



# **HEPS Guidelines**

Guidelines on promoting healthy eating and physical activity in schools

# COLOPHON

#### Title HEPS Guidelines

## Authors

Aniek Boonen, M.Sc. Nanne de Vries, Ph.D. Silvia de Ruiter, M.Sc. Sue Bowker, M.Sc. Goof Buijs, M.Sc.

#### Acknowledgements

E. Bada (Institute of Child Health, Greece), K. Dadaczynski (Leuphana University Lüneburg, Germany), Z. Dafesh (Netherlands Institute for Health Promotion, the Netherlands), Wolfgang Dür (Ludwig Boltzmann Institute Health Promotion Research, Austria), E. Flashberger (Ludwig Boltzmann Institute Health Promotion Research, Austria), S. Nic Gabhainn (National University of Ireland, Galway, Ireland), Lisa Gugglberger (Ludwig Boltzmann Institute Health Promotion Research, Austria), A. Jociute (State Environmental Health Centre, Ministry of Health, Lithuania), C. Kelly (National University of Ireland, Galway, Ireland), A. Lee (NHS Health Scotland), P. Paulus (Leuphana University Lüneburg, Germany), D. Piette (Universite Libre de Bruxelles, Belgium), V. Simovska (Danish School of Education, Aarhus University, Copenhagen, Denmark), K. Sokou (Institute of Child Health, Greece), N.G. Viig (University of Bergen, Norway), B. Woynarowska (Warsaw University, Poland).

# Publication date

April 2009 NIGZ-code: OJ072129 ISBN: 9789069282596 Address: Customer service NIGZ, P.O. Box 500, 3440 AM Woerden, The Netherlands This report can be downloaded for free from the HEPS website: www.hepseurope.eu

# Financed by

This publication arises from the HEPS project which has received funding from the European Union, in the framework of the Public Health Programme.

© NIGZ, 2009. No part of this publication may be reproduced, either in folio or digital form, without written permission. Requests concerning the reproduction of images or text should be addressed to: Uitgeverij NIGZ – P.O. Box 500 – 3440 AM Woerden – The Netherlands – E-mail: uitgeverij@nigz.nl

# **HEPS Guidelines**

Guidelines on promoting healthy eating and physical activity in schools

Aniek Boonen, M.Sc. 1) Nanne de Vries, Ph.D. 2) Silvia de Ruiter, M.Sc. 3) Sue Bowker, M.Sc. 4) Goof Buijs, M.Sc. 3)

- <sup>3]</sup> Netherlands Institute for Health Promotion NIGZ
- <sup>4]</sup> Welsh Assembly Government

<sup>&</sup>lt;sup>1)</sup> Department of Health Promotion, School for Public Health and Primary Care (CAPHRI), Maastricht University

<sup>&</sup>lt;sup>2]</sup> Department of Health Promotion, School for Nutrition, Toxicology and Metabolism (NUTRIM), Maastricht University

# ■ <u>TABLE OF CONTENTS</u>

Intro	oduct	ion	5		
Cha 1.1 1.2	Obese	I: Childhood obesity and health promoting schools and overweight children h Promoting Schools	7 7 8		
Cha	oter 2	2: The European situation regarding the promotion of physical activity and healthy eating in schools	11		
2.1	Thec	urrent situation in Europe	11		
2.2		stories	12		
2.2	2.2.1	Wales	12		
	2.2.2	The Netherlands	13		
	2.2.3	Belgium	14		
	2.2.4	Scotland	14		
Chai	oter (	B: HEPS guidelines for policy development	15		
3.1		to use the guidelines?	15		
3.2		lines	15		
-	3.2.1	Health promoting principles	15		
	3.2.2	Health education	16		
	3.2.3	Physical activity	16		
	3.2.4	Food policy	17		
	3.2.5	Healthy and safe environment	19		
	3.2.6	Participation of parents and community	19		
	3.2.7	Psychological and social-emotional guidance and counselling	20		
	3.2.8	Provision of care	20		
	3.2.9	Workplace health promotion	21		
For	For more information				
Refe	References				

# INTRODUCTION

We all care about our children; they are the future of Europe. Currently about one in four children are overweight. To help deal with this issue, the Healthy Eating and Physical activity in Schools project (HEPS) supports countries in Europe to promote healthy eating and physical activity in schools in a positive and sustainable way. HEPS uses the health promoting school approach as an effective way of developing school health policy. As a SHE project HEPS is linked to the SHE network (Schools for Health in Europe).

Across EU member states there are many initiatives on reducing the number of children who are overweight with a practical focus towards developing activities, programmes and teaching methods. However, currently no EU member state has an effective national school policy in operation. HEPS aims to bridge this gap by being a policy development project on a national level across Europe. HEPS will help to implement these programmes in a sustainable way at school level.

#### The HEPS Schoolkit

•

The HEPS project will produce the HEPS Schoolkit. The HEPS Schoolkit will help EU member states to develop national policy promoting healthy eating and physical activity in schools, based on the health promoting school approach. It consists of the following six components.

- HEPS guidelines: a set of principles on promoting healthy eating and physical activity in schools, meant for organisations working on the national level in Europe
- HEPS advocacy guide: a tool assisting those advocating for the development of national school policy towards promoting healthy eating and physical activity
- HEPS inventory tool: a set of qualitative criteria for school programmes for the promotion of healthy eating and physical activity.
- HEPS tool for schools: a manual that will help schools in the member nations to introduce and implement a school programme promoting healthy eating and physical activity

- HEPS teacher training resource: a programme that will be used to train teachers to promote healthy eating and physical activity in schools
- HEPS monitoring tool: will be used to monitor how effectively the HEPS schoolkit is being implemented in each member state
- ABOUT THE HEPS GUIDELINES

•

•

•

•

•

The HEPS guidelines report is one of the components of the HEPS Schoolkit. A guideline can be described as "a detailed plan or explanation to guide you in setting standards or determining a course of action". The guidelines which are described in chapter three can support EU member states working with the health promoting school approach, to increase the level of physical activity and healthy eating of children and young people in the school setting. Each member state can build on the experiences of already existing guiding principles within their country or other countries. Member states can also build on the guidelines described in this document within their country as well as within Europe and further abroad. Cooperation with other member states can enhance and foster the usability of the guidelines which are important in the promotion of children's health.

Apart from the guidelines there are five other components of the HEPS Schoolkit which will support the implementation of school health promotion at various levels. This includes advocacy for adoption of school health policies at a high level, teacher training resources, an inventory tool and a tool for schools for practical implementation in schools.

The HEPS Guidelines and the HEPS Advocacy Guide are designed to compliment each other. The HEPS Advocacy Guide helps to build the case in the member nations for the promotion of healthy eating and physical activity in schools based on the health promoting school approach. The HEPS Guidelines give clear and practical suggestions and directions on how to promote healthy eating and physical activity in schools.

## WHO ARE THE HEPS GUIDELINES FOR?

The HEPS guidelines are intended for the SHE coordinators and national policy makers in EU member nations. The SHE coordinators, who are the main members of the SHE network, are encouraged to provide information, undertake research, advocate for school health promotion as well as share good practice, expertise and skills. The national, regional and local authorities, coordinators and stakeholders are encouraged to cooperate with the SHE coordinators in implementing the guidelines into practice.

# WHAT DIFFERENCE CAN THE HEPS GUIDELINES MAKE?

The purpose of developing guidelines for SHE coordinators and policy makers is to support them in developing health promoting school policy in the area of healthy eating and physical activity. Policy of this kind aims to create a good framework on which school health promotion can be built in order to create opportunities for children and young people to make healthy choices.

