

Health promotion package

# Physical activity



DANISH HEALTH  
AUTHORITY

Health for all ♥+●



# Contents

<b>Facts</b>	<b>4</b>
Prevalence	6
Lost years of life as a result of physical inactivity	7
Use of the health services in relation to physical inactivity	7
Figures for health in the municipality	8
Municipal costs related to physical inactivity	9
Relevant legislation	10
Knowledge base for the recommendations	12
The Danish Health Authority's general recommendations for physical activity	13
<b>Recommendations</b>	<b>16</b>
Frameworks	17
Programmes	20
Information and education	22
Early identification	24
<b>Implementation and follow-up</b>	<b>25</b>
Cooperation and partnerships	25
Monitoring and indicators	26
<b>Literature and references</b>	<b>28</b>

# Facts

The purpose of the physical activity health promotion package is to support the municipalities' work to provide the citizens with great opportunities for being physically active throughout their life in order to prevent disease retain functional capacity and support good well-being.

The prerequisites, needs, opportunities and interests of the public for physical activity differ. Therefore, it is an advantage if the measures to promote physical activity are broadly based so that everyone has the opportunity to be physically active throughout life. In addition to focusing on various offers for sport, athletics and exercise for both the public in general and particularly vulnerable groups, it is important that the municipality generally support the opportunity to be active on a daily basis. This not only applies to physical surroundings in the form of buildings and associated open-air areas, but to the city planning itself.

The promotion of physical activity must be done with the involvement of a number of administrations in the municipality, as many areas have an impact on the citizens' ability to be physically active. These include urban planning, infrastructure, day care, schools, leisure services, culture and leisure, nature and health. The municipality has considerable influence on these areas and therefore good opportunities to assist in promoting physical activity among the public.

## Definitions and scope

Physical activity comprises all movement that increases energy expenditure, i.e. unstructured activity, as well as more conscious, focused and regular physical activity<sup>1</sup>. Physical activity includes a wide range of activities from sport and vigorous exercise to everyday activities such as playing, gardening, walking, cycling as a means of transport, using the stairs, etc.

The health promotion package deals with physical activity as a measure for primary prevention. Therefore, rehabilitation and physical training as a treatment of medical conditions are not included in the package. Physical activity within primary prevention differs from both rehabilitation and physical training as a treatment, given that sick citizens, tend to require supervised training particularly in the early stages, which is individually organised based on a referral from the general practitioner or hospital. Although the health promotion package deals with primary prevention, some of the recommended measures, e.g. good opportunities for active transport, will also be beneficial for other groups, e.g. those with chronic illnesses. With regards to physical training for sick citizens, references are made to the publications "Anbefalinger for forebyggelsestilbud til borgere med kronisk sygdom" (in Danish)<sup>2</sup> and "Fysisk aktivitet – håndbog om forebyggelse. Del III: fysisk træning som behandling" (in Danish)<sup>3</sup>.

Physical activity has a favourable effect on many biological processes in the body and a significant preventive effect on premature mortality and a number of frequently occurring diseases in the Danish population. For example, there is definite knowledge that physical activity has a preventive effect on cardiovascular disease, type 2 diabetes, metabolic syndrome and colorectal cancer.

Physical activity is also essential in terms of the health of children and adolescents. Movement strengthens motor development and motor skills in young children, which improves their requisite to be physically active. In addition, physical activity also has a positive impact on a child's self-esteem and participation in social contexts<sup>4</sup>. For older children, physical activity results in improved physical fitness, stronger bones, less blood lipids, improvement in blood pressure levels and a reduced risk of diabetes precursors. A physically active life as a child can also contribute to the prevention of diseases later in life<sup>1</sup>. Physical activity also has a positive impact on the well-being and mental health of children and adolescents. This applies to self-esteem, self-confidence and interaction with the environment. It is important for the well-being of children that the physical activity is carried out so that it provides good experience for the child<sup>5</sup>.

Physical activity is of significant importance for older people in relation to maintaining good health and functional capacity. Older people are more inclined to a loss of functional capacity than others are. Therefore, it is particularly important for older people to maintain the mobility of the body, balance, muscular and bone strength, through physical activity. Daily physical activity enhances the quality of life and physical health. By contrast, a physical inactive day contributes to increased morbidity and mortality, as well as a heightened risk of reduced functional capacity and accidental falls<sup>3, 6</sup>.

In addition to the positive physiological effects, physical activity can also result in being part of a social community, by being physically active with others e.g. in the local sports club or other communities. If it is a well-functioning and good community, this has positive effects on the mental well-being.

## Prevalence

- 7-11 per cent of girls and 16-19 per cent of boys among 11-15-year-olds are physically active with moderate to vigorous intensity for at least 60 minutes per day<sup>7</sup>.
- 62-73 per cent of girls and 75-81 per cent of boys among 11-15-year-olds are physically active with vigorous intensity for at least two hours per week<sup>7</sup>.
- 9 per cent of the girls and 22 per cent of the boys among students in vocational education are energetically physically active outside school hours, for at least seven hours per week. The corresponding figures among upper secondary school students are 10 per cent for girls and 25 per cent for boys<sup>8</sup>.
- 17 per cent of girls and 16 per cent of boys in vocational education are not energetically physically active outside school hours. 9 per cent of girls and 7 per cent of boys among secondary school students are not energetically physically active outside school hours<sup>8</sup>.
- Socially vulnerable children are less physically active than other children are and fewer participate in the sports activities than they would like to, in this group<sup>9</sup>.
- 29 per cent of the adult population (aged 16 and over) are physically inactive (defined as failing to comply with the WHO's minimum recommended levels for physical activity). There are no significant differences between the proportion of men (28 per cent) and women (29 per cent), which are physically inactive. The lowest proportion of the physically inactive can be found among young people (aged 16-24) and the highest proportion among older people (aged 75 and over). People aged 65-74 are more physically active compared to the younger age groups, with the exception of 16-24-year-olds<sup>10</sup>.
- Social inequality is present in physical inactivity (defined as failing to comply with the WHO's minimum recommended levels for physical activity). 43 per cent of early retirement pensioners are physically inactive, while 28 per cent of people in employment are physically inactive. 42 per cent of people who completed a primary education as the highest level of education are physically inactive, while the corresponding figure for citizens with higher education is 24 per cent<sup>10</sup>.

