

The future for food, farming and the environment – consultation response May 2018

Submission from: Dr Oliver Mytton, MRC Epidemiology Unit / Centre for Diet and Activity Research (CEDAR), University of Cambridge; Dr Pablo Monsivais, Washington State University; Emilie Aguirre, JD, Harvard University.

We are responding to the consultation on 'Health and Harmony: the future for food, farming and the environment in a Green *Brexit*'.

The document acknowledges the diverse impacts of agriculture, including on human health through physical activity, air pollution and anti-microbial resistance. It did not however acknowledge the influence of agricultural policy on health through its impact on food production, food consumption and diet.

Poor diet is the leading risk factor for ill-health in the UK. Around 11% of DALYs (Disability Adjusted Life Years) are attributed to dietary risk factors. This is a greater burden of ill-health than attributable to any other single risk factor in the UK (e.g. obesity, smoking or alcohol).¹

We give three examples of how agricultural policy is likely to have impacted on human health:

- 1) As we set out in our 2015 paper published in the British Medical Journal, European sugar policy (under the Common Agriculture Policy), and subsequent liberalisation, supported the production of cheap sugar in large quantities.² Cheap sugar is an attractive ingredient for adding to processed foods and drinks, with sugar being an important contributor to the development of obesity, type 2 diabetes and other non-communicable diseases.^{3,4}
- 2) The obesity epidemic in the USA has been attributed in part to US Farm Bills from the 1970s leading to a rapid increase in food production, including the production of corn (which was turned into high-fructose corn syrup, a cheap calorific sweetener similar to sugar). This was followed by increase in availability, marketing and affordability of sugary drinks and sweetened energy dense foods, typically sold in large portion sizes.⁵
- 3) The North Karelia project in Finland achieved changes in agriculture, including a switch from dairy to fruit and rapeseed oil production. These changes, alongside other initiatives, were associated with improvements in population diet and reduced cardiovascular disease.⁶ Poland removed dairy and other animal fat subsidies in the 1990s, which is credited with contributing to an observed fall in coronary heart disease.⁷

Whilst these influences may be complex and difficult to predict, they should be considered, for example through full and meaningful health impact assessment of agricultural policy options. Defra has an opportunity to develop an agriculture policy that is in alignment with not just ecosystems and climate goals, but also with the public's health.

We encourage Defra to work closely with Public Health England to ensure that the impacts of agricultural policy on diet, and other aspects of health, are fully considered within its future strategy.

References

1. Newton, J. N. *et al.* Changes in health in England, with analysis by English regions and areas of deprivation, 1990–2013: a systematic analysis for the Global Burden of Disease Study 2013. *Lancet* **386**, 2257–2274 (2015).
2. Aguirre, E. K., Mytton, O. T. & Monsivais, P. Liberalising agricultural policy for sugar in Europe risks damaging public health. *BMJ* **351**, (2015).
3. Scientific Advisory Committee on Nutrition. *Carbohydrates and Health*. (2015).
4. World Health Organization. *Sugars intake for adults and children*. (2015).
5. Rodgers, A., Woodward, A., Swinburn, B. & Dietz, W. H. Prevalence trends tell us what did not precipitate the US obesity epidemic. *Lancet Public Heal.* **3**, e162–e163 (2018).
6. Pekka, P., Pirjo, P. & Ulla, U. Influencing public nutrition for non-communicable disease prevention: from community intervention to national programme--experiences from Finland. *Public Health Nutr.* **5**, 245–51 (2002).
7. Zatonski, W. a, McMichael, a J. & Powles, J. W. Ecological study of reasons for sharp decline in mortality from ischaemic heart disease in Poland since 1991. *BMJ* **316**, 1047–51 (1998).