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Development of an online food database for the Batwa and Bakiga communities living in south-western Uganda

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Locally relevant food composition data are essential for measuring individual food intake ⁽¹⁾. Many developing regions of the world lack this data, especially Indigenous communities, and have to use other national food composition tables as a proxy ⁽²⁾. Our aim was to construct an online database of locally consumed foods for two vulnerable populations living in south-western Uganda.

Using a community-based approach and collaboration with local nutritionists, we collected a list of foods for inclusion in the database through focus group discussions, individual dietary survey and markets and shops assessment. These foods were then processed to create the database using an online dietary assessment tool, myfood24^(3,4). The food database was created using 6 steps: identification of foods for inclusion in the database; initial data cleaning and removal of duplicate items; link foods to existing generic food composition tables; mapping and calculation of nutrient content of recipes and foods; quality checks with local and international nutritionists; translation into relevant local languages.

We developed a food composition database for south-western Uganda including 148 commonly consumed foods complete with values for 120 micronutrients and macronutrients. Of the locally reported foods included, 56% of the items were already available in myfood24 database, while 25% were found in the Ugandan, Kenyan, and Tanzania food databases, 18% came from generated recipes and 1% from food packaging labels. The food database included 43% of fruits and vegetables products and dishes, 26% of cereals items and cereal based dishes (including dishes with higher percentages of cereals than vegetables), 14% of meat and fish dishes, and 5% of eggs and dairy. Only 3% of products were sugary or sweet-based and 3% were included in oils, fats and condiments. Some cooking oils and fats were branded, while the majority of the other food items did not have any brand. Soft drinks (4%) and alcohol beverages (1%) corresponded to 5% of the foods included in the database.

The tool will be used for assessing the food intake, and tracking under-nutrition among the communities living in Kanungu District, Uganda.

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References

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