used as levers for effecting change in NCD prevention and control, such as establishing incentives for improved quality of care and service

provision, mitigating the burden of out-of-pocket health spending, and reducing financial barriers to access to needed care.

Examples of specific actions at international, national and/or local level are given below.

Develop and enforce regulatory frameworks (legislation, regulations, ordinances, treaties)

- Restrict advertising, sponsorship and promotion of products such as tobacco, alcohol and certain foods, particularly in relation to young people, educational and sports activities.
- Protect people against environmental tobacco smoke by making all public places smoke-free, including public transport, workplaces, bars, restaurants, educational and health institutions.
- Use licensing and sales laws to control tobacco and alcohol supply, particularly to young people.
- Enforce current public health legislation, such as drink–driving legislation.
- Use human rights legislation for public health ends, for example to promote health as a human right, to restrict the targeting of children by economic operators, to tackle discrimination on the basis of age, gender, or ethnicity, and to end the degrading treatment of those with mental health problems.
- Control the quality of and consumer information about certain products, such as food, tobacco, alcohol, and medicines, through regulation and monitoring of content, packaging, and marketing.
- Develop clear and understandable nutritional labelling to help consumers make healthier food choices.
- Work with industry through voluntary or enforced agreements to reduce levels of added salt, fat and sugars in manufactured foods and the marketing of certain energy-dense, nutrient-poor foods and drinks to children.
- Regulate the built environment, for example through health impact assessment of transport and urban development proposals, in order to promote walking and cycling, reduce overcrowding and increase opportunities for social interaction.
- Promote workplace and environmental safety through control of air pollution and of exposure to hazardous dust and chemicals, physical and biological agents, particularly during pregnancy, childhood and adolescence.

Use fiscal measures to promote healthier choices

- Work with the agricultural and economic sectors internationally, nationally and locally to increase the availability of fruits, vegetables and other healthier foods at affordable prices.
- Work with local authorities and other providers to increase access to affordable services that promote physical activity.

- Use subsidies to influence food-related behaviour within arenas such as schools and workplaces.
- Remove subsidies for production of unhealthy commodities such as tobacco, and gradually transfer subsidies from meat and dairy products to fruit and vegetables.
- Develop a taxation policy that ensures a high real price of alcohol and tobacco products.
- Develop a taxation policy that promotes sustainable and cleaner transport, with incentives for shifts to walking, cycling and use of public transport.
- Explore food taxes and other fiscal measures as a means of influencing food consumption and behaviour.

Use health financing mechanisms to effect change

- Explore resource allocation as a means of redistributing resources according to relative need, disease burden, cost-effectiveness of intervention and potential for health gain, while recognizing the “double burden” of communicable and noncommunicable disease in some countries.
- Consider using resources generated from “sin taxes” (tobacco, alcohol, etc.) to fund health promotion activities, allocating resources to where the greatest disease burden exists and funding interventions to address a number of risk factors and behaviours in a meaningful way, rather than just tobacco/alcohol control.
- Employ health financing models as a means of reducing financial barriers to care and ensuring universal access to a basic package of effective prevention and treatment measures.
- Explore the use of financial incentives for enhanced disease prevention services and improved quality of care for chronic conditions, for example through payment mechanisms to general practitioners.

Capacities

There are three principal resources within a health system: human resources (health care workers, public health specialists, etc.), infrastructure (buildings, facilities, etc.), and consumables (drugs, technologies, etc.). Investment in these resources is necessary to produce high-quality health interventions and different health service outputs.

Key issues for human resources are ensuring that the right numbers and categories of health workers are trained and deployed in the right places, and that these human resources maintain their competence, quality and productivity. The shifting balance between acute and chronic health problems places new and different demands on the health care workforce, whose skills and competencies need to be expanded

to support a more patient-centred, integrated care model (21). A particular problem facing Europe is the challenge of maintaining availability, skills and motivation in the public health system, particularly given the more attractive alternatives available elsewhere through migration. Within the health profession, clinicians may be perceived as having higher “social prestige” compared to public health professionals, and the “invisible” work of those dealing with prevention and health promotion is often not sufficiently recognized in education, health personnel policies and career opportunities.

