

Abstract

# Portion Size Recommendations in Food-Based Dietary Guidelines: A Global Review of the Methods <sup>†</sup>

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**Abstract:** Over the past decades, increased food intakes have contributed to rising obesity rates. This worldwide phenomenon partly results from the consumption of larger portion sizes. In this context, food-based dietary guidelines (FBDGs) have been described as an essential public health tool to guide populations toward achieving a healthier and balanced diet and reducing the risk of non-communicable diseases. Recent literature has underlined the wide variability in portion size recommendations as a future challenge to the derivation and success of FBDGs and has highlighted the need for common standard portions. This review aims to report the recommended portions of nine common food groups within existing FBDGs for the general adult population. The methods used to derive recommended portion sizes are also compared, including the type and scope of data used and the statistical approaches applied. The government-endorsed food-based dietary guidelines listed by the Food and Agriculture Organisation (FAO) were analysed, as well as their related scientific reports. Results from 99 FBDGs show that several countries ( $n = 11$ ) promote the consumption of a variety of foods, without providing further reference quantities for daily food intake or portion size. Furthermore, some guidelines ( $n = 13$ ) derive recommendations from local or national food consumption surveys, which may not necessarily align with appropriate or recommended intakes. When used, statistical methods for the derivation of recommended portions combine diverse criteria, including reported dietary habits (median food type/group intakes) and recommended levels of macronutrients and micronutrients of concern in the population. The inconsistencies in methodological approaches reflect uneven access to relevant dietary data, which in turn seems to drive the observed variability. This review informs the reader of the range and sources of variability in food group portion size recommendations across countries and constitutes a basis for the future elaboration of a global methodological framework to derive harmonised reference portions.

**Keywords:** food-based dietary guidelines; portion size



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