



# Physical activity strategy for the WHO European Region 2016–2025



**Regional Committee for Europe**  
65th session

**Vilnius, Lithuania, 14–17 September 2015**

Provisional agenda item 5(d)

EUR/RC65/9  
+ EUR/RC65/Conf.Doc./4

30 July 2015  
150474  
ORIGINAL: ENGLISH

## **Physical activity strategy for the WHO European Region 2016–2025**

This physical activity strategy was prepared in the light of the existing voluntary global targets set out in the WHO *Global action plan for the prevention and control of noncommunicable diseases 2013–2020*, endorsed by the Sixty-sixth World Health Assembly in May 2013.

The strategy focuses on physical activity as a leading factor in health and well-being in the European Region, with particular attention to the burden of noncommunicable diseases associated with insufficient activity levels and sedentary behaviour. It aims to cover all forms of physical activity throughout the life-course.

## Contents

|                                                                                                                                                                                        | page |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|
| Voluntary global targets .....                                                                                                                                                         | 5    |
| Introduction .....                                                                                                                                                                     | 5    |
| Vision .....                                                                                                                                                                           | 8    |
| Mission .....                                                                                                                                                                          | 8    |
| Guiding principles .....                                                                                                                                                               | 9    |
| Address the ever-decreasing levels of physical activity and reduce inequities .....                                                                                                    | 9    |
| Promote a life-course approach .....                                                                                                                                                   | 9    |
| Empower people and communities through health-enhancing environments and participation.....                                                                                            | 9    |
| Promote integrated, multisectoral and partnership-based approaches.....                                                                                                                | 10   |
| Ensure adaptability of physical activity programmes (interventions) to different contexts .....                                                                                        | 10   |
| Use evidence-based strategies to promote physical activity and to monitor ongoing implementation and impact.....                                                                       | 11   |
| Scope and priority areas .....                                                                                                                                                         | 11   |
| Time frame, implementation and support by WHO .....                                                                                                                                    | 11   |
| Priority areas, objectives and tools.....                                                                                                                                              | 12   |
| Priority area 1 – Providing leadership and coordination for the promotion of physical activity .....                                                                                   | 12   |
| Objective 1.1 – Provide high-level leadership by the health sector.....                                                                                                                | 12   |
| Objective 1.2 – Establish coordination mechanisms and promote alliances .....                                                                                                          | 12   |
| Priority area 2 – Supporting the development of children and adolescents.....                                                                                                          | 13   |
| Objective 2.1 – Promote physical activity during pregnancy and early childhood.....                                                                                                    | 13   |
| Objective 2.2 – Promote physical activity in preschools and schools .....                                                                                                              | 14   |
| Objective 2.3 – Promote recreational physical activity for children and adolescents.....                                                                                               | 15   |
| Priority area 3 – Promoting physical activity for all adults as part of daily life, including during transport, leisure time, at the workplace and through the health-care system..... | 15   |
| Objective 3.1 – Reduce car traffic and increase walking and cycling suitability ..                                                                                                     | 15   |
| Objective 3.2 – Provide opportunities and counselling for physical activity at the workplace.....                                                                                      | 16   |
| Objective 3.3 – Integrate physical activity into prevention, treatment and rehabilitation.....                                                                                         | 17   |
| Objective 3.4 – Improve access to physical activity facilities and offers, particularly for vulnerable groups .....                                                                    | 17   |
| Priority area 4 – Promoting physical activity among older people.....                                                                                                                  | 18   |
| Objective 4.1 – Improve the quality of advice on physical activity by health professionals to older people .....                                                                       | 18   |
| Objective 4.2 – Provide infrastructure and appropriate environments for physical activity among older people.....                                                                      | 18   |
| Objective 4.3 – Involve older people in social physical activity .....                                                                                                                 | 19   |

|                                                                                                                                                 |    |
|-------------------------------------------------------------------------------------------------------------------------------------------------|----|
| Priority area 5 – Supporting action through monitoring, surveillance, the provision of tools, enabling platforms, evaluation and research ..... | 19 |
| Objective 5.1 – Strengthen surveillance systems .....                                                                                           | 19 |
| Objective 5.2 – Strengthen the evidence base for physical activity promotion .....                                                              | 20 |
| References .....                                                                                                                                | 20 |
| Annex. Bibliography .....                                                                                                                       | 24 |
| WHO policy documents.....                                                                                                                       | 24 |
| Other WHO documents .....                                                                                                                       | 25 |
| EU documents .....                                                                                                                              | 26 |
| Documents from other sources .....                                                                                                              | 27 |

## Conceptual overview and main elements

### Vision

Inspired by Health 2020 – the WHO European policy framework for health and well-being – our vision is for governments in the WHO European Region to work across sectors, levels and countries and with stakeholders to enable all citizens to have better and longer lives owing to a lifestyle that incorporates regular physical activity.

### Mission

The physical activity strategy aims to inspire governments and stakeholders to work towards increasing the level of physical activity among all citizens of the European Region by:

- promoting physical activity and reducing sedentary behaviours;
- ensuring an enabling environment that supports physical activity through engaging and safe built environments, accessible public spaces and infrastructure;
- providing equal opportunities for physical activity regardless of gender, age, income, education, ethnicity or disability; and
- removing barriers to and facilitating physical activity.

### Guiding principles

- Address the ever-decreasing levels of physical activity and reduce inequities.
- Promote a life-course approach.
- Empower people and communities through health-enhancing environments and participation.
- Promote integrated, multisectoral, sustainable and partnership-based approaches.
- Ensure adaptability of physical activity programmes (interventions) to different contexts.
- Use evidence-based strategies to promote physical activity and to monitor ongoing implementation and impact.

### Priority areas

- **Priority area 1** – Providing leadership and coordination for the promotion of physical activity.
- **Priority area 2** – Supporting the development of children and adolescents.
- **Priority area 3** – Promoting physical activity for all adults as part of daily life, including during transport, leisure time, at the workplace and through the health-care system.
- **Priority area 4** – Promoting physical activity among older people.
- **Priority area 5** – Supporting action through monitoring, surveillance, the provision of tools, enabling platforms, evaluation and research.

## Voluntary global targets

1. This physical activity strategy was prepared in the light of the existing voluntary global targets set out in the WHO *Global action plan for the prevention and control of noncommunicable diseases 2013–2020 (1)*, endorsed by the Sixty-sixth World Health Assembly in resolution WHA66.10 (2) in May 2013. A 10% relative reduction in the prevalence of insufficient physical activity by 2025 is one of its nine global targets. In addition, increased levels of physical activity play an important role in attaining three of the other targets:

- a 25% relative reduction in the risk of premature mortality from cardiovascular diseases, cancer, diabetes or chronic respiratory diseases;
- a 25% relative reduction in the prevalence of raised blood pressure or containment of the prevalence of raised blood pressure, according to national circumstances; and
- halt the rise in diabetes and obesity.

## Introduction

2. Physical activity is one of the most basic human functions. It is an important foundation of health throughout life. Its known health benefits include a reduced risk of cardiovascular disease, hypertension, diabetes and certain forms of cancer; it also has an important role in the management of certain chronic conditions. In addition, it has positive effects on mental health by reducing stress reactions, anxiety and depression and by possibly delaying the effects of Alzheimer's disease and other forms of dementia (A,B,C,D). Furthermore, physical activity is a key determinant of energy expenditure and is therefore fundamental to achieving energy balance and weight control. Throughout childhood and adolescence, physical activity is necessary for the development of basic motor skills, as well as musculoskeletal development. Furthermore, physical activity is also embedded in the United Nations Convention on the Rights of the Child. In adults, physical activity maintains muscle strength and increases cardiorespiratory fitness and bone health. Among older people, physical activity helps to maintain health, agility and functional independence and to enhance social participation. It may also help to prevent falls and assists in chronic disease rehabilitation, becoming a critical component of a healthy life.