Examples of specific actions are as follows.

Invest in human resources for health

- Educate and train existing and future health workers to improve their knowledge and expand their skills for the prevention and control of NCD, and for the delivery of services in gender and ethnically sensitive ways.
- Strengthen public health capacity and infrastructure by placing emphasis on training in policy-making, research, and public health skills and by exploring ways of improving the availability, motivation and distribution of public health workers.
- Equip patients as a resource for themselves and others in disease management and prevention, for example by adopting the “expert patient” model.
- Make better use of existing human resources, for example by increasing the opportunities for health promotion and prevention in the work of nurses, dentists and pharmacists.

Develop facilities, laboratories, equipment, technologies, medicines

- Ensure that basic equipment needed for prevention, such as blood pressure measuring devices, weighing scales, peak flow meters and glucose meters, are accurate, affordable and easily available.
- Use health technology assessment as a tool to shift away from expensive to more affordable and appropriate health technologies.
- Ensure adequate training in the use, and maintenance of more expensive technologies, in order to obtain the best return on investments.
- Support patient adherence to medications (to ensure their access to effective treatments) and train them in the correct use of health technologies such as glucose meters, to support self-management.

Community support

Individuals may belong to a range of communities defined by geography, occupation, social groups, leisure activities and shared interests. They may share a common culture, values and norms and be unified by a common theme or purpose. Communities can support individuals through the establishment of social networks and mobilization of social support, which together promote cohesion between individuals and can support people through difficult transitions in life and periods of vulnerability. Community action for health involves individuals acting collectively to gain greater influence and control over the determinants of health and the quality of life and well-being in their community. The arena or setting where people engage in daily activities, such as a school or workplace, is a place where people can actively shape the environment and solve problems relating to health. Communities may have organized themselves so that individuals and families have assumed some responsibility for their, and the community's, health and welfare. So, for example, patient clubs or support groups may have developed to support families and life-long sufferers of a particular chronic condition. Empowerment of communities to facilitate their organization and involvement in public debate and decision-making is central to progress if greater equity in health is to be achieved.

Examples of specific actions are given below.

Develop supportive communities through enhancing health protective factors

- Empower individuals to take action to promote their own and their family's health.
- Encourage social participation and strengthen means of social support, for example by initiating community networks or creating places for social interaction to occur.
- Promote social responsibility, tolerance and understanding of social and ethnic diversity, to further the integration of ethnic and other minority groups.

Work systematically across sectors to reduce stressors and enhance resilience

- Promote a healthy start in life and support parent-child relations from birth, assisting parents of young children and young mothers in the development of parenting skills.
- Reduce child abuse and neglect and counteract gender-related violence because these, among other things, result in an increased risk of physical and mental illness in later life.

Develop the health-promoting potential of arenas or settings such as schools, hospitals, workplaces

- Promote “active transport”, especially for commuting to schools and workplaces.
- Improve catering in schools and workplaces, providing healthier food choices.
- Adapt workplaces and stimulate changes in the urban environment to promote physical activity.

Enable all members of a community to reach their full potential

- Ensure equity in opportunities to improve the health of all in the community.
- Increase educational and employment opportunities for people with mental health problems.
- Remove barriers to employment, such as unfair discrimination against people with disability and long-term illness (e.g. diabetes).
- Support older people in keeping physically active and independent for as long as possible.

Health service delivery

The service delivery function of a health system is concerned with how to efficiently produce and make accessible the best mix of the services needed. Key challenges are to ensure that populations are covered by the necessary health services, that services are client-oriented, and that quality, safety and responsiveness of services are monitored and improved. Appropriate organization of services and management information systems can support the process.

In order to respond effectively to the present disease burden, there needs to be a fundamental shift in emphasis within health systems, away from a medical, curative model of health care that might provide only reactive, unplanned and episodic care, towards one more structured for patients with long-term chronic conditions. A more effective systematic approach is needed that matches care to need, in partnership with those with chronic or long-term conditions. Such tailored care would take place within the context of a health-supporting environment that promotes health opportunities.

