

products are being developed. The improvement of CHEF manager will enable linkages among relevant databases and improve the efficiency of food composition data management.

\*To whom correspondence should be addressed.

**Development of an information system on inherent bioactive compounds in food plants.** Andy D. Walker, Robert K. Heaney, Michael J. C. Rhodes,\* G. Roger Fenwick, Roger D. Preece & Caroline Epps.

*Institute of Food Research, Norwich Research Park, Colney Lane, Norwich NR4 7UA, UK.*

An information system containing data on occurrence and levels of inherent bioactive compounds in food plants has been designed and validated. The system uses a relational database management system running under Microsoft Access version 2, and is currently operating on a IBM 486 PC clone. The user interacts with the system via a series of screen based forms. Initial user trials have provided very positive feedback and have indicated that the interface design is easy to use. The data structure is such that the system can be used to access both numerical data on compositional levels of compounds within food plants and textual information on factors affecting compositional variation such as storage, agronomy and processing, together with associated references.

The system currently holds critically assessed data on several classes of compounds (glycoalkaloids, alkenyl benzenes, glucosinolates, organic hydrazines, saponins, furanocoumarins, cucurbitacins, oligosaccharides) in 120 food plants and is currently being expanded to include assessed data on a wider range of compound classes (xanthine alkaloids, cyanogenic glycosides, coumestans, isoflavones, trypsin inhibitors, hemagglutinins, lathrogens, biogenic amines, oxalate, pyrrolizidine alkaloids). The feasibility of merging the data within this UK information system with a similar system currently used within Denmark is actively being explored. This programme is funded by the Ministry of Agriculture, Fisheries and Food.

\*To whom correspondence should be addressed.

**Improving our confidence in intake assessments: methodologies for maximising the use of existing data.** Barbara Petersen.

*TAS International, 38 Church Street, Malvern, Worcestershire WR14 2AZ, UK.*

Dietary intake assessments are needed for evaluation of the safety of proposed new food additives as well as for the evaluation of the nutritional adequacy of today's diets. A recent evaluation by Nutriscan highlighted the difficulties of using existing food consumption information for this purpose. In this paper we will evaluate the opportunities for improving our assessments by taking advantage of the strengths of the different methodologies and by using current computer technologies for analyzing the data using Monte Carlo methods. We will

also propose methods for using Total Diet Studies and other monitoring information to more realistically estimate dietary intake. Specifically, we will present assessments using the Danish Budget Method, UK data and US data to identify differences in methodology versus differences in data. Since no single method for survey will be best for all situations, we will propose the development of criteria for different types of analyses and suggest appropriate data and methods to achieve those criteria. Finally, we will propose methods for accessing these different data types through a Languag-based International Interface Standard.

**Development of a food composition database: methods and goals for the future.** Simonetta Salvini. The Italian Food Composition Database: A Joint Project.

*European Institute of Oncology, Division of Epidemiology and Biostatistics, Via Ripamonti 435, 20141 Milano, Italy.*

Nutritional epidemiological studies have highlighted the importance of diet in chronic disease. In Italy, food composition tables that are used to transform measured dietary intake into energy, macro- and micro-nutrients are based on limited lists of food items and nutrients. Extensive databases are needed for the analysis of the food consumption of large populations, such as those investigated in epidemiological studies. Databases are usually compiled starting from the existing local food composition tables completed by means of other published material and food composition tables from other countries. The National Nutrition Institute of Rome, Italy (INN) developed a large database for the analysis of data from the national survey 1980-84: a collaborative effort, coordinated by the European Institute of Oncology, was organised between the INN and several institutions to revise and complete that database. In particular, some nutrients were added, and special care was taken in trying to have complete data for all foods. An *ad hoc* software was developed to manage the data: for each nutrient the source of the value is stored, together with its original code number and details of all calculations, wherever appropriate.

The strategies to revise and complete this database are presented, together with information on the sources of nutrient data, discussion of the main problems encountered, as well as suggestions for the future development of the project.

**Food composition data as a tool in food and nutritional surveys: which issues does their utilization pose?** Aida Turrini.

*Domenico Perrone & Amleto D'Amicis, Food Economics and Statistics Unit, Istituto Nazionale della Nutrizione, Via Ardeatina n. 546, I-00178 Rome, Italy.*

Food composition is essential to process data from food and nutritional studies. Because of the issues related to the quality of food composition databases, i.e. missing values and analytical methods, their utilisation poses