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The new European policy for health – Health 2020

This is a first draft of the Health 2020 policy. It is still very much a work in progress. It is informed by strategic and technical input from all the technical divisions of the WHO Regional Office for Europe and reflects advice received by the Standing Committee of the Regional Committee and the European Health Policy Forum of High Level Officials.

However, the document still needs to be enriched with the findings of the studies and reviews that were initiated to inform the Health 2020 policy and with advice that will be received from a series of stakeholder consultations in the course of the months to come.

This document is for information only. It is intended to give Member States a concrete feel of the structure and content of the Health 2020 policy, but it is not to be quoted or widely disseminated in any way at this stage.

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Introduction

1. The right to health was first proclaimed in 1948 in the preamble of the WHO Constitution, and later the same year in Article 25 of the Universal Declaration of Human Rights. In 1976, the International Covenant on Economic, Social and Cultural Rights entered into force, reaffirming in its Article 12 the enjoyment of the highest attainable state of health as a human right under international law.

2. In May 1977, WHO Member States determined that the main social goal for governments and WHO should be for all citizens of the world to attain by the year 2000 "a level of health which will permit them to lead a socially and economically productive life". This was followed in 1978 by the Declaration of Alma-Ata on primary health care. Then in May 1981, at the Thirty-Fourth World Health Assembly, WHO Member States adopted this goal within the global strategy for Health for All, which emphasized the attainment by societies of the highest possible level of health as a basic human right and the importance of observing ethical principles in health policy-making, health research and service provision.

3. In 1998, the World Health Assembly declared in its World Health Declaration that: "We, the Member States of the World Health Organization (WHO), reaffirm our commitment to the principle enunciated in its Constitution that the enjoyment of the highest attainable standard of health is one of the fundamental rights of every human being; in doing so, we affirm the dignity and worth of very person, and the equal rights, equal duties and shared responsibility of all for health."

4. These global commitments to the right to health are clear and precise and refer to a noble ideal. Nevertheless, achieving this ideal has proven difficult. This is the main challenge for Health 2020. How can health and well-being be achieved in a world that is ever more complex and uncertain? How can societies and governments be encouraged to govern for health? What capacity do they need? How can the people ultimately responsible for health be held accountable for how they accept and discharge this responsibility?

5. Within the WHO European Region, health is improving overall but not as rapidly as it could or should, given what is known and the health technologies that are available. The Region still has extreme pockets of ill health and poverty that need to be urgently addressed. All countries are challenged by major demographic, social, economic and environmental shifts that require critically re-examination of current governance mechanisms for health, health policy, public health structures and health care delivery.

Key action principles 1–6

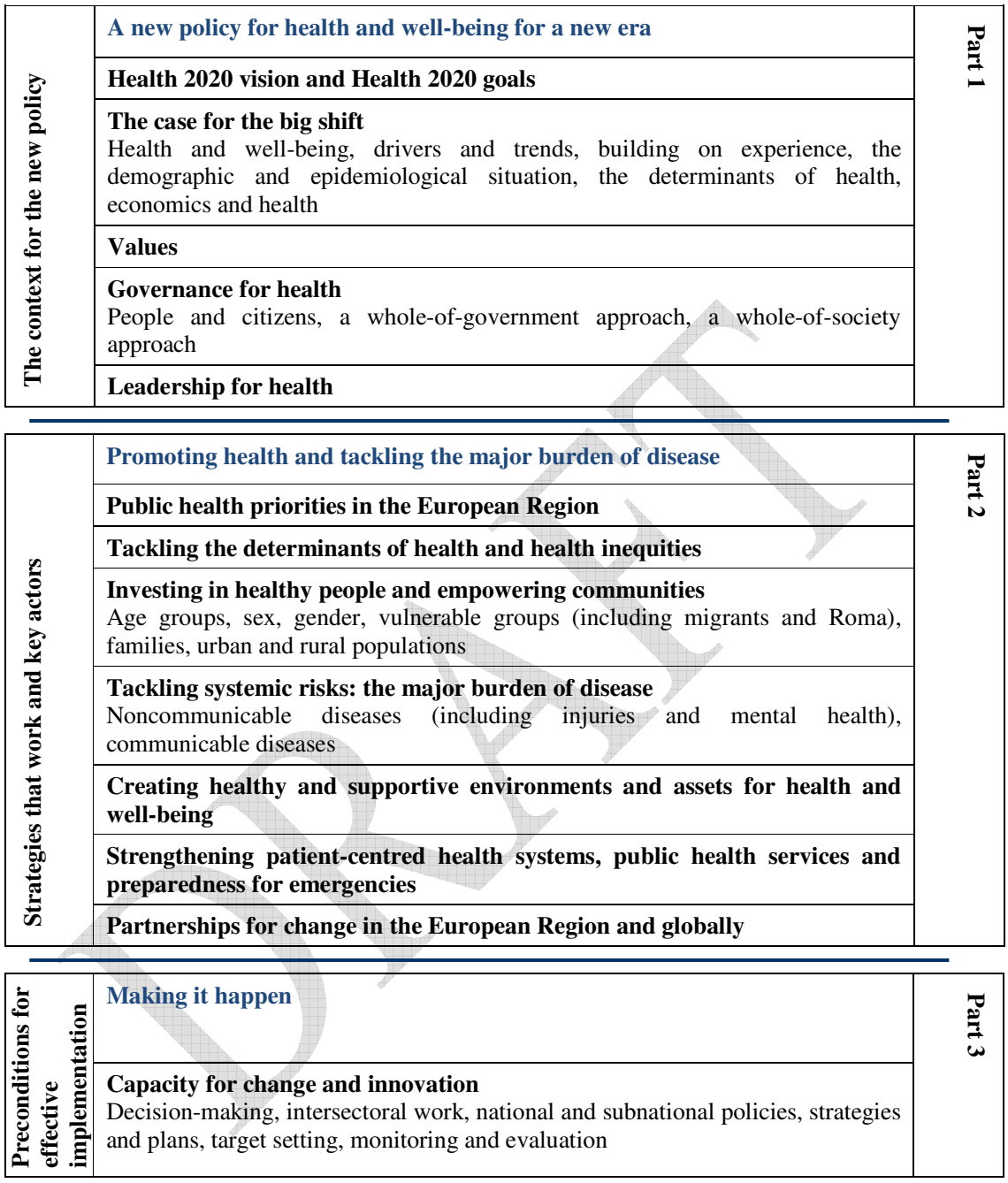
1. Addressing the risks and opportunities and preparing for and anticipating change
2. Integrating strong, evidence-informed socioeconomic arguments to advocate for health and well-being
3. Developing, promoting and agreeing on a common policy framework for working together for health
4. Rigorously upholding a rights- and values-based approach to health and well-being
5. Committing to a whole-of-government approach for health and well-being
6. Crafting specific strategies for tackling the health divide between and within countries

6. Health 2020 is a joint project between the WHO Regional Office for Europe and the 53 European Member States. The policy sets out an action framework to accelerate the attainment of better health and well-being for all that can be adapted to the different realities that make up the European Region. It identifies how health and well-being can be advanced, sustained and measured through action that creates social cohesion, security, work–life balance, good health and good education. It builds on the United Nations Millennium Declaration, which embraces a vision for a world in which countries work in partnership for the betterment of everyone, especially the most disadvantaged people.

7. The policy is organized in three parts (Fig. 1).

- The context for the new policy
- Strategies that work and key actors
- Preconditions for effective implementation

Fig. 1. Health 2020: the three parts



Part 1. The context for the new policy

Health 2020 vision and Health 2020 goals

> "Our Vision is for a WHO European Region where all people are enabled and supported in achieving their full health potential and wellbeing and in which countries, individually and jointly, work towards reducing inequalities in health within the Region and beyond"
>
> Vision for Health 2020

The case for the "big shift"

Health and well-being

8. The acceptance of health as a public good and an asset for health and human development requires constant vigilance given the structural asymmetry between market forces and social rights and protection as welfare states in the European Region are being restructured. Health is more than the absence of disease and is a state of complete physical, mental and social well-being. Well-being includes physical, cognitive and social and emotional dimensions and is influenced by development across the life course.

9. Asset-based approaches identify the protective factors that create health and well-being. They offer the potential to enhance both the quality and longevity of life by focusing on the resources that promote the self-esteem and coping abilities of individuals and communities. Drawing on concepts that include salutogenesis, resilience and social capital, a focus on well-being seeks to create conditions in which everyone in the European Region can flourish and lead lives that they value and not just avoid disease.

10. Although research on the social gradient of health indicates that greater affluence at the individual and societal level leads to higher levels of health, there are now also increasing attempts to improve understanding of the interrelationship between affluence and well-being. Many research studies show that, despite unprecedented economic prosperity in the past 35 years, people do not necessarily feel better as individuals or as communities. Economic output has increased in recent decades in many countries, but levels of subjective well-being and happiness have remained flat, and inequality has increased.

11. Studies on subjective indicators of well-being have provided important insights about the quality of people's lives from their own perspectives. A recent study in the United Kingdom by the Young Foundation has shown that the public now considers non-material social kinds of need – people's need for other people and for emotional support – just as important as the material needs for housing, transport or money.

12. The idea of generating social wealth and social growth rather than economic growth measurable only in terms of gross national income has been on the international agenda for some time. Since 1990, the United Nations has regularly measured the well-being of countries through the Human Development Index, with the intention of "[shifting] the focus of development economics from national income accounting to people-centred policies". Starting with the *Human development report 2010*, the Human Development Index combines three dimensions: a long and healthy life: life expectancy at birth; access to knowledge: mean years of schooling and expected years of schooling; and a decent standard of living: gross national income per capita (adjusted for purchasing power parity).

Box 1. Main goals of Health 2020

1. Work together

Health 2020 aims to harness the joint strength of the Member States and the WHO Regional Office for Europe to further promote health and well-being and to reach out to other sectors and partners to reinforce this effort.

2. Create better health

Further increase the number of years in which people live in health, improve the quality of life of the people living with chronic disease, reduce inequity in health and deal with the effects of demographic change.

3. Improve governance for health

Leverage the momentous societal changes in favour of health and strengthen health as a driver of change for sustainable development and well-being by ensuring that heads of government, parliamentarians and key actors and decision-makers in all sectors are aware of their responsibility for health and well-being and for health promotion, protection and security.

4. Set common strategic goals

Support the development of policies and strategies in countries that benefit health and well-being as a joint social objective, at the appropriate level, providing stakeholders and partners with mechanisms for engagement and a clear map of the way forward.

5. Accelerate knowledge sharing and innovation

Increase the knowledge base for developing health policy by enhancing the capacity of health and other professionals to adapt to the new approach to public health and the demands of patient-centred health care in an ageing and multicultural society, and make full use of the technological and managerial innovations available to increase impact and improve care.

6. Increase participation

Empower the people of the European Region to be active participants in shaping health policy through civil society organizations, to respond to the health challenges facing them as individuals by increasing health literacy and to ensure their voice in patient-centred health systems.

13. The strategic goals of Health 2020 are strongly supported by a broad-based discussion of policies at the European Region and national levels that aim to increase well-being and understand economic growth as a means of enlarging people's potential and quality of life and not as an end in itself. Policies for well-being are considered one possible reorientation of 21st-century public policy goals. A significant range of possibilities for partnerships and joint action for health and well-being emerge from this. Examples include the following.

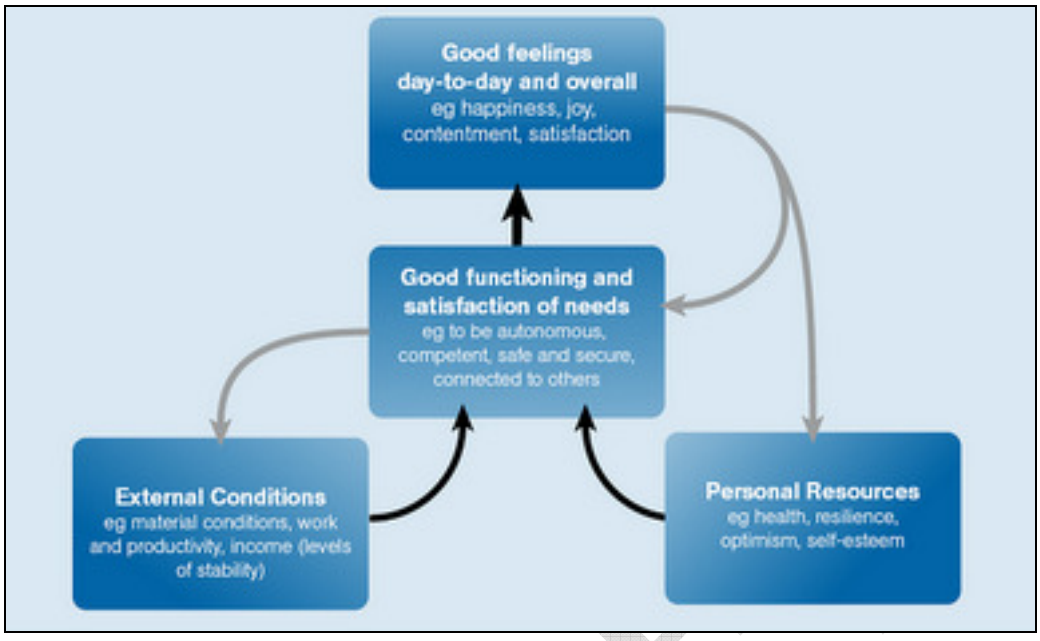
- In 2009, the European Commission issued a communication *GDP and beyond: measuring progress in a changing world*, which built on extensive work by a group of partners, including the European Commission, European Parliament, Club of Rome, Organisation for Economic Co-operation and Development and WWF.
- Several countries – including Australia, Canada and the Netherlands – have developed measures of well-being at the national level during the past decade. In the United Kingdom, the Office of National Statistics has begun a national consultation on new measures of well-being, seeking the views of citizens and organizations. In Germany, the Bundestag launched the Study Commission on Growth, Well-being and Quality of life in January 2011 to explore how to complement gross national income measures with ecological, social and cultural criteria.

- The Commission on the Measurement of Economic Performance and Social Progress set up by the President of France and led by two Nobel Prize winners, Joseph E. Stiglitz and Amartya Sen, as well as Jean-Paul Fitoussi, provided suggestions on how to measure societal well-being in a 2009 report. The Commission also acknowledged the limits of gross national income as an indicator of economic performance and social progress. The report recommends shifting economic emphasis from simply the production of goods to a broader measure of overall well-being, which would include the benefits of common goods such as health, education and security. It calls for greater focus on the effects of income inequality as well as new ways to measure the economic effects of sustainability and recommended ways to include the value of wealth to be passed on to the next generation into today's economic conversation.
- The Council of Europe has introduced "well-being for all" and emphasizes that well-being cannot be attained unless it is shared. It is a relational and a participatory concept: "The well-being of one part of humanity is unattainable if another part is in a state of ill-being or if it is to be achieved at the expense of future generations, who thereby inherit an uncertain world stripped of resources."

7. The framework for a national account of well-being of the New Economic Foundation contains a view of well-being "as the dynamic process that gives people a sense of how their lives are going, through the interaction between their circumstances, activities and psychological resources or 'mental capital'". It comprises two main elements: feeling good and functioning well (Fig. 2). Based on the evidence that feeling close to and being valued by other people is a fundamental need, a personal dimension and a social dimension are measured.

8. These initiatives emphasize that accepting well-being as a goal for public policies requires that it be measurable. A consensus is emerging that the most important characteristics of an overarching model for measuring well-being are its multidimensional nature and the combination of objective and subjective measures. Eurostat has underlined that it is critical in policy-making to work with a model of well-being that covers "all aspects of well-being, including outcome measures, personal characteristics, external 'context' factors and measures of what people actually 'do' with these characteristics and 'societal' conditions". These types of measures complement the health data generated through research on the social determinants of health and provide a deeper understanding of well-being as expressed in the WHO definition of health.

Fig. 2. New Economics Foundation – dynamic model of well-being



Source: *Measuring our progress – the power of well-being*. London, New Economics Foundation, Centre for Well-being, 2011 (http://www.neweconomics.org/sites/neweconomics.org/files/Measuring_our_Progress.pdf).

Emerging drivers of health: trends, opportunities and risks

14. There have been real demographic and health improvements across the European Region. Interdependence, rapidly improving connectivity and technological and medical innovation have all created extraordinary new opportunities to improve health and health care. The technological capacity available to understand, prevent, diagnose and treat disease has been transformed in an almost exponential progression. Diagnostic and medical and surgical interventions have expanded dramatically, as has drug-based therapy. E-health and telemedicine are examples of the transformative effects of new information technology. Nanotechnologies are on the horizon. The possibilities emerging from the new medical genetics will be profound.

15. There is also significant new knowledge about the complex interrelationship between health and human development. Health has changed from a medically dominated money-consuming sector at the periphery of society to become a major economic force, security concern and social objective. There is now a broad consensus that the health of populations is critical for social stability, social cohesion and economic growth and a vital asset for human and social development as a whole.

16. These are all positive developments for health. Nevertheless, health policies are challenged fundamentally by a complex array of global and regional forces, with variable effects. These include a profound demographic shift with decreased fertility rates; a rise in the old-age dependency ratio if policies are not adjusted; the increasing privatization of economies; environmental pollution; climate change; widening inequity in the distribution of income and wealth and access to health and social care; the changes in welfare policies already mentioned; increasing migration and urbanization; dramatic internal migration; significant shortages of health personnel in all areas of the European Region; the changing nature of work; recently growing unemployment; an unequal distribution of health, income and wealth; and changes in how people seek and obtain information.

17. The forces of globalization are challenging all countries. The world is complex and uncertain and yet provides people with opportunities for health that they have historically never had before. However, no country can resolve challenges to health and well-being on its own, nor can it harness the potential of innovation without extensive cooperation. Health has become a global economic and security issue, illustrated by the globally perceived threat from major outbreaks of communicable diseases and new environmental concerns. In an interdependent world, countries need to act together to ensure the health of their populations and to drive progress. These issues of managing interdependence are raised ever higher on the agenda of global policy-makers, and there are many opportunities for shared learning and research.

18. These are today's realities, and it is time for a change. Present structures and processes are not adequate in this new environment and urgently need to be revisited. Current health policy development, governance, communication and delivery mechanisms and instruments need to be critically re-examined and reconfigured. Addressing these challenges requires resetting priorities, action for health in other sectors across the whole of society and new approaches to organizing the health sector. Pressure is increasing to use health system resources more efficiently. Public health leaders too often lack the authority and instruments to lead a coherent integrated response to these challenges. Further, there has been an important shift in the role of health professionals and citizens. The latter now have much higher expectations in terms of information and involvement relating to the services they receive.

19. Some new global agreements and instruments have been developed to address common health challenges. These new forms have had profound regional and national influence, such as the Millennium Development Goals, the revised International Health Regulations and the WHO Framework Convention on Tobacco Control. More such instruments will surely follow.

20. Other recent developments include consideration of global health in key foreign policy arenas such as the United Nations General Assembly, the G8 (Group of 8 industrialized countries) summits and the World Trade Organization; the involvement of heads of state in health issues; and the inclusion of health issues in meetings of business leaders, such as the World Economic Forum. These developments all indicate that the political status of global health has been elevated. In 2009, United Nations General Assembly Resolution A/RES/64/108 on global health and foreign policy reinforced this major change in perspective by urging Member States to "consider health issues in the formulation of foreign policy".

Building on experience

21. Health 2020 details ways to orchestrate the setting of priorities and to catalyse action not only by health ministries but also by heads of government as well as by other sectors and stakeholders around common health and well-being targets and outcomes. It builds on long experience.

22. In May 1981, at the Thirty-fourth World Health Assembly, Member States adopted the global strategy for Health for All (including 12 global indicators). As part of this global movement, the Member States of the WHO European Region, at the thirtieth session of the WHO Regional Committee for Europe in Fez in September 1980, approved their first common health policy: the European strategy for attaining Health for All. This called for a fundamental change in countries' health policies and urged that very high priority be given to promoting health and preventing disease; that all sectors that affect health take positive steps to maintain and improve health; that the role individuals, families and communities can play in developing health be emphasized more strongly; and that primary health care be the major approach used to bring about these changes.

23. The European strategy also called for formulating specific regional targets to support the implementation of the strategy, and the Regional Committee adopted 38 specific regional targets at its thirty-fourth session of in Copenhagen in September 1984, together with 65 regional indicators to monitor and assess progress.

24. The past three decades within the European Region have seen tumultuous political and social change, but these Health for All and primary health care approaches have remained as key guiding values and principles for the development of health in the Region. Health for All policies have been of real importance in countries, and Health for All has now returned to be acknowledged broadly as a key global strategy for achieving equity in health.

25. The comprehensive overview of Health for All conducted for the WHO Regional Committee for Europe in 2005 showed that the core values of Health for All have been broadly accepted. At the same time, it was concluded that every country had taken its own approach to developing policy and, although many countries had set targets similar to the targets for Health for All, a large gap remained between formulating policy and implementing it.

26. The Tallinn Charter: Health Systems for Health and Wealth aimed to build on that common core in 2008 and focused on the shared values of solidarity, equity and participation. It emphasized the importance of investing in health systems that offer more than health care alone and are also committed to preventing disease, promoting health and efforts to influence other sectors to address health concerns in their policies. The Tallinn Charter stressed that health ministries must promote the inclusion of health interests and goals in all societal policies, an approach that has been broadly supported under the term health in all policies. Health in all policies has aimed to establish health improvement as a shared societal goal to be reflected in the priorities across all parts of government. It has addressed complex health challenges by promoting an integrated policy response across the boundaries of sectors and portfolios. It exemplifies the move towards a new governance for health.

Demographic and epidemiological situation in the European Region today[1]

Demography

27. The population of the 53 countries of the European Region has reached nearly 900 million in 2011. Forecasts indicate that the population will actually decrease in the countries in the Commonwealth of Independent States (CIS),[2] contrasting with the increase in the other countries as a whole. Currently, many countries in the Region have the lowest fertility worldwide. On average, each European Region woman has an average of 1.4 children instead of the 2.1 that would be necessary to keep domestic populations constant. Countries in eastern central and southern Europe have the lowest fertility.

28. An estimated 73 million migrants live in the European Region, nearly 8% of the population. Although the long-term effects on sustained population growth and structure are still uncertain, the health system and other sectors must focus additional attention on the current and future needs of this population. Indeed, all populations are generally more mobile now than

[1] Annex 1 provides more detailed information on demographic and epidemiological trends in the European Region.

[2] The CIS consisted of Armenia, Azerbaijan, Belarus, Georgia, Kazakhstan, Kyrgyzstan, the Republic of Moldova, the Russian Federation, Tajikistan, Turkmenistan, Ukraine and Uzbekistan when the data were collected.

before, and this mobility challenges health systems in terms of flexibility and availability. Nearly 70% of the population of the European Region lived in urban settings in 2010, and this figure is expected to reach 80% by 2045.

Epidemiological situation in the European Region

29. Overall, health in the European Region is improving, as suggested by life expectancy at birth, which reached 75 years in 2010, an increase of 5 years since 1980. Projections suggest that it will increase to nearly 81 years by 2050, at a similar pace as from 1980 to 2010. Groups of countries differ considerably. For example, the 15 countries in the European Union (EU) before 2004 (EU15) have already reached the 2050 level expected for the whole Region, and life expectancy should continue to improve to reach 85 years in 2050. In contrast, the CIS countries are only expected to reach 75 years of life expectancy by 2050: that is, the same level observed in the European Region 40 years earlier or that achieved in the EU15 countries 65 years earlier. Other mortality trends by age and country groups across the Region show important and unacceptable differences. There are also important differences between women and men's life expectancy across the Region, ranging from more than 13 years in the Russian Federation to 4 years in most EU countries.

30. In the European Region, noncommunicable diseases produce the largest proportions of mortality and premature death. Mortality from cardiovascular diseases accounts for nearly 50% of all deaths, ranging from 35% in the EU15 countries to 65% in the CIS. Cancer mortality accounts for 20% of deaths: 7% in the CIS countries and 30% in the EU15 countries. Injuries and violence represent 8% of all deaths, being twice as frequent in the CIS as in the EU15 countries and the EU12 countries (the 12 countries joining the EU since 1 May 2004).

31. For developing health policy, mortality data have to be complemented by the use of disability-adjusted life-years (DALYs) as a tool for assessing health status beyond mortality, as the burden of morbidity and disability is a critical focus in societies with high life expectancy. Here the four leading causes of lost DALYs in the Region are unipolar depressive disorders, ischaemic heart disease, adult-onset hearing loss and Alzheimer and other types of dementia.

32. Emerging and re-emerging communicable diseases, including HIV and tuberculosis (TB), also remain a priority area in many countries of the Region. Of special concern to all countries in the Region are global outbreaks such as pandemic H1N1 influenza in 2009 and silent threats such as the growing antimicrobial resistance.

Determinants of health

33. The determinants of health underlying these differences are complex and involve both individual and societal factors. Individual variation in susceptibility and resilience to disease are genetically determined to some extent, and understanding more about this variation represents one of the most fascinating current research challenges in health. Other determinants are centred in the communities and societies in which people live and work. Some are overtly political, in the sense that war and societal breakdown are politically influenced catastrophes. Others reflect how the opportunities, choices and conditions of life are politically determined.

34. The interplay between all these determinants is inevitable. Many of the determinants are amenable to effective interventions, and increased investment in public health capacity, health promotion and disease prevention is essential alongside more efficient therapy and rehabilitation for those affected by disease. In many countries, current investment in public health population-based health promotion and disease prevention services is currently lamentably low. Political will at all levels of governance is critical to improve health and well-being.

Social and economic determinants

35. The distribution of health and life expectancy in the European Region shows significant, persistent and avoidable social differences in opportunities to be healthy and in the risk of illness and premature death in all countries. It is now much better understood that health experience disaggregates by socioeconomic condition and that the key determinants of the inequity in health are a toxic mix of poor social policies and programmes, low levels of education and unfair economic arrangements. The consequent inequity in power, education, money and resources and the conditions in which women and men are born, grow, live, work and age constitute the social determinants of health. The lower a person's social position, the worse his or her health is. The report issued by the Commission on Social Determinants of Health in 2008 demonstrated the ethical imperative of acting on these forms of inequity. The current rapid decline in societies' social capital (social networks and civic institutions) adversely affects the prospects for health by predisposing to widened gaps between people with high and low income as well as weakened public health systems.

Environmental determinants

36. The 21st century is characterized by many profoundly important environmental changes, requiring a broader conception of the determinants of population health. These include the large-scale loss of natural environmental capital, manifested as climate change, stratospheric ozone depletion, air pollution through its effects on ecosystems (such as biodiversity, acidification of surface waters and crop effects), degradation of food-producing systems, depleted supplies of fresh water, biodiversity loss and spread of invasive species. These developments are beginning to impair the biosphere's long-term capacity to sustain healthy human life.

37. The environmental burden of disease in the European Region has been estimated to be 15–20% of total deaths and 10–20% of DALYs lost, with a relatively higher burden in the eastern part of the Region. For example, almost 120 million people, mostly in the eastern part of the Region, still do not have a household connection to a drinking-water supply, and 85 million do not have proper sanitation, resulting in more than 170 000 cases of water-related diseases and more than 13 000 deaths among children younger than 14 years reported on average annually.

38. Air pollution is associated with 2.5% of all deaths, making it the eighth leading risk factor for mortality. Most recent evidence demonstrates that the highest proportion of air pollution–related mortality is not related to lung disease but to cardiovascular conditions caused by particulate matter.

39. With conservative assumptions applied to the calculation methods, the estimated DALYs lost from environmental noise in the European Union Member States and other countries in western Europe are 61 000 years for ischaemic heart disease, 45 000 years for cognitive impairment of children, 903 000 years for sleep disturbance, 22 000 years for tinnitus and 587 000 years for annoyance. These results indicate that 1.0 million to 1.6 million healthy life-years are lost every year from noise related to road traffic in the western part of the European Region.

40. In high-income countries, 5% of the total burden of disease is attributed to occupational factors, and these contribute significantly to cardiovascular, musculoskeletal and mental health diseases, disorders and conditions.

41. More than 310 000 DALYs lost from lung cancer (15%) are attributed to occupational and other types of environmental exposure in the WHO European Region every year, as are

20 000 DALYs lost from leukaemia; 42% of chronic obstructive pulmonary disease is attributed to environmental causes.

42. Injuries and violence are the other major causes of mortality, representing 8% of all deaths, being twice as frequent in the CIS as in the EU15 countries and the EU12 countries. A total of 40% of road traffic injuries, 71% of poisoning, 31% of falls, 30% of suicide, 54% of drowning and 45% of other unintentional injuries are attributed to environmental factors.

43. Climate change has, and will have, long-term consequences on the environment and on the interactions between people and their surroundings. This will cause a major change in the distribution and spread of communicable diseases, particularly water-, food- and vector-borne diseases. Changing patterns of housing, transport, food production, use of energy sources and use and of economic activity will also have major effects on the patterns of noncommunicable diseases.

44. Efforts to curb greenhouse-gas emissions and other policies for mitigating climate change have significant side benefits for health. Currently accepted models show that reducing total CO2 emissions in the EU from 3876 million tonnes in 2000 to 2867 million tonnes in 2030 would effectively halve the number of years of life lost from air pollution if CO2 mitigation considers the health effects. The health benefits depend on the action taken; for example, an increase in the domestic combustion of biomass (wood) may increase the concentrations of particulate matter with an aerodynamic diameter of less than 2.5 µm (PM2.5) even though it would be CO2 neutral.

Lifestyle and behavioural factors

45. Individual lifestyles and behaviour have gained increasing attention. A group of four diseases and their behavioural risk factors account for the majority of preventable disease and death in the European Region: cardiovascular diseases, cancer, diabetes and chronic respiratory diseases. Tackling issues such as smoking, diet, alcohol consumption and physical activity effectively means addressing the social determinants and transferring the focus of action upstream to the causes of these lifestyle differences: the causes of the causes, which reside in the social and economic environment.

46. Societal processes influence exposure to health-damaging (and health-promoting) conditions, vulnerability and resilience. Such exposure and vulnerability are generally unequally distributed in society according to socioeconomic position and/or other markers of social position such as ethnicity. Gender norms and values also often determine exposure and vulnerability. They are also significantly influenced by a consumer society, extensive marketing of products and, in many societies, inadequate regulation of harmful goods. The health literacy of the population has become a critical factor in enabling healthy choices.

Capacity and efficiency of health systems

47. Finally, health systems themselves contribute powerfully to health experience, and this contribution can be expected to increase as technologies improve still further. The capacity and efficiency of health systems are therefore important determinants of health, and their universal yet affordable availability is a vital social goal.

48. The organization of health systems has not kept pace with the enormous changes societies are undergoing. Their hierarchical organization makes them less capable of responding rapidly to technological innovation and to the demands and desire for participation of services users. Because of this lag, health systems are significantly less productive than they could be. In addition, health professionals are also not always educated and trained in the competencies they

would need to act in a new and challenging environment, particularly in relation to chronic conditions and ageing populations.

49. The issue facing countries in the European Region is how to improve performance and contain costs while maintaining the values and principles of Health for All and the Tallinn Charter. Nevertheless, an increasing number of examples show that adopting new approaches could enable this. This certainly includes accepting patients as partners.

The economics of health and well-being

Health – a key factor in productivity, economic development and growth

50. Health 2020 addresses the economic and financing aspects of health and health systems. Indeed, in some countries the increases in health care costs can no longer be managed and can put countries and industries at a competitive disadvantage. Health care funding has therefore moved to the fore of the health debate. Nevertheless, during the recent economic recession, the continual growth of the health care industry was a stabilizing factor in many countries. In the past 30 years, the health sector has shifted from being a functional sector focused and invested mainly in health services to constituting a major economic force. Today health is one of the world's largest and most rapidly growing industries, absorbing more than 10% of the gross domestic product of most high-income countries and about 10% of their workforce. It encompasses a wide range of business sectors, services, manufacturers and suppliers, ranging from the local to the global. Nevertheless, its output clearly lies far below its potential.

51. There is a strong case for health action based on cost–benefit evidence related to reducing the burden of disease, through integrated approaches to promoting health and preventing disease, counteracting the consequences of unhealthy public policies and addressing the effects of needless medical technology or unnecessary treatment and medication. The recognition that inequity in health imposes costs on society is growing in significance. The unequal distribution of health-damaging experiences, for example in the workplace, is not in any sense a natural phenomenon. It limits economic and social development and imposes direct costs on society as a whole, including the health care system. The macroeconomics of health and well-being therefore need to be understood better; health is increasingly acknowledged as significantly affecting both the economic dimensions of a society and its social cohesion.

