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The IDEFICS Intervention Toolbox – A Guide to Successful Obesity Prevention at Community Level

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1. Introduction

The chapter provides an overview of the IDEFICS (Identification and prevention of Dietary- and lifestyle-induced health EFfects In Children and infantS) intervention and its general content and structure, including the core set of intervention modules, communication strategies and corresponding standard operating procedures for use in preschools, primary schools and other settings and dissemination channels.

The chapter does not present information on the development of the IDEFICS intervention but aims to provide practical guidance and recommendations for local policy makers and/or local public health authorities who wish to implement the intervention in their cities or communities. Every authority or institution wishing to implement the intervention will have to adapt all the intervention modules to account for local and/or culture-specific constraints. This can be done on the basis of qualitative research or equally valid sources of relevant information. General aspects of the IDEFICS project and the development of the IDEFICS community-oriented intervention programme have been described in detail elsewhere (Ahrens et al., 2006; Ahrens et al., 2011; De Henauw et al., 2011; Pigeot et al., 2010; Verbestel et al., 2011).

1.1 Timing of the IDEFICS intervention activities

The timeline of the IDEFICS intervention is divided into three parts, referring to the classical phasing of establishing interventions (see Table 1): intervention adoption phase,

intervention implementation phase and intervention dissemination phase. The intervention adoption phase was proceeded by a one-year preparation phase.

Intervention preparation phase (Year 1)

The implementation of a culturally adapted version of the IDEFICS intervention needs to be planned in advance. Therefore, local authorities or institutions aiming to implement the intervention, are recommended to consider a preparation phase of at least one year. During this period, necessary arrangements can be made for the start of the adoption phase.

One of the most important arrangements that needs to be made during the preparation phase is to build a local intervention team. A local intervention team is a group of people that is preferably composed by the local authority or institution that aims to implement the intervention. It should consist of local experts in the field of health promotion and/or representatives of the respective authority or institution. The local intervention team needs to be able to prepare the adoption phase of the intervention and to support and supervise the implementation of the intervention during the first year. This support and supervision will gradually decrease so that local structures (community, family and schools) can independently continue the health-promoting efforts initiated by the intervention. The role of the local intervention team throughout the phases of the intervention is described in more detail below.

First intervention period = Adoption phase (Year 2)

Assuming that a school year starts in September, this phase should cover the period from September to August of Year 2 and starts right after the preparation phase (Year 1). During this period, the intervention will be launched and installed in the community, family and schools. This period is characterised by the continuous provision of material and logistic input, support and supervision from the local intervention team.

<table>
<tr><th></th><th>Year 1</th><th>Year 2</th><th>Year 3</th><th>Year 4 and onwards</th></tr>
<tr><td>Sep</td><td rowspan="12">Preparation phase</td><td rowspan="12">Intervention adoption phase (support and supervision)</td><td rowspan="12">Intervention implementation phase (only supervision)</td><td rowspan="12">Intervention dissemination phase (no support, no supervision)</td></tr>
<tr><td>Oct</td></tr>
<tr><td>Nov</td></tr>
<tr><td>Dec</td></tr>
<tr><td>Jan</td></tr>
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<tr><td>May</td></tr>
<tr><td>Jun</td></tr>
<tr><td>Jul</td></tr>
<tr><td>Aug</td></tr>
</table>

Table 1. Timeline of the IDEFICS intervention activities

Second intervention period = Implementation phase (Year 3)

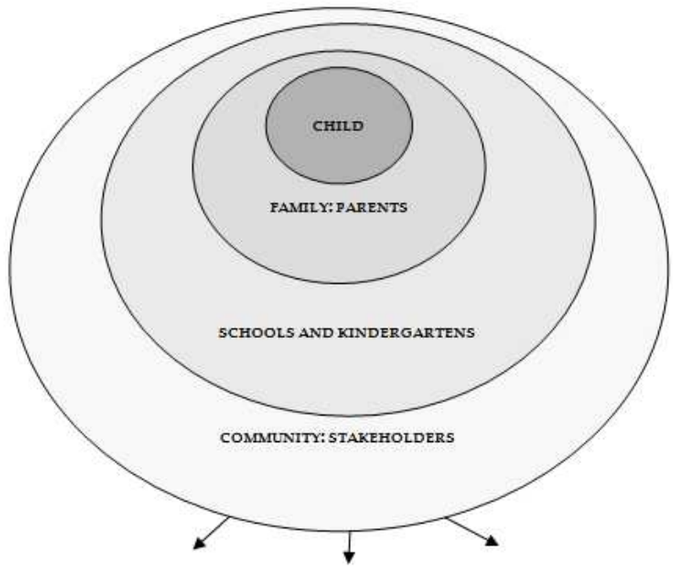
This phase covers the period from September to August of Year 3 and starts right after the adoption phase (Year 2). During this period, the intervention will be sustained and further progressed by the community, schools and families themselves without continuous material support from the local intervention team, but still with some degree of supervision.

Third intervention period = Dissemination phase (Year 4 and onwards)

This period starts in September of the school year after the implementation phase (Year 3) and aims at continuing the IDEFICS intervention without support and supervision of the local intervention team.

1.2 Dimensions of the IDEFICS intervention

The development of the child has to be viewed from an interactive and contextual perspective. The ecological environment of a child includes the family and the school which are in turn situated in the community and the society at large. Interactions within and among these social contexts result in changes within, and influence the development of, the individual child (Davison & Birch, 2001).



- Recreation and fitness sector - Sport and youth organisations - Private actors (food companies, grocery stores)	- Residents' associations - Organisations targeting persons with low socio-economic status - Social services and welfare sector - Communication sector: local media	- Local municipality (especially public health authorities) - Local politicians - Health care providers (paediatrician, family doctor, …)

Fig. 1. Dimensions of the IDEFICS intervention: the individual, the family, the school and kindergarten and the community level

The community-based IDEFICS intervention takes a holistic approach associated with this contextual and interactive perspective of human development and is being executed on three intertwining levels: community level, school level and family level (Figure 1). Possible stakeholders in the community that can have an impact on the prevention of obesity are illustrated. The local intervention team has to analyse its own intervention community and identify the key persons and stakeholders.

1.3 Behaviours targeted by the IDEFICS intervention

The behaviours that were targeted by the IDEFICS intervention can be found in Table 2. From this point onwards, these target behaviours will be called the "key messages".

The selection of these key messages was based on the available evidence in the scientific literature. Detailed information on this selection process is outside the scope of this chapter and can be found elsewhere (Verbestel et al., 2011). Due to the complex nature of the problem, there is also scientific evidence available showing additional behaviours having an influence on the development of childhood obesity (e.g. portion sizes and snacking). This means that multi-topic interventions for the prevention of childhood obesity do not necessarily have to focus on the below mentioned key messages. Other behaviours can be chosen as the focus of the intervention, as long as they are supported by scientific evidence in the childhood obesity preventive literature.

Diet	Physical activity	Stress, coping and relaxation
Stimulate daily consumption of water	Reduce TV-viewing	Spend more time together
Stimulate daily consumption of fruit and vegetables	Stimulate daily physical activity	Ensure adequate sleep duration

Table 2. The six key messages targeted by the IDEFICS intervention

1.4 Overview of the IDEFICS intervention modules

The identification and elaboration of the IDEFICS intervention modules was predominantly carried out during the first year of the project on the basis of literature reviews, expert consultations and focus group research (Verbestel et al., 2011). The modules have been developed as distinct sets of activities but it should be realised that some of these modules are partly overlapping and/or interacting with one another. Table 3 illustrates how different modules have been conceived within a grid of targeted behaviours and intervention levels. Some modules have a more general scope whereas others are much more specific and focusing on a particular intervention level or behavioural dimension. The general content and structure supplemented with a description of the core actions for all the IDEFICS intervention modules is provided in the sections below.

	COMMUNITY	SCHOOL	FAMILY	INDIVIDUAL
DIET	Module 1 Module 2 Module 3	Module 4 Module 8 Module 9	Module 10	Module 5
PHYSICAL ACTIVITY	Module 1 Module 2 Module 3	Module 4 Module 6 Module 7	Module 10	Module 5
STRESS, COPING AND RELAXATION	Module 1 Module 2 Module 3	Module 4	Module 10	Module 5
Module 1: Involvement of community partners Module 2: Long-term media campaign and public relations strategy Module 3: Lobbying for community environmental and policy interventions Module 4: Building partnerships Module 5: Education of children Module 6: Environmental changes related to physical activity – The Active Playground Module 7: Health-related physical education curricula Module 8: Environmental changes and school policy related to water consumption Module 9: Environmental changes and school policy related to fruit and vegetables Module 10: Education of parents				

Table 3. Overview of the IDEFICS modules by behavioural focus and intervention level

2. IDEFICS intervention modules at community level

2.1 Module 1: Involvement of community partners

All the community partners will be engaged in the intervention by means of a community platform, i.e. a working group on meta (community) level in which all relevant stakeholders need to be represented. The local intervention team is an essential leading actor in the implementation of this module as it is responsible for triggering and coordinating the establishment and the operation of the community platform. This means that the implementation quality of this intervention module strongly depends on the leadership capacity of the local intervention team.