3. There are many different forms, kinds and levels of intensity of physical activity. These include fundamental movement skills, active play, leisure activities, such as walking, dancing, hiking and biking, sports and structured exercise. Physical activity can take place in a range of domains and settings, such as in "green" or "blue" spaces (water landscapes), at school, in the workplace, during transport from place to place, at home or as part of the activities of daily living, such as gardening or household chores. Different forms of physical activity may be more or less relevant to certain social groups or genders and at different stages of life.

4. WHO recommends that adults, including older people, undertake at least 150 minutes of moderate-intensity aerobic physical activity each week. The existing recommendations emphasize the health benefits of moderate-intensity activities and that the recommended levels can be accumulated in relatively short bouts of activity at a time. Children and young people should accumulate at least 60 minutes of moderate- to

vigorous-intensity physical activity every day. A higher level of physical activity is likely to provide additional health benefits both for adults and for children. People that are currently inactive should aim to meet the recommendations. However, it is recognized that small amounts of physical activity are better than none. Groups that cannot achieve the recommended amounts of physical activity due to existing health conditions should be as physically active as their abilities and conditions allow, including low-intensity physical activity. Recent research has also suggested that people should reduce extended periods of sedentary behaviour, such as sitting at work or watching television, since these may constitute an independent risk factor for ill health regardless of other activity levels. Especially for the elderly, physical activity is important for strength training and balance, in particular to prevent falls.

5. Despite the known benefits of physical activity, there is a worldwide trend towards less total daily physical activity. Globally, one third of adults do not achieve the recommended levels of physical activity. In Europe, estimates indicate that more than one third of adults are insufficiently active (3). While there are some continuing challenges in terms of the validity and comparability of data on levels of physical activity across Europe, recent figures from member States of the European Union (EU) indicate that six in every 10 people above 15 years of age never or seldom exercise or play a sport and more than half never or seldom engage in other kinds of physical activity, such as cycling, dancing or gardening (4). At the same time, a high proportion of adults in Europe spend more than four hours a day sitting, which could be a contributing factor to sedentary lifestyles (3).

6. As a consequence, physical inactivity has become a leading risk factor for ill health: 1 million deaths (about 10% of the total) and 8.3 million disability-adjusted life years lost per year in the WHO European Region are attributable to physical inactivity. It is estimated to cause 5% of the burden of coronary heart disease, 7% of type 2 diabetes, 9% of breast cancer and 10% of colon cancer (5). Rising rates of overweight and obesity have also been reported in many countries in the Region during the past few decades. The statistics are disturbing: in 46 countries (accounting for 87% of the Region), more than 50% of adults are overweight or obese; in several of those countries the rate is close to 70% of the adult population. Overweight and obesity are also highly prevalent among children and adolescents, particularly in southern European countries. Physical inactivity has been identified as contributing to the energy imbalance that leads to weight gain. Collectively, physical inactivity not only has substantial consequences for direct health-care costs but also causes high indirect costs due to increased periods of sick leave, work disabilities and premature deaths. For a population of 10 million people, where half the population is insufficiently active, the overall cost is estimated to be €910 million per year (6).

7. Different groups have diverse needs and challenges with regard to the promotion of physical activity. This evidence needs to be taken into account by policy-makers. The increasing rates of physical inactivity among children and adolescents are alarming. Only 34% of European adolescents aged 13–15 years are active enough to meet the current guidelines (E). This contributes to rising rates of overweight and obesity among children in Europe, particularly among children from low socioeconomic backgrounds. Data from the WHO European Childhood Obesity Surveillance Initiative (COSI) show that, in some countries, almost 50% of eight-year-old boys are overweight and more than 25% are obese (7). In most European countries, physical activity levels begin to

decline significantly among young people aged 11–15 years, in particular among girls of that age group (in all WHO European Region countries that were part of the Health Behaviour in School-aged Children study more than 86% of 15-year-old girls are considered physically inactive). Research also indicates that adults and older people from disadvantaged backgrounds, as well as some minority ethnic groups, engage in less physical activity and are harder to reach for the promotion of physical activity than others. People with disabilities are another particularly vulnerable group, with an elevated risk of health problems associated with physical inactivity. In addition, there are significant disparities in physical activity levels among Member States of the European Region, especially between the north and south and the east and west.

8. Maintaining sufficient levels of physical activity is becoming more and more difficult, as most daily environments have changed significantly in recent years. The causes of physical inactivity are predominantly the result of systemic and environmental factors, which have made daily living and working environments increasingly sedentary. Greater distances between homes, workplaces, shops and places for leisure activities have increased the use of cars and led to a decline in walking and cycling. Simultaneously, in many contexts, road safety remains a concern, whereby it is, or is perceived to be, not safe to engage in active transport. Children and adolescents spend more time in school or day-care settings than ever before; academic demands are increasing, which can reduce the time dedicated to physical education and active play. Other factors that are believed to have influenced levels of physical activity include the quality of neighbourhood environments, increasing sedentary forms of entertainment, such as screen-based activities, and technical aids, such as elevators (6).

9. In July 2013, ministers of countries of the European Region adopted the Vienna Declaration on Nutrition and Noncommunicable Diseases in the Context of Health 2020 (7), which, for the first time, called for the development of a stand-alone physical activity strategy for the European Region. This clear mandate was further strengthened by the 63rd session of the WHO Regional Committee for Europe in Çeşme Izmir, Turkey, where Member States endorsed the Vienna Declaration in resolution EUR/RC63/R4 (8).

10. This strategy will build on the commitments of Health 2020 – the WHO European policy framework for health and well-being – and aligns with existing WHO frameworks and strategies, such as the *Global action plan for the prevention and control of noncommunicable diseases 2013–2020*, the Action plan for implementation of the European Strategy for the Prevention and Control of Noncommunicable Diseases 2012–2016 (9), the *Global Strategy on Diet, Physical Activity and Health* (10) and the WHO *Global Recommendations on Physical Activity for Health* (11). It is linked to landmark documents in related areas of health promotion and intersectoral collaboration, such as the Parma Declaration on Environment and Health (12), the Paris Declaration defining the Transport, Health and Environment Pan-European Programme (THE PEP) vision (13), and the WHO European Region Food and Nutrition Action Plan 2015–2020 (14). It builds on the ongoing work of WHO in the field of physical activity, as illustrated by guiding documents such as *Steps to health: a European framework to promote physical activity for health* (6) and *A healthy city is an active city: a physical activity planning guide* (15), among others, and by the emerging work of the WHO Commission on Ending Childhood Obesity. It also acknowledges and seeks synergy with recent documents on physical activity by other international organizations, in



particular, the EU Council recommendation on promoting health-enhancing physical activity across sectors (16), the EU Council conclusions on nutrition and physical activity (17) and the EU Action Plan on Childhood Obesity 2014–2020 (18), as well as The Toronto Charter for Physical Activity: A Global Call for Action (19), launched by the Global Advocacy for Physical Activity in 2010.

11. Reducing the level of physical inactivity in Europe would lead to substantial benefits for the health of the population, as well as benefits in other areas. It is estimated that the average life expectancy could be increased by 0.63 years in the European Region if physical inactivity were to be eradicated (5). There could be improvements in the environment, the individual quality of life, community social participation and resilience. More walking and cycling could help reduce greenhouse gas emissions, air pollution, noise and congestion. In addition, increased physical activity could increase economic development in a number of sectors, including manufacturing, transport, health services, sports and tourism. As an example to illustrate the potential impact, a comparison of 56 major cities in Europe and North America suggests that more than 76 000 new jobs could be created in these cities alone if the level of cycling could be increased to that of Copenhagen, Denmark (21). It is recognized that Member States will need to tailor their own responses to their specific national context.

## **Vision**

12. Inspired by Health 2020, the Regional Office's vision is for governments in the European Region to work across sectors, levels and countries and with stakeholders to enable all citizens to have better and longer lives owing to a lifestyle that incorporates regular physical activity.