52. Public policy imperatives, such as the drive for improving competitiveness, must be seen not simply as ends in themselves but the means to improving well-being among people in the European Region. Health 2020 identifies how well-being can be advanced, sustained and measured through action that creates social cohesion, security, good health and good education. Social progress and stability have been most successful in countries that ensure the availability of care and social safety nets through strong public services and sustainable public finances. The approach some countries in the Region have chosen of defining well-being policies that transcend measuring societal progress through gross national income alone are a case in point and open up new opportunities for the health agenda.

Economic burden of ill health

53. There are many gaps in available data (especially in countries outside the EU and European Free Trade Association). Nevertheless, noncommunicable diseases, including mental disorders, especially depression and anxiety disorders, have an economic impact (both external to and within health care systems) of many hundreds of billions of euros every year in the European Region. To these costs must be added those from avoidable injuries. Many of these costs may be avoidable through both promoting health and well-being and taking preventive

measures within society, including the health care system. They can also be managed better within the health care system – especially by increasing the empowerment and involvement of people with chronic disease in their management and care.

Economic evidence base

54. Information on the cost–effectiveness of interventions in specific settings and contexts that can prevent noncommunicable diseases and injuries continues to expand. Many studies have been concerned with classic areas in public health such as vaccination and screening interventions. More complex interventions have been evaluated less frequently, but packages of measures with multiple actions for preventing chronic diseases, such as physical activity programmes, fiscal, regulatory and advertising measures for drugs, alcohol and diet, have been shown to have the potential to deliver substantial health gains, with a very favourable cost-effectiveness profile.

Estimating the long-term costs and benefits of action

55. Modelling studies are increasingly used to examine the potential long-term health and economic benefits of interventions. For example, models suggest that combining interventions to change dietary behaviour as a way of preventing obesity can be cost-effective even if individual actions such as school-based interventions may generate benefits over a very long time frame. Programmes that involve people with chronic disease in managing their disease also show significant effects in improving the quality of life, improving health, providing social benefits and reducing health care utilization.

Health impact assessment

56. Health impact assessment is the process by which the potential effects on health of any policies, programmes or projects, many of them outside the health sector, can be assessed. Health impact assessment also includes assessing the distribution of the potential effects across the population. The WHO Regional Office for Europe currently offers health impact assessment tools and advice to countries.

Implementation

57. The available economic evidence base for informed decision-making in health policy is growing, although more specific estimates of the cost–effectiveness of actions are clearly needed within the European Region. Better data are needed, and ongoing evaluation and analysis of the available evidence are central to ensuring that the system actually allows decision-makers to identify good and bad practices; to protect patients and payers; to choose which health interventions are to be given priority; to balance investment within and beyond the health system; and, ultimately, to prove the case for investing in health and health systems.

58. Because the health sector bundles together substantial financial resources and many different powerful interests, it is also susceptible to significant mismanagement, abuse of power and corruption. These issues need to be addressed as major reforms are attempted. A critical goal is to introduce more accountability and transparency into the system.

Technological development in health care

59. Health care costs are greatly driven by technological development, especially when numerous organizational and professional factors support their use. This is illustrated by the dramatic increases in health care costs in the last years of life. In the health systems of many

countries, medical technology is a more important cost driver than medicines – this applies, for example, to new forms of diagnostic imaging, new medical and surgical treatment innovations and increasing opportunities within medical genetics.

60. On the other hand, developments in telemedicine, eHealth (electronic health) and mHealth (mobile health) already have a significant potential for reducing costs while increasing patient participation and empowerment and streamlining systems of monitoring and care. New patient-based connectivity and medical devices allow for increasing home-based care and allow patients to stay active and to contribute to society. Technologically based innovations, especially information technology, have already created extraordinary new opportunities to improve health and health care.

Values

61. Values underpin everything. Values are important and are reflected in health systems as in other forms of social organization. The human right to the highest attainable standard of health is increasingly recognized as key to protecting public health and integral to a governance approach aimed at realizing and implementing the right to health and other health-related rights. Importantly, the right to health does not mean the right to be healthy, but it means that governments must create conditions in which everyone can be as healthy as possible.

62. Box 2 shows the values of Health 2020. Social solidarity, universal access to health care and the shared values of equity, sustainability, participation and dignity are deeply rooted in the value system of the European Region, and health has become a component of democratic rights, social stability and state legitimacy. Residents of the European Region expect protection from health risks and access to high-quality health care.

Box 2. Values of Health 2020

Universality – the human right to health and health care

Equity

Solidarity

Sustainability

Right to participate in decision-making

Dignity

Non-discrimination

Transparency

Accountability

Governance for health in the 21st century[3]

Implementing whole-of-government approaches

63. Governance may be defined as "how governments and other social organizations interact, how they relate to citizens and how decisions are taken in a complex and globalized world". Governance for health can be defined as "the attempts of governments or other actors to steer communities, whole countries or even groups of countries in the pursuit of health and well-being as a collective goal".

64. Today's governance for health is dispersed and horizontal. It is based around a system of values and principles referred to as good governance. Smart governance describes the mechanisms chosen to reach results based on the principles of good governance. Although any normative approach to governance may be contested, the principles and processes of good governance have been considered in relation to countries, for example through the World Wide Indicators Governance Project of the World Bank, which shows important correlations between good governance and health.

65. Governance for health must be a whole-of-government responsibility. Considering the inalienable human right to health, the complex nature of the context of and the drivers for health and the multiple determinants of the main burden of disease leads inexorably to this conclusion. The influences on health are so diverse and so diffuse in modern societies that promoting and advancing health requires action based on new thinking and a new paradigm; old, linear, rationalist planning models will not suffice. Adaptive policies need to be sufficiently resilient to respond to complexity and to be prepared for uncertainty.

66. The new governance for health must engage the health sector in working with other sectors in ways that are mutually supportive and constructive, in engagements that are win-win for overall societal goals. It must address the many determinants of health and be aware of the distribution of influence and resources in society. Achieving intersectoral action within the machinery of government is clearly challenging. One reason is the complexity of the issues involved and the "wicked" nature of the challenges. Nevertheless, this is also driven by lack of incentives, conflicts of interest within government and lack of commitment at the highest level.

Ten priority issues for action in governance

Health 2020 identifies a set of 10 priority issues deserving consideration by policy-makers as they attempt to address health and well-being in their societies and to develop effective and efficient health systems:

1. health and well-being;
2. the right to health;
3. inequity and its determinants;
4. governance for health;
5. citizens at the centre;
6. assets for health;
7. the new economics for health and for preventing disease;
8. the potential of medical and information technology;

[3] A study on governance for health in the 21st century will inform Health 2020.

9. high-performing, adaptable and people-centred health systems, with special attention to the needs of patients; and

10. a policy framework with which various actors can connect and become involved politically.

Wicked problems and systems thinking

67. The term *wicked problems* has been applied to issues that are difficult to solve because of incomplete, contradictory and changing requirements. Many 21st-century health challenges are wicked problems. Attribution is complex, and linear relationships between cause and effect are hard to define. Wicked problems need to be considered and analysed as complex open systems.

68. In the face of these challenges, policies should be implemented as large-scale experiments in which monitoring and evaluation efforts provide an essential mechanism for the policy community to learn from the experiences acquired in practice and to adapt accordingly. Obesity is an excellent example of a 21st-century wicked health challenge. The risk patterns for obesity are complex and multidimensional. Risks are local (such as the absence of playgrounds or lack of bicycle lanes) as well as national (such as the lack of food labelling requirements) and global (trade and agriculture policies). Only a system-wide approach and multiple interventions that recognize the complexity and wicked nature of tackling obesity will stand any chance of success.

Leadership, innovation and capacity for health and development

69. Health 2020 asserts health as a joint societal and whole-of-government responsibility. This requires new forms of governance for health in the 21st century and poses tremendous demands on health leadership. Such health leadership can take many forms and reside with many actors: for example, international organizations setting standards and goalposts; heads of government giving priority to health and well-being; health ministers reaching out beyond their sector to the ministers and their staff members in other sectors; parliamentarians; business leaders seeking to reorient their business models to take health into account; civil society organizations drawing attention to deficits in disease prevention or in service delivery; academic institutions providing evidence for innovation; and local authorities taking on the challenge of health in all policies. Individuals such as philanthropists or media personalities have also increasingly taken on leadership roles for health and equity issues and have campaigned with great influence.

70. Leadership for health requires new skills. Much of the authority of health leaders in the future will arise not from their position in the health system but from their ability to convince others of the high relevance of health and well-being through influence rather than control. Leadership has many forms and includes not only individual leaders but also community-centred leadership as well as collaborative leadership. Groups of actors are increasingly coming together to address key health challenges at the global, national or local level. The global movement on HIV is a good example of such collaborative leadership. A similar movement is emerging around noncommunicable diseases.

71. The leadership role of health ministers will be vitally important, concentrating on developing and implementing national health strategies focused on improving health; delivering high-quality and effective health care services; core public health functions, standards and targets; and effective and efficient intersectoral working for health.

Part 2. Strategies that work and key actors

Key action principles 7–9

7. Identifying and pursuing evidence-based pathways to health and well-being
8. Strengthening outcome-oriented and person-centred health systems – ensuring high performance and transparency
9. Investing in capacity for public health, change, innovation and leadership

Public health priorities in the European Region[4]

72. Noncommunicable diseases produce the largest proportion of mortality in the European Region, accounting for about 80% of deaths in 2008. Among broad groups of causes, mortality from cardiovascular diseases accounts for nearly 50% of all deaths, but this ranges from 35% in the EU15 countries to 65% in the CIS.

73. Premature mortality (defined as deaths occurring before age 65 years) is more informative for developing public health policy and programmes and interventions for delaying the onset of disease and disability. Premature mortality trends show that cardiovascular diseases have remained the most important causes of premature death in the European Region, with rates exceeding 110 per 100 000 population in 2008, but their levels have started to decline recently.

74. Noncommunicable diseases also dominate the list of the leading causes of the disease burden in the European Region, with unipolar depressive disorders and ischaemic heart disease the leading causes of lost DALYs. The burden of chronic and disabling diseases and conditions poses the main challenge to health systems.

75. Noncommunicable diseases interact, with mental disorders overrepresented among people with cardiovascular disease, cancer and diabetes. Depression adversely affects the course and outcome of chronic diseases and, in turn, the presence of other disorders worsens the prognosis of depression.

76. The patterns of mortality and disease burden are shifting within noncommunicable diseases and relative to other disease groups within the European Region. During the past two to three decades, overall mortality from cardiovascular diseases has declined in the European Region, but some gaps have widened: mortality has been halved in the EU15 countries during that period but has increased by one tenth in CIS countries. The overall cancer mortality situation may appear relatively unchanged but masks differences, such as a steep decline in death rates from lung cancer among men but a rise of the same magnitude among women.

77. The outlook for the burden of these main diseases and conditions is a balance of three contributory factors: demographic changes with ageing of populations and shifts through migration; temporal and geographical changes in modifiable risk factors linked to urbanization and economic globalization; and a relative decline in infectious diseases, meaning that people live long enough to acquire other diseases, such as cancer.

78. Tobacco use among women and girls is increasing in the European Region, especially in the eastern part of the Region. Alcohol consumption is rising in the eastern part of the Region

[4] Annex 1 provides more detailed information on demographic and epidemiological trends in the European Region.

but is only declining slightly in the western part of the Region. The prevalence of obesity and overweight is rising alarmingly among both adults and children.

79. Emerging and re-emerging communicable diseases remain a priority area of concern in many countries of the Region. These diseases include HIV infection, multidrug-resistant TB and the growing threat from antimicrobial resistance. Also of note are alarming outbreaks of potentially global significance, such as pandemic H1N1 influenza in 2009 and the re-emergence of poliomyelitis in Tajikistan in 2010, which threatened the Region's polio-free status it has held since 2002.

80. Injuries, both unintentional (from road crashes, poisoning, drowning, fires and falls) and intentional (from interpersonal and self-directed violence), cause 800 000 annual deaths in the European Region. They are the leading causes of death among people aged 5–44 years. The leading causes of injury are road crashes, poisoning, interpersonal violence and self-directed violence. Injuries are responsible for 9% of deaths in the Region but 14% of the burden as measured by DALYs. Although there has been a general downward trend, mortality rates from injuries have increased in times of socioeconomic and political transition.

Tackling the determinants of health and health inequities

Political, social and economic determinants

Situation analysis

81. Despite Europe's overall wealth, the European Region has stark inequities in health. The countries with the lowest and highest life expectancy at birth in the WHO European Region differ by 16 years, with men and women having different experiences. Male life expectancy at birth varies by 20 years between countries versus 12 years for women. Life expectancy also differs greatly within countries. People with greater social and economic advantage have better health and longer lives than those with less. The groups most severely affected by exclusionary processes, such as Roma and migrant workers, have especially significant health disadvantages.

82. These inequities in health between and within most countries in the European Region are persistent and growing and offer a key indicator of societal performance and development. The current unacceptable gaps in health experience between and within countries will increase unless urgent action is taken to control and challenge the social determinants of health. This action must be both systematic and sustained. Addressing political, social, economic and institutional environments is therefore vital for advancing the health of the population. Intersectoral policies are both necessary and indispensable. Whole-of-government responsibility for health requires that the entire government fundamentally consider effects on health in developing all regulatory policies.

83. The health of any individual is almost inseparable from the health of the larger community: healthier lives achieve equity, create healthy social and physical environments and promote healthy behaviour. This means that everyone should have the material requirements for a decent life, access to education, control over one's life and a political voice and be able to participate in decision-making processes. Fully realizing these human rights is critical in improving health and reducing inequity.

Solutions that work

84. There are several approaches to tackling the social determinants of health and inequity in health, including universal policies that improve everyone's health, targeted interventions that

focus on the people most affected and addressing the gradient through interventions that are proportional in intensity to the level of health and social need. Underpinning each of these conceptually is the importance of empowerment: material, psychosocial and political.

85. Change requires more than declarations, even when they are backed by powerful evidence and good will. Addressing socially determined inequity in health requires strong political commitment, integrated action, a strong systems approach, effective and high-performing health systems and policy coherence across a range of government policies.

86. The 2008 report of the Commission on Social Determinants of Health makes the case that opportunities for promoting health and reducing inequity in health lie deep in society and that these opportunities must be seized through a comprehensive strategy. The Commission on Social Determinants of Health set out three main principles for action.

- Improve the conditions of daily life – the circumstances in which people are born, grow, live, work and age.
- Tackle the inequitable distribution of power, money and resources – the structural drivers of the conditions of daily life – globally, nationally and locally.
- Measure the problem, evaluate action, expand the knowledge base, develop a workforce that is trained in the social determinants of health and raise public awareness about the social determinants of health.

87. Addressing socially determined inequity in health requires dealing with the causes of the causes: the unequal distribution of power, income, goods and services, globally and nationally, that result in unfairness in the immediate, visible circumstances of people's lives – their access to health care, schools and education, their conditions of work and leisure, their homes, communities, towns or cities – and their chances of leading a flourishing, healthy life. The basic action needed is well summarized in the World Health Assembly resolution on reducing health inequities through action on the social determinants of health adopted in May 2009 (Box 3).

88. Effective action requires a system-wide approach to ensure policy consistency across government. Many well-meant programmes to promote health and reduce socially caused inequity in health fail because they are not based on such a system-wide approach. Specific actions include systematically targeting public policies and private initiatives and aligning the financial, human and environmental resources that will mobilize action on better health and well-being and its equal distribution in society. Achieving such action requires well-functioning institutions capable of influencing policy-making across health and other policy sectors. The required capacity includes policy advocacy, formulation, implementation, monitoring and evaluation. The involved stakeholders range from academic and research institutions, to ministries and governmental entities and nongovernmental organizations and civil society organizations.

89. Experience in the European Region shows that initiating, sustaining and mainstreaming the social determinants of health require a critical mass of human resources properly allocated within health systems and at the cross-government level. This critical mass should be appropriately allocated within the specific country policy context, have adequate skills and expertise and be accountable for achieving socially linked targets for reducing inequity in health.

Box 3. World Health Assembly resolution WHA62.14 on reducing health inequities through action on the social determinants of health

This resolution urges Member States:

(1) to tackle the health inequities within and across countries through political commitment on the main principles of "closing the gap in a generation" as a national concern, as is appropriate, and to coordinate and manage intersectoral action for health in order to mainstream health equity in all policies, where appropriate, by using health and health equity impact assessment tools;

(2) to develop and implement goals and strategies to improve public health with a focus on health inequities;

(3) to take into account health equity in all national policies that address social determinants of health, and to consider developing and strengthening universal comprehensive social protection policies, including health promotion, disease prevention and health care, and promoting availability of and access to goods and services essential to health and well-being;

(4) to ensure dialogue and cooperation among relevant sectors with the aim of integrating a consideration of health into relevant public policies and enhancing intersectoral action;

(5) to increase awareness among public and private health providers on how to take account of social determinants when delivering care to their patients;

(6) to contribute to the improvement of the daily living conditions contributing to health and social well-being across the lifespan by involving all relevant partners, including civil society and the private sector;

(7) to contribute to the empowerment of individuals and groups, especially those who are marginalized, and take steps to improve the societal conditions that affect their health;

(8) to generate new, or make use of existing, methods and evidence, tailored to national contexts in order to address the social determinants and social gradients of health and health inequities;

(9) to develop, make use of, and if necessary, improve health information systems and research capacity in order to monitor and measure the health of national populations, with disaggregated data such as age, gender, ethnicity, race, caste, occupation, education, income and employment where national law and context permits so that health inequities can be detected and the impact of policies on health equity measured.

Investing in healthy people and empowering communities

Introduction

90. Health differences are shaped during the course of life. Adopting a life-course approach recognizes the complex interactions between life events, biological risks and the determinants of health. The way these elements interact has implications for people's health from the time they are born to the time they die. Health can be depleted at any stage over the course of life through chance, circumstances and choice, and it can be promoted at any point of the health–disease continuum. A life-course perspective in public health clearly fosters deeper understanding of how genetic, social, economic and environmental circumstances and interventions in childhood, through adolescence, during the reproductive years and beyond affect health later in life across generations. Health is also determined by existing gender norms, roles and power relations that

influence the behaviour of men and women, their vulnerability to risk, their access to services and the responses from systems.

91. Numerous health-promoting actions aiming to embed the principles of health promotion are common to the health and well-being of all groups. At the macro level, social and economic policies need to create environments that ensure that people at all times of life are better able to reach their full health potential. At the micro level, action initiated in specific settings where people live, love, work and play – homes, schools, workplaces, leisure environments, care services and older people's homes – can be very effective. Health and social services, and especially primary health care services reaching out to families in their homes, to workers at their workplaces and to local community groups over the lifespan, are important entry points for systematically supporting individuals and communities over the lifespan and especially during critical periods.

Healthy mothers and healthy babies

Situation analysis

Mortality, disease burden and trends

92. The life of a mother and her baby are inextricably linked. Safe pregnancy, childbirth and breastfeeding are the first conditions for growing up healthily, but for many women, pregnancy and childbirth is still a time of risk. The maternal mortality ratio, or number of reported maternal deaths per 100 000 live births, was 14.1 for the European Region in 2008. Although the maternal mortality ratio has almost halved in the European Region as whole from 1990 to 2006, progress has been uneven. Striking inequities persist between and within countries in the European Region, with an estimated difference of 30- to 40-fold in maternal mortality ratio between the countries with the highest and lowest rates. Maternity can lead to complications: for every woman who dies in childbirth globally, at least 20 others are estimated to experience injuries, infection and disability.

93. Some women cannot choose pregnancy and motherhood, but the alternatives pose difficulties of their own. Many countries have great unmet need for safe and effective contraception, and the European Region has the highest levels of induced abortion of any WHO region, with unsafe abortion causing up to 30% of maternal deaths in some countries.

94. The infant mortality rate per 1000 live births was 7.83 for the European Region in 2008, although estimates suggest that it is even higher. The infant mortality rate for the European Region has also fallen by more than 50% since 1990, but again countries differ substantially, with a 25-fold difference between the countries with highest and lowest rates. For example, the infant mortality rate in the central Asian republics and Kazakhstan is more than twice the rate for the European Region and more than four times the rate for the EU15 countries. Children have the highest risk of dying during the first 28 days of life. Of all neonatal deaths, 75% occur during the first week of life, and of these, 25–45% occur within the first 24 hours.

Main determinants and risk factors

95. The major direct causes of maternal morbidity and mortality include haemorrhage, infection, high blood pressure, unsafe abortion and obstructed labour. These can be prevented and treated with basic, cost-effective interventions, but not all women in the WHO European Region have access to the care or services they need. Evidence suggests that there are substantial inequities in the Region within and between countries in access to skilled workers at delivery, antenatal care, family planning and other reproductive health services by socioeconomic status (education and income), ethnicity and residence (urban versus rural).

96. Women's reproductive and fertile years have enormous effects on women's general health and well-being. Evidence suggests that a mother's educational level, her health and nutrition, her socioeconomic status and the quality of health and social services she receives profoundly affect her chances for a successful pregnancy and for delivering a healthy baby.

97. The age of sexual debut is decreasing in many countries in the European Region. In many cases, unsafe sex leads to sexually transmitted infections and unintended pregnancies. Women and men are planning and having children at later ages; this increases the risk of congenital malformation, infertility, medically assisted reproduction, high-risk pregnancies because of chronic diseases and other health problems.

98. The main causes of deaths among newborn babies are prematurity and low birth weight, infections, asphyxia, birth trauma and congenital abnormalities. These causes account for nearly 80% of deaths in this age group and are intrinsically linked to the health of the mother and the care she receives before, during and immediately after birth. In general, the proportions of deaths attributed to prematurity and congenital disorders increase as the neonatal mortality rate decreases, and the proportions caused by infections and asphyxia decline as care improves.

Solutions that work

Effective evidence-based action

99. Contextual factors such as a healthy environment, women's empowerment, education and poverty play an important role in reducing maternal, newborn and child mortality levels, as does care provided through health systems. Although both care and contextual interventions make contributions to reducing maternal mortality, this probably depends more on the efforts of health systems and less on contextual factors than does child mortality. Where the context is particularly challenging, even strong health systems can have only limited effects on mortality and, conversely, where there is an enabling context for health, a poor health system could hold back mortality reduction substantially.

100. Access to family planning services and safe abortion reduces the number of unintended pregnancies and mortality and morbidity from abortion without influencing the fertility rate.

101. Introducing the WHO Effective Perinatal Care training package has reduced maternal and perinatal mortality and reduced inequalities. Together with the introduction of maternal and perinatal audit, the package has been demonstrated to lead to better, healthier childbirth. The development and implementation of national clinical guidelines and a perinatal referral system has resulted in a decrease in maternal and perinatal mortality. In addition, better registration of perinatal deaths has provided a basis for strategic planning.

102. Breastfeeding is an important aspect of caring for infants and young children. It leads to improved nutrition and physical growth, reduced susceptibility to common childhood illnesses and better resistance to cope with them, as well as reduced risk of certain noncommunicable diseases in later life and stimulating bonding with the caregiver and psychosocial development.

Key WHO strategies

103. There are key WHO strategies of relevance at both the global and regional levels.

104. At the global level these are the:

- WHO global reproductive health strategy (2004);
- WHO global strategy for the prevention and control of sexually transmitted infections (2006); and

- WHO global strategy on infant and young child feeding (2002).

105. At the WHO European Region level these are the:

- WHO European strategy on sexual and reproductive health (2001); and
- WHO European strategy for child and adolescent health and development (2005).

Challenges, promising developments and opportunities

106. WHO's work on improving maternal and child health is linked with that of achieving the United Nations Millennium Development Goals adopted at the 2000 United Nations Millennium Summit. Millennium Development Goal 4 aims to reduce child mortality and Millennium Development Goal 5 aims to improve maternal health. Of additional relevance are the Millennium Development Goals not related directly to health. Millennium Development Goal 1 to eradicate extreme poverty and hunger includes a focus on infant and young child feeding. Millennium Development Goal 3 promotes gender equality and the empowerment of women. Although the WHO European Member States have made some significant advances in meeting the Millennium Development Goals, for some areas action has stagnated and inequities in progress persist.

107. The Global Strategy for Women's and Children's Health was launched at the United Nations in September 2010. It was developed under the auspices of the United Nations Secretary-General with support and facilitation by the Partnership for Maternal, Newborn & Child Health, drawing together leaders from government, international organizations, business, academe, philanthropy, health professional associations and civil society in recognition that the health of women and children is key to progress on all development goals.

108. WHO convened the Commission on Information and Accountability for Women's and Children's Health in December 2010 to improve global reporting, oversight and accountability for women's and children's health. It presented its first report *Keeping promises, measuring results* at the World Health Assembly in May 2011, aiming to address the need to improve health information systems in countries and to track pledged resources and health expenditure for women and children.

The equity lens

109. Evidence suggests that there is also substantial inequity within countries in the Region in terms of access to high-quality maternal health care, family planning and other reproductive health services by socioeconomic status (education and income), ethnicity and residence (urban versus rural).

110. Gender equality, through health promotion, more education, greater control over household resources, control over own fertility and better nutrition play an important role not only in improving expectant mothers' chances for healthy pregnancies and normal births but also in promoting children's survival and development.

111. Building universal coverage for sexual and reproductive health services and programmes needs to be supported. Gender inequities and other social determinants strongly influence reproductive and sexual health and rights. For example, intimate partner violence can remain invisible in the process of delivering services for reproductive health. Women and men need to be empowered to make informed sexual and reproductive choices across the life cycle, giving them autonomy over their reproductive lives.

Key actors

112. The health, education, social protection, labour and employment sectors are jointly responsible for maternal and infant health. Reproductive health requires strong partnerships with other sectors such as education and the legal system, in addition to encouraging the involvement of civil society organizations or target groups, such as the Roma population and young people.

113. For maternal, infant and reproductive health at the international level and within countries, WHO needs to work in close collaboration with other partners such as the United Nations Population Fund, United Nations Children's Fund (UNICEF), United States Agency for International Development, European and professional organizations and the European network of the International Planned Parenthood Foundation.

Governance issues

114. Supporting maternal and infant health requires a broad range of policies, not simply within the health sector. Enabling reproductive choice, protecting pregnant women in the workplace, enabling mothers to return to work, supporting parents with flexible working arrangements and parental leave, preventing child poverty, promoting gender equality and a range of other measures require the broad involvement of government and nongovernmental actors such as employers.

What can be achieved?

115. Two thirds of newborn deaths could be prevented if well-known and effective health interventions were provided during pregnancy, at birth and during the first week of life. The interventions and approaches that can help save the lives of mothers and babies work even where resources are poor.

116. Evidence is also mounting to show that investing in early childhood development is one of the most powerful measures countries can take in reducing the escalating burden of chronic disease.

Healthy children and healthy adolescents

Situation analysis

Mortality, disease burden and trends

117. The European Region includes the countries with some of the lowest child mortality rates in the world, and most children and adolescents in the WHO European Region enjoy a high standard of health and well-being. However it also includes some wide variation: the rates in countries with the highest mortality among children younger than five years are 20–30 times the rates of the lowest.

118. The mortality rate in the European Region among children younger than five years is 9.81 per 1000 live births. Mortality among children younger than 15 years has decreased for all groups of countries in the European Region, and mortality among children younger than 5 years is now the lowest of any WHO region, although it can differ substantially between countries. For example, child mortality rates are declining more slowly in the CIS countries, where a child born is three times as likely to die before the age of five years as a child born in an EU country.

119. The leading causes of death of children younger than five years in the European Region are neonatal conditions, pneumonia and diarrhoea. Almost half the deaths are associated with

undernutrition. Children are also at risk from hazardous environments, obesity and unhealthy lifestyles. Poor environments aggravate socioeconomic disparities in cities. Marked differences in mortality rates among children younger than five years between urban and rural areas and the households with the lowest and highest incomes have been demonstrated where data exist.

120. Suicide and accidents result in considerable deaths and disability among young people. Every day, more than 300 young people in the European Region die from largely preventable causes. Almost 10% of 18-year-olds in the European Region have depression. Injuries are the leading cause of death among young people, especially males; road traffic injuries are the leading cause of death and the leading cause of injury among people aged 10–24 years.

Main determinants and risk factors

121. A healthy start in life establishes the basis for healthy life. The first year of life is crucial for healthy physical and mental development. Children and adolescents need safe and supportive environments: clean air, safe housing, nutritious food, clean water and a healthy way of life. They also need access to friendly and age-appropriate services.

122. The foundational strengths for well-being, such as problem-solving, emotional regulation and physical safety, are the positive underpinnings of early child health and development. Developing these skills and optimizing well-being in early childhood establish the basis for ongoing well-being across the life course.

123. Children born into disadvantaged home and family circumstances have a higher risk of poor growth and development. Optimizing health and well-being in later life requires investing in positive early childhood experiences and development. Good social, emotional and mental health helps to protect children against emotional and behavioural problems, violence and crime, teenage pregnancy and misusing drugs and alcohol and determines how well they do in school.

124. Many serious diseases and types of exposure to risk factors (such as tobacco use and poor eating and exercise habits) in adulthood originate in childhood and adolescence. For example, tobacco use, mental ill health, sexually transmitted infections including HIV and poor eating and exercise habits may all lead to illness or premature death later in life. The prevalence of overweight among children younger than 16 years is between 10% and 20% in the European Region, with prevalence higher among children in southern Europe. The dietary habits of young people are not optimal for health, including fruit and vegetable consumption below recommended levels and high consumption of sweetened beverages. Physical activity levels decrease during adolescence, more markedly among girls. The smoking prevalence at age 13 years is 5%, rising to 19% by age 15 years in the European Region. Almost two thirds of 16-year-olds have consumed alcohol in the previous 30 days. The percentage of 15-year-olds reporting having experienced sexual intercourse ranges from 12% to 38% across countries in the European Region.

125. Adolescence is usually a time of good health for both girls and boys, with opportunities for growth and development. Nevertheless, it can also be time of risk, particularly with regard to sexual activity, substance use and accidents. The social and economic environment in which adolescents grow up often determines the behaviour they develop during adolescence.

Solutions that work

Effective evidence-based action

126. Several childhood illnesses can be prevented by immunization and relatively simple, low-cost measures. The WHO Integrated Management of Childhood Illnesses (IMCI) promotes a

package of simple, affordable and effective interventions for the combined management of the major childhood illnesses and malnutrition, including antibiotics, treatment of anaemia, immunization and promoting breastfeeding.

127. Measures to control tobacco use and harmful use of alcohol need to emphasize protecting children through effective population-level measures and regulatory frameworks such as banning advertising, banning sales to minors, promoting smoke-free environments and pricing policies. Children are vulnerable and exposed to marketing pressure, and interventions can reduce the effects on children of the marketing of foods high in saturated fat, *trans*-fatty acids, free sugar or salt. Environmental measures can be put in place to promote physical activity: for example, through urban design and planning the school day.

128. Numerous factors influence children's social and emotional well-being, from their individual make-up and family background to the community within which they live and society at large. As a result, a broader multi-agency strategy is required that includes school-based activities to develop and protect children's social and emotional well-being along with policies to improve the social and economic status of children living in disadvantaged circumstances.

Key WHO strategies

129. There are key WHO strategies of particular relevance at both the global and regional levels.

130. At the global level, this is the:

- WHO global strategy on infant and young child feeding (2002).

131. At the WHO European Regional level, these are the:

- WHO European strategy for child and adolescent health and development (2005); and
- Children's Environment and Health Action Plan for Europe (2004).

Challenges, promising developments and opportunities

132. As already mentioned in the previous section on healthy mothers and healthy babies, work is already underway to meet Millennium Development Goal 4 to reduce child mortality as well as relevant Millennium Development Goals not directly related to health such as Millennium Development Goal 1 (which includes a focus on feeding infants and young children) and Millennium Development Goal 2 to achieve universal primary education. Monitoring progress faces significant challenges in the face of weak health information systems, underreporting and differences between official data and the estimates of international agencies.

133. Again, as mentioned in the previous section on healthy mothers and healthy babies, initiatives such as the Global Strategy for Women's and Children's Health and the Partnership for Maternal, Newborn & Child Health maintain a strong international focus on child health and bodies such as the Commission on Information and Accountability for Women's and Children's Health seek to hold governments to account for pledged resources and health expenditure for women and children.

