



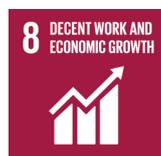
World Health Organization  
REGIONAL OFFICE FOR Europe



## FACTSHEET

Sustainable Development Goals: health targets

# PHYSICAL ACTIVITY



*Physical inactivity is a leading risk factor for premature mortality, accounting for 6% of deaths globally (1), and is among the leading risk factors for death and disability in the WHO European Region (2).*

Physical activity can reduce the risk of developing obesity and other metabolic conditions by contributing to energy balance and weight loss.

A physically active lifestyle can protect against several noncommunicable diseases (NCDs) including type 2 diabetes, cardiovascular diseases, hypertension and several forms of cancer. It can also contribute to reducing the risk of developing mental conditions, such as dementia, and lessen symptoms of depression and stress (3).

Given the numerous health benefits of physical activity, WHO has developed global recommendations on physical activity across the life-course. To support and promote healthy growth, children should engage in a variety of types of physical activity at any intensity (4). For adults older than 18 years, 150 minutes of moderate-intensity physical activity or 75 minutes of vigorous-intensity physical activity or an equivalent combination of both are recommended (5).

Despite global recommendations, physical activity levels remain low in the WHO European Region. In 2014, only 25% of 15-year-old boys and 15% of 15-year-old girls achieved the recommended levels of physical activity in the Region (6) and in 2016, 30% of adults in the Region were insufficiently physically active (7).

The Action Plan for the Prevention and Control of Noncommunicable Diseases in the WHO European Region calls for Member States to take action to increase physical activity and reduce sedentary behaviour (8) and the Physical Activity Strategy for the WHO European Region 2016–2025 provides specific guidance and policy action areas (9). These policy documents highlight the importance of implementing effective national population-based approaches that promote physical activity, which can support the achievement of the Sustainable Development Goals (SDGs).





**TARGET 3-4**



**TARGET 2-2**



## SDG 3.4. Reduce premature mortality from noncommunicable diseases and promote mental health and well-being; SDG 2.2 End all forms of malnutrition

Physical inactivity is one of the leading risk factors for disability and premature mortality from NCDs in the WHO European Region (2). Equally, being physically active can help to protect against various NCDs including type 2 diabetes, hypertension, coronary heart disease and mental health conditions such as depression and stress (3). In combination with an adequate diet, physical activity is known to support the achievement and maintenance of a healthy body weight and thus prevent and control the development of overweight and obesity (10).

- /// An estimated 1 million deaths every year are attributed to physical inactivity in the WHO European Region (1).
- /// Physical inactivity is estimated to be the primary cause of approximately 21–25% of breast and colon cancers, 27% of diabetes and approximately 30% of ischaemic heart disease (Fig. 1) (1).
- /// High levels of obesity are observed from an early age in the WHO European Region (12). Latest data from the WHO Childhood Obesity Surveillance Initiative showed rates of obesity among children aged 6–9 years are up to 18% (12) and up to 4% for severe obesity (13). Among adults (18 years and older) in the European Union (EU) Member States, 59% of men and 45% of women were overweight or obese in 2014 (14).

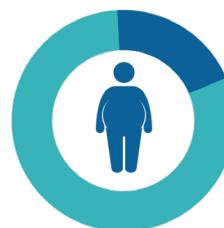
Fig. 1. Physical inactivity and its consequences

Sources: <sup>a</sup>WHO, 2018 (7); <sup>b</sup>Rito et al., 2019 (11); <sup>c</sup>WHO, 2009 (1).



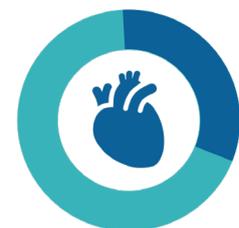
**30%**

of adults in the WHO European Region are insufficiently active<sup>a</sup>



**18%**

of children in the WHO European Region are obese<sup>b</sup>



**30%**

of cardiovascular diseases are attributable to physical activity<sup>c</sup>



**TARGET 3-8**



## SDG 3.8. Achieve universal health coverage

- /// Providing physical activity counselling and referral as part of routine primary health-care services can be an effective intervention for the prevention and control of NCDs (15).
- /// Because of the threat to the sustainability of health systems caused by a high burden of NCDs and their associated high costs of treatment, Member States should consider increasing the coverage of effective physical activity interventions such as “physical activity on prescription” (16).
- /// In 2018, 75% of EU Member States reported having a national programme that included counselling or prescribing physical activity through primary care (17). Counselling on physical activity or its prescription was partly or fully reimbursed through national health insurance schemes in 25% of the Member States (17).
- /// In 23 out of the 28 European Union Member States, the health sector provided funding for health-enhancing physical activity programmes (17).



