Prevention Across Europe

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Childhood obesity continues to be a major challenge for almost all countries in the European Region. The statistics are disturbing, with rising rates of overweight and obesity reported in many countries of the Region during the past few decades [1]. Where trends have recently started to flatten out, it is at very high rates with a strong social gradient[1]. The World Health Assembly recently adopted a global target for all countries to renew their efforts to halt the rise in overweight (including obesity) among children under 5 by 2025. In Europe, significant effort has been invested in identifying potential solutions, with some progress in policy development in some policy areas [2,3]. Nevertheless, in order to truly halt the rise on childhood obesity, there is a need for far greater policy action in all countries.

Childhood obesity is a multifaceted problem embedded in physiological, behavioural, genetic, socio-economic, environmental and political contexts. It is clear that actions to prevent childhood obesity must therefore be taken in multiple settings and at all levels of government. They also need to incorporate a variety of approaches and involve a wide range of stakeholders. Isolated interventions or one-package-solutions for childhood obesity are likely to remain largely ineffective and unsustainable. Policy approaches that combine changes to the food and physical environments, with community-based, multi-component behaviour change interventions and a strong focus on skills and competence hold much more promise and should be accompanied by appropriate monitoring and surveillance systems. Such solutions require committed leadership, with effective governance mechanisms in place, and must be negotiated and supported by many key stakeholders. In this chapter we will focus on two key components of a comprehensive approach to childhood obesity prevention: (i) Supporting mechanisms and structures within the government, (ii) population wide food and physical activity policies. We recognise the importance of a third component, notably community-based interventions, which is addressed by authors in other chapters.

Introduction to the European situation

Overweight and obesity are highly prevalent among children and adolescents in European countries, affecting in particular the children of less educated parents [4]. The WHO European Childhood Obesity Surveillance Initiative (COSI) [5], round 2 (2009–2010), showed that, on average, one in every three children aged 6–9 years was overweight or obese in countries participating in the survey[2]. The prevalence of overweight (including obesity) ranged from 24% to 57% among boys and from 21% to 50% among girls and that of obesity from 9% to 31% in boys and 6% to 21% in girls. The Health Behaviour in School-aged Children (HBSC) study in the WHO European Region in 2009–2010 showed that the prevalence of overweight and obesity was between 11–33% for children aged 11 years, 12–27% for children aged 13 years and 10–23% for those aged 15 years [6]. The study also showed that a higher prevalence of overweight is associated with a lower socioeconomic status in some countries. This is of particular concern because childhood obesity is associated with a number of adverse health conditions, and overweight or obesity among children is likely to persist into adulthood, increasing the risk of a range

[1] The prevalence of overweight in children under the age of five years has been steadily growing in the past 10 years, with relative increases of 3% to 5% per year. Success in curbing increasing rates in school-age children has been documented in Chile, France and Sweden, although limited to some regions and to higher income groups.

[2] For information about countries participating in the survey: http://www.euro.who.int/en/health-topics/disease-prevention/nutrition/activities/monitoring-and-surveillance/who-european-childhood-obesity-surveillance-initiative-cosi

of diseases, notably noncommunicable diseases (NCD) [7]. Of the six WHO regions, the European Region is the most severely affected by NCDs: cardiovascular disease, diabetes, cancer and respiratory diseases (the four major NCDs) together account for 77% of the burden of disease and almost 86% of premature mortality [8]. For men in the European Region, deaths from NCDs are estimated to be 13 times higher than other causes combined, and the Region has the highest age-standardised incidence of all cancers (combined for both sexes) [9]. Poor diet, overweight and obesity contribute to a large proportion of NCDs, including cardiovascular diseases and cancer, the two main killers in the WHO European Region [10] .Excess body weight (BMI >25), excessive consumption of energy, saturated fats, trans fats, sugar and salt, as well as low consumption of vegetables and fruits, whole grains and physical inactivity are leading risk factors [11]. Overweight affects 30–80% of adults in the countries in the Region [10] The promotion and accessibility of a healthy and varied diet (that is both available and affordable) and measures to increase levels of physical activity are thus key policy levers to improve the health and well-being of the population and to reduce health inequalities.