Objectives

- Create involvement and commitment of all relevant sectors of the community.
- Make it possible to implement the intervention at community level by the combination of support from the intervention team in the early phase followed by a gradually increasing independence of the stakeholders in the community.
- Stimulate the community to develop, organise and promote programmes and structural changes that encourage the healthy behaviours targeted in the intervention.
- Prepare the dissemination phase of the community-based intervention.

Establishment and composition of the community platform

- The community platform has to be established, organised and coordinated by a local intervention team.
- Preferably, one community platform is created in the community. When it is obvious that the creation of a single community platform is not feasible, it can be envisaged to create more than one community platform (e.g. when different communities are part of a larger intervention region).
- If a community already has a community platform, it is recommended to integrate the IDEFICS platform within the existing one.
- Every community platform has to include at least one representative from all important stakeholders in the community: each local intervention team has to analyse their own community to identify such key persons within these stakeholders. Stakeholders are perceived important when they are able to reach vulnerable groups, persons with low(er) socio-economic status or migration groups and/or if they can contribute significantly to the prevention of (childhood) obesity.

Task and responsibilities of the community platform

The community platform is responsible for the development and implementation of all the intervention modules at community level, i.e.:

- Module 2: Long-term media campaign and public relations strategy
- Module 3: Lobbying for community environmental and policy interventions

Within this section, the tasks and responsibilities of the community platform are briefly outlined. More detailed and concrete descriptions can be found in the relevant module sections.

Because of the ecological perspective associated with the IDEFICS intervention, interactions within and among the different contexts in the community - as illustrated in Figure 1 above - are essential. The community platform is therefore expected to support the implementation of modules at other levels:

- Module 5: Education of children (school level)
- Module 10: Education of parents (family level)

The community platform will not be responsible for the intervention modules at the school level. The implementation of these modules will be organised by a working group at the school level (see module 4). Regarding module 5 and 10, the community platform will mainly provide logistic and reinforcing support (e.g. the provision of posters to the school working group). This support is explained in more detail within the appropriate module sections.

Operation of the community platform during the intervention adoption phase (Year 2)

The first part of the adoption phase (September – June, Year 2) is dedicated to building the infrastructure for implementing the intervention modules:

- All the participants of the community platform will receive instructions and guidelines about the modules that have to be implemented in the community.
- The community platform will work closely with the local intervention team in order to implement the community-level modules.

- The local intervention team will be in charge and will coordinate the community platform. If possible, the local intervention team is recommended to appoint a local coordinator from the beginning of the platform. The local coordinator is a person from the community (e.g. the chair of an already existing platform) who will be responsible for chairing the platform the year afterwards.
- The local intervention team and the community platform should preferably meet once a month. These meetings make it possible to evaluate the implementation of the modules and to discuss and solve practical problems that have occurred or possibly will occur.

Guidelines for the meetings of the community platform

- During the first meeting:
  - make an inventory of the local initiatives related to the prevention of obesity in the different sectors involved in the platform.
- During all the meetings:
  - always write a meeting report, as these reports can be used to analyse the implementation process of the intervention.
  - evaluate the aspects of the intervention modules that have been executed and provide strong support for the implementation of the (parts of the) modules that still have to be performed.
  - do not only discuss and evaluate the aspects of the intervention that have been successful but also address any challenges or failures.
  - continuously observe and detect what is going on inside the community related to the prevention of childhood obesity.
  - do not ignore but take notice of new initiatives that are proposed by the community platform members.

The second part of the adoption phase (July – August, year 2) is the transition period between the intervention adoption phase and the intervention implementation phase. This transition period is an intermediate stage between the intensively supported operation and the supervised operation of the community platform. During the transition period, following actions are recommended:

- In cooperation with the local intervention team, the community platform can search and appoint a local coordinator who can continue the responsibilities of the local intervention team. This local coordinator becomes the person in charge and will be responsible for coordinating the community platform.
- The local intervention team is responsible for the transfer of information to the local coordinator. It is essential that local coordinators can start their activities at the beginning of Year 3 (see Table 3).

Operation of the community platform during the intervention implementation phase (Year 3)

The community platform is expected to continue with the activities and to work out new initiatives with minimal supervision and without continuous support of the local intervention team.

From September of Year 3 onwards, the local intervention team no longer participates in the monthly meetings of the community platform. Starting from this moment, the local coordinator (of the community platform) has to be able to take over the role of the local intervention team.

The local intervention team must keep itself informed about the initiatives of the community platform. For this reason, the local intervention team and the community platform are recommended to meet 3 times during the intervention implementation phase, i.e. once between September and December of Year 3 and twice between January and August of Year 3.

Between the obligatory meetings, the community platform should have the possibility to keep in touch with the local intervention team in order to solve practical problems or get advice if necessary.

Operation of the community platform during the intervention dissemination phase (Year 4 onwards)

From year 4 onwards, the community platform is expected to operate completely independently, without any support or supervision from the local intervention team.

2.2 Module 2: Long-term media campaign and public relations strategy

A first topic in the long-term media campaign and public relations strategy is the overall approach by which the intervention will become well known and the key messages will be spread in the community. A second issue in module 2 is the specific promotion campaign for the key messages by means of a slogan intervention.

2.2.1 Multimedia and public relations campaign (overall strategy)

Objectives

- Facilitate cooperation of the stakeholders and community members with the IDEFICS intervention team.
- Avoid objection and resistance against the intervention.
- Inform all stakeholders and community members about the intervention.
- Attract funding or sponsoring.

The local intervention team can develop its own public relations strategy and timing, depending on the local needs and resources. Some examples of multimedia and public relation instruments that can be useful to fulfil the objectives of the overall strategy are leaflets (newsletters), information events, posters and a website in the local language. It is also recommended to not only rely on contacts and infrastructure of universities or health institutions but to establish own local media relations by developing for example a media kit (including press kit, contact list, media server) and/or organise media briefings (e.g. local kick-off event in September of Year 2).

2.2.2 Promotion campaign for the key messages (slogan intervention)

Objectives

- Make the community aware of the key messages.
- Promote the key messages as important components of long-term health.

Window and street posters as a promotion campaign for the key messages

Window and street posters can be used to promote the key messages within the community:

- Recommended characteristics of the window and street posters are described in Table 4 below.
- The following guidelines are recommended for the development of the window and street posters:
  - The local intervention team is recommended to develop 3 posters: 2 posters about physical activity and diet (one key message of each theme combined on each poster) and 1 poster about sleep duration.
  - The window and street posters should reflect the same message. The street poster should be a bigger copy of the window posters.
  - The posters should be simple and attractive: the message should be readable and understandable in a couple of seconds and the text should be a short, striking and attractive slogan.
  - Multi-colour printing is very expensive and may distract the attention of the message. Black and white printing is much cheaper and more clearly visible. A message in black and white printing (can be printed on coloured paper) has the reputation to be very effective.

	Window posters	**Street posters**
Dimensions of the poster	Minimum A3-format (maximum 50 - 70 cm, however, this size can already be a barrier to hang up the poster)	Minimum 50 – 70 cm
Target groups	Pedestrians, cyclists and car drivers	Pedestrians, cyclists and car drivers
Preferred places	Very suitable to hang up in public places, supermarkets and grocery stores, libraries, houses of residents, …	On the street site, preferably on places where a lot of people have to stop (e.g. traffic lights)

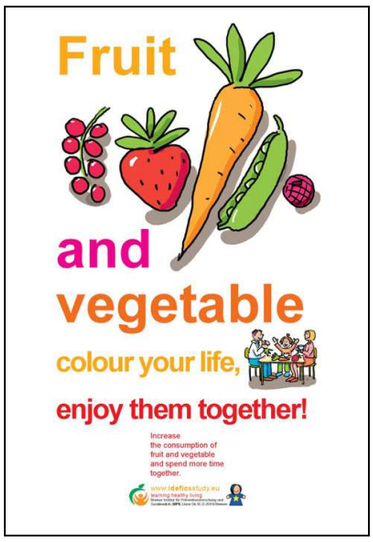
Table 4. Recommended characteristics of the window and street posters

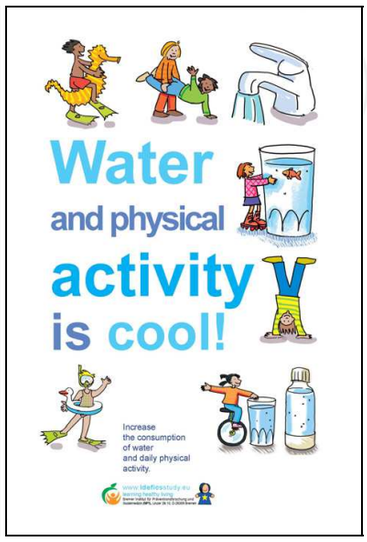
Because the visibility of the window and street posters will be synchronised with the integration of the key messages in the school curriculum (see module 5), the turnover of the posters is recommended to be set at 4 months for physical activity and diet and at 3 months for stress, coping and relaxation. The timing and turnover of the window posters during Year 2 of the IDEFICS project are shown in Table 5.

