

Dietary patterns, food-based guidelines and nutrition

Policy Position Statement

Key messages:

1. Contemporary nutrition evidence supports the value of diets that are environmentally sustainable, healthy, affordable, reliable, and meet consumer preferences.
2. This shift in evidence requires a change in emphasis from the historically narrow focus on nutrients, to a broader emphasis on foods and how they are combined into total diets (i.e. dietary patterns).

Key policy positions:

1. Current dietary patterns in Australia are leading contributors to ill health, not because of the imbalance of one or two nutrients, but due to a combination of factors that collectively contribute to ill health.
2. The PHAA calls for a more comprehensive and holistic approach to the development of dietary guidelines and nutrition policies that reflects contemporary evidence on foods and dietary patterns.

Audience:

Federal, State and Territory Governments, policymakers and program managers, PHAA members, media.

Responsibility:

PHAA Food & Nutrition Special Interest Group

Date adopted:

September 2022

Citation:

Dietary Patterns, Food-Based Guidelines and Nutrition: Policy Position Statement. Canberra: Public Health Association of Australia; 2019, updated 2022. Available from: <https://www.phaa.net.au/documents/item/3818>

Dietary patterns, food-based guidelines and nutrition

Policy position statement

PHAA affirms the following principles:

1. Nutrition science encompasses the study of all aspects of the food system from production to consumption and its impact on health. In general, research on how food consumption impacts on health has examined the diet in terms of dietary patterns, foods and nutrients. The study of nutrients provides the opportunity to establish mechanisms of action within the human body, while the study of foods recognises the synergies between nutrients within a food or beverage and health impacts on the human body.¹ The study of dietary patterns encompasses the “combination of foods and beverages one eats on a regular basis” that can be combined and collectively influence health outcomes.^{2, 3}
2. Nutrition science has progressed from a primarily nutrient-based model which sought to explain diet-related risk in terms of nutrient deficiency or excess, towards a model which explores the relationship between diet and health and disease through the more complex effects of foods and dietary patterns.^{4, 5} This has enabled a more nuanced understanding of the relationship between diet and health and the realisation that there is not one single optimal way of eating to ensure good health.
3. This expansion in knowledge and understanding should be reflected in Australia’s food and nutrition guidelines and policies. The development and implementation of a National Nutrition Strategy would enable coordinated, evidence-based action that integrates nutrient-based, food-based, and dietary patterns-based approaches to improving health, and accepts the principle that there is not one single optimal dietary pattern.

PHAA notes the following evidence:

4. There is good evidence that a variety of dietary patterns can contribute to improved health outcomes and that optimal dietary intake may vary with age and stage of life as well as circumstance or environment.⁶⁻⁸
5. A dietary pattern is defined as the quantities, proportions, variety, or combination of different foods, drinks and nutrients in diets, and the frequency with which they are habitually consumed.⁹
6. A healthy dietary pattern can take multiple forms but typically includes a high proportion of minimally processed foods such as fruits, nuts, seeds, vegetables, legumes, whole grains, seafood, yogurt, and vegetable oils; and a low proportion of red meats, processed meats, and ultra-processed foods^{7, 10}. Such dietary patterns are typically higher in fibre, vitamins, minerals, antioxidants, and unsaturated fats, and lower in glycaemic index, glycaemic load, salt, and trans-fat.¹¹
7. Current dietary patterns are a leading contributor to disease burden in Australia.¹² The mismatch between current and optimal dietary patterns is not due to the imbalance of one or two nutrients but a combination of dietary risks which collectively contribute to ill health.¹³
8. The Australian Institute for Health and Welfare (AIHW) defines “dietary risk” for the Australian Burden of Disease Study as the combined effect of 13 dietary behaviours. These are identified as a diet low in

fruit, vegetables, nuts and seeds, wholegrains, fibre, omega-3 fatty acids, milk, calcium, and a diet high in processed meat, saturated fat, sweetened beverages, sodium and red meat.^{13, 14}