## **Mission**

13. The physical activity strategy aims to inspire governments and stakeholders to work towards increasing levels of physical activity among all citizens of the European Region by:

- promoting physical activity;
- reducing sedentary behaviours;
- ensuring an enabling environment that supports physical activity through engaging and safe built environments, accessible public spaces and infrastructure;
- providing equal opportunities for physical activity regardless of gender, age, income, education, ethnicity or disability; and
- removing barriers to and facilitating physical activity.

## **Guiding principles**

### ***Address the ever-decreasing levels of physical activity and reduce inequities***

14. Physical activity is a prerequisite for both physical and mental health. Access to safe and attractive public spaces for activity and the opportunity to enjoy quality recreation are vital to the health and personal development of all individuals. There are numerous barriers to individuals participating in physical activity. These include community, school, work and transport environments that are not conducive to incidental physical activity in daily life, high user fees, a lack of awareness of opportunities, transportation, time constraints, personal preferences, cultural and language barriers, self-esteem, issues of access to local recreation facilities and a lack of safe places to play. Strategies must be formulated to remove the barriers that are most relevant to each age, gender and socioeconomic group. Tackling inequalities in physical activity and achieving universal access to environments and facilities that support physical activity across social gradients will be necessary to achieve the best results. Such actions will also support the optimal development of human capital and the economies of all Member States at a time of limited resources. Policies to improve the availability, affordability and acceptability of physical activity for the most vulnerable groups can contribute to reducing their risks of disease and, alongside policies in other areas, may help to close the gaps among and within Member States.

### ***Promote a life-course approach***

15. Health in later life is influenced by an accumulation of experience and adopted lifestyle across the life-course. A life-course approach is therefore needed to effectively promote physical activity and to reduce the burden of noncommunicable diseases in Europe. This means not only ensuring a good start in life for each child, but also preventing unhealthy behaviours that are often established during childhood and adolescence. It starts by ensuring physical activity before and during pregnancy and continues with appropriate levels of physical activity for infants and their parents. Action to encourage physical activity, both structured and less organized, such as free outdoor play, for children and adolescents at day-care centres, kindergartens, schools and in the community is reinforced and sustained by its promotion as a part of daily life for adults and older people at home, in the community and at the workplace. It also includes the promotion of sufficient levels of physical activity in health-care settings, such as primary health-care centres, hospitals and residential homes.

### ***Empower people and communities through health-enhancing environments and participation***

16. Safe and engaging environments for active transport and physical activity in daily life can be one of the most powerful ways to reach all people and to change social norms and behaviour in the longer term. However, local environments throughout the Region have become less and less conducive to physical activity. Through decisions impacting urban design, land use and transport, societies have become increasingly car-friendly over time, and there is a growing geographical separation of living, working,

shopping and leisure activities. As a consequence, the role of active modes of transport, such as cycling and walking, has decreased dramatically in some countries, as have opportunities for active recreation. Policy action to improve local environments, including through limits on the volume and speed of traffic, and investment in “green” and “blue” spaces and other infrastructure can help to ensure safe streets for cycling and walking for people of all ages and to encourage active recreation in public spaces. This requires multisector work at multiple levels, involving local governments. The concept of enabling environments to support daily physical activity is a cross-cutting principle. As such, it is integrated throughout this strategy with many examples of proposals for environmental change. Other actions that target specific settings or behaviour change in individuals across the life-course will be supported and reinforced at a fundamental level by improvements to the local environment.

17. People and communities should be empowered to take control of the determinants of their health through active participation in the development of policies and interventions that affect them in order to remove barriers and to provide inspiration and motivation.

### ***Promote integrated, multisectoral and partnership-based approaches***

18. A comprehensive, integrated and intersectoral approach is required to reduce the prevalence of physical inactivity. A complementary range of policies and interventions should be introduced at the individual, community, cultural, political and environmental level. Following the guidance on governance provided by Health 2020, government leaders and policy-makers should establish governance mechanisms that foster intersectoral cooperation among government departments, national and local institutions, experts, civil society and, where appropriate, the private sector, while safeguarding the integrity of effective policy-making. It is advisable to recognize and to fully take advantage of existing mechanisms, platforms and initiatives that provide synergy, including those involving other sectors that can play an important role in the promotion of environmental and infrastructural conditions conducive to physically active behaviours. These include, for example, policies aimed at promoting sports, those that encourage active mobility, and strategies for the reduction of noncommunicable diseases.

### ***Ensure adaptability of physical activity programmes (interventions) to different contexts***

19. This strategy aims to provide guidance to Member States and will support and encourage the wider implementation of a range of effective policies at the national level, including coherent multisectoral approaches. The policies described in this strategy are relevant to all countries in the Region but retain flexibility in design and are adaptable in order to take into account national contexts, existing legislation and the important cultural dimensions of physical activity. During implementation, WHO will continue to support, stimulate and provide leadership through strategic advice to Member States on physical activity in the context of Health 2020, thereby contributing towards the overall goal of achieving a sustainable healthy life for all.

## ***Use evidence-based strategies to promote physical activity and to monitor ongoing implementation and impact***

20. Strategies for the promotion of physical activity and the reduction of sedentary lifestyles must be based on the best available scientific evidence and examples of best practice from evaluated actions. Such evidence includes the health effects of physical activity and the effectiveness of different kinds of interventions to promote physical activity, as well as that of the various policy instruments, in promoting physical activity. The main emphasis should be on implementing evidence-based actions, as well as taking further steps on the basis of the development and sharing of good practices towards an institutionalized and scaled-up implementation of effective interventions and policies. Special attention should be given to efforts to convert knowledge into action, including monitoring and evaluation. At the EU level, the monitoring provisions for the implementation of the EU Council Recommendation on promoting health-enhancing physical activity across sectors, achieved with the help of 23 indicators, are a valuable tool.

## **Scope and priority areas**

21. This strategy focuses on physical activity as a leading factor in health and well-being in the European Region, with particular attention to the burden of noncommunicable diseases associated with insufficient activity levels and sedentary behaviour. It aims to cover all forms of physical activity throughout the life-course. Its specific priority areas are:

- providing leadership and coordination for the promotion of physical activity;
- promoting physical activity among all children and adolescents to support healthy development, with approaches tailored to different needs and preferences;
- promoting physical activity for all adults from all social groups as part of daily life, including during transport, at the workplace, as recreation and through the health-care system;
- maintaining the functional capacity, strength and balance of older people; and
- supporting action through monitoring, surveillance, evaluation and research.

## **Time frame, implementation and support by WHO**

22. This strategy will guide action to promote physical activity in the European Region over the period 2016–2025, with the support of the Regional Office through biennial region-wide activities and country cooperation strategies. Furthermore, the Regional Office will assist Member States through the development of specific tools and technical guidance on policy development by supporting monitoring and surveillance at the national and regional level and by guiding research efforts in the field (namely, through the Health-enhancing physical activity policy audit tool).<sup>1</sup> In addition,

---

<sup>1</sup> Health-enhancing physical activity tool. Copenhagen: WHO Regional Office for Europe; 2011 (<http://www.euro.who.int/en/health-topics/disease-prevention/physical-activity/publications/2011/health-enhancing-physical-activity-hepa-policy-audit-tool>, accessed 12 June 2015).

it will regularly monitor the progress of policy development and implementation, and will provide a revision and a mid-term evaluation of this strategy in the year 2020 based on the latest available evidence and the outcomes of the monitoring exercise.

## **Priority areas, objectives and tools**

23. Member States should consider developing or expanding, according to national context, strategies and action plans to promote physical activity that address the objectives below. Policy options that governments might consider include: the regulation of urban design, as well as school, workplace, transport-related and leisure-time environments; fiscal incentives to encourage physical activity or discourage sedentary behaviours; the funding of interventions to promote physical activity in different sectors and for diverse target groups; the coordination of policy-making among government sectors and levels, as well as among government, civil society and the private sector; and providing information to individuals and organizations on recommended levels of physical activity and appropriate means of promoting such activity. Due consideration should be given to incorporating and adapting as necessary, and according to national context, the priority policy actions and tools proposed.