# CHAPTER 1

# CHILDHOOD OBESITY AND HEALTH PROMOTING SCHOOLS

This chapter will give information regarding European children and young people who are overweight or obese. First of all, some general information regarding this issue is given by discussing determinants and consequences of the problem. Then the concept of Health Promoting Schools (HPS) will be outlined together with a discussion on how this approach can be useful in promoting the health of school-aged children.

# 1.1 OBESE AND OVERWEIGHT CHILDREN

Being overweight or obese is a rapidly growing public health problem. The prevalence of being obese or overweight is increasing in the current generation of children and adults throughout the world (1,2,3). Nowadays, about one in four European children are overweight (4), with the highest prevalence of childhood obesity in Mediterranean countries and the lowest in Scandinavian countries (5).

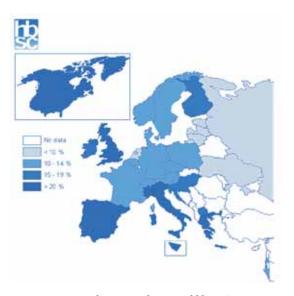


Figure 2. Overweight11,13 and15 year old boys (WHO Regional Office for Europe (2008), WHO/HBSC forum 2007 final report: Social cohesion for mental well-being among adolescents.)

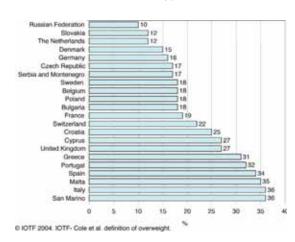


Figure 1. Prevalence Percentages of overweight children aged 7-11 years in 22 countries of the European Region (Source: International Obesity Task Force (IOTF), 2004. IOTF is a taskforce of IASO)

The aim of this report is to prevent children and young people becoming overweight or obese. This can be done by increasing healthy eating habits and physical activity levels.

Being overweight or obese is the result of an imbalance between energy intake and energy output (1), but there is no single factor that serves as a universal causal

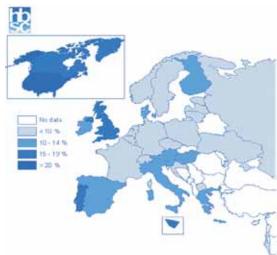


Figure 3. Overweight11,13 and15 year old girls (WHO Regional Office for Europe (2008), WHO/HBSC forum 2007 final report: Social cohesion for mental well-being among adolescents.)

factor in gaining weight (6). Several factors that appear to be causally linked to being overweight or obese are physical inactivity, a high intake of food with high energy density, a low intake of high fibre food, a low intake of fruit and vegetables, an environment that enhances the development of obesity, and an interaction between genetic factors and the physical environment (7).

Being overweight can have negative effects on people's health. Overweight children are more likely to become overweight adults, with a greater risk of cardiovascular disease, diabetes and other disorders (8). In addition, obese young people are at greater risk of health problems such as poor glucose tolerance, hyperinsulinemia, type 2 diabetes, hypertension and asthma compared to young people who are not obese (9). Other consequences of being overweight or obese for children and young people are having a low self-esteem, low psychological well-being, a high level of psychosomatic complaints and a poor quality of life. For example psychological disorders such as depression occur with increased frequency in obese children (5). Also, overweight and obese school-aged children are more likely to be bullied than children and young people of a normal weight (10) and there is pervasive evidence of stigmatization directed at obese children by peers, educators and even parents (11). Obese children suffer psychological, social and health related consequences because of this stigmatization.

Four strategies for long-term success for weight loss in children and young people are: 1) engaging in high levels of physical activity; 2) eating a diet low in calories and fat; 3) eating breakfast; 4) and maintaining a consistent eating pattern (12). These are shown in Table 1 and in this table, an explanation and practical examples are given.

## **1.2 HEALTH PROMOTING SCHOOLS**

By working towards being health promoting schools can make a substantial contribution to a child's health and well-being. According to the International Union for Health Promotion and Education (13) 'a health promoting school is one in which all members of the school community work together to provide pupils with integrated and positive experiences and structures, which promote and protect their health.' A health promoting school focuses on preventing disease, increasing young people's knowledge around health issues, improving young people's ability to make healthy decisions and to care for themselves and others. This is all within the context of building capacity for education, social justice and sustainable development. A health promoting school makes use of the wholeschool approach, building health into all aspects of life at school for those who live and learn there. The school environment is considered as well and the physical,

Strategy	Explanation	How?
Engaging in physical activity every day	Children and young people should be physically active for at least one hour per day and should engage in physical activity intensively at least twice per week	e.g. Walking, biking, playing actively, physical work, increased variety of physical activity options in school such as team and individual sports and dancing or swimming
Eating a diet that is low in energy and fat	Eating a healthy diet increases both physical and psychological health	Consuming more food that is high in fibre, like fruit and vegetables, and less food that is high in fat, e.g. cakes and crisps
Eating breakfast	Breakfast is the most important meal of the day as it prevents people from snacking on food low in nutritional value. It is also shown to help children to learn	Eating a healthy breakfast every- day, for example, fruit juice, brown bread, yoghurt with fresh fruit or high fibre cereals
Maintaining a consistent eating pattern	Maintaining a consistent eating pattern promotes better health and prevents the consumption of high fat snacks	Eat three balanced meals per day

Table 1. Examples of strategies for promoting a healthy energy balance among children and young people

social, spiritual, mental and emotional well-being of all pupils and staff will be promoted (14).

The Schools for Health in Europe network (SHE network) is the European platform for school health promotion (15). The SHE network aims to support organisations and professionals to further develop and sustain school health promotion in each country. SHE uses a positive concept of health and well-being and acknowledges the UN Convention on the Rights of the Child. The SHE approach for school health promotion in Europe is based on five core values and five pillars. The SHE core values and pillars are a source of inspiration and provide a basis for health promoting school developments.

#### The five SHE core values are:

- 1. Equity. Health promoting schools ensure equal access for all, to the full range of educational and health opportunities. In this way they have the potential to reduce inequalities in health.
- 2. Sustainability. Health promoting schools acknowledge that health, education and development are closely linked. Schools act as centres of academic learning and support to develop a responsible and positive view on pupils' future roles in society. Health promoting schools develop best when efforts and achievements are implemented in a systematic way for a prolonged period, for at least 5-7 years. Outcomes (both in health and education) mostly occur in the medium or long term.
- 3. Inclusion. Health promoting schools celebrate diversity and ensure that schools are communities of learning, where all feel trusted and respected. Where good relationships among pupils, between pupils and school staff as well as between school, parents and the community are important.
- 4. Empowerment and action competence. <sup>6</sup> Health promoting schools enable children, young people and all members of the school community to be actively involved in setting health-related aims and in taking actions at school and community level, to reach these aims.
- Democracy. Health promoting schools are based on democratic values and practice the exercising of rights and taking responsibility.

The five SHE pillars that underpin the health promoting school approach are:

- Whole school approach to health. There is coherence between the school's policies and practices in the following areas which is acknowledged and understood by the whole school community. This approach involves:
  - a participatory and action-oriented approach to health education in the curriculum;
  - taking into account the pupils' own concept of health;
  - developing healthy school policies;
  - developing the physical and social environment of the school;
  - developing life competencies;
  - making effective links with home and the community;
  - making efficient use of health services.
- 2. Participation. A sense of ownership is fostered by student, staff and parent through participation and meaningful engagement, which is a prerequisite for the effectiveness of health promoting activities in schools.
- 3. School quality. Health promoting schools create better teaching and learning processes. Healthy students learn better; healthy teachers and nonteaching staff work better and have a higher job satisfaction. The school's main task is maximising school outcomes. Health promoting school policies support schools in achieving their educational and social goals.
- 4. Evidence. Schools for health in Europe are informed by existing and emerging research and evidence focused on effective approaches and practice in school health promotion, both on health topics (e.g. mental health, healthy eating, substance use), and on the whole-school approach.
- 5. Schools and communities. Health promoting schools are part of the surrounding community. They endorse active collaboration between the school and the community and are active agents in strengthening social capital and health literacy.