**TARGET 3-9**



**SDG 3.9. Reduce the number of deaths and illnesses from environmental pollution and contamination**

- // Air pollution is the largest environmental health risk European cities are currently facing. Investments in infrastructure for walking, cycling and other forms of active mobility can have co-benefits to health by reducing air pollution (18).
- // Sustainable transport strategies can also help to reduce air pollution in cities while providing opportunities for physical activity, thus reducing the overall negative impact of air pollution (19).



**TARGET 4-1**



**SDG 4.1. Ensure that all children complete quality primary and secondary education**

Schools play a crucial role in the promotion of health literacy and healthy habits and are a key setting for the promotion of physical activity.

- // Increased physical activity among children can lead to improved cognitive function and a greater ability to concentrate, thereby improving academic outcomes (20). Moreover, physical activity programmes in schools can help to develop children's motor skills and create overall positive habits and attitudes towards physical activity.
- // Currently, in EU Member States, most schools include an average of two hours of physical education lessons per week (21). Although physical education can be an effective means to ensure some physical activity for children, the quality and intensity of the lessons may vary.



**TARGET 5-C**



**SDG 5.C. Promotion of gender equality and the empowerment of all women and girls at all levels**

In most countries, females tend to be less active and participate less in sports compared with males. Disparities are often linked to age, gender, disability, pregnancy, socioeconomic status and/or geographical location.

- // Some of the main barriers for female participation are fewer role models, fewer opportunities to participate in sports, social and family influences and fear for personal safety. Increased access and opportunities for physical activity for females can contribute to reducing health inequalities, ending discrimination, empowering women and girls to become more self-reliant and increasing their participation in income-generating activities (22). Across the Region, an estimated 19% of women aged 20–24 years were in a union or marriage before the age of 18 (23,24).
- // Among EU Member States, 36% of men reported exercising or playing sport compared with 29% of women. Similarly, 52% of women never took part in these activities, compared with 40% of men (23).
- // Gender differences are also prevalent in adolescents. In 2014, 25% of 15-year-old boys in the WHO European Region participated in the recommended amount of physical activity, whereas only 15% of their female counterparts achieved this (6).



**TARGET 8-3**



**SDG 8.3. Promote policies that support productive activities, decent job creation and growing enterprises**

- Physical activity opportunities, including walking, cycling, play and active recreation, and programmes or services that encourage sport participation have an important role in job creation. These include jobs for service and programme providers as well as for those involved in training and professional development services.
- By comparison, physical inactivity imposes a large economic burden through the direct health care costs of major NCDs. Indirectly, it leads to losses through decreased economic output and productivity linked to inactivity-related mood and anxiety disorders and disease-related absenteeism at the workplace (24).
- For a population of 10 million, where half the population is insufficiently active, the overall cost is estimated to be €910 million per year (25). The direct and indirect costs imposed by inactivity across the EU are estimated at €80.4 billion per year (24).
- Interventions to bring just one-fifth of currently inactive Europeans up to the recommended levels of regular activity is estimated to yield benefits worth up to €16 billion a year (24).



**TARGET 8-9**



**SDG 8.9. Devise and implement policies to promote sustainable tourism that creates jobs and promotes local culture and products**

- Sport tourism is an important source of income in various European countries. It provides jobs and income opportunities, including for less-favoured groups (26).
- Sport tourists tend to spend more than average tourists (e.g. renting equipment, hiring instructors and participation fees) and so boost local economies more than regular tourists. Sport tourism also promotes an active lifestyle and enhances physical and mental well-being of both participants and local residents (27).