### ***Priority area 1 – Providing leadership and coordination for the promotion of physical activity***

24. Governments and their various levels of administration play a crucial role in achieving lasting change in public health and well-being. While leadership by the health sector at the national level is of central importance, promoting physical activity for health is complex: on the one hand, it is a responsibility shared with other sectors, such as education, sports and culture; on the other hand, it is influenced by decisions taken in different sectors, such as transport, urban planning and finance. This is why Member States should consider a broad range of policy instruments to promote physical activity for health and well-being, including well-established regulation and information approaches to help provide not only an enabling environment but also financial incentives and ways to reorganize governance among sectors and levels.

#### **Objective 1.1 – Provide high-level leadership by the health sector**

25. To promote physical activity for health, Member States should ensure high-level leadership, where possible at the head-of-government level, with the health sector, in particular national ministries of health, playing a key role. The promotion of physical activity across the life-course should be integrated into the broader context of national health policy and intersectoral actions identified by governments, which must be adequately resourced.

#### **Objective 1.2 – Establish coordination mechanisms and promote alliances**

26. Member States should set up coordinating mechanisms among sectors, such as health, sports, education, transport, urban planning, environment and social affairs, and levels of government, for example, regional, national and local, with a view to identifying common objectives and mutual gains. To ensure their effectiveness and accountability, these mechanisms should be adapted to national systems of government,

have clearly defined roles and responsibilities and be appropriately resourced and evaluated regularly. The ongoing work at the EU level, in the context of the implementation of the Council Recommendation on health-enhancing physical activity, could serve as an inspiration. Member States should also support and, where appropriate, expand international cooperation, for example through existing networks, such as the European network for the promotion of health-enhancing physical activity and the WHO European Healthy Cities Network, or with international organizations, such as WHO and the EU.

27. Member States should promote alliances between government, the media, civil society organizations and other stakeholders, including, but not limited to, public health and sports organizations, in order to promote physical activity for health across the life-course. When and where appropriate, Member States might choose to promote public-private partnerships, such as collaboration with health insurance companies, to expand the reach and to secure appropriate funding. Due attention should be paid to avoiding real or perceived conflicts of interest.

## ***Priority area 2 – Supporting the development of children and adolescents***

28. Adequate levels of physical activity are a fundamental prerequisite for the development of basic cognitive, motor and social skills, as well as musculoskeletal health, in children. However, children and adolescents have become increasingly less active throughout the day, as environments and opportunities for safe active play, recreation and transport have decreased, and they now spend more time engaged in sedentary recreational activities, such as screen-based activities. Furthermore, children and adolescents spend more time in school or day-care settings than previously and academic demands are increasing, which can put pressure on the time dedicated to physical education and active play; this is despite evidence suggesting that more physical activity can be associated with better academic performance. Many European cities are reporting less cycling and walking in the commute to and from school. Member States should use intersectoral approaches, involving the health, sports and education sectors, to promote physical activity among students and in out-of-school settings, with particular attention to reducing the steeper decline in physical activity among adolescent girls.

### **Objective 2.1 – Promote physical activity during pregnancy and early childhood**

29. Member States should consider expanding family policies to provide information to future parents and young families about the importance of physical activity during pregnancy and for small children. Appropriately trained health professionals should provide information and advice to future parents about the benefits of being physically active and of maintaining a healthy body weight prior to pregnancy, during pregnancy, including during antenatal classes; risk assessment and screening approaches can be used to identify pregnant women requiring more support for behaviour change. Member States may consider the needs of health professionals in this area, including training programmes, continuing professional development and materials or guidelines.

30. Member States could consider the importance of providing, and ensuring access to, facilities and schemes for pregnant women and parents with infants and young

children to be active. Additionally, day-care providers should consider ways to ensure that active play and movement for young children is supported.

## **Objective 2.2 – Promote physical activity in preschools and schools**

31. Schools should provide an appropriate number of regular physical education lessons, in line with the available scientific evidence and based on the good practice of Member States. Lessons should integrate a variety of activities and skills, ranging from knowledge about physical activity to mobility and movement, teamwork and competitive aspects of sport, so that all children and adolescents can enjoy physical activity, regardless of their preferences or training levels, and gain from the health benefits. Such an approach will also provide the skills and positive attitudes that support and enable children and adolescents to lead physically active lifestyles and will assist in mastering fundamental movement skills. To achieve this, Member States should employ an intersectoral approach that involves the education, sports and health sectors in the design of physical education curricula.

32. Member States could consider various measures to ensure the nationwide implementation of quality physical education classes and physical activity promotion programmes in preschools and schools, taking into account sectoral, political and administrative responsibilities. These include establishing appropriate monitoring mechanisms and exploring innovative ways for the provision of sustainable funding through investments that are free from conflicts of interest. In addition, physical activity and health knowledge and skills should be a mandatory part of the training curriculum and continuing professional development for all future teachers, sports trainers and childcare professionals, not only for those teaching physical education classes; the availability of playgrounds and of appropriate teaching resources and materials should also be ensured.

33. Member States could use legislation and other tools to promote physical activity in preschools and schools. The initiatives could include the infrastructure to support physical activity, such as playgrounds, active breaks, free play, active extracurricular activities and provisions for safe active commuting, for example, by bike or “walking bus”.<sup>2</sup> Member States should also continue to implement existing policy documents, such as the EU Council Recommendation on promoting health-enhancing physical activity across sectors (for Member States of the European Union) and the Parma Declaration on Environment and Health.

34. Member States should lay the basis for the participation of children in physical activity. It is important to make preschools and schools more active by providing them with assistance, adequate resources and the necessary training, as well as opportunities for meaningful involvement. Depending on their national contexts, Member States should consider using regulation or fiscal measures to specifically promote the inclusion of children from vulnerable groups and children with disabilities.

---

<sup>2</sup> A walking bus is a form of transport for schoolchildren who, chaperoned by two adults (a “driver” who leads and a “conductor” who follows), walk to school in much the same way as a school bus would drive them to school. Like traditional buses, walking buses have fixed routes with designated “bus stops” and “pick-up times”.

### **Objective 2.3 – Promote recreational physical activity for children and adolescents**

35. Member States could explore fiscal incentives or subsidies and engage providers for partnerships to promote the participation of children and adolescents in out-of-school physical activity programmes and to support membership of sports and fitness clubs/gyms, especially for children from socially disadvantaged backgrounds or with disabilities. Suitably designed space/yards at schools, day-care centres and kindergartens are very important.

36. Member States should explore innovative approaches to promote physical activity among adolescents, including reaching them during recreation and free time. Physical activity for adolescents can cover a broad range of activities and settings, including sports and fitness clubs/gyms, scouts and other youth clubs, and running, hiking and other outdoor pursuits. An important aspect of encouraging physical activity among adolescents is to promote and support age- and gender-relevant forms of activity. Peer network approaches, information and communication technology, social media and community and youth organizations can all be used to engage adolescents in physical activity (*F,G,H*). Due consideration should be given to the skills and safety requirements for adults who will supervise these activities.

### ***Priority area 3 – Promoting physical activity for all adults as part of daily life, including during transport, leisure time, at the workplace and through the health-care system***

37. A large proportion of adults are physically inactive throughout the day, including during the working day and in recreational time; for example, many employees now spend most of their work time sitting, with little or no physical activity. While the health system is an important entry point for the promotion of physical activity, research indicates that many health-care professionals still have insufficient knowledge of the health effects of physical activity, and physical activity counselling is often not reimbursable in current health systems. Member States should take action to promote human-powered transport, to increase physical activity in daily life, including in the community and at the workplace, and to improve the promotion of physical activity through the health-care system. A focus on the workplace setting must not neglect those who are out of work or work from home. Research indicates that vulnerable groups, including, but not limited to, unemployed adults or adults with low incomes, people with disabilities and housewives, especially those with small children, are particularly hard to reach and should receive special attention. Successfully promoting physical activity in socially disadvantaged groups is likely to require a more comprehensive approach to addressing social exclusion, in which physical activity is not the only issue being addressed.