Suggestions for specific actions are as follows.

Shift the paradigm of care towards a chronic care model

- Better integrate care across institutional boundaries (primary health care, hospital, emergency care, etc.) within health services, for example through case management and multidisciplinary health care teams.

Make health services more health-promoting

- Use the “levers” already referred to (education, training, financing) to increase opportunities for health promotion and disease prevention.
- Ensure that hospital staff, routines and procedures remain supportive of the successful initiation, establishment and continuation of breastfeeding.

Improve standards of care

- Use health system performance indicators and quality assurance mechanisms to measure, monitor and routinely report on the quality of care delivered.
- Use evidence-based decision support tools to help clinicians in their clinical practice and implement practice guidelines.
- Draw on the power of people with chronic conditions to improve the quality of care they receive and their health outcomes, for example by supporting, empowering and equipping patients to gain better control over their own condition.
- Use financial incentives such as tying incremental payments to improved clinical performance.

Improve planning and delivery of services

- Create service networks and pathways that cut across health, social care and sectoral boundaries to deliver community-based services that better serve and support those with long-term conditions.
- Develop and implement national service frameworks for tackling major diseases with a high disease burden, such as diabetes and CVD, where specific characteristics exist, recognizing the needs of patients already living with the disease, their families and health care professionals.
- Develop specialist services for the problems facing young and older people and for gender-specific issues.
- Design services to increase equity, affordability and access of services for those in marginalized and vulnerable groups.
- Ensure representation of service users and carers on groups responsible for the planning, delivery, monitoring and inspection of services.
- Ensure that all prevention and treatment programmes are gender-sensitive by engaging both men and women in their design.

Current situation in Europe

Europe is diverse and countries are at different stages in responding to the challenge of NCD. Most countries already have a range of policy measures in place that address NCD and their risk factors (Table 2). This situation reflects the wide variety in the NCD challenges that countries face and their capacities to respond. Over the last five years, there have been positive trends, with more countries developing specific policies and legislation relevant to NCD prevention and control, backed by dedicated budget lines. Yet it is still more common for countries to have national protocols, guidelines or standards in place for diseases such as diabetes, heart disease and cancer, than to have the corresponding policy instruments for weight control and physical activity.

Table 2. Range of NCD-relevant policies, programmes and legislation in place in European countries

	National health policy	Specific national programme	Specific act, law, legislation, ministerial decree
NCD prevention and control	28	28	--
Tobacco control	28	25	37
Nutrition/diet	24	20	35
Physical activity	19	17	13
Alcohol control	19	17	28
Hypertension	15	16	--
Diabetes	20	29	--
Heart disease	20	20	--
Stroke	17	14	--
Cancer	23	23	--
Chronic respiratory disease	13	10	--
Other chronic disease	10	10	--

Source: WHO survey of NCD-relevant policies and capacities in Europe 2005–2006: 38 of 52 countries responding.

Countries have taken different pathways to reach the stage they are at today. A frequent starting point appears to be to focus on an individual risk factor and/or a single disease, perhaps triggered by ministerial interest or academic involvement. It is not uncommon to find countries that have a cancer and/or heart disease prevention plan, alongside tobacco control and/or dietary measures. At the initial stages, these activities may be limited in scope and operate relatively separately. Over time, action may broaden and become more intersectoral in nature, but unless these more vertical programmes connect “horizontally”, opportunities will be lost, duplication of effort may occur and resources will be wasted.

In some countries, NCD prevention may be more integrated across a range of risk factors and/or diseases. There might be a single strategy for nutrition, physical activity and the prevention of obesity, for example. While significant progress has been made with population-level prevention, opportunities for engaging and reorienting the health system and/or connecting with broader societal efforts to tackle the determinants of health may be being lost. National guidelines to prevent cardiovascular diseases using a multifactorial approach might exist, for example, but the necessary health system changes to successfully implement them, particularly in primary health care, might still be missing. Similarly, national attention may be paid to the need to reduce inequalities in health or to improve the impact of the environment on health, but the connection with action on NCD may not have been explicitly made.