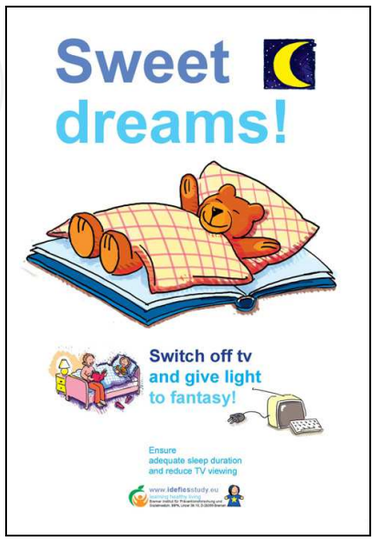
Intervention adoption phase (Year 2)										
Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug
Window (and street) poster related to physical activity and diet (1st poster)				Window (and street) poster related to physical activity and diet (2nd poster)				Window (and street) poster related to sleep duration (3rd poster)		

Table 5. Timing and turnover of the window (and street posters) in Year 2 of the IDEFICS project

The window posters that were used in the IDEFICS intervention, are displayed below. These posters are available in the languages of those countries where the IDEFICS intervention was tested for its effectiveness (Belgium, Cyprus, Estonia, Germany, Hungary, Italy, Spain and Sweden).







Tasks and responsibilities of the community platform

- The distribution of the window and street posters is a task of the community platform. The community platform is responsible for the distribution of the posters at the right time in the different sectors of the community (see stakeholders). For example: the school is an important and easy setting to distribute the window posters to the residents of the community. Thus, the community platform also has to take care that the schools received the window posters in time.
- It is important that the community platform not only distributes the posters but also checks if the posters are in actual fact displayed. The community platform is responsible for encouraging the concerned institutions and/or persons to make the posters visible.
- The community platform is recommended to carry out a sample survey: this means that it has to register how many houses of the selected streets there is a poster in the window (the sample survey can be used for assessing the process of implementation of this module).

2.3 Module 3: Lobbying for community environmental and policy interventions

Module 3 requires the community platform to lobby for improving the community environment and for policy interventions to prevent obesity in the community. This task consists of four separated parts:

1. Community environmental interventions to promote physical activity
2. Community environmental interventions to promote the consumption of water
3. A short-term perspective of community-based prevention of obesity
4. A long-term perspective of community-based prevention of obesity

The community environmental interventions to promote physical activity and the consumption of water are strongly recommended to be put on the agenda of the community platform and should be implemented during the adoption phase.

The short-term perspective of community-based prevention of childhood obesity requires efforts of the community platform to undertake actions/activities that contribute to the prevention of obesity within the adoption phase.

The long-term perspective of the intervention aims at triggering new initiatives during the intervention adoption phase. Therefore, the community platform should start to advocate for environmental and policy interventions as soon as possible but the implementation of these interventions is not intended to be accomplished in the intervention adoption phase.

2.3.1 Community environmental interventions to promote physical activity: establishment of 'play streets' and community playgrounds

Objective

- Provide opportunities and possibilities for outdoor activity and outdoor play to the children in the community areas at risk (= areas without opportunities/possibilities to play outdoors).

Concept of play streets

Because the time children spend outdoors is positively correlated with higher physical activity levels in children (Ferreira et al., 2007), it is important that all children in the community at least have the possibility to be active outside. Community playgrounds are very important and the most favourable way to promote playing outside among young children. However, the establishment of community playgrounds is not possible everywhere. In such cases, play streets can provide children with safe opportunities to be active outside the home and attract children to different recreational activities. Play streets are spaces within neighbourhoods where road space is made available for children's play on weekend days and/or holidays (streets are closed for traffic during that time).

The organisation of play streets is mostly focused on specific areas in the community with few options for leisure activities and/or opportunities to spend active time outdoor. It is supposed that families with a low(er) socio-economic status live in neighbourhoods with busy streets and no gardens, thus lack safe structures to play outside. Play streets are an easy way to remedy this situation.

Identification of the concept of play street in the community

The local intervention team has to identify if the concept of play streets already exists in the community. In some countries, the concept of play streets is already well known.

- If the concept DOES exist in the community, the standard operating procedure should be used.
- If the concept DOES NOT exist in the community, the local intervention team and the community platform are responsible for launching the play streets in the community in strong cooperation with the local municipalities.

Identification of the community areas "at risk"

The community platform has to identify the areas in the community where children have no or not enough opportunities to spend time outdoors. This can be done by identifying the number of community playgrounds, their location and condition (in areas where children have enough opportunities for outdoor activity) and by identifying the areas in the community where play streets need to be established (in areas with no or not enough places for outdoor activity).

Guidelines for the establishment of the play streets or safe playgrounds in the selected areas

- Inform residents in the selected streets about the concept of play streets.
- Try to convince them to organise a play street in the street that they live.
- Motivate one resident to be the person in charge for a specific play street: one resident of the street has to act as an intermediary between the community platform and the residents of the street.
- If it is not possible to establish a play street in a certain area, try to use a public place (e.g. parking grounds) as a play street and promote this initiative in the neighbourhood.
- Play streets could be organised on weekends (Sundays) and particularly during vacation periods and holidays, throughout the intervention period and beyond.
- Advocate for the restoration of existing community playgrounds to a reasonable condition. For regions without any possibility for outdoor activity, advocate for new community playgrounds.

2.3.2 Community environmental interventions to promote the consumption of water: installation of water fountains in public places

Objective

- Provide the residents of the community with opportunities to drink water in public places.

Tasks and responsibilities of the community platform

- The community platform is responsible for the availability and the promotion of water fountains in public places in the community.
- The community platform has to advocate for the placement of water fountains/dispensers in public places (e.g. public library, sports centres, squares).
- The community platform has to advertise the water fountains/dispenser in the community so that people are encouraged to use them (e.g. promote it on the website of the community, in the school and/or community paper, in the local newspapers).

2.3.3 Short-term perspective of community-based prevention of childhood obesity

Every stakeholder represented in the community platform should try to undertake activities related to the prevention of obesity during the intervention adoption phase. Table 6 is a non-exhaustive list of possibilities that can be pursued by the stakeholders of the community. It is recommended that the stakeholders make efforts to realise some of these or similar initiatives.

Stakeholder	Possible actions
Local municipality (public health authorities) and local politicians	- Provide water and fruit and/or vegetables during internal meetings (e.g. meetings of the town council) and public meetings (e.g. assembly of political parties). - Stimulate the employees of the local authorities to drink water and provide free water during working hours. - Stimulate the employees of the local authorities to eat fruit and/or vegetables as a snack during working hours.
Private sector (food companies, grocery stores)	- Organise shopping tours, grocery tastings, cooking demonstrations, nutrition labelling. - Promote water and healthy food products such as fruit and vegetables. - Provide easy recipes with fruit and/or vegetables that are typical for a certain season. - Provide ideas to drink water in several ways (e.g. with mint leaves, pieces of apple, …).
Working groups of the schools/kinder-gartens	- Organise extracurricular physical activity programmes. - Distribute information about sports and recreation programmes in the community. - Enable sports and recreation programmes to make use of the school facilities outside the school hours. - Organise active after-school programmes.
Sport and youth organisations	- Provide and promote free water during the activities. - Stimulate the children to not bring sugar-sweetened beverages. - Stimulate the children to bring fruit and/or vegetables instead of less healthy snacks. - Organise activities in which the family of the children can participate (family events).
Health care providers	- Provide assessment, counselling and referral on physical activity, diet, stress, coping and relaxation as part of health care. - Encourage parents to be role models for their children in the field of physical activity, diet, stress, coping and relaxation.

