Pathways to “5-a-day”: modeling the health impacts and environmental footprints of meeting the target for fruit and vegetable intake in the UK


Conclusions
Benefits to both population and environmental health could be expected from consumption pathways that meet the UK’s 5-a-day target for fruit and vegetables. Our analysis identifies cross-sectoral trade-offs and opportunities for national policy to promote fruit and vegetable consumption in the UK.

Introduction
Fruit and vegetable consumption in the UK is currently well below recommended levels, with a significant associated public health burden. The United Kingdom has committed to reducing its carbon emissions to net zero by 2050, and this transition will require shifts towards plant-based diet.

Aim
To quantify the health effects, environmental footprints, and cost associated with 4 different pathways to meeting the UK’s “5-a-day” recommendation for fruit and vegetable consumption.

Approach to “5-a-day”
The adoption of the 5-a-day (400 g) recommendation was assessed according to 4 pathways differing in their prioritization of fruits versus vegetables and UK-produced versus imported varieties.

Increases in fruit and vegetable consumption were substituted for consumption of sweet snacks and meat, respectively.

Main findings
Achieving the 5-a-day target in the UK could:
• Increase average life expectancy at birth by 7–8 months
• Reduce diet-related GHGEs by 6.1 to 12.2 Mt carbon dioxide equivalents/year
• Change blue WFs would by −0.14 to +0.07 km3/year
• Increase diet cost by £0.34–£0.46/day

Psst! Find out more ➔