A comprehensive and integrated approach to preventing and controlling NCD appears to exist in relatively few countries. In such a scenario, a multifactorial approach to NCD prevention through tackling common risk factors would be firmly established, targeting both population-level and high-risk groups. Opportunities would be being taken to increase health promotion and disease prevention within the health services, and this would be being backed up by primary health care development, health system reform and appropriate health financing mechanisms. Any shortcomings in the quality of care of long-term conditions would have been recognized and programmes would be being put in place to address these, with performance monitoring and user/carer involvement in planning and delivery. Efforts to tackle the social determinants of health would be mainstreamed and connected: national health policies with an upstream focus and with targets for tackling the determinants of health would be emerging and replacing, or supplementing, the disease-focused ones, in order to identify policy options for systematically reducing health inequalities; health impact assessment would be institutionalized, and the concept of “health in all policies” would be growing in strength.

Moving forward

The role of government is critical in responding to the challenge of NCD. As part of their stewardship function, governments have the primary steering role in leading the response, and ministries of health have a special role and responsibility in advocating for change (see pp. 21–22), and in coordinating and facilitating the contributions of others across government and sectors. Prevention of NCD must be regarded as an investment in health and development and as critical to reducing health inequalities, thus a core responsibility of all in government to achieve. The consequences of inaction will be felt by all. There needs to be a commitment to improving health and reducing inequities at the highest level of government that informs and drives all policy measures towards a common goal. There has to be investment in health within and outside the health sector and reorientation of resources, if necessary, to achieve this. In order to gain high-level and sustained commitment to joint action, governments may need to set up a high-level cabinet or committee of executive decision-makers with the power to commit departmental resources individually, and with sufficient authority collectively to drive change, coordinate policy, monitor impact and bear responsibility and accountability for achievement of the goal. A focal point should be designated as responsible for seeing through implementation of the policy, and resources, commensurate with the task ahead, are essential to the implementation of the strategy.

A wide range of stakeholders need to be involved in formulating and implementing a response to the challenge of NCD at all levels. Those that government need to work with include other national and international players, such as those responsible for health, food, agriculture, finance, environment and transport, education and youth, sports and recreation; health and social service planners, providers and workers; public health agencies and research institutions; urban planners; the private sector, industry and employers; nongovernmental organizations and professional associations; civil society – patients, carers and the public as a whole; and the media. Industrial enterprises can be significant players in promoting healthy lifestyles, choices and opportunities, provided they commit themselves to the health objectives in question and do not counteract these intentions in their other business practices. Enterprises' potential contribution ranges from their production and marketing of products to their role as responsible employers and their impact on local communities. A partnership body, national forum, platform or alliance of key interested parties may assist in facilitating multisectoral working.

The greatest health gain lies in reducing social inequalities related to NCD. In all countries there is a significant social gradient for NCD morbidity and mortality. Neglecting this fact will only postpone progress in improving the health of the population. By building a comprehensive strategy to prevent and control

NCD within the health sector, and by adopting multisectoral approaches to tackle the wider social determinants, appropriate and effective policy options for reducing health inequalities can be identified and prioritized.

Government decision-making should take place in a transparent manner, open to public scrutiny and debate, recognizing the uncertainties and limits of current knowledge but balancing these against the scale of the risk being faced. Broad and open consultation on proposals and plans can improve their quality and promote their acceptance and implementation. This may require new mechanisms, like regular use of health impact assessments, to facilitate public debate on the issues raised. The media have an important role to play in communicating key issues to the public. Civil society and nongovernmental organizations, too, can play an important role in highlighting issues to consumers, stimulating action, lobbying and influencing government for change, holding government accountable for its actions, and acting as a “watchdog” on implementation of the strategy.

