

## Food Composition Tables Used as an Instrument to Estimate the Nutrient Ingest in Ecuador

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**Abstract :** There are several tools to assess the nutritional status of the population. A main instrument commonly used to build those tools is the food composition tables (FCT). Despite the importance of FCT, there are many error sources and variability factors that can be presented on building those tables and can lead to an under or over estimation of ingest of nutrients of a population. This work identified different food composition tables used as an instrument to estimate the nutrient ingest in Ecuador. The collection of data for choosing FCT was made through key informants -self completed questionnaires-, supplemented with institutional web research. A questionnaire with general variables (origin, year of edition, etc) and methodological variables (method of elaboration, information of the table, etc) was passed to the identified FCT. Those variables were defined based on an extensive literature review. A descriptive analysis of content was performed. Ten printed tables and three databases were reported which were all indistinctly treated as food composition tables. We managed to get information from 69% of the references. Several informants referred to printed documents that were not accessible. In addition, searching the internet was not successful. Of the 9 final tables, n=8 are from Latin America, and, n= 5 of these were constructed by indirect method (collection of already published data) having as a main source of information a database from the United States department of agriculture USDA. One FCT was constructed by using direct method (bromatological analysis) and has its origin in Ecuador. The 100% of the tables made a clear distinction of the food and its method of cooking, 88% of FCT expressed values of nutrients per 100g of edible portion, 77% gave precise additional information about the use of the table, and 55% presented all the macro and micro nutrients on a detailed way. The more complete FCT were: INCAP (Central America), Composition of foods (Mexico). The more referred table was: Ecuadorian food composition table of 1965 (70%). The indirect method was used for most tables within this study. However, this method has the disadvantage that it generates less reliable food composition tables because foods show variations in composition. Therefore, a database cannot accurately predict the composition of any isolated sample of a food product. In conclusion, analyzing the pros and cons, and, despite being a FCT elaborated by using an indirect method, it is considered appropriate to work with the FCT of INCAP Central America, given the proximity to our country and a food items list that is very similar to ours. Also, it is imperative to have as a reference the table of composition for Ecuadorian food, which, although is not updated, was constructed using the direct method with Ecuadorian foods. Hence, both tables will be used to elaborate a questionnaire with the purpose of assessing the food consumption of the Ecuadorian population. In case of having disparate values, we will proceed by taking just the INCAP values because this is an updated table.

**Keywords :** Ecuadorian food composition tables, FCT elaborated by direct method, ingest of nutrients of Ecuadorians, Latin America food composition tables

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