

ESTABLISHMENT OF A FOOD LIST FOR TOTAL DIET STUDY IN TAIWAN

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Abstract

Total Diet Study (TDS) is a model of food safety risk assessment of a target chemical present in the total diets actually ingested by a specific population. A key task of TDS in Taiwan is to establish a list of food items that is representative of the total diets consumed by an age-specific group of males or females in Taiwan and is conducive to laboratory chemical analysis of a target chemical, such as the preservative benzoic acid, in these items to generate concentration data for exposure assessment. To this end, the massive food consumption data availed from the Nutrition and Health Survey in Taiwan (NHST) conducted in 1993-1996 were grouped into 12 major categories and 47 sub-categories based on nutrition contents. The food items from each sub-category were selected based on the weight of each item being consumed relative to the weight of total diets consumed, according to the 24-hour recall food consumption data availed from NHST conducted in 2005-2008. A total of 128 food items were selected from the 47 sub-categories to form a list of food items for TDS. The summation of the amounts of these 128 food items ingested represented over 80 % of the total dietary intake of a population of interest in Taiwan. This food list is being used as the basis for the purchase and preparation of food samples for chemical analysis and for the construction of a repository of food samples availed for future TDS in Taiwan.