Countries need to build on what they already have in place and where they are: many initiatives and approaches already exist but are at different stages of development and implementation, achieving different levels of success or losing opportunities for synergy and coherence of effort. Links between the commitments already taken with respect to tobacco, alcohol, mental health, the environment and child/adolescent health, for example, may need to be strengthened. A cross-government task group or action plan may help, by acting as a coordinating mechanism for the various WHO joint programmes and strategies related to preventing NCD, including work by the respective WHO national counterparts. Some Member States have found it worthwhile to establish national public health institutes as agencies to actively advocate for, mediate, monitor and evaluate NCD strategies and provide professional support in policy-making.

The European strategy on NCD provides the opportunity to establish a unifying framework or “umbrella” that draws together the individual components towards a common goal. In moving forward, countries might consider the following steps:

- bringing together key stakeholders from the core health constituencies within the health system and broader society, including those other government sectors whose policies impact on health;
- carrying out a situational analysis to assess the extent of the problem and its socioeconomic, gender, ethnic and geographical distribution, and to identify the policy options and priority areas for action;

- evaluating action already being taken, current capacity and resources, strengths and weaknesses, current gaps and opportunities;
- choosing, from among the various possible evidence-based interventions, what is most relevant and feasible within the context of the country;
- setting clear and specific goals and objectives that relate to the country's particular needs and priorities, with locally relevant targets and explicit milestones;
- developing an implementation plan that specifies what needs to be done by whom and when, drawing on the roles of multiple stakeholders and identifying those who will champion change; and
- setting in place systems to systematically monitor and evaluate policy and programme interventions and feed back the information obtained to accountable bodies.

Issues related to monitoring, evaluation and surveillance are of particular importance. Thirty-two of the 38 European countries responding to the WHO survey mentioned above (see Table 2), have a national health information system that covers NCD and its major risk factors; 35 of the 38 include NCD in their annual health report system; and 29 of the 38 include NCD in their routine or regular surveillance system. However, the number of countries covering diabetes, heart diseases and cancer in their NCD surveillance system is generally higher than those covering risk factors such as tobacco use, unhealthy diet, lack of physical activity, and alcohol consumption. The following points are of particular note for government in taking action:

- health information and knowledge systems need be of sufficient capacity and quality to inform decision-making, priority-setting and allocation of resources;
- routine surveillance systems need to be in place to monitor the population's health, evaluation needs to be an integral part of intervention, and there needs to be adequate funding of public health research, particularly on measures of cost-effectiveness and on population-level interventions;
- surveillance systems need to take account of all relevant information collected across sectors and data should be collected, analysed and reported by age, sex, ethnicity to facilitate monitoring of inequalities;
- given the breadth of the strategy and the multifactorial causation of NCD, it is important to use a broad set of indicators that monitor process and outcomes, and to pay attention to the determinants of health, risk factors and diseases; and
- public health agencies and research institutions may need to be strengthened and to have their capacity increased to take on a new and expanded role of technical support.

It is possible for all countries across the Region with very different incomes and capacities to effectively combat NCD. What is known to be effective can range from the relatively cheap (e.g. tobacco and alcohol taxation) to the relatively expensive (e.g. statin medication), and from the relatively simple (e.g. blood pressure monitoring and control) to the more sophisticated (e.g. stroke units) (22). All countries have an interest in using limited resources more efficiently. Interventions with low impact or cost-effectiveness may need to be scaled back if they are already widely used, or not scaled up if current coverage is low. Interventions with high impact or cost-effectiveness should be extensively used and indicate a neglected opportunity if current coverage is low. The range of measures that a country takes will depend on the context: some interventions are more dependent than others on the health system's level of institutional and organizational capacity, for example. Epidemiological, medical, political, ethical and cultural factors are also important considerations when decisions are taken on resource allocation and on setting priorities among specific health conditions or interventions.

The way forward – taking the next steps

The major public health challenge facing Europe today is to substantially reduce the threats posed by NCD and the related health inequalities. This strategy outlines a comprehensive, action-oriented approach to the prevention and control of NCD. While all European countries are different, and there is a wide variety in the NCD challenges that countries face and in their resource and capacity levels, it is possible for all to effectively respond.

