

INTERNATIONAL SOURCES OF NUTRIENT COMPOSITION DATA

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Why do investigators and clinicians in the US, where we are supplied with good and ever-improving food composition data, need to know more about data sources from other countries? I think there are four reasons:

1. There is an increasing interest in the nutritional status of ethnic population subgroups, especially those people who have immigrated to the U.S. but continue to consume the foods of their country of origin. The Vietnamese and Haitian refugees are examples of groups who may receive a substantial portion of their nutrients from foods not commonly consumed in the U.S. and therefore not included in the U.S.D.A. data.
2. There is a greater availability of international foods in the American food supply and a greater dietary diversity among the population in general. Food intake records frequently include foods not in the U.S.D.A. tables.
3. American investigators are becoming increasingly involved in international nutrition studies. In my experience, anthropologists are the most frequent solicitors of food composition information.
4. Most database systems now available make it possible to add data for foods not originally included which may be of particular interest in a database application.

What are the problems of using international nutrient data in order to fill gaps in databases available to us?

1. Sources of international data are difficult to identify. Currently there is no complete bibliography of nutrient data. The bibliography accompanying this presentation depended for a large part on a first draft prepared by Will Rand and INFOODS, for which I am grateful. Presumably this problem, the lack of a comprehensive bibliography, will be eliminated through their efforts in the near future.
2. Once you know that a publication, like those included in the bibliography, exists, it is sometimes very difficult to obtain a copy. Many of these publications are out of print. The INFOODS bibliography will include information concerning the source and cost of many publications.
3. Even with a publication in hand, the interpretation of the data can be a problem. Most tables are published in the country's indigenous language, although many have English versions or English indexes. One can often translate the nutrient names, the column headings, but the food names are usually a problem unless you speak the language.
4. The layout of the tables vary from publication to publication. All information may be in a single table or may be broken up into subtables. Foods may be arranged alphabetically (which is little help if you are unfamiliar with the alphabet) or may be arranged by food groups. These groupings may be different, however, than those to which one is accustomed, eg. olives listed as a fruit. (Olives appear to be neither a fruit or a vegetable in the U.S.D.A. Handbook 8 series!)

5. Missing data can be a serious problem. Many of these publications are old and contain data for only the basic nutrients. Some tables include food items for which absolutely no compositional data are supplied. Often, a little bit of data is as bad as no data at all.

6. Conflicting data are as frustrating as missing data. Differing data for the same food item in different sources raises the question "which is the more appropriate for my purposes?" Agreement of data from different publications should not be misconstrued as a sign of validity, however, because there is considerable "borrowing" of values between publications.

7. Many publications do not list sources of data, the "age" of the analyses, the number of samples, the sampling procedures, or the reliability of the analytical methods used. This is particularly a problem with the older publications.

8. Complex food items are a particular problem. Some tables include representative recipes for common dishes, but most do not.

In conclusion, international food composition data, with all their inherent problems, can still play an important role in the expansion of existing databases and the analysis of dietary surveys. We should use the informative, well-documented, and more-complete USDA publications when we can, but we are occasionally forced to supplement these data from other sources. If interpreted correctly and evaluated critically, data from other countries can be a useful supplement to existing databases.

SOURCES OF INTERNATIONAL FOOD COMPOSITION DATA

Prepared by Ken Samonds, with special appreciation to Will Rand and INFOODS for sharing a draft copy of the Directory of Food Composition Data Tables.

INTERNATIONAL

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