## Lost years of life as a result of physical inactivity

- 6,000 deaths per year can be attributed to physical inactivity<sup>11</sup>
- Deaths related to physical inactivity is the cause of 22,300 life years lost per year<sup>11</sup>
- Physically inactive men and women have a shorter life span. An average of 7 years less for women and 6.9 years less for men<sup>11</sup>
- Physical inactivity gives rise to a loss in life expectancy of 13 months for both men and women<sup>11</sup>.

## Use of the health services in relation to physical inactivity

Annually, physical inactivity results in the following figures in Denmark:

- 710,000 additional contacts with general practices<sup>11</sup>
- 60,000 additional somatic hospital admissions<sup>11</sup>
- 280,000 additional somatic outpatient hospital visits and 91,000 additional psychiatric outpatient hospital visits<sup>11</sup>
- 560,000 additional days of short-term sick leave from work<sup>11</sup>
- 460,000 additional days of long-term sick leave from work<sup>11</sup>
- An additional 1,800 newly granted early retirement pensions<sup>11</sup>
- Additional costs of DKK 5.3 billion for treatment and care<sup>11</sup>
- Additional costs of DKK 12 billion as a result of lost production<sup>11</sup>
- Costs avoided for treatment, care, transport, culture and private consumption as a result of premature mortality among the inactive result in a future annual saving of DKK 11 billion compared to active people<sup>11</sup>.

## Figures for health in the municipality

Based on figures in the international report from the HBSC study from 2013/2014<sup>7</sup> and nationwide figures in the National Health Profile 2017<sup>10</sup>, an average municipality with 59,000 inhabitants, of which 3,400 are 11-15-year-olds and 48,000 are aged 16 or over, will comprise of approx.:

**300**

children aged 11-15 years who are physically active with moderate to vigorous intensity for at least 60 minutes per day

**1,600**

children aged 11-15 years who are physically active with vigorous intensity for at least two hours per week

**13,500**

citizens aged 16 and over who are physically inactive (described as failing to comply with the WHO's minimum recommended levels for physical activity).



## Municipal costs related to physical inactivity

Physical inactivity results in considerable costs to the society for treatment and care. There are also production losses related to absence from the labour market due to increased sick leave, more cases of early retirement and premature mortality. In practice, this is linked to significant challenges for calculating all of the costs related to a risk factor, not only in terms of defining what is to be included, but also in terms of how the value for the area of concern is determined. Part of the expenditure related to risk factors is borne by the municipality, e.g. expenses for municipal activity-based co-financing of the healthcare system, expenses for retraining and rehabilitation, medical care and expenses for social benefits.

The annual societal costs connected with selected risk factors was calculated in 2016<sup>21</sup>. Based on the results of the report, the Danish Health Authority has calculated the overall municipal expenditure and the expenditure for an average municipality using prices and population figures from 2017<sup>22</sup>.

- A total of DKK 2,327 million of the healthcare system's net costs and home care among people who are physically inactive are borne by the municipalities. Therefore, the additional expenditure for an average municipality for people who are physically inactive is DKK 24 million per year.
- The municipalities incur additional costs for early retirement among people who are physically inactive. In 2010-2012, there were an additional 1,843 newly granted early retirement pensions per year for people who were physically inactive, corresponding to 13 per cent of all newly granted early retirement pensions. If this proportion were used on municipal total expenditure for early retirement pensions, it would correspond to DKK 2.7 billion. This would correspond to DKK 28 million per year for the average municipality.

It should be noted that the aforementioned cost estimates are conservative, as the calculations are based on the physically inactive remaining physically inactive but not necessarily attaining a high level of activity. There would be even greater benefits if all the inactive were to attain a high level of activity – and even greater if they could maintain it throughout life. The potential is therefore greater than specified here.

## Relevant legislation

The promotion of physical activity should be included in municipal preventative efforts, which are described in the Danish Health Act, § 119. Furthermore, there are a number of acts and regulations that also have a significant impact on promoting physical activity.

These are the following:

- **The Planning Act** (Consolidated Act No. 50 of 19/01/2018) on how urban planning can designate areas for leisure and recreational purposes via municipal and local plans, such as the construction of sports facilities, bicycle lanes, paths for walking and running or other general design of the environment, which enables people to be physically active on a daily basis.
- **The Act on Non-formal Education and Democratic Voluntary Activity** (Consolidated Act No. 854 of 11/07/2011) that the municipality contributes to the costs of activities for children, adolescents and adults if applicable, e.g. for activities in sports clubs, and that the municipality increases the availability of facilities or contributes to the costs of associations.
- **The Act on Primary and Lower Secondary Education** (Consolidated Act No. 1510 of 14/12/2017) that the teaching of children in preschool shall include the competence area of "body and movement", that there shall be teaching in the fields of health and sexual education and family knowledge; and that pupils shall have 45 minutes of daily exercise and movement.
- **The Building Act** (Consolidated Act No. 1178 of 23/09/2016) that undeveloped land is of a satisfactory quality in relation to what it is to be used for and is properly maintained, and that regulations regarding the size, facilities and design of a property's undeveloped land can be established in order to ensure satisfactory open spaces for children, adolescents and adults.
- **The Day Care Act** (Consolidated Act No. 748 of 29/01/2018) that children in day care shall have a physical, psychological and aesthetic children's environment, which promotes their well-being, health, development and learning and a pedagogical curriculum is to be made describing the objectives of children's learning within the "body and movement". Furthermore, that after-school care services shall promote children's modes of expression.
- **The Social Service Act** (Consolidated Act No. 102 of 29/01/2018) that a special initiative by municipal councils shall be made for adults with reduced physical functions to prevent reduced functional capacity and to establish services for children and adolescents with reduced physical or psychological functions in cooperation with their parents.

