

SPEADD - A SIMPLE PACKAGE FOR EDITING AND ANALYSING DIETARY DATA

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The time consuming task of calculating nutrient intake from food intake data and tables of food composition has prompted the development of a small analytical package, SPEADD, for this purpose. In addition it facilitates analysis of food intake data in a way that has seldom been possible in the past.

The initial developmental stage involved setting up the Australian Tables of Food Composition (Thomas & Corden 1970) as a data file. A coding system was devised for, among other reasons, efficient storage, fast retrieval and ease of updating of information (Heywood *et al.* 1977). Already some 208 new foods have been added to this file. The entire contents of the nutritionmaster file, ie. food item code, and food group code, alphabetic description of food and nutrient content of food can be printed or reproduced on microfiche with very little effort, time and cost.

Food intake data, recorded on a standard form, is punched directly onto data cards and edited. Non-fatal warning messages are printed if the quantity of any food item is equal to 0, or greater than 3000 g. Omission of subject identity, day, meal code or item code will flag a fatal error message. At the completion of an edit run a summary of errors is printed. Fatal errors will cause the run to abort immediately. If no fatal errors occur a sorting procedure based on subject and day is initiated, and a file containing the raw input data is catalogued on the computer system.

This file and the permanent nutritionmaster file are accessed by another program, Mulsel, and used together to calculate intakes of the 16 variables now in the food composition tables as well as alcohol and food mass. For any one person on any one day intakes of these 18 variables are calculated at each of 9 possible meals and for the whole day. These data, as well as subject, day and calendar day are printed out and optionally stored on magnetic tape.

Not only is it possible to obtain nutrient intake for all foods consumed during a day, but the same is possible for specifically selected foods, eg., breakfast cereals or orange juice or all vegetables. Any number of different combinations of foods and food groups can be selected.

Although rather cumbersome in its present form, this type of information has enormous potential for further analysis using widely available statistical packages. One such package frequently used for this type of research is the Statistical Package for the Social Sciences (S.P.S.S.).

The Mulsel output on magnetic tape has been tailored to go directly into S.P.S.S. where it can be manipulated in many ways. The mean daily intake of nutrients for a group or an individual can be simply determined. The proportion of total daily iron intake from meat or the amount of thiamine per unit of energy contributed by bread are examples of data manipulations that are possible. Many appropriate statistical analyses can be executed more expediently with S.P.S.S.

In conclusion, a package such as SPEADD considerably shortens the task of calculating nutrient intake and provides further avenues for analysis of food intake data.

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THOMAS, S. and CORDEN, M. (1970). "Australian Tables of Food Composition" 5th ed. (Australian Government Publishing Service, Canberra).

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