9. In recent years, there has been a global shift towards development of food-based dietary guidelines to promote healthy dietary patterns and lifestyles.¹⁵ The importance of incorporating social, cultural, economic and environmental aspects into dietary guidelines is now well-recognised, and the number of dietary guidelines around the world that promote healthy and sustainable diets has increased^{16, 17}. In Australia, support for an increased focus on equity and environmental sustainability in the dietary guidelines has been expressed^{18, 19}. The importance of incorporating social, cultural, economic and environmental aspects into dietary guidelines is now well-recognised, and the number of dietary guidelines around the world that promote healthy and sustainable diets has increased. In Australia, support for an increased focus on equity and environmental sustainability in the dietary guidelines has been expressed.
10. The National Health and Medical Research Council (NHMRC) *Australian Dietary Guidelines*²⁰ are an example of food-based guidelines²¹. They are underpinned by a series of systematic reviews that synthesise evidence of associations between dietary intake and health, with a particular focus on links between consumption of specific foods (or food groups) and chronic disease outcomes^{21, 22}. They are underpinned by a series of systematic reviews that synthesise evidence on associations between diet and health, with a particular focus on associations between intake of particular foods (or food groups) and chronic disease outcomes.
11. There is ongoing work and discussion on how to effectively categorise discretionary foods and drinks which should be limited or excluded from an optimal dietary patterns²³. These range from methods such as a nutrient-based nutrient-profiling model²⁴ to classifying foods according to their degree of processing.²⁵ There is also potential for foods to be classified using a hybrid system that incorporates nutrient content and level of processing²⁶. There is also potential for foods to be classified using a hybrid system that incorporates nutrient content and level of processing.
12. From a policy perspective, there is evidence that tools including labelling and reformulation are effective in changing intakes of some (i.e. sodium and industrially-produced trans-fat), but not all, risk-associated nutrients.^{27, 28} There is limited evidence these policy tools can fundamentally shift current diets towards optimal dietary patterns. This suggests different policy tools are needed for different purposes, and no single policy will improve current diets. A variety of policies are required to address food-based priorities and nutrient based-priorities and support individual, community and food system change towards healthier dietary patterns.¹¹ This underlines the importance of a National Nutrition Strategy to ensure such policy coordination is achieved in Australia.
13. At present the monitoring and reporting of nutrition status in Australia is heavily reliant on nutrient-based and food-based measures. There is a building evidence base for measuring dietary intake through validated measures of dietary patterns.^{6, 29} Opportunities to monitor dietary patterns using a combination of food consumption, food purchasing, and food supply data should also be considered³⁰. Opportunities to monitor dietary patterns using a combination of food consumption, food purchasing, and food supply data should also be considered.
14. Implementing this policy would contribute towards the achievement of [UN Sustainable Development Goals 3 and 12 – Good Health and Wellbeing](#) and [Sustainable Consumption and Production Patterns](#), respectively

PHAA seeks the following actions:

15. The development of a National Nutrition Strategy/ which is informed by a nutrition science based 'Fit-for-Purpose' framework that guides the selection of dietary patterns, food-based and/or nutrient-based approaches to nutrition in accordance with which approach aligns with the purpose of the Strategy.
16. That all policy-makers (within and outside government) are made aware of potential unintended (adverse) impacts on Australian diets if one approach (i.e. nutrient-based or food-based or dietary patterns) is favoured to the exclusion of other approaches.
17. The regular and routine monitoring and reporting on the dietary behaviours of Australians through a combination of dietary pattern, food and nutrient approaches. This requires investment in methodologies and infrastructure, such as development and maintenance of a contemporary food composition database, and dietary assessment tools such as ASA24, as well as broader support of skills in analytical methods. A national nutrition survey should be conducted every five years.
18. The regular review (5 yearly cycle) of the Australian Dietary Guidelines.

PHAA resolves to:

19. Advocate for the above steps to be taken based on the principles in this position statement.

REVISED September 2022

(First adopted 2019)