- **Executive Order on Vocational Training and Education** (Consolidated Act No. 4 of 03/01/2018) that first year introductory courses are planned so that the total teaching time includes an average of 45 minutes exercise and movement per school day, and that the school can offer students active breaks or physical activities in continuation of the school day.
- **The Upper Secondary Education Act** (Consolidated Act No. 1716 of 27/12/2016) that sport is compulsory at level C in the Upper Secondary School Leaving Examination. That sport can be chosen at level C in the 2-year Higher Preparatory Examination, that level B is chosen in certain parts of the Higher Technical Examination and that special training courses with sports at level B can be offered for elite athletes in certain parts of the Higher Commercial Examination, and Upper Secondary School Leaving Examination.
- **Executive order on Primary Schools Special Education and other Special Educational Assistance** (Consolidated Act No. 693 of 20/06/2014) and **Executive order on Primary Schools Special Educational Assistance for Children that have not yet started in school** (Consolidated Act No. 999 of 15/09/2014), which states that it is possible for parents, teachers and pedagogues to receive special educational advice, following a pedagogical psychological assessment of the child and for the child to receive provision of teaching and training, e.g. to limit the consequences of physical disabilities.
- **Executive Order on the Environmental Protection Act** (Consolidated Act No. 934 of 27/06/2017), which gives the population certain rights in relation to traffic and movement, access to nature and the possibility of outdoor activities. Examples include access to beaches, forests, uncultivated land, dunes, the sea, the roads and the footpaths.

All acts and regulations can be found at [www.retsinformation.dk](http://www.retsinformation.dk) (in Danish).

## Knowledge base for the recommendations

The majority of the recommendations in the health promotion package for physical activity are based on a literature review focusing on the evidence of methods and initiatives for promoting physical activity. The health promotion package is based on key scientific articles, NICE Public Health Guidelines and WHO publications, as well as Danish publications that summarise knowledge and provide recommendations for promoting physical activity. The key publications are the Lancet series: physical activity<sup>13-16</sup>, urban design, transport and health<sup>17, 18</sup>, Physical activity strategy for the WHO European Region 2016-2025<sup>19</sup>, Draft WHO Global action plan on physical activity 2018-2030<sup>20</sup>.

Because of the scant research, the health promotion package also contain recommendations, which are based on knowledge of good practice and experiences derived from municipalities. Some of the recommendations also relate to statutory activities. For example, the requirement for 45 minutes of daily physical activity and movement in primary school. The Danish Health Authority considers that the recommendations are appropriate in terms of a joint municipal prevention initiative for physical activity. The absence of scientific evidence (positive or negative) is not necessarily an indication that a given initiative is ineffective; merely that it has been inadequately investigated.

There is evidence indicating that promoting the physical activity level of the general public results in significant health benefits. Although there is still a need to develop the knowledge basis, it is essential that municipalities utilise the significant potential they have, in a number of different administrative areas for promoting physical activity amongst the public.

In general, the most significant impact of municipal promotion of physical activity is achieved by working with a broad approach and multiple initiatives. Thus, efforts should be made to promote physical activity in several different administrations and with a combination of, e.g. both framing and individual-oriented methods. . Municipal initiatives may also usefully be linked to regional and national schemes, such as campaigns and the act of providing information.

# The Danish Health Authority's general recommendations for physical activity

## Recommendations for physical activity for young children

Infants and children from 0-4 years move spontaneously and movement bolsters their motor development. They use their bodies to explore their immediate environment and to establish contact with other people. They learn about their own bodies through physical activity. Giving infants and children opportunities to be as physically active as possible in daily life is therefore crucial.

### Infants under the age of 1

Maximize floor-based tummy time for infants when they are

Ensure that the infant is physically active in a variety of ways during the day.

Ensure that the infant is able to move freely as much as possible.

### Children aged 1-4 years

Ensure that the child is physically active in a variety of ways during the day.

Ensure that the child can move freely as much as possible.

Limit the amount of screen time.

## Recommendations for physical activity for children and adolescents (5-17 years old)

Be physically active for at least 60 minutes per day. The activity should be of moderate to high intensity and should extend beyond the usual short-term daily activities\*. If the 60-minute period is divided, each activity should last for at least 10 minutes.

Engage in physical activity of high intensity at least three times a week for at least 30 minutes to maintain or improve physical fitness and muscle strength. Activities should include those that increase bone strength and flexibility.

Physical activity in addition to what is recommended will have further health benefits.

<sup>A</sup> Usual short-term daily activities are defined in this context as the activities carried out frequently in the daily life that are brief (less than 10 minutes) regardless of intensity.

### Recommendations for physical activity for adults (18-64 years old)

Be physically active for at least 30 minutes per day. The activity should be of moderate to high intensity and should extend beyond the usual short-term daily activities<sup>8</sup>. If the 30-minute period is divided, each activity should last for at least 10 minutes.