Table 6. List of possible actions that can be undertaken by the stakeholders of the community as part of the short-term perspective of community-based prevention of childhood obesity

2.3.4 Long-term perspective of community-based prevention of childhood obesity

In addition to the short-term perspective, the IDEFICS intervention also considers a long-term perspective in the prevention of childhood obesity. The start of the intervention is the best moment to start this process. The community platform should advocate for environmental and policy interventions that contribute to the prevention of childhood obesity. Based on the examples provided by Crawford & Jeffery (2005), Table 7 provides a list of possible initiatives that can be accomplished within the long term. These initiatives are linked to three different actors in the community which potentially have the ability to execute these proposals. The community platform should decide on the number of initiatives and trigger their execution by working with the relevant actors.

Stakeholder	Possible initiatives
Local municipality (public health authorities) and local politicians	- Identify national obesity prevention plans and provide a significant contribution. - Take initiatives that enable children to have access to sports and recreation programmes and the equipment and supplies that are needed to participate in such programmes. - Promote indoor activities instead of screen-based activities (e.g. ice-skating, indoor swimming, …). - Organise and promote programmes that stimulate walking, cycling, and the use of sports and recreation facilities in the community. - Promote local activities that provide options for (un)structured play for children in a safe environment and at minimal cost. - Enable the local public transport system to stop at the local swimming pool so that children can get there without any risk and additional cost. This applies also to other sports infrastructures. - Develop safe roads in the municipality, especially those leading to schools. Safe roads are those that have safe pavements, bicycle paths, trails, and crosswalks that facilitate walking and cycling. - Provide physical activity equipment into neighbourhoods that do not have access to physical activity and recreation facilities.
Private sector (food companies, grocery stores)	- Include healthy alternatives in the menus that are specifically available for children (e.g. include fruit as a dessert). - Provide and promote healthy foods (e.g. fruits and vegetables).
Working groups of the schools and kindergartens	- Make healthy foods available, accessible and attractive in the school environment. - Create price incentives or use cross-subsidies to facilitate and promote healthy food. - Remove sugar-sweetened beverages from vending machines in the school environment and replace them with water and/or other healthy options, or water dispensers. - Create a school nutrition policy that promotes a healthy diet. - Prohibit food advertising at school (e.g. sports sponsorships, exclusive marketing contracts to sell food and beverages) and do not start industry-sponsored collaborations. - Promote, enable and facilitate active commuting to schools (e.g. organise walk/bike to school days, organise walking school buses or bicycle trains, provide safe bicycle sheds). - Take care that adult and trained crossing guards are available at important and busy intersections around the school so that children can safely cross the streets on and from their way to school.

Table 7. Overview of possible initiatives for the long-term perspective of community-based prevention of childhood and adult obesity (Crawford & Jeffery, 2005)

3. IDEFICS intervention modules at school and kindergarten level

3.1 Module 4: Building partnerships

Building partnerships in the participating schools and kindergartens contains three levels of action:

1. Alerting the staff members of the schools and kindergartens to the intervention
2. Creation of a school working group
3. Creation of a school platform at community level

By means of the first part of module 4, the local intervention team will aim for teachers to take part in the intervention and to support the overall content of the project in the schools and kindergartens.

The second part of module 4, the creation of a school working group, is intended to create involvement and commitment among staff members and to facilitate the implementation of the intervention. Good cooperation with all staff members in all participating schools is the basic principle of this module.

The creation of a school platform makes it possible to gather all school working groups. This third part of module 4 creates a structure in which the schools can exchange knowledge and experiences, share a collective opinion and together elaborate on and start new initiatives to prevent childhood obesity.

3.1.1 Alerting staff members of the schools and kindergartens to the IDEFICS intervention

Objectives

- Inform the employees about the community-based intervention and particularly about the intervention that will take place at school level (aim, content, manual, guidelines).
- Increase awareness of the health behaviours which are advocated in the intervention.
- Motivate and encourage staff members to take part in the intervention and specifically in the school working group (explained in the second part of module 4).

Get in contact with the principals of the schools

- Inform them about the aim and content of the intervention.
- Receive an agreement for participation in the intervention.
- Make a first appointment with the schools which agree to participate or with schools which need some time for reflection and want more practical and concrete information.

Inform coordinating school organisations

If several different schools are gathered in a coordinating school organisation, it is suggested to inform this organisation that the local intervention team will contact each of their schools individually.

Make ample use of coordinating school organisations because they can play an important role in stimulating and supporting their schools during the implementation of the intervention. Additionally, they can be a starting point and negotiation partner in order to set up a school platform at community level.

Organise a first appointment with the principals

- Explain the intervention (receive an agreement for participation in the intervention if still necessary).
- Discuss possibilities to organise a meeting for staff members during which they will be informed about the intervention.
- You can use an introduction booklet as an incentive to stimulate the schools. An overview of the possible content of this booklet is provided in Table 8 below.

Documents	Aim and content of the documents
Brief overview of the intervention	Document which describes the aim and content of the project and which puts the project in a broader social context.
Manuals for each module prepared by the local intervention team	The manuals provide, for each module, the culturally adapted ideas which can be used by the school working groups in order to work out the intervention modules in their school.
PowerPoint Presentation	A presentation based on the document which briefly outlines the intervention. This presentation can be used by the school to inform parents or a third party about the intervention.
Article for the school newspaper	An example of an article that can be used to include in the school newspaper. This article informs the parents about the fact that the school participates in the intervention.

Table 8. Possible content of the introduction booklet that can be used during the first contacts with the schools

Organise a meeting for all staff members of a participating school

After having informed the school principals, it is important to alert the staff members of the schools or kindergartens. Therefore, the local coordinating team has to organise an information session for all employees of each school or kindergarten that will participate in the intervention. The following guidelines can be used for the organisation of this meeting:

- Organise the first meeting in April or May of Year 1 at the latest (assuming that the school year starts in September).
- Organise the meeting in strong cooperation with the school board to make clear that the school board supports the project.
- The information session for the staff members should be a promotion campaign for participation in the school working group and must trigger the successful formation of the group (detection of staff members that are interested in participating in the school working group).
- During the meeting, the staff members must receive explanations about the community-based intervention and the intervention activities that will take place at school level (aim, content, manual, guidelines).

3.1.2 Creation of a school working group

Objectives

- Involve staff members in the implementation of the school-based intervention modules.
- Implement the school intervention by combining a certain degree of support from the local intervention team and a certain independence from the school or kindergarten.

- Encourage the school or kindergarten to develop, organise and promote programmes that support the health behaviours advocated in the intervention.
- Lay the foundation of the dissemination phase of the intervention in the schools and kindergartens.

Establishment and composition of the school working group

The following strategy, guidelines and recommendations can be used to set up a school working group in every participating school/kindergarten.

General recommendations

- A school working group must be established in every participating school/ kindergarten.
- It is the responsibility of the local intervention team to initiate the establishment of the school working groups. When a school or kindergarten already has a school working group, try to cooperate with it.
- Motivation of the staff members should not be the sole criteria when selecting participants for the school working group. Potential impact of the staff member (position in the organisation, ability to implement actions advocated by the intervention, power) should also be considered.
- Every school working group should contain the following representatives:
  - Representative(s) of the school board (most important link)
  - Teachers whose field of study is related to the content of the intervention
  - Educator(s): persons who are responsible for supervision during free time and recess
  - Representative(s) of the parents' council
  - Representative(s) of staff members who have the ability to reach children at risk of developing excessive body fatness (especially those with obese parents and low(er) socio-economic status)
- Every school working group has to consist of at least 2 persons (local coordinator not included)

Inventory of motivated staff members who wish to participate in the school working groups

After the meeting, all staff members of the school receive an information letter describing the aim and content of the intervention and the responsibilities of a person engaging in the school working group. This letter should be formulated by the local intervention team in cooperation with the school board. The letter has to make clear that staff members can also engage in the school working group as a co-worker. Co-workers are contact persons for the school working group which can be asked for the organisation or support of certain activities related to the intervention. Staff members who are motivated to participate in the school working group or as a co-worker can present themselves to the principal of the school.

Appointment of a project leader in the school

The school working group is responsible for the implementation of the intervention. With the implementation and dissemination phase of the intervention in mind, it is advisable

that someone, besides the local intervention team, takes the lead in the entire process. For this reason it is suggested to appoint a project leader in every participating school. It is up to the principal to decide who will be the project leader in the school.

- This person has to compose the school working group with staff members who wish to engage in implementing the IDEFICS intervention. It is not expected from the local intervention team to take the lead in the organisation of the school working groups in every participating school.
- The school project leader can be a person from an existing working group, another staff member or the principal him- or herself. It is important that this person is in close contact with the school, school board, staff members and children.
- The school project leader will be the contact person for the local intervention team.

Despite the fact that the school working group will be composed by the school project leader, the local intervention team is expected to stay in close contact with the school project leader in order to stimulate/support the organisation and composition of the school working group.

If the kindergarten and primary school are gathered in the same school and thus both belong to the same school board, it is recommended to set up two project leaders and two school working groups. This is necessary to be able to implement an intervention which is adapted to the different age groups that are part of the intervention.

