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Comparing Australian children's dietary intakes with the EAT-Lancet planetary health diet targets and Australian dietary guidelines

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Heathy eating recommendations are shifting to incorporate environmentally sustainable eating principles. It is crucial to understand whether children's dietary intakes align with global sustainable diet recommendations such as the EAT-Lancet Planetary Health Diet (PHD)⁽¹⁾, in addition to national health-promoting guidelines, such as the Australian Dietary Guidelines (ADG)⁽²⁾. This study aimed to assess the alignment of young Australian children's food intakes with these recommendations. 24-hour dietary recall data from the 2011-2012 National Nutrition and Physical Activity Survey (NNPAS)⁽³⁾ for children aged 2-8 years were used. Usual energy intakes were calculated separately for two age groups (2-3 and 4-8 years) using PC-Side software version 1.0. The target amounts for the PHD food groups were calculated for both age groups by proportionally adjusting the PHD target amounts for adults based on children's estimated usual energy intake. The mean intake of each food group (g/day) was then compared with energy-adjusted target amounts of the PHD and ADG Foundation Diets. The mean intake of each food group (g/day) was determined through one 24-hour dietary recall. Survey weights were incorporated into the statistical analysis to calculate nationally representative estimates of dietary intake. For both age groups (2–3 years: n = 463; 4–8 years: n = 776), the daily mean consumption of wholegrains, starchy vegetables, other vegetables, eggs, fish, legumes, nuts, and unsaturated oils was below the PHD targets, while the consumption of red meat, dairy products, poultry, and added sugars was above the targets. The ADG Foundation Diets trends were similar to the PHD for whole grains, vegetables, nuts, and legumes in both age groups. However, there were discrepancies in intakes meeting the ADG targets and PDH targets, with the daily mean consumption of dairy products, red meat, and other meat and alternatives below the ADG targets and the mean consumption of dairy, red meat, and poultry above the PHD targets. By focusing health promotion efforts on food groups such as wholegrains, legumes, and nuts and seeds, there are aligned benefits for both environmental sustainability and child health. Additionally, this comparison highlights the need to address the overconsumption of discretionary foods and beverages to improve both child health and environmental health. Investigating parents' perceptions of sustainable diets, including their motivators and barriers, will be an important next step to understanding how child intakes of legumes, nuts, wholegrains, vegetables, and fish can be improved.

References

- 1. Willett W, Rockström J, Loken B et al. (2019) Lancet 393, 447-492.
- 2. National Health and Medical Research Council (2013) *Educator Guide* https://www.eatforhealth.gov.au/sites/default/files/files/the_guidelines/n55b_eat_for_health_educators_guide.pdf
- 3. Australian Bureau of Statistics (2013) Australian Health Survey: Users' Guide, 2011–13 https://www.abs.gov.au/ausstats/abs@.nsf/Lookup/4363.0.55. 001Main+Features12011-13