References

1. Jacobs DR, Jr., Gross MD, Tapsell LC. Food synergy: an operational concept for understanding nutrition. *Am J Clin Nutr.* 2009;89(5):1543S-8S.
2. Marijn Stok F, Renner B, Allan J, Boeing H, Ensenauer R, Issanchou S, et al. Dietary Behavior: An Interdisciplinary Conceptual Analysis and Taxonomy. *Front Psychol.* 2018;9:1689.
3. Reedy J, Subar AF, George SM, Krebs-Smith SM. Extending Methods in Dietary Patterns Research. *Nutrients.* 2018;10(5).
4. Mozaffarian D, Rosenberg I, Uauy R. History of modern nutrition science-implications for current research, dietary guidelines, and food policy. *BMJ.* 2018;361:k2392.
5. Ridgway E, Baker P, Woods J, Lawrence M. Historical Developments and Paradigm Shifts in Public Health Nutrition Science, Guidance and Policy Actions: A Narrative Review. *Nutrients.* 2019;11(3).
6. Collins C, Burrows T, Rollo M. Dietary patterns and cardiovascular disease outcomes: an evidence check rapid review brokered by the Sax Institute for the National Heart Foundation of Australia. Sydney: Sax Institute; 2017.
7. Cena H, Calder PC. Defining a Healthy Diet: Evidence for the Role of Contemporary Dietary Patterns in Health and Disease. *Nutrients.* 2020;12(2):334.
8. Liese AD, Wambogo E, Lerman JL, Boushey CJ, Neuhouser ML, Wang S, et al. Variations in dietary patterns defined by the Healthy Eating Index 2015 and associations with mortality: findings from the dietary patterns methods project. *The Journal of Nutrition.* 2022 152(3):796-804.
9. United States Department of Agriculture. A Series of Systematic Reviews on the Relationship Between Dietary Patterns and Health Outcomes. Virginia, USA: USDA; 2014.
10. Elizabeth L, Machado P, Zinocker M, Baker P, Lawrence M. Ultra-Processed Foods and Health Outcomes: A Narrative Review. *Nutrients* 2020;12(7).
11. Mozaffarian D. Dietary and policy priorities for cardiovascular disease, diabetes and obesity - a comprehensive review. *Circulation.* 2016;133(2):187-225.
12. Australian Institute of Health and Welfare. Nutrition across the life stages. Cat. no. PHE 227. . Canberra: AIHW; 2018.
13. Australian Institute of Health and Welfare. Australian Burden of Disease Study: Impact and causes of illness and death in Australia 2011 Australian Burden of Disease Study series no. 3. Cat. no BOD 4. Canberra: AIHW; 2016.
14. Australian Institute of Health and Welfare. Australian Burden of Disease Study: Impact and causes of illness and death in Australia 2018, Series No. 23. Cat. No. BOD 29. Canberra: AIHW; 2021.
15. Food and Agriculture Organization of the United Nations. Food-based dietary guidelines: FAO; [cited 2022 6 April]. Available from: <http://www.fao.org/nutrition/nutrition-education/food-dietary-guidelines/en/>.
16. Food and Agriculture Organization of the United Nations, World Health Organization. Sustainable Healthy Diets. Guiding Principles. Rome: FAO and WHO; 2019.
17. Martin iD, Tucci M, Bradfield J, Di Giorgio A, Marino M, Del Bo C, et al. Principles of Sustainable Healthy Diets in Worldwide Dietary Guidelines: Efforts So Far and Future Perspectives. *Nutrients* 2021;13(6).
18. Wingrove K, Lawrence M, Russell C, McNaughton S. Evidence Use in the Development of the Australian Dietary Guidelines: A Qualitative Study. *Nutrients* 2021;13(11).
19. Barbour L, Bicknell E, Brimblecombe J, Carino S, Fairweather M, Lawrence M, et al. Dietitians Australia Position Statement on Healthy and Sustainable Diets. *Nutr Diet.* 2022;79(1):6-27.
20. National Health and Medical Research Council. Eat for Health: Australian Dietary Guidelines. Summary. Canberra: NHMRC; 2013.
21. Wingrove K, Lawrence M, McNaughton S. Dietary patterns, foods, and nutrients: a descriptive analysis of the systematic reviews conducted to inform the Australian Dietary Guidelines. *Nutrition Research Reviews.* 2021;34(1):117-24.

22. National Health and Medical Research Council. A Review of the Evidence to Address Targeted Questions to Inform the Revision of the Australian Dietary Guidelines. Canberra: NHMRC; 2011.
23. Lee A, Rangan A, Allman-Farinelli M, Chen J, Grech A, McDonald S, et al. A Rapid Review of Evidence: Discretionary Food and Drinks. The Australian Prevention Partnership Centre; 2018.
24. Lobstein T, Davies S. Defining and labelling 'healthy' and 'unhealthy' food. *Public Health Nutr.* 2009;12(3):331-40.
25. Monteiro C, Cannon G, Moubarac J, Levy R, Louzada M, Jaime P. The UN Decade of Nutrition, the NOVA food classification and the trouble with ultra-processing. *Public Health Nutrition.* 2018;21(1):5-17.
26. Machado P, Cediel G, Woods J, Baker P, Dickie S, Gomes FS, et al. Evaluating intake levels of nutrients linked to non-communicable diseases in Australia using the novel combination of food processing and nutrient profiling metrics of the PAHO Nutrient Profile Model. *European Journal of Nutrition.* 2022.
27. Federici C, Detzel P, Petracca F, Dainelli L, Fattore G. The impact of food reformulation on nutrient intakes and health, a systematic review of modelling studies. *BMC Nutrition.* 2019;5(1).
28. Shangguan S, Afshin A, Shulkin M, Ma W, Marsden D, Smith J, et al. A Meta-Analysis of Food Labeling Effects on Consumer Diet Behaviors and Industry Practices. *American Journal of Preventive Medicine.* 2019;56(2):300-14.
29. Livingstone KM, McNaughton SA. Diet quality is associated with obesity and hypertension in Australian adults: a cross sectional study. *BMC Public Health.* 2016;16(1037).
30. Vandevijvere S, Monteiro C, Krebs-Smith S, Lee A, Swinburn B, Kelly B, et al. Monitoring and Benchmarking Population Diet Quality Globally: A Step-Wise Approach. *Obesity Reviews.* 2013(14):135-49.