SHE intends to make health promoting schools a more integral part of policy development in the education sector, as well as in the health sector in Europe. The SHE network provides easy access to information, good

<sup>&</sup>lt;sup>6</sup>] Action competence is defined as an ability to act and bring about changes at personal and social level, with a view to improving health and the conditions for health. (Jensen, 1997)

practices, contacts and exchange of information. International collaboration between professionals helps to provide a framework that fosters and sustains innovation and to develop and implement health promoting schools. Each European country has been encouraged to develop the health promoting school in a way that fits their own needs and context (16).

The health promoting school is not specifically targeted at promoting physical activity and healthy eating in children and young people but it aims to constantly strengthen the school's capacity as a healthy setting for living, learning and working for pupils and for staff (17). This is an important approach for increasing children's health for several reasons.

- The school is a place where children spend much of their time so there is plenty of time for promoting positive behaviour. (13).
- Healthy eating habits seem to track into adulthood (18) so it is important to ensure this begins at school.
- Diet and physical activity impacts on children and young people's energy levels thereby influencing their academic achievement (19). Improving diet and exercise levels can therefore serve the educational system's primary goal.
- Overweight children can be stigmatized in schools. Inclusion is a core value within the health promoting school approach and this means that all children should feel trusted and respected. Through the health promoting school approach the numbers of overweight and obese children and young people will be reduced therefore reducing the number of children and young people suffering stigmatisation. By reducing their stigmatisation children's social and cognitive development is encouraged. This means that children and young people will have more self-esteem, feel better and increase their learning abilities.
- School health promotion may result in an improvement of social resilience and competencies. This is in turn important for children's learning abilities and thus their future prospects (13).

Currently in Europe there is not one European model for school health promotion, there are different models to describe the health promoting school approach (20). The Dutch health promoting school model will be used to structure the HEPS guidelines that will guide schools in implementing activities to increase children's and young people's healthy eating habits and their physical activity levels. This model is used in the HEPS guidelines because it follows the IUHPE definition of health promoting schools, is based on the Ottawa charter and is a proven effective model, adapted from the American coordinated school health programme model (26).

In conclusion, the adoption of a health promoting school advances people within the school and in the local community, and supports empowerment and action by addressing the physical and psychological environment of the school through supportive policies and practice. Due to these efforts and features of a health promoting school, as promoted by the SHE network, the school is able to promote the health of children and young people (21).

# CHAPTER 2

# THE EUROPEAN SITUATION REGARDING THE PROMOTION OF PHYSICAL ACTIVITY AND HEALTHY EATING IN SCHOOLS

Healthy eating and physical activity are important in promoting the health of children and young people. To have a better view of what strategies or policies regarding healthy eating and physical activity already exist in the EU member countries, a questionnaire was sent to the SHE national coordinators of the 27 EU countries. Questions were asked about the existence of national and regional policies regarding physical activity and healthy eating and for addressing the issue of overweight young people. Questions were also asked about past research into the implementation and effectiveness of these policies and about how these policies were structured.

To give a clear overview of the current situation in Europe the results of this questionnaire follow along with four examples of good practice In these examples activities and policies have been developed and implemented to promote healthy eating and/or physical activity in children and young people. Hopefully, along with the guidelines, these examples can inform work in other countries towards promoting healthy eating and physical activity in schools based on the health promoting school approach.

## 2.1 THE CURRENT SITUATION IN EUROPE

In Europe there is great diversity in policies and structures for healthy eating and physical activity in schools. Some countries, for example Germany, France, and Spain, develop policies nationally which then gradually filter through to regional level. Their Ministries serve as gatekeepers to school activities. This can be seen as a top-down approach. Some other countries such as Wales and the Netherlands however use a more open bottom-up approach in which national and regional policies are combined and in which independent health activities are promoted at a local level.

A national comprehensive policy regarding the prevention of obesity in schools does not yet exist in any European country. However, most European countries do have a national policy regarding physical activity or healthy eating, which are two predictors for becoming overweight. These policies aim to reduce the numbers of overweight and obese children. In most nations policies are developed and funded by the government. England works with the Food in Schools' programme. In Slovenia the government has developed and implemented the National Health Enhancing Physical Activity Programme 2007-2012 in order to encourage physical activity. In Germany the national program InForm focuses on healthy nutrition in the whole population and is financed by the government. Finally, in 2007 Malta adopted the Healthy Eating Lifestyle Plan as the national policy for food in schools. However, Malta has no national policy that focuses specifically on physical activity in schools.

A combination of national policies and local/ regional policies are in place in some countries such as Germany where regional policies target the issue of overweight children and young people. In some regions ('Länder') specific programs exist in which primary schools are involved in promoting healthy eating and physical activity among children. Primary schools offer more time for physical education and children take part in cooking lessons. Another example is Ireland where many schools have their own healthy eating initiatives which are supported by the national program. However, in Norway and Portugal local policies are predominantly the implementation of national policies rather than the development of additional policies and/or activities at a local level.

So far little research has been done to evaluate the implementation and effectiveness of national and/or regional/local policies. However in most EU member states, the 'Health Behaviour in School-Aged Children' (HBSC) study has been conducted and includes the evaluation of the effectiveness of policies around healthy eating and physical activity. In Norway, some positive effects were found in that more schools met the national guidelines for healthy school meals after implementing the policy for healthy eating. There was also an increased number of pupils eating fruit and being physically active during school hours. In Greece, no research has been conducted but special committees inspect school canteens and school catering services to monitor the conditions under which they work and prepare food.

Besides the diversity in national versus regional poli-

cies, the structure of the policies varies between different European member nations. In Germany each autonomous region has its own education policy which means that health education also sits regionally and is therefore different in each region. In Ireland, policies are mediated through the partnership between the Department of Education and the Department of Health and Children. In Spain some collaboration agreements between several national ministries have been set up and within the framework of these collaborations health education programs have been developed and implemented but the regions are autonomous in developing their own regional policies. By contrast, in Wales a national network of healthy school schemes is run by the Welsh assembly government is funded from the health department but there are also strong links to related education policy like school meals. Local schemes run in health education partnerships providing support for schools via local coordinators.

It can be concluded from the questionnaires that in some countries health education is an obligatory topic in the school curriculum for example in Lithuania, Spain and Poland. Some of the topics that are discussed during health education lessons in the classroom in these countries are personal hygiene and responsibility, first aid, physical activity and nutrition, psychosocial health, and the natural, social and cultural environment.

From the findings above it can be concluded that there is no effective national school policy in Europe. It is therefore recommended that each EU member nation develops and maintains a national health promoting school policy so that the health of children and young people is promoted. HEPS aims to help countries in this process.

## 2.2 CASE STORIES

In the previous section the situation in the EU member states was presented. Currently some good practice exists regarding school health policies and structures targeting the issues of overweight children and young people, unhealthy eating habits and physical inactivity. In the following section four examples of good practice will be outlined.

## 2.2.1 Wales

The first example of good practice is Wales. In Wales there was growing concern for the general health of the population and a need for action. The creation of a whole school approach to healthy eating and physical activity was seen as way of providing a solution.

