

DENMARK

PREVALENCE (%) OF ADOLESCENTS REACHING WHO
RECOMMENDED PHYSICAL ACTIVITY LEVELS, 2013/2014

%	ADOLESCENTS		
	11 YEARS	13 YEARS	15 YEARS
MALES	20	16	15
FEMALES	11	12	7

Total population: 5 627 235

Median age: 41.3 years

Life expectancy at birth: males 78.3 years

Life expectancy at birth: females 82.4 years

GDP per capita: €44 400

GDP spent on health: 10.9% (1)



Monitoring and surveillance

Physical activity in adults

In Denmark, the national recommendations on physical activity for health (2) address children, young people, adults, pregnant women and older adults. The country's national health monitoring and surveillance system captures some measures of physical activity through the Danish National Health Profile (3), which was established in 2009 and is produced under the leadership of the Danish Health and Medicines Authority. In the past, national physical activity monitoring was carried out at various intervals by the National Institute of Public Health (4). Now, every 4 years, the survey measures different aspects of the population's health-related behaviours, with data disaggregated by several variables, notably socioeconomic status and age.

No systematic collection of national data takes place relating to the percentage of the population that reaches recommended levels of physical activity; however, this is expected to be included in the next round of the Danish National Health Profile, in 2017. Physical activity levels in the Danish adult population (aged 16+ years) are currently measured and reported retrospectively in the National Health Profile, using questions that try to capture different dimensions of physical activity in leisure activities.¹

However, in 2012, the Nordic Council of Ministers published monitoring data collected in 2011 from all Nordic countries on the percentage of the population meeting the minimum recommendation of 3.5 hours of moderate-intensity activity per week (5). In Denmark, 67% of all adults meet this minimum recommendation.

The intercountry comparable physical activity estimates for 2010 for Denmark from the WHO Global Health Observatory (GHO) show that 73.4% reach the WHO physical activity for health recommendations, and that males in Denmark are more physically active than females (75.7% and 71.1%, respectively) (6).

Physical activity in children and adolescents

Denmark uses the international cut-off point for children reaching the recommended physical activity levels, as endorsed in WHO's *Global recommendations on physical activity for health* (2010) (7).

The latest Health Behaviour in School-aged Children (HBSC) study (8) reports data disaggregated by age (11, 13 and 15 years). Unpublished data for Denmark from the 2013/2014 round of the study are shown in Table 1. For all age groups, more boys aged 11, 13 and 15 years reach the physical activity recommendations (20%, 16% and 15%, respectively) and are therefore more physically active than girls in the same age groups (11%, 12% and 7% for girls aged 11, 13 and 15 years, respectively).

¹ For example: "In the past year, what would you say best describes your leisure activities? (Only one answer)

- heavy exercise and competitive sports, regularly/several times a week (8.8%)
 - exercise or heavy gardening, at least 4 hours a week (27.2%)
 - walking, biking or other light exercise, at least 4 hours a week (includes Sunday excursions, light gardening and cycling or walking to work) (48.3%)
 - reading, watching TV or other sedentary activity (15.7%).
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Table 1. Prevalence (%) of children and adolescents reaching the WHO recommended physical activity levels, 2013/2014

%	CHILDREN* ^b (9–10 YEARS)	ADOLESCENTS ^a (11 YEARS)	ADOLESCENTS ^a (13 YEARS)	ADOLESCENTS ^a (15 YEARS)	ADOLESCENTS* ^b (14–16 YEARS)
MALES	14	20	16	15	2
FEMALES	3	11	12	7	1

*Based on objective measurements (accelerometers): cut-off 2296 counts per minute (CPM) for moderate- to vigorous-intensity physical activity (MVPA), including children aged 9–10 years and adolescents aged 14–16 years.

Sources: ^aunpublished data from the HBSC 2013/2014 study (for adolescents aged 11, 13 and 15 years); ^bEuropean Youth Heart Study.

The percentages reported in the European Youth Heart Study², based on objective measures, are significantly lower than in the other studies presented here. Cycling (which is very popular in Denmark) is not measured in this study; and therefore these estimates probably underestimate the reality.

The results according to the WHO GHO 2010 data are in concordance with the two other studies, showing that boys are more physically active than girls, with 11.7% of Danish adolescents (defined as aged 11–17 years in relation to WHO data) reaching the recommended physical activity levels (12.9% for boys and 10.6% for girls, respectively).

