Volume 13

METHODS OF HEALTH PROMOTION

Quality Criteria for Health Promotion and Primary Prevention Measures in Connection with Overweight in Children and Adolescents

Federal Centre for Health Education BZgA

Overweight and obesity are common among children and adolescents in Germany. Consequently, there is a demand for measures that promote healthy living conditions for children and adolescents and thus enable a healthy lifestyle. But what form do these measures have to take in order to be able to reach the people who particularly need them, and to contribute to normal weight development in the long term?

A Working Group moderated by the BZgA examined this question, compiled the latest findings on the quality of preventive and health-promoting measures and developed corresponding quality criteria that were then discussed with experts, tested by practitioners, and finally adopted.

The criteria are based on recognised quality assurance systems, which were supplemented by scientific data and experience from health promotion and obesity prevention. The presentation of the criteria follows the course of measures, thus enabling a systematic, quality-assured procedure – from planning and implementation, all the way to consolidation.

The criteria are designed for providers who are planning new measures or want to improve the concept of existing programmes, and also for players in health promotion who decide on the use and funding of measures.

BZgA
Federal Centre for Health Education

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The Federal Centre for Health Education (BZgA) is an authority in the portfolio of the Federal Ministry of Health (BMG) and is based in Cologne. In the health promotion sector, it performs both information and communication tasks (educational function), as well as quality assurance tasks (clearing and coordination function).

In the field of quality assurance, the key tasks performed by the BZgA include the elaboration of scientific principles, as well as the development of guidelines and quality-assuring instruments. Professional conferences and expert workshops play an important role in the development process: they are a forum for discussing the latest scientific findings and the experience gained from practical work, in order to examine the consequences for the planning, implementation and evaluation of interventions.

Consequently, the "Methods of Health Promotion" series publishes not only topic- or target group-specific market overviews, selected projects and models, but also the results of professional conferences and workshops. The aim of this booklet series is to provide concrete support for the work of multipliers active in the field of health promotion and give them practical ideas for their daily work.

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Foreword

Up to now, there have been no uniform standards for prevention measures designed to promote normal weight development in children and adolescents. One reason for this is that there are no known concepts with a long-term effect for avoiding overweight. The knowledge available in this field so far is incomplete, and the effects of measures are hardly comparable with others, if they are described at all.

In order to nevertheless assist players working in the prevention of overweight and health promotion when planning and implementing their concepts, an interdisciplinary Working Group moderated by the Federal Centre for Health Education (BZgA) was created and commissioned with gathering all the information currently available. This specialist booklet is the result of that work.

The specialist booklet consists of two parts. The catalogue of criteria, with a detailed description of the individual criteria, constitutes the heart of this specialist booklet. Anyone who is additionally looking for principles of health promotion and prevention, current facts regarding child overweight and an overview of the scientific data on the effects of measures for preventing overweight in children and adolescents, will also find that here.

The criteria are geared to recognised quality assurance systems in health promotion and prevention. They have been supplemented by findings relating to factors that influence weight development in childhood and adolescence. These factors include nutrition, physical activity, media consumption and stress regulation. In the opinion of the experts, organisational development issues must also be taken into account when planning prevention measures. Moreover, it is considered to be particularly important to strengthen the resources and abilities of the target groups, and to actively involve them in the planning and implementation of measures (participation).

The quality criteria presented here were discussed with specialists, tested by practitioners and adopted by a group of renowned experts. This decision of the experts indicates that these criteria demonstrate the highest degree of current-

ly available evidence in relation to measures for primary prevention of overweight and health promotion in children and adolescents.

It is now up to the players to apply the criteria compiled here when planning and implementing measures, in order to achieve the maximum possible effectiveness of such measures.

Cologne, December 2010

Prof. Dr. Elisabeth Pott
Director of the Federal Centre
for Health Education

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I INTRODUCTION

1. Introduction

1.1 Background

An initial draft of quality criteria for primary prevention of overweight in children and adolescents was presented and discussed in the framework of an expert meeting on 6 March 2008. The meeting was attended by leading experts from the fields of health promotion and prevention, and quality assurance, as well as representatives of the Federal Ministry of Health and the Federal Ministry of Food, Agriculture and Consumer Protection. This meeting formulated the joint project of developing quality criteria for health promotion and primary prevention[1] measures in connection with overweight in children and adolescents that were to be applicable both to population-wide and target group-specific measures.

According to the Ottawa Charter, the focus of health promotion is on strengthening the health-related resources of people at all levels of society (WHO 1986). In contrast, primary prevention concentrates more on reducing burdens. In practice, however, there is no clear borderline between the two, since primary prevention measures also include elements of health promotion and are also always aimed at enabling people to structure their living conditions in a health-promoting manner (Rosenbrock 2004). Consequently, quality criteria can be defined that apply to all measures for promoting the health of children and adolescents – and thus normal weight development. Quality criteria are necessary in order to improve structures in the field of health promotion and prevention measures for children and adolescents, and to assure their quality. Universal prevention measures for adults are already well established in the framework of workplace health promotion.

The following can be mentioned as reasons for focusing on the prevention of overweight and the promotion of normal weight development:

- Overweight is one of today's greatest challenges to health policy and society as a whole.

1 Based on the WHO definition, primary prevention is taken to mean universal prevention (see Chapter 3.2 on this subject). This applies throughout the present specialist booklet.

- Overweight children and adolescents often turn into overweight adults. The degree of persistence is high and increases with the age of the child. Consequently, prevention measures should start at the earliest possible stage.
- Universal prevention measures and health promotion must complement selective prevention and the treatment of children and adolescents who are already overweight.

1.2 Objective

The quality criteria are to serve as the basis for optimising measures:
– They are intended to help assure and continuously develop the quality of a measure. For example, quality criteria thus contribute to saving financial resources and time, thereby increasing the chance of consolidation of the measure.
– They make it possible to assess existing measures in the sense of self-evaluation, thus serving to optimise the process.
– They can be a basis for identifying and designing examples of Good Practice.
– They contribute to transparency and can encourage imitation of successful measures.

1.3 Target groups

The quality criteria are primarily aimed at decision-makers at different levels. This refers to ministries, health insurance funds, municipal and district administrations, and associations, but also to child day-care centres, schools, clubs and societies. The quality criteria enable them to check the quality of a measure in its various dimensions, either internally or externally. For decision-makers and players in child day-care centres, school, clubs, societies, etc., the quality criteria are more a planning aid. They can additionally serve as a basis for an exchange between all participants regarding the quality of the measure.

1.4 Application

The quality criteria can be applied to all situational and behavioural prevention measures and development processes that focus on promoting health and normal weight development in children and adolescents.

Depending on the *intervention level,* the measures range
– from courses, training offers at the micro-level (individual approach),
– and health promotion in the settings of children and adolescents (school, child day-care centre, town, neighbourhood, club, etc.),
– all the way to motivation campaigns (macro-level).

Depending on the *context,* this can mean
– measures at the individual level or in small groups (e.g. preventive family calls),
– development of health-promoting settings (e.g. model processes for health-promoting schools/child day-care centres),
– multi-level campaigns that include situational prevention measures (e.g. campaign for promoting exercise plus expansion of cycle path networks at the regional level),
– pure situational prevention (e.g. statutory regulations, catering offers in schools or child day-care centres) (Sachverständigenrat zur Begutachtung der Entwicklung im Gesundheitswesen 2005).

The quality criteria do *not* apply to measures that specifically address overweight children[2] and adolescents or, for example, the special group of normal-weight children of overweight parents. They count as target groups of secondary and tertiary prevention. Criteria in this respect have already been compiled under the moderation of the Federal Ministry of Health (BMG) and the BZgA (BZgA 2005).

1.5 Working Group

The quality criteria were developed in the framework of the Advisory Committee "Quality Criteria for the Prevention of Overweight in Children and Adolescents" (see Page 11), initiated by the BMG and the BZgA. A Working Group was commissioned to prepare a draft. Its members were:
- Monika Cremer, Idstein (editor)
- Cornelia Goldapp, BZgA
- PD Dr. med. Christine Graf, German Sport University, Cologne
- Dorle Grünewald-Funk, Berlin

2 Note: When reference is made to "overweight" people, this also includes "obese" people. If statements refer only to obese children, this is explicitly noted.

- Reinhard Mann, BZgA
- Prof. Dr. Ulrike Ungerer-Röhrich, University of Bayreuth
- Corinna Willhöft, Max Rubner Institute, Karlsruhe

Coordination:
- Cornelia Goldapp, BZgA
- Reinhard Mann, BZgA

1.6 Procedure

Basis: Quality criteria applicable to all health promotion and primary prevention measures

A first draft, elaborated by the Prevention Task Force of the Working Group on Obesity in Childhood, was geared to the structure of the Public Health Action Cycle (Ruckstuhl et al. 1997) and contained quality criteria for the structural design of measures (planning, concept, evaluation, etc.). The Working Group took this draft as the starting point for its work. In addition, various quality assurance systems for health promotion measures were examined, including quint-essenz/Switzerland (quint-essenz 2007), the European Quality Instrument for Health Promotion (Bollars et al. 2005), the Good Practice Criteria for Health Promotion for the Socially Disadvantaged (BZgA 2010) and the QIP quality assurance system of the BZgA and the University Medical Centre Hamburg-Eppendorf (Töppich and Lehmann 2009).

In the QIP quality assurance system, the dimensions of concept quality, planning quality, participants, dissemination and communication, structuring of the course of the project and management, as well as success monitoring and evaluation of measures, are documented and then assessed and analysed by external experts, the results being fed back to the players (external evaluation). The quality dimensions of QIP likewise form part of the present quality criteria. However, since the criteria are (also) intended to be a self-evaluation instrument for planners, developers and providers, the structure and order of the criteria presented here is geared to the course of the process and development of the measure. The model, which is based on the Public Health Action Cycle, shows the "development cycle" of health promotion and primary prevention measures in connection with overweight in children and adolescents.

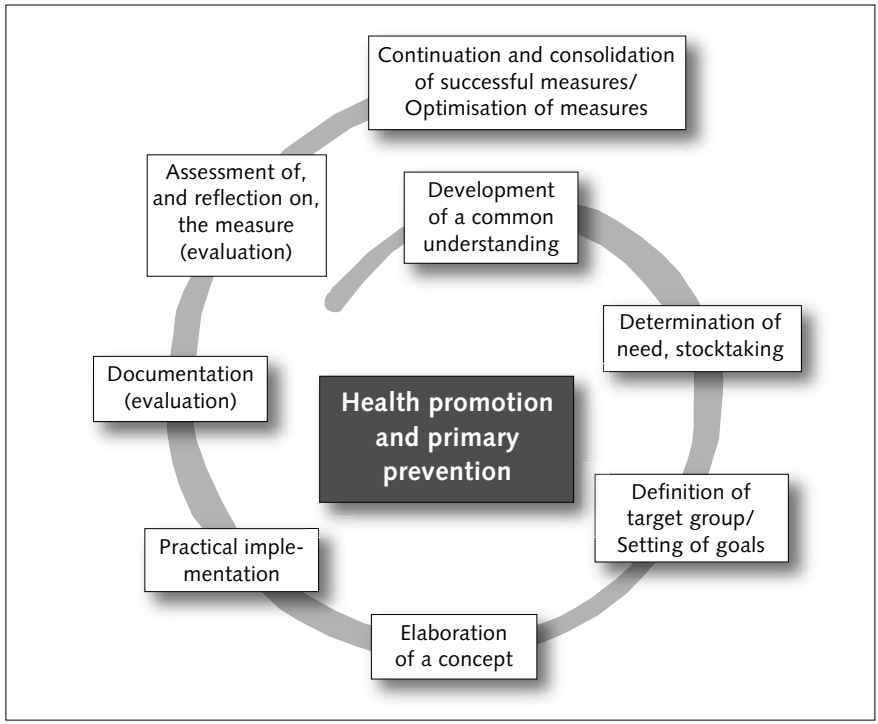

Fig. 1: Overall process of health promotion and primary prevention measures in connection with overweight in children and adolescents (BZgA Working Group: M. Cremer, C. Goldapp, C. Graf, D. Grünewald-Funk, R. Mann, U. Ungerer-Röhrich, C. Willhöft)

Additionally: Quality criteria specific to health promotion and primary prevention measures in connection with overweight in children and adolescents

To identify the aspects of relevance for the prevention of overweight, the first step was an intensive search for literature concerning primary prevention measures for children and adolescents. The basis was current meta-analyses and review papers (e.g. Summerbell et al. 2005, Kamath et al. 2008), the HTA analysis (Fröschl et al. 2009) and statements by relevant scientific societies. The following keywords were selected for the search: primary prevention, universal prevention, health promotion, overweight/obesity, nutrition, breastfeeding, exercise/physical activity/sport, stress/stress regulation, mental health, media consumption, participation, children, adolescents, pregnant women,

parents, setting approach, municipality/municipally based. Beyond this, the Working Group added the latest and important literature from its specialist field. It is generally literature from journals with a review procedure, which are listed accordingly. The literature recommended by the group of experts was likewise taken into account and included.

All papers showed that there is a host of heterogeneous intervention approaches. These papers were hardly able to prove positive, lasting effects as regards weight outcome, merely giving a few indications of what could be effective. Success criteria with "proven evidence" cannot be derived from the meta-analyses and reviews.

Consequently, the Working Group focused on factors that can influence weight development. A search was conducted for literature on overweight/obesity in children and adolescents, the connection with nutrition-, exercise- and media-related behaviour, psychological factors, situational prevention, etc. Observational studies, health reports and the guidelines and recommendations of various scientific societies were consulted in this context. The aim of this step was to give recommendations with "promising evidence" for health promotion and primary prevention measures in connection with overweight in children and adolescents, and to derive quality criteria from them.

These recommendations were discussed by the group of experts in order to rate them with Evidence Grade IV (evidence based on reports of the expert committees or expert opinions and/or clinical experience of recognised authorities) (http://www.cochrane.de/de/grading.htm). This is currently the best available evidence for these specific quality criteria, which refer to the content-related elements of measures.

The members of the group of experts were:

- Dr. Stefanie Eiser, Federal Office for Agriculture and Food
- Andrea Engelhardt, Bertelsmann Foundation
- Ursula Horzetzky, Federal Ministry of Food, Agriculture and Consumer Protection
- Dr. Andrea Lambeck, Platform for Nutrition and Exercise
- Prof. Arnold Lohaus, German Psychological Society
- Dr. Helmut Oberritter, German Nutrition Society
- Dr. U. Prümel-Philippsen, Federal Association for Prevention and Health Promotion
- Uwe Tiedjen, Working Group on Obesity in Childhood and Adolescence

- Dr. Volker Wanek, National Association of Statutory Health Insurance Funds
- Dr. Ute Winkler, Federal Ministry of Health
- Prof. Alexander Woll, University of Konstanz, Sports Science Group

2. Overweight in children and adolescents

2.1 Classification of body weight in children and adolescents

In children, body mass and body fat percentage change during the course of their development, and differently depending on gender. For this reason, weight is not assessed using fixed BMI limits as for adults, but rather on the basis of gender-specific age percentiles for the body mass index. However, this method should be viewed critically to some extent, because it is not sufficiently known which BMI at what age leads to disease.

The weight of a child or adolescent is assessed by comparing the personal BMI with a reference population. For instance, if the personal BMI is in the 50th percentile, this means that 50% of all children and adolescents of the same sex and age in the reference population have the same BMI or lower. The percentiles currently valid for Germany were determined nationally from data on 35,000 children in Germany (1985-1999) (Kromeyer-Hauschild et al. 2001).

Classification of body weight[3]:
- Severe underweight: < 3rd percentile
- Underweight: 3rd percentile to < 10th percentile
- Normal weight: 10th percentile to 90th percentile
- Overweight: > 90th percentile to 97th percentile
- Obese: > 97th percentile

The chief risk to health is the increase in abdominal fat, determined, for example, by measuring the waist. Percentile curves for 6 to 18 year-olds recently became available for evaluating this measurement (Kromeyer-Hauschild, Glässer and Zellner 2008). Like the BMI, the waist measurement is divided into percentiles (separately for boys and girls).

3 The classification according to Kromeyer-Hauschild et al. (2001) is used in Germany and other German-speaking countries (Austria, Switzerland). Other countries apply other classifications, usually that of Cole et al. (2000). Prevalence comparisons between different countries are therefore only possible to a limited degree.

2.2 Prevalence of overweight in children and adolescents

An estimated 14 million children and adolescents in Europe are overweight, of whom 3 million are obese (Lobstein et al. 2004). In Germany, thanks to the Robert Koch Institute's Health Interview and Examination Survey for Children and Adolescents (KiGGS), nationwide, representative data on weight for all age groups are now available for the first time (www.kiggs.de). These figures are supplemented by data from school entrance health examinations and the Leipzig CrescNet system (www. crescnet.org), which has been compiling data on children since 1998.

According to KiGGS, 78% of all children and adolescents between the ages of 3 and 17 are of normal weight; 5.1% are underweight, 1.9% are severely underweight. The proportion of underweight (6.2%) and severely underweight children (2.4%) is highest in the 11 to 13 age group (Kurth and Schaffrath Rosario 2007). The BMI of 15% of 3 to 17 year-olds in Germany is above the 90th percentile. Of all children and adolescents, 8.7% are overweight and 6.3% obese. Among older children (11 to 13 years), the proportion who are overweight and obese is higher. Among adolescents aged 14 years and older, the proportion who are overweight is lower again, while that of obese adolescents increases further to 8.5% (Kurth and Schaffrath Rosario 2007). No significant differences exist between boys and girls.

Data from various school entrance health examinations from 2003, 2004 and 2005 show that significant regional differences exist with regard to the prevalence of overweight. A total of 13.6% of children starting school in Mecklenburg-Western Pomerania are overweight (> P 90), compared to 7.2% in Thuringia. Overall, a north-south gradient can be observed, but no east-west differences. However, prevalence can also fluctuate greatly within a Federal Land, a region or a town (Moss et al. 2007).

A critical relationship is evident between overweight/obesity and social status or immigrant background: boys and girls from socially disadvantaged families are three times more likely to be obese than children from families with a high social status. Similarly, children with an immigrant background are more frequently overweight and obese than children without. This difference is less pronounced among adolescents: for example, 5.4% of 7 to 10 year-olds with no immigrant background are obese, compared to 11% with an immigrant background; 8.3% of 14 to 17 year-olds without an immigrant background and

9.4% of those with an immigrant background are obese (Robert Koch Institute and BZgA 2008).

Development trends

In a study of the development of overweight (including obesity) in children and adolescents in Europe, Jackson-Leach and Lobstein (2006) identified a higher annual increase in prevalence in the late 1990s, compared to the 1980s. Should this trend continue at the same rate, the authors expect an annual increase of up to 1.9% by 2010. However, it is difficult in terms of method to compare the country-specific data because of the use of different classification systems. For instance, Cattaneo et al. (2010) did not observe an increasing prevalence of overweight and obesity in preschool children in Europe. New data from the USA show that the prevalence of obesity in children and adolescents has not increased generally over the last ten years, with the exception of 6 to 19 year-old obese boys. The prevalence of obesity currently appears to have levelled off (Ogden et al. 2010).

In Germany, no representative follow-up studies on weight development in children are available at present. The continuation of the KiGGS study, which began in 2009 and will run until 2012 in the form of telephone interviews, again includes children and adolescents from the base survey. In this way, statements can be made regarding changes in individual parameters of physical and mental health over time. All available results from school entrance health examinations indicate an increase in prevalence since the early 1980s (Kromeyer-Hauschild and Wabitsch 2008). If the representative KiGGS data are correlated with the reference values from Kromeyer-Hauschild (despite their known flaws[4]), it can be seen that an increase in the percentage of overweight and obese children and adolescents is to be expected. The percentage rose dramatically after starting school and among 14 to 17 year-olds. The number who are obese has doubled, and even tripled in the 14 to 17 age group. The degree of obesity has likewise increased (Kurth and Schaffrath Rosario 2007), as also indicated by the data on 14 to 17 year-olds from the National Nutrition Survey II (Max Rubner Institute 2008). A rising trend is further confirmed by analyses of the CrescNet data from 1999 and 2006, although they are not representative. Here, too, the percentage of obese children and adolescents has increased across all age groups. Among girls, however, the percentage of those who are severely underweight has also risen slightly (Meigen et al. 2008).

4 Not representative, different age groups, different sample sizes, different methods.

The stagnation described above is confirmed by school entrance health examinations in several Federal Länder. In Brandenburg, the number of obese boys in this age group has been declining since 2000. Stagnation, or only a slow rise, over the last five years has been observed in North Rhine-Westphalia (Moss et al. 2007). Similarly, the percentages of obese and overweight children are stable in Schleswig-Holstein (Ministerium für Soziales, Gesundheit, Familie, Jugend und Senioren des Landes Schleswig-Holstein 2006). On account of the insufficient data and the different data collection methods, Moss et al. (2007) come to the conclusion, however, that the data must be viewed "with the necessary degree of caution". Further observation is necessary. On a critical note, it must be pointed out that a comparison of weight and body composition data in school children of normal weight, collected in Jena between 1975 and 2005/2006, indicates that weight is on the rise. The relative fat mass is likewise rising significantly, particularly among boys; among girls, it is increasing in the upper age groups (Kromeyer-Hauschild 2008).

Conclusion:
Although trends towards stagnating overweight rates are evident, the percentage of overweight children and adolescents remains at a high level. What is more, even in cases of normal weight, body composition is changing in favour of an increase in body fat mass. Health promotion and primary prevention measures are therefore required.
Children and adolescents with a low social status and an immigrant background are more frequently overweight. Health promotion and primary prevention measures must reach these children, in particular.

2.3 Possible effects on health

The weight development in childhood and adolescence is one indicator of a child's nutritional condition and state of health. Weight that is either too high or much too low can have a negative effect on health. For example, severe underweight may be a sign of chronic undernourishment, or of an eating disorder. Moderate underweight, if combined with normal body growth, is not associated with an elevated health risk (Müller 2007).

Excessive weight is linked to numerous consequences. For adults, the relationship between obesity and Type 2 diabetes, cardiovascular diseases and lipid metabolic disorders, etc. is well documented (Wirth 2008). However,

evaluating the parameter of weight alone is not sufficient for assessing an individual's health risk, because other factors can also increase the risk of disease and in some cases have a synergistic effect (including genetic predisposition, lack of exercise, malnutrition, overeating, stress, smoking).

Physical health and physical performance

About half of the obese children and adolescents in a German study have at least one cardiovascular risk factor. The more overweight they are, the greater the risk of high blood pressure, high triglycerides, carbohydrate metabolism disorder and low HDL levels. As overweight increases, so does the number of risk factors (l'Allemand et al. 2008). The European Youth Heart Study (Ruiz et al. 2006 and 2007; Rizzo et al. 2008) shows a positive correlation between insulin resistance and body fat percentage.

Overweight furthermore goes hand-in-hand with reduced physical capacity. Overweight and obese children do not do as well as their normal-weight and underweight contemporaries in tests of stamina, coordination, agility and strength (Graf et al. 2004 and 2007). Motor deficits can become a vicious circle, when exercise is avoided even more because of frustration, and preference is given to non-active leisure-time pursuits.