The equity lens

134. Boys and girls are affected not only by the socioeconomic circumstances of their community and their ethnicity but also by gender norms and values. They differ in exposure and vulnerability to health risks and conditions such as depressive disorders, accidents, substance

abuse, eating disorders, sexually transmitted infections, violence and self-inflicted injuries, including suicide.

135. Access to high-quality health measures, such as school health services, whole-school approaches and curriculum-based health education, including sexuality education, remains a challenge in many countries of the European Region. Nevertheless, this is not sufficient – schools themselves must become environments for learning for well-being.

136. These actions should be informed by the overwhelming evidence from all fields of health research that girls and boys differ in biology (sex differences) as well as social and culturally constructed gender norms, roles and relationships (gender differences). Recognizing the root causes of differences between girls and boys in exposure and vulnerability to health risks is therefore crucial when national health policies design responses from the health and other sectors to be effective.

137. A satisfactory mental, social and physical environment during upbringing will produce people who are secure and less vulnerable to stresses and strain in later life. Society should compensate for what children and adolescents lack in their environment, including physical environment. The basic policy ought to be one of taking general measures aimed at all children and adolescents but with more support being provided for health care services for mother and children and for nurseries and schools in areas with many disadvantaged children.

Key actors

138. The educational system plays a fundamental role in preparing children for life, giving them the knowledge and skills they need to achieve their full health potential. A well-functioning, non-discriminatory education system has tremendous potential for promoting health in general and for reducing social inequities in health in particular. Schools in less privileged areas should receive extra resources to meet the greater needs for special support for children from low-income and poor families. The goal should be that educational achievement not differ based on socioeconomic and ethnic background.

Governance issues

139. The health, education, social protection, labour and employment sectors are jointly responsible for the health of children and adolescents. Such joint working should be assisted by having a framework of accountability of each sector for children's and adolescents' health and health-related issues, for example via a set of jointly owned targets and indicators, linked to financing. Having a national health information system with well-defined indicators would allow the trends in children and young people's health and development to be monitored in mainstream population and vulnerable groups. Reviewing the legal, policy and regulatory framework, in the context of a strategy for children's and adolescents' health, would allow necessary changes to be made to respect, protect and fulfil the rights of children and adolescents to health and their access to high-quality health services.

What can be achieved?

140. Much of the morbidity and mortality among children and adolescents is preventable. Low-cost, effective measures could prevent two thirds of deaths.

Healthy adults

Situation analysis

Issues and trends

141. The adult stage of life entails events, such as taking up employment, parenting, citizenship and caring for parents. For many adults, there is challenge in achieving work–life balance and in reconciling private and professional responsibilities. The way in which individuals balance these demands has consequences for public policy. Half of EU residents surveyed in 2008 said that they had difficulty in combining work and family life, with women and single parents struggling the most. Women face disadvantage regarding access to and participation in the labour market, and men face disadvantage regarding participation in family life.

142. There is still a huge imbalance between men and women in the distribution of family and domestic responsibilities. This means that many women opt for flexible working arrangements or give up work altogether, affecting women's career development, the wage gap between men and women and on pension rights. An EU review found that, on average, and in almost every EU country, parenthood negatively affects employment for women and positively for men. These effects of parenthood on employment rates are linked to the availability of childcare services. Not only does this hold back the rate of female employment; full employment of a parent, with decent pay, can also help combat the risk of poverty in lone-parent households.

Main determinants and risk factors

143. Predetermined social models tend to presuppose that men are mainly responsible for paid work derived from economic activity, and that women are mainly responsible for unpaid work related to looking after a family. In many countries and some cultures in the European Region, traditional gender norms still prevent women from taking up gainful employment and earning income.

144. The ability to successfully reconcile private and work life has implications for fertility rates and demographic renewal. With an ageing population, women and men frequently have a double burden of caring for children and caring for older dependants. Couples and individuals need to be able to decide freely and responsibly the number, spacing and timing of their children and to have the information and means to do so. Sexual health and the reproductive years tremendously affect women's and men's general health and well-being. Nevertheless, sexual and reproductive health is often not addressed properly or at all because it is a private sphere and can be surrounded by cultural sensitivity.

145. Numerous social changes in the European Region affect adults disproportionately at different stages of life. A satisfactory job is an important prerequisite for health. For many young people, unemployment is still high and instability in early employment has become the norm, often with adverse effects on fertility and forming families. For older workers, standard retirement trajectories have eroded and become replaced by instability of employment late in people's careers and various pathways into early retirement. Women's increasing integration into paid employment is often associated with atypical forms of work. The intensity of these trends varies considerably between countries and among social groups, such as those differing in human or social capital or those enjoying different degrees of family support and well-being.

146. Lack of control over work and home life can harm health. Accumulation of psychosocial risk can increase long-term stress and the chances of premature death. Both jobs with high demands on employees and jobs with low employee control carry risk. Health suffers when

people have little control over their work, little opportunity to use their skills and low authority to make decisions.

Solutions that work

Effective evidence-based action

147. Promoting the well-being of adults in the European Region requires a variety of approaches. Social innovation approaches that involve communities in policy-making processes can be used to optimize well-being by engaging citizens in addressing an array of social and well-being issues and proposing solutions that are desirable to use and enrich people's daily lives. Workplace health promotion that is designed not just to prevent disease but also to optimize employee well-being can benefit employees and employers. Improved conditions of work, with mechanisms to allow people to influence the design and improvement of their work, lead to a healthier, more productive workplace.

148. Governments should make every effort to avoid unemployment, insecurity, discrimination and exclusion from work, which increase the risk of physical and mental disorders. Long-term unemployment is a grave concern for equity in health. Key health-related measures include promoting the use of permanent contracts for employment, adapting the physical and psychosocial working environment to meet the needs of individual employees, increasing the influence employees have over their work individually and collectively and strengthening occupational health services. As retirement ages are likely to rise, the needs of an ageing workforce must also be taken into account.

149. In achieving work-life balance, a number of supportive measures can be put in place including: granting family-related leave; improving the provision of childcare; organizing working time to include flexible arrangements; abolishing conditions that lead to wage differences between men and women; harmonizing school and working hours; and reviewing the opening hours of shops. Employment policies should also provide measures that encourage more equitable sharing between men and women of leave for childcare and care of older people.

150. Sexual health care aims to enhance life and personal relationships and not merely to provide counselling and care on reproduction and sexually transmitted infections.

Key WHO strategies

151. Relevant WHO strategies include the WHO global reproductive health strategy (2004) and the WHO European strategy on sexual and reproductive health (2001), as both promote sexual health and reproductive choice. Resolutions relating to social inclusion and poverty and health at the global and regional levels are also relevant.

Challenges, promising developments and opportunities

152. The Lisbon Strategy of the European Union, established in 2000, recognized the importance of furthering all aspects of equal opportunities. Improved reconciliation of family and working life is a guideline of the European Employment Strategy and is included in the European process for combating poverty and promoting social inclusion.

The equity lens

153. Society needs to safeguard maternity, paternity and children's rights. Because of the gender-based division of labour, exemplified by the allocation of specific tasks to men and women, the workplace is a critical arena determining gender-based differences in health. Although paid employment generally benefits both women's and men's health, work may also

involve exposure to risks and hazards that can impair health. These hazards are related to both physical exposure (such as heavy lifting, noise, chemicals and violence) and psychosocial exposure (such as stress, lack of social support, discrimination and harassment).

154. Unemployment is also still very widespread among migrants, Roma, people with disabilities and other socially excluded people in the Region. Health risks at work are strongly overrepresented among socially and economically disadvantaged populations.

Key actors

155. Key actors to promote equality between men and women and help achieve reconciliation of family and working life are: ministries responsible for employment, education, health and social affairs; employers in the private and public sectors; social welfare partners; workers; and nongovernmental organizations.

Governance issues

156. The social and economic development of society requires a balanced participation of men and women in the labour market and in family life, with consequences for growth and jobs, social inclusion of vulnerable groups, child poverty and gender equality. This requires broad-ranging social policies to be implemented in education, employment, health and social welfare to give men and women real choices.

What can be achieved?

157. Childcare facilities leave entitlements and flexible working time arrangements are core components of policy. Differences between countries demonstrate what can be achieved in supportive social policy.

Healthy older people

Situation analysis

Mortality, disease burden and trends

158. Overall, longer life expectancy for both women and men is a major achievement for which health and social policies play an important role. As life expectancy increases, more people live past 65 years of age and into very old age, thus dramatically increasing the numbers of older people. By 2050, more than one quarter (27%) of the population is expected to be 65 years and older. There are 2.5 women for each man for those aged 85 years or over, and this imbalance is projected to increase by 2050.

159. Although women in the European Region live on average 7.5 years longer than men, they live a greater share of their lives in poor health than men. As women also have higher disability rates, women comprise the vast majority of very old people who need ongoing health care and social support.

160. As individuals age, noncommunicable diseases become the leading causes of morbidity, disability and mortality. Socioeconomic status greatly affects health with, for example, morbidity often higher in later life among people with lower-status occupations. A great proportion of overall health care needs and costs are concentrated in the last few years of life.

161. If people are empowered to remain healthy into old age, severe morbidity can often be compressed into a few short months before death. Nevertheless, any possible compression of morbidity would be too small to offset the effect of rising numbers of older people, so the

number of older people with disabilities will also rise. About 20% of people aged 70 years or older and 50% of people aged 85 years and older report difficulties in performing activities of daily living such as bathing, dressing and toileting as well as other activities such as housekeeping, laundry and taking medication. Restriction of mobility is common as is sensory impairment. About one third of people 75–84 years old report difficulties in hearing during conversation with other people, and about one fifth have problems reading daily newspapers or books.

162. Currently, many countries in the European Region have the lowest fertility worldwide and the highest life expectancy worldwide. Consequently, the support and care of an increasing number of older people depends on an ever-reducing number of people of working age. Care of older people is still considered a familial obligation in many countries rather than a government responsibility, and most informal caregivers are women. The status of the development and generosity of the care of older people differs more widely between countries in the European Region than for other health and social policy programmes. Formal social care for older people is more likely to be available in urban areas, and the access to and quality of nursing homes differs widely in Europe. Privacy and decent care may be limited, access to mainstream health care may be limited, medication may be inappropriate and preventive measures may fail.

Main determinants and risk factors

163. Health and activity in older age are the sum of the living circumstances and actions of an individual during the whole lifespan. Experiences throughout the life course affect well-being in older age – lifelong financial hardship is associated with worse health outcomes later in life, and people who have been married all their adult lives outlive those who have not.

164. Older people are not a homogeneous group: individual diversity increases with age, and the rate of functional decline is determined not only by factors related to individual behaviour but also by social, economic or environmental factors that individuals may not be able to modify. For example, age discrimination in access to high-quality services is widespread, and inequities in the living conditions and well-being of older people are greater than among the general population because of substantial differences in pension incomes, accumulated assets and family situation.

165. Early age at retirement, experiencing a job loss and experiencing traumatic life events, especially later in life, are associated with poorer well-being in middle and later life. Social support, especially social relationships with family and friends, is one of the most important factors influencing the quality of life among older people. Sex (women), single marital status, lack of material resources (such as access to a car) and poor health are all associated with lower social contact in older adults.

Solutions that work

Effective evidence-based action

166. The decline in functional capacity is potentially reversible and can be influenced at any age through individual and public policy measures, such as promoting age-friendly living environments.

167. Effective measures to promote healthy ageing include legislation, social and economic policies that provide for income support and supplementation, policies for supportive transport, neighbourhood and urban planning and public health promotion work related to the main risk factors – diet, exercise, alcohol, smoking and screening for treatable disease.

168. The life-course approach to healthy ageing allows people to influence how they age by adopting healthier lifestyles earlier in life and by adapting to age-associated changes. Healthy lifestyles needs to be encouraged among older people and facilitated with opportunities provided for exercise, healthy nutrition and smoking cessation, for example.

169. Vaccination is effective in both children and older people in reducing morbidity (and mortality) from several infectious diseases. Among older people, screening for treatable diseases such as breast cancer can reduce premature mortality and morbidity.

170. Putting an appropriate mix of services in place (such as health and social services, technical aids and support for informal care) is key to making health and long-term care systems sustainable in the future. Creating environments and services that allow people to stay healthy for longer and active in the labour market will be crucial to reducing or containing long-term unemployment, disability benefits and early retirement. Adapting building design, urban planning and transport systems to meet the needs of older people and people with disabilities can maintain independent living, reduce the impact of disability and support social networks.

171. Palliative care affirms life and regards dying as a normal process and intends neither to hasten nor to prolong death. It provides relief from pain and other distressing symptoms and should be offered as needs develop and before they become unmanageable. Traditionally, high-quality care at the end of life has mainly been provided for people with cancer in inpatient hospices, but this kind of care now needs to be provided for those with a wider range of diseases, including the increasing number of people with dementia, and needs to reach into people's homes and into nursing and residential homes within the community. Palliative care offers a support system to help people live as actively as possible until death and to help the family members cope during the person's illness and in their own bereavement.

Key WHO strategies

172. No recent specific WHO strategies have been endorsed at the global and regional levels, but there are relevant resolutions and a policy framework. World Health Assembly resolution WHA52.7 on active ageing called upon Member States to ensure the highest attainable standard of health and well-being for their older citizens, and the most recent, World Health Assembly resolution WHA58.16, included a focus on developing age-friendly primary health care.

173. Further, several United Nations General Assembly resolutions (58/134 and 59/150) called on governments, United Nations organizations and others to incorporate the concerns of older people into their programmes of work. The Second World Assembly on Ageing was held in Madrid, Spain in 2002 and led to the adoption of the International Plan of Action on Ageing (2002). WHO developed *Active ageing: a policy framework* as a contribution to this meeting. In 2005, the WHO Secretariat reported to the World Health Assembly on implementation of the International Plan of Action on Ageing.

Challenges, promising developments and opportunities

174. Although increased longevity is a triumph, it can also present a challenge. Projections foresee an increase in overall age-related public spending (pensions, health and long-term care) of about 4–5% of GDP between 2004 and 2050 for the EU15 and of about 3.5% of the GDP in countries in the Organisation for Economic Co-operation and Development (OECD) if current trends in non-demographic drivers of health care spending continue.

175. Promoting healthy ageing directly affects the costs of health and long-term care. Keeping individuals in good health and out of hospitals and other health care settings can soften the increasing share of overall health-care costs accounted for by older people. Further, a healthier older workforce could be less inclined to withdraw from the labour force. This would reduce

transfer spending, expand the labour force and raise government revenue. The economic impact of ageing populations on public-sector spending on pensions and on health during the coming decades can be substantially mitigated if longer lifetimes are accompanied by parallel increases in the age of retirement.

176. Public spending at the boundary between health and social care has important efficiency gains that are largely untapped, with evidence growing about cost-effective interventions to avoid emergency hospital admissions and long length of stay or how telemedicine and telecare can best be used. Better integration is needed between health care and long-term care and improvements in aspects related to dignity and human rights in long-term care. The quality of services needs to be improved through quality assessment and assurance mechanisms and through new models of care coordination and integration such as via care pathways that provide tailored packages of health and social care.

The equity lens

177. In the European Region all levels of government, stakeholders and citizen are concerned about rapid population ageing, changing family structures and the potential decline in the living conditions of older people. Sex differences in these factors are considerable in most countries. Old women with low incomes especially need access to financial support, which can take the form of old-age or widowhood allowances and special financial security measures.

178. Inequities in health status and well-being accumulate over the life course, and the risk of poverty and social isolation in old age is increasing for many older people in the Region. Ageing is an inevitable biological process, but how women and men approach it and the consequences are socially governed and can be changed. Social determinants of health in old age especially include wealth, income and poverty, work histories and experiences, ongoing social participation, patterns of dependence and social vulnerability to illness, disability, isolation and lack of social support. In addition, age discrimination in access to high-quality services is widespread, especially for the range of health and social services that older people with functional limitations need.

Key actors

179. Given the issues identified, the key actors include ministries responsible for health and social affairs, employment, environment and education; employers in the private and public sectors; social welfare partners; nongovernmental organizations; and representatives of older people themselves and of their informal caregivers.

Governance issues

180. Action to promote healthy ageing has been identified in fiscal policy, social welfare, health services, transport, urban planning, housing, justice and education. Wider policy frameworks that take into account the interactions between programmes are needed. Such strategies may be best achieved at the local level within the context of a broader national health strategy or plan. But there is also an international dimension of increasing numbers of migrant care workers, many of them in unprotected, non-recognized jobs within private households.

181. A variety of sectors can develop age-friendly policies and supportive environments to enable full participation in community life and prevent disability. These include flexible working hours and modified work environments; urban design and road traffic measures to create streets for safe walking; exercise programmes for maintaining or regaining mobility; life-long learning programmes; providing hearing and visual aids; cost-effective procedures such as cataract surgery and hip replacements; and schemes to enable older people to continue to earn a living.

What can be achieved?

182. Better policies to combat noncommunicable diseases over the life course are key to healthy ageing, as are age-friendly communities and better access to good quality health and social services for older people. Supporting more people in remaining active at work for longer and redistributing work over the life course can both contribute to healthy ageing and make health and welfare policies sustainable in the long term. The increasing number of good practice examples of coordination and integration of care, including beyond the health and social services divide, can help countries with health care reform that aim at much better coverage and social protection of older people with care needs.

Migrants

Situation analysis

Mortality, disease burden and trends

183. Migration in Europe today involves a diverse group of people: including regular and irregular migrants, victims of human trafficking, asylum-seekers, refugees, displaced people and returnees. About 75 million migrants live in the WHO European Region, amounting to 8% of the total population and 39% of all migrants worldwide. Six of the 10 countries with the highest numbers of international migrants are in the European Region. The number of migrants is expected to increase in most countries in central Europe. Most migrants in the European Region are young adults. Women comprise half of all migrants and are often overrepresented in vulnerable groups, such as victims of human trafficking for sexual exploitation.

184. Few generalizations can be made regarding the state of health of migrants, as variation is substantial between groups, countries and health conditions, and the health problems of first-generation migrants may differ from those of their descendants. Nevertheless, the burden of ill health among certain migrant groups is often unacceptably large.

185. Where figures on mortality rates and life expectancy do exist, they generally indicate lower life expectancy for migrants, and some communities also show increased rates of infant mortality. Migrants largely have similar illnesses to the rest of the population, although some groups may have a higher prevalence of health problems, including communicable diseases; poor nutrition; reproductive and sexual ill health; occupational health problems; and mental disorders. The movement of people implies also the movement of "new" (or old) types of diseases, and the health facilities in the European Region are not well equipped to deal with these. Increasingly heterogeneous populations also mean greater variation in people's health-seeking behaviour and risk perceptions.

186. Most migrants are exposed to hazardous working environments, poor housing, labour exploitation and inadequate access to health care. Occupational accident rates are about twice as high for migrant workers as for native workers in the European Region.

Main determinants and risk factors

187. The health conditions and the physical and socioeconomic environment at the migrants' place of origin determine many baseline health characteristics. The migratory journey can affect health, with increased health risks most often seen among migrants in an irregular situation, refugees and displaced people. After arrival, poverty and social exclusion exert the greatest influence on health outcomes, with the availability, accessibility, acceptability and quality of services in the host environment influencing the health of migrants.

188. All phases of the migration process can affect communicable diseases among migrants. TB, HIV, vaccine-preventable diseases and several parasitic diseases have high prevalence in regions of the world where migrants who eventually come to the European Region originate. The migration process can also affect the development of infectious diseases, such as multidrug-resistant TB, which can be linked to migrants not completing TB treatment before travelling to the destination country, to increased immigration from countries with unsuccessful TB control and to migrants having poor access to health care in destination countries.

189. Mental health is a particular health concern, and high rates of alcohol and drug abuse, depression and anxiety, traumatic experiences before departure or during the migration process, such as armed conflict, hunger and physical and sexual abuse can adversely affect migrants' well-being. On arrival, a variety of factors may increase psychosocial vulnerability and hinder successful integration.

Solutions that work

Effective evidence-based action

190. The development of health programmes and policies at the regional level needs to reflect the basic principles of modern migration and draw on aspects of successful programmes that can be replicated. Accomplishing this will require systems that collect longitudinal data on health status and socioeconomic circumstances. Many of the health and socioeconomic challenges associated with migration are the product of global inequity, and local and regional actions that focus solely on countries that receive migrants will be less effective than integrated globally focused programmes designed to mitigate the factors in both the country and region of origin and destination.

191. Migrants also confront gender-specific challenges, particularly maternal, newborn and child health and sexual and reproductive health. Migrants should have early access to reproductive health services, preventive health services and health promotion, screening and diagnostic care as well as prenatal and obstetric services. Special attention should be paid to women and girls who have been trafficked, as many have been exposed to gender-based violence.

Key WHO strategies

192. In May 2008, the World Health Assembly approved resolution WHA61.17, which urged Member States to include migrants' health in regional health strategies; to develop and support assessments and studies and share best practices; to strengthen service providers' and health professionals' capacity to respond to migrant needs; to engage in bilateral and multilateral cooperation; and to establish a technical network to further research and enhance the capacity to cooperate. As follow-up, Spain hosted a WHO/International Organization for Migration global consultation during its EU Presidency in March 2010, seeking further input on the health of migrants from Member States, experts and a broad range of other stakeholders. The outcomes of that consultation included an operational framework on how to move forward in implementing the World Health Assembly resolution.

193. Other WHO initiatives of relevance include World Health Assembly resolution WHA62.14 on reducing health inequities through action on the social determinants of health (Box 3) and the work done to follow up resolution EUR/RC52/R7 on poverty and health and especially the WHO Regional Office for Europe policy brief on addressing health inequities linked to migration and ethnicity.

Challenges, promising developments and opportunities

194. Migrants are important resources for the European Region, contributing to economic development, compensating for skill shortages and counterbalancing an ageing population in destination countries. For example, through remittances, the migration process contributes to reducing poverty and enhancing social protection in the countries of origin, both outside and within the European Region. In the EU15 countries, migration accounted for an estimated 21% of the average growth in gross national income from 2000 to 2005.

195. Various policy processes and conferences are considering the need for coordinated and sustained action to address migration-related health challenges in the European Region and globally. In November 2007, the Eighth Conference of European Health Ministers highlighted migrant health by focusing on people on the move, human rights and challenges for health systems. During this event, the 47 Council of Europe Member countries signed the Bratislava Declaration on Health, Human Rights and Migration.

196. Other relevant work being carried out by the EU and European Council include: the European Council communication on solidarity in health; the European Council's conclusions on Roma; the work of the EU to promote the health of migrants; and the activities of the Portuguese EU presidency concerned with migrant health. There is also the broader framework of international covenants and conventions that endorse the universal human right to health without discrimination, such as the International Convention on the Protection of the Rights of All Migrant Workers and Members of their Families.

The equity lens

197. Despite the obvious benefits resulting from migration and the existing and ratified international human rights standards and conventions that protect the rights of migrants, including their right to health, most migrant populations are at risk of poverty, social exclusion, abuse, violence, exploitation and finding barriers to access health and social services. Migrants in an irregular situation especially have little or no access to health and social services because of their legal status, lack of an adequate social protection floor and inability to affiliate with health insurance schemes.

Key actors

198. Implementing policy measures calls for a multisectoral and multi-stakeholder strategy involving all levels of government as well as civil society, local communities, businesses, professional, educational and scientific bodies, media, global forums and international agencies. Fragmentation of effort should be combated by encouraging cooperation between countries, disciplines and professions.

Governance issues

199. Policies that promote social inclusion include measures to combat discrimination, educational policies that pay special attention to the needs of migrants, employment policies aimed at removing barriers in the labour market, social protection policies, housing and environmental policies to improve living condition and health policies to ensure equitable access to services.

200. The impact of policies across sectors on the social determinants of health can be reviewed by using equity-oriented health impact assessment.

What can be achieved?

201. Policies should address inequities in the state of health of migrants and the accessibility and quality of health services available to them.

202. Given that the health problems of migrant groups can result from or be worsened by their disadvantageous social position, measures that combat social exclusion are likely to have the most fundamental effect on health.

Roma

Situation analysis

Mortality, disease burden and trends

203. About 12–15 million Roma[5] live in the European Region, and an estimated 10 million live in the EU alone. Although estimates of the total number of Roma living in a given country vary considerably, average estimates indicate that some countries have Roma populations comprising a substantial proportion of the total population. For example, Roma account for 10% of the population of Bulgaria, 9% in Slovakia and 8% in Romania. As Roma tend to have higher birth rates than majority populations, these proportions are likely to increase.

204. Data on mortality rates and other health statistics may be unreliable because, for example, members of Roma communities may be reluctant to disclose their ethnic identity. Nevertheless, there are indications that life expectancy among Roma communities is 10–15 years lower than average and increased rates of infant mortality and alarmingly high levels of maternal and child mortality and morbidity. For example, infant mortality rates are reported to be twice as high among the Roma as non-Roma in the Czech Republic, Hungary and Slovakia.

205. Higher rates of illness among Roma populations than among majority populations have been reported, with higher rates of type 2 diabetes, coronary artery disease and obesity in adults and nutritional deficiencies and malnutrition among children. Many Roma women in settlements near Belgrade in Serbia are undernourished (51%) and smoke tobacco (almost all). A United Nations Development Programme (UNDP) survey of vulnerability in Albania, Bosnia and Herzegovina, Bulgaria, Croatia, Montenegro, Romania, Serbia, Kosovo (in accordance with United Nations Security Council Resolution 1244 (1999)) and the former Yugoslav Republic of Macedonia found that 50% of Roma children face malnutrition risks more than twice monthly, in contrast to 6% of majority children.

Main determinants and risk factors

206. Roma disproportionately have low income in many countries, and evidence suggests that Roma are concentrated among the people with the lowest incomes. Exclusion linked to discrimination because of Roma ethnicity may be an independent risk factor for poverty

207. Although data on Roma health are lacking, existing evidence points to significant inequity in health system access and health status between Roma and majority populations. For instance, data regarding antenatal care coverage, low birth weight, prevalence of breastfeeding, maternal smoking, nutrition status and vaccination rates reveal marked inequity between the Roma and the majority population, including (in some contexts) when Roma are compared with

[5] In this document, and in accordance with the Council of Europe's *Roma and Travellers glossary*, the encompassing term "Roma" refers to a various communities that self-identify as Roma and others (such as Ashkali) that resemble Roma in certain aspects but insist on their ethnic difference.

the poorest quintile of the general population. The State Statistical Office of the former Yugoslav Republic of Macedonia and UNICEF jointly undertook a Multiple Indicator Cluster Survey, revealing that only 78% of Roma women who had given birth in the two years preceding the survey received skilled antenatal care versus 94% of the quintile with the lowest income. UNICEF reports that low birth weight rates are 6 times the national average among the Roma in Serbia versus 3 times the national average among the quintile with the lowest income.

Solutions that work

Effective evidence-based actions

208. Policies need to address both inequities in the state of health and the accessibility and quality of health services available to the Roma communities. Many of the strategies for achieving this are not specific to the Roma but are similar to those needed for ethnic minorities in general, such as training health care workers in working with minority and marginalized populations, involving Roma in designing, implementing and evaluating health programmes and improving health information systems so that data are collected and presented in an ethnically disaggregated format.

Key WHO strategies

209. No WHO strategies are related to Roma specifically, but the WHO resolutions relating to social inclusion and poverty and health are relevant at the global and regional levels.

Challenges, promising developments and opportunities

210. The Decade of Roma Inclusion 2005–2015 is a political commitment by European governments to improve the socioeconomic status and social inclusion of Roma. It brings together governments, intergovernmental and nongovernmental organizations as well as Romani civil society to accelerate progress towards improving the welfare of Roma. The 12 countries participating in the Decade are Albania, Bosnia and Herzegovina, Bulgaria, Croatia, Czech Republic, Hungary, Montenegro, Romania, Serbia, Slovakia, Spain and the former Yugoslav Republic of Macedonia, with Slovenia having observer status.

211. Health is a priority area of focus together with education, employment and housing. The Decade also commits governments to take into account poverty, discrimination and gender mainstreaming. Each government participating has to develop a national Decade action plan that specifies the goals and indicators in the priority areas. Although WHO is not an international partner organization for the Decade, other United Nations agencies are, such as UNDP, UNICEF, the United Nations Human Settlements Programme (UN-HABITAT) and the World Bank.

212. In April 2011, the European Commission launched an EU Framework for National Roma Integration Strategies by 2020. With this, the European Commission requests that all EU countries develop and implement targeted strategies, with sufficient resources attached, for promoting integration in health, housing, education and employment. There will be a robust monitoring mechanism, with annual reporting on progress.

The equity lens

213. The inequity in health experienced by Roma is socially determined, being driven by multifaceted social exclusion processes and inequity within the health sector and in other sectors that influence health.

214. Responding to this inequity in health requires an approach that:

- addresses inequity across all health system functions: financing, service delivery, resource generation and stewardship;
- engages other sectors for meeting objectives on equity in health through public health governance that entails action on the social determinants of health;
- is grounded in human rights and gender approaches; and
- enables the mainstreaming of Roma health and health equity across health policies and programmes.

Key actors

215. In accordance with the EU Framework and the Decade of Roma Inclusion 2005–2015, the priority areas are health, housing, education and employment.

216. Although each country is primarily responsible for the social and economic integration of disadvantaged Roma people, the EU has confirmed since 2007 that it also has a role. A series of European Council conclusions have endorsed the European Commission's assessment that more needs to be done to apply the EU framework of legislative, financial and policy coordination tools to promote Roma inclusion.

Governance issues

217. Governments need to adhere to and implement the commitments already made through international instruments around social inclusion, poverty and health and discrimination. The 12 countries participating in the Decade of Roma Inclusion 2005–2015 have committed to developing a national Decade action plan for instance. Further, the issue of Roma rights and inclusion will be relevant when new countries wish to join the EU.

218. In September 2010, the European Commission established a task force to assess how EU countries use EU funding to promote the social and economic integration of Roma. Its initial report found that, although EU funds offer considerable potential for supporting Roma inclusion, funds were not being used properly. Effective use was apparently limited by a lack of expertise and capacity to absorb EU funds, compounded by weak inclusion strategies and bottlenecks at the national, subnational and local levels. Other problems identified included a lack of involvement by civil society and the Roma communities themselves.

What can be achieved?

219. The European Commission commissioned a comparative study of the 18 EU Member States with sizeable Romani populations to consider measures addressing the situation of Roma. This found that integrated policy approaches designed to tackle the multiple causes of social exclusion affecting Roma are the most successful. It identified the following factors for success: effective coordination of policies at the national, subnational and local levels; sustainable programmes with reliable, multi-year budgets; effective participation and consultation of Roma in inclusion efforts; and reliable data and evaluation of results.

Tackling systemic risks

Noncommunicable diseases

Situation analysis

Mortality, disease burden and trends

220. In the European Region, noncommunicable diseases produce the largest proportion of mortality, with about 80% of deaths in 2008. Among broad groups of causes, mortality (all ages) from cardiovascular diseases accounts for nearly 50% of all of deaths, but this ranges from 35% in the EU15 countries to 65% in the CIS. Cardiovascular diseases are also the most important causes of premature death in the European Region, with rates exceeding 110 per 100 000 population in 2008, but their levels have started to decline recently.

221. The patterns in mortality and burden of disease are shifting within noncommunicable diseases and relative to other disease groups within the European Region. During the past two to three decades, overall mortality from cardiovascular diseases has declined in the European Region, but some gaps have widened: mortality has been halved in the EU15 countries during that period but has increased by one tenth in CIS countries. The overall cancer mortality situation may appear relatively unchanged but masks differences, such as a steep decline in death rates from lung cancer among men but a rise of the same magnitude among women.

222. Noncommunicable diseases also dominate the list of the leading causes of the burden of disease in Europe, with unipolar depressive disorders and ischaemic heart disease the leading causes of lost DALYs in Europe. Noncommunicable diseases interact, with mental disorders overrepresented among people with cardiovascular disease, cancer and diabetes. Depression adversely affects the course and outcome of chronic diseases, and in turn the presence of other disorders worsens the prognosis of depression.

223. These diseases have a significant economic impact. For example, cardiovascular diseases cost the EU economies an estimated €192 billion a year. Apart from growing costs to the health care system, there are broader effects. Employers carry a burden of absenteeism, decreased productivity and employee turnover, while individuals and their families face reduced income, early retirement, increased reliance on welfare support and a burden of health care costs (direct and indirect).

224. The outlook for the burden of these main diseases is a balance of three contributory factors: demographic changes with ageing of populations and shifts through migration; temporal and geographical changes in modifiable risk factors linked to urbanization and economic globalization; and a relative decline in infectious diseases, meaning that people live long enough to acquire other diseases, such as cancer. Tobacco use among women and girls is increasing in the European Region, especially in the eastern part of the Region. Alcohol consumption is rising in the eastern part of the Region but is only declining slightly in the western part of the Region. The prevalence of obesity and overweight is rising alarmingly among both adults and children.

