

Brand Information Collection in NHANES III: What are the issues to consider?

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Introduction

The Third National Health and Nutrition Examination Survey, (NHANES III) a 6-year national survey of the civilian, non institutionalized U.S. population 2 months of age and older, began in 1988. (1) NHANES III data are obtained by means of interview and examination methods. Of the 40,000 persons who are expected to participate in the NHANES III, approximately 30,000 will be examined in mobile examination centers. All examinees are eligible for the 24-hour dietary recall interview.

NHANES III dietary recalls are obtained using an automated dietary interview and coding system developed by the University of Minnesota's Nutrition Coordinating Center (NCC) with government contract and grant support. The NHANES III Dietary Data Collection or "DDC" system, was described and demonstrated at previous Databank Conferences (2). NCHS specified that the DDC system include brand probes for several food groups. I will summarize the several data base maintenance, respondent, and data reporting issues that have emerged since NHANES III began.

How is brand information collected during NHANES III?

The DDC system features include a standardized interview format and structured probes to obtain detailed information about all foods and beverages consumed during a 24-hour time period (midnight to midnight). (3) Brand probes are included in approximately 30 DDC system food categories--about 6,000 foods in all. The brand probes include many ingredients used in food preparation such as fats and oils. All foods reported during NHANES III, including brands, are coded using the U.S. Department of Agriculture (USDA) Survey Nutrient Data Base (SNDB) system food codes. (4)

Hundreds of new brand name products have been added to the DDC system since the Survey began. The concept of a changing marketplace means changing data bases for the survey community! NCHS is a data base user in this regard. The DDC system is used to collect brand information; the SNDB is used to code and report NHANES III findings. The SNDB has brand-specific food codes for some food categories such as candy and ready-to-eat breakfast cereals. Brand names are also listed in the food code description "include" statements for other SNDB food codes.

New brand name products are added to the DDC system and SNDB as they are reported in NCHS and USDA surveys. NCHS, HNIS, and NCC contact food manufacturers to obtain current information about commercial products. This information is used to update the product names, nutrient profiles, ingredient lists, food code descriptions, and food weights found in the USDA and NCC data bases.

Why is brand specificity important to survey data users?

Survey data users have diverse data requirements. HNIS and NCHS are the co-lead agencies for Activity V-A-4.1 in the Ten-Year Comprehensive Plan for National Nutrition Monitoring and Related Research. (5) The primary objective of the Activity is to evaluate the specificity of food items in the SNDB for describing foods consumed by the general population and ethnic subgroups. In 1992, HNIS and NCHS conducted an informal survey of the government agencies working on this Activity. Government data users were asked to identify their uses of dietary survey data and

requirements for specific information about ethnic foods and brand name products. HNIS and NCHS reported the findings of the survey to the National Nutrition Monitoring Advisory Council in September, 1992.

The two primary uses of dietary survey data identified by the agencies surveyed were: 1) to identify foods consumed by the U.S. population and 2) to estimate intakes of nutrients and other food components. With respect to food identity, brand information is used to determine the type, form, and variety of foods consumed. The use of brand-specific food weights and nutrient composition data were used to refine food and nutrient intake estimates.

Collecting brand information during NHANES III respondents

The DDC system features a standardized interview format and structured probes. NHANES III interviewers probe for brand names when a brand option is presented during the interview. For example, when a respondent reports consuming soda, the dietary interviewer probes for the brand of soda. If the reported brand is found in the DDC system soda brand list, the soda is entered by brand name; non-brand sodas are entered using the DDC system's generic soda descriptors which include information about the flavor type, calorie content, i.e. low calorie vs. regular calorie, caffeine content, etc.

A standardized interview format and structured probes are useful tools for collecting specific information about foods. One element that researchers cannot standardize, however, is the respondent! The "ideal" respondent provides complete, accurate information about all foods consumed. In reality, respondent capabilities vary greatly. For example, during NHANES III, infants and children five years of age and under were oversampled. Proxy respondents were permitted to report for respondents who were unable to report for themselves.

Respondent burden is an important consideration for an examination survey such as NHANES. The NHANES III examination component requires approximately three hours to complete; dietary recalls are completed in approximately 20 minutes. Brand specificity can reduce respondent and interviewer burden when the respondent is knowledgeable about brands of foods and beverages. For example, reporting ready-to-eat breakfast cereal by brand name eliminates multiple questions which would otherwise be asked to ascertain the form, grain composition, sugar content, and other characteristics of the cereal.

Reporting Brand Information Collected During NHANES III

Are respondents capable of reporting brand names? NCHS will review brand name reporting by food category. NHANES III brand data will be used to design protocols for future dietary surveys and set priorities for data base revisions. For example, brand probes might be added to additional food categories; brand lists for some food categories could be expanded. On the other hand, some food categories may be difficult for respondents to report brand information; some brand probes might be eliminated in future surveys. The NHANES III dietary interviewers provided feedback to NCHS throughout the Survey. Many improvements in the DDC system brand lists, brand probes, and brand product food amount options in the DDC system were based on recommendations from the field staff.

In summary, survey data users have requested specific information about foods consumed by the U.S. population. Brand probes add a dimension of complexity to the survey data collection and data base maintenance effort. A careful evaluation of brand information collected during surveys such as NHANES III is planned to improve data collection methods and survey data bases.

REFERENCES

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