Engage in physical activity of high intensity at least twice a week, for at least 20 minutes to maintain or improve physical fitness and muscle strength. Activities should include those that increase bone strength and flexibility.

Physical activity in addition to what is recommended will have further health benefits.

<sup>8</sup> Usual short-term daily activities are defined in this context as the activities carried out frequently in daily life that are brief (less than 10 minutes) regardless of intensity.

### Recommendations for physical activity for older people (65 years and older)

Be physically active for at least 30 minutes per day. The activity should be of moderate to high intensity and should extend beyond the usual short-term daily activities<sup>9</sup>. If the 30-minute period is divided, each activity should last for at least 10 minutes.

Engage in physical activity at least twice a week for at least 20 minutes to maintain or improve physical fitness and muscle and bone strength.

Perform stretching exercises at least twice a week for at least 10 minutes to maintain or improve flexibility. Further, perform regular exercises to maintain or improve balance.

Physical activity in addition to what is recommended will have further health benefits.

<sup>9</sup> Usual short-term daily activities are defined in this context as the activities carried out frequently in daily life that are brief (less than 10 minutes) regardless of intensity.

## Recommendations for physical activity for pregnant women

Be physically active for at least 30 minutes per day<sup>D</sup>. The activity should be of moderate to high intensity and should extend beyond the usual short-term daily activities<sup>E</sup>. If the 30-minute period is divided, each activity should last for at least 10 minutes.

Physical activity in addition to what is recommended will have further health benefits.

<sup>D</sup> The recommendations apply to healthy pregnant women with uncomplicated pregnancies. Pregnant women with complicated pregnancies should consult their doctor or midwife.

<sup>E</sup> Usual short-term daily activities are defined in this context as the activities carried out frequently in daily life that are brief (less than 10 minutes) regardless of intensity.

# Recommendations

The recommended initiatives are described in base level (G) and development level (U). Initiatives at base level can often be implemented within the existing municipal services. The municipality will often have access to the target group and arenas for initiatives at base level. Conversely, initiatives at development level are areas in which municipalities have less experience, and where there is a need for development of new competences, or partnerships to address recommendations.

The recommendations may be implemented with considerable differences in quality, which has an impact on the effect. Therefore, it is not only important to implement initiatives from the individual recommendations, but also to focus on how the task should be addressed.

As a starting point, the best effect is achieved by implementing all of the recommendations. If there is a need to prioritise due to resource considerations, the key recommendations that should be focused on by a municipality are:

- Urban planning, infrastructure and open-air areas that support everyone in having the opportunity to be physically active on a daily basis
- Easy access to sports facilities in the community for everyone
- Full implementation of movement and physical activity for a duration of 45 minutes per day in primary school, where some of the time is spent on moderate and highly intensive physical activity
- Systematic focus on motor skills and movement in day care.



## Frameworks

- G Cooperation for the promotion of physical activity across administrative areas**
- To a large extent, the possibilities for the citizens to be physically active on a daily basis is determined by a number of factors that crosses several administrations. For example, urban planning, infrastructure, access to sports facilities, physical facilities in day care services and schools, the work done by day care services and schools on movement and physical activity, facilities provided by local sports clubs and the focus by municipal workplaces on physical activity. Cooperation between municipal services is recommend for promoting physical activity among the citizens of the municipality.

**Inspiration for action:** "Sundhed på tværs" (in Danish)<sup>21</sup>.

- G Urban planning that promotes physical activity on a daily basis**
- Physical design should be included as an element to promote movement on a daily basis when the municipality plans and further develops urban areas. The appearance of streets, location of shops, jobs and schools within walking distance of residential areas are some of the factors in urban planning that have an influence on public physical activity.

**Inspiration for action:** "WHO: Towards More Physical Activity in Cities. Transforming public spaces to promote physical activity – a key contributor to achieving the Sustainable Development Goals in Europe"<sup>22</sup>; "WHO: Checklist of Essential Features of Age-Friendly Cities"<sup>23</sup>.

- G Infrastructure that promotes active transport**
- A municipality can plan and further develop its local infrastructure in such a way that can promote walking and cycling. This can be achieved, e.g. by adopting local development plans and implementing infrastructure projects with the aim of creating a coherent bicycle and pedestrian network. It is important to focus on security, safety, speed, aesthetics, accessibility and good signposting when a municipality improves a bicycle infrastructure. On-going maintenance, snow removal and salting in the winter season also contribute to cyclists and pedestrians having safe and convenient transport conditions.

**Inspiration for action:** "Towards More Physical Activity in Cities. Transforming public spaces to promote physical activity – a key contributor to achieving the Sustainable Development Goals in Europe"<sup>22</sup>. The WHO has developed a health economic assessment tool called HEAT<sup>24</sup>, which estimates the value of reduced mortality that results from regular walking or cycling. Transport and urban planners can use HEAT, to assess health benefits at local levels, for example.

**G Easy access to sports facilities**

A municipality can ensure easy access for everyone to sports facilities in the community (swimming pools, sports centres, playing fields etc.).

**G Easy access to open-air areas that invite physical activity**

A municipality can ensure easy and equal access to safe and inviting recreational areas, playgrounds and other movement-friendly open-air areas for everyone. In order to strengthen the use of such areas, developing a strategy for the increased use of both existing and new public open-air areas is recommended, in which access and use for physically inactive people is reinforced.

**G Physical facilities that to invite physical activity in municipal institutions**

A municipality can ensure that physical facilities, such as playgrounds and other open-air and indoor areas, invite to active play and physical activity in day care, schools, after school care and clubs. The use of such facilities can be supported by e.g. activities and more structured initiatives, such as active breaks.