### **Objective 3.1 – Reduce car traffic and increase walking and cycling suitability**

38. National governments and local decision-makers should promote human-powered transport and establish a mix of accessible walking and cycling infrastructures appropriate to national geographic and cultural contexts. This should include actions to remove barriers for disadvantaged groups. They should also consider approaches to improving the availability and attractiveness (affordability, reliability and public safety)



of public transport. Collaboration with the transport sector should be sought, and linkages to road safety strategies identified. Where appropriate and necessary, Member States may consider passing legislation to make pavements and cycling infrastructure mandatory, with priority given to pedestrians and cyclists. THE PEP<sup>3</sup> can provide a useful reference for specific actions and some means for institutional engagement.

39. Governments at all levels may consider introducing innovative measures to reduce vehicle traffic and to promote cycling and walking. Examples include congestion charges, tax incentives to promote cycling and city cycle schemes, in addition to higher parking charges and motor vehicle taxes, with the revenue possibly ring-fenced, at least in part, for public transport and infrastructure systems. The WHO Regional Office for Europe's Health economic assessment tool<sup>4</sup> can be used to estimate the potential health and economic benefits of a cycling or walking infrastructure policy, while THE PEP Partnership on Promotion of Cycling provides an existing forum for Member States to exchange best practice in this area.

### **Objective 3.2 – Provide opportunities and counselling for physical activity at the workplace**

40. Member States should consider adopting appropriate measures to promote active commuting and the use of public transport to travel to work. The measures could include regulations, guidelines or financial incentives for companies with regard to cycle racks, changing rooms, showers and adequate public transport options.

41. Member States may consider adopting appropriate measures, such as regulations and guidelines concerning health at the workplace, to enable more physical activity during the working day. The measures could include action to address the workplace layout, such as the provision of adjustable desks, prominent and promotional signs on staircases encouraging their use, regular breaks during the day to allow for physical activity and membership of a gym or sports club, or, for larger companies, company-run sports facilities and programmes. Implementation should be supported by occupational health and safety officers. Special attention could be paid to the diverse needs of different kinds of workplaces, sectors and employees, including the informal sector, and the self-employed population.

42. Efforts are needed to ensure that the promotion of physical activity at the workplace does not increase existing inequalities. For example, targeted programmes and interventions, tailored to specific needs, may be required for manual workers, employees in the informal sector or low-income settings. Consequently, Member States should put special emphasis on reaching all employees, including those from socially disadvantaged groups and women.

---

<sup>3</sup> Transport, Health and Environment Pan-European Programme. Copenhagen: WHO Regional Office for Europe; 2002 (<http://www.euro.who.int/en/health-topics/environment-and-health/Transport-and-health/publications/2010/the-pep-brochure>, accessed 12 June 2015).

<sup>4</sup> Health economic assessment tool [website]. Copenhagen: WHO Regional Office for Europe; 2015 (<http://www.euro.who.int/en/health-topics/environment-and-health/Transport-and-health/activities/guidance-and-tools/health-economic-assessment-tool-heat-for-cycling-and-walking>, accessed 12 June 2015).

### **Objective 3.3 – Integrate physical activity into prevention, treatment and rehabilitation**

43. Member States should adopt recommendations on physical activity for the entire population and for special subgroups on the basis of the WHO *Global Recommendations on Physical Activity for Health* and policy guidelines for the promotion of physical activity that also focus on those groups with the highest levels of inactivity in their respective countries, whether it be by gender, age, ethnicity or socioeconomic status. Outdoor low-cost physical activity should be promoted as an alternative to the traditional and more expensive approaches. The particular relevance of physical activity to cardiovascular diseases, diabetes, musculoskeletal health and rehabilitation, as well as chronic obstructive pulmonary disease and some types of cancer, has been identified. These recommendations should also acknowledge the potential of physical activity to preserve cognitive function and reduce the risk of dementia and the need to be very specific for certain groups, such as older adults, for whom physical activity must include strength training and balance, in particular to prevent falls.

44. Member States should work towards making the promotion of physical activity by health professionals the norm. Early identification, counselling and referral at the primary care level should be integrated into standard practice and should respond to the different needs of patients. For the general population, a simple assessment of the level of physical activity could be integrated into the ongoing risk factor assessment, followed by brief advice, if required, about recommended levels. For patients requiring more support, the counselling may take the form of an intervention using motivational techniques and goal setting, with referral to specialists and other health and allied professionals, where necessary. While the promotion of physical activity should be seen as a core competence for all primary health-care professionals, governments could also consider ways to continuously provide incentives for its full integration into daily practice. Physical activity programmes or sports classes and physical activity-based prevention or rehabilitation offers may be considered, according to national circumstances, for the purpose of reimbursement by health insurance companies or national health systems when and where appropriate, with clear guidance for health professionals.

45. Member States should collaborate with health-care providers, associations of health professionals and medical and other health education institutions to promote knowledge and skills and the provision of advice on physical activity by health professionals, thereby fostering change in the health sector. Among other things, Member States should work together with medical and other health education institutions to improve the curricula of all health professionals with regard to the benefits of physical activity for health.

### **Objective 3.4 – Improve access to physical activity facilities and offers, particularly for vulnerable groups**

46. National governments and local decision-makers should consider creating incentives for providers to offer physical activity programmes and opportunities, with low barriers for all population groups, including vulnerable groups, such as the unemployed, adults with low incomes and people with disabilities, among others. The increased availability of physical activity resources and recreation spaces can help to

promote physical activity among residents, even in neighbourhoods of a very low socioeconomic level. However, affordability, inclusiveness, cultural acceptability, availability at appropriate times and support from appropriately trained staff are all factors in the accessibility of such resources for vulnerable groups that must be considered in order to maximize participation.

47. Member States could consider ensuring that opportunities for physical activity are included in care planning and practice and are available in long-term residential care settings.

#### ***Priority area 4 – Promoting physical activity among older people***

48. The increase in life expectancy must correlate with healthy life years. A life-course approach to physical activity is essential for better health outcomes in older people. Member States should act to ensure that the functional capacity of ageing populations is maintained as long as possible. Participation in regular, moderate physical activity can delay functional declines in older people, reduce the onset of chronic diseases, assist in their management and reduce institutionalization. Active living improves mental health and well-being and often promotes social contacts. Being active can help older people remain as independent as possible for the longest time and restore a sense of social function. It can also help to reduce the risk of falls. The medical costs are substantially lower for older people who are active (22). However, many older people do not engage in physical activity, even when their health status permits it. Research indicates that socially disadvantaged older people are particularly hard to reach and require special attention. Member States should also explore links between the physical activity of older people and other healthy behaviour, such as healthy eating.

##### **Objective 4.1 – Improve the quality of advice on physical activity by health professionals to older people**

49. Member States should ensure that health professionals are in a position to provide simple and timely advice to older patients on the specific benefits of a physically active lifestyle that is tailored to their individual health needs, capacity and preferences; where needed, more in-depth counselling and support for change should be offered. They should also be able to provide linkages to tailored community services and resources to support physical activity among older people.

##### **Objective 4.2 – Provide infrastructure and appropriate environments for physical activity among older people**

50. A variety of sectors can enact “age-friendly” policies that enable older people to remain physically active and to participate fully in community life. Such initiatives could include barrier-free workplaces, flexible working hours and modified work environments for older people; well-lit footpaths and safe local neighbourhoods; and barrier-free access to health centres and rehabilitation programmes. Member States should define policy priorities in this area, using an intersectoral approach that ensures the participation of the health, urban planning, parks and recreation, and sports sectors.