225. The share of people aged 80 years and older will grow by almost 50% within the EU during the next two decades. Migration into and within the European Region is increasing. Migrants are typically younger, have lower income, have greater health needs, experience greater exposure to noncommunicable disease risk factors and have less access to social protection and health care. Social inequity within and between countries is increasing, with proven negative effects on the health and well-being of children and adolescents.

Main determinants and risk factors

226. The determinants of health underlying these differences are complex and involve both individual and societal factors. Individual variation in susceptibility and resilience to disease is genetically determined in part. Other determinants include social and economic status, the physical environment, lifestyles and behavioural factors, which are themselves centred in and profoundly influenced by the social and economic environment and the capacity and performance of health systems.

227. Most serious adult diseases have long courses of development: the health effects of health-damaging behaviour and environmental hazards often do not manifest themselves until some considerable time after people have been exposed to them, usually as adults or older. For many people and groups, the interaction of multiple disadvantages, individual choice and life circumstances results in an increased likelihood of premature death and disability. At each transition point in life, supportive action at both the macro and micro levels can enhance health and well-being.

228. Societal processes influence exposure to health-damaging conditions, vulnerability and resilience. Such exposure and vulnerability are unequally distributed in society according to socioeconomic position and/or other markers of social position such as race, ethnicity or sex. They are also significantly influenced by a consumer society, extensive marketing of products and – in many societies – a lack of regulation of harmful goods. The health literacy of the population has become a critical factor in enabling healthy choices.

229. Higher educational status is closely associated with healthier eating and less smoking. Tackling issues such as tobacco use, unhealthy diet, harmful use of alcohol and physical inactivity means addressing the social determinants of health and transferring the focus of action upstream to the causes of these lifestyle differences – the causes of the causes – that reside in the social and economic environment.

230. Evidence indicates that risk factors for noncommunicable diseases, such as diabetes and heart disease, start in early childhood and even earlier during fetal life. Socioeconomic status in early life greatly influences health, including noncommunicable diseases in later life. Health and activity in older age are the sum of the living conditions and actions of an individual during the whole lifespan. Adopting a life-course approach is required to reduce the human and social costs associated with the current burden of noncommunicable diseases.

Solutions that work

Determinants and risk factors

231. Four common risk factors need to be addressed: tobacco consumption; the harmful use of alcohol; physical inactivity; and unhealthy diets. Although specific interventions are described, since individuals and populations carry multiple risk factors, an integrated approach is more likely to be effective, combining multiple interventions.

232. Evidence-informed and cost-effective strategies for reducing tobacco use have been identified, comprising the WHO Framework Convention on Tobacco Control and six MPOWER strategies supporting the Convention at the country level: (1) monitoring tobacco consumption and the effectiveness of preventive measures; (2) protecting people from exposure to tobacco smoke; (3) offering assistance for smoking cessation; (4) warning about the dangers of tobacco; (5) enforcing restrictions on tobacco advertising, promotion and sponsorship; and (6) raising taxes on tobacco. Tobacco control interventions are the second most effective way to spend funds to improve health after childhood immunization. If only one WHO Framework Convention on Tobacco Control article can be implemented, increasing the price of tobacco

through higher taxes is the single most effective way to decrease tobacco consumption and encourage tobacco users to quit.

233. For reducing the harmful use of alcohol, interventions that can provide a change of context to encourage healthy decisions can include, at the discretion of each country: (1) establishing a system for specific domestic taxation on alcohol accompanied by an effective enforcement system, which may take account of, as appropriate, the alcoholic content of the beverage; (2) regulating the number of and location of on-premise and off-premise alcohol outlets; (3) regulating the days and hours of retail sales; (4) establishing an appropriate age for purchasing and consuming alcoholic beverages and other policies to raise barriers against sales to and consumption of alcoholic beverages by adolescents; (5) introducing and enforcing an upper limit for blood alcohol concentration, with a reduced limit for professional drivers and young or novice drivers; (6) promoting sobriety checkpoints and random breath-testing; (7) supporting initiatives for screening and brief interventions for hazardous and harmful drinking in primary health care and other settings; such initiatives should include early identification and management of harmful drinking among pregnant women and women of childbearing age; (8) developing effective coordination of integrated and/or linked prevention, treatment and care strategies and services for alcohol-use disorders and comorbid conditions, including drug-use disorders, depression, suicide, HIV/AIDS and tuberculosis.

234. Regular physical activity provides significant benefits for health, reducing the risk of most chronic noncommunicable diseases and contributing to mental health and overall well-being. Taking part in physical activity also increases opportunities for social interaction and feeling like part of the community. The health benefits of moderate to intense physical activity must be emphasized: adults should accumulate at least 30 minutes per day and children and adolescents at least 60 minutes per day. Getting inactive or almost inactive groups to engage in some activity will produce the greatest health gains. Social and physical environments need to be designed so that physical activity can be safely and easily integrated into people's daily lives: for example, urban planning and integrated transport systems to promote walking and cycling.

235. The promotion of a healthy diet for preventing noncommunicable diseases needs to give priority to interventions: to achieve energy balance and healthy weight; to limit energy intake from total fat and shift fat consumption away from saturated fats to unsaturated fats and towards eliminating *trans*-fatty acids; limit the intake of free sugar; limit salt (sodium) consumption from all sources and ensure that salt is iodized; and increase consumption of fruit and vegetables, legumes, whole grains and nuts. As indicated in the WHO Global Strategy on Diet, Physical Activity and Health, countries should adopt a mix of actions in accordance with their national capabilities and epidemiological profile, including: education, communication and public awareness; adult literacy and education programmes; marketing, advertising, sponsorship and promotion; labelling; and controlling health claims and health-related messages. Further, national food and agricultural policies should be consistent with the protection and promotion of public health.

236. In addition to health promotion and disease prevention in relation to the four main risk factors outlined above, linkage should be made to sexual health, infectious diseases and environment and health, particularly in relation to preventing cancer, as well as medical genetics. Legislation and enforcing regulations can limit exposure to carcinogenic substances in the workplace and environment. Promoting safe sex and vaccination can prevent the transmission of viruses known to cause cancer such as human papillomavirus and hepatitis B.

237. The risk of a person developing diseases depends on interaction between the individual, his or her personal susceptibility and the wider environment. Many diseases, such as diabetes and asthma, have a complex pattern of inheritance. The opportunity to understand individuals' genetic make-up may enable intervention to prevent disease on an individual, or personalized,

basis. On the other hand, the evidence on the role of environmental determinants of chronic diseases is growing. For example, indoor and outdoor air pollution increases the risk of asthma and other respiratory diseases, and fine particulate matter in the air increases the risk of cardiovascular disease and lung cancer, significantly affecting life expectancy. Radon is the second leading cause of lung cancer after tobacco smoking. Primary prevention of disease – avoiding its occurrence – focuses on eliminating or reducing exposure to environmental risk factors. Declining cardiovascular mortality after smoking is banned in public places or reducing ambient air pollution provide examples of benefits for health of successful actions addressing the environmental determinants of health.

Early disease: screening and early diagnosis

238. The earliest possible detection of disease and the best possible integrated and multidisciplinary care are required when the disease is established and effective treatment exists. For example, about one third of cancer cases can be cured if they are detected and effective treatment is started early enough. Raising awareness of the early signs and symptoms of cancer among the public and health professionals can lead to its detection at earlier stages of the disease (down-staging) and more effective and simpler therapy. Where health systems can support an organized, population-level screening programme, screening can prevent disability and death and improve the quality of life. For example, evidence indicates the effectiveness of screening for the early detection of breast and cervical cancer in countries with sufficient resources to provide appropriate treatment.

239. Other proven screening procedures include screening individual people for elevated risk of cardiovascular disease using an overall risk score approach, based on age, sex, smoking history, diabetes status, blood pressure and the ratio of total cholesterol to high-density lipoproteins. Combination drug therapy (aspirin, beta-blockers, diuretic agents and statins) for people with an estimated overall risk of a cardiovascular event exceeding 5% during the next 10 years has been shown to be very cost-effective in all WHO regions.

Preventing disability

240. Chronic noncommunicable diseases can be major causes of disability, such as blindness and lower-limb amputation for people with diabetes or motor dysfunction following stroke. Musculoskeletal disorders are estimated to account for half of all absence from work and for 60% of permanent work capacity lost in the EU.

241. This is not inevitable. Prompt and effective treatment can be curative and/or reduce the chances of recurrence or long-term consequences; rehabilitation and improved models of care can shift conditions from being disabling to manageable; and adjustments to the home and work environment can keep people independent and economically active. For example, following myocardial infarction, cardiac rehabilitation with a focus on exercise is associated with a significant reduction in mortality; treatment of stroke, for example, through stroke unit care, reduces the proportion of those dying or depending on others for their primary activities of daily living by 25%. Further, although the prevalence and severity of many chronic conditions typically increase as people get older, they are not an essential consequence of ageing; if people are empowered to remain healthy into old age, morbidity can be compressed into a few short months before death.

242. Palliative care is an integral part of long-term care, supporting people so they can achieve the best quality of life possible at the end stages of their disease and providing a peaceful and painless end to life. Most typically associated with cancer, such end-of-life care is beneficial for people with several chronic conditions. Simple and relatively inexpensive measures such as improving access to oral morphine for adequate pain relief can improve the quality of life of many people.

Key WHO strategies

243. There are key WHO strategies of relevance at both the global and regional levels.

244. At the global level, these are:

- the WHO Framework Convention on Tobacco Control – the first international treaty negotiated under the auspices of WHO – which entered into force on 27 February 2005;
- Global Strategy for the Prevention and Control of Noncommunicable Diseases (2000) and its 2008–2013 Action Plan for implementation (2008);
- Global Strategy on Diet, Physical Activity and Health (2004);
- Global strategy on infant and young child feeding (2002); and
- Global strategy to reduce the harmful use of alcohol (2010).

245. The following charters from WHO ministerial conferences are relevant:

- the Bangkok Charter for Health Promotion in a Globalized World (2005); and
- the Moscow Declaration from the First Global Ministerial Conference on Healthy Lifestyles and Noncommunicable Disease Control (2011).

246. The following strategies exist at the WHO European Region level:

- European Strategy for the Prevention and Control of Noncommunicable Diseases (2006) and draft European Action Plan for its implementation for presentation at the sixty-first session of the WHO Regional Committee for Europe;
- European Strategy for Tobacco Control (2002);
- framework for alcohol policy in the WHO European Region (2005) and draft European Alcohol Action Plan 2012–2020 for presentation at the sixty-first session of the WHO Regional Committee for Europe;
- European Action Plan for Food and Nutrition Policy 2007–2012 (2007);
- Children's Environment and Health Action Plan for Europe (2004);
- European strategy for child and adolescent health and development (2005); and
- Mental Health Action Plan for Europe (2005).

247. The following charters from WHO ministerial conferences are also relevant:

- Parma Declaration on Environment and Health (2010); and
- European Charter on Counteracting Obesity (2006).

Challenges, promising developments and opportunities

248. There have been several important developments in noncommunicable diseases during 2011. Actions plans for both noncommunicable diseases and alcohol will be presented to the WHO Regional Committee for Europe at its sixty-first session in September 2011.

249. The First Global Ministerial Conference on Healthy Lifestyles and Noncommunicable Disease Control took place in Moscow in April 2011 with its outcome, the Moscow Declaration, then being endorsed by the World Health Assembly in May 2011. In September 2011, there will be a United Nations General Assembly High-level Meeting on the Prevention and Control of Noncommunicable Diseases. This will particularly feature the four main noncommunicable diseases – cardiovascular disease, cancer, chronic lung diseases and diabetes

– and it will link the noncommunicable disease and development agendas. WHO published a new *Global status report on noncommunicable diseases* in April 2011 to provide a baseline to chart future noncommunicable diseases trends and responses in countries.

The equity lens

250. Inequity in noncommunicable diseases accumulates over the life course. Considering gender and other social determinants is essential to designing, developing and implementing programmes to tackle noncommunicable diseases. It would enhance programme coverage and effectiveness, since the accessibility, appropriateness and acceptability of health services are socially determined. It would also lower economic costs related to reduced productivity and increase demands on the health and social protection systems because of inequities. There is considerable scope for the health system to act to reduce inequities in health by improving collaboration among programmes within health and by improving the health system's investment in intersectoral action to develop the conditions for more equitable population health outcomes.

251. Socioeconomic determinants can affect the uptake of screening. A review of cervical screening programmes in 57 countries worldwide found that older and poorer women, those with the highest risk of developing cervical cancer, are least likely to be screened. A review of 22 countries in the European Region found greater inequality in the use of cancer screening according to socioeconomic position in countries without population-based cancer screening programmes. These and similar studies highlight the potential benefits of population-based rather than opportunistic screening programmes and the importance of monitoring the uptake of screening programmes to take account of sex, socioeconomic status, ethnic group and other determinants. Apart from health service design considerations, reducing inequity in screening coverage requires considering communication strategies and working with communities to overcome potential cultural and other barriers and design more responsive approaches.

252. Powerlessness has emerged as a key risk factor in causing disease, and evidence suggests that empowerment is not just a set of values but also leads to positive outcomes. Empowerment, especially of the most vulnerable groups such as mental health service users, leads to tangible benefits at the biological, mental and societal levels. Helping people to self-manage their health conditions improves clinical and other outcomes. Involving family, informal caregivers and patient and voluntary groups in designing and delivering care can lead to more person-centred approaches. Improving health literacy can help people to interact effectively with health and other services and be active partners in managing their disease.

253. Finally, existing survey instruments need to be re-evaluated with the inequality (gender and socioeconomic status) lens. Data in reports and during dissemination need to be presented with this inequality lens.

Key actors

254. This is a complex area, with many of the risk factors and determinants lying outside the health sector. Collaboration between health, finance, development, agriculture, transport, environment, and education ministries is particularly important. The most challenging health problems require engagement with stakeholders outside of government: international bodies, bilateral agencies, professional associations and nongovernmental organizations, the private sector and academe. Many of the influences on noncommunicable diseases cross borders, such as tobacco and food products, as do some of the potential solutions such as financial and development assistance and health care workers. Supranational influences need forums for finding supranational solutions. Noncommunicable disease impact assessment needs to be carried out on national human and economic development policies, policies on bilateral and multilateral aid and regional trade agreements, to name but a few.

255. Alliances and networking are a fundamental mechanism for achieving results. A promising development in the last few years has been the development of the NCDnet (Global Noncommunicable Disease Network), which is a partnership between United Nations agencies, intergovernmental organizations, academe, research centres, nongovernmental organizations and business communities. Within Europe, a European Chronic Disease Alliance has developed, with 10 not-for-profit, science-based organizations representing more than 100 000 health professionals joining forces.

256. In addition, a Global Alliance for Chronic Disease has also emerged for concerted action against noncommunicable diseases between institutions collectively managing an estimated 80% of all public health research funding. Further to this is the need to get research evidence into the hands of policy-makers to avoid the potential disconnect between experts on noncommunicable diseases, who are already aware of what the data show, and the non-experts, who are relatively unaware. Data, analysed, interpreted and communicated, can be powerful and add strategic value.

257. The private sector, including industry, is an important actor both in terms of the health of employees and the wider influence in terms of specific products, such as food, drinks and pharmaceuticals. There is wide scope for interaction with the private sector, but the interaction can be challenging, and clarity is needed on potential conflicts of interest to avoid the private sector gaining competitive advantage or influencing norms.

258. Finally, given the long-term and often lifelong nature of noncommunicable diseases, interaction between social actors need to be involved for both health and social care and addressing how disease affects everyday life. For example, people with chronic conditions can face discrimination in workplaces and schools.

Governance issues

259. Preventing and controlling noncommunicable diseases require first and foremost a whole-of-society response between the public sector, civil society and the private sector. The wider determinants of the noncommunicable disease epidemic lie largely outside the control of the health sector, such as trade and fiscal policies, access to education and health care and urban planning and design. Tackling the problem requires engaging with stakeholders outside government: international bodies, bilateral agencies, professional associations, nongovernmental organizations, the private sector and academe. Governance for preventing and controlling noncommunicable diseases requires mechanisms that facilitate joint work across (and within) sectors and at all levels of government: national, regional and local.

260. Multiple potential actions can be taken across sectors and levels of government. Perhaps the most immediate and vital is full regional implementation of the WHO Framework Convention on Tobacco Control together with whole-of-government action on legislation, prices, access to tobacco products and an increase in nonsmoking environments. Whole-of-government interventions are also needed immediately to control availability and to reduce alcohol consumption through price and other mechanisms.

261. Within the European Region, countries already have many types of broad and issue-specific policies relating to preventing and controlling noncommunicable diseases in place, but the coordination between these may be weak. An overarching policy framework and mechanisms such as defining shared goals and targets, common information systems, joint project implementation, common mass-media messages, joint planning and priority-setting activities are needed to achieve a more integrated policy approach.

262. Health services need to be capable of dealing with the modern manifestations of communicable diseases. Nevertheless, the traditional acute episodic care model is poorly

equipped to meet the long-term needs of people with chronic conditions. Problems of integrated and coordinated care often arise at the interface of primary and secondary care, health and social care and curative and public health services and among professional groups and specialties. These can be exacerbated by structural divisions, separate legal and financial frameworks, separate cultures and differences in governance and accountability. Structured approaches to managing these conditions are needed, with service delivery models characterized by collaboration and cooperation across boundaries and among professions, providers and institutions to benefit the people with noncommunicable diseases. Coordination of care is key, and primary health care services have an important role to play. Health system mechanisms, such as payment systems, need to encourage rather than discourage coordination and to facilitate continuity of care.

What can be achieved?

263. Two disease groups, cardiovascular diseases and cancer, cause almost three quarters of mortality in the WHO European Region, and three main disease groups, cardiovascular diseases, cancer and mental disorders, cause more than half the burden of disease (measured using DALYs). Much premature mortality is avoidable: estimates indicate that at least 80% of all heart disease, stroke and type 2 diabetes and at least one third of cancer cases are preventable. Inequality in the burden of noncommunicable diseases within and between countries demonstrates that the potential for health gain is still enormous.

264. The main priority is to implement effective interventions more equitably and to scale, ensuring that existing knowledge is better and more equitably applied. The noncommunicable diseases share many common risk factors, underlying determinants and opportunities for intervention along both the course of disease and the life course. For example, seven leading risk factors (tobacco use; alcohol consumption; high blood pressure; cholesterol; overweight; low fruit and vegetable intake and physical inactivity) account for almost 60% of the burden of disease in Europe. Taking an integrated and common risk factor approach to disease prevention and a chronic care approach are likely to benefit several conditions simultaneously.

265. The European Strategy for the Prevention and Control of Noncommunicable Diseases promotes a comprehensive and integrated approach to tackling noncommunicable diseases; promoting population-level health promotion and disease prevention programmes; actively targeting groups and individuals at high risk; maximizing population coverage of effective treatment and care; and integrating policy and action to reduce inequity in health.

266. In terms of potential effects on mortality and morbidity, five potential actions warrant focus:

- fiscal and marketing action: for example, on tobacco, food and alcohol content;
- reducing consumption of *trans*-fat and saturated fat;
- reducing salt consumption;
- assessing and managing cardio-metabolic risk; and
- early detection of cancer by improving awareness of early signs and symptoms and by screening.

267. Added to this is consideration of vaccination for the vaccine-preventable types of cancer (hepatitis B for liver cancer and human papillomavirus for cervical and other types of cancer). In terms of potential effects on quality of life, a further area deserving special mention is palliative (end-of-life) care, especially effective pain management. Synergistic links with environment and health would add to the effectiveness of noncommunicable disease prevention

and control, such as promoting active transport through urban design and promoting health in the workplace.

Mental health

Situation analysis

268. Mental disorders are the second largest contributor to the burden of disease (DALYs) in the European Region (at 19%) and the largest cause of disability. The ageing population leads to an increase of the prevalence of dementia. Common mental disorders (depression and anxiety) affect about 1 in 4 people in the community every year. However, about 50% of people with mental disorders do not receive any form of treatment. Stigma and discrimination are major reasons why people avoid seeking help.

269. Mental health is a major contributor to inequity in health in Europe. Mental health problems have serious consequences not only for the individual and their families but also for the competitiveness of the economy and the well-being of society. Poor mental health is both a consequence and a cause of inequity, poverty and exclusion. Mental health is also a strong risk factor for the morbidity and mortality of other diseases. It has been demonstrated that the presence of especially depression strongly affects the survival rates of cardiovascular diseases and cancer. Depressive disorder is twice as common among women as among men.

270. Nearly all countries in the European Region have mental health policies and legislation, but the capacity and quality of services is uneven. Whereas some countries have closed or reduced the number of institutions and have replaced them with a variety of community-based services, many other countries still rely on basic and traditional psychiatric services and use up to 90% of the mental health budget on mental institutions. Investment in well-being programmes and preventing disorders in childhood, often the precursors of lifelong suffering, is negligible.

271. The most cost-effective intervention at the population level is creating employment, either in the public sector or by creating incentives for expanding the private sector. Of growing interest is the interface between employment and mental health, since occupational health services can identify people at risk at an early stage. This can also contribute to a healthy and productive workforce, with secondary benefits for families and communities.

272. For groups at higher risk, public health interventions such as screening and information can be effective. People with mental health problems need to be detected in primary care, and people with severe conditions should be referred to specialist services.

Solutions that work

273. Challenges for mental health include sustaining the population well-being at times when economic growth is small and public expenditure is facing cuts. This may result in higher unemployment and an increase in poverty, with an associated risk of depression, while mental health services risk cuts.

274. Some countries are responding to the threat to population mental health by expanding counselling services. Awareness is also growing of the association between debt and depression, and debt advice services are playing crucial roles in providing financial security.

275. The threat to public mental health offers opportunities to establish links between sectors that rely on each other but do not traditionally work together such as benefit offices, debt

counsellors and community mental health services. Coordination is essential for effectiveness and efficiency, and community mental health personnel are well positioned to take this role.

276. WHO has produced the mental health Gap Action Programme (mhGAP), which specifies effective interventions for mental disorders. The WHO Regional Office for Europe is producing a mental health strategy that addresses ways to improve the mental well-being of the population, prevents the development of mental disorders and offers equitable access to high-quality services. The Regional Office is also working with countries to develop a mental health workforce competent to face the challenges.

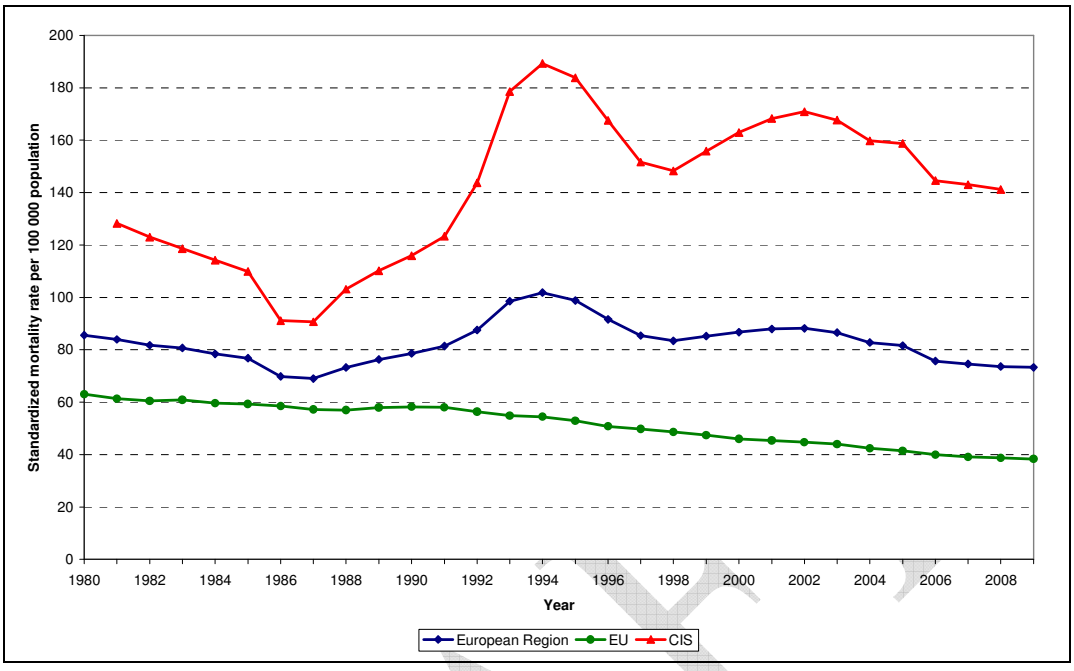
Injuries and violence

Situation analysis

277. Injuries, whether unintentional (from road traffic, poisoning, drowning, fires and falls) or intentional (due to interpersonal and self-directed violence), cause 800 000 deaths in the WHO European Region. They are the leading causes of death among people aged 5–44 years. The leading causes of the burden of injury are road traffic injuries, poisoning, interpersonal violence and self-directed violence. Injuries are responsible for 9% of the deaths in the Region but are responsible for 14% of the burden of disease as measured by DALYs. Although there has been a general downward trend, mortality rates from injuries have increased in times of socioeconomic and political transition (Fig. 3). Injuries are a major cause of health inequities in the Region, and mortality rates in CIS countries are still 4 times higher than those in the EU, and 76% of the deaths are in the low- and middle-income countries.

278. Within countries, injuries and violence are strongly linked to socioeconomic class and cause health inequities. There are cross-cutting risk factors for the different types of injury, such as alcohol and drug misuse, poverty, deprivation, poor educational attainment and unsafe environments. These cut across other disease areas such as noncommunicable diseases, presenting opportunities for joint action. Many of these risk factors are socially determined. In developing preventive strategies, the underlying structural factors need to be addressed as well as the modification of individual and population-level risk behaviour.

Fig. 3. Standardized mortality rates per 100 000 population for all injuries in the WHO European Region, EU and CIS, 1980–2009



Source: European Health for All database [online database].

Solutions that work

279. The Region has some of the safest countries in the world. If all countries were to match the lowest national mortality rates from injuries, an estimated half million lives lost from injuries could be saved in the Region. Countries with low injury rates have invested in safety as a societal responsibility and have achieved this by combining legislation, enforcement, engineering and education to achieve safe environments and behaviour (such as on the roads, at home and in nightlife venues). These responses involve sectors other than the health sector, and the challenge in preventing and controlling violence and injuries lies in ensuring that these are placed high on the agenda of policy-makers and practitioners from the health sector and other sectors. A life-course approach is advocated, and interventions targeted early in life will lead to benefits in later years and across generations.

280. Evidence on effective strategies to prevent injuries and violence is growing, and many strategies have been shown to be cost-effective, showing that investing in safety produces benefits for society at large. For example, every €1 invested in child safety seats saves €32; for motorcycle helmets the saving is €16, €69 for smoke alarms, €19 for home visitation schemes educating parents against child abuse, €10 for preventive counselling by paediatricians and €7 for poison control centres. WHO has proposed 100 evidence-informed interventions, and implementing these would dramatically reduce the inequities in the burden of injuries across the Region. These include a range of population-level and individual approaches to prevention, such as mitigating alcohol misuse, a major risk factor for injuries and violence. Interventions at the population level that are cost-effective are regulation, considering pricing policies, regulating advertising and, at the targeted level, brief counselling by physicians. The WHO strategy is to work with Member States to advocate for implementing the 100 programmes, underpinned by WHO Regional Committee for Europe resolution RC55/R9 on the prevention of

injuries. Periodic surveys show that good progress is being made, although much more needs to be done.

281. Examples of specific areas of action include the United Nations Decade of Action for Road Safety 2011–2020, launched on 11 May 2011. Many countries in the Region have mainstreamed road safety into their national agenda. WHO is working with health ministries and other partners to try to achieve national targets, which in many countries are to halve the number of road traffic fatalities by 2020. To advocate for halting the cycle of violence, adverse childhood experience surveys are being undertaken in several countries. Survey results are presented at national policy dialogues where interventions for child maltreatment prevention are given priority for mainstreaming into child health and development programmes. Greater action is also being sought in two other neglected areas of policy: preventing youth violence and preventing elder maltreatment.

Key actors and partners

282. Preventing injuries and violence requires multisectoral action. Health systems have a leadership role in coordinating a response from sectors and stakeholders to ensure that prevention is put at the forefront of their business. There is a wide range of stakeholders in the Region, including the European Commission, other United Nations organizations such as UNICEF and the United Nations Economic Commission for Europe, bilateral agencies, philanthropies, professional associations and nongovernmental organizations, WHO collaborating centres, academe and the private sector, such as the transport industry. Existing public health groups, such as the European Public Health Association (EUPHA) and the Association of Schools of Public Health in the European Region (ASPHER), have a growing interest in preventing violence and injury. Health ministry focal points for violence and/or injury prevention (at least one in each country) are key national partners for WHO. They shape and deliver on the regional agenda at the national level and are working with WHO to implement the shared vision Live without Injuries in Europe (LIVE). To achieve this, focal points are developing partnerships with other sectors at the national level.

Governance issues

283. Dealing with the wider societal and environmental determinants of injuries and violence requires a whole-of-society approach. Preventing injury and violence is multisectoral, and governance mechanisms are needed for the health sector to engage with other sectors that are critical as partners in prevention, such as those responsible for justice, transport, education, finance and social welfare. This requires a whole-of-government approach and can be facilitated by United Nations General Assembly resolutions (such as those on road safety and the rights of the child). Safety has to be put at the forefront of the agenda of other sectors. The United Nations Decade of Action for Road Safety is one example in which multisectoral action has been promoted.

Equity lens

284. Many countries need to develop a more just and equitable social and health policy to overcome the steep social inequities in health. Investing in prevention programmes in early childhood with a focus on socioeconomic deprivation at the population level (such as universal access to education for all children and social skills training in school curricula) or targeted programmes (such as positive parenting training and health visitation programmes in deprived neighbourhoods) will help to mitigate against inequity in early life and therefore help to prevent violence in later life, thereby breaking the cycle of violence and promoting equity in health. Promoting greater gender equity (such as by implementing gender equality laws) will contribute towards preventing gender-based violence. Implementing population-based measures through

legislation (such as minimum pricing for alcohol and speed control on roads) would help address the inequities seen in interpersonal violence and road traffic injuries.

What can be achieved?

285. Inequities in the burden of injuries can be reduced by implementing evidence-informed interventions. WHO has proposed 100 such programmes for implementation and is monitoring this. The challenge for preventing injuries and violence is to promote the implementation of such measures. Since some are outside the remit of the health sector, health systems need to strengthen their role as a steward for equitable prevention. This includes: advocacy and policy development, prevention and control, surveillance, research and evaluation and providing services for the care and rehabilitation of injury victims. To assist the health sector in fulfilling these roles, capacity can be built through WHO's TEACH VIP curriculum by mainstreaming it into curricula for health professionals.

Communicable diseases

Situation analysis

286. Despite ranking low as a cause of DALYs in the European Region, communicable diseases continue to cause significant and avoidable illness and premature death throughout the European Region. Although spectacular progress has been achieved in many countries, such as in controlling poliomyelitis, measles, malaria and the mother-to-child transmission of HIV, the European Region is experiencing serious challenges in the control of HIV infection, TB and vaccine-preventable diseases, and the emergence of antibiotic-resistant organisms raises general concerns for sustaining the overall progress made in controlling infectious diseases in the Region. In addition, the continual introduction of exotic infectious agents, many with epidemic potential, by numerous international travellers and a global food chain, further underline the importance of remaining highly vigilant and committed to preventing and controlling communicable diseases.

287. A general complacency regarding the risk posed by infectious diseases hampers the control of communicable diseases in the European Region, too often leading to poor infection control, insufficient vaccination coverage and misuse of antibiotics. This complacency exists despite:

- the worrying emergence of pathogens resistant to antimicrobial drugs, especially to antibiotics;
- the dramatic return in the European Region of vaccine-preventable diseases previously close to elimination such as measles, rubella and poliomyelitis;
- frequent foodborne outbreaks; and
- an increasingly globalized and interconnected world that has led to the importation into the European Region in recent years of epidemic-prone diseases such as the severe acute respiratory syndrome (SARS) and H1N1 influenza.

288. However, one of the main obstacles to effectively controlling communicable diseases, especially in vulnerable, mobile, stigmatized or hard-to-reach populations, remains inadequate access to health services in many parts of the European Region.

