



IDF RECOMMENDATION TO STAKEHOLDERS

Prevention of obesity
and type 2 diabetes
in the school environment



International
Diabetes
Federation

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PREVENTION OF OBESITY AND TYPE 2 DIABETES IN THE SCHOOL ENVIRONMENT

An estimated 463 million adults are living with diabetes worldwide – a number that has quadrupled since 1980ⁱ. In 2019 diabetes was responsible for 4.2 million deaths globallyⁱⁱ, 46.2% of which were premature (occurring in people under 60 years old) and preventable through a healthy, balanced diet and regular physical activityⁱⁱⁱ.

Type 2 diabetes, accounting for around 90% of all diabetes cases, is increasingly prevalent in children and adolescents and is fast becoming a serious public health concern. Major risk factors for type 2 diabetes include being obese, unhealthy eating habits and physical inactivity.^{iv} In 2016, 216 million children were classified as overweight and an additional 124 million as obese, exposing them to potential life-threatening health conditions.^v The child obesity epidemic has grown exponentially in predominantly low- and middle-income countries in the Middle East, Northern and South Africa, South East Asian and the Pacific Region.^{vi} Hence, the General Assembly of the United Nations commits to tackle the rise of overweight and obesity through implementation of evidence-based interventions.^{vii}

Worldwide, the majority of primary school age children spend a large proportion of their time in school.^{viii} It is therefore essential that schools actively engage in promoting healthy lifestyles, supported by national and/or local government policy. Healthy nutrition and physical activity are essential for the growth and development of children.^{ix} Educational programmes at schools, tailored at children and adolescents promoting healthy lifestyles have demonstrated to positively impact eating habits of students and school policies.^x Establishing healthy eating habits, and introducing a well-balanced diet at an early age, are vital to support children's health and well-being.^{xi} Environmental factors, social determinants, absent or inadequate nutrition education, restricted access to healthy foods and the lack of opportunities for exercise make it challenging for many children and adolescents to live a healthy lifestyle.

This position statement focuses primarily on the role that education systems and school environments should play in the prevention of childhood obesity and type 2 diabetes. In particular, government policies should promote nutrition education as part of the school curricula, ensure the provision of nutritious food within schools and ban the direct or indirect marketing of unhealthy foods and drinks.

Health promotion and nutrition education within schools

With the primary causes of obesity being the over consumption and under-expenditure of energy, it is imperative that nutrition education and physical activity must be at the heart of all interventions to tackle childhood obesity in school. Evidence suggests that multi-component intervention programmes within schools are able to tackle childhood obesity, particularly when implemented with parental involvement.^{xii xiii}

The European Commission identifies and promotes four categories of effective nutrition education interventions within schools in their toolkit to increase fruit and vegetable consumption: Classroom-based learning, experiential learning (such as school gardens or excursions to farms), games and competitions (\pm rewards and incentives) and behaviour change approaches.^{xiv} One study from the US used these different methods to implement an intervention containing nutrition education, rewards for healthy snacks and family involvement that resulted in a 50% decrease in incidence of becoming overweight and a reduction in the overall prevalence of overweight children in intervention schools^{xv}. In Brazil and India, the school-based programme KiDS raises awareness of the prevention of type 2 diabetes and educates on the benefits of healthy food choices and physical activity amongst school-age children. This intervention influenced local school policies to promote healthy eating and physical activity.^{xvi}

Given that physical activity plays such a pivotal role in childhood obesity and that it has been found that 81% of school-going adolescents (aged 11-17 years) do not meet the World Health Organisation (WHO) global recommendations on physical activity, it is clear change must occur to influence the rising obesity levels^{xvii}. An example in Chile, as part of a 50 measure plan to combat childhood obesity, promotes physical activity in school by having guided participatory break times and free smart fitness tracker bands to monitor physical activity.^{xviii} Another example from Finland is the Schools on the Move project. As of August 2018, 90% of municipalities and 88% of comprehensive schools (2 096 schools) were involved in this government-led, funded programme to promote children to achieve at least 1 hour of physical activity a day.^{xix}

IDF holds the position that governments should ensure that evidence based nutrition education, coupled with regular physical activity, should be a mandatory part of every school curriculum.