In this context, many governments across the region have taken steps to develop and implement a range of prevention policies to combat childhood obesity. Recently published country profiles for the 53 Member States of the European Region[3] show that many countries are taking action in some areas, with a number of countries introducing innovative policies (notably in terms of school food policies; marketing restrictions; food reformulation; and, public health taxes). However, there are still significant gaps and policy implementation could be further advanced. Importantly, there has been a clear tendency to focus on those policy areas that aim to provide information/promote awareness among consumers, with less action taken in areas requiring structural or environmental changes to facilitate healthier diets and promote physical activity, despite these being identified as priorities [12].

At this critical juncture in Europe, with new guidance and tools from WHO emerging for both nutrition and physical activity, we describe an integrated approach to curb the trend of the rise in childhood obesity prevalence (see box 1). While recognising the high importance of community-based initiatives to curb childhood-obesity, the focus of this chapter will be to discuss actions at two levels: i) supporting structures at government level and ii) population-level policies.

[3] http://www.euro.who.int/en/publications/abstracts/country-profiles-on-nutrition,-physical-activity-and-obesity-in-the-53-who-european-region-member-states.-methodology-and-summary

Box 1: An integrated approach to childhood obesity prevention

The determinants of obesity are complex and varied and it is important to recognise that no single intervention introduced in isolation is likely to prevent childhood obesity. In July 2013, the WHO Regional Office for Europe organized a ministerial conference on nutrition and NCDs, which led to the adoption of Vienna Declaration [13]. This Declaration mandated WHO to develop a new food and nutrition action plan and also requested the development of a physical activity strategy for the region. It acknowledged that strategies to improve tackle obesity require comprehensive government action in a broad range of areas, specifically through implementation of a core set of evidence-informed policies. It also recognised that the successful adoption and implementation of these policies requires continuing emphasis on health in all policies and whole-of-government approaches.

At a structural level, childhood obesity prevention can be facilitated by an intra-governmental platform to coordinate and improve the effectiveness of policy and programme development and implementation. By focusing on improving systems' response and altering the structures that shape it, such cross-governmental approaches can align incentives and secure active engagement of the necessary departments and agencies, resulting in supportive policies, adequate surveillance systems, appropriate resource allocation, and can ease the path of necessary regulations. At a population-wide policy level, childhood obesity prevention should have a focus on policies to shape the environment, which can lead to meaningful changes in health-related behaviours across the population.
At a community level, childhood obesity prevention comprises projects and programmes targeted directly to specific settings and groups, responding to important contextual factors and providing an opportunity to encourage the development of new skills and competences, particularly among our most vulnerable groups. A two-pronged approach, with a concerted effort to introduce population-level policies at the same time as community-based initiatives, is likely to be mutually reinforcing.

Needed structures at governmental level

Health governance and accountability frameworks

Due to the multisectoral nature of childhood obesity prevention efforts, cross-sectoral governance structures involving a wide range of actors are increasingly viewed as central in agenda-setting and gaining support across different portfolios at national or regional levels [14]. Whole-of-government approaches, including – for example – a cabinet committee on obesity or a cross-government action plan, are understood to add value due to their potential to facilitate engagement of important departments outside of the health sector (notably departments with responsibility for schools, transport and planning); drive joint action across different sectors, with shared agendas and goals identified; and help minimise obstacles to implementation [15-17] That said, concerted effort is needed to maximise the potential of these governance structures, given that there is often the perception that it is the health sector asking other departments to do something with little in it for them, and action can be limited where interests diverge. Governments committed to whole-of-government approaches need to uphold robust standards to promote action and monitor progress towards commitments.