### **Objective 4.3 – Involve older people in social physical activity**

51. Member States should make use of existing social structures to reach older people, in particular those from socially disadvantaged backgrounds, in order to encourage them to engage in physical activity. Such structures will depend on the social and cultural context, but could include community centres, social clubs, faith-based institutions and nongovernmental organizations, among others. Member States could also promote and help to support opportunities for affordable active tourism among older people as a new way of active socializing.

52. Member States should provide government support to social networks and nongovernmental organizations, at both the national and the local level, to develop and roll out appropriate programmes and opportunities for physical activity among older people. Support could include financing, guidance materials and counselling, as well as additional research into innovative participatory approaches. In collaboration with local decision-makers, they could use innovative participatory and social approaches to involve older people, as well as the health, sports and tourism sectors, in designing attractive and affordable physical activity offers. Furthermore, special consideration should be given to intergenerational approaches. The important and active contribution of older people to supporting community-based and voluntary activities is recognized.

### ***Priority area 5 – Supporting action through monitoring, surveillance, the provision of tools, enabling platforms, evaluation and research***

53. Reliable and timely information is crucial to informing national and regional policy-making. Supported by the WHO Regional Office for Europe, Member States should strengthen and expand the surveillance of physical activity, monitor and evaluate policy initiatives to promote physical activity, and support research to strengthen the evidence base for physical activity and health. A deeper understanding of physical activity patterns among different social groups, including by gender, age and socioeconomic status, is crucial in order to adapt interventions accordingly. In this context, ongoing work such as the monitoring carried out to implement the Council Recommendation on promoting health-enhancing physical activity in the 28 EU countries that are Member States of the WHO European Region may be used as a basis in order to avoid duplication of efforts.

### **Objective 5.1 – Strengthen surveillance systems**

54. Member States should work towards consolidating, adjusting and extending existing national and international systems for the surveillance of physical activity with the adequate levels of disaggregation. Member States recall the commitment to the WHO global monitoring framework for the prevention and control of noncommunicable diseases, which contains specific physical activity indicators and a related target. WHO will play a leading role in supporting Member States to ensure that data from surveillance are accurately analysed and interpreted for evidence-based policy recommendations. In doing so, Member States and WHO could consider the value of developing common surveillance tools for comparable cross-country data. Collaboration with national experts, academic institutions and civil society, as well as with sectors beyond health, and at different levels, such as cities, should be promoted in this area in order to ensure timely and innovative sources of data.

## Objective 5.2 – Strengthen the evidence base for physical activity promotion

55. Member States may make supporting research a priority in order to strengthen the evidence base on effective and efficient interventions to promote physical activity and appropriate government policy instruments on physical activity, including intersectoral approaches. Areas of future research could include approaches to engaging vulnerable population groups across the life-course in physical activity, the effectiveness of childhood obesity surveillance programmes, and innovative approaches to promoting physical activity for adolescents, in particular through the use of technology and peer networks. The evidence on the health benefits of physical activity is robust; however, there are some gaps that could be addressed, including the role of sedentary behaviour as an independent risk factor for health and the relationship between physical activity and other health-related behaviours, such as diet or tobacco smoking.

## References

- (1) Global action plan for the prevention and control of noncommunicable diseases 2013–2020. Geneva: World Health Organization; 2013 (<http://www.who.int/nmh/publications/ncd-action-plan/en/>, accessed 12 June 2015).
- (2) World Health Assembly resolution WHA 66.10 on follow-up to the Political Declaration of the High-level Meeting of the General Assembly on the Prevention and Control of Non-communicable Diseases. Geneva: World Health Organization; 2013 ([http://apps.who.int/gb/ebwha/pdf\\_files/WHA66/A66\\_R10-en.pdf](http://apps.who.int/gb/ebwha/pdf_files/WHA66/A66_R10-en.pdf), accessed 12 June 2015).
- (3) Hallal PC, Andersen LB, Bull FC, Guthold R, Haskell W, Ekelund U. Global physical activity levels: surveillance progress, pitfalls, and prospects. *Lancet*. 2012;380(9838):247–257. doi: 10.1016/S0140-6736(12)60646-1.
- (4) Sport and physical activity report. Special Eurobarometer 412. Brussels: European Commission, Directorate-General for Education and Culture; 2014. doi:10.2766/73002.
- (5) Lee IM, Shiroma EJ, Lobelo F, Puska P, Blair SN, Katzmarzyk PT. Effect of physical inactivity on major non-communicable diseases worldwide: an analysis of burden of disease and life expectancy. *Lancet*. 2012;380(9838):219–229. doi:10.1016/S0140-6736(12)61031-9.
- (6) Steps to health: a European framework to promote physical activity for health. Copenhagen: WHO Regional Office for Europe; 2007 (<http://www.euro.who.int/en/health-topics/disease-prevention/physical-activity/publications/2007/steps-to-health.-a-european-framework-to-promote-physical-activity-for-health-2007>, accessed 12 June 2015).
- (7) Wijnhoven TM, van Raaij JM, Spinelli A, Starc G, Hassapidou M, Spiroski I et al. WHO European Childhood Obesity Surveillance Initiative: body mass index and level of overweight among 6–9-year-old children from school year 2007/2008 to

school year 2009/2010. BMC Public Health. 2014;14:806. doi: 10.1186/1471-2458-14-806.

- (8) Vienna Declaration on Nutrition and Noncommunicable Diseases in the Context of Health 2020. Copenhagen: WHO Regional Office for Europe; 2013 (<http://www.euro.who.int/en/media-centre/events/events/2013/07/vienna-conference-on-nutrition-and-noncommunicable-diseases/documentation/vienna-declaration-on-nutrition-and-noncommunicable-diseases-in-the-context-of-health-2020>, accessed 12 June 2015).
- (9) WHO Regional Committee for Europe resolution EUR/RC63/R4 on the Vienna Declaration on Nutrition and Noncommunicable Diseases in the Context of Health 2020. Copenhagen: WHO Regional Office for Europe; 2013 (<http://www.euro.who.int/en/about-us/governance/regional-committee-for-europe/past-sessions/sixty-third-session/documentation/resolutions-and-decisions/eurrc63r4-vienna-declaration-on-nutrition-and-noncommunicable-diseases-in-the-context-of-health-2020>, accessed 12 June 2015).
- (10) Action plan for implementation of the European strategy for the prevention and control of noncommunicable diseases 2012–2016. Copenhagen: WHO Regional Office for Europe; 2011 (EUR/RC61/12; <http://www.euro.who.int/en/about-us/governance/regional-committee-for-europe/past-sessions/sixty-first-session/documentation/working-documents/wd12-action-plan-for-implementation-of-the-european-strategy-for-the-prevention-and-control-of-noncommunicable-diseases-20122016>, accessed 12 June 2015).
- (11) Global strategy on diet, physical activity and health. Geneva: World Health Organization; 2004 (<http://www.who.int/dietphysicalactivity/strategy/eb11344/en/>, accessed 12 June 2015).
- (12) Global recommendations on physical activity for health. Geneva: World Health Organization; 2010 (<http://www.who.int/dietphysicalactivity/publications/9789241599979/en/>, accessed 12 June 2015).
- (13) Parma Declaration on Environment and Health. Copenhagen: WHO Regional Office for Europe; 2010 (<http://www.euro.who.int/en/health-topics/noncommunicable-diseases/cancer/publications/2010/parma-declaration-on-environment-and-health>, accessed 12 June 2015).
- (14) Paris Declaration on THE PEP. Fourth High-level Meeting on Transport, Health and Environment, Paris, France, 14–16 April 2014. United Nations Economic Commission for Europe, WHO Regional Office for Europe ([http://www.unece.org/fileadmin/DAM/thepep/documents/Déclaration\\_de\\_Paris\\_EN.pdf](http://www.unece.org/fileadmin/DAM/thepep/documents/Déclaration_de_Paris_EN.pdf), accessed 12 June 2015).
- (15) European food and nutrition action plan 2015–2020. Copenhagen: WHO Regional Office for Europe; 2014 (EUR/RC64/14; <http://www.euro.who.int/en/about-us/governance/regional-committee-for-europe/64th->

session/documentation/working-documents/eurrc6414-european-food-and-nutrition-action-plan-2015-2020, accessed 12 June 2015).