Food available in schools

Food consumption at school is influenced largely by accessibility and affordability^{xx,xxi}. Evidence shows that interventions increasing the availability and affordability of healthy foods within schools, whilst restricting access to unhealthy foods, have succeeded in changing dietary habits of schoolchildren.^{xxii}

With urban populations facing an ever-growing tsunami of convenience and fast food stores, providing easy access to high-calories and low-nutrient foods, some countries and regions have taken measures to remove this obesogenic environment from their schools. Interventions addressing this issue have been implemented such as closed-campus, influencing students to eat at school, with one London based study demonstrating a closed-campus school has fewer students visiting fast or convenience food shops during the day, compared to open-campus schools.^{xxiii} In 2005, France extended a ban on vending machines to cover both primary and secondary education establishments. This ban provoked a decrease in morning snacking and reduced sugar intake from snacks by 10 grams.^{xxiv} Additionally, ‘foodscaping’ has shown to be effective within the school environment^{xxv,xxvi}. This method uses promotion and prominent positioning of healthy food to ‘nudge’ people towards healthier choices. Initiatives to address food consumption in schools could be school led or initiated by local communities or national legislation.

IDF holds the position that governments must legislate to ensure high calorie and low-nutrient-dense foods are not available in schools. Rather, nutritionally balanced meals and snacks should be promoted and accessible at an affordable price to all school children.

Marketing of food and drink products within schools

In the US, more than 60% of schools have vending machines and over 80% have direct advertisements through posters on school grounds.^{xxvii} With evidence that the marketing of unhealthy food products directly influences the consumption of those products by children and in turn is linked to increase in body weight, governments must take an active role in regulating food marketing directed at children.^{xxviii,xxix}

In line with the WHO position on improving the school environment, it is imperative to restrict the marketing of certain food and beverages such as sugar-sweetened beverages (SSBs).^{xxx} Schools should be responsible to ensure that their students are not exposed to marketing tactics from the

food industry (billboards in school facilities; product displays; free snacks) nor have other type of exposure (organised trips to fast food factories; sell soft drinks on school grounds or receive corporate gifts) that could encourage children to consume unhealthy food.^{xxxii} Policies are now stating that food products advertised on school grounds must meet the nutritional requirements of food that is permitted to be sold on site.^{xxxii,xxxiii}

In 2015, Poland implemented a law regulating the promotion and advertising of foods sold at pre-schools, primary and secondary schools.^{xxxiv} In Slovenia, the industry voluntarily agreed to restrict the advertisement of soft drinks in school settings, magazines and cinemas for children under the age of 12.²⁹ The Alliance for a Healthier Generation in America, launched the Healthy Schools Program developing nutritional guidelines regarding foods and beverages, to encourage schools to create healthier food environments.^{xxxv} Three years into the programme, the awareness on beverage guidelines increased from 35.0% to 51.8% and awareness on food guidelines increased from 29.4% to 40.2%, indicating successful dissemination of the guidelines.

IDF holds the position that schools should ensure that the school environment is free from all marketing of unhealthy food and offer healthier food options at affordable prices.

Every child deserves a healthy start in life. The battle against childhood obesity is a multi-faceted issue. It requires coordinated contributions from parents, schools, government, industry and civil society to develop policy and implement the required changes. Many countries have made efforts to create a healthy environment for schoolchildren and IDF encourages other countries to follow their examples and adapt their initiatives into their own context. Certainly, we need the evidence to know what works best. More research is required to establish the most effective strategies for this burgeoning public health crisis, tailored to individual challenges faced in different countries around the world. Families cannot be left alone to bear the responsibility for their children's health. It is the duty of society as a whole to take action and provide sufficient support.

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ⁱⁱ International Diabetes Federation. IDF Diabetes Atlas, 9th edn. Brussels, Belgium: International Diabetes Federation, 2019. <http://www.diabetesatlas.org>

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