

Adapting A Us Dietary Analysis Software and Database for Use in Brazil

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Background: Food and nutrient databases exist in many countries, but using these databases for dietary assessment can be challenging due to the lack of a software program to interface with the data. Additionally, some databases contain limited numbers of nutrients and foods. The Nutrition Data System for Research (NDSR), a dietary analysis software application maintained by the Nutrition Coordinating Center (NCC) at the University of Minnesota, contains numerous foods and nutrients. However, nutrient composition values are for foods available in the U.S.

Objective: Describe the process used to adapt NDSR to analyze 24-hour dietary recalls collected for infants and children in Brazil.

Description: Dietary recalls for the Brazil Kids Nutrition and Health Study were collected using a paper and pencil interview method and then entered into NDSR for nutrient analysis. Portuguese/English bilingual staff at the University of Sao Paulo (USP) carried out recall entry using a detailed recall entry protocol developed by staff at NCC with input from USP staff. To develop entry rules, we referenced a list of foods commonly consumed in Brazil. Then, a data entry rule was established for each food to ensure the food selected in NDSR was a close nutritional match to the food as available in Brazil. The Brazilian Food Composition Database was used as a reference in carrying out matching. For foods without a comparable match, the NDSR User Recipe feature was used to add the food to the program. Differences in food fortification and enrichment practices between countries were adjusted for in post-processing.

Conclusion: Using a collaborative process, it was possible to use NDSR to calculate nutrient intake estimates for dietary recalls collected in Brazil. This process could be replicated in other countries to allow for software-assisted analysis when an existing software program is unavailable.