Tasks and responsibilities of the school working group

The school working group will be responsible for the organisation of a cooking and activity competition in their own kindergarten or school and the implementation of all the intervention modules at school level. The school working group will therefore be responsible for the implementation of the following modules:

- Module 5: Education of children
- Module 6: Environmental changes related to physical activity (active playground)
- Module 7: Health-related physical education curricula
- Module 8: Environmental changes and school policy related to water consumption
- Module 9: Environmental changes and school policy related to fruit and vegetables

In the relevant modules, the task and responsibilities are explained in more detail.

3.1.3 Operation of the school working group

After setting up the school working groups, it is essential that local intervention teams start to talk with the school working groups as soon as possible in order to make a final decision on how the different modules will be implemented in the school.

As soon as the school working groups are set up, they have to act as a team. It must be avoided that the school project leader has to work out the whole project. For this reason a guideline has to be developed which supports the school project leader to implement the intervention. This guideline will include a well-defined description of the tasks of the school project leader, members and co-workers of the school working group, time table and description of the

cooperation with local intervention teams andother useful information for the implementation of the intervention.

Operation of the school working group during the intervention adoption phase (Year 2)

During the first part of the adoption phase (September – June Year 2), the implementation of the intervention modules will be strongly supported by the local intervention team:

- All the participants of the school working group will receive instructions and guidelines about the modules that must be implemented in the schools/kindergartens.
- The school working group will work together with the local coordinator in order to implement the modules that will be imposed in the schools and kindergartens.
- The local coordinator has a coordinating role in the school working group and serves as the link to the community platform.
- The local coordinator and the school working group should meet on a regular basis and at least 4 times a year. Between these 4 meetings, the school working group can organise internal meetings whenever needed without the local coordinator.
- All these meetings make it possible to evaluate the implementation of the modules and to discuss and solve practical problems that have occurred or are expected.
- During the first meeting with the school working group, it is recommended to make an inventory of existing initiatives related to the prevention of obesity in the school or kindergarten. The following guidelines can be used during all the other meetings:
    - Produce a meeting report with the main points discussed and decisions taken. These reports can be used to analyse the implementation process of the intervention.
    - Discuss and evaluate the aspects of the intervention modules that have been executed as well as the ones forthcoming. Highlight things that went well (to be repeated), but also challenges (to find solutions) and things that went wrong (to try to avoid them happening again in the future). Provide strong support to the implementation team.
    - Continuously monitor activities going on inside the school or kindergarten related to preventing childhood obesity.
    - Do not ignore but take notice of new initiatives that are proposed by the school working group members.
    - Use the meeting as an opportunity to ensure the communication to all staff members of the school/kindergarten by publishing a newsletter or newsflash in the school paper.

The second part of the adoption phase (July – August, Year 2) is the transition period between the strongly supported and the supervised operation of the school working group. During the transition period, the following actions are recommended:

- The school working group should appoint a person in charge of the school working group (school working group coordinator) who will relay the local coordinator in his/her responsibilities with regard to the school working group.
- The school working group should start its activities at the beginning of September of year 3. The school working group coordinator should be invited to the community platform meetings.

Operation of the school working group during the intervention implementation phase (Year 3)

The school working group is expected to continue the activities and to work out new initiatives with minimal supervision and without continuous support of the local intervention team.

From September of Year 3 onwards, the local coordinator no longer participates in the meetings of the school working group. From that moment, the school working group coordinator should fully take over the tasks of the local coordinator.

The local coordinator must be kept informed about the initiatives of the school working group. For this reason, the local coordinator and the school working group or the school working group coordinator should meet at least twice during the intervention implementation phase, i.e. once between September and January of Year 3 and once between February and June of Year 3.

Between these meetings, if needed, the school working group can keep in touch with the local coordinator in order to solve practical problems or get advice.

Operation of the school working group during the intervention dissemination phase (September of Year 4 onwards)

The school working group is expected to operate completely independently, without any support or supervision from the local intervention team.

3.1.4 The creation of a school platform at community level

A school platform is a committee in which the school working groups of all the schools in the community can be represented.

Objectives

- Create a structure in which the schools can exchange knowledge and experiences, and start new initiatives for the prevention of childhood obesity.
- Enable all school working groups in the community to express a collective opinion and be considered as an important and full member of the community platform.

General recommendations

- For guidelines about the establishment and operation of the school platform, it is recommended to use the guidelines for the community platform (see module 1).
- The school platform should be the one being represented in the community platform, instead of all school working groups separately.

3.2 Module 5: Education of children

Objectives

- Integrate the key messages in the class curriculum.
- Increase knowledge, skills and self-efficacy in children.
- Promote key messages in the schools and kindergartens.

Concept of module 5

Module 5 includes the integration of the key messages in the class curriculum and the promotion of the key messages in the entire school. The key messages have to be integrated in the framework of (classroom) health education and not as part of obesity prevention to avoid stigmatisation of affected children.

To integrate the key messages in the class curriculum and to promote the key messages in the school, every participating school has to organise the **Healthy Weeks**: these are weeks in which a specific key message will be highlighted (with different exposures for primary schools and kindergartens).

Organisation of the Healthy Weeks during the adoption phase (Year 2)

- 9 Healthy Weeks should be organised during the intervention adoption phase, i.e. 4 Healthy Weeks about physical activity, 4 Healthy Weeks about diet and one additional Healthy Week about adequate sleep duration.
- The key message about spending time together (stress, coping and relaxation) will not be handled in a Healthy Week. This message should be systematically repeated and integrated within the other Healthy Weeks.
- As an example, Table 9 below shows how the Healthy Weeks can be planned during one school year. The planning of the Healthy Weeks can be culturally adapted, depending on the start of the school year and the local situation. However, it is recommended to maintain the alternation of the Healthy Weeks about physical activity and diet.

Intervention adoption phase (Year 2)		
Month of Year 2	**Theme of the Healthy Week**	**Key message to be highlighted**
Oct	Physical activity	Stimulating daily **physical activity**
Nov	Diet	Stimulating daily consumption of **fruit and vegetables**
Dec	Physical activity	Reduce **TV-viewing**
Jan	Diet	Stimulating the daily **consumption of water**
Feb	Physical activity	Stimulating daily **physical activity**
Mar	Diet	Stimulating daily consumption of **fruit and vegetables**
Apr	Physical activity	Reduce **TV-viewing**
May	Diet	Stimulating the daily **consumption of water**
Jun	Stress, coping and relaxation	Ensure adequate **sleep duration**
Jul	**Vacation period: No Healthy Weeks**	
Aug		

Table 9. Themes of the Healthy Weeks per month during the intervention adoption phase (Year 2)

The themes of the Healthy Weeks have to be synchronised with the themes of the window posters (module 2) and the themes of the educational folders (see later module 10). Table 10 shows how the Healthy Weeks can be synchronised with the window posters and the educational folders, respectively.

<table>
<tr><th colspan="4">Intervention adoption phase (Year 2)</th></tr>
<tr><td></td><td>Window and street posters</td><td>Theme of the Healthy Weeks</td><td>Folders</td></tr>
<tr><td>Oct</td><td rowspan="3">Window poster related to physical activity and diet (1st poster)</td><td>Physical Activity</td><td rowspan="3">Distribution of folders related to physical activity and diet</td></tr>
<tr><td>Nov</td><td>Diet</td></tr>
<tr><td>Dec</td><td>Physical Activity</td></tr>
<tr><td>Jan</td><td></td><td>Diet</td><td></td></tr>
<tr><td>Feb</td><td rowspan="3">Window poster related to physical activity and diet (2nd poster)</td><td>Physical Activity</td><td rowspan="3">Distribution of folders related to physical activity and diet</td></tr>
<tr><td>Mar</td><td>Diet</td></tr>
<tr><td>Apr</td><td>Physical Activity</td></tr>
<tr><td>May</td><td></td><td>Diet</td><td></td></tr>
<tr><td>Jun</td><td rowspan="3">Window posters related to sleep duration (3rd poster)</td><td>Sleep duration</td><td rowspan="3">Distribution of folders related to sleep duration</td></tr>
<tr><td>Jul</td><td rowspan="2">Vacation period</td></tr>
<tr><td>Aug</td></tr>
</table>

Table 10. Synchronisation between the Healthy Weeks (module 5), the window posters (module 2) and the educational folders (module 10) during the intervention adoption phase (Year 2)

Tasks and responsibilities of the school working group and teachers to organise the Healthy Weeks

The school working group should:

- Display the window posters with the related key message in the school building.
- Communicate to the parents about the Healthy Weeks in the newsletter of the school.