Policy response

Major policy documents adopted by government bodies

Multi-sector collaboration is evident in the policy approaches taken by Denmark. The Ministry of Culture entered into a multi-party agreement in May 2014 entitled the Political Agreement on Sports (*Politisk stemmeaftale om idræt*) (9). A key part of this agreement is commitment to sports policy initiatives in the ministries that govern fields such as culture, environment, health and prevention, children, equality, integration and social affairs, and education. The emphasis is on informal sports and activity, using a so-called sports-for-all approach, with a special commitment to diversity in sports, including the development of sports for people with disabilities and for socially vulnerable groups, as well as gender-equitable sports. The Social Services Act (*Bekendtgørelse af lov om social service*) – proposed by the Ministry of Children, Gender Equality, Integration and Social Affairs – acknowledges the need to preserve the physical functionality of elderly people receiving care (10).

In 2014, the Danish government funded the establishment of several partnerships focusing on promoting physical activity and reducing overweight among children. The partnerships involve collaboration between municipalities, local organizations, and companies in the promotion of health and physical activity in communities. Public sector reforms have led to local municipalities being primarily responsible for the prevention of physical inactivity, since 2007 (11).

² Unpublished data from the European Youth Heart Study (collected in 1998 and 2004, with approximately 1000 participants in each age group), provided by Professor Lars Bo Andersen of the University of Southern Denmark, in collaboration with the International Children's Accelerometry Database.

In particular, two main strategies have been launched in Denmark to further improve physical activity: the updated Folkeskole Act of 2014, focusing on improving physical activity in schools (see Box 1) and the campaign "Denmark – on your bike!", which aims to encourage and improve cycling uptake in the country (see Box 2).

The needs of certain target groups – such as older people and those from lower socioeconomic groups – are primarily mainstreamed in these documents, rather than addressed separately.

Guidelines and goals

The Danish Health and Medicines Authority has adopted national recommendations on physical activity for children and adolescents, adults, older people and pregnant women. It also provides guidance on exercise training as treatment for 32 diseases (2). Recommendations for children aged under 5 years are anticipated to be released by the end of 2015.

Box 1. Physical activity in the curriculum: the Folkeskole Act

The Folkeskole (Consolidation) Act, passed by the Danish Parliament in 1993 and updated in 2014 (12), makes it compulsory for schools to offer an average of 45 minutes of physical activity per school day in primary and lower-secondary education, as well as adding an extra physical education (PE) lesson per school week in grade 1. Moreover, an exit examination in PE when students reach grade 9 in the Danish education system (15/16 years old). The Day-care Facilities Act states that all day care facilities must prepare a pedagogical curriculum. The pedagogical curriculum shall describe the local goals of the day care facility in respect of children's learning within six themes including the theme "body and motion" (13).

Box 2. Cycling in Denmark

The findings of the National Travel Survey (*Transportvaneundersøgelsen*) showed that walking and cycling are popular in Denmark, accounting for 18% and 17% of the modes of transport used for trips taken in 2014 (14). Since 2009, Denmark has invested at least €350 million in cycling projects. The Capital Region of Denmark estimates that one million fewer sick days are now recorded owing to the fact that 45% of people who study or work in Copenhagen cycle to their place of study or work (15).

Furthermore, Denmark has implemented the national bike strategy entitled "Denmark – on your bike!" which has three main pillars: everyday cycling, active holidays and recreation, and new and safe cyclists (16).

Furthermore, the Ministry of the Environment implemented Denmark's first outdoor recreation policy in 2015, serving as a guideline for the development of outdoor recreation activities and future collaboration in the field of outdoor activities (17). While this policy targets all population groups, there is a special focus on low socio-economic groups, among whom there is often lower uptake of outdoor recreational activities.

The national recommendations on physical activity for health are based on the various recommendations: WHO *Global recommendations on physical activity for health* (2010) (7), recommendations by the United States Centers for Disease Control and Prevention and the American College of Sports Medicine, and evidence and recommendations from Canada. The national guidelines recommend that adults (aged 18–64 years) carry out at least 30 minutes of moderate to vigorous physical activity per day and older adults (aged 65+ years) carry out at least 30 minutes of moderate-intensity physical activity per day. Adults (aged 18–64 years) should do a minimum of 20 minutes of vigorous-intensity physical activity at least twice per week, and older adults (aged 65+ years) should engage in physical activity at least twice per week for at least 20 minutes to maintain or improve physical fitness, and muscle and bone strength. Older adults should also perform stretching exercises for at least 10 minutes twice per week to maintain or improve flexibility, and perform regular exercises to maintain or improve balance.