The Welsh Network of Healthy School Schemes has been running since 1999, and 90% of maintained schools are now actively involved (22). Much early work looked at the food and drink available in schools and guidance was issued on the running of fruit tuck shops, moving to healthy vending and the provision of water. In 2006 the Welsh Assembly Government launched a 5 year Food and Fitness Implementation Plan, and the consultation document on food throughout the school day - 'Appetite for Life'. The action plan 'Appetite for Life' sets out the strategic direction and actions required to improve the nutritional standards of food and drink provided in schools in Wales. The plan gives proposals which can help schools, catering staff or the Welsh Assembly Government to increase children and young people's health. An example of such a proposal is the following: 'Snack food provision in schools must have a clear nutritional benefit (in that they should provide essential nutrients rather than just calories) and in primary schools should be restricted to fruit at break time.' Moreover, some of the 22 local authorities have developed their own local strategies regarding overweight children and young people. (22).

In Wales, guidance is available, based on best practice, to help schools develop food and fitness policies (23). This was done in several steps that may serve as a model:

1. Create a working group.

This group can consist of pupils, parents, representatives of the school, a catering manager, a leisure centre manager, and health professionals.

2. Audit the food and fitness in schools.

This includes auditing the school environment, food and drink, physical activity through the school day, healthy living, policies and staff and curriculum related issues regarding the food and physical activity in schools. This process facilitates a critical review of the current situation in the school and enables the working group to differentiate between good and bad practices.

- 3. Draft a policy. This policy includes the aims, objectives, targets, tasks and timetable.
- 4. Consult on the draft policy and modify the policy.
- 5. Disseminate and implement the policy.
- 6. Monitor/evaluate/review/revise the policy.

#### 2.2.2 The Netherlands

The second example of good practice is the Netherlands where a bottom-up approach is used based on the Dutch health promoting school approach. People being overweight or obese are important public health issues in the Netherlands. The Ministry of Health has identified obesity as a priority public health issue and as a result it is considered within the national public health policy. However there is no central policy under which schools are working.

With the Dutch health promoting school approach schools can determine their own priorities and develop their own school health policy. The approach was introduced in 2005 (24) and outlines how schools can be supported regionally towards becoming a health promoting school. This approach is based upon the regional 'SchoolBeat' approach which states that health promoting activities should be integrated into schools, activities of all involved agencies should be coordinated, a whole school approach should be used, and then a win-win situation for both health promotion and education should be possible (25). The process for introducing and implementing health promotion in schools is described in the six 'SchoolBeat' steps. They are as follows:

- 1. Determine the health needs of the school.
- 2. Set health promotion priorities.
- 3. Determine activities and strategies.
- 4. Write the school health plan.
- 5. Realise the school health plan.
- 6. Evaluate.

Central to the Dutch health promoting school approach is that the entire school population should actively participate in the health promoting school and that the work involved in this is shared between relevant agencies. Schools can commission programs or activities that meet their identified needs. Alternatively, there are health promoting organisations and public health services who develop programmes or activities to deliver in schools. So, schools can identify the most obvious and important issues they need to address and then choose programmes or materials that aim to deal with them. As a result of this process there are now many programmes aiming to target the problem of overweight and obese children and young people which focus on healthy eating and physical activity. The Dutch approach aims not only to improve pupils' healthy eating and physical activity but also to create a healthy

and safe environment for all members of the school community; pupils and staff alike. (25).

The Dutch health promoting school model, which is based on the American Coordinated School Health Program Model (26), plays a central role in the health promoting school approach. In the Netherlands both primary and secondary schools work with this model (25). The health promoting school model described is a mix of different strategies and approaches leading to an integrated school health policy and is used when prioritising activities and programmes. The health promoting school model is made up of eight components and when three or more of these components are used together this increases the effectiveness of the model. The eight components are: health education, physical activity, food policy, healthy and safe school environment, participation of parents and community, psychological and social-emotional guidance and counselling, provision of care, and workplace health promotion.

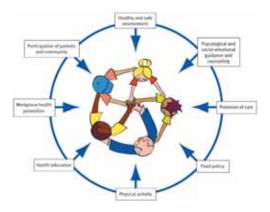


Figure 1. The Dutch health promoting school model based on the coordinated school health programme model (27)

Regarding the promotion of healthy eating and physical activity, schools can choose strategies from more than one component to achieve the desired outcome. Schools can for example improve the choice of food in the school canteens (food policy) and increase the exercise time during physical activity lessons (sport and exercise) as well as informing parents about the importance of healthy eating and physical activity (participation of parents) in working towards decreasing the number of overweight children and young people (25). This model has been used to structure the HEPS guidelines described in chapter three.

#### 2.2.3 Belgium

The third example of good practice is the Flemish speaking part of Belgium with a focus on healthy eating in schools. In this part of Belgium 2400 primary schools and 800 secondary schools offer a cooked meal to children and young people everyday (27). A lot of information about healthy eating and drinking can be given to children and young people through health education, the food offered by the school and by the modelling of healthy behaviour by teachers.

In autumn 2006, the project 'Healthy Eating at School' was comprised of 28 high-quality Flemish initiatives and projects aimed at promoting healthy menus in school (27). A network was created including head teachers, staff from the Student Support Centre network, healthcare professionals, school cooks and other involved people. This network organized study visits to catering companies, mass caterers and schools. All parties tried to include more healthy products in the deliveries (school meals and bread boxes) and projects were set up such as a school fruit project. Thanks to this project, schools make use of 'The Active Food Triangle' to work towards daily, balanced eating and sufficient physical activity. This triangle includes nutritious and healthy staples throughout the day such as water, potatoes, grains, fruit and vegetables, meat, fish, eggs and dairy products. The report 'Healthy eating at school Good practice guide for balanced nutrition at school' recommends which products are suitable for a ten day school meal timetable. Recommendations for balanced drinking and snacks are also given along with practical suggestions (27).

#### 2.2.4 Scotland

The fourth example of good practice is Scotland. The Scottish government wants to improve the diet of children and young people because it is proven that the diets of many children and young people in Scotland fall short of national dietary recommendations. Many are consuming inadequate amounts of fruit and vegetables and eating too many foods high in fat, saturated fat, salt and sugar (28).

The 'eatwell plate' has been developed for children and shows the types and proportions of foods needed to make up a well-balanced, healthy diet.

School meals have undergone a transformation due to the 'Hungry for Success' initiative. The Schools (Health Promotion and Nutrition) Act 2007 builds on 'Hungry for Success' and requires local authorities and managers of grant-aided schools to ensure that food and drink provided in schools comply with the nutritional requirements specified by Scottish ministers in regulations. The Act also makes health promotion a central purpose of schooling. In Scotland a guide has been developed for the implementation of nutritional requirements for food and drink in schools. This guidance describes standards for school lunches as well as food and drink standards for food and drink served out-with the school lunch (28).

Besides the guidance for healthy eating, Scotland has guidance for improving physical activity, in children and young people as well as in adults (29). In the Physical Activity Task Force, established following the recommendations of the White Paper 'Towards a Healthier Scotland', evidence is provided about the scale and consequences of physical inactivity. In addition, recommendations are given on how to support physical activity in children, and adults. The Task Force aims to create a healthier Scotland by encouraging Scots to become more active. Successful approaches are long term, involve many sectors and agencies, and are best aimed at preventing inactivity. The challenge in Scotland is to provide a combined effort across a wide range of policies: transport, education, social justice, health, housing and economic regeneration. To support this challenge, Scotland already has appointed a national physical activity coordinator who has developed Active Primary Schools and School Sport Development Officers. The Physical Activity Task Force has made some new targets to be achieved by the year 2022 (29).