**Inspiration for action:** "Drøn på skolegården"<sup>25, 26</sup>, "Sunde Børn Bevæger Skolen: Legepatruljen, GameBoosters, Kickstarter" (in Danish)<sup>27</sup>.

**G Active movement culture in municipal institutions**

A municipality can ensure a 'movement culture' in day care, schools, after school care and clubs, to support children in being physically active. The proposed focus for working with an active movement culture is on:

- More physical activity during the course of the day
- Less sedentary time spent on mobile telephones, tablets, game consoles and computers
- The promotion of walking and cycling between home and day care, school, after-school care and club, as well as excursions during school hours
- Physical facilities that support physical activity both indoors and outdoors
- Regulations and rules that support physical exercise for children.

**G Promotion of physical exercise and movement at school**

A school can ensure that classroom time is organised so that pupils participate in physical exercise and movement for an average of 45 minutes per day. The aim is to promote health and well-being and support learning of the school's subjects. This could be arranged by integrating short active breaks, into teaching, during physical education classes, during playtime, as active transport during school hours or as literal physical exercise. As part of 'the open school' (den åbne skole) policy, schools may collaborate with sports associations on introducing more movement into the school day. The inclusion of moderate, and preferably vigorous physical activity as part of the 45 minutes of exercise per day is recommended

**Inspiration for action:** "Sunde Børn Bevæger Skolen"<sup>27</sup> and "Bevæg dig for livet" (in Danish)<sup>28</sup>.

**U Promotion of physical exercise and movement in upper secondary education**

A municipality can collaborate and/or provide sparring and advice on promoting physical exercise at vocational and upper secondary schools.

**Inspiration for action:** "Sunde erhvervsskoler" (in Danish)<sup>29</sup>.

**U Physical facilities that inspire physical activity at homes for the elderly and care homes**

A municipality can ensure that both indoor and outdoor physical facilities are designed to inspire movement for a broad group of older people, taking into account that different needs may apply, e.g. depending on their physical, cognitive and social level of function.

**U Physical facilities that inspire physical activity in municipal workplaces**

The physical facilities in municipal workplaces can allow employees to be physically active during the course of the working day, as well as cycling to and from work. For example, this can be achieved by providing:

- Good changing and bathing facilities
- Attractive, inviting and well-placed stairs
- Access to exercise rooms
- Cycling as transport to and from meetings
- Meeting facilities that allow attendance standing up and sitting down.

## Offers

### **G Health visitors provide guidance on motor development and physical activity during a child's first year of life**

Health visitors can utilise home visits to families who have children in the first year of life to provide guidance on how parents can enhance their child's motor development. They can also discuss the habits of the whole family in relation to physical activity as needed, in order to promote healthy movement habits for the child.

**Inspiration for action:** "Støt dit barn til aktiv leg og bevægelse" (in Danish)<sup>30</sup>.

### **U Health visitors provide guidance on physical activity for children of pre-school age**

Health visitors can use home visits to families who have children of pre-school age to speak to the parents when necessary, about promoting healthy habits and physical activity for the child:

- Habits of the whole family in relation to physical activity
- The importance of physical activity
- Opportunities for parents to be physically active on a daily basis.

**Inspiration for action:** "Støt dit barn til aktiv leg og bevægelse" (in Danish)<sup>30</sup>.

### **G Health services' focus on physical activity**

Health visitors discuss the physical activity habits of a child or an adolescent throughout primary and lower secondary education examinations. Further regular examinations and conversations happen throughout their schooling.

**Inspiration for action:** "Vejledning om forebyggende sundhedsydelse for børn og unge"<sup>31</sup> and "Skolesundhedsarbejde – håndbog til sundhedspersonale" (in Danish)<sup>32</sup>.

### **G Facilities for children with motor difficulties**

A municipality can provide motor skills training for children with motor difficulties. Such training may be organised as a course at day care or school.

**U Facilities for physically inactive children, adolescents, adults and older people**

A municipality can help set up facilities targeted at children, adolescents, adults and older people who are not physically active on a daily basis. For example, in cooperation with sports associations, educational associations, interest groups and/or private entities.

**Inspiration for action:** "Forebyggelse på ældreområdet. Håndbog til kommunerne"<sup>6</sup> and "Bevæg dig for livet" (in Danish)<sup>28</sup>.

**G Facilities for people with special needs**

A municipality can provide activities directed at people with special needs, e.g. suffering from obesity, older people with reduced functional capacity, people with mental illnesses, disabilities, unemployed and socially vulnerable. Such facilities could be developed and implemented in a partnership between the municipality and sports associations, educational associations, interest groups and/or private entities.

**Inspiration for action:** "Tilbud der gør en forskel – Idræt til børn og unge med særlige behov"<sup>33</sup>, "Struktur på sundheden – inspiration til sundhedsindsatser til borgere med psykiske lidelser" (in Danish)<sup>34</sup>.

## Information and education

- G** **Promotion of physical activity and motor skills in day care**  
Based on the pedagogical "body and movement" theme and, where relevant, in relation to other curriculum themes, work on movement and the stimulation of children's motor skills is ongoing.

**Inspiration for action:** "Støt dit barn til aktiv leg og bevægelse"<sup>30</sup>, "Kroppen på Toppen"<sup>35</sup>, "Krop og bevægelse i dagtilbud"<sup>36</sup>, "Hoppeline"<sup>37</sup> (in Danish).

- G** **Specialised advice regarding the development of children's motor skills**  
A municipality can offer advice regarding motor skills development to parents, pedagogues and teachers who are concerned about a child's motor development, following a recommendation from school leaders or if requested by the parents. More general guidance and advice can also be offered on motor skill and physical activity for day care and schools, e.g. via municipal paediatric physiotherapists.