**TARGET 10-2**



**SDG 10.2. Promote universal social, economic and political inclusion**

- Populations with lower incomes in the WHO European Region tend to take part in physical activity less regularly than more affluent populations. This suggests that the negative health consequences of inactivity disproportionately affect disadvantaged or marginalized groups and highlights the fact that interventions to promote and encourage more active lifestyles can contribute substantially to addressing health inequalities (24).
- People with lower income tend to have less free time and limited access to leisure facilities or live in environments that do not support physical activity (24).
- Minority ethnic groups and people with disabilities engage in less physical activity and are harder to reach for promoting physical activity than others (28).



**TARGET 11-2**



**SDG 11.2. Provide access to safe, affordable, accessible and sustainable transport systems for all**

- /// Poorly planned or unplanned urban housing and transport prevents citizens from practising active mobility and physical activity (29). Evidence shows that a greater uptake of public transport is directly related to higher physical activity because use of public transport generally involves some walking to bus stops or train stations (30,31). People with lower income tend to have less free time and limited access to leisure facilities or live in environments that do not support physical activity (24).
- /// In the WHO European Region, 30% of all road traffic deaths occur among pedestrians and cyclists (32). Reducing traffic volumes and speeds and improving infrastructure that enables equitable access to safe walking, cycling and use of public transport contributes to a reduction in road traffic accidents while promoting increased participation in physical activity (33).
- /// Only 33 countries in the Region have national policies that encourage walking and cycling, and a further 10 countries have these at subnational level (32).



**TARGET 13-2**



**SDG 13.2. Integrate climate change measures into national policies, strategies and planning**

- /// There are numerous co-benefits (19) and cross-cutting opportunities from the promotion of sustainable cities and communities, such as investment in active transport systems with the potential to reduce climate change gas emissions and to promote health (34).
- /// The promotion of active mobility as a substitute for use of cars is an important step towards both improving physical activity and combating climate change (19) through decreased use of fossil fuels and the consequent emissions (35).
- /// Achieving universal and safe access to open, green and public spaces facilitates increased use of these spaces for physical activity (36). Exposure to green and blue spaces through physical activity can foster appreciation for these spaces (37), promoting more demand for similar spaces and the preservation of existing spaces as well as increasing awareness of the environmental impact of individuals.



**TARGET 16-1**



**SDG 16.1 Significantly reduce all forms of violence and related deaths everywhere**

- /// Physical activity and participation in sports, particularly in community settings, can nurture positive social values such as inclusion and cooperation and unite people of different ages, genders, socioeconomic status, nationality and political beliefs (18).
- /// Increased social cohesion through physical activity can help to reduce violence, conflicts, corruption and bribery, while promoting non-discriminatory laws and policies (18).
- /// Moreover, increased community surveillance through walking and cycling is likely to contribute to reduction of crime and violence (38).



Member States of the WHO European Region, acknowledging the challenges posed by the burden and threat of NCDs, have committed to addressing the major NCD risk factors, including physical inactivity, as outlined in a number of global and European strategies and frameworks (8,18,39).

At the 65th session of the WHO Regional Committee for Europe in September 2015, the Regional Committee endorsed the Physical Activity Strategy for the WHO European Region 2016–2025, which carried the aspirational vision “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” (40).

The Physical Activity Strategy for the WHO European Region 2016–2025 proposes objectives, priority areas and actions (Table 1) with a particular focus on reducing the burden of NCDs (9). Member States are developing or adapting national physical activity strategies (Box 1) based on the priority intervention areas outlined in the Strategy (Box 2).