The teachers should:

- Hang the window poster with the related key message in the classroom.
- Give the intervention package to the children: a folder (see module 10) and a window poster for the parents about the handled key message.
- Integrate the handled key message in the class lessons (instructions later on in this chapter).
- The exposure time of the Healthy Week in the classroom differs for the kindergarten and the primary school:

- Kindergarten: every day of the Healthy Week has to be in the theme of the handled key message.
- Primary school: teachers have to spend 1 class hour per Healthy Week for a total of 9 Healthy Weeks.

Tasks and responsibilities of the local intervention team

- Every school that participates in the intervention should be offered a manual for the organisation of the Healthy Week. This education manual should enable the schools and teachers to implement this module.
- The education manual has to be written by the local intervention team by following the guidelines described below.

Tasks and responsibilities of the school working group

- Distribution of the education manual to the relevant teachers.
- Communication to the teachers about the content of the education manual.
- Members of the school working group have to be approachable about practical problems related to this module (e.g. try to help the teachers with their problems or discuss them during the meetings).

Development of an education manual for the organisation of the Healthy weeks

Table 11 below provides possibilities and ideas that can be used for the development of the education manuals. These examples can count as a guideline but have to be worked out by the local intervention team, which implies an adaptation to the culture and the specific kindergarten and school structure in each country. It is not always necessary to develop new materials, and local intervention teams should also search for and select existing materials that can be included in the education manuals and that are able to fulfil the objectives of this module.

Practical guidelines to develop the education manuals

- The education manual has to contain educational strategies for the teachers to use in designing their lessons.
  - The ideas have to be concrete, original and age-adapted.
  - The information provided in the manual has to be ready to use.
- The education manual must provide the teacher with a practical answer to the question of how to handle the key messages in the classroom.
- When developing the education manual, always keep in mind that the educational strategies must aim to fulfil the following objectives for every key message:
  - Increase awareness and knowledge
  - Increase self-efficacy
  - Increase skills in children
- Because the content of the lessons will differ according to the age of the children, it is suggested to create a different education manual for the kindergarten and the primary school.
- Note: Education manuals are available for those countries where the IDEFICS intervention was tested for its effectiveness (Belgium, Cyprus, Estonia, Germany, Hungary, Italy, Spain and Sweden).

DAILY PHYSICAL ACTIVITY	
Awareness	- Interactive communication between teacher and children in combination with education material (posters, photographs, …): ▪ What does being physically active mean? ▪ What are the advantages of being physically active? ▪ When can you be physically active at home and at school? ▪ How much physical activity should we be getting each day? - Self report activities in class or for homework: children can fill in the physical activities they performed the day before on an attractive education worksheet, they can make a collage in which they present their physical activities or they can report their activities by assigning pictures (depending on the age). - Compare the self reports with the daily recommendation related to physical activity.
Skills	- Teach children to set physical activity goals. ▪ Communicate interactively (what are physical activity goals, what are the most important characteristics, …) and discuss some examples (case study). ▪ Provide educational worksheets on which children can report their physical activity goals at school and at home ("My accomplishment plan"). ▪ In a next step, the children have to report which activities they actually have done (review of the accomplishment plan). ▪ Performance against physical activity goals can be associated with a game: a child can gain a stamp or a sticker if they performed an activity goal. - Teach children how to motivate themselves to get physically active and how to maintain the motivation. For example: organise an interactive communication about "talking to yourself". ▪ Are the following sentences examples of positive or negative things that you can say to yourself? ▪ What are your feelings about …? ▪ How can you change negative sentences into positive sentences? - Play easy activity games in class (especially for toddlers and the youngest pre-school children) in order to teach locomotive skills.
Self-efficacy	- Help students to set realistic and challenging goals related to physical activity (see above). - Compliment children on the skills they have developed (positive feedback). - Encourage students to use effort as an explanation for failure, and the skills they have developed as an explanation for success. Do not attribute poor performance to lack of ability (and caution parents to avoid it as well). - Help children recognise the skills they are acquiring: make the children aware of what they have learned. - Success in the past is the best way to build confidence for future success: help children recognise their progress.

	▪ Let the children make an individual line graph of their progress. ▪ Give students frequent opportunities to update their progress. ▪ Provide a monthly calendar to record their daily progress. However, avoid class charts where individual progress is displayed because children will compare their progress in relationship to others. This will have a detrimental effect on the self-efficacy of those who do not progress as fast as others. Children have to learn to compare with themselves. - Use peer modelling during the lessons by working in small groups (this has an important influence on children's self-efficacy during skill acquisition).
REDUCE TV VIEWING	
Awareness	- Interactive communication between teacher and children: ▪ Which TV shows did you watch yesterday? ▪ When did you start watching? When did you stop? ▪ How many hours can we watch a day? Is it good to watch TV? - Self report activities in class or for homework: ▪ Encourage group reporting about time spent watching TV. ▪ Self report activities by means of an attractive education worksheet (did you watch TV while eating supper? Did you turn on the TV before school? Did you turn on the TV when you came home from school?, …). - Compare the self reports with the daily recommended limit of TV viewing.
Skills	- Have students brainstorm a list of fun alternatives to watching TV - Teach children how to watch TV selectively (for example: select the programmes you want to see and turn off the TV afterwards, help your parents in the kitchen during commercial breaks, …) - Teach self-monitoring techniques to children (for example: children make a diary in which they can report the amount of hours they watched TV, the programmes watched, …)
Self-efficacy	- See guidelines provided for daily physical activity and use them for the activities related to the key message about TV viewing.
DAILY CONSUMPTION OF FRUIT AND VEGETABLES	
Awareness	- Interactive communication between teacher and children in combination with education material (posters, photographs, …): ▪ What is good about eating fruits and vegetables? ▪ How many fruit and vegetables should we be eating each day? ▪ Where can we buy and eat fruits and vegetables? ▪ How can we eat fruits and vegetables? - Self report activities in class or for homework: children can fill in the amount of fruit and vegetables they ate the day before on an attractive education worksheet (or report it by making a collage or assigning pictures). - Compare the self reports with the daily intake recommendation for fruits and vegetables. - Visit a local fruit and vegetable farmer, grocery stores.

Skills	- Prepare fruits and vegetables in the class: show how to cut vegetables and how to peel fruit and provide the opportunity to practice in small groups (you can also provide an action plan that visualises the different steps in cutting a certain vegetable). - Organise a recipe competition in which children can use their preparation skills. - Organise recognition games.
Self-efficacy	- See guidelines provided for daily physical activity and use them for the activities related to the key message about fruit and vegetables. - As an extra, help children to serve as their own model. ▪ If a video camera is available, tape the children while they are participating in the preparation of fruit and vegetables and allow to view themselves being successful (or take photographs of the activity). While showing the tape or photographs, give positive feedback about the skills that the children acquired and were demonstrating.
Taste/preference	- Organise tasting activities and games in the class. - Provide fruits and vegetables that children have not tasted before on repeated occasions. - Teachers have to be role models: taste the fruits and vegetables in front of the children and show that you like them.
DAILY CONSUMPTION OF WATER	
Awareness	- Interactive communication between teacher and children in combination with education materials (posters, photographs, …): ▪ What are the advantages of drinking water? Why should I give preference to water over other drinks? ▪ How much water should we be drinking each day? ▪ Where can we drink water? In which forms can we drink water? - Self report activities in class or for homework: children can fill in the amount of water they drank the day before on an attractive education worksheet (or report it by making a collage or assigning pictures). - Compare the self reports with the recommended daily consumption of water.
Skills	- Show the children how to prepare flavoured water (e.g. with mint leaves, pieces of apple or strawberry). - Teach children how to deal with the daily recommended intakes (always fill your favourite cup with water and try to empty it while doing homework, always take a bottle of water with you, …).
Self-efficacy	- See guidelines provided for daily physical activity and use them for the activities related to the key message about the consumption of water.

Table 11. Ideas for the content of the education manuals

3.3 Module 6: Environmental changes related to physical activity - The Active Playground

Objectives

- Increase time spent in moderate to vigorous physical activities during recess.
- Provide an opportunity to help children reach the recommended physical activity level (contribute to the daily recommended norm of physical activity).

Possibilities to create an active playground

The creation and the promotion of an active playground is part of improving the school environment with the aim to stimulate the children to be physically active while at school.

The local intervention team has the opportunity to create an active playground in the schools and kindergartens by means of one or a combination of the following strategies:

Change the physical design of the playground

Redesign the playground, using multicolour playground markings (e.g. hopscotch) and physical structures (e.g. soccer goal posts, basketball hoops). This is found to be a sufficient stimulus for increasing children's school physical activity levels during recess and is also a method that is low in cost (Stratton & Mullan, 2005; Ridgers et al., 2007).

