School-based interventions to address obesity: Considerations for European policymakers

“Schools play a critical role in preventing childhood obesity. Governors, state agencies, and state boards of education can do much to help them. Below are some strategies that states have used and that have shown promise in helping schools address childhood obesity.” CDC, 2010

INTRODUCTION

The prevalence of childhood overweight and obesity across Europe continues to rise and countries are off track for meeting global targets to halt the rise in obesity to 2010 levels. Since the 1980s, worldwide prevalence has increased by 47%. Studies have shown that children who become overweight or have obesity are unlikely to achieve a healthy bodyweight later on in life. This in turn can increase their risk of cardiovascular diseases, hypertension and type 2 diabetes in adulthood.

In addition to having serious health consequences, obesity can also have an economic impact on healthcare systems. When looking at obesity prevention interventions, it is essential to pay close attention to the setting in which these are implemented as well as address social determinants including poverty, food insecurity and social inequalities.

WHY FOCUS ON SCHOOLS?

“The school environment has the potential to affect national obesity prevention efforts both because of the population reach and the amount of time that students spend at school each day. Children obtain about one-third of their total daily energy requirement from school lunch, and should expend about 50 percent of their daily energy expenditure while at school, depending on the length of their school day. Given that schools offer numerous and diverse opportunities for young people to learn about energy balance and to make decisions about food and physical activity behaviours, it is critically important that the school environment be structured to promote healthful eating and physical activity behaviours.”

Actions to address the obesity epidemic should be taken across multiple settings. Schools have been identified as a crucial environment to implement obesity prevention interventions, given their ability to reach almost 100% of children, independently of ethnic or socio-economic group. Additionally, students spend half of their time and consume at least one-third of their daily calories at school, making it a valuable focus for policymakers. The reach of school-based interventions goes beyond students and can also have a beneficial impact on young people, school staff, families as well as community members. This further highlights the schools as a valuable setting for population-level interventions.

School-based interventions are varied and can include a number of different components: diet intervention, physical activity, health education, weight management, school policies, psychological counselling and parental involvement, among others. Body mass index (BMI) is often identified as the primary outcome to measure the impact of an intervention. Acknowledging that the duration of the studies ranged from two weeks to four years, a systematic review focused on school-based obesity prevention interventions in the U.S. and in international settings highlighted that 70% of interventions reported a decrease in BMI and/or
overweight or obesity. Additionally, a systematic review conducted in European countries found that in 76% of studies, children adopted healthier eating behaviours and 25% highlighted improvements in body composition.

Few cost-effectiveness studies have been conducted on existing school-based interventions in Europe, however studies from other countries suggest promising results. For instance, a study conducted in Canada modelled three scenarios, all of which showed the APPLE Schools programme to be cost-effective. Additionally, results were more favourable when the scenarios were modelled over a longer horizon-time. The analysis of Planet Health, a school-based obesity prevention programme, highlighted that by investing $14 per student per year, the intervention could prevent 1.9% of women students from becoming overweight. Results were even more encouraging on the long term: the societal impact of Planet Health was predicted to be non-negligible with an estimated $15,887 saved in medical care costs and $25,104 in productivity costs, all of which translated into a net saving of $7,313 to society.

RECOMMENDATIONS

Based on the evidence from systematic reviews, cost studies, case studies, government guidelines and recommendations as well as civil society organisations statements compiled in the dossier, a number of key considerations for planning and implementing successful school-based obesity prevention interventions were identified:

- **Develop multi-component interventions:** The need to adopt an interdisciplinary and holistic approach when developing interventions to tackle the growing prevalence of obesity has been emphasised by the WHO. Interventions combining physical activity and diet have been shown to increase the effectiveness of school-based childhood obesity prevention programmes. Additionally, studies have shown that the inclusion of a home element including a parent a family or parent component, has a significant effect on weight reduction.

- **Assess the allocation of resources:** Ensure sufficient financial resources are allocated to programmes, and that this resources enables sustained interventions

- **Tailor the programme to the targeted audience:** Ensure that the programme developed is feasible, both in terms of socio-cultural acceptability and resources available. Policymakers need to ensure that the programmes are inclusive and participatory.

- **Incorporate evidence-based strategies:** Ensure that the developed interventions are supported with evidence to increase the likelihood of successful implementation of school-based obesity prevention interventions.

- **Involve different stakeholders:** School-based interventions are complex and have the potential to have a population-level effect. It is therefore crucial to involve an array of stakeholders both during the design, implementation and evaluation of school-based interventions including students, parents, teachers and school staff, governments at state, regional and national levels, the broader community and the food industry.
- **Develop school nutrition policies**: Schools should develop nutrition policies following appropriate national guidelines. These should promote a lower consumption of high in fat, sugar and salt foods, encourage the consumption of whole grains, fruits and vegetables and support the establishment of healthy behaviour environments.19

- **Focus on obesity prevention**: The evidence overwhelmingly shows that habits developed during childhood extend into adulthood. Policymakers should focus on developing interventions to prevent childhood obesity through the promotion of healthy eating habits, physical activity and increase food and health literacy through the school curriculum.

REFERENCES


