

Comments on Variability in Food Composition Data

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The variability of food composition data arises from:

- * the real differences in the foods,
- * the variability inherent in the process of the selection of the samples from the total food supply,
- * the variability due to the lack of complete homogenization of the food samples,
- * the variability due to the lack of reproducible extraction of the analyte from the food samples,
- * the variability due to the lack of reproducible analytic separation, detection and measurement of the analytes,
- * the variability due to the lack of reproducible computation of the results of the assays.

Thus the total variance of the food composition values is a function of the variances listed above. From the users' point of view what is wanted is a measure of the real differences in the composition of foods. Thus it is crucial that the variances due to sampling techniques, sample preparation techniques, and the analytic techniques and computations be known so that the real variances of food compositions can be determined.

Some way must be found of determining the variances due to the measurement processes. At present, there is insufficient information to determine the most common sources of variances in food composition data. My guess is that the source of the variances of the data varies from food to food and from nutrient to nutrient.