Provide attractive play tools in the playground

Providing game equipment during recess (e.g. balls, ropes, small bikes) is found to be effective in increasing children's physical activity levels. These findings suggest that promoting physical activity through game equipment provision during recess can contribute to reaching the daily recommended activity levels in children (Verstraete et al., 2006).

Structural changes related to recess period

The playground space available for children (number children/m^2) during recess periods is found to be an important predictor of children's physical activity levels (Cardon et al.,2008). Therefore, structural changes that reduce the number of children on the same surface area can be an inexpensive way to increase physical activity levels during recess: e.g. divide all children in two groups and let them have playtime at different moments.

In addition to the environmental and structural possibilities to create an active playground, as described above, it is strongly recommended to combine one or more of these strategies with the following actions:

- Promotion of an active playground in the school.
- Coaching of teachers/educators to supervise the playground in an active way. They have an important role in stimulating children to be active in the playground.

Development of a manual for the creation of the active playground

Every school participating in the intervention should be offered a manual for the creation of an active playground. This school manual should enable the schools to implement this module. Because the content of the manual will differ according to the age of the children, it

is suggested that a different manual be prepared for the kindergarten and the primary school. The school manual can be written by the local intervention team on the basis of the following guidelines:

Provide ideas to change the physical design of the playground

- Provide country-specific ideas to change the physical design of the playground.
- Integrate guidelines for the schools (e.g. if coloured marks are painted on the playground, they have to stay visible and thus have to be repainted on a regular basis).
- It is of special importance that the ideas are age-adapted: try to propose different ideas for the kindergarten and the primary school and even within the primary school. Castles, dragons, clock faces, mazes, fun trails, dens, hopscotch, letter scares, snakes and ladders, and various animals are popular in early primary schools. Markings for netball, football and short tennis, and targets for games-related skills are rather preferred in late primary schools (Stratton & Mullan, 2005). The ideas also have to reach both boys and girls.

Provide ideas for materials that can be provided in the playground

- Integrate different country-specific kinds of materials and play tools for the playground (e.g. sports balls or a (suit)case with circus materials).
- It is of special importance that the ideas are age-adapted (different for the kindergarten and the primary school) and that they reach both boys and girls.
- Integrate guidelines for the schools.

Provide suggestions on how the active playground can be promoted in the school

- Teachers have to inform the children about the possibilities to be active during break times (at the beginning of the school year and during the school year – e.g. by means of the school newspaper).
- The physical education teacher can instruct all students on proper use and all possibilities of the playground equipment.
- Just before the break, the teacher can remind the kids about the possibilities to be physically active.
- Ask the children after the break what they have done in the playground.

Include information about the importance of active supervision and coaching by teachers and/or educators

- Integrate guidelines for teachers/educators on how they should supervise/coach the children in the playground (e.g. encourage the students to walk when they talk instead of sitting on the bench, help the students to start a game or play along with them, and continue to encourage the students while they are being active and for other students to join in, challenge the children by setting goals e.g. how many times can you skip the rope in one minute, how many baskets can you score in one minute?).

Tasks and responsibilities of the school working group

- Distribution of the education manual to the relevant teachers.
- Communication to the teachers about the content of the education manual.

- Members of the school working group have to be approachable about practical problems related to this module (e.g. try to help the teachers with their problem or discuss them during the meetings).

3.4 Module 7: Health-related physical education curricula

Objectives

- Keeping all children active as much as possible during physical education classes (trying to reach a high activity level during the lessons).
- Development of knowledge, social attitudes and skills, and movement skills in children, which are necessary to lead an active lifestyle.
- Building children's confidence in their physical abilities.

Manual for the optimisation of physical education classes

- Every school participating in the intervention should be offered a manual which provides guidelines and tools for teachers, educators and nurses on how they can organise health-related physical education classes in primary school and how they can increase physical activity during time spent at the kindergarten.
- The manual should enable teachers, educators and nurses to implement this module.
- Because the content of the manual will differ according to the age of the children, it is suggested to create a different manual for the kindergarten and the primary school.
- The school manual can be written by the local intervention team on the basis of following guidelines (Bagby & Adams, 2007; SPARK, 2011):

Inform teachers, educators and/or nurses about the basic characteristics of health-related physical education curricula and emphasise them in the manual

- Aim to reach a high activity level for all the children during physical education classes.
- Develop the knowledge, attitudes, and social and movement skills, in children, which are necessary to lead an active lifestyle.
- Aspire to give every child positive experiences.
- Use activities with a high transfer value (i.e. activities children can also do in the playground and/or at home, e.g. rope skipping, Frisbee, …).

Integrate guidelines for teachers, educators and/or nurses to fulfil the basic characteristics of health-related physical education curricula

- Provide guidelines on how to increase the activity rate of children during physical education classes (e.g. restrict waiting time for children).
- Provide guidelines on which activities contribute to a higher physical activity level in children.
- Provide guidelines on how to create a pleasant lesson that stimulates the physical activity rate.

Provide strategies to integrate the guidelines in practice

- It is important that the teachers, educators or nurses verify which guidelines they are implementing already and how frequently. For example: a teacher, educator or nurse can focus on guidelines to reach a high activity level during one week. They verify

which guidelines they already apply and which ones are new. The teacher, educator or nurse tries the new ones and evaluates the effect. Over the next weeks, the teacher, educator or nurse can then focus on other guidelines.

Note: Such a manual is available for those countries where the IDEFICS intervention has been tested for its effectiveness (Belgium, Cyprus, Estonia, Germany, Hungary, Italy, Spain and Sweden).

Tasks and responsibilities of the school working group

- Distribution of the education manual to the relevant teachers.
- Communication to the teachers about the content of the education manual.
- Members of the working group have to be approachable about practical problems related to this module (e.g. try to help the teachers with their problem or discuss them during the meetings).

3.5 Module 8: Environmental changes and school policy related to water consumption

Objectives

- Create a school environment that discourages the consumption of sugar-sweetened beverages.
- Create a school environment that stimulates the consumption of water.

Possibilities to increase the daily water consumption in schools and kindergartens

The local intervention team can increase the daily water consumption in schools and kindergartens by means of one or a combination of the following strategies:

Permanently provide free water during breaks, play time and/or lessons

- Provide water fountains in the playground (environment).
- Provide free water at the table during dinner (environment).
- Allow drinking water during theory lessons: children can have a water bottle on their desk (school policy).
- Allow drinking water during physical education classes and stimulate the teacher to integrate a "water drinking moment" (school policy).

It is of special importance that the provision of water facilities is in proportion to the number of children in the school and adapted to the student population (location, height, hygiene, …). It is for example better to allow drinking cups in the kindergarten whereas the placing of water fountains is rather recommended in primary schools. The provision of water should also be clearly communicated to the students and the staff members: when, where, how, …

Reorientation of the beverage supply in the school (changing the environment and/or the school policy)

Favour water as the main drink supply in school. This reorientation will require clear regulations about the consumption of sugar-sweetened beverages and water and possibly a change to the school policy. If it is possible to change the school policy or to set regulations about the consumption of sugar-sweetened beverages, this should be clearly communicated to the children, staff members and parents.

Examples of how the beverages supply can be changed:

- Remove vending machines in which sugar-sweetened beverages are offered (environment – school policy).
- Do not remove all vending machines but replace sugar-sweetened beverages by water or other healthier options (environment – school policy).
- Do not allow the sale and consumption of sugar-sweetened beverages in the school (regulations – school policy)

Promote the availability of water and clearly communicate about the regulations

It is strongly recommended to promote all the initiatives to the children, parents and staff members of the school. It is also essential to communicate to the children, parents and staff members about the regulations related to the consumption of water. Examples of how the availability of water can be promoted:

- Describe the water initiatives and regulations in the school paper.
- Teachers can ask children to make an advertisement about the consumption of water and make them visible in the school.
- Provide recyclable cups or tins for water (sponsorship can be used to finance this initiative).

3.6 Module 9: Environmental changes and school policy related to fruit and vegetables

Objective

- At least once a week, make fruit and vegetables available in the school environment during the breaks.

Possibilities to increase the consumption of fruit and vegetable in schools and kindergartens

The local intervention team can increase the daily consumption of fruit and vegetables in schools and kindergartens by means of one or a combination of the following strategies:

Availability and accessibility of fruit and vegetables in the school (make environmental changes)

The working group of the school can make a contract with a local fruit and vegetable trader or merchant who can deliver at least once a week fresh and seasonable fruit and/or vegetables to the school.

Practical implications

- Try to provide fresh seasonal fruit.
- Try to provide fruit that is easy to eat for the children.
- Make the fruits and vegetables accessible, especially for the youngest children: involve for example volunteering (grand)parents to prepare the fruits and vegetables at school.
- Sponsorship can be used to finance the fruit and vegetable project.
- Without sponsorship, a child can participate in the fruit and vegetable project when parents have paid a financial contribution to the school at the beginning of the school year.

