

# How sustainable are current dietary guidelines for Ireland – the shape of things to come

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Food based dietary guidelines (FBDG) provide advice on the amounts and types of foods needed to promote health and wellbeing of the population<sup>(1)</sup>. There is now a dual priority for guidelines to be both healthy and sustainable<sup>(1)</sup>. The aim of this study is to determine how national food consumption in Ireland compares to Irish FBDG recommendations, the greenhouse gas emissions (GHGE) associated with this consumption, and what the implications for food consumption will be if changes were made to meet FBDG recommendations.

National food consumption data for Ireland<sup>(2)</sup> were aggregated into FBDG food groups, and subsequently compared to recommendations<sup>(3)</sup>. The dietary carbon footprint associated with national consumption habits was also available<sup>(2)</sup>. The changes to dietary intake needed to meet recommendations were determined and resultant consequences for carbon footprint were calculated. The consumption of plant-based foods generally fell short of recommendations. Intake of “wholegrains and starchy foods”, and “fruit, vegetables, pulses, legumes, nuts” were below recommendations. Fruit and vegetables consumption was 185g/day, thus below the recommended intake of 400-560g/day. Consumption of “meat, poultry, fish” was above recommendations. Intakes of beverages and discretionary foods from the “top shelf” of the food pyramid, which should be eaten sparingly, contributed 1924g/day to total food intake. In terms of sustainability, the environmental impact of food consumption in Ireland was reported as GHGE (gCO<sub>2</sub>eq/day). The total GHGE associated with national food consumption was 6534gCO<sub>2</sub>eq/day. Plant-based food groups including “wholegrain and starchy foods” and “fruits, vegetables, pulses, legumes, nuts”, contributed less to GHGE than animal-based foods. The “meat, poultry, fish” group contributed 43% of total dietary GHGE, followed by “other foods” and “dairy” foods, which contributed 33% and 11% respectively to total dietary GHGE. Changes to national food consumption are needed to meet FBDG recommendations. Intakes of fruit and vegetables need to more than double from current consumption to meet recommendations, and consumption of legumes and nuts should also increase. In relation to animal-based foods, consumption of dairy foods could increase by approximately 25% or 70g/day to meet recommendations. If meat intake, including red meat and poultry, is reduced by 15g/day for beef and lamb, and by 24g/day for poultry, pork and eggs, it will align within recommendations. These changes will not result in significant changes to dietary GHGE as carbon savings associated with decreasing one food group will be negated by increased intake of other food groups included in FBDG and the GHGE associated with this consumption. Discretionary foods account for a third of current dietary GHGE. These foods tend to be high in fat and sugar, and this food group warrants more attention from a health and sustainability perspective.

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## References

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