289. Uncontrolled communicable diseases in the European Region also cause significant economic damage that could often be prevented. This includes substantial absenteeism because of vaccine-preventable diseases such as seasonal influenza as well as significant losses in tourism, trade and transport caused by unexpected outbreaks such as meningitis or legionellosis.

In addition to influenza, TB and HIV infection, communicable diseases of significant public health importance in the WHO European Region include:

- viral hepatitis (A, B and C);
- infections associated with health care, many with drug-resistant organisms;
- several epidemic-prone diseases leading to outbreaks of vaccine-preventable diseases such as measles and poliomyelitis;
- legionellosis;
- foodborne outbreaks;
- typhoid;
- zoonoses such as brucellosis and anthrax; and
- outbreaks of vector-borne diseases such as Crimea-Congo haemorrhagic fever, West Nile fever or dengue.

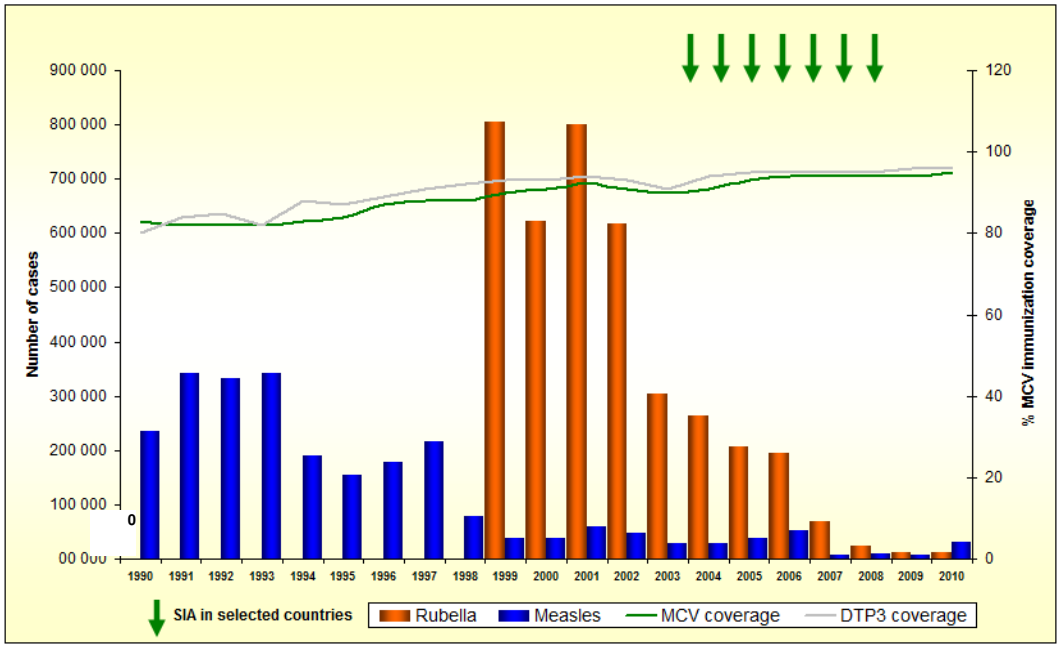
290. The region also continually imports infectious agents endemic in other regions, notably *Plasmodium falciparum* malaria and cholera.

291. Active partnership with Member States and with key institutions in the European Region such as the European Centre for Disease Prevention and Control (ECDC), specialized WHO Collaborating Centres, large national institutions such as the Russian Agency for Health and Consumer Rights (Rospotrebnadzor), international organizations such as UNICEF, the Joint United Nations Programme on HIV/AIDS (UNAIDS), the Food and Agricultural Organization of the United Nations, World Organisation for Animal Health, the Global Fund to Fight AIDS, Tuberculosis and Malaria, Global Alliance for Vaccines and Immunization (GAVI) and major foundations such as the Bill & Melinda Gates Foundation.

Vaccine-preventable diseases

292. The creation of national immunization programmes several decades ago led to a high acceptance and remarkable successes for vaccination, with coverage rates exceeding 90% for most vaccines. However, in recent years the trend has been towards lower coverage rates. Risk perception has shifted towards the adverse events associated with vaccines rather than the dangers of the disease when people are not vaccinated. Anti-vaccination groups have exacerbated this altered risk perception. The return of measles, especially in the western part of the European Region, and of poliomyelitis in central Asia should urgently be interpreted as a serious wake-up call for all countries in a European Region declared polio-free in 2002 and that initially aimed at eliminating measles and rubella by 2010, now set for 2015. Other childhood vaccines against mumps, varicella, tetanus, pertussis and diphtheria remain crucial public health tools and life-saving interventions (Fig. 4).

Fig. 4. Measles and rubella incidence and vaccination coverage for measles-containing vaccine (MCV) and diphtheria-tetanus-pertussis vaccine (DTP3) in the WHO European Region, 1990–2009



Source: WHO/UNICEF Regional Coverage estimates; WHO/UNICEF Joint Reporting Form and measles and rubella monthly reporting to CISID [online database]

293. The introduction of new, safe, effective and affordable vaccines will also contribute directly to better health by 2020. This includes the introduction of effective and safe vaccines against *Haemophilus influenzae* type B, invasive pneumococcal disease, viral hepatitis B, meningococcal meningitis, rotavirus and against human papillomavirus to prevent cervical cancer. The latter shows the recently proven importance of infectious agents in the development of specific types of cancer, building a bridge between communicable and noncommunicable diseases.

Solutions that work

294. Vaccines, despite side effects, including serious ones in rare instances, are evidence-informed interventions that have largely been responsible for the dramatic decrease in child mortality in the European Region, especially in the second half of the 20th century. This gain should not be lost, and specific advocacy campaigns, such as the European Immunization Week, must be developed further. Although the implementation of national immunization programmes and the introduction of new vaccines are a challenge in some countries, the mobilization of WHO and its partners such as UNICEF, the Global Alliance for Vaccines and Immunization (GAVI), the Rotary Foundation, the Program for Appropriate Technology in Health (PATH) and the Bill & Melinda Gates Foundation will significantly contribute to rebuilding the momentum on these evidence-informed interventions. This will materialize with the Decade of Vaccines 2011–2020 initiative, which involves the whole health system as well as the private sector, including industry and nongovernmental organizations, and the whole society. The annual European Immunization Week, now implemented in virtually all countries in the European Region, will further increase the public awareness about the unique value of vaccines, which Bill Gates says is “the best investment we can make”.

Antimicrobial resistance

295. Between 1944 and 1972, life expectancy increased by eight years in the European Region, and introducing antibiotics contributed significantly to this. This gain is at risk today as antimicrobial resistance is becoming a growing and alarming problem across the world, including in the European Region. These life-saving drugs are becoming ineffective or dramatically expensive, posing serious technical and financial challenges to the people who use them, physicians and health systems in all countries, especially resource-limited countries. This is true for many common bacterial infections, such as urinary tract infections and pneumonia, but even more striking in the treatment of TB, which increasingly faces resistance to first-line but also second-line antibiotics (multidrug-resistant and extensively drug-resistant TB).

296. Resistance to antibiotics is high in the 27 EU countries and reached 25% or more in several countries. This has led, in the EU alone, to an estimated 25 000 extra deaths each year and additional health care costs and societal costs of at least €1.5 billion.

297. Further, antibiotic-resistant bacteria can easily cross borders, as shown with the well-documented international spread of bacteria containing the New Delhi metallo-beta-lactamase 1 (NDM-1) enzyme that makes them resistant to a broad range of antibiotics, including those, such as carbapenem, already used to treat antibiotic-resistant infections. This situation is of particular concern in the absence, during the past three decades, of the development of affordable and effective new classes of antibiotics, especially against gram-negative bacteria.

298. The emergence of drug-resistant organisms is now well understood and is the result of misuse of antibiotics, which are being underused or overused in human medicine but also in animal agriculture. Poor infection control measures, especially within hospitals and clinics, directly contribute to spreading drug-resistant organisms through health care–associated infections.

Solutions that work

299. Broad and intersectoral partnership for action is urgently needed to reduce the misuse of antibiotics. New surveillance initiatives with partners such as the European Centre for Disease Prevention and Control will better document the extent of antibiotic resistance in the whole European Region. Joint work is also needed with the agriculture sector, in which antibiotics are often used as a growth promoter in animals, contributing to antimicrobial resistance. Overall, the message is not “do not use antibiotics” but rather “use antibiotics correctly”. The strategic action plan to contain antibiotic resistance in the WHO European Region builds on interventions that, carried out together, have been effective, for instance, in Scandinavian countries. The action plan includes seven key areas:

1. promote national intersectoral coordination;
2. strengthen surveillance of antimicrobial resistance;
3. strengthen surveillance and promote stewardship of antimicrobial drug use;
4. strengthen surveillance of resistance to and use of antimicrobial agents in the food animal industry;
5. improve infection control and stewardship of antimicrobial resistance in health care settings;
6. promote research and innovation on new drugs and technology; and
7. ensure patient safety and improve awareness of antimicrobial use and resistance.

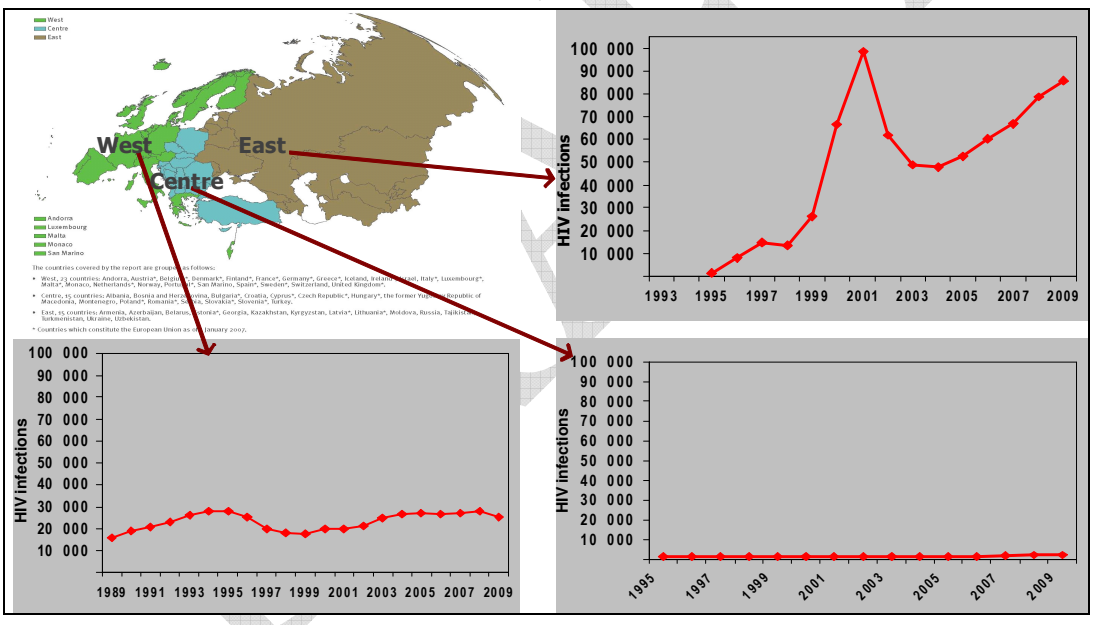
300. Importantly, studies have shown that simple infection control measures such as washing hands can alone significantly reduce the prevalence of antibiotic-resistant bacteria such as the widely spread methicillin-resistant *Staphylococcus aureus* (MRSA), a major nosocomial (hospital-acquired) infection.

301. The WHO Regional Director for Europe has made containing antibiotic resistance a special programme under her leadership.

HIV infection

302. In the European Region, the HIV epidemic (Fig. 5) shows striking different epidemiological patterns: the epidemic is contained in the western part of the Region, at an early stage in the centre of the Region and still rapidly increasing in the eastern part of the Region. Although the epidemic affects essentially some populations at higher risk, the continual increase in the number of people newly diagnosed with HIV infection in the eastern part of the Region is a feature unique within the Region but also globally.

Fig. 5. Number of people newly diagnosed with HIV infection by geographical area in the WHO European Region, 1989–2009



Source: HIV/AIDS surveillance in Europe 2009. Stockholm, European Centre for Disease Prevention and Control/WHO Regional Office for Europe, 2010.

303. In addition to this unique epidemiological feature, eastern Europe and central Asia has one of the lowest global rates of coverage of antiretroviral therapy for people living with HIV who need treatment: less than 20%.

304. Overall, the prevalence and economic burden of HIV infection are likely to increase as a result of increasing numbers of people acquiring HIV infection, prolonged survival due to antiretroviral therapy, the ageing of people living with HIV and the increased risk of other chronic diseases. In the near future, HIV will rank as one of the most costly chronic diseases.

305. Further, within the WHO European Region, people living with HIV have been and still are denied entry into or deported from some countries because of their positive HIV status, a situation that contributes to stigmatization and has been shown not to help in controlling the epidemic, which is primarily based on universal access to HIV prevention, treatment, care and support.

306. However, there are positive signs of change: for example, countries in the eastern part of the European Region have demonstrated good progress in integrating HIV prevention with maternal, newborn and child health services and, as a result, 93% of pregnant women in the European Region received antiretroviral prophylaxis for preventing the mother-to-child transmission of HIV.

Solutions that work

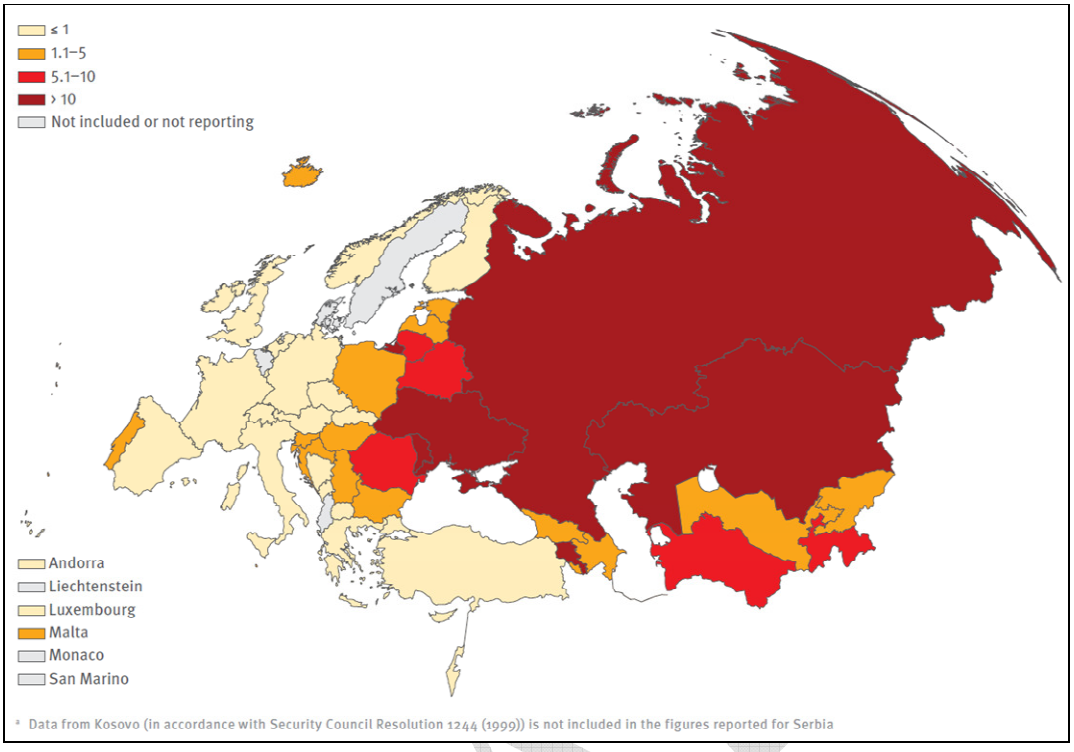
307. Countries in the WHO European Region have the potential to significantly change the situation and reverse the course of the HIV epidemic. Sufficient scientific evidence and experience from projects and interventions implemented in the European Region supports effective policies and interventions that can promote an effective response to the HIV epidemic. There is clear demonstrated value in strengthening political mobilization and leadership in the response and concentrating on key populations at higher risk of exposure to and transmission of HIV. The way HIV programmes and services are designed and delivered in some countries needs to be fundamentally changed. Achievements in the global HIV response have often been based on a range of well-funded but separate activities. In close partnership with governments, UNAIDS, civil society and the Global Fund to Fight AIDS, Tuberculosis and Malaria, the time has come to increasingly promote linkage and integration of HIV and AIDS national programmes with broader health and development agendas. This is the aim of the European Action Plan on HIV/AIDS 2012–2015.

308. Prevention strategies can be adopted more widely to control the growing burden of the HIV epidemic and other chronic diseases affecting people living with HIV, and experience has shown that groups of people living with HIV, and other civil society groups, can best propose these strategies. Ways should be considered to enable such groups to have a voice in countries in which HIV infection is increasing and treatment is not keeping pace.

Tuberculosis

309. In 2009, an estimated 420 000 new cases of TB (47 per 100 000 population) occurred in the European Region (Fig. 6), and 62 000 deaths were attributed to TB (7 per 100 000 population). The European Region has the highest case detection rate worldwide (79%), and the vast majority of TB cases occur in the eastern and central parts of the Region, representing 87% of the new cases of TB and 92% of the mortality caused by TB. The Region also has the lowest treatment success rate globally, with 70% among newly treated people with TB and only 44% among previously treated people with TB. This shows an unusually high rate of TB resistance to antibiotics, to such a point that the European Region contains the world's top 15 high-burden countries for multidrug-resistant TB. If this situation is not contained, it may lead to the general loss of effective drugs against TB and the return to the pre-antibiotic era.

Fig. 6. TB mortality rate per 100 000 population, WHO European Region, 2007–2009



Source: Tuberculosis surveillance in Europe 2009. Copenhagen, WHO Regional Office for Europe, 2009 (http://www.euro.who.int/en/what-we-do/health-topics/communicable-diseases/tuberculosis/news2/news/2011/03/new-report-tuberculosis-surveillance-in-europe-2009).

310. Although TB is not the exclusive preserve of any social class, the disease is often linked to poor socioeconomic conditions. Similar to HIV, people who inject drugs and prisoners are at higher risk for TB, as are alcoholics and homeless people. TB and HIV is a "deadly tandem", as TB is a leading killer among people living with HIV. It is also a challenging disease in the 12 600 children with TB notified each year in the Region.

Solutions that work

311. It is necessary to ensure that that everyone with TB, including those coinfected with HIV or who have multidrug-resistant TB, benefits from universal access to high-quality diagnosis and treatment. This has been shown to be effective in many countries in the European Region, but it has to be implemented in all of them. This will be done by building strong partnerships, particularly with the Global Fund to Fight AIDS, Tuberculosis and Malaria, and in a cross-cutting approach aiming at improving the health system overall. This is contained in the regional action plan to prevent and combat multidrug-resistant TB, which aims to reduce dramatically the overall burden of TB by 2015.

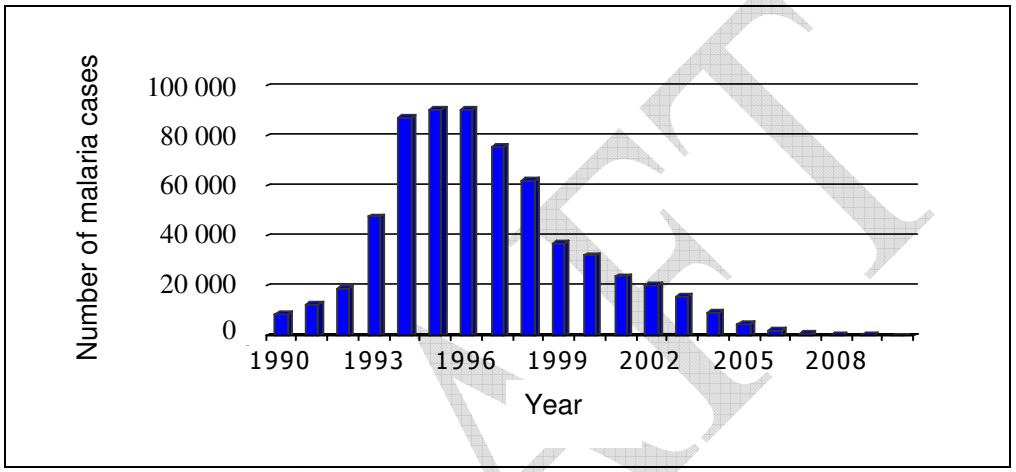
312. Since the disease is strongly associated with poverty and poor living conditions, efforts to combat it effectively must include improving living standards and nutrition and therefore must involve other sectors.

313. The WHO Regional Director for Europe has made containing TB, and especially multidrug-resistant TB, a special programme under her leadership.

Eliminating malaria by 2015

314. Spectacular progress has been made towards eliminating malaria (Fig. 7) in the European Region. Thanks to effective intervention against mosquito vectors, autochthonous (localized) cases of malaria have dropped from more than 90 000 cases in 1995 to less than 200 in 2010, all the latter caused by *Plasmodium vivax*. This remarkable achievement largely resulted from the strong political commitment of the affected countries, reinforced in 2005 by the Tashkent Declaration: The Move from Malaria Control to Elimination, signed by Armenia, Azerbaijan, Georgia, Kazakhstan, Kyrgyzstan, Tajikistan, Turkey, Turkmenistan and Uzbekistan.

Fig. 7. Autochthonous malaria cases, WHO European Region, 1990–2010



Source: CISID [online database].

Solutions that work

315. Eliminating malaria within the 2015 time frame is the key objective today. This can be done, as shown by the successes achieved in 2010, when Turkmenistan was declared malaria-free, while great progress was also reported in Armenia and Georgia. Nevertheless, elimination has not been achieved, and effort should continue unabated. Assuming that malaria will be eliminated, preventing the re-establishment of malaria transmission will be crucial, especially in the context of climate change and the re-emergence of other mosquito-borne diseases recently observed in the southern part of the European Region, including West Nile fever, dengue and chikungunya. Key partnerships have to be pursued with the Global Fund to Fight AIDS, Tuberculosis and Malaria and with new partners such as the European Mosquito Control Association.

316. Importantly, further research into vector biology is needed to make vector control in the European Region more effective, for the control of malaria and other mosquito-borne diseases but also for better control of significant foci of other vector-borne parasitic diseases such as leishmaniasis in the southern part of the Region.

Influenza and other respiratory infections

317. After pandemic H1N1 influenza emerged in 2009 and rapidly spread across the world, including in the European Region, although fortunately with mild severity, awareness has increased of the potentially catastrophic damage that influenza may cause. Nevertheless,

seasonal influenza alone causes recurrent waves of widespread respiratory infections, leading to significant direct and indirect social and economic cost. Estimates from France and Germany indicate that the annual cost of seasonal influenza varies between US$ 1 million and US$ 6 million per 100 000 inhabitants.

318. Although routine monitoring of influenza in outpatient settings is strong in the European Region, surveillance for severe influenza leading to hospitalization or death is limited. Lack of data on severe disease contributes to the misconception that influenza is a relatively mild disease. Implementing surveillance systems for severe influenza to estimate the burden of disease and to provide empirical support for national decision-making about vaccine use is a key priority in the Region.

319. Vaccination is a safe and the most cost-effective means of reducing influenza-related morbidity and mortality. However, influenza vaccine uptake in higher-risk groups (such as older people and people with chronic underlying disease) remains low in most countries in the Region. In addition, low vaccination uptake among health care workers in direct contact with higher-risk groups presents a serious threat to their patients and has economic implications because of high staff absenteeism.

320. The National Influenza Centres recognized by WHO play a key role in global virological and epidemiological surveillance.

Solutions that work

321. Surveillance of influenza urgently needs to be increased across the entire European Region to better document its actual health and economic burden while influenza vaccine must be used on a much larger scale, by all countries in the Region, as recommended by WHO for older people and other higher-risk groups.

322. The WHO European influenza work plan has a four-pillar approach, including:

- strengthening influenza surveillance
- strengthening regional and national laboratory capacity
- increasing access to seasonal influenza vaccination and vaccination uptake
- strengthening pandemic preparedness.

323. Although sustaining the capacity of National Influenza Centres for routine influenza surveillance is a challenge in some countries, it is crucial since it is the only way (1) to detect influenza activity in a timely manner to anticipate the seasonal burden for and guide the health care system in contributing to the global influenza network that makes annual recommendations for the composition of seasonal vaccine for the Northern Hemisphere and (2) to identify novel influenza viruses with pandemic potential.

Trends in communicable diseases

324. With an ageing population, the European Region faces a larger population with weaker immune systems at risk for communicable diseases and some severe complications such as septicaemia. In the future, we may anticipate routine immunization programmes for older people just as there are for children. Vaccinations against influenza, pneumonia and herpes zoster may become part of these routine programmes and will require strategies for delivering the vaccines (such as at the workplace) and monitoring their administration.

325. As a centre of worldwide trade and travel, the European Region will continue to be continually exposed to the importation of various infectious diseases from endemic countries outside the Region, some being epidemic-prone, such as foodborne outbreaks and emerging zoonoses. Further, as conflicts and political tensions remain in a world in which biotechnology becomes increasingly affordable to many people, the deliberate use of infectious agents to cause harm cannot be ruled out.

326. The European Region, and particularly its growing large urban centres, will continue to see major migrant populations, large pockets of poverty and vulnerable groups with limited access to health care. These groups will maintain diseases such as measles and TB, which may spread to the general population from time to time.

327. Uncertainty remains on the effects of the development of rapid and do-it-yourself diagnostic tests, together with the proliferation of online medical advice. It may improve infectious disease awareness, prevention and control, but it may increase the misuse of antibiotics and fuel the emergence of drug-resistance organisms.

328. Overall, the WHO European Region must remain focused on achieving its essential targets related to controlling and eliminating communicable diseases and must constantly remain vigilant of the risk posed by communicable diseases in a rapidly ageing population that will become more and more susceptible. Systematic disease surveillance, strict infection control, universal access to and prudent use of antibiotics, comprehensive vaccination programmes and strengthened health systems are effective and crucial interventions for the Region to further control communicable diseases and then, hopefully, hold them back.

The equity lens

329. Although anyone may acquire a communicable disease, epidemiological evidence shows clearly that some vulnerable population groups, which are usually poorly integrated and have limited access to the health care system, are more likely to acquire infectious diseases. For instance, some socially marginalized groups are more likely to be living with HIV; poor and homeless people are more likely to have TB; and older people are known to be particularly prone to have influenza. As a consequence of various social determinants, inequity is created in societies and leads to population groups with higher vulnerability to various communicable diseases. Children younger than five years of age, who have to rely on other people to ensure their health status, are especially susceptible to both communicable diseases and the effects of socioeconomic inequity.

330. Access to vaccines is also a matter of equity. If access to vaccines requires user fees – especially childhood vaccines and annual vaccines such as influenza – people with low income are unlikely to receive them. Collaboration on disease surveillance and risk assessment is conducted with many intergovernmental and international agencies, especially the European Centre for Disease Prevention and Control.

Creating healthy and supportive environments for health and well-being

Physical environments

331. Ageing and longevity, urbanization, mobility, changing patterns of food production and consumption, water use, economic and political activities, occupational exposure, changes in land use and spatial planning and changes in biodiversity and exploitation of natural resources including energy are the main environmental determinants of health. Consequently, public

health interventions addressing those factors through primary disease prevention significantly influence human health and well-being.

332. The changing climate, the rapid introduction of new materials and technologies at the workplace and the increasing number of environmental health emergencies, both natural and human-made, can amplify existing health problems or the weaknesses of health systems. Socioeconomic inequities and the current global economic downturn hamper progress in reducing environmental health risks. In all countries, irrespective of country income, people with low income are much more at risk from unhealthy environments than those with higher income.

333. Achieving the Millennium Development Goals on environmental sustainability and reduced maternal and infant mortality requires that public health policies address environmental risk factors through evidence-informed approaches combined with multisectoral strategies. Emerging risks can require policy-makers to make rapid decisions, often in the face of high scientific uncertainty.

334. Sustainable development, including its most recent facet of green economics, is mainly driven by economic arguments and objectives aiming at increasing the overall wealth of countries (though not always reducing inequities) and does not profile human health and well-being very prominently. WHO, as the primary international health agency that defines health very broadly as well-being more than the mere absence of disease and as a fundamental human right, should attempt to influence the global agenda by advocating for stronger focus on the health and well-being objectives of sustainable development. These are important public goods in their own right, even when they do not result in immediate economic gains and may require public investment.

Situation analysis

335. Water supply, sewerage and sanitation remain unsatisfactory in many parts of the European Region. As indicated earlier, about 170 000 annual cases of water-related diseases are reported to WHO, and more than 13 000 annual deaths have been reported among children younger than 14 years in the period leading to the Fourth Ministerial Conference on Environment and Health. This important disease burden has many causes. Centralized water-supply systems often do not provide water that complies with the WHO guidelines for drinking-water quality at the point of consumption. In many cases, these systems are no longer capable of providing water directly to the home, thereby compromising the quantity of water that can be applied to hygiene and general environmental cleanliness. The WHO/UNICEF Joint Monitoring Programme (2008) estimates that almost 120 million people, mostly in the eastern part of the Region, have no household connection.

336. Sanitation systems are often even in worse shape, with sewerage systems not connected to effective wastewater-treatment plants. Leakage of sewerage systems in areas where water supply lines show high lead losses are a common cause of contamination of distributed water and hence disease.

337. Small-scale water supply and sanitation systems often have a higher failure rate in the microbial quality of the distributed water and the safe separation of humans from their waste. They therefore are commonly associated with a higher burden of water-related disease. The causes are multiple and include the lack of holistic risk assessment risk management from source to tap, the lack of training of owners and operators and deficient operation and management procedures.

338. Foodborne diseases are a growing public health problem, as the amount of food prepared outside the home has steeply increased recently. Ensuring safety throughout the increasingly complex food chain requires collaboration between the health sector, agriculture, food transport, food service establishments and the food industry. Food safety and security depends strongly on the availability of water, land-use policies and the availability of technological advances for improving food production, storage, transport and preparation.

339. Climate change is an especially compelling current issue. Climate scientists forecast that the continued accumulation of heat-trapping greenhouse gases in the troposphere will change global patterns of temperature, precipitation and climatic variability during the coming decades. A rise of 1–3°C during the next 50 years, greater near the poles than near the equator, would occur faster than any rise encountered by humanity since agriculture started about 10 000 years ago. Climate change will cause significant changes in the quality and availability of water resources, affecting many sectors including food production, where water plays a crucial role. As a result of climate change, societies will need to prepare for gradual changes in health outcomes, sudden extreme events (such as heat-waves and infectious disease outbreaks), an extra burden of disease and potential new conditions. Adaptation to climate change and action to reduce greenhouse-gas emissions require the active engagement and support of various sectors of government, the economy and civil society.

340. Water stress is projected to increase in central and southern Europe and central Asia, affecting between 16 million and 44 million additional people by 2080. Water quality is under constant pressure, and safeguarding it is important for the drinking-water supply, food production and recreational water use.

341. There are very significant environment and health problems in air pollution, noise, transport, urban health and housing. Examples include the following.

- In the European Region alone, exposure to particulate matter reduces every person's life expectancy by an estimated average of almost one year, mostly because of an increased risk of cardiovascular and respiratory diseases as well as lung cancer.
- Indoor air pollution from biological agents in indoor air related to damp and mould increases the risk of respiratory disease by 50%.
- Road traffic injuries remain the leading cause of death among people aged 5–29 years.

342. These situations are unlikely to be remedied without collaboration between the health sector and, among others, urban planners, manufacturing industries, the motor vehicle industry and the transport sector as well as those that design housing and legislate for housing standards. One way forward is to use the settings approach. In the 2008 Zagreb Declaration for Healthy Cities: Health and Health Equity in All Local Policies, city leaders stressed the importance of "integrating health and sustainable development considerations in how we plan, design, maintain, improve and manage our cities and neighbourhoods and use new technologies". Here WHO has catalysed action by other sectors that promote health.

Solutions that work

343. Although environment and health interventions involve a wide range of actors, the various environmental elements (such as air, water and noise) should be seen as a whole (the environment). Sectors such as transport, water management, sanitation, energy production, agriculture and others play a more significant role in protecting health than the health sector. Nevertheless, environmental health has been one of the oldest areas of public health from ancient times, bringing major improvements in human health and longevity. Provision of safe water and sanitation have been known since antiquity, and even modern public health has its

origins in addressing occupational and living environments that were considered as causes of ill health.

344. This is an area of public health in which intersectoral policies work on all levels, from a local community to the international arena. This is also an area in which the health sector has a distinctive role of precipitating public health interventions by other sectors, identifying risks and determinants of health and monitoring and evaluating the effects of policies and interventions.

