Food environments influence dietary choices that can have a significant impact on the prevention of childhood obesity. Many food environment interventions have been undertaken at the school level but evidence of their effectiveness in the reduction of childhood obesity is scarce.

Therefore, we aimed to synthesise and evaluate the evidence of food environmental interventions around and within schools to determine effective parameters that can aid in childhood obesity prevention. The most frequent interventions addressed the effect of vending machines, school stores, cafeterias, and menu offering regulations. Four (20%) interventions focused on vending machines. The main outcomes were body-mass index z score (n=13; 65%) and dietary intake (n=4, 20%). A positive association between the food environment intervention and the reduction of obesity was found in 15 (75%) of the studies.

Our study allowed us to identify a number of key parameters and formulate the below recommendations when implementing school-based interventions. Identified effective interventions in the prevention of childhood obesity were banning of sugary drinks in schools and an increase in availability and accessibility of fruits and vegetables for children from an early age.

Multisystem approaches, such as stringent and monitored school meal programmes, alongside the collaboration, training, education, and integration of the school staff, parents, and students, increased acceptability and adaptability according to the local needs and sustainability of the food environment interventions. Changes in the school food environment could facilitate individual dietary behaviour modifications that lead to the prevention of obesity and non-communicable diseases.

For more information, visit www.stopchildobesity.eu

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