**Table 1. Priority areas and main actions from the Physical Activity Strategy for the WHO European Region 2016–2025**

<p><b>Providing leadership and coordination for the promotion of physical activity by the health sector</b></p>	<p>Provide adequately funded, high-level leadership by the health sector to integrate physical activity into the broader context of national health policy and intersectoral actions identified by governments</p> <p>Establish coordination mechanisms and promote alliances among relevant sectors and levels of government</p>
<p><b>Supporting the development of children and adolescents by promoting physical activity during pregnancy and early childhood, in preschools and schools, and recreational physical activity for children and adolescents</b></p>	<p>Provide adequate training for health professionals in line with WHO recommendations on the importance of physical activity prior to conception, during pregnancy and for small children</p> <p>Consider various measures to ensure the nationwide implementation of quality physical education classes and physical activity promotion programmes in preschools and schools as well as after school hours</p> <p>Promote and support age- and gender-relevant forms of activity</p>
<p><b>Promoting physical activity among older people by providing advice, and infrastructure and appropriate environments</b></p>	<p>Consider “age-friendly” policies that enable older people to remain physically active and to participate fully in community life</p>
<p><b>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</b></p>	<p>Promote active “human-powered” transport through measures such as congestion charges, tax incentives, provision of accessible walking and cycling infrastructures</p> <p>Improve the availability and attractiveness of public transport</p> <p>Adopt appropriate measures concerning health at the workplace</p> <p>Work towards making the promotion of physical activity by health professionals the norm</p> <p>Support physical activity programmes and opportunities that reach vulnerable groups</p>
<p><b>Promoting physical activity among older people by providing advice, and infrastructure and appropriate environments</b></p>	<p>Consider “age-friendly” policies that enable older people to remain physically active and to participate fully in community life</p>
<p><b>Supporting action through monitoring, surveillance, the provision of tools, enabling platforms, evaluation and research</b></p>	<p>Consolidate, adjust and extend existing national and international systems for the surveillance of physical activity with the adequate levels of disaggregation</p>

## Box 1. Leaving no one behind

**Numerous actions can be taken to reach those more likely to be physically inactive:** women, children, people with disabilities and chronic diseases, marginalized populations, older people and those of lower socioeconomic status are groups that can be targeted. The inclusion of free-of-cost physical activity and/or exercise prescription by health professionals within primary care is an effective strategy to promote physical activity as part of actions to achieve universal health coverage. Among EU Member States, the inclusion of such programmes as part of national health services is increasingly implemented (41).

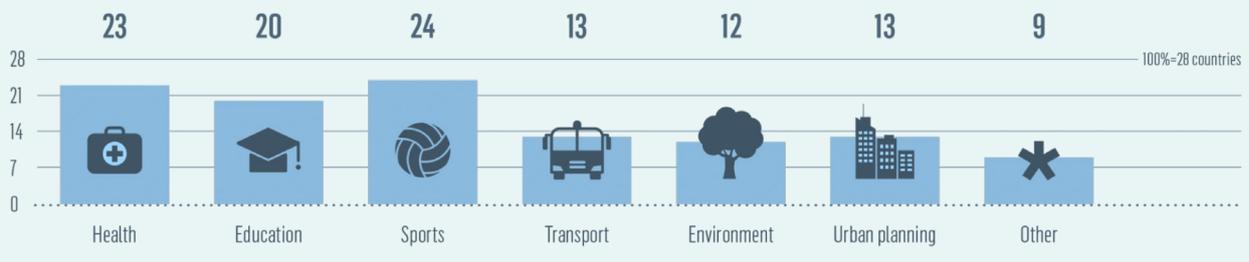
Physical activity on prescription (Fysisk aktivitet på recept or FaR) is a patient-centred initiative in the Swedish health-care system (42). Health professionals in primary care and specialists can prescribe physical activity for disease prevention and treatment. The prescription includes the type and dose of physical activity, potential contraindications and a plan for follow-up, which are documented in the patient's clinical record. The initiative includes close collaboration with sports associations, municipal and private facilities and other activity providers. To increase capacity, health professionals are offered a handbook that summarizes scientific knowledge on preventing and treating various diseases and conditions with physical activity.

The EU has chosen the FaR model as best practice for use in other EU countries, and it has also been implemented in Iceland, Norway and Viet Nam.