The four examples of good practice (Wales, the Netherlands, Belgium and Scotland) include a good number of initiatives, projects and programmes that were developed to promote healthy eating and/or physical activity in children and young people. The examples demonstrate the importance for a national comprehensive school policy for healthy eating and physical activity based on the health promoting school approach.

# CHAPTER 3

# THE HEPS GUIDELINES FOR POLICY DEVELOPMENT

In this chapter the HEPS guidelines are outlined. Based on the health promoting school approach these guidelines are designed to help EU member countries develop policy towards promoting healthy eating and physical activity in children and young people. The guidelines aim to promote an integral, positive and structural approach to school health promotion, including healthy eating and physical activity.

## 3.1 HOW TO USE THE GUIDELINES?

The guidelines are a tool to be used by member countries to promote the health of children and young people. They aim to support countries to develop appropriate health promoting work rather than prescribing how it should be done in a uniform way. The guidelines take account of the fact that it is not only schools that have responsibility for the health and well-being of children. Others such as parents, the social environment and the wider community also have an important role to play. However, children and young people spend one third of their time in schools, so schools can make a significant contribution.

There are significant differences in what individual countries, regions and schools are already doing to promote healthy eating and physical activity. Each country has its own school system with different levels of autonomy for schools to work within the curriculum. So it is important to consider a countries' and schools' unique situation when using these guidelines and to apply them in an appropriate and sensible way. Added to this it is important to consider the cultural and religious background before using the HEPS guidelines since it may impact on the kind of food and drink offered in schools or alter the way physical activity is delivered. It would be envisaged that a judgement is made within individual nations about which guidelines are relevant for use within their context.

## 3.2 HEPS GUIDELINES

In this section the guiding principles will be outlined and discussed (5,23,25,28,29,30,31,32,33). Firstly the general principles of health promotion will be outlined, including the participation of the target group, empowerment

and action competence. Then, the Dutch health promoting school model is used to structure the guidelines. All eight components of the model will be described and examples of work towards preventing young people becoming overweight will be given. Within this model, the guidelines are divided into the national and regional/ local level of countries. In the Netherlands schools are working with this model to include health in their policies in a systematic and structured way.

#### 3.2.1 Health promotion principles

This chapter gives guidelines for general school health promotion practices.

- Children and young people are encouraged to participate actively in education about physical activity and healthy eating.
  - Children and young people can discuss their own views of physical activity and healthy eating.
- Children and young people are encouraged to participate actively in physical activity lessons.
  Children and young people can be helped to participate fully in physical education through a variety of activities being offered by teachers.
- Teachers will empower children and young people to engage in physical activities.

Children and young people can be motivated by teachers to increase the time they spend on physical activity.

- Teachers are encouraged to improve children's and young people's action competence.

Teachers can for example provide information about healthy eating and physical activity to pupils. After learning about these topics, children and young people can then put learning into practice by, for example participating in a cooking lesson where they can prepare a healthy meal or they can engage in a physical activity.

Now each of the eight components of the health promoting school model guidelines are described.

#### 3.2.2 Health education

This component aims at motivating and supporting children and young people to stay healthy, to prevent illness and reduce risky behaviour (36).

At a national level, the following guidelines can be applied in member countries.

- The government is encouraged to include a fixed number of health education hours (including healthy eating and physical activity) per week into the school curriculum as part of a national policy. To ensure full school participation, government may wish to incorporate this guideline as a statutory requirement.
- The government is encouraged to include at least two hours of physical activity into the curriculum in a national policy. It is demonstrated that increasing the number of physical activity lessons has a positive impact on children's behaviour.

To ensure full school participation, government may wish to incorporate this guideline as a statutory requirement.

At a regional/local level, the following guidelines can be applied in member countries.

Schools are encouraged to work with (already existing) methods on healthy eating and/or physical activity. Schools can for example make use of a school television series involving the issue of weight or an internet parcel about a health related topic. During physical activity lessons schools can make use of teaching package for an active lifestyle. When schools do not have such methods, they can make use of methods used by other schools or other countries (if these methods are translated).

# - Schools can encourage children to work in an alternative way.

Children can for example be encouraged to deliver a lecture about healthy eating or physical activity. Children can also be encouraged to write a paper about a health topic. Children and young people can participate more actively in health education lessons where they can prioritise their health topics. Children and young people can also get involved in cooking lessons or talk with an expert from outside the school, such as a local dietician. In this way, children and young people work intensively with the health topic and they will gain knowledge through experience.

#### 3.2.3 Physical activity

This component is aimed at the development of basic motor skills, sport ability and fitness, to learn to enjoy movement and strengthen the mental, social and emotional climate within the school.

At a national level, the following guidelines can be applied in member countries.

- The government is encouraged to control the rules regarding physical education and physical activity. The school inspectorate or a central inspectorate can examine whether schools meet the quality requirements of physical education. The school or central inspectorate can for example examine whether the playing facilities within and outside the school building comply with the safety norms.

At a regional/local level, the following guidelines can be applied in member countries.

# - Schools are encouraged to create a playground which is attractive for the children.

Schools can for example create colourful playground markings which children and young people can use to play games. Also schools can provide playing facilities like footballs and skipping ropes.

# Schools are encouraged to make school facilities available to children and young people before, during and after the school day, at weekends and during school holidays.

By making facilities more available to children and young people, it gives them the opportunity to be physically active every day, even during weekends or holidays. Schools can for example give free entrance to the playground where playing facilities are available even while the school is closed. Volunteers could be available to monitor the children and young people and the playing facilities. Activities could be led by appropriately trained and qualified staff. - Schools are encouraged to ensure that the space and facilities used for physical activity meet recommended safety standards for design, installation and maintenance.

Outdoor play areas should for example have areas of shade from the sun and sheltered areas where children can play if the weather is bad.

- Schools are encouraged to provide opportunities at break times to be physically active every day.

Opportunities for physical activity can be created throughout the day in pre-school establishments; during playtimes and lunch breaks at school; as part of extra-curricular and extended school provision; and during leisure time (including weekends and holidays) in wider community settings and the private sector. Activities vary in style from competitions to short aerobic exercises. It is always important to keep children and young people motivated to be physically active by keeping the physical activities exciting and varied both in content and delivery style.

 Schools are encouraged to tailor activities according to the children's developmental age and physical ability.

The activities can develop children and young people's movement skills through crawling, running, hopping, skipping, climbing, catching and kicking a ball. Children and young people can also experience more advanced activities such as swimming, cycling, playing football and dancing. These activities can be introduced during physical activity lessons.

- Schools are encouraged to motivate overweight children and young people to engage in long-term weight loss programmes.

It is important to encourage, motivate and support overweight children and young people in order to increase their self-esteem and well-being.

- Schools are encouraged to stimulate children and young people to join a sports club.

Schools can for example cooperate with local sports clubs where children and young people can have some introductory lessons. By introducing these lessons, children and young people can identify which sport or activities they enjoy.

- Schools are encouraged to stimulate physical activity for children and young people with a disability.

Schools can create opportunities in the physical environment and adapted sport programs for children and young people with a disability. Schools can for example organise sporting activities for children and young people who cannot participate in any regular sport activity e.g. wheel chair tennis or adapted aerobic activities.

- Schools are encouraged to develop, implement and promote a school travel plan.

Schools can map safe routes to school. A safe route can be a road without a lot of traffic or with enough traffic lights. Schools can organise walk and bike to school days and 'walking buses' in which children and young people will be organized to bike or walk to school together accompanied by an adult for their safety. In addition, schools can organise cycle and road safety trainings where children and young people can learn to be streetwise.