The WHO's 2013–2020 global action plan to prevent and control NCDs also encourages collaborative partnerships among government agencies, civil society and the private sector to reduce NCD mortality by 25% by 2025 [8]. In this instance it is essential that due care is taken to protect public interests over private interests, by ensuring transparency and avoiding and managing conflicts of interest [18,19]. In particular, this NCD action plan is build on a three components to increase transparency and limit the influence of commercial interests and potential conflicts of interest in the policy-making process. These components are based on the UN Protect, Respect and Remedy framework[4]. Firstly, it is required that there is strong governmental leadership to meet national commitments to prevent and manage NCD to achieve the goal of a 25 % reduction in premature NCD mortality by 2025. Then it sets out three succeeding components to increase transparency and accountability.
The components include:
1. Monitor stakeholders' progress toward commitments
2. Review progress achieved
3. Respond appropriately to address NCDs
To strengthen the NCD action plan, WHO has developed a NCD Global Monitoring Framework, complete with a set of global voluntary targets, to enable global tracking of progress in preventing and controlling major noncommunicable diseases [20]. The prospect of perceived political failure and

[4] The guiding principles of this three-step framework include:
1. Protect: states (national governments) have a legal and policy duty to protect against human rights abuses
2. Respect: corporations have a responsibility to respect human rights and must act with due diligence to identify, prevent, mitigate and account for how they address impacts on human rights
3. Remedy: governments are held accountable when they fail to take appropriate steps to investigate, punish and redress human rights abuses by corporations through effective policies, legislation, regulations and adjudication.
United Nations Human Rights Office of the High Commissioner (2011) Guiding Principles on Business and Human Rights. Implementing the United Nations 'Protect, Respect and Remedy' Framework.
http://www.ohchr.org/Documents/Publications/GuidingPrinciplesBusinessHR_EN.pdf

international exposure of not being able to reach agreed commitments and goals can be a very important as a political incentive to change and invest in public health capacity-building, although joint ownership, acceptance and incorporation of targets by national governments is a pre-requisite to achieving impact [21,22] (see box 2).

Box 2: Attaining health through a whole-of-government approach and a whole-of-society approach

The European Policy for Health and Well-Being - Health 2020 [14] supports and encourages health ministries to bring key stakeholders together in a shared effort to respond to food, nutrition and health dilemmas. It recognizes the contribution of such stakeholders – particularly civil society and the private sector – in taking health agendas forward at regional level. WHO define governance for health and well-being as the attempts of governments and other actors to steer communities, whole countries or even groups of countries in the pursuit of health as integral to well-being through both whole-of-government and whole-of-society approaches [16]. Public health policy is the basis for health governance and builds on an empowered body that develop clear public health objectives, a governance process and ethical standards for all stakeholders to embrace and act upon.

Monitoring and Surveillance systems

As mentioned in the above section, a national monitoring and surveillance system is essential in order to evaluate progress, assess the magnitude of problem, and to help identify targeted policies and actions that will assist in addressing the situation.

To monitor the progress of commitment in regards to childhood obesity put forward during the European Ministerial Conference on Counteracting Obesity in Turkey 2006, WHO has developed a unique comprehensive childhood surveillance system (COSI) targeting school-aged children (6-9 years old) [5]. COSI provides comparable measured data, a result of a common protocol, standardised measurement techniques and train examiners[5]. At Round 2, the prevalence of overweight (including obesity; WHO definitions) ranged from 18% to 57% among boys and from 18% to 50% among girls; 6-31% of boys and 5-21% of girls were obese. COSI collects information on body mass index (for age), waist-hip circumference, associated morbidities, dietary intake and physical (in)activity levels. Furthermore, it now also collects information about the school nutrition and physical activity environments through a standardised questionnaire Two other comprehensive tools to assist with monitoring anthropometric and behavioural risk factors in school environments are is the WHO *Global School-based Student Health Survey* (GSHS)[6] and WHO collaborative *Health behaviour in school-aged children survey* (HBSC) [6]. The latter survey covers 44 countries and regions across Europe and North America, more than 60 topics and

[5] The first data collection took place during the school year 2007/2008 with 13 countries participating. The second round took place during the school year 2009/2010 with four new participating countries: Greece, Hungary, Spain and the former Yugoslav Republic of Macedonia. An additional four countries, Albania, Republic of Moldova, Romania and Turkey joined the third data collection round, which took place during the school year 2012/2013. The fourth COSI round is planned for the school year 2015/2016, whereby Kazakhstan has already confirmed their participation and more countries are considering participation such as Poland, Uzbekistan, Croatia, Slovakia, Austria and Denmark.