## Box 2. Intersectoral action

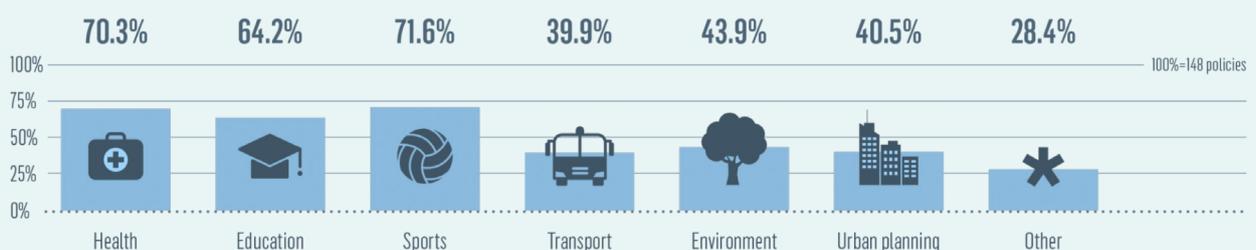
**The effective promotion of physical activity requires action across a number of relevant sectors:** these include health, sports, transport, environment, education and urban planning. Allocation of specific funding is, in general, a strong indicator of action and priority setting by governments and government sectors. Among the 28 EU Member States, 26 report having dedicated funding for the promotion of physical activity for health from various sectors (Fig. 2).

Fig. 2. Number of countries in which funding for physical activity is provided by sector



Relevant policies and action plans are essential to guide action. In a recent survey, EU Member States were asked to provide information on all relevant policies or action plans for the promotion of physical activity, including which sectors are involved in their design, funding or implementation. Most policies reported by EU Member States included multiple sectors recognized as important for the promotion of physical activity. Nevertheless, the health and sports sectors followed by the education sector were the most involved in the implementation of these policies, which is also reflected in the funding provided for the promotion of physical activity by these sectors (Fig. 3).

Fig. 3. Sectors involved in the 148 health-enhancing physical activity policies or action plans reported from EU Member States



Although these developments indicate progress towards multisectoral collaboration to increase physical activity levels, further action could be taken. The transport, environment and urban planning sectors can work together to improve health by reducing climate change gas emissions and car traffic and increasing physical activity.



The global voluntary targets for the prevention and control of NCDs include a 25% reduction of premature mortality from NCDs and a 10% relative reduction in the prevalence of insufficient physical activity by 2025 (43). The target to reduce physical inactivity was further extended to a 15% reduction by 2030 (18).

Reliable and high-quality data are needed to inform adequate and timely policy-making. The WHO Regional Office for Europe has developed a joint monitoring framework for Health 2020, the SDGs and the NCD indicators (44,45) to facilitate reporting in Member States and to measure progress towards the 2030 agenda and the thirteenth general programme of work 2019-2023 (GPW13) (46).

The following, as proposed in the Global Indicator Framework for the Sustainable Development Goals and Targets of the 2030 Agenda for Sustainable

Development (47) of the United Nations Economic and Social Council (ECOSOC), will support monitoring progress in decreasing the levels of insufficient physical activity (Table 2).

Moreover, an EU-wide monitoring framework on physical activity is in place through the EU Focal Points for Physical Activity. Data on 23 indicators related to prevalence, promotion and investment on physical activity are collected every three years and made available in the WHO European Health Information Gateway database (48). This survey has so far been completed in 2015 and 2018 (17,41). Additionally, country fact sheets and other resources are published using these data (49).

**Table 2. Indicators related to physical activity**

## ECOSOC indicators

3.4.1. Mortality rate attributed to cardiovascular diseases, cancer, diabetes or chronic respiratory disease

2.2.2 Prevalence of malnutrition (weight for height  $>+2$  or  $<-2$  standard deviation from the median of the WHO Child Growth Standards) among children under 5 years of age, by type (wasting and overweight)

## Health 2020 core indicator

1.1.a. Age-standardized overall premature mortality rate (from 30 to under 70 years) for four major NCDs (cardiovascular diseases (ICD-10 codes I00–I99), cancer (ICD-10 codes C00–C97), diabetes mellitus (ICD-10 codes E10–E14) and chronic respiratory diseases (ICD-10 codes J40–47) (50)) disaggregated by sex

## GPW indicators

21.1 Mortality rate attributed to cardiovascular disease, cancer, diabetes or chronic respiratory disease measured by probability of dying between the exact ages of 30 and 70 years

25.1 Prevalence of childhood overweight (0-4 years)

25.2 Prevalence of childhood obesity (5-19 years)

27.1 Age-standardized prevalence of insufficiently physically active persons aged 18+ years (defined as less than 150 minutes of moderate-intensity activity per week, or equivalent)

# WHO support to its Member States



The WHO Regional Office for Europe supports its Member States in meeting goals related to physical activity through the following activities:

- // identifying good practices and sharing country experiences in promoting physical activity across different settings to accelerate policy implementation and build country capacity;
- // identifying a series of so-called best buys to contribute to tackling NCDs with the implementation of community-wide public education and awareness campaigns (including community-based education, motivational and environmental programmes) as best buys for physical activity (15);
- // coordinating the monitoring and surveillance of indicators related to physical activity across the lifespan, including collecting and reporting country progress through mechanisms such as the NCD STEPwise surveillance surveys (STEPS) and the Childhood Obesity Surveillance Initiative (COSI);
- // developing, promoting and sharing resources that support Member States to implement effective policies to promote physical activity, including technical support to enhance multisectoral collaboration;
- // supporting Member States to strengthen the national implementation of effective and evidence-informed approaches to promote physical activity in community settings such as schools and workplaces;
- // developing and disseminating guidance, relevant tools and examples of how to integrate the promotion of physical activity into primary and secondary health care and social and community-based health services using physical activity as part of disease prevention and health promotion services within universal health coverage;
- // collaborating with academic institutions and research organizations to update evidence on effective physical activity policies and practices and providing evidence-informed support to Member States; and
- // facilitating assessments of the business case for investment in physical activity.

## Partners



WHO collaborates with the following partners to work towards increasing the level of physical activity among all citizens of the WHO European Region:

- // EU Health Enhancing Physical Activity Focal Points Network
- // European Commission
- // Health Behaviour in School-aged Children Study Network
- // HEPA Europe Network
- // Organisation for Economic Co-operation and Development
- // Schools for Health in Europe Network
- // WHO collaborating centres for physical activity, obesity prevention and public health



## Resources

Global Action Plan for the Prevention and Control of NCDs 2013–2020, 2013

[http://apps.who.int/iris/bitstream/10665/94384/1/9789241506236\\_eng.pdf?ua=1](http://apps.who.int/iris/bitstream/10665/94384/1/9789241506236_eng.pdf?ua=1)

Global Recommendations on Physical Activity for Health, 2015

[http://www.euro.who.int/\\_\\_data/assets/pdf\\_file/0005/288041/WHO-Fact-Sheet-PA-2015.pdf?ua=1](http://www.euro.who.int/__data/assets/pdf_file/0005/288041/WHO-Fact-Sheet-PA-2015.pdf?ua=1)

Action Plan for the Prevention and Control of Noncommunicable Diseases in the WHO European Region, 2016

[http://www.euro.who.int/\\_\\_data/assets/pdf\\_file/0008/346328/NCD-ActionPlan-GB.pdf?ua=1](http://www.euro.who.int/__data/assets/pdf_file/0008/346328/NCD-ActionPlan-GB.pdf?ua=1)



## Key definitions

### Exercise

“A subcategory of physical activity that is planned, structured, repetitive, and aims to improve or maintain one or more components of physical fitness” (51).

### Metabolic Equivalents (METs)

The ratio of a person’s working metabolic rate relative to their resting metabolic rate. One MET is defined as the energy cost of sitting quietly and is equivalent to a caloric consumption of 1 kcal/hour per kg body weight. It is estimated that, compared with sitting quietly, a person’s caloric consumption is three to six times higher when being moderately active (3–6 METs) and more than six times higher when being vigorously active (>6 METs) (52).

### Moderate–intensity physical activity

Activity that requires moderate amount of effort and noticeably accelerates the heart rate. It is equivalent to approximately 3–6 METs and includes activities such as dancing, gardening, brisk walking and household chores (52).

### Physical activity

“Any bodily movement produced by skeletal muscles that requires energy expenditure – including activities undertaken while working, playing, carrying out household chores, travelling, and engaging in recreational pursuits” (50). Physical inactivity has become a leading risk factor for ill health (9).

### Sedentary behaviour

Any waking behaviour characterized by an energy expenditure  $\leq 1.5$  MET; this includes sitting, reclining or lying down (53).

### Sport

“A game or activity that people do to keep healthy or for enjoyment, often competing against each other” (54). A sport activity requires physical effort and skill and is played according to a set of rules.

### Vigorous–intensity physical activity

Activity that requires a large amount of effort and causes rapid breathing and a substantial increase in heart rate. It is equivalent to more than 6 METs (52).



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