- The day on which the fruits and vegetables are delivered can become a dedicated 'fruit and vegetable day' for the rest of the school year.

Other possibilities

- Organise: "bring your own fruits and vegetables to school".
- Organise an additional "fruit and vegetable day": children can only bring fruit and/or vegetables instead of less healthy snacks.
- School gardens (children grow vegetables at school).
- Organise the calendar game: every child that brings a piece of fruit or gets a sticker in their agenda.

Reorientation of the food supply in the schools (changing the environment and/or the school policy)

Change the food supply in the school to include fruits and vegetables as an alternative to less healthy snacks. This reorientation will require clear regulations and possibly a change to the school policy. If it is possible to change the school policy or to set regulations about the consumption of less healthy snacks and fruits and vegetables, this should be clearly communicated to the children, staff members and parents. Examples of how the food supply can be changed:

- Remove the vending machines in which less healthy snacks are represented.
- Restrict the time that vending machines with (less healthy) snacks are available.
- Increase the price of high-energy snacks and lower the price of fruits and vegetables.
- Do not sell less healthy snacks but replace them by fruit and/or vegetables.

Promote the availability/accessibility of fruit and vegetables and clearly communicate about the regulations

It is strongly recommended to promote all the initiatives to the children, parents and staff members of the school. It is also essential to communicate to the children, parents and staff members about the regulations related to the consumption of water. Examples of how the availability/accessibility of fruit and vegetables can be promoted:

- Describe the initiatives and regulations related to fruits and vegetables in the school newspaper.
- Inform the parents in particular about the fruit and vegetables initiatives and try to involve them.
- Teachers can ask children to make an advertisement about the consumption of fruit and vegetables and make them visible in the school.

4. IDEFICS intervention modules at family level

4.1 Module 10: Education of parents

Objectives

- Increase behavioural skills in parents in order to increase social support and accessibility and availability of fruit and vegetables at home.
- Increase awareness in parents.
- Increase self-efficacy in parents.

Concept of module 10: educational folders and videos for parents

Parents should receive educational folders and videos to learn about parenting strategies that can remove barriers and facilitate them in their ability to create health-promoting family environments.

Educational folders

The local intervention team can develop 3 folders: 1 folder about diet, 1 folder about physical activity and 1 folder about sleep duration. The key message about spending more time together has to be integrated in these folders. The educational folder about physical activity that was used in the IDEFICS intervention, is displayed below. All of the folders are already available in the languages of those countries where the IDEFICS intervention was tested for its effectiveness (Belgium, Cyprus, Estonia, Germany, Hungary, Italy, Spain and Sweden).

Guidelines for the development of the folders

Four aspects of parenting can be the focus of the educational folders and can provide a framework for the development of the educational materials, i.e. beliefs and knowledge of the parents, parental modelling, availability and/or accessibility and shaping. For a detailed description of these aspects of parenting, references are made to Crawford and Jeffery (2005). Based on the examples provided by Crawford and Jeffery (2005), Table 12 offers an overview of strategies that can help parents in their ability to create family environments that promote and encourage a healthy lifestyle.

DAILY PHYSICAL ACTIVITY	
Beliefs and knowledge	- Use the daily recommended norm related to physical activity as a guideline. - Believe in the ability of your children to be physically active.
Modelling	- Be physically active yourself and together with the family. - Include physical activity into the leisure time of the family (e.g. hiking or cycling with the entire family). - Plan and participate in physically active family activities (e.g. walking or cycling instead of driving, playing outside) and include physical activity in family events such as birthday parties, picnics, and vacations.
Availability and/or accessibility	- Provide activity-related equipment in the home environment (e.g. balls, bicycles). - Visit sports and recreation facilities with your children where they can be physically active (e.g. community playgrounds, sports organisations). - Identify outdoor activities and perform them together with your child. - Identify indoor activities other than screen-based activities and perform them together with your child.
Shaping	- Use fun physical activities as a reward for behaviours with positive outcome. - Do not use physical activity as a punishment for behaviours with negative outcome.
REDUCE TV VIEWING	
Beliefs and knowledge	- Use the daily recommended norm related to watching television as a guideline.
Modelling	- Reduce your own TV viewing time. - Switch off the TV while you, your children or the entire family is eating.
Availability and/or accessibility	- Set clear rules regarding TV viewing time (e.g. your children can select one or more programmes, they can watch these programmes but the TV should be switched off before and after the selected programmes). - Do not put a TV or a computer in your children's bedroom. - Provide active and fun alternatives to TV viewing.
Shaping	- Do not use watching TV as a reward for behaviours with positive outcome.

DAILY CONSUMPTION OF WATER	
Beliefs and knowledge	- Use the daily recommended norm related to water as a guideline.
Modelling	- Limit your own intake of less healthy beverages and model the consumption of water at every moment of the day. - Show your child that you like water and that water is tasty. - Do not show your own dislike for water.
Availability and/or accessibility	- Provide water during meals. - Provide sometimes alternatives for clear water, for example flavoured water with mint leaves or pieces of strawberry, apple, … - Provide your child with a nice tin or their favourite cup which is always filled with water and accessible to take. - Set rules about the consumption of less healthy beverages: e.g. only one can of soft drink a week, only on weekends, only at parties, …
Shaping	- Do not use sugar-sweetened beverages or similar drinks as a reward for behaviours with positive outcome. - Do not use drinking water instead of sugar-sweetened beverages as a punishment for a behaviour with negative outcomes.
DAILY CONSUMPTION OF FRUIT AND VEGETABLES	
Beliefs and knowledge	- Use the daily recommended norm related to fruit and vegetables as a guideline.
Modelling	- Eat fruits and vegetables yourself and show your children that you like them. - Involve your children in the selection and preparation of fruit and vegetables.
Availability and/or accessibility	- Make fruits and vegetables easy available and accessible in the home environment and during family trips. - Provide fruits and vegetables that your child never has tasted before. - Provide fruit and vegetables in a form that is easy and ready to eat (e.g. pre-cut vegetables and/or peeled fruit). Try to do this in the home environment, during family trips and/or to provide it to your child as a snack at school (instead of less healthy snacks).
Shaping	- Do not use fruits and vegetables as a punishment for behaviours with negative outcome. - Do not use unhealthy snacks and foods as a reward for behaviours with positive outcome.

Table 12. Examples of parenting strategies for diet and physical activity (Crawford & Jeffery, 2005)

Distribution of the folders

- The community platform is responsible for the dissemination of the folders at the right moment in all the different sectors of the community (see stakeholders). For example: the school is an important and easy setting to distribute the folders to the residents of the community. Thus, the community platform also has to take care that the schools receive the folders in time.
- The distribution of these folders will be synchronised with the distribution of the window and street posters and the integration of the key messages in the class curriculum (see Table 10): use the folders that handle the same key message as highlighted on the window poster and in the Healthy Weeks.

Educational videos

A media agency could develop scenarios for the educational videos based on the content and ideas provided in this intervention manual.

5. Conclusion

The fundamental idea of the IDEFICS project was that obesity prevention should be triggered by local policy makers or local public health authorities and supported by initiatives taken by local stakeholders in the community. As part of this project, a community-based intervention for the prevention of childhood obesity was developed and tested for its effectiveness. The content and the implementation strategy of the IDEFICS intervention are now available and provide local policy makers and public health authorities with the opportunity to explore a model for obesity prevention in Europe.

This chapter was written in a way that local policy makers or local public health authorities have the necessary guidance and recommendations at their disposal to implement the intervention in their local city or community. The major advantage of the intervention framework is that it can be culturally adapted to the local needs and requirements which increases the feasibility of implementation in European countries.

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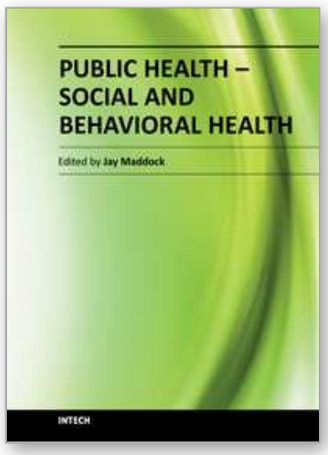

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Human behavior accounts for the majority of morbidity and premature mortality throughout the world. This book explores several areas of human behavior including physical activity, nutrition and food, addictive substances, gun violence, sexual transmitted diseases and more. Several cutting edge methods are also examined including empowering nurses, community based participatory research and nature therapy. Less well known public health topics including human trafficking, tuberculosis control in prisons and public health issues in the deaf community are also covered. The authors come from around the world to describe issues that are both of local and worldwide importance to protect and preserve the health of populations. This book demonstrates the scope and some of the solutions to addressing today's most pressing public health issues.

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