- G** **Education on physical activity in school**  
Pupils' knowledge and action competence regarding physical activity are promoted through health education, physical education and physical activity in auxiliary teaching. Every effort should be made for all students to participate in highly intensive physical activity several times a week during the course of the school day, e.g. during physical education. Schools can collaborate with sports associations, e.g. for health and physical education, as part of 'the open school' (den åbne skole) policy. Health visitors can contribute to the planning of health education.

**Inspiration for action:** "Den åbne skole i bevægelse" (in Danish)<sup>38</sup>.

- G** **Schools can participate in nationwide campaigns for the promotion of physical activity**  
Schools in the municipality can participate in one or more nationwide campaigns to promote physical activity among pupils.

**Inspiration for action:** "Aktiv Året Rundt"<sup>39</sup>, "Sæt Skolen i Bevægelse"<sup>40</sup>, "Alle Børn Cykler"<sup>41</sup> (in Danish).

**G Information about opportunities for physically active leisure in the municipality**  
A municipality can promote local opportunities for being physically active. For example via an easily accessible overview on its website. The information could include both supervised activities (e.g. clubs and associations) and unsupervised (e.g. skating rinks, parkour facilities, playgrounds, parks, exercise footpaths, fitness facilities, etc.).

**G Municipal workplaces can participate in campaigns for the promotion of physical activity**  
Municipal workplaces can participate in campaigns aimed at promoting physical activity in the workplace, such as transport to and from work.

**Inspiration for action:** "Vi cykler til arbejde"<sup>42</sup>, "Tæl skridt"<sup>43</sup> and "Arbejdspladsernes Motionsdag" (in Danish)<sup>44</sup>.

## Early detection

### G Identifying children with motor skills difficulties and/or low levels of physical activity

Health visitors, municipal doctors, day care pedagogues and the municipality's Pedagogical Psychological Counseling can collaborate in terms of identifying children with motor skills difficulties and/or low levels of physical activity.

These professional groups can collaborate with parents on improving children's motor skills and levels of physical activity. Health visitors can assess the motor skills development of a child through primary education reviews and refer the child to a relevant professional if needed.

### G Preventive home visits to older people

Preventive home visits are used to identify older people with low levels of physical activity and/or reduced functional capacity. A targeted preventative option can be offered in the form of a referral to municipality facilities or services if necessary.

**Inspiration for action:** "Opsporing af ældre i særlig risiko for nedsat funktionsevne. En guide til kommuner vedrørende forebyggende hjemmebesøg"<sup>45</sup>, "Forebyggelse på ældreområdet. Håndbog til kommunerne" (in Danish)<sup>5</sup>.

### G Detecting older people with reduced functional capacity and/or low levels of physical activity

Home care, home nursing, medical officers, dementia coordinators and employees related to social contact and activities can systematically contribute to the detection of older people with reduced functional capacity and/or low levels of physical activity. Members of the target group for early detection have very different types of medical conditions and functional capacity. They can be people who are classified as older people or medical patients, but also other elderly people who receive personal and/or practical help. It is important to note that the acutely ill are not in the target group for early detection.

**Inspiration for action:** "Forebyggelse på ældreområdet. Håndbog til kommunerne" (in Danish)<sup>6</sup>, "Opsporing af ældre i særlig risiko for nedsat funktionsevne. En guide til kommuner vedrørende forebyggende hjemmebesøg" (in Danish)<sup>45</sup>, "Tidlig opsporing af forringet helbredstilstand og nedsat funktionsevne hos ældre mennesker. Anbefalinger til arbejdsgange og anvendelse af redskaber" (in Danish)<sup>46</sup>.



# Implementation and follow-up

## Cooperation and partnerships

A coherent, long-term and effective initiative may be achieved best through cooperation between the private and public sectors. The following list of entities relevant to implementation of recommendations in the prevention package may serve as inspiration.

### Interest groups

- Dansk Skoleidræt
- DGI
- Sports Confederation of Denmark
- Dansk Firmaidrætsforbund
- Dansk Arbejder Idrætsforbund
- Fitness centres
- Danish Cyclists' Federation
- The Outdoor Council
- DaneAge Association
- Patient organisations.

### Other actors

- The Danish Nature Agency
- The Danish Road Directorate
- Medical practitioners
- The Region
- All municipal services.

## Monitoring and indicators

Monitoring and documentation are essential for ensuring the implementation of the recommendations. Focus should be on whether the recommendations prioritised by a municipality have been implemented with a sufficient level of quality. The indicators must reflect a recommendation being monitored, including how it has been put into practice in the municipality.

Both performance indicators and process indicators may be monitored.

An example of a performance indicator for the recommendation of “movement culture in day care, schools, after-school care and clubs” is the proportion of children who cycle to day care or school on a daily basis. An example of a process indicator for this recommendation is the proportion of the municipality’s after-school care where children are not allowed to use mobile telephones, tablets or game consoles during their time in after-school care, if these are the elements that the municipality has focused on when putting the recommendation into practice.

### Data at national level

A municipality can use the figures from the National Health Profile (Den Nationale Sundhedsprofil) to monitor the prevalence and development of physical activity among its residents and compare them with national figures. These figures are not suitable for monitoring individual initiatives though, as they reflect an overall level, and the level of physical activity in Denmark, is affected by a number of conditions.

Skolebørnsundersøgelsen (The Danish School Health Survey) is the Danish contribution to the international 'Health Behaviour in School-aged Children Study (HBSC)' and is executed every fourth year. It includes questions on physical activity for pupils in grades five, seven and nine. Something unique about the 2018 Danish School Health Survey is the fact that the schools taking part can participate in a supplementary survey with data being collected on the physical activity of pupils using accelerometers.