[6] The Global school-based student health survey (GSHS) is a project conducted in collaboration with the US Centers for Disease Control and Prevention, for more information see http://www.cdc.gov/GSHS/ , accessed the 1 July, 2014

involves over 200 000 children and young people. Relevant indicators captured include self-reported overweight and obesity among children aged 11, 13 and 15, and food consumption patterns. Additionally, a framework of voluntary targets has also been adopted in the area of maternal, infant and young child nutrition [23].

Funding

Across Europe, countries are facing the challenge of how to secure dedicated funding to ensure sustainability for obesity prevention efforts and health promotion interventions [24]. As one of the responses to this challenge, some of the countries in the European region have established health promotion agencies or foundations, funded through taxes on tobacco, alcohol or unhealthy foods and non-alcoholic beverages. Health taxes on soft drinks or a broader range of foods categorised as less healthy by a nutrient profile model, can, if they are not too small, moderate demand for these products, have a positive effect on public health, while also raising the additional revenues required to fund health promotion and interventions to combat obesity, as well as to subsidy fruit and vegetable intake [25]. Hungary's fat taxes are perhaps the most comprehensive, and are added on foods with high fat, sugar, salt and caffeine content. The government also increased its tariffs on soda and alcohol [26]. The government says that the revenue from the fat tax will be ear marked to health care costs and lower obesity rates [27]. In 2012 the French parliament backed a tax on drinks containing added sugar or artificial sweeteners [28]. Half of the tax raised goes into France's state health insurance pot to help combat obesity, while the other half is being used to reduce costs related to agricultural workers. Also funded through tax revenues, the Austrian Health Promotion Act requires the Finance Ministry to deduct an ear- marked, annual amount from sales-tax revenue, before this revenue is distributed among national and regional levels of government [29]. Switzerland follows a different funding model, whereby the Sickness Insurance Act stipulates that Swiss health insurers collect an annual surcharge from every insuree on behalf of Health Promotion Switzerland[30].

Strengthen the health systems and the public health capacity

Current situation analysis of the health system shows that there need to strengthen the public health workforce capacity to respond to non-communicable diseases, risk factors and co-morbidities, including childhood obesity [31,32]. Contributing factors may be shortages, imbalances and a mismatch between education models and health needs [32-36]. In Health 2020 and the Vienna Declaration there is a call for new approaches and innovations to improve the delivery of public health services in addition to better leveraging the capacity of the current workforce, through ongoing professional development. With regards to preventing childhood obesity, there is a need for capacity building and skills development in primary health care settings, especially in relation to the provision effective counselling about adequate and healthy diets and health enhancing physical activity, but also to work in a multi disciplinary health team and with partners from other sectors. It is recognised that if additional services are to be put on the top of health professionals' current workload, proper incentive and performance systems will also have to be in place [37,38]. To this end, it is of critical importance that governments develop policies that will ensure availability of enough health workers with the relevant skill-mix, competencies, capacity and incentives to provide preventive counselling and services to their populations [39,40].

