World Academy of Science, Engineering and Technology
International Journal of Nutrition and Food Engineering
Vol:16, No:09, 2022

Development of a Multi-User Country Specific Food Composition Table for Malawi

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Abstract : Food composition data is becoming increasingly important as dealing with food insecurity and malnutrition in its persistent form of under-nutrition is now coupled with increasing over-nutrition and its related ailments in the developing world, of which Malawi is not spared. In the absence of a food composition database (FCDB) inherent to our dietary patterns, efforts were made to develop a country-specific FCDB for nutrition practice, research, and programming. The main objective was to develop a multi-user, country-specific food composition database, and table from existing published and unpublished scientific literature. A multi-phased approach guided by the project framework was employed. Phase 1 comprised a scoping mission to assess the nutrition landscape for compilation activities. Phase 2 involved training of a compiler and data collection from various sources, primarily; institutional libraries, online databases, and food industry nutrient data. Phase 3 subsumed evaluation and compilation of data using FAO and IN FOODS standards and guidelines. Phase 4 concluded the process with quality assurance. 316 Malawian food items categorized into eight food groups for 42 components were captured. The majority were from the baby food group (27%), followed by a staple (22%) and animal (22%) food group. Fats and oils consisted the least number of food items (2%), followed by fruits (6%). Proximate values are well represented; however, the percent missing data is huge for some components, including Se 68%, I 75%, Vitamin A 42%, and lipid profile; saturated fat 53%, mono-saturated fat 59%, poly-saturated fat 59% and cholesterol 56%. A multi-phased approach following the project framework led to the development of the first Malawian FCDB and table. The table reflects inherent Malawian dietary patterns and nutritional concerns. The FCDB can be used by various professionals in nutrition and health. Rising over-nutrition, NCD, and changing diets challenge us for nutrient profiles of processed foods and complete lipid profiles.

Keywords : analytical data, dietary pattern, food composition data, multi-phased approach
Conference Title : ICNPHN 2022 : International Conference on Nutrition Physiology and Human Nutrition
Conference Location : Lisbon, Portugal
Conference Dates : September 20-21, 2022