## **Data at municipal level**

It will be possible to monitor some recommendations at municipal level in whole or in part by using external data sources. This includes accessing sports facilities in the municipality, which can be monitored by using the Danish Sports Facility Database at [www.facilitetsdatabasen.dk](http://www.facilitetsdatabasen.dk)

There are more indicators for physical activity in the health profiles of the individual regions than there are in the National Health Profile. They can be used by a municipality to view their own figures and compare them with those of other municipalities in the region ([www.danskernessundhed.dk](http://www.danskernessundhed.dk)).

## **Proposals for indicators essential to the collection of municipal data on**

- Studies of transport habits, which illustrate the recommendations regarding active transport
- Proportion of children, adults and older people who are active in at least one sports activity
- Proportion of schools and municipal workplaces participating in at least one nationwide campaign.

# Literature and references

- 1 The Danish Health Authority. Fysisk aktivitet håndbog om forebyggelse og behandling (in Danish). Copenhagen: The Danish Health Authority; 2011.
- 2 The Danish Health Authority. Anbefalinger for forebyggelsestilbud til borgere med kronisk sygdom (in Danish). Copenhagen: The Danish Health Authority; 2016.
- 3 The Danish Health Authority. Fysisk aktivitet håndbog om forebyggelse og behandling (in Danish). Del III: fysisk træning som behandling" (in Danish). Copenhagen: The Danish Health Authority; 2018.
- 4 The Danish Health Authority. Motorik, fysisk aktivitet og stillesiddende tid hos 0-6-årige børn (in Danish). Copenhagen: The Danish Health Authority; 2016.
- 5 Pedersen B, Andersen L, Bugge A, Nielsen G, Overgaard K, Roos E, et al. Fysisk aktivitet: læring, trivsel og sundhed i folkeskolen (in Danish). Copenhagen: Vidensråd for Forebyggelse; 2016 (in Danish).
- 6 The Danish Health Authority. Forebyggelse på ældreområdet. Håndbog til kommunerne"(in Danish). Copenhagen: The Danish Health Authority; 2015.
- 7 Inchley J, Currie D, Young T, Samdal O, Torsheim T, Augustson L, et al. Growing up unequal: gender and socioeconomic differences in adolescents's health and well-being. Health Behaviour in School-aged Children (HBSC) study: international report from the 2013/2014 survey. Copenhagen: WHO Regional Office for Europe; 2016.
- 8 Bendtsen P, Mikkelsen S, Tolstrup J. Ungdomsprofilen 2014. Sundhedsadfærd, helbred og trivsel blandt elever på ungdomsuddannelser (in Danish). Copenhagen: National Institute of Public Health, the University of Southern Denmark; 2014.
- 9 Andersen S, Helweg-Larsen K. Børns fysiske aktiviteter i skole og fritid. er socialt udsatte børn fysiske inaktive og har det betydning for deres helbred og trivsel? (in Danish) Copenhagen: National Institute of Public Health, the University of Southern Denmark; 2008.
- 10 The Danish Health Authority. Danskernes Sundhed – Den Nationale Sundhedsprofil 2017 (Health of the Danish people – The National Health Profile 2017). Copenhagen: The Danish Health Authority; 2018.
- 11 Eriksen L, Davidsen M, Jensen H, Ryd J, Strøbæk L, White E, et al. Sygdomsbyrden i Danmark – Risikofaktorer (in Danish). Copenhagen: National Institute of Public Health, the University of Southern Denmark for the Danish Health Authority; 2016.
- 12 Juel K. Risikofaktorer – Samfundsmæssige omkostninger og kommunale udgifter (in Danish). National Institute of Public Health: University of Southern Denmark; 2017.
- 13 Physical Activity Series 1. The Lancet. 2012.
- 14 Physical activity Series 2. The Lancet. 2016.