Standards and guidelines

Population-level dietary intake goals and individual-level food-based dietary guidelines for healthy eating, in addition to physical activity recommendations, are critical foundations for obesity prevention efforts. These need to be evidence-based, updated regularly, adapted for different population groups (e.g. children, adolescents, elderly communities, minority groups), and communicated effectively to policy-makers and the population. For example, food-based dietary guidelines should underpin any public awareness messaging or behaviour-change communication. Furthermore, both population-level dietary intake goals and food-based dietary guidelines are needed to inform the nutritional criteria that support the development and implementation of particular policies. Systems that indicate which foods can be classified as "more likely to contribute to a healthy diet" or "less likely to contribute to a healthy diet", for example, are necessary to underpin food and nutrition policies such as front-of-pack traffic-light labelling and regulations on marketing to children [41]. Local authorities also rely on guidelines (e.g. on the required ratio of open space to built space) to create environments for active transport and recreation. National targets for the food industry on food composition, marketing to children, and health claims can also greatly assist policy implementation, and are informed by dietary intake goals.

Population-level policies and initiatives

Given the scale and pervasiveness of the childhood obesity challenge, there has been a growing focus on policy interventions that extend beyond influencing individual behaviours to also address changes in the environment. It has been shown that policy (as compared with program-based) interventions, targeted at prevention (as compared with treatment) and focused "upstream" on the food environment, are likely to be the most cost-effective options for change [42,43].

This shift recognises that individual-level interventions are resource-intensive and, when implemented alone, have limited potential for lasting success as long as environments promote unhealthy behaviours, limit access to healthy foods and safe opportunities for physical activity. This approach is underpinned by the evidence that many of our health behaviours are structurally determined, and thus amenable to change through policies that shape the environment [44-47] Furthermore, it has been successfully demonstrated that population approaches have greater potential to tackle inequities than individualised approaches, which may in fact do more harm than good [4]. Responding to the challenge of identifying effective action, there have been calls for a more "upstream" approach to tackling childhood obesity, with a focus on population-based measures that can shape the circumstances and conditions that act as underlying determinants of diet and physical activity behaviours [48]. Sectors targeted include all aspects of the food system (such as agriculture, food processing, food distribution, marketing, retail and food service sectors) and sectors that influence the physical activity environment (such as infrastructure, transport, and education sectors). Taking the example of food policies, such an approach has the potential to influence both supply(e.g. through reformulation of food products, or nutritional standards in specific settings) and consumer demand (e.g. through nutrition labelling, marketing restrictions, price policies). "Upstream" approaches are complemented by "midstream" approaches, which can leverage the advantages of specific settings for health interventions (e.g. health-promoting schools, community and recreation facilities, and public institutions), but still retain the ability to influence a significant amount of the population [48].

Standards and norms for both “upstream” and “midstream” policies are generally established at the national or regional levels. We recognise that large socioeconomic, gender and ethnic inequities exist in terms of obesity in Europe. While policies in this area, such as income tax regimes, social security mechanisms, community housing, and education and migration policies undoubtedly influence overall health outcomes of the population including childhood obesity, addressing these issues is considered beyond the scope of this chapter. They should, however, be a core part of an NCD prevention strategy.

The section below mainly discusses policies influencing food environments and physical activity. The range of policy entry points is broad; these include land-use, agriculture, food manufacturing and distribution, food marketing, food retail and food service, and food labelling. The evidence on food policies has also expanded rapidly in recent years, such that the main emphasis for WHO is to now encourage the wider implementation of a package of evidence-based actions, with support for policy development and sharing of good practice. For this reason, the following section focuses on the combinations of interventions most commonly cited regarding childhood obesity prevention

Public awareness campaigns, social marketing and behaviour-change communication

Public awareness campaigns, social marketing and behaviour-change communication related to nutrition and physical activity implemented in countries together with a strategy in how to provide consumers with information (e.g. development and communication of food-based dietary guidelines, nutrition labelling, and behaviour change communication, such as 5-a-day messaging, via mass media) [49]. In particular campaigns related to physical activity have shown to be cost effective and especially when run in parallel with other interventions and programs [50].