- (16) A healthy city is an active city: a physical activity planning guide. Copenhagen: WHO Regional Office for Europe; 2008 (<http://www.euro.who.int/en/health-topics/disease-prevention/physical-activity/publications/2008/healthy-city-is-an-active-city-a-a-physical-activity-planning-guide>, accessed 12 June 2015).
- (17) Council recommendation on promoting health-enhancing physical activity across sectors. Brussels: Council of the European Union; 2013 ([http://ec.europa.eu/sport/library/documents/hepa\\_en.pdf](http://ec.europa.eu/sport/library/documents/hepa_en.pdf), accessed 12 June 2015).
- (18) Council conclusions on nutrition and physical activity. Brussels: Council of the European Union; 2014 ([http://www.consilium.europa.eu/uedocs/cms\\_data/docs/pressdata/en/lssa/143285.pdf](http://www.consilium.europa.eu/uedocs/cms_data/docs/pressdata/en/lssa/143285.pdf), accessed 12 June 2015).
- (19) EU action plan on childhood obesity 2014–2020. Brussels: European Union; 2014 ([http://ec.europa.eu/health/nutrition\\_physical\\_activity/docs/childhoodobesity\\_actionplan\\_2014\\_2020\\_en.pdf](http://ec.europa.eu/health/nutrition_physical_activity/docs/childhoodobesity_actionplan_2014_2020_en.pdf), accessed 12 June 2015).
- (20) The Toronto Charter for Physical Activity: A Global Call for Action. International Society for Physical Activity and Health: Global Advocacy for Physical Activity; 2010 ([http://www.ispah.org/AcuCustom/Sitename/DAM/132/Charter-ENG-US\\_LOW2.pdf](http://www.ispah.org/AcuCustom/Sitename/DAM/132/Charter-ENG-US_LOW2.pdf), accessed 12 June 2015).
- (21) Unlocking new opportunities: jobs in green and healthy transport. Copenhagen: WHO Regional Office for Europe; 2014 (<http://www.euro.who.int/en/publications/abstracts/unlocking-new-opportunities-jobs-in-green-and-healthy-transport>, accessed 12 June 2015).
- (22) Growing older – staying well: ageing and physical activity in everyday life. Geneva: World Health Organization; 1998 (WHO/HPR/AHE/98.1; [http://www.who.int/ageing/publications/staying\\_well/en/](http://www.who.int/ageing/publications/staying_well/en/), accessed 12 June 2015).

### ***References requested specifically by Member States<sup>5</sup>***

#### **Paragraph 2: Effects of physical activity on mental health**

- (A) Bherer L, Erickson KI, Liu-Ambrose T. A review of the effects of physical activity and exercise on cognitive and brain functions in older adults. *J Aging Res.* 2013;2013:657508. doi: 10.1155/2013/657508.
- (B) Hötting K, Röder B. Beneficial effects of physical exercise on neuroplasticity and cognition. *Neurosci Biobehav Rev.* 2013;37(9):2243–2257. doi: 10.1016/j.neubiorev.2013.04.005.

---

<sup>5</sup> These references will be incorporated in the next iteration of the document.

- (C) Kirk-Sanchez NJ, McGough EL. Physical exercise and cognitive performance in the elderly: current perspectives. *Clin Interv Aging*. 2014;9:51–62. doi: 10.2147/CIA.S39506.
- (D) Norton S, Matthews FE, Barnes DE, Yaffe K, Brayne C. Potential for primary prevention of Alzheimer's disease: an analysis of population-based data. *Lancet Neurol*. 2014;13(8):788–794. doi: 10.1016/S1474-4422(14)70136-X.
- (E) 10 key facts on physical activity in the WHO European Region. In: Health topics, Disease prevention, Physical activity, Data and statistics [website]. Copenhagen: WHO Regional Office for Europe (<http://www.euro.who.int/en/health-topics/disease-prevention/physical-activity/data-and-statistics/10-key-facts-on-physical-activity-in-the-who-european-region>, accessed 11 June 2015).

**Paragraph 36: Peer network approaches, information and communication technology, social media, youth organizations**

- (F) Gesell SB, Tesdahl E, Ruchman E. The distribution of physical activity in an after-school friendship network. *Pediatrics*. 2012;129(6):106471. doi: 10.1542/peds.2011-2567.
- (G) Lau PW, Lau EY, Wong del P, Ransdell L. A systematic review of information and communication technology-based interventions for promoting physical activity behavior change in children and adolescents. *J Med Internet Res*. 2011;13(3):e48. doi: 10.2196/jmir.1533.
- (H) Voorhees CC, Murray D, Welk G, Birnbaum A, Ribisi KM, Johnson CC et al. The role of peer social network factors and physical activity in adolescent girls. *Am J Health Behav*. 2005;29(2):183–190.



## **Annex. Bibliography**

### ***WHO policy documents***

Action plan for implementation of the European strategy for the prevention and control of noncommunicable diseases 2012–2016. Copenhagen: WHO Regional Office for Europe; 2011 (EUR/RC61/12; <http://www.euro.who.int/en/about-us/governance/regional-committee-for-europe/past-sessions/sixty-first-session/documentation/working-documents/wd12-action-plan-for-implementation-of-the-european-strategy-for-the-prevention-and-control-of-noncommunicable-diseases-20122016>, accessed 12 June 2015).

European food and nutrition action plan 2015–2020. Copenhagen: WHO Regional Office for Europe; 2014 (EUR/RC64/14; <http://www.euro.who.int/en/about-us/governance/regional-committee-for-europe/64th-session/documentation/working-documents/eurrc6414-european-food-and-nutrition-action-plan-2015-2020>, accessed 12 June 2015).

Global action plan for the prevention and control of noncommunicable diseases 2013–2020. Geneva: World Health Organization; 2013 (<http://www.who.int/nmh/publications/ncd-action-plan/en/>, accessed 12 June 2015).

Global recommendations on physical activity for health. Geneva: World Health Organization; 2010 (<http://www.who.int/dietphysicalactivity/publications/9789241599979/en/>, accessed 12 June 2015).

Global strategy on diet, physical activity and health. Geneva: World Health Organization; 2004 (<http://www.who.int/dietphysicalactivity/strategy/eb11344/en/>, accessed 12 June 2015).

Global strategy to reduce harmful use of alcohol. Geneva: World Health Organization; 2010 ([http://www.who.int/substance\\_abuse/activities/gsrhua/en/](http://www.who.int/substance_abuse/activities/gsrhua/en/), accessed 12 June 2015).

Growing older – staying well: ageing and physical activity in everyday life. Geneva: World Health Organization; 1998 (WHO/HPR/AHE/98.1; [http://www.who.int/ageing/publications/staying\\_well/en/](http://www.who.int/ageing/publications/staying_well/en/), accessed 12 June 2015).

Health 2020: A European policy framework and strategy for the 21st century. Copenhagen: WHO Regional Office for Europe; 2013 (<http://www.euro.who.int/en/publications/abstracts/health-2020-a-european-policy-framework-and-strategy-for-the-21st-century>, accessed 12 June 2015).

