

Food variety in complementary feeding. Comparison of homemade and commercial infant foods in Spain. An observational study

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Food variety during complementary feeding has been found to promote food acceptability, and improvements towards a balanced diet. **This study aimed to describe and compare the food variety of homemade foods (HMFs) and commercial infant foods (CIFs) in infants and young children.**

Methodology

A cross-sectional study was conducted with 30 mothers from 4 Spanish cities (Madrid, Barcelona, Sevilla and Valencia) who completed a 3-day food record of their children aged 6-18 months (Table 1). CIFs data were obtained from the website of the 4 main infant food manufacturers in the Spanish market. Collected data were used to evaluate the type and frequency of ingredients used. Differences between HMFs and CIFs were analysed through independent t-tests (SPSS 25.0).

Conclusions

- There was a **lack of oily fish and legumes** in **HMFs and CIFs** meals.
- **Dairy products** were frequently used as ingredients in **CIFs** meals.
- **Banana and apple** were the fruits more frequently used in **HMFs and CIFs** fruit purees. However, in **CIFs** more variety of fruits were used.
- Our findings emphasize the need for **clearer nutritional guidelines for the preparation of HMFs** as well as the **promotion of food variety in HMFs and CIFs** to suit infants' and young children's nutritional and developmental needs.

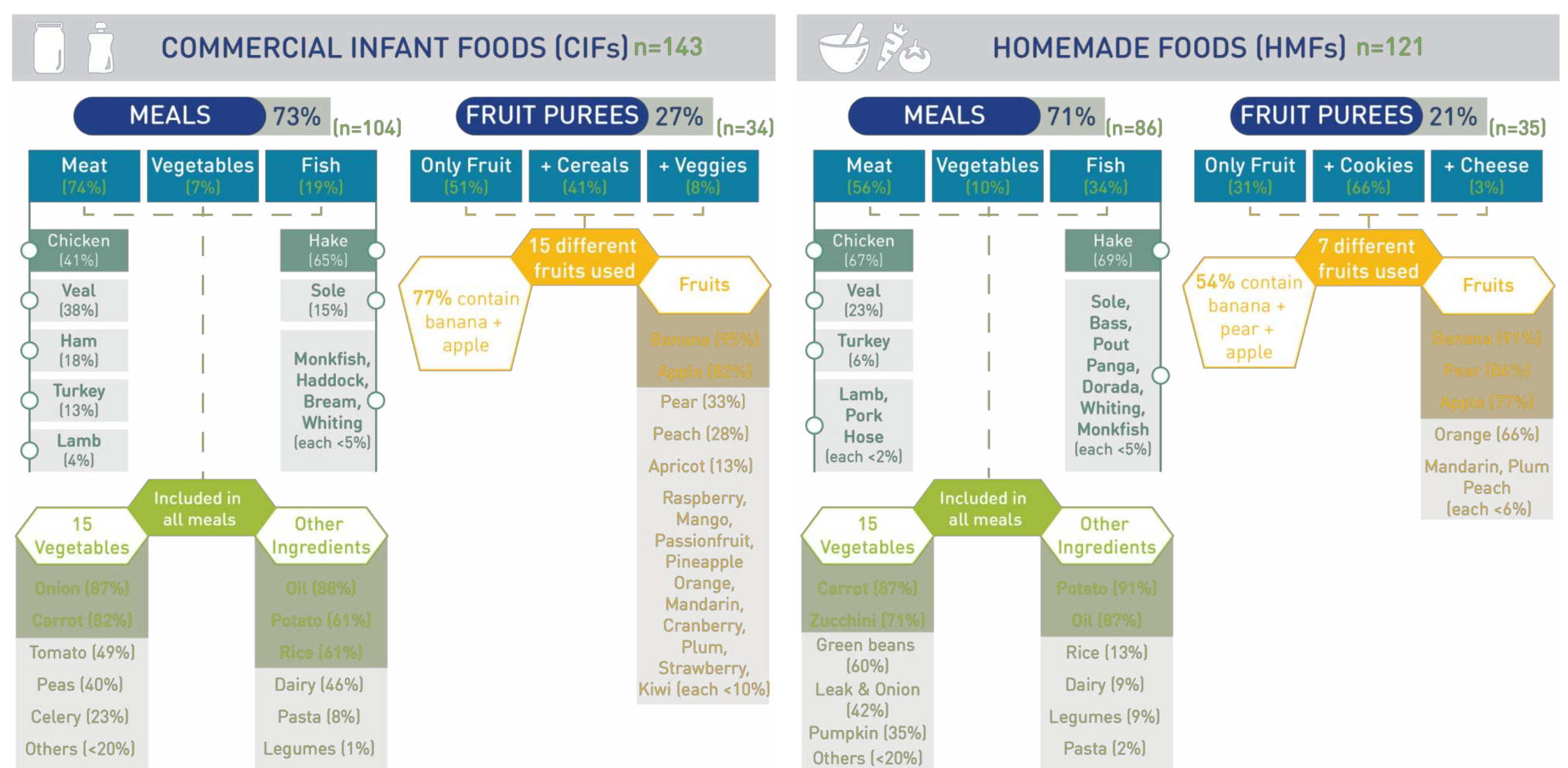


Figure 1. Food variety in HMFs and CIFs meals and fruit purees for infants and young children

Results

A total of 121 HMFs and 143 CIFs were analysed. Similar ingredients were found in meat and fish meals, with a predominance of chicken in meat meals and hake in fish meals. Above 85% of the recipes contain olive oil. In HMFs the potato and rice were ingredients frequently used in 91% and 13% of the recipes, respectively. In CIFs the potato and rice were included in 61% of recipes and the dairy ingredients were included in 46% of recipes. Yet, HMFs meals contained a higher number of different vegetables than CIFs, with carrot as the most frequently used in HMFs and the second one in CIFs. In CIFs the most frequent used vegetable was onion. The legumes only were included in 9% of HMFs recipes and 1% of CIFs recipes. A significantly higher variety of different fruits were used in fruit purees of CIFs (15 fruits), as compared to HMFs (7 fruits). However, banana was the most frequently used fruit in both of them. 54% of the fruit purees of HMFs included banana, pear and apple and 77% of the fruit purees of CIFs included banana and apple (Figure 1).