 Schools are encouraged to involve children and young people, their parents and carers, the local community and external agencies in implementing the school travel plan.

A mix of measures can be used to promote the school travel plan and schools can cooperate with the local authority travel plan advisor to recruit volunteers on a long-term basis to help implement the plan.

## 3.2.4 Food policy

The 'food policy' component of the guidelines is aimed at creating a school environment which stimulates healthy eating and developing related knowledge and skills.

At a national level, the following guidelines can be applied in member countries.

- The government is encouraged to adapt policies that support healthy diets at school and limit the availability of products high in salt, sugar and fats.

When a government develops a policy in which the availability of healthy products is promoted and a limit on the availability of unhealthy products, children and young people will be able to eat and drink more healthily during school days. The government can revise already existing policies regarding healthy eating and can combine or expand these policies. - The government is encouraged to apply a small tax on high-energy foods of low nutritional value like soft drinks and snacks.

If the government decides to increase tax on identified unhealthy foods and drinks it becomes less attractive for schools or children and young people to buy these products.

- The government is encouraged to control hygiene in the school canteen.

A central inspectorate can examine whether staff are working in a hygienic way in the school canteen and whether food and drinks are provided in a healthy and hygienic way.

At a regional/local level, the following guidelines can be applied in member countries.

- Schools are encouraged to provide clean drinking water.

Schools can for example improve access to drinking water by increasing the amount of water coolers and dispensers. Schools can also establish a water drinking break three times a day or establish more opportunities to have a drink during additional physical activity lessons or on a warm day. By encouraging the provision of more clean drinking water, the amount of soft drinks and sodas will hopefully be reduced.

- Schools are encouraged to provide free or cheap fruit, vegetables and dairy products.

By providing free healthy food, children and young people will consume more of these healthy products. It would be important to consider the budgetary implications and to ensure that budget is available to cover this initiative. Schools can individually decide how often they offer free food like this for example, daily or weekly.

Schools are encouraged to organise a breakfast club. It is important to start the day with breakfast but many children and young people do not have breakfast every morning. To increase the number of children having a healthy breakfast before the school starts, schools can organize a breakfast club offering a variety of health food such as fruit, brown or wholemeal bread and low fat dairy products such as yoghurt and milk drinks and skimmed or semiskimmed milk. There could be a parental contribution towards this breakfast. - Schools are encouraged to provide healthy school meals.

Schools can collaborate with the food industry to offer healthy meals during school hours. These meals could be a healthy sandwich or a healthy cooked meal. These meals should comply with the nutritional requirements such as no added salt and only using polyunsaturated or monounsaturated fat plus healthy drinks can be offered like skimmed or semi-skimmed milk, plain water, fruit juice or tea. A healthy school meal should also provide a choice of at least two types of vegetables and two types of fruit and portion sizes should be small. Children and young people get great benefit from the inclusion of a variety of fruit and vegetables in a project like this.

- Schools are encouraged to provide a healthy school canteen.

An example of how the school kitchen can become healthier is to replace products which are high in fat and energy but low in micro nutrition. So this might be replacing savoury snacks and sweets with milk, low sugar yogurt, fruit juice with no added sugar, water, sandwiches, fruit, nuts and vegetables. This allows children and young people to make a healthy choice.

 Schools are encouraged to remove vending machines that offer unhealthy snacks or change what the vending machines offer.

On the one hand, schools can remove vending machines that offer unhealthy snacks like chocolate, sweets and cereal bars so that children and young people are not able to buy them during school time. On the other hand, schools can decide to offer healthy snacks like fruits and vegetables and healthy drinks like water or low fat dairy products through vending machines.

- Schools are encouraged to prevent the advertising of unhealthy products.

If there are no advertisements for unhealthy food and drinks in schools, children and young people are less likely to buy, eat or drink these products. Schools can however advertise healthy products in order to encourage children and young people to eat and drink healthier options. - Schools are encouraged to include tasting sessions in the curriculum.

By providing tasting sessions children and young people are familiarised with several new and healthy products. They will both taste and smell these foodstuffs and also learn how to prepare healthy food and snacks.

#### 3.2.5 Healthy and safe school environment

This component consists of the physical environment such as the school building and playground, and the social environment like a safe atmosphere in the classroom and rules.

At a national level, the following guidelines can be applied in member countries.

- The government is encouraged to control the school environment.

The safety inspection or central inspectorate can examine whether the physical and social environment of the school complies with the safety and health norms of the country, such as the carbon dioxide (CO<sub>2</sub>) levels inside the classroom, school hygiene, school safety and working conditions for school staff and pupils.

At a regional/local level, the following guidelines can be applied in member countries.

- Schools are encouraged to make rules regarding where eating is allowed within the school building.
  Schools could propose that eating is only allowed in the school canteen. This limits the opportunities for children and young people to snack.
- Schools are encouraged to discuss limiting the number of sweet shops near the school with the local authorities and the private sector.

Local authorities can for example reject an application to open a new sweet shop near the school or they could try to move a sweet shop near the school to another location which would be equally good for the owners. The fewer the outlets selling sweets near the school the fewer opportunities for young people to buy them.

- Schools are encouraged to create a sociable and inviting healthy school canteen.

Creating an attractive and nice school canteen can encourage pupils to buy, eat and drink there. This can be done by painting the walls in a colourful way or making use of posters and music. Because of the healthy choice of food on offer, children and young people will consume a healthy meal in an enjoyable environment. Pupils can be involved in designing the canteen, and helping run the canteen.

# - Schools are encouraged to create a stimulating environment.

Schools can for example create a positive message at the top and the bottom of a stairwell to motivate school staff as well as children and young people to walk up the stairs instead of taking the elevator (e.g. 'Do you know that you will burn five times more calories by taking the stairs instead of taking the elevator?'). In the school canteen messages like 'You have to bike for 67 minutes to burn the equivalent of one candy bar' can be set to make people aware of the link between unhealthy eating and physical activity.

#### 3.2.6 Participation of parents and community

This component aims at making optimal use of sources of expertise for promoting health in children and young people in their social context.

At a regional/local level, the following guidelines can be applied in member countries.

# - Schools are encouraged to provide information to parents on a regular basis.

Schools can inform parents about work they are doing or are planning to do on healthy eating and physical activity through a newsletter, the school or giving brochures to children and young people.

- Schools can encourage parents' involvement in practical activities.

Parents can be involved when children and young people are doing things at home such as, cooking or doing homework about healthy eating and physical activity. Parents can also be involved in a project as a volunteer or they can help children individually, at home or during a course.

- Schools are encouraged to organise information meetings for parents about healthy eating and physical activity.

Schools can provide parents with information about healthy eating and physical activity. Schools can also

give practical suggestions about how to prepare healthy food at home or what physical activities to undertake with their children.

- Schools are encouraged to organise information meetings for parents about the school environment. Schools can discuss safe routes to school with parents but they can also inform them about environments that are dangerous for children and young people to play in. This raises both knowledge and awareness in parents.

 Local authorities are encouraged to support schools in the creation of a health promoting school.
Local authorities can, for example, create parking restrictions, install bicycle sheds and organise meetings where the community can actively discuss their wishes regarding a health promoting school.

# 3.2.7 Psychological and social-emotional guidance and care

This component of the health promoting school model aims to use early intervention to prevent and tackle problems and promote healthy development in children and young people.

At a national level, the following guidelines can be applied in member countries.

 The government is encouraged to develop and work with a protocol that motivates schools to detect and guide children who are overweight at an early stage. It is important to have insight into the social, emotional and mental consequences for overweight children and young people and to detect and prevent these problems as early as possible.