Paris Declaration on THE PEP. Fourth High-level Meeting on Transport, Health and Environment, Paris, France, 14–16 April 2014. United Nations Economic Commission for Europe, WHO Regional Office for Europe ([http://www.unece.org/fileadmin/DAM/thepep/documents/Déclaration\\_de\\_Paris\\_EN.pdf](http://www.unece.org/fileadmin/DAM/thepep/documents/Déclaration_de_Paris_EN.pdf), accessed 12 June 2015).

Parma Declaration on Environment and Health. Copenhagen: WHO Regional Office for Europe; 2010 (<http://www.euro.who.int/en/health-topics/noncommunicable-diseases/cancer/publications/2010/parma-declaration-on-environment-and-health>, accessed 12 June 2015).

Strategy and action plan for healthy ageing in Europe, 2012–2020. Copenhagen: WHO Regional Office for Europe; 2012 (EUR/RC62/10 Rev.1, <http://www.euro.who.int/en/health-topics/Life-stages/healthy-ageing/publications/2012/eurrc6210-rev.1-strategy-and-action-plan-for-healthy-ageing-in-europe,-20122020>, accessed 12 June 2015).

Vienna Declaration on Nutrition and Noncommunicable Diseases in the Context of Health 2020. Copenhagen: WHO Regional Office for Europe; 2013 (<http://www.euro.who.int/en/media-centre/events/events/2013/07/vienna-conference-on-nutrition-and-noncommunicable-diseases/documentation/vienna-declaration-on-nutrition-and-noncommunicable-diseases-in-the-context-of-health-2020>, accessed 12 June 2015).

WHO Framework Convention on Tobacco Control. Geneva: World Health Organization; 2003 ([http://www.who.int/fctc/text\\_download/en/](http://www.who.int/fctc/text_download/en/), accessed 12 June 2015).

WHO Regional Committee for Europe resolution EUR/RC63/R4 on the Vienna Declaration on Nutrition and Noncommunicable Diseases in the Context of Health 2020. Copenhagen: WHO Regional Office for Europe; 2013 (<http://www.euro.who.int/en/about-us/governance/regional-committee-for-europe/past-sessions/sixty-third-session/documentation/resolutions-and-decisions/eurrc63r4-vienna-declaration-on-nutrition-and-noncommunicable-diseases-in-the-context-of-health-2020>, accessed 12 June 2015).

World Health Assembly resolution WHA 66.10 on follow-up to the Political Declaration of the High-level Meeting of the General Assembly on the Prevention and Control of Non-communicable Diseases. Geneva: World Health Organization; 2013 ([http://apps.who.int/gb/ebwha/pdf\\_files/WHA66/A66\\_R10-en.pdf](http://apps.who.int/gb/ebwha/pdf_files/WHA66/A66_R10-en.pdf), accessed 12 June 2015).

### ***Other WHO documents***

A healthy city is an active city: a physical activity planning guide. Copenhagen: WHO Regional Office for Europe; 2008 (<http://www.euro.who.int/en/health-topics/disease-prevention/physical-activity/publications/2008/healthy-city-is-an-active-city-a-a-physical-activity-planning-guide>, accessed 12 June 2015).

Kahlmeier S, Kelly P, Foster C, Götschi T, Cavill N, Dinsdale H et al. Health economic assessment tools (HEAT) for walking and for cycling. Methodology and user guide. Economic assessment of transport infrastructure and policies. 2014 Update. Copenhagen: WHO Regional Office for Europe; 2014 (<http://www.euro.who.int/en/health-topics/environment-and-health/Transport-and-health/publications/2014/health-economic-assessment-tools-heat-for-walking-and-for>

cycling.-methodology-and-user-guide.-economic-assessment-of-transport-infrastructure-and-policies.-2014-update, accessed 12 June 2015).

Steps to health: a European framework to promote physical activity for health. Copenhagen: WHO Regional Office for Europe; 2007  
(<http://www.euro.who.int/en/health-topics/disease-prevention/physical-activity/publications/2007/steps-to-health.-a-european-framework-to-promote-physical-activity-for-health-2007>, accessed 12 June 2015).

Unlocking new opportunities: jobs in green and healthy transport. Copenhagen: WHO Regional Office for Europe; 2014  
(<http://www.euro.who.int/en/publications/abstracts/unlocking-new-opportunities-jobs-in-green-and-healthy-transport>, accessed 12 June 2015).

Wijnhoven TM, van Raaij JM, Spinelli A, Starc G, Hassapidou M, Spiroski I et al. WHO European Childhood Obesity Surveillance Initiative: body mass index and level of overweight among 6–9-year-old children from school year 2007/2008 to school year 2009/2010. BMC Public Health. 2014;14:806. doi: 10.1186/1471-2458-14-806.

## ***EU documents***

Council conclusions on nutrition and physical activity. Brussels: Council of the European Union; 2014  
([http://www.consilium.europa.eu/uedocs/cms\\_data/docs/pressdata/en/lssa/143285.pdf](http://www.consilium.europa.eu/uedocs/cms_data/docs/pressdata/en/lssa/143285.pdf), accessed 12 June 2015).

Council recommendation on promoting health-enhancing physical activity across sectors. Brussels: Council of the European Union; 2013  
([http://ec.europa.eu/sport/library/documents/hepa\\_en.pdf](http://ec.europa.eu/sport/library/documents/hepa_en.pdf), accessed 12 June 2015).

EU action plan on childhood obesity 2014–2020. Brussels: European Union; 2014  
([http://ec.europa.eu/health/nutrition\\_physical\\_activity/docs/childhoodobesity\\_actionplan\\_2014\\_2020\\_en.pdf](http://ec.europa.eu/health/nutrition_physical_activity/docs/childhoodobesity_actionplan_2014_2020_en.pdf), accessed 12 June 2015).

EU physical activity guidelines: Recommended policy actions in support of health-enhancing physical activity. Brussels: European Union, 2008  
([http://ec.europa.eu/sport/library/policy\\_documents/eu-physical-activity-guidelines-2008\\_en.pdf](http://ec.europa.eu/sport/library/policy_documents/eu-physical-activity-guidelines-2008_en.pdf), accessed 12 June 2015).

Sport and physical activity report. Special Eurobarometer 412. Brussels: European Commission, Directorate-General for Education and Culture; 2014. doi:10.2766/73002.

White paper on sport. COM(2007) 391 final. Brussels: European Commission; 2007  
(<http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52007DC0391&from=EN>, accessed 12 June 2015).

### ***Documents from other sources***

Fair society, healthy lives: The Marmot review. Strategic review of health inequalities in England post-2010. London: UCL Institute of Health Equity (<http://www.instituteofhealthequity.org/projects/fair-society-healthy-lives-the-marmot-review>, accessed 12 June 2015).

Hallal PC, Andersen LB, Bull FC, Guthold R, Haskell W, Ekelund U. Global physical activity levels: surveillance progress, pitfalls, and prospects. *Lancet*. 2012;380(9838):247–257. doi: 10.1016/S0140-6736(12)60646-1.

Ivarsson V. Best practices in sport and physical activity for health promotion: A comparative study of selected national policies. Lausanne: Swiss Federal Office for Public Health; 2014 (<http://www.bag.admin.ch/themen/internationales/11287/14761/index.html?lang=en> , accessed 12 June 2015).

Lee IM, Shiroma EJ, Lobelo F, Puska P, Blair SN, Katzmarzyk PT. Effect of physical inactivity on major non-communicable diseases worldwide: an analysis of burden of disease and life expectancy. *Lancet*. 2012;380(9838):219–229. doi: 10.1016/S0140-6736(12)61031-9.

The Toronto Charter for Physical Activity: A Global Call for Action. International Society for Physical Activity and Health: Global Advocacy for Physical Activity; 2010 ([http://www.ispah.org/AcuCustom/Sitenname/DAM/132/Charter-ENG-US\\_LOW2.pdf](http://www.ispah.org/AcuCustom/Sitenname/DAM/132/Charter-ENG-US_LOW2.pdf), accessed 12 June 2015).

= = =