WHO can support Member States in their efforts in the following ways.

Strengthening international, bilateral and multilateral cooperation

- Fostering of political commitment by highlighting investment in NCD prevention and control as an important issue for the political agenda.
- Setting up mechanisms for taking action on the determinants of health through a multisectoral approach, particularly for supranational issues.
- Development of an alliance for advocacy and action on NCD and their related health inequalities, which unites major international players in Europe, including intergovernmental and nongovernmental organizations.
- Establishment of a network of national counterparts as a WHO advisory mechanism to pursue implementation of the European NCD strategy.

Facilitation of information exchange, technical cooperation and capacity-building

- Strengthening WHO's role as a clearing house for relevant information to support countries in their efforts.
- Increasing coordination, consistency and synergy between relevant programmes that are addressing different aspects of NCD prevention and control.
- Development of a European NCD report to support the European NCD strategy, and of other tools needed for implementation, communication and monitoring.
- Publication of case studies and examples of good practice.

Research, monitoring and surveillance

- Joining together with other agencies to improve NCD surveillance within countries and across Europe.
- Development and adaptation of indicators for monitoring and measuring progress, with explicit account taken of socioeconomic, gender and other appropriate differentials.
- Identification of gaps in research on issues of public health importance and ways of bridging them.

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Annex 1

Regional Committee resolution EUR/RC56/R2 on the prevention and control of noncommunicable diseases in the WHO European Region

The Regional Committee,

Recalling World Health Assembly resolution WHA53.17 on the global strategy for the prevention and control of noncommunicable diseases, together with resolutions WHA57.17 on the global strategy on diet, physical activity and health and WHA55.25 on the global strategy on infant and young child nutrition, and recent resolutions on public health problems caused by harmful use of alcohol (WHA58.26), cancer prevention and control (WHA58.22), disability, including prevention, management and rehabilitation (WHA58.23) and health promotion in a globalized world (EB117.R9);

Acknowledging Member States' existing commitments and the ongoing work under the European Strategy for Tobacco Control (EUR/RC52/R12), the Framework for Alcohol Policy in the WHO European Region (EUR/RC55/R1), the European Food and Nutrition Action Plan (EUR/RC50/R8), the Children's Environment and Health Action Plan for Europe (EUR/RC54/R3), the Mental Health Action Plan for Europe (EUR/RC55/R2) and the European Strategy on Child and Adolescent Health and Development (EUR/RC55/R6);

Recalling its resolution EUR/RC54/R4, by which it requested the Regional Director to prepare a comprehensive action-oriented European strategy on noncommunicable diseases;

Recognizing that 86% of all deaths and 77% of disease burden in the European Region are caused by noncommunicable diseases, which represent the most important current and future public health problem in all Member States in the Region;

Acknowledging the progress and gains already made, but still concerned about the health consequences and the distribution in society of noncommunicable diseases that result in immense loss of quality of life, particularly in socioeconomically disadvantaged groups and poor countries;

Recognizing the substantive negative impact of noncommunicable diseases on economic and social development in any society and the widening of health inequalities;

Recognizing that the noncommunicable disease burden can be significantly reduced through large-scale health promotion and disease prevention interventions, in combination with systematic and continuous work to tackle wider health determinants and risk factors, and effective control of chronic conditions;

Recognizing the need for governments to take the lead in upgrading efforts to overcome the avoidable disease burden caused by noncommunicable diseases and, given the multifaceted underlying causes of those diseases, to invest in comprehensive and multisectoral efforts at appropriate levels in societies;

Reaffirming core values and principles as expressed in the updated Health for All policy framework adopted by the WHO Regional Committee for Europe at its fifty-fifth session in 2005;

Having considered document EUR/RC56/8 and its proposals for a European strategy on noncommunicable diseases with the goals of avoiding premature death and significantly reducing disease burden from noncommunicable diseases through integrated action, improving the quality of life and making healthy life expectancy more equitable within and between Member States;