Obesity in childhood and adolescence can promote orthopaedic disorders, e.g. in the ankle and knee joints. It can impair development in puberty (Reinehr 2005). With regard to eating disorders, overweight and obese children also more frequently display abnormal behaviour (Hölling and Schlack 2007). Results pertaining to conclusions about a shorter life expectancy are contradictory. In this area, variables such as physical activity are often not taken into consideration (Bjørge et al. 2008; Adami and de Assis Guedes de Vasconcelos 2008).

Emotional health

For those affected by overweight and obesity, it is particularly the psychosocial consequences that play a key role. Teasing, low self-esteem and a lack of self-confidence reduce the quality of life of the children and adolescents, causing them to be (even more) withdrawn (Dyer et al. 2007). Eschenbeck et al. (2009) confirm higher rates of psychological disorders among morbidly overweight children.

But quality of life is impaired not only among those who really are overweight, but also – and even more so – among those of normal weight who perceive

themselves as being "much too fat". They make up nearly 50% of the normal-weight girls in the KiGGS survey, and 26% of the normal-weight boys (11 to 17) (Kurth and Ellert 2008). "Feeling" overweight influences health, regardless of a person's actual weight (Schulz et al. 2010).

High persistence

The older the obese child, and the greater the degree of obesity, the more the risk rises of also being obese in adulthood. Some 55% of obese children between 6 and 9 years old, and up to 75% of obese adolescents, continue to be overweight into adulthood. The probability of still being obese in adulthood increases if at least one parent is also obese (Whitaker et al. 1997). Data from the Kiel Obesity Prevention Study (KOPS) also indicate the high persistence of obesity. It is 79% in children before puberty (Danielzik, Pust and Müller 2007). The persistence of obesity from childhood into adulthood is further documented by data from the Bogalusa Heart Study (Freedman et al. 2005). If obesity begins in childhood, it is more pronounced in adulthood and associated with higher morbidity and mortality (Seidell et al. 1996).

Conclusion:
Severe overweight can cause health problems. Therefore, health promotion and primary prevention measures relating to overweight should enable children and adolescents to adopt healthy lifestyles and thus also promote normal weight development.

3. Health promotion and primary prevention measures in connection with overweight in children and adolescents

3.1 Definitions

According to the definition of the World Health Organization (WHO), *health promotion* is a comprehensive process on all social levels directed at analysing and strengthening the health resources and potentials of people. It should enable them to increase control over the determinants of health, thereby improving their health (empowerment) (WHO 1986 and 1998). Health promotion is a complex social and political process, expressly encompassing the improvement of both lifestyles and living conditions that are relevant to health.

Prevention covers measures that seek to prevent the occurrence of disease. Like health promotion, its goal is good health and well-being. Depending on the target group, a distinction is made between:

- *Universal prevention* – takes a very broad approach. It addresses not only normal-weight children, but all children (underweight, overweight and obese), their parents, and possible parents-to-be, regardless of their weight. With regard to sociocultural background, the groups targeted by universal prevention are likewise mixed, such as in schools, child day-care centres or neighbourhoods. Frequently, the term universal prevention also includes primary prevention. However, in contrast to universal prevention, the latter takes a narrower approach and has a more "disease-preventing" focus. For the purposes of these quality criteria, primary prevention means universal prevention.
- *Selective prevention* and *targeted prevention* – are directed at specific groups, such as children and adolescents who are at particular risk of becoming overweight (e.g. children with an immigrant background, normal-weight children of overweight parents) or children who are already overweight. Selective prevention involves measures that fall more into the category of secondary and tertiary prevention.
- *Situational prevention* – targets the environment, the context. It encompasses housing, social, but also economic, technological or legally pre-

scribed structures. These influence the conditions under which families live, their diet, exercise behaviour and therefore indirectly also the weight of their children. Situational preventive interventions influence, for example, urban development programmes to create more safe areas for recreation, school meal programmes, relaxation offers in school, or school meal funding for socially disadvantaged children. However, they can also be fiscal measures.

- *Behavioural prevention* – targets the behaviour of individuals. Behavioural prevention measures strengthen personal skills and resources to reduce risks and promote a healthy lifestyle. They can be part of health instruction in school, for example, or anchored in a motivational campaign.

3.2 Current findings on health promotion and primary prevention

Promising concepts and strategies combine the reduction of risks with the promotion of protective factors (Bengel, Meinders-Lücking and Rottmann 2008). They focus on both disease-specific and non-specific burdens and resources, and attempt to alter the health-relevant context.

The setting approach is considered to be the right instrument for putting the Ottawa Charter into practice. In other words, the measure takes place in the setting in which the target group lives. Not only the individual is included in the process, but rather the entire system (participation). Personal skills are strengthened and the target group empowered to get involved in shaping an environment that promotes health. If behavioural prevention is reinforced by situational prevention, the probability is greater of achieving these goals and ensuring effective health promotion and primary prevention (Graf, Starke and Nellen 2008).

For the Advisory Council, "intermediate forms" of prevention, between the extremes of "pure" behavioural prevention (e.g. information) and situational prevention (consumer health protection), are the route to pursue. They can be referred to as context-oriented behavioural prevention measures. The setting approach makes it possible to integrate situational and behavioural prevention in health promotion (Sachverständigenrat zur Begutachtung der Entwicklung im Gesundheitswesen 2005). Similarly, setting-based approaches, empowerment approaches, problem-centred and resource-oriented approaches and skill-promoting approaches are among the successful concepts for www.gesund-

heitsziele.de (an alliance of stakeholders in health promotion). Information, education and counselling are insufficient as measures for health promotion and primary prevention, particularly among socially disadvantaged target groups (Rosenbrock 2005).

A combination of various techniques has proven to be advantageous for conveying content through campaigns. Readiness to change behaviour increases if the target group is addressed through several different offers. In addition to media-based messages (posters, flyers, mass media, etc.), personal counselling and social networks can also help to increase the significance of the subject of health for the affected group, motivate health-promoting behaviour and anchor it lastingly in their everyday lives. Ideally, these measures reinforce one another by employing identical messages (mass-communication, multi-level campaign) (Pott 2007).

Conclusion:
Health promotion and primary prevention mean promoting a healthy lifestyle by reducing burdens and strengthening resources, particularly by enabling people to adopt their own health-promoting behaviour (empowerment), and by participation.
Context-oriented behavioural prevention using a setting approach is the direction to take.

3.3 International- and national-level strategies for the primary prevention of overweight in children and adolescents

Against the backdrop of the global increase in overweight, the WHO in 2004 adopted the Global Strategy on Diet, Physical Activity and Health, in which it calls on member states to develop national strategies for preventing the non-communicable diseases caused in part by lifestyle through a healthy diet and more exercise (WHO 2004). In November 2006, the WHO Ministerial Conference in Istanbul signed the Charter on Counteracting Obesity for the European region of WHO. The framework for action outlined therein: "Action should be taken at both micro and macro levels, and in different settings. Particular importance is attached to settings such as the home and families, com-

munities, kindergartens, schools, workplaces, means of transport, the urban environment, housing, health and social services, and leisure facilities. While information and education will remain important, the focus should shift to a broad portfolio of interventions designed to change the social, economic and physical environment and promote healthy lifestyles" (WHO 2006).

Europe has similarly been addressing the subject of "overweight" for many years. In December 2005, the Commission issued a "Green Paper – Promoting healthy diets and physical activity: A European dimension for the prevention of overweight, obesity and chronic diseases". It stimulated the debate on initiatives for preventing overweight. These became the basis of a White Paper[5] presented in May 2007: "A Strategy for Europe on Nutrition, Overweight and Obesity Related Health Issues".

In this document, the EU Commission points out that the strategy must be integrated across all areas, and emphasises the necessity of paying particular attention to the social dimension of overweight. The Commission sees "children and adolescents" as the primary target group, because "childhood is an important period for instilling a preference for healthy behaviours, and for learning the life skills necessary to maintain a healthy lifestyle. Schools play a crucial role in this respect," and therefore are the main stage for corresponding measures. "Work should focus on nutrition education and on physical activity."

In June 2008, the German Federal Cabinet of Ministers adopted the National Action Plan for the Prevention of Poor Dietary Habits, Lack of Physical Activity, Overweight and Related Diseases "IN FORM – German National Initiative to Promote Healthy Diets and Physical Activity". Its goal is to pool positive approaches for healthy eating and sufficient exercise in order to sustainably improve eating habits and exercise behaviour in Germany. Strategies and measures are developed that incorporate individual behaviour and take the regional and national levels into account. Furthermore, structures are created that enable people to pursue a health-promoting lifestyle. The National Action Plan thus targets both behaviour and situations (www.in-form.de).

The measures concentrate on five areas: Federal government, Länder and municipalities set an example; education and information on diet, physical

5 White Papers set out proposals for the EU to take action in a specific area. They serve to develop this area. White Papers sometimes follow Green Papers, which initiate a consultation process at the European level.

activity and health; physical activity in daily life; improving the quality of away-from-home meals; fresh impetus for research. The National Action Plan includes over 100 measures, including "Quality standards for company catering", the "aid" nutrition licence and the networking agencies for school meals.

The "Action Alliances for Healthy Lifestyles and Living Environments", initiated by the Federal Ministry of Health, made it possible for 25 local projects to begin their work. Centres of Excellence for the Promotion of Physical Activity have been established in all the German Federal Länder, which better network existing activities, advertise examples of good practice and serve as competent advisors.

As long ago as July 2003, the Federal Ministry of Food, Agriculture and Consumer Protection launched the campaign "Besser essen. Mehr bewegen. KINDERLEICHT" (Better diet. More exercise. KINDERLEICHT), with measures in the areas of nutrition in schools, kindergartens, child day-care centres and at home. Projects for the prevention of overweight in children from birth to the end of primary school got off the ground in 2006 in 24 KINDERLEICHT regions, all of which were funded, scientifically supported and evaluated (http://www.besseressenmehrbewegen.de).

As a federal authority in the portfolio of the Federal Ministry of Health (BMG), the Federal Centre for Health Education (BZgA) carries out key tasks in prevention and health promotion on behalf of the federal government. For promoting the health of children and adolescents, the BZgA takes an integrated approach to nutrition, exercise and stress regulation, implementing it in its "GUT DRAUF" and "Unterwegs nach Tutmirgut" campaigns wherever children and adolescents spend time, i.e. in schools, vocational training locations, sports clubs, youth centres or on trips (Mann-Luoma et al. 2002). In the overweight and obesity segment, the BZgA focuses on quality assurance.

To ensure high quality in the prevention and treatment of overweight in children and adolescents, the BZgA introduced a quality assurance process, also with regard to implementing the National Action Plan for the Prevention of Poor Dietary Habits, Lack of Physical Activity, Overweight and Related Diseases. Quality criteria for measures in primary, secondary and tertiary prevention were compiled, and a multicentric observational study was initiated to describe the long-term effects of childhood obesity treatment (www.bzga-kinderuebergewicht.de).

Since primary prevention services were re-introduced under Section 20 Para. 1 SGB V (Book V of the German Social Security Code), statutory health insurance (SHI) has continuously expanded its activities to promote exercise and a healthy diet (often in combination). Above all, prevention activities in companies, child day-care centres, schools and communities have been expanded considerably. For all primary prevention and health promotion services, SHI has defined standard, binding quality requirements for demand, effectiveness, goals, target groups, content, methods and qualifications of the providers (to download the latest version of the SHI "Prevention Guideline", go to www.gkv-spitzenverband.de).

In addition, the statutory health insurance funds and their associations have agreed on common goals for primary prevention and health promotion. In line with the orientation of the National Action Plan IN FORM, SHI has formulated the goal of significantly strengthening the prevention activities of the statutory health insurance funds based on the setting approach for children, adolescents and young parents, with a focus on exercise and diet. Special emphasis is given to those settings where a disproportionately high number of socially disadvantaged insureds are encountered (for example in secondary modern schools or "Hauptschulen").

The Bundesvereinigung Prävention und Gesundheitsförderung e. V. (BVPG – Federal Association for Disease Prevention and Health Promotion) is an important representative of civil society in prevention and health promotion, and it cooperates closely on the national level with the Federal Länder, local authority associations, the Federal Ministry of Health and the social security organisations. It supports the National Action Plan IN FORM through its member organisations (www.bvpg.de) and has its focus set on "healthy children and adolescents".

Preventing overweight and promoting health are also the top priority of the Platform for Nutrition and Exercise (Plattform Ernährung und Bewegung – peb). It was established in September 2004 on the initiative of the former Federal Ministry of Consumer Protection, Food and Agriculture and seven other founding members. The members include scientific institutions, interest groups, social initiatives and numerous business enterprises. The Platform's work centres on networking existing activities in this subject area. The platform, its members and its partners additionally develop their own campaigns and organise events. Positive, motivating messages and practical tips for a healthy lifestyle, including a balanced diet and plenty of exercise, are the chief

focus. Special consideration is given to social risk factors. To use the "peb" logo for a project, the players must fulfil various criteria, including: integration of diet- and exercise-based approaches, setting approach, empowerment approach and consideration of risk groups (peb 2006 and 2008).

Conclusion:
Strategies for preventing malnutrition, lack of exercise, overweight and related diseases have been formulated on both the international and national level. They provide a framework of action for implementing measures.

3.4 Effectiveness of primary prevention measures in connection with overweight in children and adolescents – Current research

A Cochrane Review from 2005 (Summerbell et al. 2005) investigates the effectiveness of childhood obesity prevention programmes that target diet, physical activity and/or lifestyle and social support. Twenty-two interventions (randomised controlled trials and controlled clinical studies) were evaluated, including ten long-term studies with a duration of at least 12 months, and twelve studies with a duration of 12 weeks to 12 months. Result: of the eight short-term and six long-term studies involving diet and physical activity interventions, only one long-term study showed positive effects on weight. However, it affected only the girls, not the boys. Two long-term studies exclusively targeted dietary training and resulted in no improvement in weight.

Of the measures focused on physical activity, one school-based, long-term study showed positive effects, which were still evident after 18 months, at least among the girls. Two short-term studies on promoting physical activity led to a slight reduction in overweight status. The authors were unable to identify effective approaches (in terms of weight) on account of the heterogeneous studies. They noted critically that, given the great diversity of the studies, they could not make any conclusive statements.

The HTA Report (Fröschl et al. 2009) on the Prevention of Obesity in Children and Adolescents (behavioural and situational prevention) investigates the

effectiveness and efficiency of various measures and programmes for primary obesity prevention in children and adolescents with an intervention duration of at least one year. This analysis focused explicitly on the effect on weight status. Ten primary studies with seven interventions, 19 reviews, two studies on efficiency and three on socioeconomic status were analysed. The results of the report: none of the seven interventions showed success in all subgroups; three studies showed no effects overall; four studies had an effect on children who were already obese (mostly girls). None of the interventions had an effect on normal-weight boys.

An evaluation of the 19 systematic reviews likewise showed no apparent success factor. Individual interventions were successful among girls, not among boys. The authors of the report state that target group-specific interventions (e.g. for the socially disadvantaged) are underrepresented and point out that specifically designed measures targeted exclusively at socially disadvantaged children and/or adolescents are more likely to achieve positive effects than broader-based studies or interventions that are non-specific in terms of social status.

In further meta-analyses, a reduction in sedentary activities is considered promising, but evidence was insufficient according to the HTA Report. The authors concluded overall that – considering the methodical approach – no indications of explicit success factors are to be found.

The meta-analysis by Harris et al. (2009) investigates the effects of primarily American school interventions (of at least 6 months to 3 years) that focus on physical activity. Eighteen studies with over 18,000 mostly elementary schoolchildren were included. No improvement in BMI was found. Even interventions that simultaneously addressed other areas showed no better results. However, the extent to which the BMI is a suitable target criterion for this form of intervention must be questioned critically.

Kamath et al. (2008) also investigated the effectiveness of lifestyle interventions for preventing overweight in their review. Thirty-four randomised controlled trials were included. Here, too, no significant effects on the BMI were apparent. However, the authors also pursued the question of the extent to which behaviour was changed. But the behavioural changes achieved were only minor. A slight, significant increase in physical activity was evident, and likewise a slight, significant decrease in physical inactivity. However, the promotion of healthy eating habits was not significant. No gender-based difference was found.

Several reviews revealed differences with regard to gender. Girls appear to benefit from programmes more than boys (Stice, Shaw and Marti 2006; Doak et al. 2006; Gortmaker et al. 1999). However, programmes for boys only are rare compared to those for girls (Flynn et al. 2006). Including parents may be a success factor. For instance, prevention programmes for children are more effective if they simultaneously address parents (Stice, Shaw and Martin 2006; Doak et al. 2006; Campbell and Hesketh 2007; Sharma 2006).

Critical remarks concerning the results

- Using the average BMI as an objective measure of success must be viewed critically, because it only reflects changes in the overall group, frequently with little attention being paid to the marginal distributions.
- The duration of the interventions is short in many cases; follow-up support is rare. However, the point in time at which the effectiveness of a measure becomes evident in terms of obesity prevalence and incidence, frequently is after the measure is concluded. Measurement parameters and intervention duration may not be consistent with one another.
- Not all measures differentiate their results by gender. The possible differences in the results for girls and boys may disappear "if combined" in the overall result (Thomas 2006). Giving consideration to gender in prevention programmes is a quality aspect, because what is suitable for boys may not at all be good for girls. Differences have been verified in smoking prevention (Kolip 2008). However, the influence of gender in different age groups is unclear.
- Social status can influence the success of a measure. Data from the Kiel Obesity Prevention Study show that not all population groups benefit equally from a prevention measure. Low social status complicates preventive and therapeutic measures (Langnäse et al. 2004).
- The implementation of a programme has an impact on the results (Thomas 2006), as confirmed, for example, by the school-based prevention programme CHILT (Children's Health International Trial), headed by the German Sport University in Cologne. While the prevalence and incidence of overweight were not influenced in the programme, the rise in BMI was greater in schools that showed a lack of commitment in implementing the programme (Graf, Starke and Nellen 2008).
- It may well be that prevention programmes not only reduce the prevalence of overweight, but also increase the prevalence of underweight. Adverse effects continue to be ignored in many studies (Doak et al. 2006; Simonetti D'Arca et al. 1986).

- The cost issue is almost never investigated. Only two studies in the HTA Report analysed economic efficiency (Fröschl, Haas and Wirl 2009).
- Overweight develops in an extremely complex network of numerous influencing factors. Intervention programmes, however, often focus only on a few of them. Environmental factors and social framework conditions that impact the sustainability of these interventions are virtually never taken into consideration. On the other hand, many studies emphasise the importance of behavioural prevention, particularly for socioeconomically disadvantaged children and adolescents (Summerbell et al. 2005).

Recommendations derived by the authors from the reviews and studies:

- Short-term interventions are not an effective strategy if no accompanying measures are taken to promote sustainability (Summerbell et al. 2005).
- Sustainability and changes in the environment should always be accompanied by measures that target behavioural modification (Summerbell et al. 2005; Fröschl, Haas and Wirl 2009).
- Families, schools and other players should be included as a means of promoting sustainability (Summerbell et al. 2005; Fröschl, Haas and Wirl 2009).
- A gender-sensitive approach is necessary (Fröschl, Haas and Wirl 2009).
- Individual approaches must be supplemented by the Public Health model, which targets several levels and also gives consideration to indirect influencing factors (Lobstein 2006).
- Prevention measures should also keep an eye on adverse effects and not encourage them (Doak et al. 2006; Simonetti D'Arca et al. 1986).
- Prevention programmes should be documented systematically so as to facilitate the formulation of success criteria (Fröschl, Haas and Wirl 2009). (Note: The present quality criteria support this.)
- "If no good primary studies are available, the best available evidence should be used in case of doubt to provide a relatively serviceable basis for making decisions regarding pending interventions." (Fröschl, Haas and Wirl, p. 6).

These recommendations were incorporated in the quality criteria elaborated here.

Conclusion:
Recommendations with "proven evidence" of which type of intervention is most effective for which target group in preventing overweight, cannot be given because of the heterogeneous nature of the studies. Research is needed. The principle for making recommendations on health promotion and primary prevention measures in connection with overweight in children and adolescents is: use the best evidence available. Systematic documentation facilitates the determination of success criteria in the future and contributes to quality improvement.

4. Requirements for health promotion and primary prevention measures in connection with overweight in children and adolescents

4.1 Recommendations of the scientific societies

The evidence-based guideline "Prevention and Therapy of Obesity" (DAG, DDG, DGEM, DGE 2007) sees children and families with an elevated obesity risk as being a meaningful target group for prevention measures. A healthy lifestyle, with regular physical exercise and nutrition based on the recommendations of the German Nutrition Society, is regarded as being a sensible way of preventing weight gain. However, obesity prevention is also a task for society as a whole that must target a change in obesity-promoting living conditions.

The Working Group on Obesity in Childhood and Adolescence (AGA) sees pregnant women, families, children, multipliers, the socially disadvantaged, immigrants and the general population as being target groups for prevention measures. In its guidelines, the Working Group advocates the creation of healthy living environments, this necessitating decisions in education and health policy and the resultant activities. It additionally defines individual prevention targets, including the improvement of knowledge and attitudes regarding nutrition, body weight and eating habits, implementation with regard to improving lifestyles and increasing the quality of life. The prevention measures are intended to enable the strengthening of personal autonomy and the multiplication of health-conducive resources. Health-promoting behaviour in the sense of self-responsibility is to be substantially developed and strengthened in all age groups (Arbeitsgemeinschaft Adipositas im Kindes- und Jugendalter 2009).

The British Medical Association, Board of Science, and the International Obesity Task Force similarly emphasise the importance of the social and cultural context: family- or school-based interventions must be accompanied by changes in the social and cultural environment if the effect is to be sustainable

and intensified. Prevention strategies therefore demand a coordinated effort at all levels (health sector, teachers, parents, food producers, trade, canteens, media, advertising, urban planners, politicians, etc.). Framework conditions encouraging healthy eating habits and an active lifestyle are of vital importance, since they enable the public to make a healthy choice (British Medical Association 2005).

Conclusion:
Scientific societies agree that a healthy lifestyle and a change in lifestyle are not solely the responsibility of the individual, but a task for society as a whole.
Self-responsibility and personal autonomy must be strengthened, but health-promoting framework conditions also need to be created.

4.2 Fields of action for health promotion and primary prevention measures in connection with overweight in children and adolescents

Health promotion and primary prevention measures in connection with overweight in children and adolescents are based on the factors that influence body weight.

The influence of the genes is undisputed, as shown by studies on twins (Stunkard et al. 1990). However, the extent to which they influence weight in each case differs from one individual to the next and cannot be derived from studies. Monogenic forms of obesity tend to be rare. It is probably more likely to be a case of polygenic hereditary transmission, and predisposition towards overweight is made up of a host of small-scale effects (Hebebrand, Wermter and Hinney 2005). One fact: a positive correlation between the weight of the parents and that of the children is frequently to be observed. In the German Health Survey for Children and Adolescents (KiGGS), parental overweight/obesity can be identified as the greatest risk factor for overweight and obesity in the child. This connection can be explained both by genetic factors and also by behavioural or environmental factors. Genes and socialisation are inseparable.

