

Workshop
Food Descriptor/Coding Schemes
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Food composition data are used for the calculation of levels of intake of many components, both nutrients and non-nutrients, by many population groups and subgroups. In addition, such data are used to assess new agricultural practices and the different effects of manufacturing and preservation techniques. Furthermore, food composition data are used to formulate nutrition policy at national and local levels and to define food standards.

Today, computers are ubiquitous in the world of food composition research. Data manipulation by computer requires a well-defined and systematic scheme for efficient input and retrieval. Some uses of the data (e.g. calculation of nutrient intake from diet records) require the exact matching of foods in the master file with the foods reported by subjects or survey participants. Other uses of the data require the 'sieving' of data to retrieve foods which have one or more common characteristics. For example, one might want to conduct an evaluation of the differences in iron and zinc levels in wheat, corn, and rice breakfast cereals. Similarly, one might be interested in comparing the ascorbic acid content of frozen, canned, and refrigerated fruit products.

Although the level and kind of detail may vary from one database to another as well as from one source of input to another, the foods in any database must be well defined to permit the computerized differentiation of various products. The definition of a food or food product is composed of a collection of terms or factors which describe different aspects of the food. These may include:

- Food Product Type (sometimes called food group)
- Food Source
- Physical State, Shape or Form
- Degree of Preparation
- Treatments Applied
- Preservation Method
- Packing Medium
- Container or Wrapping
- User Group

The terms which describe these aspects may also be called descriptors. The meanings of these terms are generally understood by the population of users. However, they are language and custom or region dependent. For example, the term 'grilling' can be synonymous with broiling or with griddling. In view of such problems the descriptors themselves require precise definitions.

The term 'code' has several definitions in the field of food composition research and data use. A code may be defined as a systematically arranged and comprehensive collection of laws (or rules). The 'food code' may refer to the body of rules and requirements which guide the use of a classification or nomenclature scheme. However, the term 'code' may also be used to define a system of symbols, letters, or words given certain arbitrary meanings, used for transmitting information requiring brevity. Numerical or alphabetic (or combinations of these) designations may be assigned to a list of foods for efficient computer manipulation. Finally, the word 'code' may be used as a verb, meaning to convert into code. A code is not as explicit as a descriptor, but a series of letters and/or numerals can represent a food description.

A vocabulary or scheme of food nomenclature must be flexible in order to permit the necessary addition of new foods and new factors. However, a flexible scheme can also be highly structured to assist users of the scheme in the orderly assignment of factor values within any factor. The controlled selection of factor values for data input will provide a powerful retrieval tool which will permit the accurate and precise evaluation of levels of intake and the relationship of these levels to health status.