



# OVERCOMING CHALLENGES IN AN ONLINE 24H FOOD RECALL FOR PARENTS OF YOUNG CHILDREN: Findings from a usability study

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## Background

The 24h food recall has been recognized as a successful method to capture individual variability in children's food intake during nutritional interventions; nevertheless, it can be challenging and burdensome for respondents (1). The emerging technologies can help to develop more friendly dietary assessment systems, adapted to parents' daily routines and children's food intake features (2).

We aim to present a new online 24h food recall developed for parents to report young children's dietary intake during a nutritional program. We also report the preliminary findings of a usability study with a Portuguese sample of parents of 2-6 y old children.



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## Methods



The *SmartKidsDiet24* uses an electronic food database developed by the National Institute of Health Doutor Ricardo Jorge, updated with sugar-sweetened foods/beverages and processed foods frequently ingested by young children, and foods included in vegetarians/vegan diets.

This measure includes three important features: i) the possibility to report children's food intake in a progressive recall, as the meals are taking place, ii) guidance in registering foods in the meals/snacks and through food groups, iii) use of the child's hand as a portion size tool (EUFIC guidelines) to estimate the food quantities ingested by the child.

26 parents tested the usability of the measure in *SmartFeeding4Kids* pilot study, in a total of 66 days of food records at baseline. Parents' experience with the measure was

assessed through 7 semi-structured interviews. We also analyzed data about the record method type adopted by parents, and the number of times they accessed the app to accomplish 1-day food record.

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## Results



Parents were pleased to find an intuitive and easy food record. The use of the child's hand to measure the amounts of food eaten by the child was considered surprising, adequate, and practical. Parents also stated that the food database was very complete. Nevertheless, some parents found it hard to estimate some food quantity (e.g., measure butter with the thumb) or how to proceed when parents cannot find a specific recipe in the database. It was demanding to repeat the food records several times throughout the program, but the email notifications helped to remember to

accomplish the task.

66.7% of the food record days were completed through the progressive recall. However, 52.4% of parents who complete more than one day of food records also used the 24h recall (i.e., record the meals that the child ate the following day). Parents accessed the platform an average of 1,48 times when using a progressive recall, comparing with 1,28 times when a 24h recall was chosen.

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## Conclusions



Although *SmartKidsDiet24* was well received by parents, estimating the amount of food consumed remains a challenge. Parent's burden can increase if the measure is used in interventional contexts, as a monitoring tool of children's food intake.