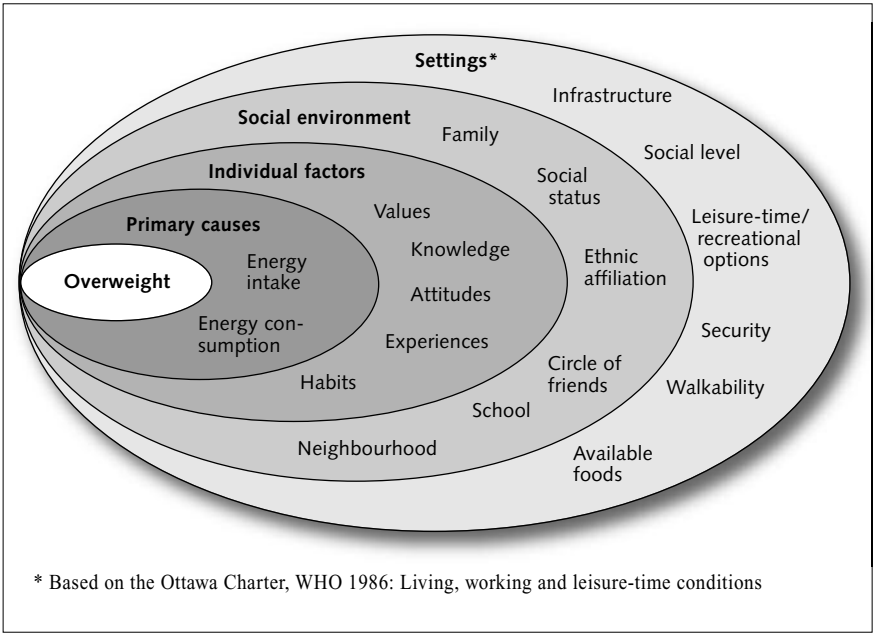

Fig. 2: Social inequality regarding overweight in children and adolescents. (Ernährungs-Umschau 2/10, p. 82) (Source: M. J. Müller)

In addition to biological factors, such as genetic predisposition, the energy balance also modulates weight. It is calculated as energy intake minus energy consumption. This is influenced by the lifestyle – i.e. nutrition-, exercise- and media-related behaviour, handling of stress. In this context, "healthy" and "unhealthy" behavioural patterns in the individual lifestyle areas can be individually combined in very different ways. However, lifestyles do not develop in a "vacuum". They are subject to the influence of living conditions, habits, experiences, the circle of friends, the family, society, working conditions, etc. The model shown illustrates the great complexity of the phenomenon of overweight, and why there are no simple answers to it (Müller 2010; the relationships between a wide variety of influencing factors are also shown by the model devised by Schneider et al. 2009).

Conclusion:
Genes are partly responsible for the occurrence of overweight.
Circumstances in life (situations) and the behaviour of the individual are of decisive importance when it comes to whether overweight manifests itself.
Health promotion and primary prevention measures in connection with overweight in children and adolescents must give consideration to these factors.
Family, parents, school and peers have an influence on lifestyle. They can be the target groups of measures.

The following sections examine individual factors that influence weight and healthy weight development and can therefore be potential starting points as regards the content of prevention measures. They include breast-feeding, nutrition, physical activity, stress, consumption of electronic media, and smoking during pregnancy.

4.2.1 Nutrition

Nutrition of the mother-to-be

Influence on weight
The regulation systems for metabolism, food intake, body weight and more are already programmed in the womb, thus paving the way for the future weight development of the child. Nutrition and hormonal factors during pregnancy have an influence on this and can lead to inappropriate imprinting (Lindsay et al. 2006; Deutsche Gesellschaft für Ernährung 2008). First signs were revealed by long-time observations of children whose mothers developed diabetes during pregnancy. These children are more likely to come into the world with a higher birth weight, are later more often overweight and have a higher risk of developing Type 2 diabetes (Harder et al. 2007). Links between a high birth weight (over 4,000 g) and an elevated risk of overweight are also confirmed by evaluations of the KiGGS data (Robert Koch Institute and BZgA 2008).

The German Nutrition Report 2008 examines the subject of "nutrition and early imprinting in children" in depth. The Report shows that an excessive weight gain during pregnancy increases the child's risk of being overweight by 60 to 70%. There is also a positive correlation between a high birth weight and

the relative body weight in adulthood. Only few studies favour the theory that a low birth weight is accompanied by an elevated risk of overweight (Deutsche Gesellschaft für Ernährung 2008).

Recommendation
Overweight, and also excessive weight gain and energy intake, during pregnancy should be avoided (no eating for two). The weight gain during pregnancy should be geared to the BMI before pregnancy. The Guidelines of the Institute of Medicine can provide guidance in this respect (weight gain of 12.5–18 kg for underweight women, 11.5–16 kg for women of normal weight, 7–11.5 kg for overweight women and 5–9 kg for obese women) (Institute of Medicine of the National Academies 2009).

Conclusion:
Since the conditions in the uterus and prior to birth have an influence on later weight development, measures for health promotion and primary prevention of overweight should start at the earliest possible stage. Pregnant women, young women and parents wanting to have children should be the target groups for measures.

Nutrition of the infant

Influence on weight
The type of infant nutrition has an influence on weight development. Breast-feeding has a protective effect and can reduce the risk of later overweight of the child (Deutsche Gesellschaft für Ernährung 2008). Data from a Bavarian cross-sectional study indicate that children who were breast-fed for 3 to 5 months have a 35% lower obesity risk when starting school (von Kries et al. 1999). Other studies show the protective effect as being roughly 20%, if biological and socio-economic factors are taken into account (Koletzko, von Rosen and Demmelmair 2007). The German Nutrition Report 2008 also discusses the long-term influences of neonatal energy intake on body weight and refers to a meta-analysis, according to which breast-feeding reduces the risk of overweight in adulthood by 25% compared to not breast-feeding. Every additional month of breast-feeding increases the reduction of the risk of later overweight by 4%. However, a plateau is reached after a breast-feeding period of 7 to 9 months (Deutsche Gesellschaft für Ernährung 2008). The results of

the KiGGS confirm the protective effect – but only if breast-feeding is considered in isolation. If other influencing factors are also taken into account, such as parental overweight and social stratum, the significance of breast-feeding declines (Robert Koch Institute and BZgA 2008).

Situation

The Health Survey for Children and Adolescents (KiGGS) was able to show that 76.7% of children were breast-fed. Mothers of children with an immigrant background tend to breast-feed their children to a slightly greater extent than mothers without an immigrant background. While almost all mothers with a high social status breast-feed (90.5%), only 67.3% of mothers with a low social status do so. The average breast-feeding period was just under 7 months, but the social status also influences the duration of breast-feeding. Mothers with a high social status breast-feed for longer, those with a low social status for a shorter period. Seen across all years of birth, the children were fully breast-fed for an average of 4.6 months. While 51% of mothers in Western Germany are still fully breast-feeding after 4 months, the figure in Eastern Germany is just 39% of mothers (Lange, Schenk and Bergmann 2007).

Recommendation

The Research Institute of Child Nutrition (FKE), the German Nutrition Society (DGE) and the German Society of Paediatrics and Adolescent Medicine (DGKJ) recommend full breast-feeding for 4 to 6 months.

Recommendations for action regarding nutrition in the first year of life, as well as for allergy prevention, have been available since June 2010 and were coordinated between all relevant professional associations. They are published in the framework of the network "Healthy Start – Young Families' Network" (Koletzko et al. 2010). The recommendation is: "Infants should be breast-fed in the first six months of life, and exclusively until at least the start of the fifth month."

Conclusion:
Breast-feeding can reduce the risk of overweight. Therefore, the promotion of breast-feeding can be an aim and an element of the content of a measure.

Nutrition of children and adolescents

Influence on weight

The energy balance has a direct influence on weight. Energy is taken in with food, and energy is consumed through exercise and sport. If an energy surplus develops, overweight can occur. The choice of foods, their preparation, the type and rhythm of meals characterise eating habits, etc. Inappropriate nutrition can be one of the causes of overweight (Deutsche Adipositas-Gesellschaft 2007).

There are numerous studies that demonstrate the positive correlation between soft drink consumption and elevated weight in children and adolescents (Brown, Kelly and Summerbell 2007; Vartanian, Schwartz and Brownwell 2007; Kleiser et al. 2009; Nagel et al. 2009). The DONALD Study documents the relationship between the quantity of sweet drinks and a higher weight, at least in girls (Libuda et al. 2008). The Nutrition Commissions of the German Society of Paediatrics and Adolescent Medicine (DGKJ), the Austrian Society of Paediatrics and Adolescent Medicine (ÖGKJ) and the Swiss Society of Paediatrics (SGP) therefore recommend predominantly energy-free or low-energy drinks (Ernährungskommissionen der DGKJ, ÖGKJ, SGP 2008).

Links between fast-food consumption and overweight can likewise be documented in some studies (Kersting and Sichert-Heller 2006; MacFarlane et al. 2009). The KiGGS study reveals that the consumption of high-energy foods and drinks correlates significantly with overweight and obesity (Kleiser et al. 2009). Correlations between no morning breakfast and overweight or obesity can likewise be seen in studies (Nagel et al. 2009).

Some authors suspect that the growing size of portions is one of the nutritional determinants for the increasing number of overweight children and adolescents. Larger portions can significantly increase the calorie intake of older children and adults. In the early years of life, however, the size of the portions has no influence on the quantity consumed (Ello-Martin, Ledikwe and Rolls 2005; Fox et al. 2006).

Although there are demonstrable links between a small number of nutritional factors and overweight, most studies do not reveal any correlations between "healthy" or "unhealthy" nutrition and weight. This could be due to the fact that the survey methods are usually not sufficiently detailed to be able to make accurate statements regarding the exact energy intake (or energy consump-

tion). They are incapable of detecting the slight daily calorie surplus of 50 to 100 kcal (through either increased calorie intake or reduced consumption) that suffices to gain weight in the long term (Müller 2010).

Causal statements regarding the development of overweight cannot be derived from collected cross-sectional data, since they do not answer the question of whether the nutritional factors are the cause of the overweight or the consequence of the overweight.

Situation

Children's average energy intake has hardly changed over the past two decades and is roughly within the limits of the recommendations (Mensink et al. 2007; Kersting et al. 2004). However, the range of foods consumed does differ from the recommendations of the Research Institute of Child Nutrition (FKE). On the whole, children eat too many high-energy foods. Alongside bread and milk, sweets are the principal energy source. When it comes to sweets (including soft drinks), more than 80% of children and adolescents exceed the recommendation of the FKE of a maximum of 10% of the daily energy total; the great majority of children and adolescents consume more than double. Many eat too few staple foods, such as bread, potatoes, pasta, etc., as well as vegetables and fruit. In contrast, meat and cooked meats are eaten in more than sufficient quantities.

Fast food is primarily of importance for adolescents. On average, it accounts for almost 7% of their energy intake, although boys consume twice as many calories as girls. One in ten even get 19% of their daily calories from fast food. It is worth noting that the energy intake of these adolescents is generally much higher, averaging almost 4,200 kcal per day. If the nutritional habits of girls and boys are compared, it can be seen that girls tend to eat more healthily, although the nutritional habits of both sexes deteriorate with increasing age (Mensink et al. 2007).

Social status has an influence on diet. Socio-economic, structural, psychosocial and sociocultural factors play a role in this respect (Muff and Weyers 2010). A Canadian study involving almost 5,000 school pupils was able to show that children from socially disadvantaged families eat larger portions of chips and crisps that those from non-disadvantaged families (Colapinto et al. 2007). The data from the German "EsKiMo" study in the context of the KiGGS study also confirm more unfavourable nutritional behaviour patterns among children with a low social status (Stahl et al. 2008). The low income could be the cause of this. Studies by Kersting and Clausen (2007) indicated that the

benefits paid for children and adolescents in the framework of Unemployment Benefit II are insufficient to buy the foods necessary for a balanced, complete diet in normal shops. If the child gets a chargeable hot meal at kindergarten or school, this can aggravate the financial shortage for food and drink at home. However, not only the low income is responsible for less health-conscious eating habits, but often also a lack of knowledge regarding nutrition and health-related correlations, as well as skills in preparing food (Lehmkühler 2002). Influences resulting from the residential environment (presence of shopping opportunities, snack-food restaurants, etc.) can likewise have an impact (Muff and Weyers 2010).

Eating and drinking habits are subject to cultural factors. There are differences between how, what and when people eat, depending on their immigrant background. Above all, children of Turkish origin and of ethnic German parents from Russia sometimes display unfavourable eating habits. While children and adolescents of Turkish origin consume the largest quantities of fruit, pasta/rice and fish, they equally consume the largest amounts of soft drinks, white bread, chocolate and snack foods (Robert Koch Institute 2008).

Recommendation

The recommendations of the Research Institute of Child Nutrition (FKE) and the German Nutrition Society (DGE) point the way. They are: lots of vegetable foods, moderate amounts of animal foods, and sparing quantities of high-fat foods and sweets. Calorie-free drinks, such as water or unsweetened teas, should be given preference when it comes to drinks (Forschungsinstitut für Kinderernährung, aid infodienst and DGE 2005).

Conclusion:

There is a need for research concerning the concrete influence of nutrition on the emergence of overweight. The influence of nutrition is plausible, but can hardly be proven in cross-sectional studies.

Soft drinks, fast food, high-energy foods, large portions and eating snacks can favour overweight.

Food and drink is part of the lifestyle and should be an element of the content of health promotion and primary prevention measures in connection with overweight in children and adolescents ("promising evidence").

Measures should promote healthy eating habits in accordance with the recommendations of the FKE and the DGE.

4.2.2 Physical activity

Influence on weight status

Physically active people consume calories and thus counteract a positive energy balance. On the other hand, people who get too little exercise can encourage a negative energy balance, and thus overweight. Sufficient physical activity is considered to be one of the key factors for preventing overweight (e.g. Brown, Kelly and Summerbell 2007). Over a period of 30 years, a Finnish study of twins compared the impact of a physically active lifestyle with an inactive lifestyle. It was able to demonstrate that those pairs of twins who were already more physically active at the start of the study remained more active and had substantially less unhealthy fatty tissue (visceral, intramuscular fat and fat in the liver) (Leskinen et al. 2009).

A Swedish study documented a higher risk of becoming overweight for children and adolescents who had little and only low-intensity physical exercise (Ortega, Ruiz and Sjöström 2007). If the "sporting activity" factor is considered in isolation, the data from the cross-sectional KiGGS study show that children and adolescents who engage in sporting activities to a moderate or high degree are less frequently overweight. However, if other influencing factors are taken into account, such as media consumption, social status, etc., the link between physical/sporting activity and obesity can no longer be demonstrated (Robert Koch Institute and BZgA 2008).

Examining the relationship between Body Mass Index and motor skills, overweight children and adolescents often fare worse in terms of strength, stamina and coordination. Cardiopulmonary capacity is also frequently reduced. The older the children become, the more pronounced the differences are between normal-weight and overweight children. However, the results of the motor skills module of the KiGGS study make it clear that a differentiated approach must be taken when considering the relationship between motor abilities, physical/sporting activity and the Body Mass Index in children and adolescents. It can be seen that, in cases of overweight and obesity, there is a clear connection with conditional performance, but no relationship with fine motor skills (Bös et al. 2009; Opper et al. 2009).

A major influence on body weight is ascribed not only to leisure activities, but also to everyday activities. However, the extent of everyday exercise (like that of other forms of exercise) is hard to determine exactly in terms of methodology.

The influence of physical activity on weight is plausible, but causal statements cannot be substantiated by cross-sectional studies. The relationships can be interpreted in both directions. In other words: a lack of exercise can cause overweight, but, on the other hand, it can also occur as a result of overweight (Metcalf et al. 2010). It can, however, be assumed that physical activity improves fitness, and children benefit from that. School sports can be one starting point for more exercise. However, the intervention needs to be planned and implemented specifically, in order for it to have effects on health parameters (Tittlbach et al. 2010). In a Swiss study (Kriemler et al. 2010), two additional hours per week, plus breaks for exercise and "sporting homework", led to an improvement in physical fitness, as well as an improvement in risk factors for cardiovascular diseases.

Situation

Children's natural urge to be active has biological origins. However, the degree of physical activity is also dependent on environmental factors, such as the family lifestyle (Graf and Dordel 2007). Less than one-third of children and adolescents engages in sporting activities for more than 60 minutes per day. One child in four between the ages of 3 and 10 does not regularly do sport, while one child in eight never does (Bös et al. 2006). Gender-specific differences are primarily to be found among adolescents (11 to 17 years of age). Although the number of adolescents who practise sports almost daily, or several times per week, declines with increasing age among all adolescents, the figures for girls drop far more rapidly. 10% of boys, but 21.5% of girls do sport less than once per week (Lampert et al. 2007). Studies in the framework of the KiGGS motor skills module show a marked change in everyday activity at the time of switching to secondary school from the tenth year of life. Many children and adolescents engage in sport in a sports club. 58% of 4 to 17 year-old children and adolescents are members of a club, but only about half of them train once per week (Bös et al. 2006).

Rees et al. (2006) report that physical activity is apparently less a part of "becoming a woman". The transitional phase from childhood to adolescence is a critical phase as regards exercise-related behaviour, since there is a dramatic increase in inactive behaviour at this time, particularly in the utilisation of such media as television (Floriani and Kennedy 2008).

Social status and immigrant background have hardly any influence on the physical activity of boys between the ages of 11 and 17, but an all the greater impact in girls of the same age. Girls from the lowest status group, and those

with a immigrant background, are more often inactive. Among children of kindergarten and primary-school age (3–10 years), both boys and girls with a low social status and an immigrant background are less sportingly active, but the passivity of girls is also slightly greater in this age group (Lampert et al. 2007). The explanation for this could be that, for girls with an immigrant background, religious and moral grounds are irreconcilable with sport (Schmidt and Eichhorn 2007).

For children to get exercise, they need suitable spaces for activity (Burrmann 2008) that give them not only opportunities to develop, but at the same time also incentives to develop (Zimmer 2008). The environment also plays a role: for preschool children, Spurrier et al. (2008) document a significant relationship between active outdoor playtime and the availability of a large garden. The way to school is also of importance as a place for physical activity. Children who walk or cycle to school have a greater tendency to practise sport (Davison, Werder and Lawson 2008). The significance of the local and regional infrastructure is also reflected in the 2008 EU Physical Activity Guidelines. The proposed actions address the planning and creation of suitable infrastructures that make it possible to engage in physical activity on the way to school or work.

Recommendation

How much physical activity is necessary? The WHO recommends children and adolescents one hour of physical activity per day (WHO 2010). For adolescents, the European Physical Activity Guidelines (European Union 2008) advocate at least 60 minutes of physical activity of moderate intensity. The Swiss Health-Enhancing Physical Activity Network (hepa.ch 2006) likewise advises adolescents to engage in an hour of physical activity per day, while children should get considerably more exercise. In the framework of the European Youth Heart Study, Andersen et al. (2006) similarly arrive at the conclusion that children should be physically active for more than an hour per day. There are no official recommendations in Germany.

Since 2005, the children's activity pyramid has provided a model that encourages children to engage in more physical activity and creates an awareness of the significance of everyday exercise and of moderate and intensive sporting activity. Its recommendations are based on the results of Andersen et al. (2006). According to the children's activity pyramid, a child should be intensively on the move for 30 minutes per day (club and school sport, as well as all other physical activities that make children sweat and get them out of

breath), moderately on the move for one hour (e.g. free games, romping about with friends outdoors, catching games) and occupied for 30 to 60 minutes with everyday activities (e.g. climbing stairs, going to school, helping in the home). The activity pyramid also addresses inactivity: inactivity in the form of television and PC should be limited to between one and two hours, depending on age (Graf et al. 2007).

Exercise also has advantages in pregnancy and can, for example – together with appropriate nutrition – help prevent excessive weight gain (Mottola et al. 2010). There are currently no concrete recommendations from the German scientific societies regarding exercise for pregnant women. The American Congress of Obstetricians and Gynecologists recommends that pregnant women be physically active for at least 30 minutes per day on most days, if not all (www.acog.org).

Conclusion:
Physical activity (sport and everyday exercise) favours normal weight development. Although cross-sectional data do not permit scientifically sound statements regarding the influence of physical activity on weight development, the influence is plausible ("promising evidence").
Measures should promote healthy exercise behaviour (physical activity and sport) in leisure time and everyday activities in accordance with the recommendations of the children's activity pyramid, and prevent inactivity.

4.2.3 Stress

Influence on weight

Stress is a natural and meaningful response of the body, which reacts to particular challenges by switching to "alert state". Whether this is experienced as being positive or negative, depends not only on the triggering stressor or stimulus, but particularly also on the subjective assessment of events and the availability of personal resources and strategies for coping with the stress-triggering situation.

Stress is considered to be one of the causes of overweight and obesity (Deutsche Adipositas-Gesellschaft 2007). It can influence lifestyle factors. For example, people who frequently react to stress by eating, can favour the

development of overweight. In children and adolescents, family circumstances, such as a divorce, illness, addictive behaviour in the family or neglect, can be stress factors of this kind. In a study involving almost 7,500 Swedish families, Koch, Sepa and Ludvigsson (2008) observed that children from families with more mental stress (e.g. blows of fate, child-raising stress, lack of social support, worries of the parents) have a higher risk of becoming overweight. All in all, however, the data regarding increased eating by children in case of stress are contradictory. It could be that the nature of the stressor and the individual stress reaction play a role. Stressors can also include people's dissatisfaction with their own weight and worries about their figure.

Stress also has an impact on the lifestyle factor "physical activity", but the relationship is reciprocal – after all, physical activity has a stress-relieving effect. A Norwegian longitudinal study among 15 year-old school pupils revealed a close connection between school-related stress and a low level of physical activity (Haugland, Wold and Torsheim 2003). Röthlisberger, Calmonte and Seiler (1997) confirm that sport has a positive effect on stressful experiences. According to Schmidt (2003), sporty adolescents demonstrate greater stress resistance than inactive adolescents.

Stress may possibly have a direct effect on the energy metabolism. According to the Selfish Brain theory, chronically severe stress can unbalance the brain's control centres that regulate its supply with energy. Although sufficient energy is available, the "regulator" reports a deficiency. The selfish brain stimulates the body to take in (more) nutrition (Fehm, Kern and Peters 2006).

Situation

All in all, it is assumed that stress has increased, and will continue to increase, as part of the drastic acceleration of life in modern societies. On the one hand, individuals have numerous opportunities for shaping their lives. On the other hand, a high degree of self-responsibility, performance orientation and flexibility is demanded (Beck 1986). According to epidemiological studies, even children and adolescents are already burdened by stress (Hampel and Petermann 2001a; Ziegler 1996) and display reactions in the areas of emotions (weak, tired), thoughts (inability to switch off), behaviour (less exercise, more smoking) and stress reactions (occur more rapidly) (Hofmann 2001). The rise in chronic illnesses, psychological disorders and psychosomatic complaints among children and adolescents (Hurrelmann 1994; Palentien 1997) suggests that they are exposed to a growing number of stresses that exceed their capacities for coping.

