Impact of neighbourhood food environment on diet and obesity in China: a systematic review

Based on data from the China Health and Nutrition survey, the obesity rate in China increased from 2.9% among men and 4.6% among women in 1991 to 11.8% among men and 11.0% among women in 2011. This rapid rise in obesity coincides with increasing rates of diet related non-communicable diseases. Since 1978, market reform and rapid urbanisation have contributed to greater availability of high energy food, alongside a decrease in levels of physical activity. This study is the first systematic review regarding the impact of the neighbourhood food environment on diet and body weight in China. The aim was to inform policy makers and stakeholders on how to design and modify the food environment to encourage the consumption of healthier diets and reach/sustain a healthy body weight.

Against selection criteria, 17 studies were included in the systematic review. It was found that variety, density and proximity of food outlets is linked to dietary diversity, portion sizes and daily energy intake. In some studies, the number of fast food outlets and convenience stores was linked to residents’ body weight. Policies on food stores in a school vicinity were found to be linked with reduced intake of fast foods and unhealthy snacks. Despite some relationships being found between the food environment, diet and body weight, the authors state that more research is required.

The authors conclude that policy makers should consider the design of the built environment as important, including access to healthy food stores and supporting physical activity. China is still undergoing rapid urbanization and socio-economic changes, so it is important more is understood about urban design to encourage healthier Chinese neighbourhoods.