345. As part of the primary prevention of diseases, efforts to improve urban planning, to enable increased physical activity and to enhance the mobility of ageing populations or people with disabilities improve people's health and well-being. Safer workplaces, public places and improved housing standards reduce the number of injuries and the exposure to environment and health risks from heat and cold and to chemicals and noise. Engineering solutions to road traffic significantly improve road safety for drivers and for pedestrians, greatly reducing the numbers of deaths and injuries in transport. Fiscal measures, including the pricing of water and sanitation services and taxing the emissions of pollutants (including greenhouse gases), promote clean technologies and the rational use of natural resources and conserve biodiversity.

346. WHO supports the implementation of a comprehensive risk assessment and risk management process called a water safety plan for all water suppliers in the European Region, regardless of their size. The second Meeting of the Parties to the Protocol on Water and Health to the 1992 Convention on the Protection and Use of Transboundary Watercourses and International Lakes recognized small-scale systems as a special area of concern. Under the leadership of the Czech Republic and Germany, a programme is underway for developing water safety plans in small-scale systems, for training personnel and for assessing the quality of supply and the burden of water-related disease in the service area. Fieldwork is ongoing in the eastern part of the European Region. A mirror programme led by the Women in Europe for a Common Future is active in the field of sewerage and sanitation.

347. Developing and promoting the use of biofuels provide a healthier alternative to carbon fuels used for indoor heating, removing one of the major causes of lung diseases.

348. The role of civil society groups is likely to be a particularly important factor in environment and health governance in the future. In many places, official concern for environment and health is a belated reaction to pressures from civil society. It is difficult to conceive of a future for environment and health without the active participation of civil society in both policy-making and implementation.

The European environment and health process

349. European Region countries launched the European environment and health process 20 years ago. The Fifth Ministerial Conference on Environment and Health took place in Parma, Italy in 2010. Countries adopted a new environment and health vision oriented towards health in all policies and made an explicit goal of using environment and health policies as a means to prevent noncommunicable diseases by addressing their environmental determinants. This significantly raised the profile of the European environment and health process.

350. The European environment and health process is a unique governance mechanism, as it involves ministries responsible for health and environment on equal footing, amplifies the links and synergy with a number of multilateral environmental agreements and enhances the partnership with other intergovernmental bodies, such as the United Nations Economic Commission for Europe, the United Nations Environmental Programme and the European Commission, and with civil society organizations.

351. The work of the WHO Regional Office for Europe focuses on public health programmes that address the burden of disease attributable to the natural and human-made environments in which people live and work. The technical areas specifically addressed in the European Region include:

- environmental exposure through air, chemicals, noise, soil, waste, housing, urban planning, occupational hazards, industrial contamination, new and emerging technologies and materials – nanotechnologies, etc.;
- environment and health security: environment and health risk assessment and management and human-made and natural environmental emergencies;
- management of natural resources and health: water and sanitation, food safety and security, energy and health and environmental protection for human health and well-being; and
- climate change, green health services and sustainable development.

352. Just as the quality of the environment and the nature of development are major determinants of health, health is also an important stimulus to other aspects of development. Human health depends on society's capacity to manage the interaction between human activities and the environment in ways that safeguard and promote health but do not threaten the integrity of the natural systems on which the environment depends.

Environment and health and the health sector

353. The health sector is one of the most intensive users of energy, a major source of employment and a significant producer of waste, including biological and radioactive waste. An important new topic is therefore the greening of health services. Hospitals and clinics can achieve substantial health and economic benefits through energy efficiency measures such as developing low-energy medical devices, using renewable energy, conserving water and storing it safely on site, improving the management of procurement, recycling waste and using locally grown food. The health sector must also play an essential part in mitigating the effects of climate change by taking steps to limit its own significant climate footprint.

Sustainable development

354. The goal of sustainable development is to meet the needs of the present without compromising the ability of future generations to meet their own needs. The concept of sustainable development is more than sustainability. Sustainable development implies a paradigm shift from a model of development based on inequity and exploitation of resources to one that requires new forms of responsibility, solidarity and accountability not only at the national level but also at the global level and across generations.

355. This approach has frequently been represented as the interaction between three pillars or three circles: economy, society and the environment. Sustainable development is a normative concept that aims to bring about a significant paradigm shift in how societal development is understood: it aims at nothing less than redefining the interface of society with biological and ecological systems. It wants to achieve transformative change in society and propose new governance mechanisms in various sectors and spheres of activity.

Health in the urban context: applying the urban lens

356. Living and working in urban areas affects health and health prospects both positively and negatively through a complex array of types of exposure and mechanisms. In addition, cities

concentrate population groups with various demographic, economic and social characteristics, some with particular health risks and vulnerability. Examining health through the urban lens allows increased understanding of disparate risks and emphasizes the essentiality of collaborative efforts in protecting and enhancing the health of populations, especially those living in cities. Urban health has emerged in recent years as a framing paradigm for a field of research and policy that serves to unite and focus the variety of forces determining the health of city dwellers.

357. City living can affect health through the physical and built environment, the social environment and access to services and support. The quality of housing, neighbourhood design, density of development and mix of land uses, access to green space and facilities, recreational areas, cycling lanes, air quality, noise and exposure to toxic substances have been shown to affect the health and well-being of the population in many different ways. Some circumstances of urban life, especially segregation and poverty, contribute to and reinforce these discrepancies by imposing disproportionate exposure to health-adverse and socially undesirable patterns of response to economic and social deprivation. The increasing numbers of older people living in cities require rethinking urban planning and standards for providing services.

358. Urban areas provide great opportunities for individuals and families to prosper and can provide environments conducive to health through enhanced access to services, culture and recreation. These positive aspects of city life attract people to come to and stay in urban areas. Inhabited by political elites, cities are the engines of economic prosperity and the location of the highest incomes and greatest wealth in the Region's countries. Nevertheless, they are also the sites of the most concentrated poverty and ill health and thus centres of social contrast and inequity.

359. In all but the very smallest countries, formal powers and competences are allocated to nested tiers of elected government – differing combinations of central, regional, provincial and local tiers. In parallel, central governments often operate from decentralized offices, usually at the provincial level.

360. Hospital treatment and care is most often directly administered by central and regional governments; primary care is most often decentralized. On the other hand, local governments often take primary responsibility for managing long-term illness and disability. Local governments administer or directly provide many health and social support services, especially for older people. In addition, local governments provide many housing services for older people, such as sheltering housing schemes, residential homes, dual care homes, hospices and community nursing.

361. Until the mid-20th century, public and environment and health functions were combined at the municipal level. Sanitary and epidemiological centres characterized the systems in central and eastern Europe until the USSR dissolved in 1990. Currently the functions tend to be separated, with public health typically allocated to central and regional governments as part of the health service and environment and health to municipalities, although this varies between countries. Public health professionals tend to focus on the immediate physiological risk factors for poor health such as obesity, high blood pressure and susceptibility to infection, whereas environmental health services focus on proximal causes such as air pollution and unsanitary living conditions.

362. Most local governments in the European Region have a general duty to promote the well-being of their citizens and provide equal and similar access to municipal resources and opportunities. Cities can achieve this through their influence in several domains such as health, social services, environment, education, economy, housing, security, transport and sport.

Intersectoral partnerships and community empowerment initiatives can be more easily implemented at the local level with the active support of local governments.

363. Cities significantly influence people's health and well-being through various policies and interventions, including those addressing social exclusion and support; healthy and active living (such as cycling lanes and smoke-free public areas); safety and environmental issues for children and older people; working conditions; preparedness to deal with the consequences of climate change; exposure to hazards and nuisances; healthy urban planning and design (neighbourhood planning, removal of architectural barriers, accessibility and proximity of services); and participatory and inclusive processes for citizens.

364. Applying the urban lens has several implications for those who are concerned with action for health and well-being:

- understanding and taking into account the urban specificity and distribution of the socioeconomic and environmental determinants of health;
- addressing the conditions that increase people's potential exposure and vulnerability to communicable and noncommunicable diseases;
- addressing the changing demographic and social landscape of cities, such as the ageing of the population and migration;
- incorporating urban health issues in national health policies, strategies and plans; and
- acknowledging the importance of the role of local governments in promoting health and health equity in all local policies and whole-of-society engagement.

365. The Health 2020 policy will address urban lens considerations in more detail and further develop this in subsequent drafts.

The social environment: social determinants of and assets for health

Situation analysis

366. The health of any individual is almost inseparable from the health of the larger community. Healthier lives achieve equity, create healthy social and physical environments and promote healthy behaviour. Addressing political, social, economic and institutional environments is therefore vital for advancing the health of the population. Intersectoral polices are both necessary and indispensable.

367. Whole-of-government responsibility for health requires that the effects on health be fundamentally considered in developing all regulatory policies. Such change requires more than declarations, even when they are backed by powerful evidence and good will. The persistence of socially determined inequity in health and often increasing inequity require integrated action and a strong systems approach.

368. Addressing socially determined inequity in health requires strong political commitment, effective and high-performing health systems and policy coherence across government policies. Achieving these goals requires that a given country have well-functioning institutions capable of influencing policy-making across health and other policy sectors. The required capacity includes policy advocacy, formulation, implementation, monitoring and evaluation, with stakeholders ranging from academic and research institutions to ministries and governmental entities and to nongovernmental organizations and civil society organizations.

369. The organized efforts to improve population health and reduce inequity in health so far have mainly been aimed at removing hazards and influencing individual behaviour. Although these actions are necessary, there are other opportunities, including systematically targeting public policies, private initiatives and aligning the financial, human and environmental resources that will mobilize action on better health and well-being and its equal distribution in society.

370. Experience in the WHO European Region shows that creating healthy and supportive environments and initiating, sustaining and mainstreaming the social determinants of health require a critical mass of human resources properly allocated within health systems and at the cross-government level. This critical mass should be appropriately allocated within the specific country policy context, have adequate skills and expertise and be accountable for achieving socially linked targets for reducing inequality in health. The 2008 report of the Commission on Social Determinants of Health highlighted specific policy approaches.

WHO global report on the social determinants of health

371. The 2008 report of the Commission on Social Determinants of Health effectively makes the case that opportunities for promoting health and reducing inequity in health lie deep in society and that these opportunities must be seized through a comprehensive strategy. The Commission on Social Determinants of Health set out three main principles for action:

- improve the conditions of daily life – the circumstances in which people are born, grow, live, work and age;
- tackle the inequitable distribution of power, money, and resources – the structural drivers of the conditions of daily life – globally, nationally and locally; and
- measure the problem, evaluate action, expand the knowledge base, develop a workforce that is trained in the social determinants of health and raise public awareness about the social determinants of health.

Solutions that work

372. Addressing socially determined inequity in health requires dealing with the causes of the causes: the unequal distribution of power, income, goods and services, globally and nationally, that result in unfairness in the immediate, visible circumstances of people's lives – their access to health care, schools and education, their conditions of work and leisure, their homes, communities, towns or cities – and their chances of leading a flourishing, healthy life.

373. The basic action needed is well summarized in the World Health Assembly resolution on reducing health inequities through action on the social determinants of health adopted in May 2009 (Box 3). Action inspired by the above principles requires a system-wide approach to ensure policy consistency across government. Many well-meant programmes to promote health and reduce socially caused inequity in health fail because they are not based on such a system-wide approach.

374. Some actions are common to the health and well-being of all groups and, at the macro level, social, economic and other social policies need to create environments that ensure that people at all stages of life are better able to reach their full health potential. At the micro level, action initiated in specific settings where people live, love work and play – homes, schools, workplaces, leisure environments, care services, old people's homes – can be very effective. Health and social services, and especially primary health care services reaching out to families in their homes, to workers at their workplaces and to local community groups over the lifespan,

are important entry points for systematically supporting individuals and communities over the lifespan, and especially during critical periods.

375. There are numerous actions aiming to embed the principles of health promotion, including asset-based approaches focusing on resilience and empowerment, life-course and environmental approaches, approaches focusing on communicable and noncommunicable diseases, mental health, accidents, integrated and comprehensive programmes and adapting health services more towards disease prevention and chronic care.

376. Health assets refer to any factor (or resource) that enhances the ability of individuals, communities and populations to maintain and sustain their health and well-being. These assets can be identified at the level of the individual, group or entire community. Health assets can operate as protective factors to buffer against life's stresses and as promoting factors to maximize opportunities for health.

377. As health assets relate to the social determinants of health, they have the potential to unlock some of the existing barriers to reducing health inequities. For examples, asset-based approaches are increasingly required to complement the more traditional deficit model. Thus, addressing the social determinants of health and tackling health inequities requires going further than the traditional model for providing health and social care. Thus, in addition to providing public services to address the deficiencies in a given community, efforts should also be directed to harnessing any inherent assets and support that may exist within communities and that may enhance and complement the offerings of the public sector.

378. Asset-based approaches are strongly linked with health promotion and intervention models and emphasize the importance of strengthening protective and promoting factors for individual and community health, by identifying the skills, strengths, capacity and knowledge of individuals and the social capital of communities. Asset-based approaches help to translate such concepts and principles into local action. In both models, health is created by caring for oneself and others, by being able to take decisions and have control over one's life circumstances and by ensuring that the society in which one lives creates conditions that enable all its members to attain health.

379. Some countries, regions and local communities are starting to see the practical possibility of complementing traditional deficit approaches with asset-based models of intervention, strengthening protective and promoting factors for individual and community health. The goal is public investment in local communities, building on local strengths and assets to raise aspiration, build resilience and release potential. Thus, asset-based approaches are an integral part of health promotion and should become an integral part of strategies to improve health and reduce health inequities.

380. This approach would lead to the development of policy that does not just focus on how to cope with the failure of individuals and local communities to avoid disease. Asset-based intervention models would go much further with the aim to maximize community potential to create and sustain health and continued development. In this approach, the focus is on identifying what assets are available to protect, maintain and promote the health of individuals and communities. The aim of developing policy here is to maximize these assets to sustainably solve local health issues and ensure that any external support (by providing services to enhance health and well-being) can be used more effectively.

Strengthening patient-centred health systems, public health services and preparedness for emergencies

Situation analysis

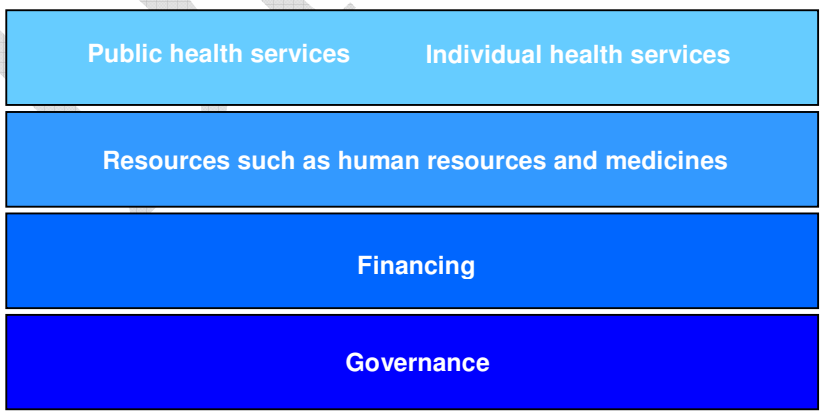
381. Strengthening the performance of health systems has been high on the agenda of countries throughout the European Region, with new approaches and many innovations for improving equity and health. Improving the delivery of public health and health care services, generating key health system inputs such as human resources and medicines in higher quality, strengthening health funding arrangements and enhancing governance are key objectives of Health 2020. This section focuses on policy shifts and innovations in health systems that have been proven to or have the potential to directly improve health outcomes and equity in the coming eight years.

382. Fig. 8 provides a conceptual framework for health systems. The capacity and efficiency of health systems, including health ministries, is an important determinant of health. The scope and reach of the concerns of health systems stretch now beyond public health and health care services to engage all sectors of society. The strengthening of health systems and improvements in the effectiveness and efficiency of the ways these systems work is of vital importance and will make a growing contribution to health and well-being as technologies improve. There will continue to be strong pressure to organize health system resources efficiently and wisely.

383. Significant development is needed immediately across Europe in the capacity and effectiveness of public health functions and services, which remain poorly developed and perform inadequately in many countries.

384. Health systems are faced with the challenge of providing comprehensive approaches to reducing the disease burden by integrating health promotion, disease prevention and chronic care management, responding to acute episodes of illness and providing rehabilitation and palliative care when needed. Although effective, and even cost-effective, interventions are well known for most of these conditions, today many are not used at scale.

Fig. 8. A conceptual framework for health systems



385. Further, many people with chronic diseases face severe barriers to accessing high-quality, continuous care management. Public coverage of chronic care services is far from universal in many countries. Countries in the European Region, for example, differ widely in their cost-sharing requirements for health services and drugs for people with chronic diseases.

386. Financial barriers may be an obstacle to managing common risk factors that can be effectively controlled though medication, such as high blood pressure and serum cholesterol. Thus, high prices of medicines and services can result in missed opportunities for preventive action. In addition, health professionals and people with noncommunicable diseases often do not use medicines and technologies appropriately, and a sound health technology approach is very much needed for proper decision-making. All health care funding arrangements need to be reviewed to ensure affordability for service users, especially vulnerable groups.

387. The role of primary health care in preventing and controlling noncommunicable diseases needs to be strengthened, especially in relation to assessing and managing risk factors and brief interventions (such as smoking cessation and reducing the harmful use of alcohol). The more widespread use of appropriate instruments for assessing and managing the risk of cardiovascular disease should be promoted. Evidence-informed guidelines should be more widely implemented and the outcomes monitored. Integrated case-finding and management should be adopted in primary health care and by specialists.

388. Population-based and organized screening programmes should be implemented where a strong evidence base exists, including providing guidance for countries with different levels of resource on the respective roles of vaccination and screening programmes in preventing cancer.

389. The lessons learned from scaling up HIV programmes to strengthen models of chronic disease management should be more widely implemented, including mobilizing affected populations and the broader community in advocacy and service delivery. Self-management should be more widely promoted.

Solutions that work

Public health and public health services

390. Across the European Region, public health capacity, infrastructure and services need to be significantly supported and strengthened. In 2011, the WHO Regional Committee for Europe will consider a draft of "Strengthening public health capacity and services in Europe: a framework for action". This will propose several specific policy shifts and innovations to make public health services more effective over the next eight years.

Strengthening the delivery of the ten essential public health operations

391. Ten essential public health operations are proposed, including the core public health services within each one, to become the unifying and guiding basis for the health authorities in any country in the European Region to establish, monitor and evaluate strategies and actions for public health. Box 4 shows these 10 essential public health operations.

392. A challenge facing Europe in strengthening public health capacity and services involves breaking down the traditional barriers between public health services and health care services, using well-developed informational tools for appropriate health surveillance and a coherent system approach. The need to strengthen public health requires firm government commitments on both public health legislation and secure financing.

393. However, fully integrating public health and health care structures is not enough. The activities of many other political, economic, environmental and institutional actors influence health and health care delivery. For example, tackling the challenges posed by an ageing population means necessarily improving the coordination with social services.

Box 4. Ten essential public health operations

1. Surveillance and assessment of population health and well-being
2. Identification (assessment, investigation and prediction) of health problems and health hazards in the community
3. Health protection: needs assessment, development and enforcement of laws and regulations that protect health and ensure safety
4. Preparedness for and management of public health emergencies
5. Primary and secondary disease prevention
6. Health promotion and health education
7. Support for health-related research
8. Evaluating the quality and effectiveness of personal and community health services
9. Assuring a competent public health and personal health care workforce
10. Initiating, developing and planning public health policy

Mainstreaming the whole-of-government approach and health in all policies

394. The whole-of-government approach to improving health sees this as a societal goal for which all of society and its government are responsible and accountable. The concept of health in all policies approaches the improvement of health as a linked societal goal across all parts of government and all sectors. Health in all policies addresses complex health challenges by promoting an integrated policy response across sector and portfolio boundaries, incorporating concern with effects on health into the process of developing policy of all sectors and agencies.

Influencing population health behaviour: a multi-faceted approach

395. Population behaviour to adopt more healthy lifestyles is notoriously difficult to influence. The mainstream approach is to use non-financial mechanisms such as information delivered through campaigns to everyone and through health professionals to high-risk groups. In recent years, financial instruments have also been tried in many countries. For example, conditional social cash benefits are awarded to low-income and vulnerable populations if eligible beneficiaries meet certain conditions such as having their children in school and immunized or having received five antenatal care visits.

396. A new development in public policy in recent years has been to nudge people to change their behaviour. Increasingly, legislation has been used to make certain types of behaviour illegal. A legal ban on smoking has been an effective instrument and is increasingly being adopted by countries despite being considered impossible previously. This approach is now being adopted elsewhere, such as in nutrition policy.

Establishing a European School of Public Health

397. An ambitious idea is to integrate graduate training in public health across Europe. A starting-point could be adopting shared criteria for competencies and integrated curricula across current degree programmes for the master of public health.

398. A more ambitious proposal would be to establish a European School of Public Health, which would work within a network with existing national schools of public health. Such a new

institution could be a driving force behind a cultural and institutional change needed to improve health and public health capacity in Europe.

Improving efforts to monitor and evaluate the effectiveness of public health operations and services

399. Little is currently known about the effectiveness and cost–effectiveness of many public health policies, and this area of health systems has not been subject to as many rigorous policy evaluations and studies as the financing and organization of health care services. As new approaches are implemented, social determinants of health are mainstreamed into the health system reform agenda and whole-of-government approaches are used, subjecting them to rigorous evaluation is critically important.

Health care services

400. Health care has become more complex, with rapidly advancing technological progress, ageing populations, more informed service users and increasing cross-border movement. Health systems need to respond to increasing demand fuelled by these global trends with high-quality health care services for all. Health services are not always based on evidence, limiting the potential health gain from the services and wasting the resources of society. European data, mostly available from the European Union, consistently show that medical errors and health care–related adverse events occur in 8–12% of hospitalizations. Infections associated with health care affect an estimated 5% of hospital inpatients.

401. There are effective interventions for strengthening the delivery of health services to improve access to high-quality evidence-based care. Box 5 provides an example of this comprehensive approach to strengthening health systems, showing the components of an approach to strengthening the response to multidrug-resistant TB.

Strengthening outreach programmes for low-income and vulnerable people

402. Mechanisms for delivering public health care services often do not reach low-income and vulnerable people. In the European Region, for example, internal and external migrants, the Roma, groups living in remote mountainous areas and drug users have difficulty in accessing publicly provided health services, contributing to the health divide. Ensuring that they receive needed care across the care continuum requires new approaches to service delivery through outreach programmes, which the private sector may be more effective at delivering. The public sector needs to remain an important catalyst in this process and can provide funding, create enabling regulations and enter into partnerships.

Ensuring patient-centred services

403. Care that is truly patient-centred improves the perception of the quality of care, can improve compliance, can reduce unnecessary care and can improve treatment outcomes. Patients and their families become part of the health care team in making clinical decisions. In addition, patient-centred care considers cultural traditions, personal preferences, values, family situations and lifestyles. This approach requires greater investment in patient education and health literacy, potentially by fostering the involvement of civil society.

Box 5. An example of health system strengthening: multidrug-resistant TB

High-performing health systems reduce the burden of multidrug-resistant TB on the population, and especially on vulnerable groups, by:

- carrying out robust surveillance of drug resistance, leading to better policies to address its root causes;
- ensuring access to quality-assured laboratory diagnosis and early diagnosis of people with TB, especially among hard-to-reach populations;
- making available well-trained, skilled and motivated health care personnel providing high-quality treatment and care;
- providing context-specific health promotion interventions, increasing early referral of people suspected of having TB and supporting adherence to treatment;
- ensuring the uninterrupted supply and rational use of high-quality medicines;
- funding universal access free of charge to evidence-based treatment regimens;
- delivering patient-centred care with continuity among various levels of service delivery;
- controlling airborne infections in health care facilities and congregate settings; and
- exercising sound governance for effective and prioritized use of resources and working in partnership, including civil society.

Enhancing care coordination across providers and over time: new organizational and information technology solutions

404. Poor coordination persists not only within the health care system but also between the health care system and social care, which also contributes significantly to managing chronic disease, particularly for older populations. There are many reasons for poor coordination, including fragmented service delivery arrangements, variation in doctors' clinical practice (both general practitioners and specialists) and lack of evidence-informed pathways for the whole continuum of a care episode. This is most apparent in the management of chronic disease and evidenced by the poor outcomes in controlling high blood pressure and diabetes, to name a few. Innovative organizational and payment reforms have been piloted in several countries, which suggests great potential for improvement in this area.

405. An important supporting factor is adopting advanced information technology solutions that can provide timely access to comprehensive clinical information that allows doctors and service users to make the right decisions at the right time with no delays and no need for duplicating services or unnecessarily using inappropriate care, with the resulting public and private costs.

Strengthening primary health care: the nexus between public health and health care services and the key to chronic disease management

406. Primary health care is a fundamental part of the health care system and should work hand in hand with public health services to improve health. Primary health care stands out as a primary vehicle for preventing disease and promoting health and as a nexus for all branches of the health system. In addition, primary health care is the key to managing chronic diseases efficiently.

407. In many countries, primary health care is evolving to meet these increasing demands, but in others, it needs to be further enabled to improve performance with a good regulatory environment, management autonomy, improved funding, training of health personnel in public health, evidence-based medicine and management and facility-based continuous quality improvement practices.

Further strengthening evidence-based health care in clinical decisions

408. Effective and even cost-effective interventions are well known for much of the disease burden affecting the European Region. Nevertheless, studies show that many people do not receive these preventive, diagnostic, treatment and rehabilitation services. For example, surveys in several European countries show that many people with elevated blood pressure are not aware of their condition and do not take medication. Improving the coverage of cost-effective treatments for cardiovascular diseases, diabetes, managing pregnancy and delivery, children's health, TB and mental health problems would go a long way to improve health outcomes in the European Region.

Overcoming key barriers in generating resources for high-quality health system input

Human resources

409. European Region health systems are currently undergoing complex transformation at the same time that countries face human resource challenges, such as:

- shortages of the right people with the right skills in the right place, especially nurses;
- skill imbalances;
- uneven distribution of health workers, characterized by urban concentration and rural deficits;
- poor working environment, including unsupportive management and insufficient social recognition;
- weak career development, low wages and lack of incentives; and
- the impact of migration of health workers.

410. Several policies can address these concerns.

Strengthening governance in human resources

411. A well-functioning governance infrastructure is required to develop a health care workforce that can work within the whole spectrum from primary to tertiary services. Weak governance actively contributes to poor formulation and implementation of health workforce policy. This lack of synergy between governance structures and processes undermines progress with human resources policy and planning.

412. To address the factors hindering appropriate development and implementation of policy and to mitigate the crisis in health care workforce, the relationship between human resources and governance requires strengthening at all levels. Assessing the health care workforce, developing policy, planning and monitoring require dialogue between stakeholders from government and nongovernmental partners. National mechanisms for coordinating the health workforce should be established to foster synergy among stakeholders.

Transforming education to strengthen health systems

413. In many countries, the education and training of health professionals have not been kept pace with the challenges facing the health system. The systemic problem is demonstrated by:

- fragmented and static curricula that produce ill-equipped graduates;
- a mismatch between competencies and the needs of service users and the population as a whole; and
- a predominant orientation towards hospital-based services and a narrow technical focus without broader contextual understanding.

414. Rethinking and transformation are required to improve the alignment between education of health professionals, health systems and population health needs. The ability to update knowledge and competencies and to respond to new health challenges is a prerequisite for the health professionals of the future that should be supported by lifelong learning opportunities provided by the health education system.

415. Education, training and regulation of health professionals should be based on the best available evidence to effectively improve the health of the population.

Enhancing performance and quality

416. The performance of the health workforce is critical, as it immediately affects health service delivery and, ultimately, population health. The quality of services should improve through accreditation and compliance with appropriate national standards for educational institutions and individual health workers in both the public and private sectors.

417. Performance and productivity can also be enhanced by establishing:

- coherent interdisciplinary health care teams with effective management;
- competency-based curricula reinforced through in-service training;
- enabling practice environments, including fair remuneration, appropriate incentives, access to necessary resources and the prevention of professional hazards; and
- supportive management practices.

Migration, retention and ethical recruitment of the health care workforce

418. Suitable policies and strategies should be adopted to attract and retain health care workers in rural and underserved areas. The specific challenges of the migration of the health care workforce should be addressed by putting in place necessary regulatory, governance and information mechanisms in accordance with the provisions of the WHO Global Code of Practice on the International Recruitment of Health Personnel adopted by the Sixty-third World Health Assembly. As stated in the Tallinn Charter: Health Systems for Health and Wealth: “the international recruitment of health workers should be guided by ethical considerations and cross-country solidarity, and ensured through a code of practice”.

Medicines

419. Medicines are essential for preventing and treating diseases, and poor-quality medicines represent a public health hazard. Medicines are also responsible for a substantial part of health care costs: from 10–20% in EU countries to up to 40% in countries in the eastern part of the European Region. In several countries in the eastern part of the Region, ensuring regular access to high-quality, safe and affordable medicines is still a challenge because budgets are

insufficient, supply systems weak and out-of-pocket payments high. For example, one month of treatment for simple hypertension can cost up to 35 days' wages, most of which is paid out of pocket. Thus, funding and regulating the supply of medicines strongly influences health outcomes and the financial protection of individual people.

Ensuring high quality of medicines

420. To ensure the quality, efficacy and safety of medicines, the following mechanisms need to be verified and put in place:

- countries develop and implement appropriate regulatory structures and legal frameworks;
- medicines are appropriately manufactured, stored, distributed and dispensed;
- health professionals and medicine users have the necessary information to enable them to use medicines rationally; and
- promotion and advertising are fair, balanced and aimed at rational drug use, and unjustified regulatory requirements do not hinder access to necessary medicines.

Ensuring access to medicines

421. Insufficient access to needed medicines at an affordable price poses a serious threat to the well-being of much of the population, especially in the eastern part of the European Region. Various factors influence this access, such as selection of medicines and their rational use, systems for provision, funding policies, pricing, reimbursement and cost-containment policies and patent issues.

Encouraging the rational use of medicines

422. WHO estimates that more than half of all medicines worldwide are prescribed, dispensed or sold inappropriately and that half of all the people prescribed medicines fail to take them correctly. Overuse, underuse and misuse result in wastage of scarce resources, continued health problems or adverse reactions to medicines. Rational use of medicines means that conditions are diagnosed correctly, the most appropriate medicine is prescribed and dispensed, and that the patient and the health system can afford this medicine. It also means that the patient is well informed about the medicine, understands the importance of the prescribed treatment and takes the medicines as required.

423. The rational use of medicines requires, first and foremost, the commitment and competency of doctors, nurses, pharmacists and users of medicines but also of politicians, policy-makers, user groups and professional associations. Innovative and effective strategies exist to improve the use of medicines through therapeutic committees, electronic formularies and clinical guidelines, feedback of data on medicine use, medicine information policies and evaluation of health outcomes.

Regulating the promotion of medicines

424. Pharmaceutical companies market many products and influence the prescribing practices of doctors and the demand and compliance of medicine users. This may potentially lead to irrational use of medicines. The promotion of medicines can indirectly influence medical guidelines.

425. Regulation of the promotion of medicines is an enormous challenge for the European Region. It has so far eluded a satisfactory solution in many countries. This must be a high priority considering the increasing tension between the demand for health care services and the limited resources available.

Promoting scientific innovation for diseases that disproportionately affect people with low income and improving access to the resulting medicines

426. Life-saving medicines are expensive in many countries in the European Region, contributing to both the observed health divide and inequities in use across countries in the Region. Many countries have implemented supply and cost-containment policies that aim at optimizing the equitable access to medicines in light of the constrained health system budgets. High prices are one factor affecting access to medicines and are in part caused by intellectual property rights granted to promote scientific innovation.

427. Countries should maximize the use of generic medicines where possible. Countries should also promote research and development for the diseases for which no good treatment is currently available. Although discussions on this topic have been ongoing for years, further support is needed for innovation for the diseases that disproportionately affect people with low income, to further inject the equity lens into this debate.

Strengthening health funding arrangements to mobilize resources, distribute resources more equitably and improve the efficiency of spending

428. Health funding arrangements directly contribute to solidarity and equity in society and indirectly to health outcomes. Many countries in the European Region have achieved universal health care coverage, providing reasonable levels of financial protection and access to health care for the whole population. Nevertheless, 19 million people in the Region experience out-of-pocket health expenditure that places a catastrophic burden on their household budgets, and more than 6 million people have been impoverished because of it.