- 15 Heath G, Parra D, Sarmiento O, Andersen L, Owen N, Goenka S, et al. Evidence-based intervention in physical activity: Lessons from around the world. *The Lancet*. 2012; Physical Activity Series.
- 16 Reis R, Salvo D, Ogilvie D, Lambert E, Goenka S, Brownson R. Scaling up physical activity interventions worldwide: stepping up to larger and smarter approaches to get people moving. *The Lancet*. 2016; Physical Activity Series 2.
- 17 Series about urban design, transport, and health. *The Lancet*. 2016.
- 18 Giles-Corti B, Vernez-Moudon A, Reis R, Turrell G, Dannenberg A, Badland H, et al. City planning and population health: a global challenge. *The Lancet*. 2016; Urban design, transport, and health Series.
- 19 WHO. Physical activity strategy for the WHO European Region 2016-2025. Copenhagen: WHO; 2016.
- 20 WHO. Draft WHO global action plan on physical activity 2018-2030. Version dated 1 August 2017. Geneva: WHO; 2017.
- 21 The Danish Health Authority. "Sundhed på tværs" (in Danish). Copenhagen: The Danish Health Authority; 2010.
- 22 WHO. Towards more physical activity in cities. Transforming public spaces to promote physical activity – a key contributor to achieving the Sustainable Development Goals in Europe. Copenhagen: WHO; 2017.
- 23 WHO. Checklist of Essential Features of Age-Friendly Cities. Geneva: WHO; 2007.
- 24 WHO. HEAT [www.heatwalkingcycling.org](http://www.heatwalkingcycling.org)
- 25 Realdania, the Danish Foundation for Culture and Sports Facilities, the Danish Cancer Society. Drøn på skolegården (in Danish). [www.droen.dk](http://www.droen.dk)
- 26 Realdania, the Danish Foundation for Culture and Sports Facilities, the Danish Cancer Society. Drøn på skolegården (in Danish). Experiences of schools with organisational measures to promote physical activity in school playgrounds – during and after school hours. Report. Copenhagen; 2017. [www.droen.dk](http://www.droen.dk) (under "publications").
- 27 Dansk Skoleidræt. Sunde Børn Bevæger Skolen (in Danish). [www.sbbs.info](http://www.sbbs.info)
- 28 DGI, Sports Confederation of Denmark, TrygFonden, Nordea-fonden. Bevæg dig for livet (in Danish). [www.bevaegdigforlivet.dk](http://www.bevaegdigforlivet.dk)
- 29 The Danish Health Authority. "Sunde erhvervsskoler" (in Danish). Copenhagen: The Danish Health Authority; 2012.
- 30 The Danish Health Authority and the Danish Healthy Cities Network. "Støt dit barn til aktiv leg og bevægelse" (in Danish). Copenhagen: The Danish Health Authority; 2017.
- 31 The Danish Health Authority. Vejledning om forebyggende sundhedsydelse til børn og unge (in Danish). Copenhagen: The Danish Health Authority; 2011.
- 32 The Danish Health Authority. Skolesundhedsarbejde – håndbog til sundhedspersonale (in Danish). Copenhagen: The Danish Health Authority; 2016.
- 33 The Danish Health Authority and the Danish National Board of Health and Welfare. Tilbud der gør en forskel – Idræt til børn og unge med særlige behov (in Danish). Copenhagen: The Danish Health Authority; 2015.

- 34 The Danish Health Authority. Struktur på sundheden. Inspiration til sundhedsindsatser til borgere med psykiske lidelser (in Danish). Copenhagen: The Danish Health Authority; 2014.
- 35 Aalborg Municipality. Kroppen på Toppen (in Danish). <https://kroppenpaatoppen.dk>
- 36 Copenhagen Municipality. Krop og bevægelse i dagtilbud (in Danish). [www.mitbuf.kk.dk](http://www.mitbuf.kk.dk) (search for title).
- 37 Komos/University College South Denmark. Hoppeline. [www.hoppeline.dk](http://www.hoppeline.dk)
- 38 Dansk Skoleidræt. Den åbne skole i bevægelse (thematic brochure) (in Danish). Dansk Skoleidræt; 2016. [www.skoleidraet.dk](http://www.skoleidraet.dk) (under "magasiner" (magazines)).
- 39 University College South Denmark. Aktiv året rundt (in Danish). [www.aktivaaretrundt.dk](http://www.aktivaaretrundt.dk)
- 40 Dansk Skoleidræt. Sæt skolen i bevægelse (in Danish). [www.saetskolenibevaegelse.dk](http://www.saetskolenibevaegelse.dk)
- 41 Danish Cyclists' Federation. Alle Børn Cykler (in Danish). [www.abc-abc.dk](http://www.abc-abc.dk)
- 42 Danish Cyclists' Federation. Vi cykler til arbejde (in Danish). [www.vcta.dk](http://www.vcta.dk).
- 43 Dansk Firmaidrætsforbund. Tæl skridt (in Danish). [www.firmaidraet.dk](http://www.firmaidraet.dk)
- 44 Dansk Firmaidrætsforbund. Arbejdspladsernes Motionsdag (in Danish). [www.firmaidraet.dk](http://www.firmaidraet.dk)
- 45 The Danish Health Authority. Opsporing af ældre i særlig risiko for nedsat funktionsevne. A guide for municipalities regarding preventative home visits (in Danish). Copenhagen: The Danish Health Authority; 2017.
- 46 The Danish Health Authority. Tidlig opsporing af forringet helbredstilstand og nedsat funktionsevne hos ældre mennesker. Anbefalinger til arbejdsgange og anvendelse af redskaber (in Danish); 2017.

#### Health promotion package – Physical activity

© The Danish Health Authority, 2018. The publication may be freely referred to on condition that it is clearly cited as a source.

The Danish Health Authority  
Islands Brygge 67  
DK-2300 Copenhagen S  
[www.sst.dk](http://www.sst.dk)

**Keywords:** physical activity, exercise, movement, prevention, health promotion, municipality, knowledge, health profiles, prevention packages, legislation, health economics, social inequality, recommendations, prioritisation, planning, cooperation, intervention, monitoring

**Language:** English

**Category:** Specialist advice

**2nd edition**

**Version date:** 13 April 2018

**ISBN – print edition:** 978-87-7104-988-6

**Electronic ISBN:** 978-87-7104-975-6

**Edited by:**  
Lene Halme Terkelsen, journalist

**Design & layout e-Types**

**Printed by:** Rosendahls A/S

The Danish Health Authority has developed a number of health promotion packages that contain technical recommendations for high quality municipal health promotion and prevention. The health promotion packages can be used to prioritise and plan work performed by the municipalities.

The series of health promotion packages addresses the following topics:

Alcohol

**Physical activity**

Hygiene

Indoor climate in schools

Food & meals

Mental health

Obesity

Sexual health

Sun protection

Drugs

Tobacco

As an introduction to its work with prevention, the Danish Health Authority has produced this publication, "Municipal work with the health promotion packages".

All of the health promotion packages and recommendations, by target group and specialist area, can be found at [www.sst.dk/forebyggelsespakker](http://www.sst.dk/forebyggelsespakker).

The publications can be ordered from the Danish Health Authority's publications, c/o Rosendahls Lager og Logistik on +45 70 26 26 36.