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## How does the obesogenic environment impact on climate change?

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Introduction: Around 15% of the global population is now obese or overweight and carbon emissions have increased from 250 ppm (50 years ago) to 380 ppm in 2007. Some have suggested that it is no coincidence that countries with higher obesity rates tend to have higher carbon emissions, such as the USA. This paper explores whether increasing obesity rates have an impact on climate change.

*Method:* A literature review of published research, including grey literature of the evidence for a link between obesity and climate change was conducted.

Results: Excess weight is caused by an imbalance between energy intake and energy expenditure. An increasing consumption of food, especially energy-dense processed foods, accompanied by a reduction in physical activity is involved in causing both obesity and climate change. The food chain makes a significant contribution to carbon emissions; contributing  $\approx 1/5$ th of greenhouse gas emissions from food production, distribution and retailing; transport/travel and waste. Increased demand for energy-dense convenience food leads to increased CO<sub>2</sub> emissions from processing, and carbon intensive packaging, as many prepared foods use oil-dependent plastic packaging. The rise in demand for convenience foods has contributed to a diet that is more energy dense, and therefore more obesity promoting. Reducing consumption of energy-dense foods back to European intakes of the 1990s would make enormous cuts in CO2 emissions. Convenience foods have often travelled many food miles. Increased consumption of energy-dense

convenience foods then increases the risk of developing obesity. The key drivers in how a lack of physical activity contributes to climate change include increased car use, which lowers physical activity levels and increases carbon emissions. It is estimated that  $\approx 40\%$  of car journeys in the United Kingdom are <3 km, which could be walked in <30 min. Passenger cars now account for more than 13% of CO<sub>2</sub> emissions in the United Kingdom and therefore make a significant contribution to global warming. It has been estimated that reverting back to walking patterns from the mid-1970s would result in a reversal of the obesity epidemic and a vast reduction in CO<sub>2</sub> emissions. Redesigning the built environment to make it more favourable for walking and cycling, would be a solution to both obesity and climate change. Watching TV or using computers/gaming leads to increased CO2 emissions and is associated with weight gain.

Conclusions: Some of the policies widely evoked to tackle the obesogenic environment could also reduce greenhouse gas emissions. Examples include changes in urban design, making physical activity easier, benefiting both carbon emissions and BMI. Encouraging supermarkets and food manufacturers to demand reformulated products, shift marketing to healthier products and introduce food labelling will all help decrease obesity. Educating the public to change their attitudes in a more sustainable manner can be part of the solution, but alone it will not be enough. For further information: Globesity – a planet out of control – Delpeuch, Maire, Holdsworth (2009). www.earthscan.co.uk:?tabid=56997

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## 3rd Workshop – Communication – Keynote Speakers Communicating the messages of obesity prevention to the public

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*Introduction:* A cross-Governmental strategy Healthy Weight, Healthy Lives was initiated to combat the issue. Marketing was to form part of this strategy. The scale of the problem and its societal nature called for a new approach.

The Department of Health, working with M&C Saatchi, developed a radical new social marketing strategy. Rather than a campaign, they used marketing to ignite a movement called Change4Life. Change4Life brings together