1. ADOPTS the European Strategy for the Prevention and Control of Noncommunicable Diseases as a strategic framework for action by Member States in the European Region to implement their country policies and engage in international cooperation;
2. URGES Member States:
 - (a) to develop or strengthen, as applicable, national public health strategies for tackling noncommunicable diseases that provide for integrated action on risk factors and their underlying determinants through a multisectoral approach, where appropriate;
 - (b) to strengthen health systems towards improved prevention and control of noncommunicable diseases so that health services are fit for their purpose, respond to the present disease burden and increase opportunities for health promotion and disease control;
 - (c) to regard prevention throughout the life-course as an effective investment with a major impact on a society's economic and social development, and to reallocate resources accordingly;

- (d) to ensure universal access to health promotion, disease prevention and health services as a fundamental means to achieve equity in health; and
- (e) to set up accountable multisectoral mechanisms at appropriate government levels for the implementation and regular monitoring of the public health strategies mentioned above, involving major stakeholders and making systematic use of health impact assessments;

3. REQUESTS the Regional Director:

- (a) to actively support the implementation of the Strategy in the Region and to set up mechanisms for taking action on determinants through a multisectoral approach;
- (b) to support Member States in implementing the Strategy by strengthening bilateral and multilateral cooperation, through:
 - the development of an alliance for advocacy and action on noncommunicable diseases with major partners;
 - the establishment of a network of national counterparts as an international resource and advisory mechanism for implementation of the European Strategy for the Prevention and Control of Noncommunicable Diseases;
 - the facilitation of exchanges of information on evidence and best practice, focusing on policy development and implementation of the Strategy;
 - the strengthening of intervention and implementation research; and
 - the establishment of a monitoring mechanism to measure progress in policy development, implementation and its related impact on health development, and to collect regularly and report common indicators of noncommunicable disease morbidity in the Region;
- (c) to report back to the Regional Committee at its fifty-eighth session in 2008 on the implementation of the European Strategy for the Prevention and Control of Noncommunicable Diseases.

Annex 2

Relevant WHO strategies, action plans and ministerial conference declarations⁶

Global strategy for the prevention and control of noncommunicable diseases (A53/14) (http://ftp.who.int/gb/pdf_files/WHA53/ea14.pdf).

Endorsed May 2000 at the Fifty-third World Health Assembly (resolution WHA53.17) (http://ftp.who.int/gb/pdf_files/WHA53/ResWHA53/17.pdf).

Global strategy on diet, physical activity and health (Annex to resolution WHA57.17) (http://www.who.int/gb/ebwha/pdf_files/WHA57/A57_R17-en.pdf).

Endorsed May 2004 at the Fifty-seventh World Health Assembly (resolution WHA57.17) (http://www.who.int/gb/ebwha/pdf_files/WHA57/A57_R17-en.pdf).

Global strategy on infant and young child feeding (A55/15) (http://www.who.int/gb/ebwha/pdf_files/WHA55/ea5515.pdf).

Endorsed May 2002 at the Fifty-fifth World Health Assembly (resolution WHA55.25) (http://www.who.int/gb/ebwha/pdf_files/WHA55/ewha5525.pdf).

European Strategy for Tobacco Control (EUR/RC52/11) (<http://www.euro.who.int/Document/RC52/edoc11.pdf>).

Endorsed September 2002 at the fifty-second session of the WHO Regional Committee for Europe (resolution EUR/RC52/R12) (http://www.euro.who.int/governance/resolutions/2002/20021231_1).

Framework for alcohol policy in the WHO European Region (EUR/RC55/11) (<http://www.euro.who.int/Document/RC55/edoc11.pdf>).

Endorsed September 2005 at the fifty-fifth session of the WHO Regional Committee for Europe (resolution EUR/RC55/R1) (http://www.euro.who.int/Governance/resolutions/2005/20050920_10).

European Alcohol Action Plan 2000–2005 (<http://www.euro.who.int/document/E67946.pdf>).

