

46th Annual Scientific Meeting of the Nutrition Society of Australia, 29 November – 2 December 2022, Sustainable nutrition for a healthy life

## The environmental sustainability of food provision in Australian childcare

A. Elford<sup>1</sup>, A. Spence<sup>1</sup>, M. Rozman<sup>2</sup>, K.J. Campbell<sup>1</sup> and P. Love<sup>1</sup>

<sup>1</sup>*School of Exercise and Nutrition Sciences, Institute for Physical Activity and Nutrition, Deakin University, Burwood, Vic. 3125, Australia and*

<sup>2</sup>*Healthy Eating Advisory Service, Nutrition Australia, Melbourne, Vic. 3000, Australia*

Our food choices have the potential to optimise both human and planetary health.<sup>(1)</sup> Half of Australian children aged 2–5 years attend centre-based care for an average of 31 hours per week,<sup>(2)</sup> and the food provided needs to meet 50–60% of children's daily nutrition needs.<sup>(3)</sup> Centre-based care, commonly known as childcare, therefore provides the opportunity to cultivate environmentally sustainable food provision practices at scale, but research is lacking. To the authors' knowledge, this is the first study to explore environmentally sustainable food provision practices and food waste in childcare services preparing food on-site. Childcare directors/cooks in Victoria, Australia, were invited to an online survey, with a subgroup participating in a weighed food waste audit. The survey documented environmentally sustainable food provision practices such as purchasing seasonal and local food, and food waste practices including conducting food waste audits. Differences by management type, location and socioeconomic position were determined using t-tests and chi-square tests. Food provision for 1 day was weighed using calibrated scales to determine total serving waste (prepared but not served) and/or plate waste (served but not eaten); with recipes entered into a menu compliance assessment tool, FoodChecker.<sup>(4)</sup> Data collection concluded in July 2022 and full results will be reported. Preliminary survey results ( $n = 132$ ) indicate that 67% of childcare services included environmental sustainability in their policy, and whilst most services purchased food from supermarkets (82%), some also used local butchers and fruit/vegetable stores (57%) and produce from their gardens (41%). "Providing seasonal food" scored highest as an environmentally sustainable practice, with "planning menu with less packaged foods" and "maintaining a compost system" scoring the lowest. Ten services (8%) reported having previously conducted a food waste audit, which had led to changes in food provision practices. Weighed food waste audit results in the current study ( $n = 13$ ) found one service with food provision meeting the recommended menu planning guidelines, and an average of 30% total food waste (ranging from 9%–64%). Data showed a trend towards lower food waste for services who had conducted food waste audits in the past. While some environmentally sustainable practices are in place, there appears to be a lack of awareness amongst services of how much food is wasted. The positive impact of awareness of food waste on food waste practices warrants further research. Given the volume of food prepared and served across childcare services, this sector requires strong policy action and practice guidelines to support healthy, environmentally sustainable, and affordable food provision.

### References

1. Willett W, Rockström J, Loken B, *et al.* (2019) *Lancet* **393**, 447–492.
2. Department of Education (2021) Child care in Australia report: September quarter. Canberra: Department of Education. Available from: <https://www.education.gov.au/child-care-package/early-childhood-data-and-reports/quarterly-reports/child-care-australia-report-september-quarter-2020>
3. Benjamin-Neelon SE (2018) *J Acad Nutr* **118**, 1291–1300.
4. Healthy Eating Advisory Service [Internet] (2021) FoodChecker. Available from: <https://foodchecker.heas.health.vic.gov.au/>