At a regional/local level, the following guidelines can be applied in member countries.

- Schools are encouraged to refer children and young people who are overweight or who have a high chance of becoming overweight to youth health care organisations outside the school.

The youth health service, can, in time support children and young people to reduce their weight and improve their lifestyle. Schools are encouraged to agree with youth health services and other services in the area about how to deal with overweight children and young people.

# - Schools are encouraged to help overweight children and young people to handle the problems that they suffer which are connected to their weight.

Schools can for example help children to cope with loneliness, teasing and their absence record. This can be done by creating small groups, managed by an appropriate professional, where overweight children and young people can talk about the problems they experience. Teachers can be trained in professionally dealing with the mental, social and emotional problems that overweight children and young people struggle with. Parents also can be made aware of the importance of being a healthy weight, eating healthily and undertaking physical activity. In addition, it is important that children know there is a mentor/ teacher at school where they can go to talk about their problems and try to find solutions.

#### 3.2.8 Provision af care

This component sets out guidelines designed to promote early identification of children and young people at risk of becoming overweight or obese who may be in need of referral and treatment.

At a national level, the following guidelines can be applied in member countries.

- The government is encouraged to look for any trends, local or national, in children or young people being overweight.

Trends can be detected by distributing questionnaires asking about children's and young people's behaviour. These questionnaires could be distributed by regional health services.

A protocol can be developed and used to identify overweight children and young people as early as possible.

At a regional/local level, the following guidelines can be applied in member countries.

# - The youth health service is encouraged to identify overweight individuals and to advise children and young people who are overweight.

It is suggested that children and young people can make use of a diary for eating and physical activity where they write down their actual behaviour. Health care organizations can then analyse these diaries to identify unhealthy behaviours and work towards changing this.

- Schools are encouraged to inform parents about the guidance of overweight pupils at school.

A teacher or supervisor should inform parents and meet with them to ensure that they understand the policies which are in place and how this translates into action. This ensures that parents understand what the school is doing.

- The youth health care service is encouraged to help overweight children and young people.

It is important to have a good overview of accessible and specialised treatments or programs that are available to help children and young people to promote their health. It is also important that the youth health service is informed about the availability of dieticians, specialist physicians and organisations who offer services for overweight children and young people. With this knowledge the provision of care can be more efficient.

 Health care organisations are encouraged to develop and organise courses for overweight children and young people.

On specialised courses, children and young people will, together with their parents, learn more about healthy eating and physical activity. Within these courses workshops can be organised to teach children and young people activities they can undertake with parents or friends. There can also be cooking workshops to learn experientially about making healthy food.

#### 3.2.9 Workplace health promotion

This component of the health promoting school model focuses on the social, physical and mental health of school staff. Health promotion at work aims to promote the health and well-being of school staff who will act as a role model for their students.

At a national level, the following guidelines can be applied in member countries.

- The government is encouraged to make policy for creating and maintaining a healthy work environment.

The government can for example include the availability of good facilities, enough fresh air and a space to relax during breaks in an educational protocol or policy in order to make sure that school invest in the health of their personnel.

At a regional/local level, the following guidelines can be applied in member countries.

 Schools are encouraged to emphasise to school staff that healthy eating and physical activity are important.

Knowledge about healthy eating and physical activity is important and leads to healthy behaviour. Schools can for example provide information to all members of the school staff team by organising an information event about healthy eating and healthy cooking. The Head Teacher or a representative of the regional health organisation can give information about how to provide children and young people with knowledge and information about healthy eating and physical activity.

- Schools are encouraged to promote healthy eating and physical activity to their staff.

A healthy lifestyle for school staff can be promoted by healthy eating and physical activity. Schools can increase health promoting activities for school staff and pupils simultaneously. For example, physical activity can be increased where staff are encouraged to cycle to work or exercise during lunch time. Another idea is to introduce balance days where an intake of too many calories on the one day will be compensated by fewer calories on another day. Also, physical activity programs can be introduced like sports lessons after working hours. During a staff trip a workshop can for example be organised for attractive and healthy lunch tips or physical activities before, during or after working time. An annual health check can also be organised to make members of the school staff aware of their own health.

# FOR MORE INFORMATION

#### About the health promoting school approach:

<u>http://www.euro.who.int/document/E90358.pdf</u>:

Stephen Clift and Bjarne Bruun Jensen (Eds.). The health promoting school: international advances in theory, evaluation and practice. Health Promoting School:

This book brings together recent international knowledge on the links between education and health, and recent research evidence evaluating the processes and outcomes of health promoting schools initiatives.

<u>http://ws10.e-vision.nl/she—network/upload/pubs/Healthpromotingschoolsaresourcefordevelopingindicators.pdf</u>
Vivian Barnekow, Goof Buijs, Stephen Clift, Bjarne Bruun Jensen, Peter Paulus, David Rivett & Ian Young. Health-promoting schools:
a resource for developing indicators.

The focus of this book was to develop and use indicators for health-promoting schools. The work had to be relevant to the needs of the country.

<u>http://www.euro.who.int/Document/E69846.pdf</u>
Rachael Dixey, Ines Heindl, Isabel Loureiro, Carmen Pérez-Rodrigo, Jeltje Snel & Petra Warnking. Healthy eating for young people in Europe. A school-based nutrition education guide.

This report aims to encourage the further development of nutrition education in European schools. It aims to do this by placing nutrition education within the context of the health-promoting school and by providing a framework for nutrition education in the health-promoting school.

#### Malta:

<u>http://www.education.gov.mt/ministry/doc/pdf/HELP\_document.pdf</u>

#### Scotland:

- <u>http://www.scotland.gov.uk/Resource/Doc/47032/0017726.pdf</u>
- <u>http://www.scotland.gov.uk/Resource/Doc/238187/0065394.pdf</u>

#### Slovenia:

http://www.mz.gov.si/fileadmin/mz.gov.si/pageuploads/mz—dokumenti/delovna—podrocja/javno—zdravje/national—health—enh ancing—physical—activity—programme.pdf

# REFERENCES

- 1. Field, A. E., Coakly, E. H., Must, A., Spadano, J. L., Laird, N., Dietz, W. H., et al. (2001). Impact of overweight on the risk of developing common chronic diseases during a 10-year period. Archives of Internal Medicine, 161, 1581-1586.
- 2. Kruger, J., Blanck, H. M., & Gillespie, K. (2008). Dietary practices, dining out behaviour, and physical activity correlates of weight loss maintenance. Preventing chronic disease: Public Health Research, Practice, and Policy, 5, 1-14.
- 3. Summerbell, C. D., Waters, E., Edmunds, L. D., Kelly, S., Brown, T., & Campbell, K. J. (2005). Interventions for preventing obesity in children. Cochrane Database of Systematic Reviews, 20, 1-73.
- Harbers, M. M., Visscher, T. L. S., & Wilk van der, E. A. (2007). Zijn er verschillen tussen Nederland en andere landen? [Are there differences between the Netherlands and other countries?] In: Volksgezondheid Toekomst Verkenning, Nationaal Kompas Volksgezondheid. Bilthoven: RIVM.
- 5. Deghan, M., Akhtar-Danesh, N., & Merchant, A. T. (2005). Childhood obesity, prevalence and prevention. Nutrition Journal, 4, 1-8
- 6. Kremers, S. P. J., Bruijn de, G., Schaalma, H., & Brug, J. (2004). Clustering of energy balance-related
- behaviours and their intrapersonal determinants. Psychology and Health, 19, 595-606.
- 7. Visscher, T. L. S., & Schoemaker, C. (2007). Wat zijn de mogelijke oorzaken van overgewicht en ondergewicht? [What are possible causes of overweight and underweight?] In: Volksgezondheid Toekomst Verkenning, Nationaal Kompas Volksgezondheid. Bilthoven: RIVM.
- 8. International Obesity Task Force (2002). Obesity in Europe. The case for action. Retrieved from the World Wide Web on September 20th, 2008 from http://www.iotf.org/media/euobesity.pdf.
- 9. Bupa. (2007). Obesity in children. Retrieved from the World Wide Web on September 25th, 2008 from http://hcd2.bupa.co.uk/fact—sheets/html/child—obesity.html.
- 10. Janssen, I., Craig, W. M., Boyce, W. F., & Pickett, W. (2004). Associations between overweight and obesity with bullying behaviours in school-aged children. *Pediatrics*, 113, 1187-1194.
- 11. Puhl, R. M., & Latner, J. D. (2007). Stigma, obesity, and the health of the nation's children. Psychological bulletin, 133, 557-580.