Endorsed September 1999 at the forty-ninth session of the WHO Regional Committee for Europe (resolution EUR/RC49/R8) (http://www.euro.who.int/governance/resolutions/1999/20030225_7).

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Progress report on the European Alcohol Action Plan, including follow up to the **WHO European Ministerial Conference on Young People and Alcohol** (EUR/RC51/10) (<http://www.euro.who.int/Document/RC51/edoc10.pdf>).

Endorsed September 2001 at the fifty-first session of the WHO Regional Committee for Europe (resolution EUR/RC51/R4) (http://www.euro.who.int/Governance/resolutions/2001/20011123_1).

The First Action Plan for Food and Nutrition Policy. WHO European Region 2000–2005 (<http://www.euro.who.int/Document/E72199.pdf>).

Endorsed September 2000 at the fiftieth session of the WHO Regional Committee for Europe (resolution EUR/RC50/R8) (http://www.euro.who.int/Governance/resolutions/2000/20010914_1).

Children's Environment and Health Action Plan for Europe. Fourth Ministerial Conference on Environment and Health, Budapest, Hungary, 23–25 June 2004 (<http://www.euro.who.int/document/e83338.pdf>).

Endorsed September 2004 at the fifty-fourth session of the WHO Regional Committee for Europe (resolution EUR/RC54/R3) (http://www.euro.who.int/Governance/resolutions/2004/20040913_7).

European strategy for child and adolescent health and development (EUR/RC55/6) (<http://www.euro.who.int/Document/RC55/edoc06.pdf>).

Endorsed September 2005 at the fifty-fifth session of the WHO Regional Committee for Europe (resolution EUR/RC55/R6) (http://www.euro.who.int/Governance/resolutions/2005/20050920_4).

Mental Health Action Plan for Europe. Facing the challenges, building solutions. WHO European Ministerial Conference on Mental Health, Helsinki, Finland, 12–15 January 2005 (<http://www.euro.who.int/Document/MNH/edoc07.pdf>).

Endorsed September 2005 at the fifty-fifth session of the WHO Regional Committee for Europe (resolution EUR/RC55/R2) (http://www.euro.who.int/Governance/resolutions/2005/20050920_9).

The Bangkok Charter for Health Promotion in a Globalized World. 6th Global Conference on Health Promotion, Bangkok, Thailand, 7–11 August 2005 (http://www.who.int/healthpromotion/conferences/6gchp/bangkok_charter/en/print.html).

The WHO Regional Office for Europe

The World Health Organization (WHO) is a specialized agency of the United Nations created in 1948 with the primary responsibility for international health matters and public health. The WHO Regional Office for Europe is one of six regional offices throughout the world, each with its own programme geared to the particular health conditions of the countries it serves.

Member States

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Andorra
Armenia
Austria
Azerbaijan
Belarus
Belgium
Bosnia and Herzegovina
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Denmark
Estonia
Finland
France
Georgia
Germany
Greece
Hungary
Iceland
Ireland
Israel
Italy
Kazakhstan
Kyrgyzstan
Latvia
Lithuania
Luxembourg
Malta
Monaco
Montenegro
Netherlands
Norway
Poland
Portugal
Republic of Moldova
Romania
Russian Federation
San Marino
Serbia
Slovakia
Slovenia
Spain
Sweden
Switzerland
Tajikistan
The former Yugoslav
Republic of Macedonia
Turkey
Turkmenistan
Ukraine
United Kingdom
Uzbekistan

Investing in prevention and improved control of noncommunicable diseases would improve the quality of life and well-being of people and societies. No less than 86% of deaths and 77% of the disease burden in the WHO European Region are caused by this broad group of disorders, which are linked by common risk factors, underlying determinants and opportunities for intervention. A more equitable share of the benefits from effective interventions would make the greatest impact as well as bring significant health and economic gain to all Member States.

This action-oriented strategy promotes a comprehensive and integrated approach to tackling noncommunicable diseases in the WHO European Region.

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