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A global review of methodologies for establishing food intake recommendations in foodbased dietary guidelines

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Food-Based Dietary Guidelines (FBDGs) are valuable tools for providing dietary recommendations to different population groups across the globe[(1)]. However, while the World Health Organization (WHO) and the Food and Agriculture Organization (FAO) have issued guidelines to support the development of FBDGs[(2)], a lack of consistency persists in how these are applied by individual countries in their derivation approach and monitoring efforts[(3,4)]. This review compares the methodologies used by public health bodies to develop FBDGs.

Documents describing FBDGs and their development were obtained via the FAO online repository of FBDGs, and information could be found directly from the FBDG or from their joint scientific report. A spreadsheet was created to report details on the approaches used to derive dietary guidance for the general adult population, with a focus on the type and specificities of the data used, when applicable (characteristics of the study population, food intake assessment methodology, analysed consumption patterns, and nutritional requirements inputted if diet modelling was applied). General information such as the year of issue and stakeholders involved in the elaboration of the guidelines was also retrieved.

A total of 96 FBDGs were accessed and translated into English for analysis: 11 in Africa, 16 in Asia, 34 in Europe, 29 in Latin America and the Caribbean, 4 in the Near East, and 2 in North America, published on average in 2014. Of these, 60 FBDGs (63%) were developed based on scientific consensus, 43 (45%) mentioned a review of current evidence on the associations between dietary patterns and health outcomes, 26 (27%) derived the recommendations according to energy and/or nutritional requirements, and 15 (16%) used a statistical/mathematical optimisation method to develop quantitative guidance. 10 FBDGs (10%) did not provide any information on the rationale used to derive the values.

The general lack of FBDG revision using up-to-date evidence as well as the low use of typical consumption resources and specifically of national intake data represents a limitation to the development of relevant guidelines for food consumption. Ultimately, although consideration of local cultural practices is necessary, this study highlights the need for harmonisation of strategies to enhance the accuracy and therefore the effectiveness of FBDGs in promoting healthier eating habits.

References

1. World Health Organization (2003) Diet, nutrition and the prevention of chronic diseases: report ofa joint WHO/FAO expert consultation, Geneva, 28 January - 1 February 2002: World Health Organization.
2. Joint FAO/WHO Consultation on Preparation and Use of Food-Based Dietary Guidelines (1995: Nicosia, Cyprus) (1998) World Health Organization.
3. Blake P, Durão S, Naude CE *et al.* (2018) *Nutr. Rev* **76**(4), 290–300.
4. Bechthold A, Boeing H, Tetens I *et al.* (2018) *Adv Nutr* **9**(5), 544–560.