429. Many others also do not receive timely care, or the care they receive is not evidence based. This affects health outcomes, especially the health outcomes of low-income and vulnerable people, contributing significantly to the observed health divide throughout the Region.

430. Improving health funding arrangements can address these problems and will thus improve equity and solidarity as well as health outcomes across the Region.

Improving and maintaining universal health care coverage

431. In the European Region, universal health care coverage is often undermined by shallow depth of coverage, meaning that people are exposed to financial risk through formal and informal payments when seeking care. At the same time, countries that have achieved universal coverage face challenges of sustainability and how to maintain universality in the face of increasing demand and limited resources.

432. Universal coverage can be approached or maintained through one or a combination of the following policies: greater public funding for health through general taxes and/or a payroll tax; reducing fragmentation in the funding channels of the health system (pooling); adopting purchasing mechanisms that encourage efficient behaviour among providers; reducing inefficiency in the structure of service delivery systems; and implementing pricing and regulatory mechanisms to control the growth in the price of medicines.

Taking a functional approach to policy on health care funding: solutions beyond Beveridge, Bismarck and Semashko

433. Recent experiences in reforming health care funding show that moving away from broad classifications of health systems, or labels such as the Beveridge, Bismarckian and Semashko models, allows increased innovation and experimentation. For example, the boundaries between

social insurance systems funded by general taxes and payroll taxes are becoming blurred as countries are increasingly realizing that a mixed revenue base is most conducive to achieving high levels of coverage in a sustainable manner without unduly burdening the economy.

Influencing provider behaviour through financial and non-financial incentives to improve quality

434. Well-tested financial instruments are available for health care purchasers to influence and measure the behaviour of health service providers and encourage evidence-informed clinical behaviour. These instruments improve the quality of care by reducing variation in practice, inappropriate utilization and health care errors, which contribute greatly to the health divide across countries in the European Region. In addition, orienting providers towards improving health could also be enhanced by paying for results defined and measured in terms of health gain. Non-financial instruments are equally important to encourage greater provider orientation towards evidence-informed health care. These include professional recognition, development opportunities, peer culture and the working environment.

Health care funding solutions that ensure stable revenue flow during the entire economic cycle

435. Lessons learned during the recent financial crisis and economic downturn can help policy-makers to better respond to future crises with effective policy instruments and preparing better for the times when the public budgets come under greater pressure. Economic downturns and their adverse effects on health and social budgets may not be able to be completely prevented, but vulnerability to these shocks can be reduced. Countries that accumulate reserves during economic growth or at least reduce budget deficits and external debt can opt for deficit financing through borrowing or deplete reserves when the economy performs poorly.

Enhancing the governance of health systems to improve accountability and performance

436. In an increasingly complex environment, health has become the business not only of health ministries but of a vast range of stakeholders including purchasers of health services, professional organizations, educational institutions, donors, industry, advocacy groups, citizens and users of health services. Governments are becoming increasingly aware of the importance of broad public participation in policy-making and the demand for duly considering public values, priorities and concerns. Good governance for health enhances the performance of health systems by improving transparency and accountability. Informing policies and programmes through evidence on the performance of health systems and the effects of implemented action are key instruments of good governance.

Making health planning more intersectoral and participatory, with citizens and users of health services centrally involved

437. National health plans have mostly been developed using top-down approaches. This may be an effective way of working in a hierarchical environment but will be less effective in a whole-of-government environment in which horizontal relationships across the whole of government need to be encouraged. Greater participation of citizens and civil society would enhance the orientation of new national health plans towards citizens and the users of health services and would articulate social values.

438. Systems thinking should be the predominant approach informing the design of national health plans as the process is reoriented towards a more participatory process. This approach ensures that the objectives for the health system chosen based on social values match well the instruments used to strengthen health systems to respond to these objectives.

439. Other mechanisms for promoting greater intersectoral participation include the following-

Empowering health ministries to advocate for investing in health

440. Evidence abounds that health contributes to greater social and economic well-being for the entire society. Nevertheless, health and policies that can improve health are often given low priority, intentionally or unintentionally, during the budget negotiation process, especially if health policy-makers do not make convincing arguments. Finally, the capacity of health ministries to set priorities for resource allocation decisions also needs to be enhanced, especially during economic downturns, to protect low-income and vulnerable people.

Creating an effective regulatory and institutional framework that encourages diversity of partnerships

441. The new generation of health system reforms requires creating an enabling environment for partnerships to thrive, for civil society to participate in decision-making and for individuals to take better care of their own health. Partnerships can take a multitude of forms such as public-private partnerships, with some services outsourced to private organizations; public funding for private not-for profit outreach workers; private health organizations with administrative boards that include local politicians; private health organizations owned by charitable organizations; and public health organizations managed by private entities. Achieving greater diversity in relationships requires that regulatory and institutional frameworks become more open and flexible to support the formation of partnerships.

Strengthening the link between evidence and policy

442. Much remains to be done to ensure that evidence is systematically used in developing and implementing policy. This requires continually disseminating new knowledge, building the capacity of policy-makers and policy analysts and implementing sustainable institutional solutions that link the demand for and supply of evidence in a mutually beneficial, respectful working relationship.

443. Assessing the performance of health systems is a key instrument to strengthen governance, provide input into policy development and contribute towards increased transparency.

Health system performance assessment

444. Health system performance assessment supports policy decisions informed by appropriate understanding and data on health problems and their determinants. It fosters dialogue within the government and between programmes, public authorities at the national, subnational and local levels, health care providers and citizens to align all policies towards improving health for all. It measures the achievement of high-level health system goals based on health system strategies.

445. Fully developed systems for health system performance assessment expand beyond a list of indicators and targets. These build on an organized set of quantitative measures (performance indicators) and incorporate analytical tools. They are comprehensive and balanced in scope, covering the whole health system and not limited to specific programmes, objectives or level of care. This information is used to regularly report publicly or to the various stakeholders and to inform the decision-making process.

446. Health system performance assessment is a key instrument for strengthening governance, providing input into the development of policy and contributing towards increasing transparency.

Health security and emergency preparedness

2.6.2.3.4.6.1 Situation analysis

447. WHO's Eleventh General Program of Work for 2006–2015 identifies the strengthening of global health security as a priority for WHO, and the WHO Regional Committee for Europe has stressed the need to address the challenges of health security in the European Region.

448. Every year, the WHO European Region experiences outbreaks of infectious diseases, natural disasters such as floods and earthquake or human-made disasters such as industrial accidents or armed conflicts. Such emergencies always require the immediate involvement of the health sector for the rapid assessment of public health risk, the prompt deployment of international field team of experts or even the activation and lead of the Health Cluster under a United Nations–wide response. The H1N1 influenza pandemic in 2009 was a major live test for the European Region, as for the whole world, of national and regional capacity to respond to an international public health emergency. It also demonstrated the value of preparedness and the importance of internationally agreed procedures such as the International Health Regulations for rapid exchange of information and coordination of the response.

449. In 2010, 58 events were recorded that required a rapid risk assessment; 1 led to the emergency set-up of an expert committee and 7 necessitated deploying field missions to support Member States. In addition to significant human suffering, public health emergencies may have a major economic cost. One of the highest costs in the European Region involved several billions of euros in loss of revenue in the late 1990s, associated with bovine spongiform encephalopathy and the emergence of a related variant of Creutzfeldt-Jakob disease in humans.

450. From 1990 to 2010, an estimated 2000 health crises occurred in the European Region that affected 47 million people, including 130 000 deaths, and caused economic damage of more than US$ 250 billion (according to EM-DAT, the International Disaster Database of the Centre for Research on the Epidemiology of Disasters). These crises included events such as wildfires, accidents, earthquakes, epidemics, heat-waves, floods, landslides, storms and volcano eruptions.

2.6.2.3.4.6.2 Solutions that work

451. The International Health Regulations (2005), which entered into force in 2007, lay out the foundation for WHO's work in health security. The International Health Regulations provide an international legal framework to coordinate the international exchange of information and response to events that may constitute public health emergencies of international concern. States Parties to the International Health Regulations (all Member States of WHO in the European Region plus the Holy See) have committed themselves to implementing the core capacity required for disease surveillance and response under the Regulations.

452. When an event may constitute a public health emergency, the WHO Regional Office for Europe, which is the designated contact point for the Region under the International Health Regulations, facilitates the rapid international exchange of information and risk assessment. In addition, the Emergency Operations Centre of the Regional Office provides a regional coordination hub linked to all WHO country offices, to WHO centres of expertise, the WHO collaborating centres, WHO headquarters in Geneva and partners in the Region such as the European Commission (Task Force on Health Security) and the European Centre for Disease Prevention and Control. It offers a 24/7 technical platform for event monitoring, alert and response, including the operational management of public health and humanitarian emergencies.

453. The United Nations Health Cluster approach, created after the 2004 tsunami in South-East Asia, has also been shown to be an effective way to coordinate the health sector during major emergencies. It has been used several times in the WHO European Region, such as in

2009 and 2010 during the humanitarian crisis in the Caucasus. In this approach, WHO leads the Inter-Agency Standing Committee's Global Health Cluster to build consensus on humanitarian health priorities, and strengthen system-wide capacities to ensure an effective and predictable response. At the national level it convenes health partners to ensure a consolidated humanitarian public health response.

454. In 2011, the report from the Review Committee on the Functioning of the International Health Regulations (2005) in relation to pandemic H1N1 influenza in 2009 concluded that "the International Health Regulations helped make the world better prepared to cope with public health emergencies". However it also assessed that "the core national and local capacities called for in the International Health Regulations are not yet fully operational and are not now on a path to timely implementation worldwide".

455. Preparedness is essential for a successful response. WHO provides expert support in this area, including in capacity-building and best standards and practices in disease surveillance, epidemiology, laboratory, biosafety, case management and risk communication. WHO also ensures that Member States have access to regional and global capacity in relevant areas, such as regional reference laboratories or the Global Outbreak Alert and Response Network (GOARN).

456. Partnership between sectors (such as health, agriculture, travel, trade, education and defence) has shown to be essential in building coherent national alert and response systems that cover all public health threats and, when events occur that may constitute public health emergencies of international concern, to be able to rapidly mobilize the required resources in a flexible and responsive way. The WHO partnership for health security in the European Region will be further strengthened, especially with key institutions in the eastern part of the Region, such as the Federal Service for the Protection of Consumer Rights and Surveillance of Human Well-being (Rospotrebnadzor) of the Russian Federation.

2.6.2.3.4.6.3 The equity lens

457. Experience shows that vulnerable population groups suffer the most negative effects from public health emergencies. There are various reasons for this according to the nature of the crisis, but the overall pattern of poverty being associated with greater vulnerability to harm (even from natural disasters) is clear. Preparedness planning should therefore take the socioeconomic determinants of health into account.

Part 3. Making it happen

Key action principles 10–12

10. Promoting health in all policies by ensuring that all sectors understand and act on their responsibility for health

11. Paying attention to the voices and expectations of citizens and creating empowering care and community systems

12. Working together for health and well-being in the European Region – Member States, international strategic partners and public health constituencies

Capacity for change and innovation

458. Leadership and innovation is at the core of Health 2020. Health 2020 serves as a platform for structuring policy learning between countries, supporting expertise and sharing existing learning and promising practices, disseminating expertise and experience in developing and implementing policy for improving health and well-being.

459. Political commitment is vital to achieve the expression of the responsibility and accountability for improving health at all levels in society. Governments must make the ultimate commitment to achieving health and well-being on behalf of populations and provide leadership. Nevertheless, governments alone cannot do all that is needed. Achieving collaborative leadership for health requires new ways of working, using advocacy and networking to bring partners together and mobilize broad-based political and cultural support for equitable, sustainable and accountable approaches to developing health.

460. Whole-of-government governance and intersectoral action for health are difficult and challenging to achieve. There is much experience in implementing health in all policies, and this has recently been assessed, for example, in a recent review of the implementation of the Tallinn Charter: Health Systems for Health and Wealth.

461. Although health ministers and ministries have a vitally important role in empowering and supporting other sectors and actors to promote health and well-being in all policies, health ministers in many countries in the Region simply do not possess sufficient authority within the government to initiate and sustain change outside their own portfolios and to effectively influence other sectors. Perhaps this is not surprising: government mechanisms are extremely complex; health is always only one of the societal goals to be addressed; and the ever-present priority and discipline of finance and budgetary mechanisms also carries great weight, especially at times of budgetary stringency.

Institutional mechanisms

462. Achieving a whole-of-government approach to intersectoral working requires more than a simple mandate. Evidence indicates clearly that institutional mechanisms are required. A clear shared strategic societal narrative on health is needed, with the objectives of embedding health and health equity into the main government strategies and financial mechanisms; stimulating debates in parliament and in cabinet committees and the mass media; and ensuring clear and multiple-stakeholder mechanisms for accountability. The available possibilities here include arms-length independent bodies, formal consultative groups and making documents and decision-making processes and outcomes widely available for debate.

463. Institutional platforms are needed, such as a jointly staffed health policy unit embedded in the prime minister's office or joint committees or working groups. A small, dedicated resource unit is needed to keep the issue alive, moving across communities and sectors freely, creating and promoting regular dialogue and platforms for debate. Incentive and accountability schemes should be created, such as joint targets and budgetary mechanisms for joint funding and accountability. Appointing a minister to assist the health minister in supporting and driving the public health and health in all policies processes throughout government can also potentially be helpful.

464. It is important to establish strong public health agencies and institutes nationally and regionally, offering a major intelligence role, including providing the evidence and analysis to support the development of the strategic narrative and the generation and testing of policy options. One role is to focus on applying a health equity lens across government policies using tools such as impact assessment, modelling and scenario development. Such agencies may be part of an evidence network or may manage or coordinate such a network.

465. A major task is developing, coordinating and supporting policy learning and capacity-building through guidance and systematic reviews with other partners; producing progress reports; developing learning and support materials; and organizing in-service and on-the-job review and learning. This also involves supporting knowledge development and exchange when policies are being implemented.

466. Other specific internal governance mechanisms that are helpful include departmental internal review processes that require all policy developments to be considered and analysed from the health perspective; the appointment of health focal points to assess the health impact of key policy proposals; budget and accountability mechanisms for health in all policies; and establishing health in all policies committees that review the outcomes of health and health in all policies analysis in the identified policy areas before making policy proposals at the whole-of-government level.

467. Two specific tools, health impact assessment and intersectoral targets, are especially relevant. These will strengthen policy-making across all sectors, involving a range of actors both in decision-making and in accountability practices.

Strengthening health systems: adapting solutions that work in national and local and national contexts

468. The changing sociocultural and demographic landscape across the European Region implies rethinking a wide range of assumptions about health and social care, participation, empowerment, fairness and human rights. At the moment, the actual performance of fragmented health systems is often mismatched with the rising expectations of societies and citizens. This is happening in the context of increased domestic expenditure on health. In this context, strengthening health systems and health system governance is crucial. Health ministries and other national authorities need help and support in improving health system performance and in increasing transparency and accountability.

469. Most countries have had national health policies, strategies and plans for some time. Today there is renewed interest in these processes and instruments. Health 2020 will support these national policy processes, advocating for high-level political commitment to their implementation while developing guidance and toolkits to support implementation in a variety of settings, contexts and circumstances.

470. It is recognized now that such national health policies, strategies and plans must address the whole of the health sector: plans limited to the public sector are no longer relevant to today's pluralistic, mixed health systems. There is also recognition that such instruments must go beyond health care delivery and address the broad public health agenda.

471. National health policy should ensure that the policy framework for health and the overall health goals are accepted across the whole of government. These instruments should go beyond the boundaries of the health systems and address the social determinants of health and the interaction between the health sector and the other sectors of society. In addition, such instruments are clearly vital in moving ahead with the renewal of primary health care. There is a new emphasis on capacity-building, sustainability and accountability.

472. National health policies, strategies and plans are more likely to be implemented if they are made by the people who will implement them and are compatible with the sectors' capacity, resources and constraints. The instruments must chart realistic ways of developing capacity and resources by mobilizing the government and partners. Political and legal commitments are vital to ensuring long-term sustainability. Flexibility is needed to adapt to unexpected developments in the political, economic and health environment. Such instruments also need to ensure the acceptance and support of many stakeholders who may have competing interests.

473. Strengthened health systems are needed, including both public health and health care services, developed within the framework of a national health policy, strategy or plan, with strong political, economic, human resources and cultural support. Health 2020 shows the way here, but Health 2020 must fundamentally be implemented within each country and adapted to each country's specific situation and circumstances.

474. A coherent and integrated regulatory framework is needed to ensure that policies are implemented and enforced. The WHO Regional Office for Europe has extensive experience in working on comprehensive intersectoral approaches to health development and in working with other sectors, such as environment, transport, education, justice and agriculture. The Regional Office will draw on this experience as it works to promote and support the introduction of the fundamental aspects of Health 2020 within Member States.

Citizens' voices and empowerment

475. A core principle of Health 2020 is the importance of participation and responsiveness on behalf of citizens. These are part of the fundamental values that underpin modern health systems and vital to achieving health promotion objectives and health system objectives such as patient safety, quality, transparency and accountability. Care that is truly patient-centred improves the perception of care quality, can improve compliance, can reduce unnecessary care and can improve treatment outcomes. Patients and their families become part of the health care team in making clinical decisions. In addition, patient-centred care considers cultural traditions, personal preferences, values, family situations and lifestyles. This approach requires greater investment in patient education and health literacy, potentially by fostering civil society involvement.

Partnerships for change in the European Region and globally

476. An approach to improving health based on responding to multiple determinants of health across the whole of society must involve all of society. This is partly about making whole-of-government and intersectoral governance for health work better and partly about developing

broad international, national and local constituencies for health. Partnerships for health will be crucial. Partnerships will be a core concept within Health 2020.

477. Partnerships for health will work to create unity within the European Region public health community at all levels by actively promoting and adopting a common outcome-focused Region-wide policy, Health 2020. Although a wide variety of approaches will be used to achieve agreed common goals and health outcomes, the policy will aim to map options and tradeoffs that can be used in advocating for policies that support health in all sectors.

478. Health 2020 will take a broad and inclusive view of the European Region public health community. To this end, Health 2020 aims to provide a policy framework to take the health agenda forward with a dynamic network of stakeholders and partners widely distributed throughout society working together with the WHO Regional Office for Europe and the Member States.

479. Although Health 2020 must explicitly be implemented through a participatory approach, encompassing mechanisms for effective partnerships are needed to improve health. WHO leadership in this process will rest not only on its pursuit of technical excellence, evidence-informed practice and results-based management but also on its commitment to helping its Member States fully realize these principles within their own health systems. This commitment to wide consultation and collaboration has already begun with the establishment of the European Health Policy Forum for High-Level Government Officials.

480. The European Region is already a major setting for international and global health actors, not just WHO but also the Global Fund to Fight AIDS, Tuberculosis and Malaria, the EU (an essential international partner for the WHO Regional Office for Europe in its quest to improve the health of the Region's inhabitants in all 53 countries) and a wide variety of other bodies, including many nongovernmental organizations of differing size and scope.

481. Likewise, national ministries and countries are key partners for all WHO programmes. Indeed, the overarching mission of WHO is to support national structures, policies and institutions, thereby improving not only health but also health system capacity. Although the shared values of the WHO European Member States underpin Health 2020, it will adjust to local and regional realities, aiming not to make national health systems uniform but rather to make them uniformly better.

482. Finally, effective partnerships with citizens and communities and with public and private stakeholders are essential at several levels, in terms of gaining insights into local determinants of health, winning support for action at the grassroots level and contributing to community development.

Targets

483. Setting targets for health has a tradition in public health practice. In 1981, the Global Strategy for Health for All by the Year 2000 set 12 global targets for health. A European strategy called for formulating specific regional targets to support the implementation of the strategy, and the WHO Regional Committee for Europe adopted 38 specific regional targets at its thirty-fourth session in Copenhagen in September 1984, together with 65 regional indicators to monitor and assess progress. By the year 2000, more than half the Member States had approved or were formulating targets for health at the national, subnational or city levels.

484. Since then, interest in setting targets for health has surged. Targets, however, are not an end in themselves. Their use should promote health and wellbeing, by improving performance

and also accountability as the Health 2020 policy is implemented. Targets strengthen accountability for implementation and measure progress. They can be quantitative or qualitative but should always be SMART: specific, measurable, achievable, relevant and time-bound. Every target should represent real progress and should probably be set for input, processes, output and outcomes of the Health 2020 policy.

485. A working group has been established comprising seven members of the Standing Committee of the Regional Committee with expertise in this area supported by the WHO Secretariat and co-chaired by the WHO Regional Director of Europe. This working group proposes to define one or two targets in each of the following six areas: governance for health; inequities in health; healthy people; the environment (including risk factors and the determinants of health); the burden of disease; and health system performance. The group will propose high-level targets for each major area and discuss and suggest subtargets for each high-level target as well as indicators.

486. The Member States are anticipated to discuss and approve the final proposed targets at the sixty-second session of the Regional Committee in Malta in 2012.

Conclusions for action

487. The following conclusions may be proposed as background to the introduction of Health 2020.

- Politically, the time is right for a new health policy framework for the European Region.
- The changing sociocultural and demographic landscape of the European Region implies rethinking a wide range of assumptions about health, care and support; participation and empowerment; and fairness and human rights.
- Health systems are characterized by uncertainty and complexity rather than clearly delineated areas of functional responsibility. Anticipating the future largely means understanding better the risks and opportunities at hand and making sensible predictions about what is to come.
- The growing evidence on the determinants of health is crucial but not sufficient to change how societies can function more effectively in meeting women's and men's needs. The health of European Region populations is improving but not as rapidly it should given the knowledge and technological capacity. Inequity in health is growing, and this is both socially unfair and costly to society as a whole.
- Most of the major public health challenges, including noncommunicable diseases and inequity in health, cannot be addressed effectively without intersectoral action and action at the supranational, national and local levels. Health actors need to understand and connect with the perspectives, value systems and agendas of a wide range of national and international actors.
- The WHO Regional Office for Europe has a legacy of extensive experience in working on comprehensive approaches to health development together with other sectors (including environment, transport, education, justice and agriculture) and with other levels of government (cities and subnational regions).

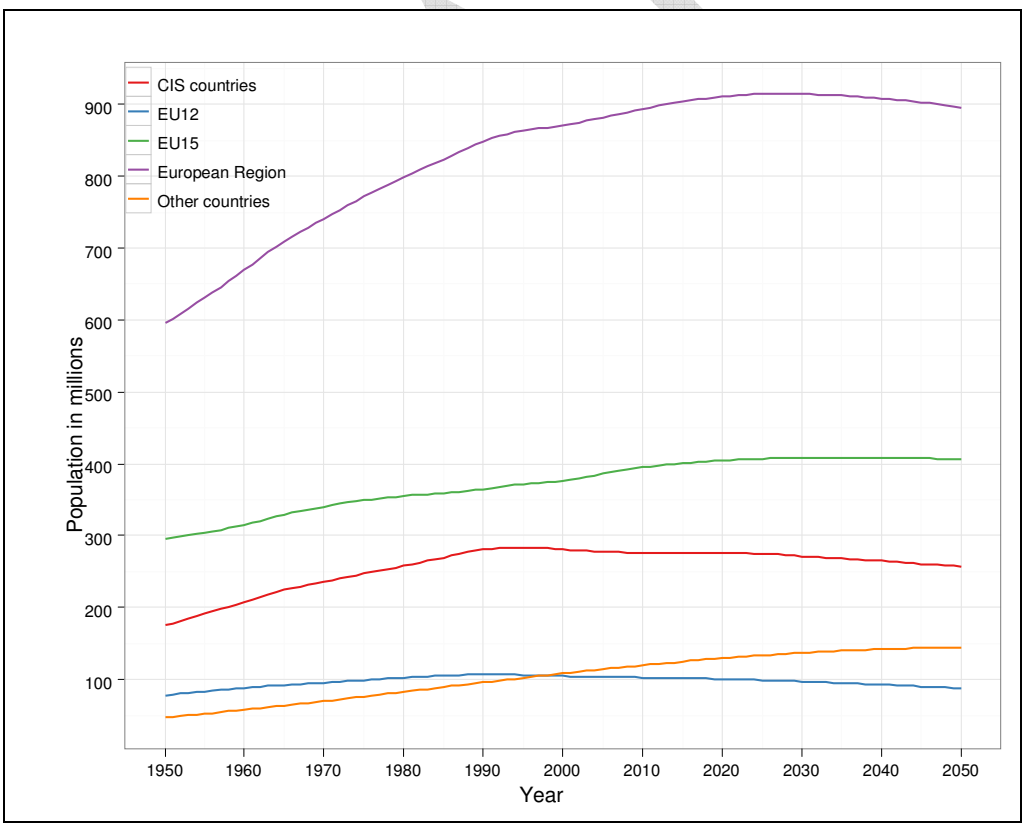
Annex 1. Demographic and epidemiological trends in the WHO European Region

Demographic trends

The WHO European Region is undergoing important demographic and epidemiological changes that are shaping the needs for health promotion, disease prevention and care in the future. However, such transitions are occurring at varying intensities and paces for different country groups, creating a mosaic of health situations that requires specific approaches.

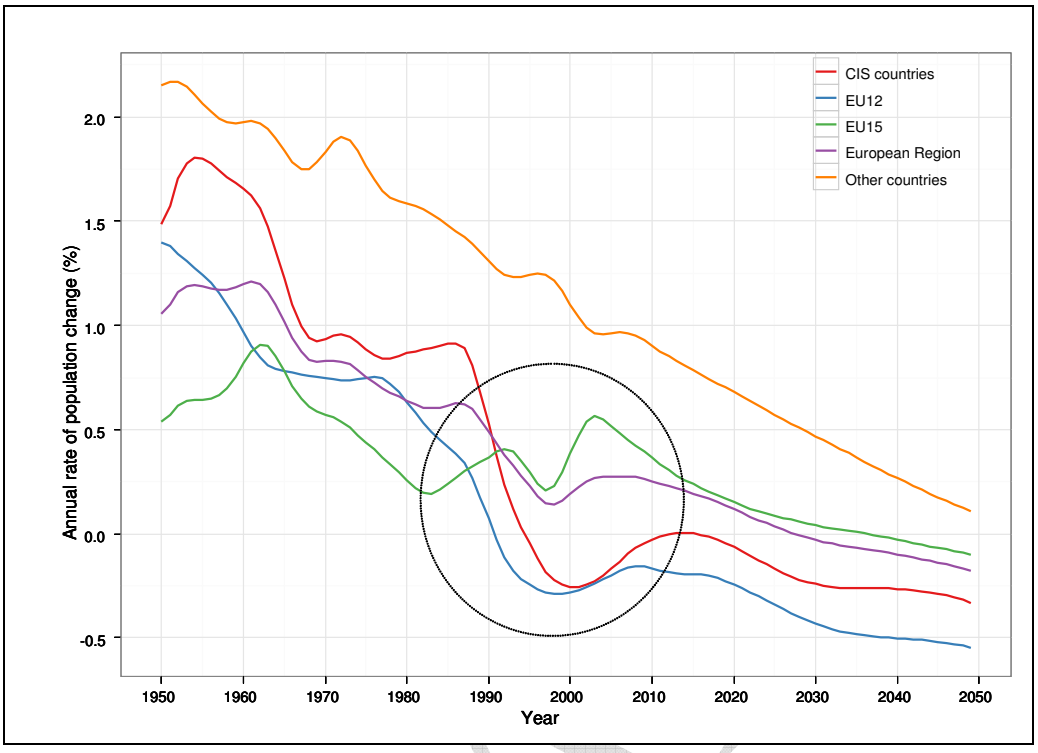
The population of the 53 countries of the European Region reached nearly 900 million in 2010; 44% live in EU15 countries and another 33% in CIS countries (Fig. 1). Trends from 2010 onwards show that the population will actually decrease in CIS countries. This contrasts with a projected increase in other countries. Decreasing crude birth rates (with fertility lower than 1.75 children per woman) coupled with relatively stable or slowly increasing crude death rates and migration result in a decreasing or negative annual population increase, notably in the EU12 and the CIS countries in the early 1990s until the early 2000s (Fig. 2).

Fig. 1. Population estimates and projections in the WHO European Region, 1950–2050



Source: World Population Prospects: the 2008 revision [database]. New York, United Nations Department of Economic and Social Affairs, Population Division, 2009.

Fig. 2. Annual rate of population change: combined effects of births, deaths and migration



Source: World Population Prospects: the 2008 revision [database]. New York, United Nations Department of Economic and Social Affairs, Population Division, 2009.

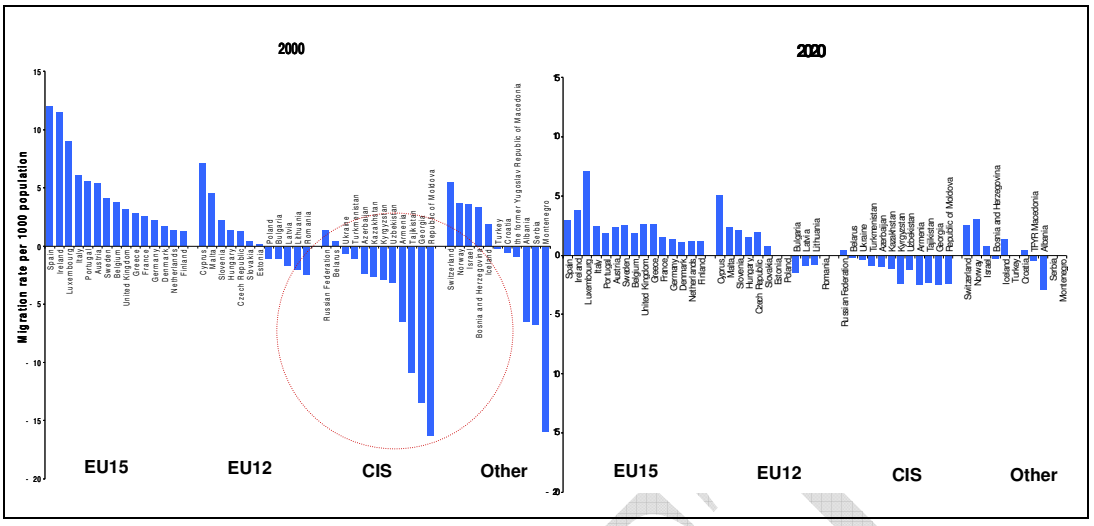
In addition to decreasing birth rates, the increasing ageing of the population has been associated with the increased control of communicable diseases early in life, the delayed occurrence of chronic noncommunicable conditions and reduced premature mortality because of improvements in living conditions and health care.

Migration, generally resulting from natural and human-made disasters and social, economic and political disruptions, is an additional factor influencing the demographic transitions observed in Europe. An estimated 73 million migrants live in the European Region, or nearly 8% of the total population, with women representing 52% of the migrants. Overall, this population inflow comprises a 5 million increase in migrant population since 2005 and nearly 70% of population growth during this period.

Net migration estimates and projections show dramatic changes between 2000 and 2020, especially for CIS countries and the other country group. Net emigration rates in CIS countries reached nearly 16 per 1000 population in 2000 (Fig. 3), whereas most EU15 and EU12 countries, where two thirds of migrants in the European Region live, witnessed an increase in net immigration.

Although the long-term effects of migration on sustained population growth and structure are still uncertain, the health system and other sectors will have to focus additional attention on the current and future needs of migrants, who are usually younger, less affluent, affected more frequently by illness and have limited access to health care.