The triggers of stress vary, depending on age. While adolescents say they are stressed by internal and external factors, such as nervousness, overtaxing, pressure to perform and pressure of time, as well as disputes, external factors predominate among primary-school children, e.g. problems with parents or with friends (Kallus, Veit and Moser 2001). Stress reactions can be triggered not only by these psychological stressors, but also by physical stressors, such as noise and air pollution. The residential environment is of particularly great importance in this respect. As socially disadvantaged groups often also live in polluted urban neighbourhoods, it can be suspected that the social situation leads to a concentration of stress triggers and symptoms, via the choice of residential area.

Recommendation

Coping with stress, and being able to handle it better, calls for skills relating to identifying the problem, attempting to solve it, reaching a decision and testing/assessing solutions. These skills are acquired at an early stage in life, and children and adolescents should be supported in the process. The work must additionally aim to promote the development of their self-esteem and self-efficacy.

In addition, social factors contribute to alleviating burdens. For example, this implies making friends, developing a personal identity and gaining social recognition (Jerusalem and Mittag 1994). A good family climate is considered to be a significant protective factor. Good communication within the family can contribute to identifying stressors at an early stage, and to alleviating or preventing stressful situations by talking. Consequently, it makes sense to strengthen the communication skills of children and adolescents, and equally those of parents.

General life skills (self-perception, empathy, creative and critical thinking, decision-making and problem-solving capacity, coping with emotions and stress, communication and relationship skills) are important resources for being able to deal appropriately with everyday stresses and development-typical demands, and not taking recourse to risky behaviour. Therefore, health promotion measures must always include elements for strengthening the individual's ability to deal with stress and for promoting life skills. The BZgA provides a good overview of programmes and courses for promoting life skills in Volume 6 of the "Methods of Health Promotion" series, entitled "Gesundheitsförderung durch Lebenskompetenzprogramme in Deutschland", which was published in 2005 (Bühler and Heppekausen 2005).

Conclusion:
Stress and emotions can influence lifestyle factors, such as nutrition, physical activity or media consumption, and they may possibly also have a direct effect on the energy balance.
Therefore, the skills needed to cope with stress should be learned, and personal, social and family resources strengthened.

4.2.4 Consumption of electronic media

Influence on weight
The statistical correlation between television consumption/media consumption and the prevalence of overweight and obesity has been demonstrated in numerous studies (Gortmaker et al. 1996; Robert Koch Institute and BZgA 2008; Must and Tybor 2005) and is already evident in young children (Reilly et al. 2005) and children starting school (Graf et al. 2004). KiGGS confirms that the obesity risk of children with relatively high media consumption is twice as high. However, a distinction has to be made between the media involved. Boys between the ages of 11 and 17 who watch television for more than three hours per day, are more than twice as often obese. The influence on weight is not so pronounced in girls. Exactly the opposite applies as regards the use of computers and the Internet. Girls who use these media for more than three hours per day, are 2.8 times more often obese, while such a long duration of use has hardly any influence on the weight of boys (Lampert, Sygusch and Schlack 2007).

Klesges, Shelton and Klesges (1993) were able to show that the basal metabolic rate drops to a lower level when watching TV than during other sedentary activities. Although a further study was unable to confirm this, a significant dose-effect relationship was to be seen between increasing weekly viewing time and declining basal metabolic rate (Cooper et al. 2005). According to the authors, however, that alone cannot explain the relationships between TV consumption and weight.

Television consumption can have an impact on other lifestyle factors and, for example, contribute indirectly to an elevated energy intake. It appears that foods with a high energy density and sweetened drinks are consumed with particular preference in front of the TV screen (Blass et al. 2006; Bellissimo et al.

2007). Children who eat snack foods in front of the television every day have a higher BMI – according to Dubois et al. (2008), who investigated the habits of 1,549 Canadian children. They eat less fruit and vegetables, and consume soft drinks more often than children who never eat snack foods when watching television. Children who spend a lot of time sitting in front of the television are more exposed to advertising. The foods mainly advertised are those for which the scientific societies recommend moderate to sparing consumption (Deutsche Gesellschaft für Ernährung 2004). Advertising influences nutritional knowledge, preferences, buying behaviour and consumption. However, the extent of this influence is difficult to gauge (WHO 2006; Caroli et al. 2004).

It is logical to suspect that children who spend more time in front of the screen are less active, this being why their weight increases. But there appears to be time for both. A correlation between media time and sporting/physical inactivity only emerges upwards of a utilisation time of four hours per day, becoming statistically significant upwards of five to six hours (Lampert et al. 2007). Biddle et al. (2004) similarly point out that the time adolescents spend watching television and playing video games does not correlate negatively with the extent of physical activity. More recent electronic games that get the players moving, could even contribute to increasing the amount of exercise. However, there are currently no studies on this subject in children and adolescents.

Situation

Mobile phone, television, computer, games console, radio and other electronic media are part of the daily life of children and adolescents. 44% of 6 to 13 year-olds already have their own television, one in two has a games console, and one in six their own computer. Among 12 to 19 year-olds, 67% have their own television, equally many a computer and 45% a games console. The media are not only used during leisure time: both boys and girls do work for school on a computer every day, or several times per week. Boys, however, use their computers to play games almost as often, whereas computer games are far less attractive for girls (Medienpädagogischer Forschungsverbund Südwest 2006, 2007). The extent of utilisation of electronic media was investigated in the framework of the Health Survey for Children and Adolescents (KiGGS): 11 to 17 year-old boys use television, computer, video and/or games console 3.8 hours per day, the figure for girls of the same age being 2.7 hours.

There are no major, age- and gender-specific differences as regards watching television. The situation is different when it comes to the use of games con-

soles, computers and the Internet: boys use them more often and for longer periods of time. Roughly one boy in five spends one to two hours per day sitting at a games console – in contrast, only 4.3% of girls do so. 22.8% of 14 to 17 year-olds occupy themselves with a computer for more than three hours per day. Most girls use one for roughly 30 minutes per day.

Differences are to be found as regards the media consumption of children from socially disadvantaged families or families with an immigrant background. Above all, boys from families with a low or middle social status, or with an immigrant background, are among the intensive users of audiovisual electronic media. Among girls, a low social status is accompanied by longer television/video viewing times. The differences in computer/Internet utilisation between girls with and without an immigrant background are not statistically significant (Lampert et al. 2007).

Situations influence behaviour: a television in a child's room increases the viewing time, and thus the risk of overweight (Dennison, Erb and Jenkins 2002).

Recommendation

The recommendations of the BZgA, published in the brochure "Gut hinsehen und zuhören" ("Look and listen carefully"), point the way:

- Babies and small children should preferably not watch television.
- Preschool children between the ages of 3 and 5: 30 minutes of television, computer, games consoles, etc. at most.
- Primary-school children between the ages of 6 and 10: 45 minutes of television, computer, games consoles, etc. per day at most.
- Children up to the age of 13: 1 hour of television, computer, etc. per day at most.

Conclusion:

Statistical correlations can be demonstrated between the utilisation of electronic media and weight. The indirect influence on weight development is plausible.

Measures should aim to reduce inactivity, specifically TV/PC consumption.

4.2.5 Smoking during pregnancy

Influence on weight

Studies show that the incidence of obesity and overweight among children and adolescents is higher if the parents smoke. In this context, the influence of the smoking habits of the mother, especially during pregnancy, is slightly greater than that of the father (Robert Koch Institute and BZgA 2008; Al Mamun et al. 2006; Bergmann et al. 2009; Gorog et al. 2009; Kleiser et al. 2009; Nagel et al. 2009). The risk-increasing effect can still be demonstrated when other factors are also taken into consideration.

The underlying mechanisms in this context are unclear. One subject of debate is the influence of nicotine, which impairs the child's metabolism. For example, lower leptin concentrations were found in the umbilical cord blood of babies newly born to smoking mothers (leptin = hormone that mediates satiety signals) (Mantzoros et al. 1997). Low levels of this hormone may possibly favour the development of overweight. However, it can also be assumed that smoking is indicative of the parents generally not being very health-conscious.

Situation

Smoking is still very common. Roughly one-third of the population between the ages of 18 and 79 smoke – men slightly more often than women, younger people more often than older people. Only in middle age does the prevalence of smoking decline. Differences in smoking behaviour can be found as a function of social stratum. Men and women with a low social status smoke more often than those with a higher social status. Among pregnant women, too, the smoking rate is dependent on social status. While 20% of unskilled female workers smoke, only 4% of women in administration and management regularly light up a cigarette. The smoking rate among non-working, pregnant housewives is 17% (Deutsches Krebsforschungszentrum 2008). The social status is possibly a link to the influence of the factor "smoking of the mother" on the weight of the child.

Recommendation

- Women should not smoke while they are pregnant.
- Given the host of negative consequences, and taking the function as a role-model into account, smoking should generally be abandoned.

Conclusion:
Children and adolescents whose parents smoke are more often affected by overweight.
Measures should aim to encourage parents not to smoke – especially during pregnancy.

5. Summary

The need for, and the sense of, early universal prevention is not disputed. At the moment, however, it is totally unclear which prevention measures are effective and at what age they should best be implemented.

The preceding sections examined different aspects of health promotion and prevention of overweight in children and adolescents, and well as the factors influencing weight. If the conclusions are summarised, the following overweight-specific recommendations can be formulated for health promotion and primary prevention measures:

1. The measures should be implemented at the earliest possible time.
2. The principal aim should be to enable children to adopt a healthy lifestyle, and thus also to favour normal weight development. In this context, protective factors/life skills should be strengthened and the child-raising skills of parents promoted.
3. The target groups for corresponding measures are children, adolescents, parents and pregnant women, especially children and adolescents from families with a low socio-economic status and families with an immigrant background.
4. Preference should be given to the setting approach (child day-care centre, school, family, youth centre, club).
5. Behavioural prevention measures should integrate situational prevention.
6. The content elements can address nutrition (including breast-feeding), exercise, less TV/media consumption, better handling of stress, as well as not smoking during pregnancy.

6. Outlook

For the first time, this specialist booklet presents criteria that can be used as a basis for systematically assessing, and also planning, health promotion and primary prevention measures in connection with overweight in children and adolescents. They additionally offer the possibility of systematic and methodologically standardised documentation of selected criteria. This is necessary in order to gain an overview of the quality and quantity of the measures implemented in Germany, and furthermore to describe Good Practice models. The implemented measures could be documented and evaluated in a further step, in order to obtain information relating to the short- and long-term effectiveness of the measures used, and thus relating to success predictors. There is currently no systematic survey of, and no evaluation of the effect of, measures existing in Germany in the context of health promotion and primary prevention of overweight in children and adolescents.

II.

QUALITY CRITERIA FOR HEALTH PROMOTION AND PRIMARY PREVENTION MEASURES IN CONNECTION WITH OVERWEIGHT IN CHILDREN AND ADOLESCENTS

1. Preamble

Proof of quality and effectiveness is increasingly being demanded for health promotion and primary prevention measures. Various models (QIP, EQUIP, Good Practice Criteria in Health Promotion for the Socially Disadvantaged, etc.) geared to health-promoting measures in general have been developed since the 1990s. The criteria presented here are based on these models.

What are the goals of the Quality Criteria for Health Promotion and Primary Prevention Measures in Connection with Overweight in Children and Adolescents?

The aim of the criteria is to assure and further improve the quality of health promotion and primary prevention measures in connection with overweight in children and adolescents. They define a certain quality standard in this field of work and make it easier to compare measures adhering to this standard. In this way, they can promote findings regarding what makes health promotion and primary prevention measures in connection with overweight in children and adolescents successful. Good Practice measures can be identified.

For which measures are the Quality Criteria suitable?

The present criteria target any and all measures and development processes designed for health promotion and primary prevention in connection with overweight in children and adolescents. The method for implementing the measures can be a setting approach, an individual approach or a campaign.

Regardless of their age, people cannot be considered in isolation from systems and organisations where they live, work, engage in sports, etc. The decision as to whether they remain or become healthy is taken in families, child day-care centres, schools, clubs and societies, neighbourhoods, etc. Consequently, health promotion measures should also always have the aim of further developing these organisations in the spirit of good health. Projects of limited duration and content can certainly trigger this process. However, the sustainable success of health promotion, as a new task for society, makes it necessary to position the subject of health in organisations – and not to get stuck at the level of health education, but to develop towards healthy organisations. Individual measures are then integrated in a health-promoting concept of the organisation. Networking creates health-promoting neighbourhoods, cities, regions, etc.

Consequently, consideration should also be given in every measure to the development of the system/organisation as a process of self-change. (More information on the subject of organisational development as a quality dimension in health promotion can be found in Grossman and Scala 2001).

Who can use the Quality Criteria?

The Quality Criteria offer decision-makers at different levels a possibility for assessing measures. The quality of a measure can be examined both by outside parties (e.g. financial decision-makers) and from within. The decision-makers include decision-makers in ministries, health insurance funds, municipal and district administrations, and associations, on the one hand, and decision-makers in child day-care centres (e.g. funding organisation or management), schools (school conference), clubs and societies (e.g. executive committee or division management), etc., on the other. For the latter, the Quality Criteria also serve as a planning aid. Particularly during the planning phase, the Quality Criteria are useful for ensuring that all the important points and steps of the process that a measure goes through are included in the considerations from the outset. Anyone using the criteria in the planning phase should not worry about their outcome-oriented formulation, but "translate" them with an eye to the future.

Moreover, the Quality Criteria can serve as a basis for an exchange between all contributors regarding the quality of the measure.

2. Overall process of a measure

The model shown in Fig. 3, on which the present Quality Criteria are based, follows the systematic course of an entire measure. It makes it clear that the term "measure" is not limited to the "pure" activity, the implementation of the content modules, but is interpreted more broadly and includes the entire process. An (overall) measure starts with the development of a common understanding and determination of the need. This is followed by planning (comprising definition of the target group, setting of goals, elaboration of a concept), practical implementation and the evaluation of outcome and process. The resultant findings lead to continuation of the measure, in the course of which determination of the need again comes at the start. This "development cycle" describes the entire procedure in the framework of health promotion and primary prevention measures. It is the basis for the structure of the present Quality Criteria.

- Development of a *common understanding of health* is the prerequisite for successful development of the concept and its implementation. The exchange between the parties involved answers the questions: What keeps us healthy? What does health mean for the participants personally, in their work, for the children, adolescents, families, etc.? What image does the subject of health have? What do we want to trigger?
- Every health promotion measure should start with an *analysis of the need,* the situation on-site, in the institution, and *stocktaking*. It marks the start of planning. It answers the questions: What is the local situation/starting point? Where do we stand? What is working well? Where could things be improved? What do we want to tackle?
- The *setting of goals* relates to determination of the target group, its special features, its selection, its integration and the definition of the goals. It answers the question: What do we want to achieve, and with whom?
- The *concept* considers every aspect of the measure, laying them out in writing. It is the basis for implementation. It answers the question: What concrete goals are involved, and how do we want to jointly achieve them?
- Of importance for *implementation* is the quality of the access channels, communication, the educational approach and the personnel, organisational, structural and financial framework conditions. Attention focuses on the

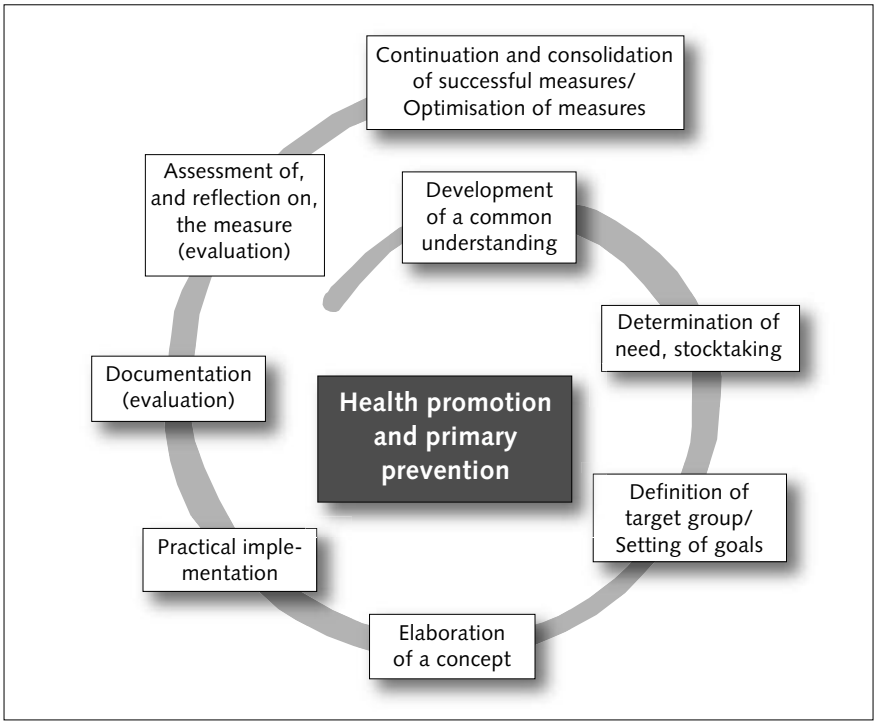

Fig. 3: Overall process of health promotion and primary prevention measures in connection with overweight in children and adolescents (BZgA Working Group: M. Cremer, C. Goldapp, C. Graf, D. Grünewald-Funk, R. Mann, U. Ungerer-Röhrich, C. Willhöft)

question: What conditions are necessary in order to implement the measure successfully?

- *Documentation/Evaluation* accompanies the implementation process – data are collected and analysed in the course of implementation and at the end of the measure. Evaluation can answer the question: Have we achieved our goal? What changes have occurred? Are we on the right track?
- Documentation and evaluation are the prerequisite for *assessment of the measure*, reflection on it and use of this assessment for further planning.
- *Successful measures are continued,* less successful ones need to be optimised. The measure is implemented in organisations in order to secure its sustainability. New measures are added, build on it and again begin with an analysis of the need. The health-related quality of the institution is gradually improved through organisational development.

3. The Quality Criteria at a glance

The background information regarding the individual Quality Criteria can be found after the checklist (see Pages 63–65). They explain the criteria, why they are important for health promotion and primary prevention measures in connection with overweight in children and adolescents, and point out specific aspects. The associated questions for reflection help to review the respective criterion in relation to the measure to be assessed, and thus to examine it in detail. They serve as a guideline, but need not necessarily all be considered.

Important note:
The Quality Criteria are formulated in outcome-oriented form, such as "has been proven, completed, described, determined". However, this type of formulation does not mean that the Quality Criteria can only be applied at the end of a measure – in retrospect, as it were – in order to arrive at a final assessment of the measure. The Quality Criteria are already useful during the planning phase, at which time they can serve as a checklist, in order to give consideration to all important points from the outset and also not lose sight of them later on. Anyone using the Quality Criteria in the planning phase of a measure will formulate them in a future-oriented form in their mind, e.g. "will be developed, described, determined". As the measure progresses, the point of view changes from future-oriented to outcome-oriented. After all, the things that were planned have been implemented.

		DEVELOPMENT OF A COMMON UNDERSTANDING	Criterion met? Yes	No	
1		**A common understanding of health, the factors influencing it, and the various levels of prevention, has been developed among all players, and has been documented.**	☐	☐	➡ p. 66

		DETERMINATION OF NEED, STOCKTAKING	Criterion met? Yes	No	
2	**A**	**The need for the measure for promoting health and normal weight development has been demonstrated and documented.**	☐	☐	➡ p. 68
	B	**Stock has been taken of existing health-promoting measures and structures in the institution/the setting[6] and in the environment.**	☐	☐	➡ p. 71

		DEFINITION OF THE TARGET GROUP/ SETTING OF GOALS	Criterion met? Yes	No	
3		**The target group has been defined against the backdrop of need.** *Possible primary target groups:* – Pregnant women and their social environment – Children and their social environment (family/carers) – Adolescents and their social environment (family and/or peers) – Parents/Carers – Multipliers	☐	☐	➡ p. 73
4		**The special features and strengths of the target group(s) have been identified and described.**	☐	☐	➡ p. 77
5		**The target group(s) is/are involved in the planning and implementation of the measure (participation).**	☐	☐	➡ p. 80
6		**The principal goals and sub-goals of the measure have been defined.** The fields of action for which goals should be specified are (mark ☒): ☐ Support of health-promoting nutritional behaviour (promotion of breast-feeding of babies) and creation of corresponding framework conditions ☐ Promotion of physical activity, and creation of corresponding framework conditions	☐	☐	➡ p. 82

		☐ Strengthening of mental health/strengthening of the capacity for handling stress, and creation of corresponding framework conditions ☐ Reduction of inactivity, specifically TV/PC consumption, and creation of corresponding framework conditions ☐ Promotion of not smoking during pregnancy, and creation of corresponding framework conditions ☐ Further module(s) ..... (Indicate and state reasons) **An integrated approach is pursued.**			

		ELABORATION OF A CONCEPT/ PRACTICAL IMPLEMENTATION	Criterion met? Yes	No	
7		**A concept for reaching the principal goals/sub-goals and/or target group(s) is available in writing.**	☐	☐	➡ p. 87
8		**Consideration has been given to avoiding stigmatisation and potential adverse effects.**	☐	☐	➡ p. 89
9		**The measure also gives consideration to activities of situational prevention[7].**	☐	☐	➡ p. 91
10	**A**	**The measure is of low-threshold[8] design.**	☐	☐	➡ p. 94
	B	**Access channels and communication methods have been selected in keeping with the target group(s).**	☐	☐	➡ p. 94
11		**The strengthening and further development of resources (personal, family, social) are a key element of the measure (empowerment).**	☐	☐	➡ p. 98
12	**A**	**People are available for practical implementation (internal and external personnel, other contributors).**	☐	☐	➡ p. 103
	B	**Competencies and accountabilities have been clarified and defined among all parties involved.**	☐	☐	➡ p. 104
	C	**Personnel and other contributors are sufficiently qualified in terms of content and communication methods, in keeping with the target group, the goals and the setting.**	☐	☐	➡ p. 105
13		**The structural and organisational framework conditions permit practical implementation and achievement of the goals.**	☐	☐	➡ p. 107
14		**The financial resources required for the measure have been secured.**	☐	☐	➡ p. 109

DOCUMENTATION (EVALUATION)			Criterion met? Yes	No	
15	**A**	**The content and procedure of the measure have been documented (process documentation).**	☐	☐	➡ p. 111
	B	**The extent to which the measure achieved the formulated goals has been documented (outcome documentation).**	☐	☐	➡ p. 111
	C	**Changes have been documented (behaviour, structures, process, etc.).**	☐	☐	➡ p. 111

ASSESSMENT OF/REFLECTION ON THE MEASURE (EVALUATION)			Criterion met? Yes	No	
16	**A**	**The anticipated goals and the outcomes have been compared, critically examined and assessed.**	☐	☐	➡ p. 114
	B	**The processes have been critically examined and assessed.**	☐	☐	➡ p. 114
17		**Outlay and impact have been compared and critically examined.**	☐	☐	➡ p. 117

CONTINUATION AND CONSOLIDATION OF SUCCESSFUL MEASURES/OPTIMISATION OF MEASURES			Criterion met? Yes	No	
18		**Relations and cooperation with further partners are fostered (networking).**	☐	☐	➡ p. 118
19		**Successful measures are continued in the organisation/ by the participants (consolidation).**	☐	☐	➡ p. 120
20		**The content and findings of the successful measure are communicated externally (transferability/transparency).**	☐	☐	➡ p. 122

6 People go about their activities in the structures of social spaces (= settings), e.g. in child day-care centres, schools, neighbourhoods, families, at the workplace, in clubs/societies.

