

## A healthy future for children: diet and planetary health

M.C. Conway<sup>1</sup>, J.M. Harrington<sup>2</sup> and S.N. McCarthy<sup>1</sup>

<sup>1</sup>Department of Agrifood Business and Spatial Analysis, Teagasc Food Research Centre, Dublin, Ireland and

<sup>2</sup>School of Public Health, University College Cork, Cork, Ireland

Childhood years are critical to ensure peak nutritional health is achieved in adulthood<sup>(1)</sup>. Hence a healthy and balanced diet is essential. Given the current stress that food production places on planetary health, consideration must be given to how we can find balance for both of these delicate and essential criteria for personal and planetary health? Little is known about whether the dietary intakes of Irish children align with recommendations or what the environmental impact of this food consumption is. The current study aims to evaluate whether children's dietary intakes in Ireland align with FBDG, and to estimate the planetary impact using greenhouse gas emissions (GHGE) and water footprint associated with this intake.

Food intake data for children aged 8–11 years old from the Cork Children's Lifestyle Study (CCLaS) was collected using a 3-day food diary, and analysed using WISP (version 4, Tinuviel Software, Anglesey, UK). Foods consumed were aggregated to the food groups included in FBDG for Ireland<sup>(2)</sup> to allow for comparison between recommended intakes and reported food consumption for children. Plausible energy reporters only were included (n = 660). Environmental impact of food intake was presented as both GHGE (gCO<sub>2</sub>eq) and water footprint (litres).

Mean intake of fruit and vegetables was 219 ± 182 g/day, substantially below FBDG recommendations to consume 400–560 g/day, and requires the biggest increase of all the food groups to align with recommendations. Consumption of dairy foods was 303 ± 212 g/day, which is approximately 180 g below recommendations, with increased intakes needed to meet recommendations. Intakes of foods from the protein shelf, including beef, lamb, poultry, pork and fish are within recommendations, however, consumption of processed meats requires a reduction as consumption of these foods should be limited. Discretionary foods, which include foods and drinks high in sugar and salt, should be consumed in small amounts, and not every day; however, children were found to consume 472 g/day of these foods. In terms of environmental impact associated with dietary intake, GHGE were estimated as approximately 4642 gCO<sub>2</sub>eq/day, with “meat, poultry, fish, legumes” contributing 33% of total dietary GHGE, discretionary foods contributing 25%, and dairy contributing 15% of dietary GHGE. The water footprint of dietary intake was estimated as 119 litres, with starchy staples, “meat, poultry, fish, legumes” and fruit and vegetables contributing 33%, 25%, and 19% respectively to water footprint associated with dietary intake.

Children's diets did not align with FBDG recommendations for a healthy diet. Consumption of fruit and vegetables, and discretionary foods are out of balance. Discretionary foods are unnecessary for health, contributing poor diet quality, while contributing substantially to GHGE. Focus is warranted for replacing discretionary food items with fruit and vegetables, which will have benefits for both planetary and human health.

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### References

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