Table 2 presents a summary of the key measures in place to monitor and address physical activity in Denmark.

Table 2. Summary of key physical activity initiatives in Denmark

HEALTH	SPORTS	EDUCATION	TRANSPORT	MONITORING	GUIDELINES
Counselling on physical activity as part of primary health care services	Existence of a national Sports for All policy(ies)	Mandatory physical activity in primary and secondary schools	National or subnational schemes promoting active travel to school and/or workplace	Physical activity included in the national health monitoring system or separate routine survey	Existence of national recommendation on physical activity
YES*	YES	YES	YES	YES	YES

*The Danish Health and Medicines Authority is scheduled to publish materials in autumn 2015 – designed for hospitals and the primary care field – focusing on an initial assessment of the patient’s lifestyle (alcohol, tobacco and drug use, diet and physical activity), targeted lifestyle and health information for the patient, and, where necessary and desired by the patient, referral for intervention in primary care.

Additional information on action in key areas

Supporting socially disadvantaged groups

In 2012, the Ministry of Children, Gender Equality, Integration and Social Affairs funded a project with the purpose of creating sustainable partnerships between sports and gymnastics associations in order to ensure exercise facilities for socially disadvantaged citizens. Three partnerships have been established to test different models of cooperation on such facilities.

Schools

While PE is mandatory in Danish schools (on the basis of the aforementioned Folkeskole Act), the Learning through Motion (*Læring i bevægelse*) scheme is a nationwide programme that aims to integrate motion-based behaviour such as physical activity into learning situations for students, including in lessons and during school breaks. This is targeted towards both primary and secondary education (18).

Workplace

The Danish Working Environment Authority is responsible for implementing a scheme to encourage dialogue on health promotion, established in January 2012 as part of the *Strategy for working environment efforts up to 2020* (19). This scheme focuses on the psychological working environment, well-being and physical activity.

Transport and the built environment

Denmark is part of the WHO European Healthy Cities Network (20) and the European Network for the Promotion of Health-enhancing Physical Activity (HEPA Europe) (21). Investment is being allocated to outdoor green public spaces, such as exercise trails, natural playgrounds and peri-urban forests, which indirectly affect people's opportunities for physical activity. Specific funding has also been allocated for the promotion of cycling in Denmark (22, 23).

Successful approaches

Nationwide campaign: Get moving (24)

Since 2005, the Danish Health and Medicines Authority has conducted a nationwide campaign on physical activity for children and adolescents, entitled "Get moving". The principal message of the campaign is that all children and young people must be physically active for at least 60 minutes per day, or preferably longer. Each year, the campaign comprises nationwide mass media elements, as well as local efforts. In 2015 the target group was the parents of children aged 10–15 years, as well as leisure-time teachers in after-school clubs. More information is available at the Danish Health and Medicines Authority website (25).

Aarhus Cycling City

Aarhus Cycling City is one of many projects that have received funds from the Cycling Fund (Cykelpuljen) for the period 2009–2014. Aarhus has experienced a 19% increase in cycling in recent years. The increase is the result of several improvements to infrastructure, such as new cycle paths, bicycle-friendly streets and new bicycle parking solutions, as well as campaigning efforts. All initiatives that stem from the Aarhus Cycling City project are carried out by Aarhus municipality, in collaboration with the Danish Road Directorate.

Put the school into motion

The project "Put the school into motion" (Sæt skolen i bevægelse) was initiated by the Danish School Sport Association in 2009. Its purpose is to help teachers at primary and lower-secondary schools in Denmark to integrate movement and physical exercise into their teaching during the school day, in order to strengthen the students' learning, health and well-being.

The project is divided into three parts, covering (i) a course, in which the teachers are educated in the various ways of integrating movement into their teaching; (ii) a database of exercises, methods and tools, which the teachers can incorporate into their teaching in order to encourage movement; and (iii) a yearly campaign week, open to all, during which classes can register to compete with each other in various physical activities.

The Danish Evaluation institute has conducted an evaluation of the project, showing that physical activity has a positive impact on students' learning environment. In particular, the findings show a positive influence on the students' motivation to learn, as well as on their communicational skills and their social environment (26).

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