7 The measure should also target a change in the social space, the economic environment, etc., e.g. cycle paths, good catering offerings, health-promoting institutions, etc.

8 Low-threshold measures set up no barriers impeding participation in the measure. The target group can reach them without difficulty.

4. The Quality Criteria

Development of a common understanding

Quality Criterion 1
A common understanding of health, the factors influencing it, and the various levels of prevention, has been developed among all players, and has been documented.

What does this mean?

Everyone participating in a measure, and affected by it, engages in an exchange on the topics indicated.

Anyone who wants to commit themselves to the subject of health, or the planned measure, is a valuable "comrade-in-arms". In order to develop a common understanding of health and the factors influencing it, the players enter into a health dialogue. This communication covers personal views, expectations, fears, the rules, values, attitudes, and also assessments, ideas and visions concerning the entire field of health, health promotion and weight development. In addition, communication takes place regarding the meaning of prevention, and agreement is reached on the measure. In accordance with the theory of salutogenesis developed by Aaron Antonovsky (1997), attention should primarily focus on what keeps people healthy, what protective factors are necessary to this end, and how they can be strengthened.

The criterion does not means that everyone in an organisation must enter into direct communication. The decisive aspect regarding participation is much more the extent to which the individual is involved in the planned measure and affected by it (e.g. management, parents, janitor, etc.). It is important and desirable that the target group also already be involved in this phase.

Why is the criterion important?

Informal structures have an effect on processes in organisations.

Every kind of measure also influences the organisation (e.g. child day-care centres, schools, youth centres) and leads to changes. The development of a common understanding of all concerned must mark the start of the road to a

"health-promoting organisation". After all, the change can only succeed if the participants jointly support it and are also ready and willing to change the culture of the organisation. Informal structures are at least as effective as the official roles and procedures in an organisation. Consequently, the development of a common understanding is very important for sustainable change.

Specific aspects of health promotion and primary prevention measures in connection with overweight in children and adolescents

Weighty prejudices

Overweight people of any age are often judged negatively. Prejudices are anything but rare, and are communicated consciously or unconsciously. Even teachers and parents sometimes have prejudices. Stigmatisation has emotional consequences, and they can be more serious than the consequences for physical health (Hebebrand and Simon 2008). A health dialogue directs attention away from weight as a deficit factor and towards the strengths of the child or the target group.

Questions for reflection

- How important is the subject of health promotion in the target group's setting?
- How often do the participants communicate about health?
- What personal experiences do the participants in the dialogue associate with health and weight?
- Are all the participants aware of this subject? Are they open to the measure? What motivation or barriers do they bring with them?
- In which areas of the organisation do the participants consider nutrition, exercise or stress regulation to be important?
- Are/were measures for promoting health prescribed (e.g. by the managerial level, externally)? If so, which?
- Are there already measures in the organisation that were developed on a grass-roots basis (e.g. in child day-care centres with the collaboration of parents)? If so, which?
- What does a "healthy child day-care centre", "healthy school" or "healthy club", etc. mean to the participants?

Determination of need, stocktaking

Quality Criterion 2 A
The need for the measure for promoting health and normal weight development has been demonstrated and documented.

What does this mean?

An analysis of the need primarily determines the starting point in the direct field of work of the measure. The situation should be documented and assessed as comprehensively as possible.

A general need has been documented empirically: health is the basis for children to grow up well, develop and get an education. It makes sense to promote it. This goes hand-in-hand with the promotion of normal weight development. In view of the high prevalence figures for overweight in childhood and adolescence, as well as the consequences for physical and emotional health, the need has been demonstrated on many occasions. Moreover, special risk groups have been identified (see Chapter 2.2).

The analysis of the need is based on these general findings, but examines the situation in the setting in which the measure is to take place, e.g. in the family to be supported, in the region, in the organisation or in the planned campaign environment. This includes an analysis of the frequency, distribution and development of certain behavioural patterns or health-related attributes, the consideration of special target groups, their environment, their strengths, etc. Development fields are determined in the framework of organisational development. The data from the professional literature facilitate classification and assessment of the respective situation.

Why is the criterion important?

An analysis of the need is the fundamental prerequisite for tailor-made measures.

Health is influenced by a host of different factors. Not every environment "needs" the same things. The analysis of the need specifies the starting point. It establishes whether particular groups have a particular need and where their strengths and development potentials lie. It thus also lays the foundations for the efficient employment of personnel and financial resources.

Specific aspects of health promotion and primary prevention measures in connection with overweight in children and adolescents

Examine local weight development

The prevalence figures for overweight in children and adolescents have generally reached a high level. Although there are signs of the growth rates coming to a standstill, a supra-regional standstill should not be misinterpreted and lead to prevention measures being stopped. After all, data from school entrance health examinations show that there are substantial regional fluctuations. There may be major differences from Federal Land to Federal Land, from neighbourhood to neighbourhood, from school to school, from club to club, etc. (see Chapter 2.2).

Examine factors influencing weight

The analysis of need should not be restricted to weight development. Above all, the risk and protective factors for normal weight development in the environment in which the measure is planned should be researched and analysed. They are extremely diverse. They include eating and exercise habits, psychological factors, the family situation, the environmental conditions, etc. Thus, it may make more sense to change one influencing factor or another in the environment in question.

Questions for reflection

The starting point can be assessed on the basis of available data (e.g. data from the public health office, school entrance health examinations, routine data of the health insurance funds, results of team meetings, findings obtained in practical work, exchange with the target group), or data are collected specifically for the setting in question.

Determination or review of data for assessing the starting point

- What data are available? What data should be collected?
- At what level are data available (data from the Federal Land, the region, the municipality, the neighbourhood, the child day-care centre/school, etc.)?

Description of the starting point/actual situation on the basis of the data

- To what extent are special groups represented in the contemplated field of work (e.g. children and adolescents with an immigrant background, children and adolescents from socially disadvantaged families, pregnant women, etc.)? How are they developing?
- How are the eating habits of the children and adolescents in the defined working environment (institution, neighbourhood, etc.) to be rated (e.g.

what is eaten, when, how and where; cultural differences, gender differences, degree of utilisation of offers of the organisation, breast-feeding period, etc.)?
- How is the exercise-related behaviour of the children and adolescents in the defined field of work to be rated (e.g. exercise times and space for physical activity, development of the motor skills of the children and adolescents, degree of utilisation of footpaths and cycle paths in the environment, cultural differences, gender differences, etc.)?
- How is the mental health of the children and adolescents in the defined field of work to be rated (e.g. exposure to stress, times and places for relaxation, etc.)?
- How can the media-related behaviour (TV/PC consumption) of the children and adolescents in the defined field of work be characterised (e.g. times, types of media, types of format consumed, etc.)?
- How great are the health burdens for children and adolescents in the region, the school, the child day-care centre, the family, etc.?

Analysis of the framework conditions
- What is the setting of the children and adolescents like? Which framework conditions for health-promoting nutrition, exercise, stress regulation, low media consumption, etc. can be identified in the defined field of work?
- Which players in the environment are conscious of the importance of local health promotion and primary prevention in connection with overweight in children and adolescents (e.g. paediatricians, midwives, health insurance funds, municipal politicians, educators, teachers, sports clubs, etc.)?
- In what way do the parents show an interest in the subject? How can the institution recruit the parents to join in the work?
- What are the strengths and weaknesses in the defined field of work/in the organisation in question? What is already working well? What would need to be improved to create health-promoting conditions and promote normal weight development?
- Is the measure part of an overall plan, e.g. an EU and WHO programme or IN FORM?

Literature review
- Has the professional literature been reviewed? If so, which (articles in professional journals or the journals of professional associations, possibly searches in corresponding databases, such as www.dimdi.de or www.pubmed.gov)?

Quality Criterion 2 B
Stock has been taken of existing health-promoting measures and structures in the institution/the setting and in the environment

What does this mean?

Taking stock involves investigating and documenting the local supply situation and the situation in the institution or the setting.

This includes the documentation of existing, local or regional activities in the field of health promotion and primary prevention in connection with overweight in children and adolescents: ongoing measures, current projects of limited duration and content, previously concluded projects in the respective subject area, existing "healthy organisations" (healthy school, healthy child day-care centre, etc.). However, taking stock also examines the own institution, the local setting. Existing health promotion activities and measures are reflected upon, the organisational structures are examined, and awareness of strengths and development potentials is aroused.

Why is the criterion important?

Gaps and unrealised opportunities can be identified, and the measure can be tailored exactly to this space. Synergistic effects can be exploited.

Needless to say, it is possible to learn from measures that are working successfully and to build on them. Being innovative does not always mean "re-inventing the wheel", but finding and practising new answers to weaknesses in prevention measures. In organisations, taking stock lays the foundations for stepping into additional development fields on the way to a health-promoting institution.

Questions for reflection

Investigating the supply situation

- What coordination agencies can be contacted in order to find out more about health-promoting structures in the region?
- What measures exist in the region for promoting healthy nutrition and sufficient physical activity, and for strengthening psychosocial resources in children and adolescents?
- Which local measures support young families?
- Who offers measures (sports clubs, counselling centres, schools, etc.)?
- Does the measure supplement the existing offers in the city, the region, etc.? What opportunities does the measure offer for the field of work?

Taking stock in the own institution/setting

- What health promotion activities are already in progress in the institution/setting in question?
- What can the participants in the institution/setting do to make the measures an integral part of daily life?
- How can the organisation/institution transition from a succession of health-related projects to a healthy institution/organisation, etc.?
- Is the measure coordinated with existing activities?
- Is there already experience with particular methods for addressing the target group?

Definition of the target group/Setting of goals

Quality Criterion 3
The target group has been defined against the backdrop of need.

Possible primary target groups:
– Pregnant women and their social environment
– Children and their social environment (family/carers)
– Adolescents and their social environment (family and/or peers)
– Parents/Carers
– Multipliers

What does this mean?

The target group at which the measure is aimed directly (primarily) is defined, as well as the target groups involved in the social environment (secondarily).

Children and adolescents are the ultimate addressees of all health promotion and primary prevention measures in connection with overweight in children and adolescents. However, the measure must not always be aimed directly (primarily) at children and adolescents. People in the environment of children and adolescents – parents, families, peers, etc. – are also open to consideration as primary target groups, because their role as models and child-raisers influences and shapes the behaviour of children and adolescents: they consciously or unconsciously communicate attitudes and values, etc. Multipliers (teachers, educators, training leaders, other education professionals, midwives, doctors, etc.) can likewise be primary target groups, because they work in settings where children and adolescents spend a relatively long period of time. They themselves serve as models, they can initiate and implement health-promoting measures in their field of work and their organisations. The health of the children and adolescents is then promoted indirectly. The concept of the measure – based on the analysis of need – determines which target group is to be addressed.

In addition to the primary target group, the secondary target groups in the social environment should be identified in the planning phase and integrated in the measure. The implementation of a measure often requires the support of numerous groups of persons (e.g. by involving the school management, janitor, parents, children, teachers, etc.).

Why is the criterion important?

A clear definition of the target group is the prerequisite for being able to formulate goals for the measure and for elaborating the concept.

The definition of the target group is the basis for analysing the lifestyle of the target group and precisely tailoring the strategy and concept of the measure accordingly. Defining a target group also makes it necessary to consider which inclusion and exclusion criteria are to apply, e.g. in the case of individual measures.

Specific aspects of health promotion and primary prevention measures in connection with overweight in children and adolescents

Target group: pregnant women

Pregnant women are open to consideration as a primary target group, because their nutritional status and weight gain during pregnancy can determine the weight development and metabolism of the child (see Chapter 4.2.1). Other lifestyle factors during pregnancy also have an impact, such as smoking. Pregnant women can, however, also be reached through midwives, doctors or other multipliers.

Target group: parents

Parents play a key role

Factors pertaining to health-related behaviour in the family and the family atmosphere determine the behaviour of the children and, according to analyses from the KiGGS study, play the greatest role in the development of overweight in the child (Robert Koch Institute and BZgA 2008). It thus always makes sense to take the family environment into account in measures for children and adolescents, and to systematically involve the parents. However, parents can also be the primary target group of a measure.

Parents influence the nutritional, exercise and media habits of their children at several levels: they are role models, they make rules and check compliance with them. They additionally enable access to corresponding offerings. Together with emotional support, encouragement and confirmation, they are important determinants of family behavioural patterns that have an influence on health (Gruber and Haldeman 2009). Understanding and acceptance of these lifestyle factors can be increased in children in this way (Haerens et al. 2008; Keimer, Hebestreit and Hassel 2008). Studies reveal, for example, that more frequent family meals favour desirable eating habits (more fruit, vegetables, cereals, high-calcium foods, less soft drinks) (Hill 2002, also summarised in Golan and Crow 2004), or that offering fruit and vegetables at an

early stage can promote the preference for these foods and thus their consumption (Patrick and Nicklas 2005).

As regards the promotion of exercise-related behaviour, a number of authors are of the opinion that, above all, parental support (transport to activities, encouragement in the choice of activities, watching of children during their activities, appreciation of physical activity) plays a major role for children (Trost et al. 2003; Golan and Crow 2004; Lindsay et al. 2006; Davison et al. 2008; Trudeau, Laurencelle and Shephard 2004).

For example, studies on the effectiveness of early-childhood education in child day-care centres show how much sense it makes to support and involve parents. Family-building offerings and intensive cooperation with parents had a positive impact: they were able to improve the quality of the family learning environment (Sylva et al. 2003). Parents can be involved in different ways, from passive cooperation (agreeing to a measure) to changing their own behaviour. In the context of a low-threshold kindergarten project, Klein et al. (2010) were able to show that involvement of the parents leads to a reduction in BMI in the children.

Interested target group: young families

Young families are particularly motivated and interested. A representative survey in maternity hospitals in Germany revealed that roughly half of the young families would gladly or definitely like to receive counselling on a wide range of topics. Examples of these topics include optimum nutrition, long-term health and a long life (Bergmann et al. 2009).

Target group: adolescents

As children grow older, the influence of the parents declines and the peer group of people of the same age becomes more important. Depending on its make-up and activities, the peer group can be a risk factor or a protective factor as regards health-promoting behaviour. However, the lifestyle of the parental home still has a defining influence (Gerhards and Rössel 2003). For instance, the main meals continue to be eaten mainly at home. Eating plays a subordinate role within the peer group. What is more important is being together with people of the same age and status. The food consumed by adolescents away from home is primarily limited to sweets and fast food (Bartsch 2008).

Measures targeting adolescents should include the influence of their peers. The peer education approach ascribes special importance to persons of the

same age. They share health-related information, values and behaviours with other members of the group of the same age and status, and are addressed and involved as "lay multipliers" (for more on this subject, see: BZgA 2002).

From the 0th to the 100th percentile

Since health promotion and primary prevention measures are addressed to "everyone" in a setting, a region, etc., the target groups of the individual measures include children, adolescents and adults with very different BMI values that can range from the 0th to the 100th BMI percentile. Selection of the target group with a view to weight or risk factors for overweight is excluded by definition.

Questions for reflection

Definition of the primary target group

- After reviewing the existing/collected data/findings, which target group is most important for health promotion and the prevention of overweight in children and adolescents in the defined field of work? What data/findings were taken into account when defining the target group?
- Which criteria served as a basis for selecting and delimiting the target group? What is their justification?
- What special features play a role when selecting the target group (age [small children, primary-school children, adolescents, etc.], state of health)?
- How high is the percentage of children, adolescents, families with an immigrant background?
- How high is the percentage of socially disadvantaged children, adolescents, families?
- How large will the target group be in our field of work?

Definition of additional target groups

- For whom is the measure of interest? Who could/should be involved?
- Which groups in the environment of the target group should be considered/integrated?
- What have the players done to make parents feel involved as partners?
- How can peers be involved?
- Which groups/persons must be taken into account if the organisation is to develop towards a healthy organisation?
- How can groups be "invited" to take part in developing the organisation?

Quality Criterion 4
The special features and strengths of the target group(s) have been identified and described.

What does this mean?

A close look at the target group, its lifestyle, its strengths and its special features is necessary.

Special features means all attributes that characterise the target group in detail, distinguish between target groups, etc. One of these attributes is gender. Additionally of importance are age or age range, physical condition (e.g. disability or illness), religious and ethical orientation, ethnic and cultural attributes, or education. Also among the special attributes of target groups are, however, factors that are more determined by the parental home or the living environment of children and adolescents – such as social status, income, norms, values, setting (infrastructure, leisure-time options, available foods, etc.), health and understanding of health, motivation and other special features of the lifestyle. The measure builds on the strengths of the target group (the children and adolescents, parents, pregnant women, etc.). They include abilities, experience, attitudes, knowledge, behaviour, family resources (such as the child-raising behaviour or support of the parents) or social resources (such as networks through friends, in the neighbourhood) that protect and promote health (for resources, see also Quality Criterion 11).

Why is the criterion important?

To tailor the measure to the needs of the target group, its special features and strengths must be known.

Not everyone benefits equally from a measure. Something that is suitable for boys, may not be at all appropriate for girls. Measures that reach children with a high social status, need not necessarily work in children from disadvantaged families. For example, data from the KOPS (Kiel Obesity Prevention Study) show that a low social status makes preventive and therapeutic measures more difficult (Langnäse et al. 2004). Health promotion and primary prevention measures do not involve selection, and players always encounter mixed groups in the settings and organisations, which can also include the municipal sector, for example. For instance, children from different cultural groups and of different social statuses are usually encountered in schools. In turn, this mixture varies from one school class to the next.

A measure needs a fundamental understanding of the needs, aspirations and expectations of the target groups. Otherwise, all or some of them will stay away, or their attitudes and lifestyles will more likely be confirmed than changed. If measures show understanding for the target groups and build on existing strengths and their diversity, the measures are more readily accepted and the target groups are more likely to be willing to cooperate on a permanent basis, where necessary. Particularly when it comes to people who are hard to reach, it is important to be familiar with their special features, aspirations and health-related lifestyles, in order to be able to address and motivate them. Consequently, target groups must be defined accurately, and their diversity must be taken into consideration in concepts and measures.

Specific aspects of health promotion and primary prevention measures in connection with overweight in children and adolescents

Social status and immigrant background correlate with weight

The incidence of overweight differs between social groups. Children and adolescents from families with a low social status are more frequently overweight than children and adolescents from families with a higher social status. The schooling of the parents, their professional position and the net household income – all these factors have an influence on the occurrence of overweight. Similarly, children with an immigrant background are more frequently overweight. But there are differences: children from families of Turkish origin, boys from Poland and girls from Central and Southern Europe are particularly often affected.

Differences in social status cannot completely explain the differences between children with and without an immigrant background (Robert Koch Institute and BZgA 2008). According to the results of the HTA analysis (Fröschl, Haas and Wirl 2009), which examined the effect of measures for preventing obesity in children and adolescents, gearing measures specifically to these target groups is more likely to achieve positive effects than more broadly based studies or measures that are non-specific in terms of social status.

Social status and immigrant background have an impact on lifestyle factors

The cultural background has an influence on nutrition, attitudes towards exercise, sport, family, ideas regarding body image, etc. For example, traditional, high-fat dietary habits may have strong roots, and "well-fed" can be equated more with "healthy", meaning that "normal-weight" children are then considered to be "too thin" (Robert Koch Institute 2008). However, general statements cannot be made. There can even be major differences within the various

ethnic groups, depending on the country and region of origin, the form of immigration, the residential status, level of education, degree of integration, etc.

Relationships can also be found between social status and lifestyle (see Introduction, "Lifestyle factors"). The causes are diverse. For example, economic/financial, structural, psychosocial and sociocultural factors can play a role in the emergence of a stratum-specific diet. These factors include gainful employment, food prices, good or poor accessibility of fresh foods, self-efficacy expectations, social support, an awareness of healthy eating, etc. (Muff and Weyers 2010).

The influencing factors and their interrelationships are diverse. Consequently, a "close look" at the envisaged target group is indispensable. Representatives of the target group can help become better acquainted with sociocultural differences and the resources of the target group.

Questions for reflection

Special features of the target group

- What social, cultural, health-related special features exist in the target group?
- Where does the information regarding the special features and the sociocultural environment of the target group come from?
- What resources can the target group contribute (time, abilities, knowledge, family support, social networks, etc.)?
- What expectations, and possibly fears, does the target group have?

Consequences for designing the measure

- Are the special features of the target group taken into account (communication, teaching materials, address, access, etc.)?
- How is the target group invited to participate?
- Which culture translators can be integrated in the case of target groups that include immigrants?
- Which multipliers can mediate and have good access to the target group or enjoy its confidence? How can they be integrated?

Quality Criterion 5
The target group(s) is/are involved in the planning and implementation of the measure (participation).

What does this mean?

The term "participation" denotes a cooperative partnership with the target group.

Participation can take on different forms (after Wright, Block and von Unger 2008):

Stage 1: Instrumentalisation (target group members participate only pro forma and have no say)
Stage 2: Instruction (the position of the target group is perceived, but its opinion is not taken into consideration)
Stage 3: Information (the opinion of the target group is taken into consideration to increase acceptance of the measure)
Stage 4: Hearing (the decision-makers are interested in the point of view of the target group)
Stage 5: Involvement (the decision-makers seek advice from members of the target group)
Stage 6: Codetermination (members of the target group have a say)
Stage 7: Partial transfer of decision-making competence
Stage 8: Decision-making authority
Stage 9: Self-organisation (in the framework of consolidating measures)

The more the target group is involved, the better it is for the measure, its acceptance and/or effectiveness. Real participation takes place in Stages 6 to 8. Among other things, group skills and the assertion of personal skills, aspirations and needs have proven to be useful skills enabling target groups to participate.

Why is the criterion important?

Participation strengthens individual skills, and the target group is enabled and motivated to contribute to shaping a health-promoting environment.

Merely informing or educating the target group is not enough (Rosenbrock 2005). Rather, the target group should at least be heard or actively involved in the planning work. Studies on the effectiveness of early-childhood education (EPPE and REPEY) revealed that child day-care centres were more effective if, for example, great importance was attached to self-determination and co-

determination of the children, and if there was a balance between the offerings of professionals in the child day-care centres and those the children selected themselves.

Questions for reflection

Degree of participation

- Is the target group actively involved in the planning work?
- How do target groups or affected parties cooperate in the measure (in which steps, in which decisions and in what forms of work)?
- Which stage of participation has the measure currently reached? How does participation take place?
- Which stage of participation is possible (in the phases of planning, implementation, evaluation, etc.)?