Box 3: Examples of public awareness campaigns to promote healthy eating and physical activity

Since 2001, the French Ministry of Social Affairs and Health and the National Institute of Health Prevention and Education run a healthy living campaign called "Eat Move" (Manger Bouger) (PNNS). It includes a website, informational videos and print advertisement (www.mangerbouger.fr) and was put together by the government committee responsible for the National Nutrition and Health Programme (Programme National Nutrition Santé, PNNS). Also in the UK, the English Department of Health has set out a social marketing strategy to reduce obesity, called Change4life (http://www.nhs.uk/change4life/Pages/change-for-life.aspx). It started in 2008 with a convenience store programme in the North East of England to improve the accessibility of fruit and vegetables in low-income areas and was followed by a broad social marketing campaign started in 2009, targeting families [51]. It promotes healthy weight, healthy eating, physical activity and lower alcohol consumption using the slogan "eat well, move more, live longer".

Promote and protect exclusive breastfeeding and ensure appropriate complementary feeding

Exclusive breastfeeding to six months is widely recognized as the best option for infant feeding and considered a public health priority. The short- and long-term benefits of breastfeeding for children and the mother have been well documented, with – among others – demonstrated protective effects in terms of risk of obesity and later risk of NCDs [52-54]. Breastfeeding has been described as an "ideal window of opportunity for obesity prevention" [53,55,56].

A comprehensive implementation plan on maternal, infant and young child nutrition was adopted by WHO Member States in 2012. It advocates for comprehensive national policies that promote, protect and support breastfeeding, and the implementation of actions recommended in the International code of marketing of breast milk substitutes, the Innocenti Declaration, and the Baby Friendly Hospitals Initiatives. For example, the Baby Friendly Hospitals Initiative has been shown to be an effective strategy in increasing the initiation and, to some extent, duration of breastfeeding [57]. The proportion of hospitals in the country that are designated "baby-friendly" is one of the indicators for assessing country progress and priority. A hospital is "baby-friendly" if staff are adequately trained; women are provided with information about the benefits of breastfeeding and are given help for early initiation; babies are provided with no other form of food or drink unless medically indicated; and no free or subsidised breastmilk substitutes or artificial teats are offered.

Marketing of food and non-alcoholic beverages to children

The marketing of food high in saturated fat, trans fat, sugar and salt and non-alcoholic beverages to children is widespread and has been shown to influence children's food preferences, knowledge and attitudes, purchase choices and consumption. Food marketing to children has been associated with unhealthy dietary patterns and increased risk of overweight and obesity. The WHO *Set of Recommendations on the Marketing of Food and Non-Alcoholic Beverages to Children*, which was followed up by a framework for implementing the recommendations [58,59] gives a clear guidance on how Member States can take necessary measures. Member States are encouraged to establish strong measures

to reduce the overall impact on children of all forms of marketing of foods high in energy, saturated fat, *trans* fats, sugar or salt. These measures will have the effect of reducing the power of the communication techniques used and children's overall exposure to marketing of these foods. Clear definitions and criteria are needed to allow standard implementation, namely: a clear description of the marketing techniques covered by the policy; how it is determined whether the marketing is targeted at children (e.g. time; audience composition); the types of food to which marketing restrictions apply; and, the age of the child that the policy aims to protect. A recent report from WHO Europe shows that food marketing to children is still pervasive and increasingly using a broader range of channels to reach children, including social media [2]. These documents aim to support the development or strengthening of existing policies on food marketing to children through practical guidance on effective policy design, key tools to support implementation, and concrete recommendations for monitoring and evaluation systems. Examples of countries that have taken action to restrict marketing are given, such as the UK and Ireland, with a case study of their experience. Similarly, at the regional level, WHO is looking to advance a common approach to food marketing restrictions by supporting common approaches via the WHO Action Network on Reducing Marketing Pressure on Children; the Action Network has recently worked together to developing nutrient profile models that identify foods that may/may not be marketed to children, thus underpinning policies. In this context, it is recognised that schools should be marketing-free environments, protected from all forms of food marketing (including sponsorship).