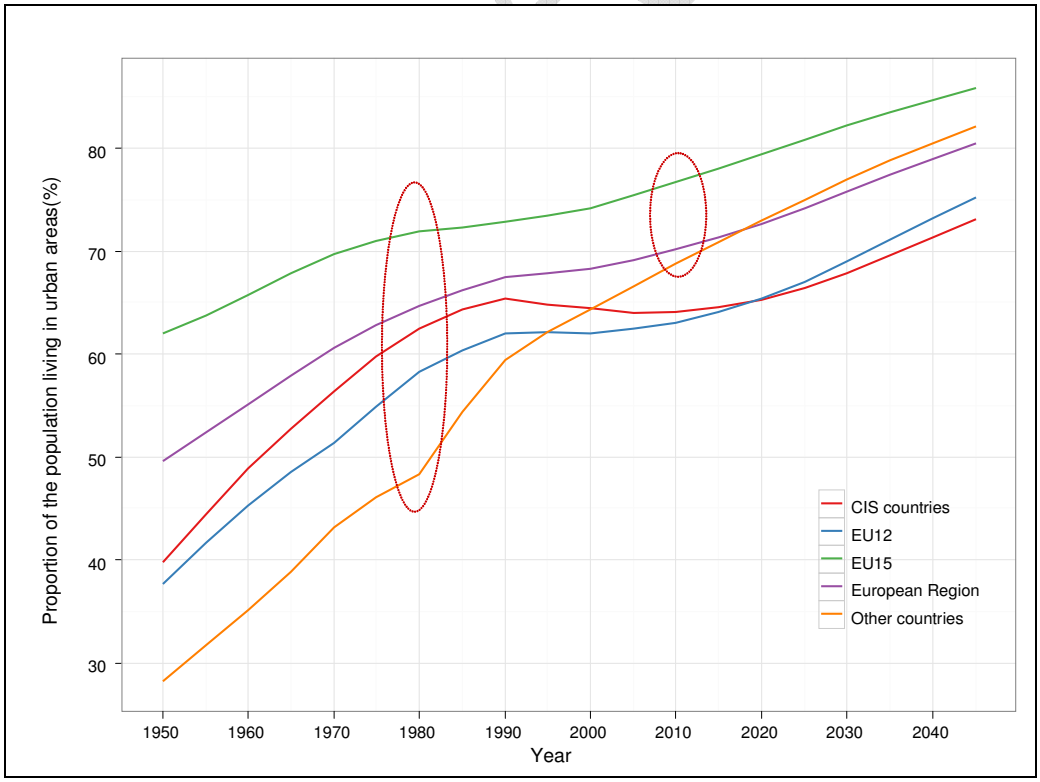
Fig. 3 Net migration rate by country and group in the WHO European Region



Source: World Population Prospects: the 2008 revision [database]. New York, United Nations Department of Economic and Social Affairs, Population Division, 2009.

According to geographical distribution, nearly 70% of the population of the European Region lived in urban settings in 2010; this is expected to exceed 80% by 2045 (Fig. 4).

Fig. 4. Proportion of urban population in country groups, WHO European Region, 1950–2045



Source: World Urbanisation Prospects: the 2009 revision [online database]. New York, United Nations Department of Economic and Social Affairs, Population Division, 2010 (http://esa.un.org/unpd/wup/index.htm, accessed 27 July 2011).

In addition to the demographic changes, the population of the European Region is experiencing important epidemiological changes in terms of the population age groups involved and the magnitude of the causes affecting health that will shape the needs for health promotion, prevention and care in the future.

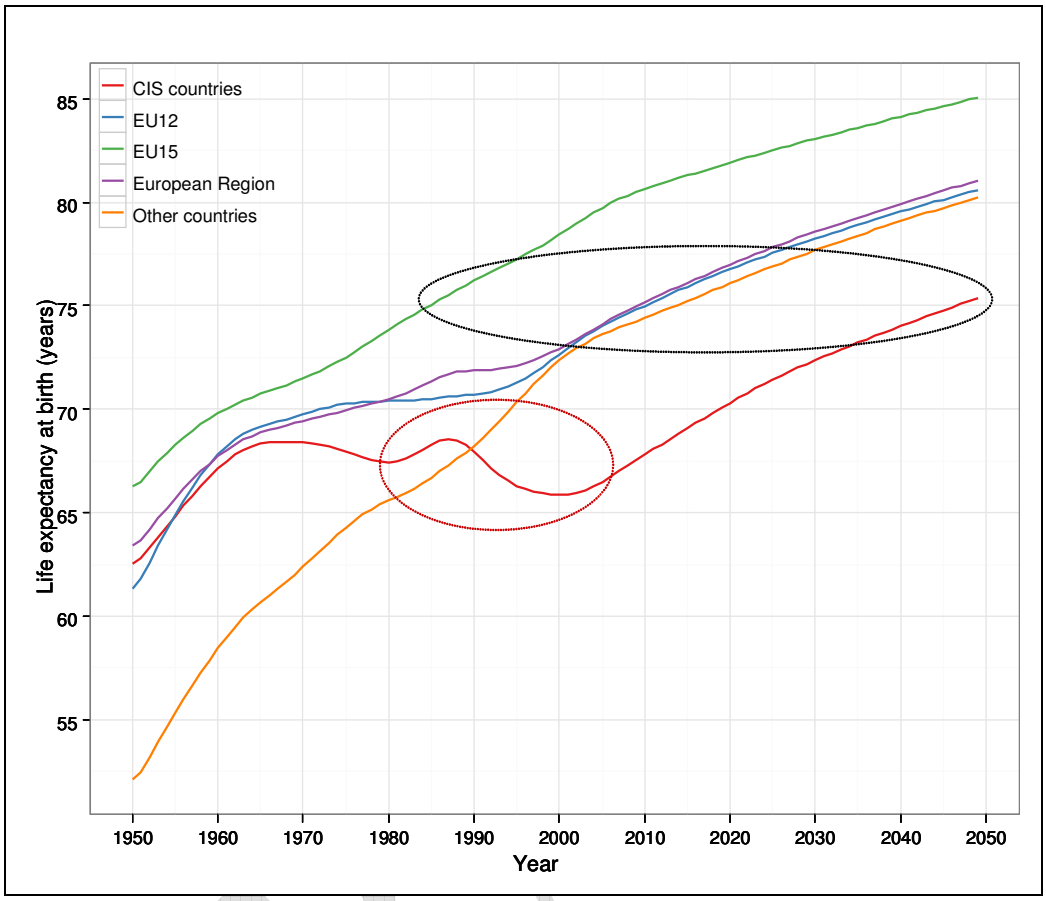
Epidemiological situation

Overall, health in the European Region is improving as suggested by life expectancy at birth, which has increased 5 years since 1980 and reached 75 years in 2010 (Fig. 5). Projections suggest that it will increase to nearly 81 years by 2050 at a similar pace as from 1980 to 2010. Nevertheless, there are important gaps between groups of countries. For example, the EU15 countries have already reached the 2050 level expected for the whole Region and will continue to reach 85 years in 2050. In contrast, the CIS countries are only expected to reach 75 years of life expectancy by 2050, the same level observed in the European Region as a whole 40 years earlier or that achieved in the EU15 countries 65 years before.

Moreover, life expectancy presents other important differences according to country and sex: between 1980 and 2020, women in France will have gained 7 years of life expectancy to reach nearly 86 years, the highest level in the European Region; by then, women in France will outlive men in France by 6 years. In contrast, men in Kazakhstan will gain only 1.4 years, reaching the lowest life expectancy of 61.4 years in Europe in 2020. Although men's absolute life expectancy levels will be lower, men will generally have larger proportional gains for 1980–2020 than women will.

In addition, life expectancy may be further broken down to account for the length of life lived in less than full health due to disability and disease at different ages. In the European Region, although women live on average 7.5 years longer than men, the average difference in healthy life is only 5 years, indicating that women live a smaller share of their lives in good health than men.

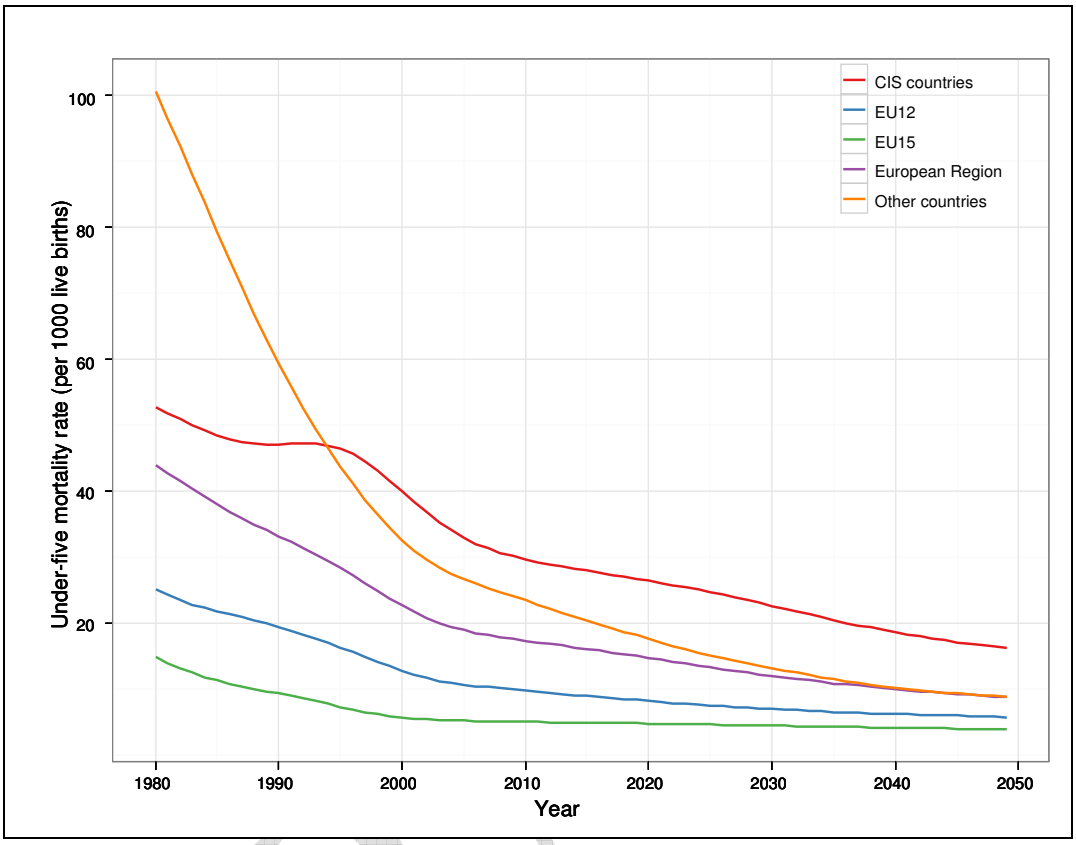
Fig. 5. Life expectancy in country groups in the WHO European Region, 1950–2045



Source: World Population Prospects: the 2008 revision [database]. New York, United Nations Department of Economic and Social Affairs, Population Division, 2009.

Mortality trends by age and country groups across the European Region show important differences. For example, the average child mortality in 2010 in the Region was nearly 18 per 1000 live births, which means a near 50% reduction from its levels in 1990 (Fig. 6).

Fig. 6. Child mortality trends by country group in the WHO European Region, 1980–2050



Source: World Population Prospects: the 2008 revision [database]. New York, United Nations Department of Economic and Social Affairs, Population Division, 2009.

In the European Region, noncommunicable diseases produce the largest proportion of mortality, accounting for about 80% of deaths in 2008. Among broad groups of causes, mortality from cardiovascular diseases accounts for nearly 50% of all of deaths (Fig. 7) but ranges from 35% in the EU15 countries to 65% in the CIS.

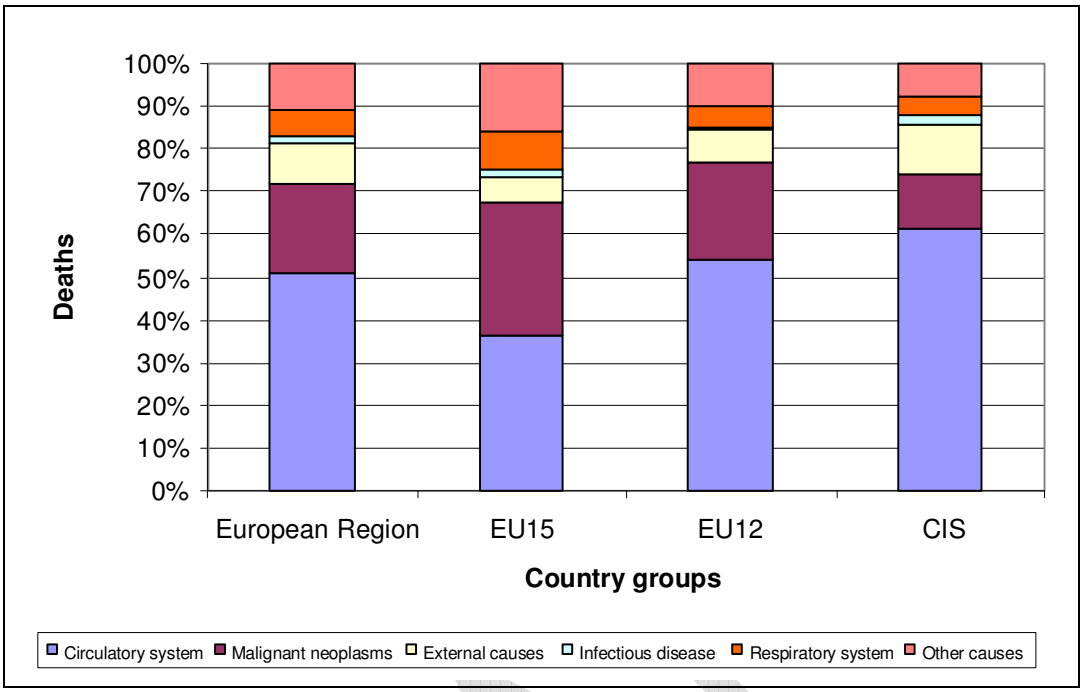
Cancer mortality follows in frequency, accounting for 20% of deaths in the Region, varying from 7% in CIS countries to 30% in EU15 countries.

Injuries and violence are the other major causes of mortality, representing 8% of all deaths and twice as frequent in the CIS countries as in the EU15 and EU12 countries.

Analysis of subgroups show a 1:1 ratio between cardiovascular disease and cancer in the EU15, accounting for nearly 70% of deaths, versus 2:1 in the EU12 and 5:1 in the CIS which also reflects the stage of transition of the ageing of their populations.

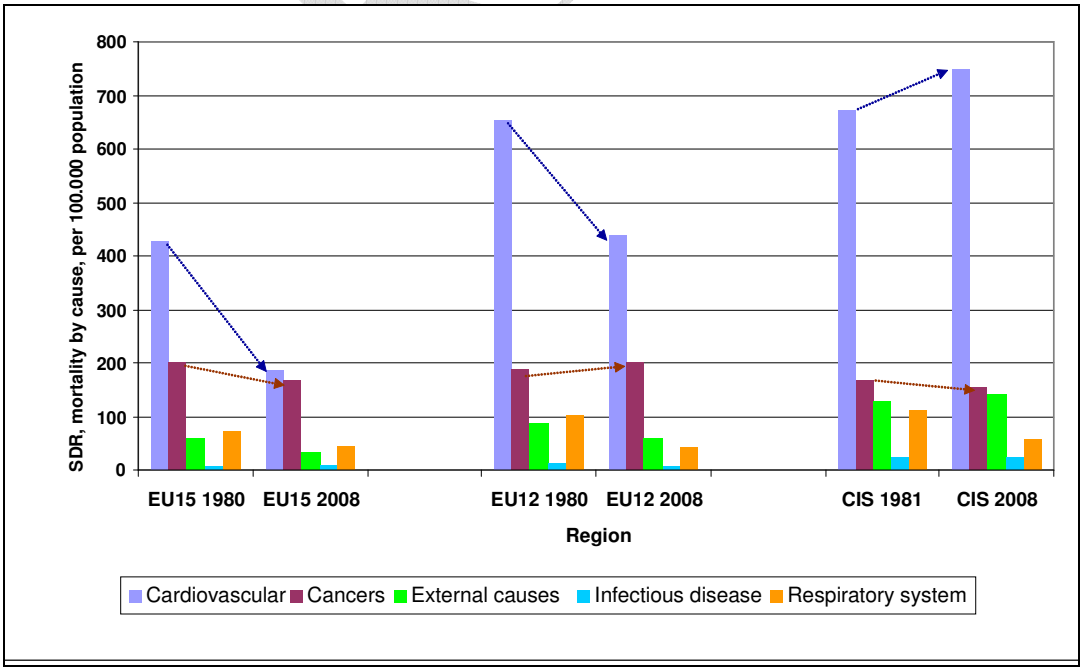
Moreover, reflecting the changing disease patterns in Europe, mortality trends show that cardiovascular disease deaths declined by more than 50% in the EU15 countries and 30% in the EU12 countries between 1981 and 2008, coinciding with a 10% increase in the CIS (Fig. 8). This contrasts with the cancer situation, which has remained largely unchanged in the EU and CIS groups.

Fig. 7. Proportionate mortality by broad group of causes of death by country group in the WHO European Region, 2008



Source: European Health for All database [online database]. Copenhagen, WHO Regional Office for Europe, 2011 (http://data.euro.who.int/hfadb, accessed 27 July 2011).

Fig. 8. Changing disease patterns by country group in the WHO European Region, 1980–2008

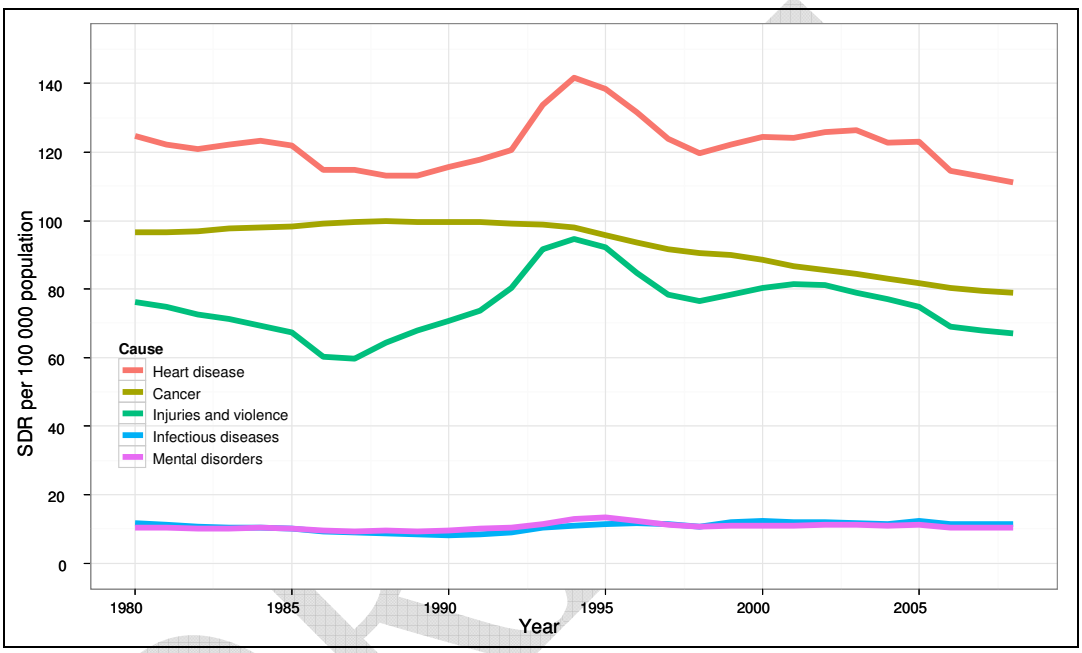


Source: European Health for All database [online database]. Copenhagen, WHO Regional Office for Europe, 2011 (http://data.euro.who.int/hfadb, accessed 27 July 2011).

Because more than 70% of mortality occurs at ages older than 65 years, when disease processes have been underway for several years, premature mortality (deaths of people before age 65 years) is more informative for developing public health policy and programmes and interventions for delaying disease and the onset of disability.

In this regard, mortality trends show that cardiovascular diseases have remained the most important causes of premature death in the Region, with rates exceeding 110 per 100 000 population in 2008, but the level recently started to decrease (Fig. 9).

Fig. 9. Trends in premature mortality by broad group of causes in the WHO European Region, 1980–2008

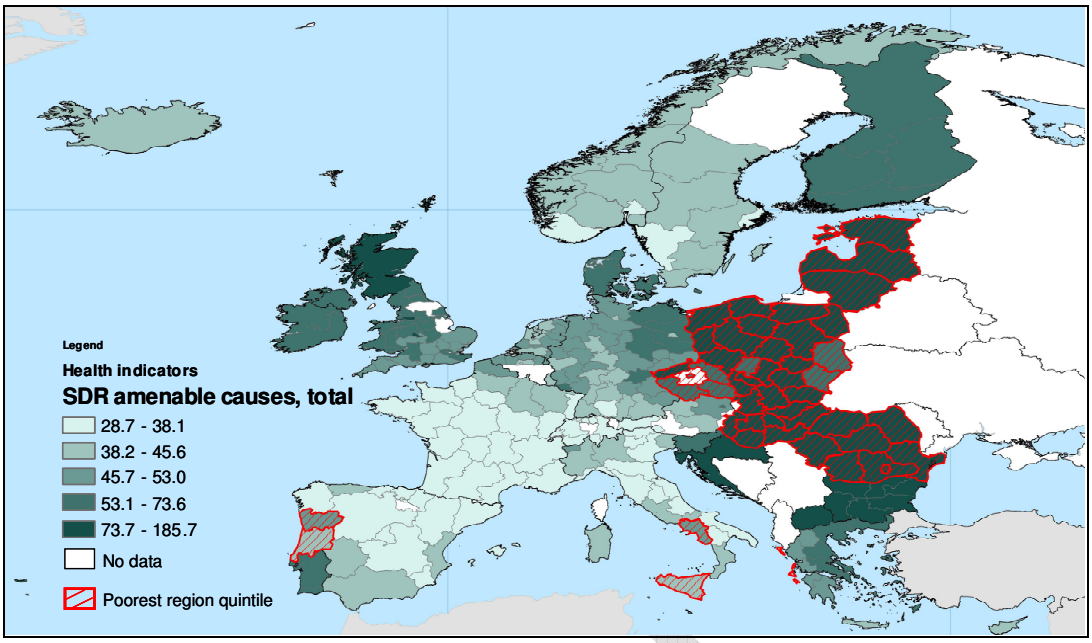


Source: European Health for All database [online database]. Copenhagen, WHO Regional Office for Europe, 2011 (http://data.euro.who.int/hfadb, accessed 27 July 2011).

The case of amenable mortality in the EU is useful to illustrate the important inequality in health occurring in the European Region. The concept of amenable mortality involves death that is premature and essentially avoidable by various known public health and health care interventions and is an important measure of the burden of disease in the population. It has also been used to identify inequality in health and is considered to indicate the performance of the health system.

Socioeconomic factors such as disposable income are associated with the occurrence of avoidable mortality: the lower the disposable income, the higher the mortality. Amenable mortality rates within the EU show a gradient with higher levels in the eastern parts of the EU, but some subnational regions have high levels in other areas (Fig. 10). Superimposing a layer showing the regions in the poorest quintile (hatched) tends to validate the association with higher avoidable mortality. However, there are some poor regions where mortality levels are relatively low. This observation requires additional information and research to identify other potential explanations.

Fig. 10. Inequality in health in the EU and neighbouring countries: avoidable mortality and lowest disposable income per capita at the subnational level in about 2005–2007



Source: Inequalities in Health System Performance and Their Social Determinants in Europe - Tools for Assessment and Information Sharing Project [online database]. Copenhagen, WHO Regional Office for Europe, 2010 (http://data.euro.who.int/equity/, accessed 27 July 2011).

The use of disability-adjusted life years (DALYs) as a tool for assessing health status beyond mortality provides another focus for this evaluation process (Box 1), since death does not comprise all the burden of disease and morbidity and disability have their share.

Because morbidity and disability may be linked to other important aspects such as determinant factors and exposure and to interventions, the DALY approach has been used for assessing and comparing the magnitude and relative importance of risks, effectiveness, cost–effectiveness (efficiency) and priority-setting. The latest revision of the Global Burden of Disease study in 2008 produced a list of leading causes of DALY loss for EU countries (Box 2). The ordered list, with unipolar depressive disorders and ischaemic heart disease as the top ones, also includes many nonfatal outcomes or disease with low case fatality but that may cause severe and/or long-standing disability, most of them related to chronic noncommunicable diseases and external causes (injuries and violence).

Box 1. Watching health status in Europe through another lens: the value of using DALYs

Focus on loss of health not only loss of life (mortality)

DALYs therefore incorporate mortality, morbidity and disability

DALYs can be linked to determinant factors and interventions to assess risk, effectiveness and cost–effectiveness

DALYs enable direct and internally consistent comparisons between disease groups

Source: *The global burden of disease: 2004 update*. Geneva, World Health Organization, 2008. (http://www.who.int/healthinfo/global_burden_disease/2004_report_update/en/index.html).

Box 2. Leading causes of DALY loss in EU countries, 2004

Unipolar depressive disorders

Ischaemic heart disease

Hearing loss, adult onset

Alzheimer and other types of dementia

Chronic obstructive pulmonary disease

Cerebrovascular disease

Osteoarthritis

Diabetes mellitus

Cataracts

Road crashes

Trachea, bronchus and lung cancer

Poisoning

Alcohol use disorders

Cirrhosis of the liver

Inflammatory heart disease

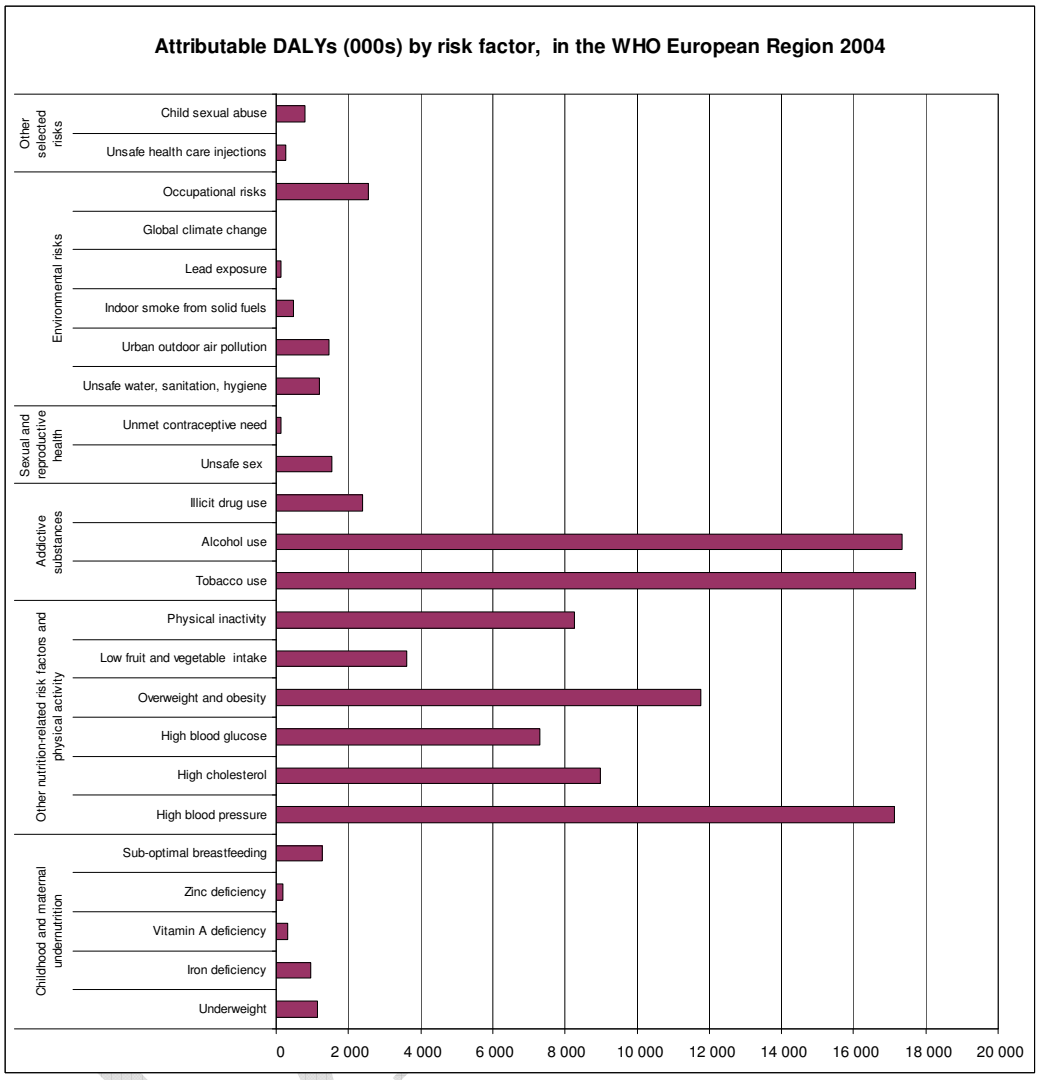
Self-inflicted injuries

Source: *The global burden of disease: 2004 update*. Geneva, World Health Organization, 2008.
(http://www.who.int/healthinfo/global_burden_disease/2004_report_update/en/index.html).

Although the DALYs are continually revised, the total DALYs have been attributed to different leading risk factors in the European Region (Fig. 11). As a result, the most important areas for intervention can be identified, such as diet, physical activity and addictive substances, mainly to reduce overweight, obesity, high cholesterol and blood pressure and alcohol and tobacco use.

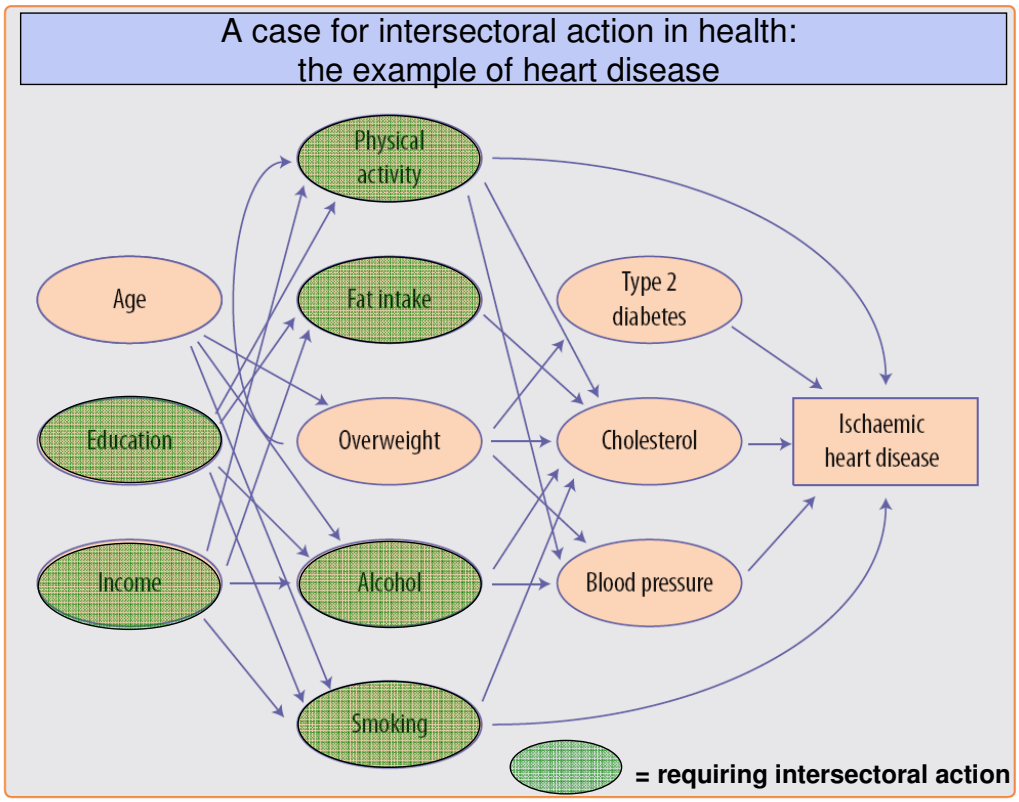
Finally, interventions can be identified by using these types of data and building a causal or pathway model for a given disease or sets of diseases (Fig. 12). In the example for ischaemic heart disease, once developed, links can be established and areas or factors identified that require intersectoral participation.

Fig. 11. Total DALYs lost attributed to leading risk factors in the WHO European Region, 2004



Source: *Global health risks: Mortality and burden of disease attributable to selected major risks*. Geneva, World Health Organization, 2009. (http://www.who.int/healthinfo/global_burden_disease/global_health_risks/en/index.html, accessed 27 July 2011).

Fig. 12. Intersectoral action for health: the example of heart disease



Source: *Global health risks: Mortality and burden of disease attributable to selected major risks.* Geneva, World Health Organization, 2009. (http://www.who.int/healthinfo/global_burden_disease/global_health_risks/en/index.html, accessed 27 July 2011).

Conclusions

Key demographic and health issues in Europe may be highlighted as follows:

- People are living longer
  - Slow population growth
  - Rapid ageing of the population
  - Decreased mortality in early life
- Changing patterns of disease burden
  - From cardiovascular diseases to cancer
  - Injuries and mental health emerging as health problems
- Increasing inequalities in health and its determinants
  - Important differences between and within countries
- Priorities and some course of action may be identified
  - Based on assessments of the burden of disease.