If Stage 1 to 3 of participation is reached

- Why is the target group probably showing so little commitment?
- If target groups or affected parties do not actively contribute to shaping the measure, what are the reasons for this?
- What is probably particularly close to the hearts of the target group?
- How can the target group be actively involved, where appropriate? How can the target group be reached better?
- Can those contributing to the measure recall having good contact with the target group? What made it so good?

If Stage 4 of participation and higher is reached

- What expectations does the target group have?
- How was it "discovered" (by analysis of the need, by talks with the target group, by observation, through experience)?
- How does the measure show understanding for the expectations of the target group?
- Is the offering initiated by the target group itself?

Quality Criterion 6
The principal goals and sub-goals of the measure have been defined.

The fields of action for which goals should be specified are (mark ☒):
☐ Support of health-promoting nutritional behaviour (promotion of breast-feeding of babies) and creation of corresponding framework conditions
☐ Promotion of physical activity, and creation of corresponding framework conditions
☐ Strengthening of mental health/strengthening of the capacity for handling stress, and creation of corresponding framework conditions
☐ Reduction of inactivity, specifically TV/PC consumption, and creation of corresponding framework conditions
☐ Promotion of not smoking during pregnancy, and creation of corresponding framework conditions
☐ Further module(s) ..... (Indicate and state reasons)
An integrated approach is pursued.

What does this mean?

Goals specify what is to be achieved, to what extent, by when and in whom in a defined field of action. Principal goals describe the higher-ranking aims of the project. Sub-goals belong to the level of the measures.

Goals can be formulated for different project levels on the basis of the analysis of the need and stocktaking. Example: in the setting of a child day-care centre or a school, a principal goal can be to promote a balanced diet and sufficient exercise for children in order to avoid overweight. The sub-goals relate to the individual measures and are geared to understanding, knowledge, motivation, behaviour and situations (see also www.gesundheitsziele.de, National Health Target "Growing Up Healthily").

Goals should not simply be described. A "smart" formulation is desirable in order to be able to check goal achievement (see below for examples):
"s" – specific, i.e. situation- and person-oriented
"m"– measurable, i.e. verifiable
"a" – (modified) augmenting the strengths and development potentials of the target group
"r" – realistic, i.e. of manageable scope and limited content
"t" – timed, i.e. temporally fixed

Health covers a very wide range of topics. When organisations set out to become a "healthy institution", they cannot tackle everything at once. Consequently, it makes sense to create a reference framework[9] for documenting and classifying the goals formulated on the basis of the analysis of the situation. That helps not to lose sight of them and to interweave the individual measures and processes. In addition, it makes sense to formulate core messages on the basis of the sub-goals. They make it clear whether the number of goals is realistic, or whether the measure is overburdened with "good intentions" and goals, making achievement of the goals questionable from the outset.

Why is the criterion important?

Definition of the goals is indispensable for every health promotion and primary prevention measure, in order to be able to specifically target and verify them.

Moreover, the measures are derived from the goals (not vice versa). They are the road that leads to the goal. The messages are formulated, and the verification indicators and methods specified, on the basis of the goals. Without a defined goal, the results cannot be assessed.

Specific aspects of health promotion and primary prevention measures in connection with overweight in children and adolescents

Preference for integrative concepts

Exercise, nutrition, media consumption, stress regulation and smoking are fields of action that characterise the lifestyle. They reciprocally influence each other and are, in turn, influenced by other factors (see Introduction). Health promotion and primary prevention measures in connection with overweight in children and adolescents can have their starting point in these fields of action. An integrated approach has advantages: children and adolescents can gain access to a health-promoting lifestyle in different ways (Kolip 2004; Thomas et al. 2004). An integrative approach of this kind was developed by the BZgA, for example, and is implemented in different settings (Mann-Luoma et al. 2002). For SHI prevention measures relating to child day-care centres and schools, the National Association of Statutory Health Insurance Funds likewise recommends a multimodal orientation (at least two topics from exercise, nutrition, relaxation/stress regulation, addiction prevention and general life

9 A reference framework gives schools, for example, a complete overview of the areas and attributes that are of key importance for the development of the organisation. For more on this subject, go to http://www.bvpraevention.de/cms/index.asp?inst=bvpg&snr=7179.

skills) (Arbeitsgemeinschaft der Spitzenverbände der Krankenkassen 2008). The goals should preferably be described not only at the behavioural level, but also at the situational level.

Guiding recommendations for content modules

Support of health-promoting nutritional behaviour

– Measures for children and adolescents: Nutritional recommendations of the Research Institute of Child Nutrition (FKE, www.fke-do.de) and quality standards of the German Nutrition Society (DGE) for catering in day-care institutions for children and for school catering, as well as the latest, evidence-based guidelines or recommendations of scientific societies. Calorie-reduced types of diet, formula diets, medication or surgical interventions may not be part of the concept/measure.
– Measures for pregnant women: Recommendations of the Research Institute of Child Nutrition (FKE) for pregnant women.

Breast-feeding

– Recommendations of the network "Healthy Start – Young Families' Network": Infants should be breast-fed in the first six months of life, and exclusively until at least the start of the fifth month.

Physical activity (various types of exercise, everyday exercise, sport, etc.)

– Recommendations according to the children's activity pyramid: Every child should be physically active for two hours per day (intensively on the move for 30 minutes per day – club and school sport, as well as all other physical activities that make children sweat and get them out of breath; moderately on the move for one hour – e.g. free games, romping about with friends outdoors, catching games; occupied for 30 to 60 minutes with everyday activities – e.g. climbing stairs, going to school, helping in the home) (Graf et al. 2007).

TV/PC consumption

– Recommendations of the BZgA on media utilisation (brochure "Gut hinsehen und zuhören" [Look and Listen Carefully] 2009, e.g. media utilisation for 6 to 10 year-olds: 45 minutes of television, PC, consoles, Game Boy, etc. per day at most; 60 minutes of audio media at most).

Strengthening of stress handling skills

– There are currently no concrete recommendations from scientific societies on this subject. There is a significant need for research in relation to the

prevention of overweight. However, the strengthening of stress handling skills is undisputed as an elementary component of health promotion. It is included in www.gesundheitsziele.de, National Health Target "Growing Up Healthily" (Altgeld et al. 2010) as part of the promotion of life skills.

Promotion of not smoking during pregnancy

– For recommendations, see the BZgA portal www.rauchfrei-info.de (including the brochure "Rauchfrei in der Schwangerschaft" – Smoke-Free During Pregnancy).

Important note!

The possibilities for implementing and targeting these recommendations in the various fields of action are extremely diverse; the range is far greater than for therapy programmes for overweight children and adolescents, for example. Concrete proposals regarding the content of the modules of measures cannot be given in this context. Suggestions, ideas, project descriptions and recommendations can be found in publications by the respective scientific societies, the aid infodienst service (www.aid.de) or the materials of the BZgA (www.bzga.de), the DGE (German Nutrition Society), the National Action Plan IN FORM and the pilot project "Better diet. More exercise. KINDERLEICHT Regions".

Questions for reflection

Definition of goals

Principal goal:

- What is the principal goal of the measure? Was it developed in a joint discussion with all the parties involved?
- What is the measure supposed to achieve in whom (expanded knowledge, impression of new behavioural patterns, development of life skills, shaping of the material environment, changing of the organisation, etc.)?

Sub-goals:

- What sub-goals are to be achieved during the process?
- What is supposed to change in whom?
- What parameters are used for measuring the goals?
- What resources can the target group call upon in order to achieve the goals?
- By when are the sub-goals and the principal goal to be achieved?
- Which sub-goals are to be achieved in the short term, which in the longer term?

- How are the sub-goals classified in the framework of organisational development?
- What core messages were formulated from the sub-goals?
- What number of core messages makes sense in the framework of the measure? (Less is often more!)

Integration of fields of action:
- Which fields of action are covered by the measure?
- How open, how closed is the measure to an integrative approach?
- Do the different fields of action impact the same persons, or do they impact different persons?

Examples of goal formulations
The following examples point the way in terms of "smart" formulation, not as regards the content or goals mentioned in them.

- *__ months after the end of the measure, the children at the child day-care centre are offered a breakfast complying with the DGE standards for catering in day-care institutions for children.*
- *After the end of the measure, there are __ exercise breaks à __ minutes per morning in __% of the classes taking part in the measure.*
- *__% of the children aged 5 and over are physically active for at least 60 minutes per day at the end of the measure.*
- *__% of the participating adolescents have cut their PC consumption by one-quarter at the half-way stage of the measure.*
- *__% of the mothers exclusively breast-fed at least up to the start of the fifth month in the framework of the measure.*
- *After the end of the measure, __% of the education professionals combine teaching subjects with exercise.*

Elaboration of a concept/Practical implementation

Quality Criterion 7
A concept for reaching the principal goals/sub-goals and/or target groups is available in writing.

What does this mean?

A concept systematically formulates every aspect of a measure, presenting it in writing. It is the basis for implementation of the measure.

A concept encompasses the description of all the following points. They are all already taken into consideration in the planning phase:

- Joint definition and documentation of the common guiding concept on which the measure is based
- Starting point and need, as well as the results of stocktaking
- Target group and its special features, as well as the degree of participation (development status of the organisation)
- Goals and sub-goals, indicating priorities
- Description of the content modules (breast-feeding, nutrition, exercise, etc.; brief description of the effective approach and its grounds, scope, content and time share of the modules, methods, communication, access channels, possibly existing evidence of effects in the intended target group)
- Project plan
- Necessary and existing framework conditions (materials, premises, personnel, time requirement, financial resources)
- Necessary and possible structures (existing and envisaged cooperation projects and networking with other local players)
- Envisaged evaluation steps
- Necessary documentation processes and description of how optimisation loops are planned (process quality)
- Time of assessment
- Consolidation strategy (see Quality Criteria 19 and 20)

Anyone who adopts a fixed programme, or uses it as a model, should give reasons for why it is particularly suitable for achieving the goals and for the field of work. In addition, a description is needed of what parts, materials and steps are possibly to be modified, and how appropriate implementation of dependable quality is ensured on-site.

Why is the criterion important?

The systematic, written documentation of every aspect of a measure makes it necessary to consider and plan a measure realistically in advance. A concept makes the measure transparent for the participating players, or when applying for support.

Elaboration of the concept leads to precise formulation of the goals and the review methods. It clearly shows whether goals and measures sensibly build on each other, whether the timing and the achievement of the sub-goals are planned realistically. It moreover constitutes a binding basis for the joint work of the different players in a measure. Above and beyond this, a concept is necessary for applications for funding. Not least, the target group (the people taking part in the measure) can obtain information regarding the measure on the basis of the concept, or already be involved in elaborating the concept and helping to design it.

Questions for reflection

- Does the concept include all the points mentioned above? Which are missing? What further information is necessary in this respect?
- What share of the time is accounted for by the individual modules/elements, relative to the overall measure?
- What difficulties or unexpected events could occur when implementing the measure? How are they to be dealt with?
- What methods are used for regular quality assessment?
- How are the results documented?
- How is the documentation evaluated?

Quality Criterion 8
Consideration has been given to avoiding stigmatisation and potential adverse effects.

What does this mean?

Discrimination and possible side-effects are consciously examined.

A stigma is a characteristic that makes a person appear different, conspicuous or impaired. This applies to every kind of discrimination on grounds of weight, figure, social status, gender, cultural or other special features of the target group. Concentrating mainly on the deficits of a target group, rather than its resources, involves the risk of intensifying existing prejudices.

The potential adverse effects of health promotion and primary prevention measures in connection with overweight can include a disturbed body image, disturbed eating habits, underweight or increased overweight, etc.

Why is the criterion important?

Players should always examine their actions critically. This makes it possible to prevent adverse effects, or to find an appropriate response if they do occur.

Players should always be sensitive to the possibility of stigmatisation, particularly when working with inhomogeneous target groups, such as are encountered in health promotion and primary prevention measures. Accordingly, the measures are designed in such a way that these side-effects can be avoided. An approach that strengthens the resources of the target group helps to counteract stigmatisation. It focuses the players on the positive aspects, the strengths of the target group, as a result of which they abandon the deficit-oriented way of thinking, which primarily reduces risks and eliminates weaknesses.

Specific aspects of health promotion and primary prevention measures in connection with overweight in children and adolescents

Discrimination against overweight impacts people of normal weight

Overweight is generally rated negatively. Stigmatisation already starts at kindergarten age, but the burden mainly increases from puberty onwards (Eschenbeck et al. 2009). Teasing weighs on the soul, it can gnaw at self-esteem and impair self-confidence (Hölling et al. 2008). It can result in overweight and obese people withdrawing even more (Dyer et al. 2007).

The negative rating of overweight has an impact on people's self-perception of their own weight, and even subjectively perceived overweight greatly impairs the quality of life. The analyses of the Health Survey for Children and Adolescents (KiGGS) indicate that objectively normal-weight persons who subjectively consider themselves "much too fat" – and that is almost 50% of the normal-weight girls interviewed and 26% of the normal-weight boys – have drastically reduced self-esteem and a lower quality of psychological and family life (Kurth and Ellert 2008).

Promoting health, not constantly talking about weight

Hebebrand and Simon (2008) noted an increase in the stigmatisation of overweight, which often causes people more suffering that the medical consequences. Prevention programmes that constantly address overweight could further encourage this stigmatisation. Consequently, health promotion and primary prevention measures in connection with overweight in children and adolescents should consciously avoid focusing on the aspect of overweight. Instead, they should "strengthen strengths" and thus promote health.

Examining adverse effects

Other adverse effects – such as possible disturbances of body image, disturbed eating habits or underweight – must likewise not be encouraged by corresponding measures. Up to now, too little attention has been paid to these adverse effects in programmes for preventing overweight (Doak et al. 2006; Simonetti D'Arca et al. 1986).

Questions for reflection

- Which adverse effects could be induced by the measure, and how are they detected?
- How do the people working on the measure judge overweight people – consciously and unconsciously?
- In what way do the people working on the project address the health-related consequences of overweight?
- How are the people working on the project supported in initially focusing not on the problems and difficulties, but on the strengths and resources?
- What measures have been developed to relieve the burden on children with health impairments?
- How can success be achieved in strengthening the self-efficacy expectations of the affected persons/the target group? ("I believe in you – you'll manage the changes you want to make!")

Quality Criterion 9
The measure also gives consideration to activities of situational prevention.

What does this mean?

Situational prevention targets the environment. This includes the spatial and social framework conditions, but also the economic, technological environmental or statutorily prescribed framework conditions.

The spatial and social environments in which children and adolescents grow up are their families, the neighbourhood, the municipality, the child day-care centre or school they attend, the club where they engage in sport, etc. City construction measures – such as more cycle paths, a healthy lifestyle in the family, a good catering offer in the child day-care centre and/or school, examples of health promotion in institutions – are instances of situational prevention.

Why is the criterion important?

Situations can create incentives or set up barriers as regards practising health-promoting behaviour. Consequently, situational and behavioural prevention must interact in order to achieve effective health promotion and primary prevention.

Many experts see the changing of framework conditions as being a key to success. For example, the National Association of Statutory Health Insurance Funds recommends that equal weight be given to situational prevention (health-promoting redesign of structures and procedures in child day-care centres and schools) and behavioural prevention (Arbeitsgemeinschaft der Spitzenverbände der Krankenkassen 2008). Bray (2004), for example, observed how effective situational prevention can be: appeals to practise caries prophylaxis were/are hardly successful when addressed to individuals and families. Only the availability of fluorine tablets and the fluoridation of water supplies achieved a breakthrough. The Federal Parents' Council (Bundeselternrat), for example, found that conversion measures allowing greater freedom of movement within the institution have a particularly sustainable effect on the exercise behaviour of the children (Bundeselternrat 2006).

Specific aspects of health promotion and primary prevention measures in connection with overweight in children and adolescents

Examining overweight-promoting structures

Nutritional, exercise or leisure-time behaviour is not just a matter of the individual habits of a child or a family. It is influenced by external situations. This

already applies to nutrition and development in the womb and in the first few months of life. Even in this early phase, situations (e.g. overnutrition or smoking during pregnancy, the mother's decision to breast-feed) have an impact on later weight development (see Chapter 4.2.1).

In Germany, children and adolescents grow up in an environment where a role is played by excessive supply, abundance, and social attitudes and values that attach great importance to consumption, enjoyment and joy of life (Müller, Reinehr and Hebebrand 2006). Inexpensive food is always available everywhere, and it is easy to take in calories at any time. There is a growing trend for adolescents to eat away from home (Deutsche Gesellschaft für Ernährung 2004). This is paired with a lack of physical activity. Gardens, parks, sports and leisure facilities are places for exercise and play, and can offer prerequisites for being able to be active (Spurrier et al. 2008; Popkin et al. 2005; Floriani and Kennedy 2008). Especially in urban areas, however, they are frequently not available in sufficient quantities, often do not encourage playing outdoors, or are not sufficiently used. Socially disadvantaged residential areas in Germany, in particular, are characterised by fewer green and open spaces, higher traffic volumes and a poorer social and cultural infrastructure (Lampert and Mielck 2008).

Improving situations and promoting acceptance

The existence of good framework conditions is important, but they also have to be accepted and utilised. This, in turn, is dependent on the assessment of the residents or potential users, as well as on their social role, rules and norms prevailing in the environment, gender or age. Do children, adolescents or families feel comfortable when they avail themselves of these offers? Are the offers fashionable (Papas et al. 2007)? There are signs that boys are re-conquering public recreation spaces. Girls, on the other hand, prefer to move in protected, limited spaces (Wopp 2007). The perception of safety is of decisive importance for parents, e.g. when choosing the means of transport for commuting to school (Davison et al. 2008).

Healthy situations must be integrated in the social context. This is why, for example, the quality standards for school catering and for catering in child day-care centres (Deutsche Gesellschaft für Ernährung 2009) are not limited merely to specifying the choice of foods and the design of the menu. They also integrate framework conditions and point out that the acceptance of the target group must be actively stimulated.

Situational prevention usually fails to get a fair share

The importance of situational prevention – especially for socioeconomically disadvantaged children and adolescents – is emphasised in many studies, preferably in combination with behavioural prevention measures. But meta-analyses and reviews show that virtually no consideration is given to environmental influences and social framework conditions in intervention measures (Summerbell et al. 2005; Fröschl, Haas and Wirl 2009). The great effectiveness of a combined, situational and behavioural prevention approach was demonstrated by the "trinkfit" study. In the context of this measure, access to drinking water in schools was facilitated (situational prevention) and supplemented by measures for communicating knowledge on the subject of drinking (behavioural prevention). The outcome: the quantity of water drunk increased, that of soft drinks declining slightly. Fewer children became overweight at schools implementing this measure (Muckelbauer et al. 2008 and 2009).

Questions for reflection

- What is the relationship between health problems, risk behaviour and the framework conditions for health-related behaviour in the field of work in question?
- How can the measure bring about health-oriented situations and framework conditions in daily life?
- In what form does the concept give consideration to situational prevention?
- Is it possible to combine situational and behavioural prevention? What steps can be taken to combine them?

Quality Criterion 10 A
The measure is of low-threshold design.

Quality Criterion 10 B
Access channels and communication methods have been selected in keeping with the target groups.

What does this mean?

Low-threshold measures reach out to the target group or enable it to participate without major hurdles. The access channels and communication methods are of decisive importance in this context.

Access channels draw attention to the measure. The choice, design, language and content of the media, etc. depend on the target group and its needs (age, gender, special social and cultural features, etc.). The access channels can be posters, leaflets, flyers, outreach address in person or by telephone, websites, working groups in schools, videos, blogs, radio and TV spots, newspaper or magazine articles (e.g. club newsletter, school newspaper), motivating interviews, etc. Involvement of the target group makes it easier to identify appropriate access channels (see also Criterion 5, Participation).

Target group address/Communication refers to a wide variety of working methods for strengthening skills and resources of the target group, changing attitudes or imparting knowledge. Examples include group discussions, video presentations, exchanges of experience, role-playing games, preparation of meals, sensory exercises and experiments with food, body awareness exercises, relaxation and physical activity exercises, feedback and reward techniques, interactive learning, social space exploration, etc. Which communication methods are chosen depends on the target group, the nature of the planned measure and the goals of the measure.

Why is the criterion important?

The measure can only have an effect if it reaches the intended target group. Low-threshold measures ensure that the members of the target group can take part in the measure, and are addressed and motivated by it.

Children and families with a low social status and/or an immigrant background need a special form of address, because counselling offers with a "walk-in" structure are often not taken up by these groups of the population. Conse-

quently, outreach health promotion and low-threshold offerings are of particular importance (BZgA 2010).

If a tried-and-tested programme is used for a similar target group, reference can be made to corresponding evaluations. Recourse can also be taken to experience from Good Practice models. However, it must always be examined whether the results and experience can be applied to the situation of the planned measure.

Specific aspects of health promotion and primary prevention measures in connection with overweight in children and adolescents

Promoting self-efficacy and increasing motivation

The communication of purely cognitive knowledge is disputed in the case of children and adolescents, and there is no evidence of its effectiveness (Kahn et al. 2002). After all, knowing is not the same as doing (cognitive dissonance), and not everyone perceives every message. Lifestyle interventions for preventing overweight in children frequently work with "education" (passive or through training), but they are supplemented: behaviour-oriented elements, such as reward, invitation or exercises, are added, whereas cognitive strategies, such as goal-setting or promotion of self-efficacy, are less common (Kamath et al. 2008). However, interventions aimed at changing eating habits in children and adolescents, as well as measures designed to increase their physical activity, indicate that self-efficacy is a good mediator of behavioural change (Cerin, Barnett and Baranowski 2009; Lubans, Foster and Biddle 2008). If a person is convinced of being able to implement necessary actions in order to achieve a specific goal, there is a greater probability of success. A positive attitude promotes motivation, and thus the willingness to change behaviour (BZgA 2005).

Promoting fun and enjoyment

The emphasis is on a positive tone when communicating the message in health promotion and primary prevention measures. Depending on the target group selected, children and adolescents, pregnant women, families and peers should be able to experience their own skills and progress without competitive structures and performance orientation.

For nutrition education in schools, Heindl (2003) thus derives the following tips for addressing the target group from the process of guideline development in schools: promote fun and enjoyment of eating (when choosing, preparing and consuming food), arouse feelings and esteem for one's own body and

health, enable aesthetic-cultural and communicative experiences when sharing meals, teach responsible dealing with food, communicate the correlations of a healthy and balanced diet, offer decision-making aids for everyday action.

For the participating children, fun, enjoyment and satisfaction are also part of the package when it comes to communicating the idea of sport, and so is the opportunity to be together with friends, as well as expedient and challenging activities. The children should have the feeling that they learn something, achieve something, improve themselves, are taken seriously and listened to. Sport should give all children and adolescents the chance to participate and develop. Activities that are adapted to the level of development and modified accordingly are part of this, as are framework conditions that encourage making a contribution to decision-making processes (www.sparc.org.nz).