Improving the quality of the food supply for children

Building on national experience in other areas of policy development, WHO Europe also provides guidance on the strengthening and expansion of salt reformulation strategies as a priority, and the expansion of these programmes to other nutrients, such as saturated fat, sugar and calorie reduction. These have potential to benefit childhood obesity if they target the nutritional quality and portion sizes of foods most frequently consumed by children.
Additionally, WHO is encouraging the expansion of policies that set nutritional criteria for the foods available/provided in schools, including restrictions that limit availability of foods high in saturated fat, trans fats, sugar or salt (e.g. vending machine bans or food standards for tuck shops in schools). School fruit and vegetable schemes in schools should also be expanded, with a view to increasing the amount and frequency of fruit and vegetables provided, including to a broader range of age groups. Policies in school environments have great potential to influence health inequalities, and it has been widely demonstrated that a "whole of school" approach – where policies apply to all food provided or available – is more effective, especially when support by behaviour change/education interventions [60,61].

The European Union (EU) School Fruit Scheme is an EU-wide voluntary scheme that provides school children aged 6–10 with free fruit and vegetables, with the aim of encouraging good eating habits in young people [62]. The scheme is funded through co-contributions from the EU and the Member State implementing the scheme, and requires participating Member States to set up strategies including educational and awareness-raising initiatives.

Targeted fiscal measures

Finally, there has been much interest in the possible application of price policies to address overweight

and obesity, with particular attention paid to the role of taxes on sugar-sweetened beverages. Given that there is significant evidence implicating sugar-sweetened beverages in childhood obesity [63] price policies that address children's consumption of these products will have a tangible impact [42,43]. Evidence suggests that younger consumers (primarily adolescents in this case) are most susceptible to price increases, and that the overall impact of taxes is positive in terms of health outcomes for heavy consumers and our most vulnerable groups, for whom poor health throughout life can be a major barrier to well-being and full participation in society. Further consideration should also be given to the role of subsidies, including for example the integration of clear nutrition objectives into food assistance programmes for women and young children. Emerging evidence suggests that including healthier options (e.g. wholegrain bread; low-fat milk) in assistance programmes or providing price incentives in retail settings can influence purchasing behaviour, with a likely positive impact on children's overall diets [63-65].

Physical activity policies

The WHO Global Strategy on Diet and Physical Activity and Health underlines that national and local governments should provide support to ensure walking, cycling and other forms of physical activity are accessible. It is recognised that policies and interventions that modify the physical environment are crucial to make changes to the physical activity patterns of the population. The current physical activity recommendation for children and adolescents between 5-17 from the WHO years of age are at least 60 minutes of moderate- to vigorous-intensity physical activity every day [66]. The kind of activities can range from play, games, sports, recreation, physical education or a planned exercise in a specific setting. The WHO recommendations can be used by national and local governments to frame policies and provide incentives to ensure that walking, cycling and other forms of physical activity are accessible and safe. From a physical activity perspective, environmental policies that impact on people's mode of transport or that increase public space for recreational activities, can also provide health benefits therefore interventions targeting the built environment, policies that reduce barriers to physical activity, transport policies and policies to increase space for recreational activity are therefore both needed and promising [67]. Mass-media interventions commonly employ television and radio, as well as print media and are often run in parallel with community-based activities. It has been shown that mass media campaigns promoting physical activity are effective if they run in parallel with programmes in schools or local communities and associates with policies to address environmental barriers [50].

Conclusion

Experience within the WHO European Region points to the importance of several key elements, notably: high-level political leadership; a structure for multi-sectoral collaboration within government and the effective engagement of social and community actors; policies to address the food environment and, timely monitoring and evaluation of population levels of overweight and obesity, dietary risk factors, levels of physical activity and the impact over time of policies and intervention [12,68]. Facilitating factors include adequate and sustainable funds, timely engagement of experts, and an emphasis on the development of functions, roles and competencies within the wider public health workforce to drive through implementation [40] .

The government has a focal role in providing a broad range of population-level actions. In Europe a wide range of population-wide policies and initiatives including policies influencing food environments and systems, physical activity environments and social marketing campaigns are currently being promoted and implemented.

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