- 12. Wing, R. R., & Phelan, S. (2005). Long-term weight loss maintenance. American Journal of Clinical Nutrition, 82, 222S-225S.
- 13. International Union for Health Promotion and Education. (2008). Achieving health promoting schools: Guidelines for promoting health in schools. Version 2 of the document 'Protocols and guidelines for health promoting schools'.
- 14. World Health Organization (WHO) (2006). What is the evidence on school health promotion in improving health or preventing disease and, specifically, what is the effectiveness of the health promoting school approach? Retrieved from the World Wide Web on September 29th, 2008 from http://www.euro.who.int/ Document/E88185.pdf.
- 15. Buijs, G. (2009). SHE strategic plan 2008-2012. Netherlands Institute for Health Promotion (NIGZ), Woerden.
- Gray, G., Young, I., & Barnekow, V. (2006). Developing a health-promoting school. A practical resource for developing effective partnership in school health, based on the experience of the European Network of Health Promoting Schools. Retrieved from the World Wide Web on October 13th 2008 from http://www.schoolsforhealth.eu upload/ pubs/Developingahealthpromotingschool.pdf.
- 17. World Health Organization (2008). Global school health initiative. Retrieved from the World Wide Web on October 17th 2008 from http://www.who.int/school—youth—health/gshi/en/.
- Kelder, S.H., Perry, C. L., Klepp, K. I., & Lytle, L. L. (1994). Longitudinal tracking of adolescent smoking, physical activity, and food choice behaviours. American Journal of Public Health, 84, 1121-1126.
- Sallis, J. F., McKenzie, T. L., Kolody, B., Lewis, M., Marsha, S., & Rosengard, P. (1999). Effects of health-related physical education on academic achievement: SPARK. American Alliance for Health, Physical Education, Recreation and Dance, 70, 127-134.
- 20. Jensen, B.B., Simowska, V. (2002). Models of health promoting schools in Europe. International Planning Committee, Copenhagen
- 21. Jones, J. T. (2003). A national framework for health promoting schools (2000-2003). Retrieved from the World Wide Web on October 20th, 2008 from http://www.ahpsa.org.au/files/framework.pdf.
- 22. Welsh Assembly Government (2006). In Perspective. Food and Fitness.
- 23. Welsh Assembly Government (2007). Developing a whole school food and fitness policy.
- 24. Buijs, G. (2005). Werkdocument de Gezonde School Methode in Nederland. [Description Dutch healthy school method]. NIGZ, Woerden.
- 25. Bessems, K., Ruiter, de S., Buijs, G. (2006). Toolkit overgewicht: preventie van overgewicht binnen de setting school. [Dutch toolkit prevention overweight in Schools]. Nationaal Instituut voor Gezondheidsbevordering en Ziektepreventie (NIGZ), Woerden.
- 26. Marx. E., Wooley., S. (1998). Health Is Academic. A guide to coordinated school health programs. New York, Teachers College Press.
- Moens, O. & Vanhauwaert, E. (2008). Gezond eten op school. Praktijkgids voor een evenwichtig voedings-en drankenaanbod op school. [Healthy eating at school. Practical guide for equal food and drink offers]. Retrieved from the World Wide Web on March 5th 2009 from http://www.kbs-frb.be/uploadedFiles/KBS-FRB/05)—Pictures,—documents—and—external—sites/09)—Publications/Voedingscholen.pdf.
- 28. Scottish Government the (2008). Healthy Eating in Schools. A guide to implementing the nutritional requirements for food and drink in schools (Scotland) regulations. Retrieved from the World Wide Web on February 20th 2009 from http://www.scotland.gov.uk/Resource/Doc/238187/0065394.pdf.
- 29. Physical Activity Task Force (2008). Let's make Scotland more active. A strategy for physical activity. Retrieved from the World Wide Web on February 20th, 2009 from http://www.scotland.gov.uk Resource/ Doc/47032/0017726.pdf.
- 30. Health Scotland (2005). Growing through adolescence. A training pack based on a Health Promoting School approach to healthy eating.
- Ministerie van Volksgezondheid Welzijn en Sport (2008). Gezonde voeding, van begin tot eind, Nota voeding en gezondheid. Retrieved from the World Wide Web on December 15th, 2008 from http://www.minvws.nl/notas/vgp/2008/gezonde-voeding-van-begin-tot-eindnota-voeding-en-gezondheid.asp.
- 32. National Institute for Health and Clinical Excellence (NICE) (2009). Promoting physical activity, active play and sport for pre-school and school-age children and young people in family, pre-school, school and community settings. Retrieved from the World Wide Web on March 15th, 2009 from http://www.nice.org.uk/nicemedia/pdf/ PH017Guidance.pdf.
- 33. Voedingscentrum (2008). Zo gezond! Gezond eten en bewegen met kinderen van 9-12 jaar. Retrieved from the World Wide Web on November 18th, 2008 from http://www.scorenvoorgezondheid.nl/files/files/Gezond%20eten%20en%20bewegen.pdf.
- 34. Saan, S., & Haes de, W. (2005). Effective health promotion. Retrieved from the World Wide Web on March 9th 2009, from http://www.nigz.nl/index.cfm?act=esite.tonen&pagina=105&a=6&b=105.
- 35. Leurs, M. (2008). A collaborative approach to tailored whole-school health promotion. The schoolBeat study. Retrieved from the World Wide Web on February 27th, 2009 from
- http://www.academischewerkplaatslimburg.nl/pool/6/documents/proefschrift—schoolSlag—M.Leurs.pdf. 36. Buijs, G., & Ruiter de, S. (2006). Summary Dutch toolkit prevention overweight in schools. Nationaal Instituut voor
- Gezondheidsbevordering en Ziektepreventie (NIGZ), Woerden.

# **HEPS PARTNERS**

The Netherlands Institute for Health Promotion (NIGZ) is coordinator of the HEPS project in collaboration with:

- 1. Université Libre de Bruxelles, Belgium
- 2. Welsh Assembly Government, Wales
- 3. Danish School of Education, Aarhus University, Copenhagen, Denmark
- 4. Institute of Child Health, Greece
- 5. University Maastricht, Netherlands
- 6. NHS Health Scotland
- 7. Warsaw University, Poland
- 8. University of Bergen, Norway
- 9. Leuphana University Lüneburg, Germany
- 10. National University of Ireland, Galway, Ireland
- 11. Boltzmann Institute Health Promotion Research (LBIHPR), Austria
- 12. State Environmental Health Centre, Ministry of Health, Lithuania

The HEPS project has received funding from the European Union, in the framework of the Public Health Programme.