Eliminating barriers

The obstacles to participation in prevention programmes for overweight in children named by mothers include: major organisational effort, financial burden, familiar content, impossibility of realisation in daily life and limitation of the time for other things (Warschburger and Richter 2009). Examples of reasons for not doing sport named by children and adolescents include: their own insecurity, negative reactions of key persons to the choice of activity, feeling of sluggishness and inner conflicts, parental restrictions, worries about safety and cultural boundaries, aversion to overly organised activities (Trost et al. 2003).

Tailoring to the target group

Access channels and communication methods must be matched to the target group. Age plays a role in this respect. According to studies on the effectiveness of early-childhood education, for example, cognitive development in young children is promoted most intensively by "sustained shared thinking". This describes a communication process between two partners (adult and child [or two children]) to which both contribute mutually and in the same way. Professionals stimulate the thought processes and imagination of the children with open questions (Textor 2008).

Special sociocultural features must likewise be taken into account in access channels and communication methods. For instance, prospective counselling of young families in the framework of a controlled trial with six seminar units over a period of 18 months, primarily reached middle- and upper-class families. The representation of families with a low social status was disproportionately low (Bergmann et al. 2009).

Questions for reflection

Preparation of the measure (attracting attention, sensitising):

- How is the measure publicised?
- Is the measure also publicised in foreign languages?
- What distribution channels are used?

Access channels to the intended target groups and communication methods:

- How does the measure pay attention to special features in order to address target groups and recruit them for participation?
- In what form does a dialogue take place with the target group in order to find out how the addressees can best be reached?
- In what environment is the target group reached (outreach/non-outreach)?
- How is a low-threshold character achieved in the framework of the measure?
- How are target groups with an immigrant background/social burdens reached?
- What language does the target group speak?
- What media and communication channels does the target group use?
- What comparable measures exist that reached the target group well? Has the reachability in a similar measure ever been verified?
- What does the professional literature (findings, studies) say about access channels and communication methods for the envisaged target group(s) and the goals of the measure? What experience, if any, can serve as a foundation to build on?
- Has a test been performed, or have experts been contacted, to find out how well the target group(s) can be reached?
- Have the access channels and the comprehensibility of the materials for poorly educated target groups been tested?
- How could children be recruited/involved to integrate their parents?

Quality Criterion 11
The strengthening and further development of resources (personal, family, social) are a key element of the measure (empowerment).

What does this mean?

The measure picks up existing knowledge, skills, motives, family or social relationships, in order to improve them and use them for a health-promoting lifestyle. Participation of the target group is indispensable in this context.

In the framework of salutogenesis, which sees health as a process, increasing importance accrues to the question of what makes children, families or individuals strong, so that they remain healthy even under stress. Protective factors (resources) thus become the focus of measures. This involves independent influencing factors that vary for different groups and in different contexts (Bengel, Meinders-Lücking and Rottmann 2008).

- Personal resources include a sense of coherence, general self-efficacy expectations (Erhard et al. 2007), emotional stability, the ability to cope with negative emotions and stress/distress (Sachverständigenrat zur Begutachtung der Entwicklung im Gesundheitswesen 2005), empathy, relationship skills, etc. (Bühler and Heppekausen 2005).
- Aspects of the family atmosphere are of importance in the context of family resources. They include family cohesion, support from the family, child-raising behaviour (encouragement, promotion, communication within the family, model function) (Hölling et al. 2008).
- Social resources comprise support from others, e.g. from the peer group, teachers and other persons of reference.

Empowerment strengthens the resources of the target group. Players need to change their viewpoint to this end. The aim is not to prevent or change deficits. Rather, the educational approach is determined by the knowledge of people's strengths and the belief in their ability to lead a health-promoting lifestyle on their own.

The strengths of the people in the target group differ between individuals; cooperation based on partnership is thus imperative. The effectiveness of the professional help depends on the extent to which it can promote people's "feeling" of having more control over their own living conditions and seeing the positive side. This means promoting positive aspects and qualities, and developing new ones, helping the target group to see the positive aspects of a situ-

ation, and not allowing anything new to emerge that is rated as negative (Auhagen 2004). Empowerment measures are understandable, meaning that, for example, they are transparent, setting-related and address various senses. They are feasible and offer diverse, individual stimulation. They make sense in that they enable self-determined action, for example (Paulus 2009).

Promoting health is a continuous process, and the resources vary at different points in time and in different contexts. Consequently, follow-up support is of great importance.

Why is the criterion important?

Empowerment improves and increases the individual scope for action for adopting health-promoting behaviour.

A high degree of empowerment is achieved if behavioural prevention is reinforced by situational prevention, and if players, individuals (target group) and measures interact closely.

Specific aspects of health promotion and primary prevention measures in connection with overweight in children and adolescents

Resources need to be strengthened

Analysis of the KiGGS data on 11 to 17 year-olds showed that the protective factors of obese adolescents are significantly less pronounced that in normal-weight people of the same age. Obese adolescents achieve lower values both for family resources and for social support.

The personal resources differ between obese and normal-weight boys, but not in girls. Likewise, the quality of life of obese children is impaired in almost all areas of physical and mental well-being (body, psyche, self-esteem, circle of friends, school).

Only an impairment of their family quality of life is not perceived by the obese children and adolescents interviewed. The authors of the study assume that this could possibly be because the subject of "overweight" is not addressed in families, since – for genetic and behavioural reasons – it usually affects several members of the family (Hölling et al. 2008).

Family protective factor "child-raising style"

Measures aimed at parents have the goal of building the ability of the families to themselves take care of the development and maintenance of physical, mental and social health (Bergmann et al. 2009). Promotion of the child-raising

skills of parents (and other carers, where applicable) is of key importance in this context. An authoritative child-raising style is one of the family protective factors. It is characterised by warm, supportive, appreciative, but nevertheless demanding and limit-setting parental behaviour, emotional commitment of the parents and open communication with the children as partners. Regulated structures in everyday procedures and rituals are of equally great importance (Bengel, Meinders-Lücking and Rottmann 2008).

As regards children's nutrition and physical activity, an authoritative child-raising style is probably beneficial, but only very few studies are available on this subject (Golan and Crow 2004). Children appear to eat healthily if they sense a determined concern of the parents, but without having to blindly subject themselves to it (Klotter 2007). In contrast, rigid control of, and restrictions on, what is eaten are more likely to favour problematic eating behaviour and overweight (Scaglioni, Salvioni and Galimberti 2008; Birch and Davison 2001).

However, indifference is just as counterproductive as strict rules. Family and social support is also important when it comes to pointing out possibilities for physical activities (Rees et al. 2006).

A research project of the Federal Parents' Council assessed and documented a whole range of measures as regards the reachability of parents. Among the measures that successfully addressed parents directly with the aim of bringing about a change were child-raising agreements, e.g. on reasonable TV or computer time, sufficient sleep or a healthy breakfast.

Personal life skills

Many personal life skills are impressed in early childhood (Schlack 2003), and child-raising and learning experiences in the family influence the process. The personal protective factor of self-perception plays a role in the perception of hunger and satiety, for example. If children increasingly react to external stimuli when eating and drinking, internal signals are perceived less and less. The perception of hunger and satiety can be disturbed if parents set up the rule that the plate always has to be cleaned.

The life skill "appropriate handling of emotions" is likewise influenced by experiences the child has in the family. If eating often serves as a reward, as consolation, or if it is intended to calm (emotionally induced eating behaviour), then food intake is disconnected from signals like hunger and satiety.

Studies show that children of overweight mothers more often tend to react to different emotions by eating than do children of normal-weight mothers (Jahnke and Warschburger 2008).

A capacity for self-regulation is necessary so that people can resist in our obesity-promoting world, with its superabundance of food, tempting advertising, etc. It is a capacity that, when faced with a wealth of alternative decisions, consciously and unconsciously helps people to achieve a goal they have set, such as a healthy choice of foods. This capacity is innate, but has to be promoted and developed in the first few years of life (Warschburger 2008).

Questions for reflection

- How are the child/the parents/the peers/pregnant women/breast-feeding women, etc. enabled to shape their own lives by developing their own skills? In what way do the concept and the methods contribute to empowerment?
- How does the measure utilise and expand the existing resources of the target group?
- How does the measure support the development of problem-solving abilities?
- How does the measure consider the expectations of the target group?
- How does the concept take into account the individuality of the persons involved?
- How does the measure strengthen the target group in developing itself further?
- How is the target group enabled to strengthen its nutritional, exercise and media skills (e.g. training with reference to daily life and actions)?
- How does the measure contribute to reducing stress?
- What method is used to strengthen self-efficacy and assumption of responsibility?
- What conditions are created so that the target group can make a contribution (in keeping with their development status in the case of children)?
- What can the children, parents, pregnant women, breast-feeding women or the contemplated target group contribute to implementation of the measure?
- What connection do the participants see between their behaviour and the strengthening of resources? Can connections be identified?
- Does the measure employ methods for supporting health-promoting behavioural changes in daily life (e.g. follow-up meetings, refresher and "booster" sessions, follow-up contact by e-mail or text message, preparation for

conflict situations by means of role-playing games, groups discussions on obstacles to implementation, counselling on reorganising the daily life of the course participants, etc.)?

- What continuing measures or possibilities for further action are being considered (e.g. continuation or reinforcement course, counselling, educational holidays, individual text message or e-mail feedback, health circle or self-help group)?

Quality Criterion 12 A
People are available for practical implementation (internal and external personnel, other contributors).

What does this mean?

Sufficient personnel and, where appropriate, other contributors must work in the team in order to implement the measure successfully.

Managerial staff and professionals are part of this – usually from different occupational groups in measures for promoting a healthy lifestyle. In addition to in-house staff, external project partners can also be involved, and in-house and external personnel can be networked. However, children, school pupils, parents and other persons in the system can also be involved in implementation.

Why is the criterion important?

Sufficient personnel and other contributors in the team are the basis for good implementation of all health promotion and primary prevention measures (e.g. no disruptions, no unnecessary pressure of time, appreciative atmosphere). This also affords protection against burnout and self-exploitation, and thus against the attrition of good approaches.

Questions for reflection

- How many persons are available for practical implementation of the measure (in-house and external personnel)?
- Is the personnel sufficient for implementing the measure?
- How could resources of further members of the system (families, fathers, children, janitor, etc.) be identified and integrated?
- Is social support through networks built up as part of the measure?

Quality Criterion 12 B
Competencies and accountabilities have been clarified and defined among all parties involved.

What does this mean?

The fields of work and tasks of all the parties involved are jointly defined and preferably set out in writing.

This requires good communication between all the parties involved. Also part of this is the active handling of disturbances in the team, because they cost energy that is then lost for implementing the measure. The time requirement and the tasks should be in realistic proportion when clarifying competencies and spheres of responsibility.

Why is the criterion important?

Good cooperation in the team increases the motivation of the staff and creates synergistic effects.

All the parties involved should be aware of their competencies and their roles, and mutually coordinate their working styles. If they are all familiar with their work, reciprocally appreciate it, and the managerial level acknowledges this work, this will promote motivation and an optimistic general attitude. If they all have the common conviction that they can achieve the goal together (collective self-efficacy), they will make a greater effort to achieve the goals, thereby enhancing the performance of the team.

Questions for reflection

- How are the tasks distributed among all the parties involved? In what form?
- Is every member of the team aware of his/her tasks and those of the others?
- Are the official channels and hierarchies known?
- What communication channels are used between the team members, between the managerial level and the staff?
- How often is there a specific and documented exchange on the progress of the measure?

Quality Criterion 12 C
Personnel and other contributors are sufficiently qualified in terms of content and communication methods, in keeping with the target group, the goals and the setting.

What does this mean?
The type of qualification depends on the sphere of responsibility. Different demands are imposed on qualification, depending on the work done in the framework of the measure. The qualifications include recognised vocational training, basic and advanced training and continuing education in communication, experience with the target group, and possibly also additional skills.
Professional qualification is ensured by state-recognised final examinations in the respective specialist fields. However, it often covers only part of the necessary qualification. For example, young parents would most like to receive advice from paediatricians, as revealed by a representative, nationwide survey. However, their vocational training hardly prepares them for such topics as breast-feeding, appropriate nutrition or avoidance of overweight. On the other hand, there are occupational groups that are capable of imparting knowledge, but are not familiar with the content to be communicated (Bergmann et al. 2009). This shows that vocational training can only be a basis. In the spirit of lifelong learning, advanced training and continuing education are necessary in order to acquire corresponding supplementary qualifications. Moreover, experience in working with the target group – and further qualifications, depending on goal and setting – is helpful, e.g. with a view to low-threshold work with parents in child day-care centres.

The health insurance funds impose certain requirements on state-recognised qualifications for individual measures (Arbeitsgemeinschaft der Spitzenverbände der Krankenkassen 2008). The "Framework Agreement on Quality Assurance in Nutritional Counselling and Education" likewise sets out specifications regarding the qualification of nutrition professionals and expressly refers to continuing education (Koordinierungskreis zur Qualitätssicherung in der Ernährungsberatung und Ernährungsbildung 2009).

In measures based on the setting approach, vocational qualifications in the fields of action of nutrition, physical activity or mental health/stress regulation, etc. need not be an essential prerequisite for all contributors. For example, there can be contributors who have good access to the target group, but

are only qualified in the framework of the measure. Where appropriate, instruction may also be sufficient. Similarly, experts in health communication are in demand in campaigns, for example.

Why is the criterion important?

The better the personnel and the other contributors are qualified, and the more knowledge the staff have regarding the target group, the better they can support the target group in strengthening its own resources. This requires a holistic view that focuses on the unique nature of the target group.

Questions for reflection

- What vocational qualifications, advanced training and continuing education do the managerial level and the personnel working in the team have (e.g. university education in the fields of nutrition, physical activity, educational qualifications, etc.)?
- What (supplementary) qualifications are available as regards the content of the measure?
- What (supplementary) qualifications are available as regards communication for the target group?
- What experience do the professionals have in working with children/adolescents/pregnant women/young families/parents, etc.?
- What experience/competencies does the management have (project management, financial budget and personnel management)? How can it create motivating conditions for the team?
- What experience do the contributors have with the requirements of the measure? For instance, how often have they implemented a similar measure before?
- Are the existing qualifications sufficient for fulfilling the tasks in the context of the measure?
- What advanced training and continuing education was or is offered specifically in preparation for the measure?
- What counselling does the organisation possibly need in order to initiate its development into a "healthy organisation"?
- In what form do the parties contributing to the measure have an opportunity for regular exchanges, mutual advice and professional supervision?
- How is controlled execution of the modules for achieving the overall goal ensured (e.g. steering group, coordination, project plan, etc.)?

Quality Criterion 13
The structural and organisational framework conditions permit practical implementation and achievement of the goals.

What does this mean?

Premises, working conditions and materials are appropriate for the procedure and sufficient for the targeted goals.

The temporal and local conditions must be such that they permit implementation of the measure and achievement of the goals. This also applies to the spatial conditions, the location, the furnishings, the atmosphere of the premises. They should not only make it possible to implement the measure, but also serve as a "third teacher", as it were, encouraging the target group to try out new behaviour. Thought must be given to a manual describing the content-related and didactic concept, as well as to work equipment or corresponding materials for the target group. For example, if computer-based techniques are used for communication, it must be ensured that the target group has access to a PC. Moreover, administrative matters must be clarified, e.g. liability issues or the duty to supervise. Commercial sponsoring by business enterprises should be reviewed critically as regards the possibility of the target group being influenced.

Why is the criterion important?

Good structural and organisational framework conditions are the basis for good implementation.

They promote implementation without disruptions, ensure that no unnecessary pressure of time emerges and contribute to a good atmosphere. This makes the work easier and motivates the contributors and the target group alike.

Specific aspects of health promotion and primary prevention measures in connection with overweight in children and adolescents

The content modules (nutrition, exercise, stress regulation, reduction of inactivity, etc.) require very different framework conditions for implementation. Depending on the measure, there may be a need for certain sports equipment, media, music systems for relaxation or body perception exercises, a PC, writing implements, cooking utensils, etc. It must be possible to use the premises: the use of gymnasiums or sports grounds may need to be coordinated with the local sports club or the school, use of the school kitchen must fit in with the school's schedule, etc.

Questions for reflection

- Which media/materials are issued or used (posters, trainer manual, handout, brochure, etc.)? To what end are they produced? What is their content?
- At whom are the media/materials aimed? How do they cater to the needs of the target group?
- Can the materials also be easily understood by poorly educated people?
- Are industrial products introduced or recommended to the participants from the target group in the context of the measure or as a continuing measure? If so, which?
- What agreements are necessary regarding premises, schedule, division of labour?
- Are the premises large enough, appropriately equipped and at a location that is easy for the target group to reach?

Quality Criterion 14
The financial resources required for the measure have been secured.

What does this mean?

Personnel, operating and material costs in the planning, implementation and evaluation phases are calculated. Their funding is clarified and guaranteed.

Financial resources are necessary for implementing a measure. A funding plan is drawn up to calculate them. It includes all the financial expenditure anticipated for the measure. The funding plan also takes into account any in-house work, e.g. that done by staff of the institution. Although it does not directly increase the cost of the measure, the time taken may be at the expense of other fields of work. It must be included in the working time of the in-house and external personnel, and thus budgeted.

Budgeting of the anticipated costs is followed by clarification of which financiers will be funding the measure (institutions or partners), whether additional financiers need to be brought in, and which are open to consideration. It may be possible to obtain funds from the Federal Government or the Federal Land. However, money can also come from foundations, health insurance funds, commercial or private sponsors. They can support the measure not only financially, but also by providing non-monetary resources or personnel. As regards the funding of the project, the conditions under which, and the extent to which, support is guaranteed must be clarified, as well as the interests pursued by the partners in this context. This point is particularly important in connection with commercial sponsors. Unpaid or voluntary work, and the work done by personnel of the institution, is also taken into account in the funding plan. A funding plan thus answers the questions: "What costs does the project cause?" and "How and by whom is it realised financially?".

Why is the criterion important?

Prevention measures cannot be realised without an adequate financial basis, as well as a personnel and material basis.

It is therefore essential to think about the financial realisation. In addition, a funding plan makes the financiers transparent and says something about the sustainability of a measure.

Questions for reflection

Calculation of the costs:

- What financial resources are needed for planning and implementation?
- To what duration does the overall financial and time requirement refer (the entire duration of the measure, once only, annually, per implementation)?
- What direct and indirect costs does the measure require (personnel, material and operating costs)?
- How high is the overall time requirement of the measure (person-days) for all the necessary tasks together (including planning, administration, follow-up, etc.)? (This means person-days for the implementing institution, for cooperating institutions and for the participants.)
- What costs are caused by evaluation? Are they taken into account in the funding plan?

Procurement of funds:

- Which financiers can be approached? Where can funds be applied for (public funds, foundations, health insurance funds, business enterprises, etc.)?
- Which funding agencies or other partners/financiers have already given a firm promise?
- Are the participants to pay part of the costs? If so, how much?
- Are advertising media from sponsors used? Is there cooperation with commercially oriented partners? What influence does the sponsor exert on the measure?
- Is the sponsoring made transparent?
- What conflicts of interest could arise as a result of sponsoring? Do the measure and the sponsor's message (brand) go together?

Documentation (Evaluation)

Quality Criterion 15 A
The content and procedure of the measure have been documented (process documentation).

Quality Criterion 15 B
The extent to which the measure achieved the formulated goals has been documented (outcome documentation).

Quality Criterion 15 C
Changes have been documented (behaviour, structures, process, etc.).

What does this mean?

The procedure during implementation and the experience gained are recorded in writing in structured and reconstructable form, as are outcomes and changes.

- *Process documentation* records the course of the measure in writing – from the planning stage and implementation, all the way to completion. The underlying methods and any unexpected events occurring are likewise recorded. The process documentation provides information regarding whether the measure is implemented in accordance with the concept by all contributors. It can also be used to describe important changes by change-sensitive methods (e.g. the "most-significant-change technique"[10]).
- *Outcome documentation* describes the results that were achieved or not achieved – such as ultimately achieved behavioural changes in the target groups of the measure. On the basis of the process documentation, in turn, it can be explained why a targeted outcome could (not) be achieved and what is important for future optimisation of the measure.

It must be defined who documents what, when and in what form/by what method, and how the documents are managed. A standardised documentation system for all players makes sense.

10 Download under http://www.mande.co.uk/docs/MSCGuide.pdf.

– The process documentation includes concept papers, course documents, schedules, minutes, document collection (e.g. enquiries), documentation of events, photo documentations, feedback from the target group or the staff, circulation of distributed materials, participant lists, etc. As a minimum, however, short records of the individual activities and any special occurrences in the course of implementation should be drawn up.
– The results or partial results of the measure can be recorded by different methods: by measurements, surveys (children, adolescents, parents, staff, teachers, etc.), observation, etc. For example, surveys can be conducted before and after the measure in order to assess effects. Obtaining causal proof of effects of a measure, e.g. on the weight status of children, requires complex study designs with reference groups that can probably only be implemented in cooperation with scientific institutions. The results ascertained are summarised in the framework of outcome documentation.

Changes can be clearly described by process documentation or using change-sensitive methods. Records of the individual activities and any special occurrences in the course of implementation should be drawn up as a minimum.

The documentation forms an important basis for assessing processes and outcomes (cf. Quality Criterion 16).

Why is the criterion important?

Regular documentation is irreplaceable as the basis for assessing effects and improving quality.

According to the Ottawa Charter and related concepts, primary prevention is always also a development task. To make systematic use of experience, it must be recorded. Documentation has a special task to fulfil, particularly in the case of measures whose health-promoting effectiveness is difficult to prove. It contributes to precise control and improvement of the procedure. Good Practice models can be identified and made transparent, so that other players can learn from them.

Questions for reflection

- What questions are documentation and evaluation (see Quality Criterion 16) of the measure intended to answer?
- What information is supposed to be available at the end of documentation and evaluation (e.g. information on the familiarity, acceptance and effects of the measure)?

Process documentation

- How are changes in the environment, the organisation, procedures, dissemination, etc. recorded?
- In what form are difficulties and unexpected occurrences documented?
- What attributes of the participants are regularly recorded?
- To what extent are surveys and observation of the target group necessary for this purpose? To what extent should they also be conducted before implementation of the measure, e.g. in order to determine what the behaviour of the target group was like before the measure? Who is to be interviewed? Are reference groups perhaps necessary? How can these persons best be interviewed? How many people are to be interviewed? To what extent does it make sense to carry out follow-up surveys in the target groups? If so, over what period will the follow-up surveys take place?
- What (interim) results and sub-steps are recorded?
- From whom, when and how often is the information collected? What rules on documentation have been agreed on between the contributors? Is everyone aware of them?

Outcome documentation

- Who implemented the measure when, where, under what framework conditions and how often?
- To what extent were there deviations from the concept when implementing the measure? If there were deviations from the concept: when, how and why? (Was it possible to develop the materials as planned? Were the individual steps implemented on schedule? What problems arose during implementation?)
- Which and how many persons (age, gender, sociocultural background, etc.) did the measure reach?
- Is the information/are the activities relevant, understandable, of interest to the target group?
- To what extent were interim results used for possibly redirecting/optimising the measure?

Assessment of/reflection on the measure (evaluation)

Quality Criterion 16 A
The anticipated goals and the outcomes have been compared, critically examined and assessed.

Quality Criterion 16 B
The processes have been critically examined and assessed.

What does this mean?

The collected data are analysed. The outcomes of the measure are compared with the goals, and conclusions drawn for the further process.

Evaluation, i.e. assessment of the results, is performed both in the course of the measure – on the basis of partial results – and at the end of the measure. The measure can be evaluated internally, or third-party evaluation, e.g. by QIP (www.uke.de/extern/qip), can be chosen. Outcome evaluation compares the originally formulated goals with the ultimately achieved results of the measure and assesses the extent to which the goals were reached (degree of goal achievement).

While outcome evaluation assesses whether the target parameters have been achieved, process evaluation takes a critical look at procedures and methods, i.e. the way in which the measure is and was implemented. To this end, it examines the data collected in the course (process) of the measure.

Why is the criterion important?

Evaluation is necessary to be able to make statements regarding the effectiveness or benefits of a measure and to distinguish effective, meaningful measures from ineffective ones.

Analysis and assessment of the results benefits every measure, regardless of provider, size and reach. It generates important knowledge regarding the effects, strengths and weaknesses of the measure. However, evaluation also serves to optimise systems, organisations, processes and workflows. For example, interim results are used to determine the current position.

The insights gained from process evaluation can be incorporated into the course of the measure, allowing it to be adapted with a view to the goal, if nec-

essary. Depending on the purpose of evaluation, the evaluation results can be used, for example, to optimise measures, to provide decision-making aids regarding the continuation of measures and/or to offer new knowledge for the design of future prevention measures. The results thus contribute to continuously improving health promotion and primary prevention measures with the aim of arriving at evidence-based measures. They are all the more important because financial resources are becoming increasingly scarce, and hardly any success criteria can be derived from previous intervention measures (see Introduction). However, evaluation also serves to legitimate measures when using public funds or vis-à-vis the public.

Information on the subject of evaluation and on instruments for the practical implementation of health promotion and prevention for evaluation purposes can be found on the Internet at www.evaluationstools.de.

Specific aspects of health promotion and primary prevention measures in connection with overweight in children and adolescents

Focus on planned and unplanned changes

Health promotion and primary prevention measures target changes in lifestyle factors. Consequently, depending on the goal of the measure, changes can be determined in understanding and knowledge, in attitudes, behaviour and motivation, in the fields of action of nutrition, exercise, stress regulation, inactivity and child-raising skills. Similarly, changes in structures, processes, models and in the environment, such as family or peers, etc., can also be assessed.

Questions for reflection

Is evaluation performed by the parties implementing the measure (self-evaluation), or is an institution commissioned with the task (third-party evaluation)?

Changes in behaviour and situations

- Which defined principal goals and sub-goals were achieved? What was not (yet) achieved? Why not?
- To what extent have skills grown, and in what fields have the participants increased their action-related knowledge?
- To what extent has the measure had an impact on the environment, structures, processes, etc.?
- To what extent has the institution/organisation changed since implementation of the measure?
- Have unintended effects of the measure also been identified? If so, which?

- What difficulties and unexpected occurrences were encountered? How were they dealt with? What solutions were developed?
- What will the children, adolescents, parents, pregnant women, breast-feeding women, etc. say about the measure in surveys?

Assessment of the results

- Is the number of persons participating in the measure to be rated as high, moderate or low?
- How are the results to be classified in comparison with other measures?
- What factors contributed to the successful course of the measure?
- What factors led to the measure not being able to achieve the targeted effect?
- What are the most important recommendations to be derived from the course of the measure?
- What are the strengths of the measure? What can be derived from this for further measures?
- If a similar measure has already been evaluated: what were the differences? Did the changes made improve the effect?
- How are the results made transparent (e.g. for the contributors)?
- Is the experience passed on and converted into longer-term processes for improving the measure or the institution?
- What criteria are defined that can lead to premature discontinuation of the measure?

Quality Criterion 17
Outlay and impact have been compared and critically examined.

What does this mean?

The success of a measure is compared with the outlay (funds, personnel and time) and its cost-efficiency is critically examined.

This permits an assessment of whether the outlay is high, appropriate or low in relation to the effectiveness of the measure. Analyses of similar measures can be used for comparison. Correct cost/benefit analysis is difficult. For one thing, the measuring systems used are different and, for another thing, there is a large gap between the points in time when costs are incurred and when the benefit becomes apparent (e.g. in the form of more normal-weight children and adolescents or more quality of life). Consequently, the benefit cannot necessarily be seen as being the effect of the individual measure. Rather than the benefit, it is therefore better to compare the effectiveness of the measure (in the sense of achieved goals) with the outlay.

Why is the criterion important?

Reflection on the outlay compared to the effects supports effective offerings.

In times of increasingly scarce financial resources, this analysis is becoming more important for assessing health promotion and prevention measures in connection with overweight in children and adolescents. Economic analyses of these measures have been rare up to now (Fröschl, Haas and Wirl 2009).

Questions for reflection

- How high are the overall costs (including unpaid work) for implementing the measure?
- Were the available financial resources sufficient for optimum implementation? What was missing?
- To what extent was voluntary, honorary working time necessary? How can the ratio of costs/outlay to effectiveness be rated for this measure?
- What was specifically achieved by the measure, and what not?
- How can the health-related effectiveness of the measure be demonstrated in qualitative and quantitative terms?

Continuation and consolidation of successful measures/Optimisation of measures

Quality Criterion 18
Relations and cooperation with further partners are fostered (networking).

What does this mean?

The organisation and/or the parties involved engage in an exchange with other institutions and persons in the field of work and/or cooperate with them.

It makes sense to already give thought to networking during the planning phase, so that the measure gains broad-based support. Network partners can include scientific institutions, social initiatives, media, municipalities, public health offices, health insurance funds, intercultural societies, neighbourhood circles, providers of measures, schools, child day-care centres, counselling centres and sports clubs, as well as local professionals, doctors, multipliers with an immigrant background, etc.

Networking means a holistic approach, which does better justice to the complex system of health promotion than individual measures.

Why is the criterion important?

Networked systems increase the acceptance and reach of the measure. The use of personnel, structures, materials, etc. can be optimised, and synergistic effects created, thereby increasing the efficiency of the measure.

If a measure is supported by numerous partners, there is a better chance of reaching a larger target group, consolidating the measure and thus achieving sustainable effects. Networking and cooperation strengthen the social network, from which children and their families can also benefit.

Networking permits interdisciplinary cooperation, in order to do justice to the different factors influencing health. It can, for example, overcome culturally induced differences by integrating multipliers with an immigrant background. In contrast, competition can disconcert professionals and target groups.

Specific aspects of health promotion and primary prevention measures in connection with overweight in children and adolescents

Networking in municipalities and regions

Economos et al. (2007) were able to show the effectiveness of networking at the community level. An intervention involving parents, teachers, school canteen operators, employees of the administration, politicians, media, etc. had a positive influence on weight development in children with a high obesity risk. After reviewing 94 studies on the effect of interventions to increase physical activity, Kahn et al. (2002) likewise recommended nationwide health education with social support in the community.

Networking to improve the dietary habits and physical activity of different target groups is a key element in the "Action Alliances for Healthy Lifestyles and Living Environments" and the pilot project "Better diet. More exercise. KINDERLEICHT Regions" – two measures of the National Action Plan IN FORM. The development of local and regional networking structures with different offerings and network partners is being promoted in the framework of these measures.

Questions for reflection

- Were the possibilities for networking examined and fully utilised?
- What similar activities are already in progress in the institution/field of work in question? How is the procedure coordinated?
- With which other institutions does the measure have firm cooperation agreements? What are the tasks and roles of the partners?
- Which groups, institutions and organisations are important? How are they involved?
- Which partners need to be involved in order to sustainably continue the measure?

Quality Criterion 19
Successful measures are continued in the organisation/by the participants (consolidation).

What does this mean?

Permanent continuation of a successful measure is guaranteed, and self-sustaining structures are developed.

This can be done in different ways, e.g. by continuing education of mediators, securing funding or in the framework of organisational development processes, which are interpreted broadly and also encompass the municipal living environment. However, it makes sense not only to implement sustainable elements in organisations and structures, but also to examine whether the potential has been fully exhausted.

Why is the criterion important?

Embedding in the organisation ensures sustainability of the measure.

One-off measures have only a limited long-term influence on a health-promoting lifestyle. Consequently, the target should be sustainable planning and design. Permanent embedding of the offerings and the continuous development of offerings, programmes and organisations is a quality criterion for all health promotion and primary prevention measures. According to the Ottawa Charter, the goal of health promotion is also to further develop the social systems (settings) in which people move in the interests of health. These social systems include various organisations. For children and adolescents, this means families, day nurseries, kindergartens, schools, companies, clubs and societies, etc. These organisations have an influence on health and make it possible to grow up healthily. On the other hand, the health of the people in this system in turn has an impact on the organisations. Consequently, the success of health promotion is linked to the extent to which success is achieved in establishing health as a topic and a task in these organisations and in structuring them accordingly (Grossmann and Scala 2001). So that children and adolescents can grow up healthily, health promotion should become a cross-sectional idea in every sphere of life of children and adolescents and in all institutions where they spend time.

Questions for reflection

- What arrangements are made (e.g. in terms of structures or personnel) to ensure the consolidation and permanent, continuing effect of the measure?

- How were the future benefits of the measure made clear to the target group and the multipliers, as well as to the funding agencies and other important players?
- How is experience with measures passed on within the institution in question?
- What have the parties involved done to persuade the institutions to continue?
- What role do target groups play in consolidating the measure?
- How was the development of the content tied in with the development of the system of the organisation?

Quality Criterion 20
The content and findings of the successful measure are communicated externally (transferability/transparency).

What does this mean?

Experience and expertise gained from the measure are made transparent and usable for others.

This can be done, for example, by passing on the concept or a final report, by means of publication, by presentation at a congress, in the framework of a workshop, at internal specialist conferences, in quality circles, etc. It does not necessarily mean use of a measure by other players free of charge, but the passing-on of experience in understandable and reconstructable form. The measure can also be disseminated by training multipliers.

Why is the criterion important?

Transparency ensures that successful approaches acquire a broad basis.

The criterion contributes to consolidation of the measure. Effective concepts can be used, and the experience of others can be called upon. In this way, it saves money in times of increasingly scarce financial resources.

Questions for reflection

- How is experience with the course and effects of the measure passed on outside our institution?
- How is experience gained from this measure utilised by others?
- Are the content and findings incorporated into a curriculum?
- Was the concept laid down in writing in such a way that the most important processes and content are documented in context and that other institutions can also use it?
- In what way are keywords given that show how the measure can be adapted to different target groups and special features?
- How is the quality of implementation checked in the case of measures that are also implemented elsewhere (e.g. under licence)?

III APPENDIX

1. Glossary

The following keywords are based on the glossary to the "Good Practice Criteria in Health Promotion for the Socially Disadvantaged" (BZgA 2010).

Empowerment

Empowerment in → Health promotion can be described as a process that aims to enable and strengthen individuals or groups as regards shaping their living conditions, and to give them greater self-determination regarding their own → Health. The empowerment approach is intended to encourage people or groups of people to use their own (often dormant) personal and social resources, as well as their skills, for participation, in order to (re)gain control over the shaping of their own social setting (→ Setting approach). The respective framework conditions of the → Target group (the social and political environment) must always be taken into account, as they partly determine the existence and development of resources. The promotion of → Participation and community-building are key strategies of the empowerment process.

Since the Declaration of Alma-Ata and the Ottawa Charter for Health Promotion, empowerment has been a central concept of the WHO vision of health promotion. Although the word does not occur in the Ottawa Charter, its closeness to the empowerment approach is unmistakeable. Thus, the following formulation is used:
"Health promotion is the process of enabling people to increase control over, and to improve, their health. To reach a state of complete physical, mental and social well-being, an individual or group must be able to identify and to realize aspirations, to satisfy needs, and to change or cope with the environment" (WHO 1986).

Evaluation

Evaluation is the systematic collection, analysis and assessment of information concerning activities, characteristics and outcomes of offerings, persons and products. Evaluation yields important insights regarding the strengths and weaknesses of an offering. This improves the foundations for offering-related decisions, and a basis is created for increasing effectiveness and efficiency.

Both structures (structural evaluation), processes (process evaluation) and outcomes and effects of offerings (outcome evaluation) can be evaluated.

In summary, evaluation can be described as critical, analytical interpretation through systematic examination of acquired (not routinely available) information (documentation), the derivation of conclusions therefrom and, ultimately, assessment and/or rating of an offering with the aim of improving it.

Evidence

Evidence and evidence-based practice are terms that have established themselves in recent years, especially in medicine, and partly also in the Public Health sector. In → Health promotion, the subject of evidence-based practice has gained importance since the late 1990s, leading to a wider debate. In medicine, evidence is defined as scientifically sound, conclusive knowledge concerning the effectiveness of medical interventions. It is the basis for the development of quality standards and guidelines for medical practice. An "evidence hierarchy" applies in this context. The randomised controlled trial (RCT) represents the highest level and is considered to be the "gold standard". In health promotion, no agreement has yet been reached on what evidence means, what kind of evidence is appropriate for its complex approach, what the outcomes/effects in health promotion look like, and how they can be measured.

An evidence concept in the form used in medicine is questionable in connection with health promotion, where the RCT is generally considered to be inappropriate, or even counterproductive. Accordingly, it is proposed that evidence in health promotion be taken to mean comprehensive, plausible knowledge regarding the effectiveness of complex health-promoting activities in complex social systems or settings. A combination of different methods of evaluation research (→ Evaluation) is generally required to this end.

Good Practice

In → Health promotion, the term Good Practice denotes those offerings and activities that comply with the values and theories of health promotion, that are highly likely to be effective in view of the theoretical concept and practical experience, and that are suitable for achieving the goals of health promotion in a given situation.

Health

There are many different definitions of health. They influence the viewpoint regarding the means to be used to avoid and treat illness and to promote health. They also decide on the extent to which people can or should be assigned self-responsibility for their health-related behaviour. In recent decades, there have been two approaches that made a particular mark on today's view of health and illness: the 1978 International Conference in Alma-Ata and the salutogenetic concept formulated by Aaron Antonovsky.

The International Conference in Alma-Ata in 1978 adopted a Declaration that came to point the way in basic health care and → Health promotion and still determines the debate today. Its first paragraph defines health as follows: "I. The Conference strongly reaffirms that health, which is a state of complete physical, mental and social well-being, and not merely the absence of disease or infirmity, is a fundamental human right and that the attainment of the highest possible level of health is a most important worldwide social goal whose realisation requires the action of many other social and economic sectors in addition to the health sector."

In contrast to the strong focus of medicine on risk factors, Antonovsky emphasises the strengthening of a person's health-related resources. In the salutogenetic concept, the main question of interest is why people remain healthy, and not so much why they become ill. While Western medicine generally assumes that health and illness mutually exclude each other, Antonovsky contrasts this view with the concept of a continuum, where people are classified as more or less ill, or more or less healthy. In this context, there is no strict, temporal succession of health and illness, but a simultaneous coexistence of different states of objective and subjective well-being.

Health promotion

In the understanding of the World Health Organization (WHO), health promotion is a concept whose starting point is the analysis and strengthening of people's health-related resources and potentials at all levels of society. It aims to enable people to increase their control of the factors that influence their → Health (health determinants), and thus to improve their health. Health promotion is a complex social and health policy approach and expressly encompasses both the improvement of health-relevant lifestyles (health-related action) and the improvement of health-relevant living conditions (situations/structures/contexts).

Low-threshold

Low-threshold offerings reach out directly to → Target groups. Particularly for socially disadvantaged groups, taking the initiative themselves, stepping into an unknown environment and talking to staff who usually have a higher social status, is often too high a threshold that deters them from taking up walk-in offerings. Consequently, people who are in particularly urgent need of support and assistance are often not reached. In contrast, low-threshold offerings do not wait until people contact them, but directly approach the target groups for their work in order to be able to reach them at the earliest possible point in time. This is best achieved by reaching out and accompanying the target groups in their settings, e.g. in schools, child day-care centres and neighbourhoods.

Multipliers

Multipliers in → Health promotion are all persons or groups who work, as professionals or volunteers, towards health promotion and → Prevention in the → Target groups (e.g. from the fields of family counselling, social work, social education, health promotion, as well as among teachers, doctors, etc.). Politicians are a special group, since they partly determine situations and structures and thus have a decisive influence on → Health. Offerings can directly address groups of persons who are assumed to have a strong multiplier effect. However, it can also be the aim of an offering to turn affected persons into multipliers in the course of implementing the offering, and to train them with this in mind.

Participation

Participation means the involvement of the → Target group and can have various forms in → Health promotion. Depending on the nature of the activity, the make-up and motivation of the target groups, and also with a view to the scope of the measures, different forms of participation can be helpful and necessary, or also overtaxing and inhibiting. Participation encompasses the expression of aspirations, needs and criticism, involvement in decisions, involvement in the development of rules and active integration of all concerned in planning, implementation and evaluation.

Participation can be facilitated and made possible by:

- Promoting the perception of personal skills and strengthening of self-esteem,

- Promoting personal initiative,
- Promoting a willingness to learn,
- Promoting group skills,
- Encouraging the expression of aspirations and needs,
- Promoting a sense of responsibility.

Prevention

Prevention refers to the avoidance of illness (reduction of the rate of new illnesses or of risks of illness) – i.e. the prevention of overweight or underweight in the context of this document. A distinction is made between:

a) Primary, secondary and tertiary prevention, depending on the time of intervention:
   - *Primary prevention* strengthens resources and reduces burdens, thus contributing to preventing illness or – from the point of view of obesity prevention – to normal weight development.
   - The aim of *secondary prevention* is to apply methods of early detection and appropriate early treatment in order to intervene in the development process of overweight or underweight.
   - *Tertiary prevention* is intended to prevent overweight becoming chronic.

b) Universal, selective and targeted prevention, depending on the → Target group and risk factors addressed:
   - *Universal prevention* addresses, for example, all the pupils at a school, all the mothers in the neighbourhood or all the children and adolescents in a region, regardless of their weight status or their sociocultural background. The target groups of universal prevention are usually inhomogeneous.
   - *Selective prevention* focuses on target groups with an elevated risk – of developing overweight in this instance – such as children of overweight parents, families with an immigrant background or socially disadvantaged families, women who are overweight at the start of a pregnancy, etc.
   - *Indicated prevention* is aimed at selected groups/individuals who are already ill – meaning already overweight in the context of obesity prevention. This involves therapy.

c) Behavioural and situational prevention, depending on the starting point:
   - Behavioural prevention relates to the individual.

- Situational prevention relates to the context, the personal and structural environment, e.g. settings, infrastructure, available food, economic, technical or statutory framework conditions.

Since situations influence behaviour, the increasing of resources should be combined with the reduction of risks.

Quality management/Quality development

Quality in the health sector means the extent to which health-related services for individuals and populations increase the probability of desirable health-related intervention outcomes and comply with the latest scientific findings. In accordance with Donabedian, the following distinction is made in the quality debate:

- *Structural quality:* The financial resources, premises, equipment, staff, etc. available to an offering or a service provider,
- *Process quality:* The way in which the offering is implemented or the service rendered,
- *Outcome quality:* The effects achieved by an offering.

Since the quality debate began, there have been decisive changes in the understanding of quality and how it is best assured. While the concept of quality initially referred only to a ready-made product, more and more quality dimensions were introduced into the concept of quality assurance in the course of time. The understanding of quality was first extended to include customer satisfaction and then, in a further step, to all workflows and services, and also to the existing structures. The working processes of an organisation increasingly became the focus of interest. Quality now affected all sectors, all tasks and all the persons in a company or an organisation. The term "quality assurance" was superseded by the term "quality management". The associated paradigm shift did not begin in Germany until the 1980s. Quality is no longer to be controlled or assured, quality is to be produced and continuously improved. Modern quality management is based on this understanding. Since it is now no longer linked to a product, it can be applied in organisations of any kind.

→ Health promotion offerings can contribute to improving quality through practice-oriented implementation of key elements, such as thinking in control loops as a working principle, thereby developing quality.

Resource

In → Health promotion and primary prevention (→ Prevention), this term is taken to mean protective factors that increase the latitude for action for healthy behaviour. They can be personal, social or family resources (see also Quality Criterion 11, p. 98).

- *Personal resources* include a sense of coherence, self-efficacy expectations, emotional stability, the ability to cope with negative emotions and stress/distress, empathy, self-concept, relationship skills, etc.
- *Family resources* include family cohesion, support from the family, child-raising behaviour (encouragement, promotion, communication within the family, model function).
- *Social resources* comprise support from other persons of reference in the environment.

Setting approach

The term "setting" denotes a limited social space (e.g. a workplace, school, hospital, neighbourhood) where people pursue their daily activities. Setting-oriented interventions are geared to the structural conditions of the setting and to the groups of persons involved.

In the comprehensive sense, a setting can be taken as being a relatively permanent, at least partly binding social context (setting) that is defined by formal organisation, a regional situation and/or by shared experience and/or a common situation in life and/or shared values or preferences, and which can be a source of important stimuli regarding the perception of → Health, health-related burdens and/or health-related resources, as well as all forms of coping with health risks (balance between burdens and resources).
The setting approach as the (core) strategy of → Health promotion is based on the idea of integrating more → Health in people's settings and maintaining it there. It was developed by the World Health Organization (WHO) in the late 1980s and is considered to be an instrument for implementing the principles of the Ottawa Charter in the practice of health promotion. Based on the "Healthy City approach" of the WHO of 1990, numerous conceptual considerations have in the meantime spread to other sectors (e.g. health-promoting child day-care centres, health-promoting schools).

The setting approach acquires its particular importance for health promotion for the socially disadvantaged through the fact that it is an equally behaviour- and situation-oriented approach in health promotion. Accordingly, setting-

oriented offerings are not geared solely to the health-related knowledge, attitudes and behaviour of individuals, but primarily to the environmental factors in their settings that influence the people living, learning and/or working there (e.g. workflows in companies, spaces for physical activity in a neighbourhood). The setting approach is thus also referred to as the organisational development approach.

By providing low-threshold measures (→ Low-threshold) based in the settings of the → Target groups – e.g. school, company, neighbourhood or family – offerings implementing the setting approach avoid one-sided addressing of the middle class and stigmatisation of disadvantaged target groups. Interventions in settings see their target groups as active participants, who are involved in planning and implementing the offering. They aim to communicate life skills and strengthen the affected people's exercising of their own health-related interests (→ Empowerment).

Sustainability

In health-promoting offerings, sustainability exists if the intended effects of an offering persist after it comes to an end, or if an offering generates effects above and beyond its limited duration. Of particular importance for sustainability is continuity, i.e. if permanent continuation is ensured and self-sustaining structures are developed.

Target group

The term "target group" denotes the groups or persons at which a measure or a strategy is aimed.

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