

MONITORING ASPECTS OF FOOD HABITS IN POPULATION-BASED SURVEYS IN NSW

Moira Hewitt

Department of Public Health and Community Medicine
University of Sydney and Master of Applied Epidemiology
Program, National Centre for Epidemiology and Population
Health, Canberra

Beth Stickney and Karen Webb

Department of Public Health and Community Medicine
University of Sydney

This article describes nutrition modules (short sets of standard dietary questions) recommended for use in population-based surveys in NSW. The rationale for using standard questions in such surveys is presented, and factors that influenced the selection of module topics and the limitations of the modules are discussed.

The modules were developed as a component of the NSW Food and Nutrition Monitoring Plan and are described in detail in the report *Short modules for measuring key aspects of food habits and food intakes in population-based surveys in NSW*.

WHY MONITOR FOOD HABITS IN POPULATION-BASED SURVEYS?

For some, improving nutrition is an important public health priority in NSW. In order to develop appropriate policies, programs and campaigns and to assess their impact, relevant and timely information is required by policy makers, planners and public health nutritionists at State and local levels.

Although short sets of dietary questions in general population surveys do not replace the need for periodic in-depth nutrition surveys, they provide a cost-effective opportunity to collect regular and timely information about food habits of current interest.

WHY DO WE NEED STANDARD QUESTIONS FOR MONITORING FOOD HABITS?

State and local population-based health surveys are conducted regularly. Selection of dietary questions should be guided by the nutrition objectives of the survey. Often, however, the rationale for collecting particular types of dietary data has not been well defined in general health surveys. Designers of such surveys either devise their own dietary questions or seek advice from nutrition specialists about which questions to use. Without an agreed set of best questions, there tends to be an ad hoc approach to the measurement of food habits. This often results in the use of inadequate or irrelevant questions that may not be valid indicators of the nutritional issues of interest. Further, there is little consistency across surveys in the dietary questions used. This limits the usefulness and comparability of data and makes it difficult to assess trends in population food habits.

Effective monitoring of trends in food habits is dependent in part on the use of valid standard questions that remain consistent from survey to survey². Use of standard dietary questions will improve the comparability of results from various surveys, helping to create a more complete picture of dietary habits in various population groups and assist in monitoring progress toward nutrition goals and targets.

TABLE 1

RECOMMENDED NUTRITION MODULES FOR USE IN POPULATION-BASED SURVEYS IN NSW

Module	Nutrition issue assessed by module
Core modules	Weight status: body mass index, based on self-reported height and weight Core food group intake (fruit, vegetables, breads and cereals) Fat consumption habits
Supplementary modules	Breast-feeding and infant feeding Food security, barriers to dietary change and meal patterns Food security, qualitative aspects Food habits related to intake of saturated fat, calcium and iron Core food group intake as assessed in the 1996 Tasmanian Food and Nutrition Study

A guide to instruments for monitoring food intake, food habits and dietary change provides a useful summary of questions currently available for measuring key indicators of population nutrition and an overview of issues that need to be considered in developing standard questions³. But there is no agreement in Australia about which brief instruments to use for food and nutrition monitoring.

The recent planning process for an annual Statewide telephone health survey in NSW has highlighted the need, and provided further impetus, for the development of standard modules of diet-related questions.

WHAT ARE NUTRITION MODULES?

Nutrition modules are short sets of standard dietary questions. Short nutrition modules were first developed by the Centers for Disease Control and Prevention in the United States, and these are now widely used in the US Behavioral Risk Factor Surveillance Surveys⁴. Each module is:

- related to a specific nutrition topic;
- self-contained and intended for use as a complete set of questions to obtain the best information about each topic; and
- suitable for use in surveys of the general adult population.

The recommended nutrition modules (Table 1) are based on priorities for nutrition information identified through a review of strategic documents^{5,6,7} and consultations held with health professionals during the development of the NSW food and nutrition monitoring plan. They consist of:

- core modules recommended for annual inclusion in the NSW Health Survey; and
- supplementary modules for periodic inclusion less often than yearly.

Nutrition issues considered to be of the highest priority and those that warrant more frequent data collection for monitoring purposes are recommended as core modules.

WHAT FACTORS INFLUENCED THE SELECTION OF NUTRITION ISSUES FOR MONITORING IN POPULATION-BASED SURVEYS?

Factors considered were:

- the priority given to tracking nutrition goals and targets and progress, including progress that meets the requirements of Area performance contracts;
- the suitability for monitoring in population-based surveys; and
- availability of valid questions for measuring the relevant indicators.

In the selection of specific questions, consideration was given to issues of validity, repeatability, responsiveness of the indicator to change over time, comparability with questions in other key surveys, the mode of administration, and relevance of the question to the target group of interest. Other issues considered were the methods and relative merits of measuring the frequency or quantity of foods consumed (number of "servings"), and the length of the reference period (for example, "usual" compared with "yesterday's" consumption). An example of the type of question recommended for measuring fruit and vegetable consumption is shown in Table 2.

WHO ARE THE NUTRITION MODULES FOR, AND WHEN SHOULD THEY BE USED?

The nutrition modules have been developed for health workers conducting population-based surveys in NSW, including NSW Health Department personnel, Area health personnel and public health researchers.

The recommended modules were developed, in the first instance, for inclusion in the NSW Health Survey, but they are also appropriate for use in:

- other Statewide risk-factor surveys, fitness surveys and health surveys that cover a representative sample of the general adult population of NSW; and
- regional or local health surveys.

LIMITATIONS AND NEXT STEPS FOR FURTHER DEVELOPMENT OF NUTRITION MODULES

Information on the validity, repeatability and responsiveness of most questions relating to food habits and food intake is limited. However, information on the validity of some questions is expected to become available when the results of the 1995 National Nutrition Survey and the 1996 Tasmanian Food and Nutrition Study are published. In the meantime, the proposed nutrition modules should be considered as interim recommendations.

The standard questions have been developed for adults in the general population and are unlikely to be suitable for assessing the diets of children and adolescents, ethnic populations and Aboriginal and Torres Strait Islander peoples. For example, children's recall and their ability to calculate their usual intake is different from that of adults, so the most appropriate reference period for this group should be used. For ethnic population subgroups and Aboriginal and Torres Strait Islander peoples, sources of

TABLE 2

RECOMMENDED CORE MODULE FOR MEASURING INTAKE OF FRUIT AND VEGETABLES

Module	Questions in module*
Core food groups: fruit and vegetable intake	<p>1. How many servings of vegetables do you <i>usually</i> eat each day? (a 'serving' = ½ cup of cooked vegetables or 1 cup of salad vegetables)^a (single response)</p> <p>1. _____ serving per day (0, 1, 2, 3, etc)</p> <p>2. don't eat vegetables</p> <p>2. How many servings of fruit do you usually eat each day? (a 'serving' = 1 medium piece or 2 small pieces of fruit or 1 cup of diced pieces)^a (Single response)</p> <p>1. _____ serving per day (0, 1, 2, 3, etc)</p> <p>2. don't eat fruit</p>

* Source 1995 National Nutrition Survey

nutrients, particularly fat, in the diet are often different from those of the general population. For these groups, there is a need for further development and validation of questions that reflect nutritional problems of concern and relevant aspects of their diet.

The recommended nutrition modules are based on the best available information at the time of publication. The modules do not replace the need for continuing research and development of the best short modules for monitoring nutrition issues. However, use of these standard questions should provide better quality information to assist in meeting nutrition priorities in NSW.

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4. National Center for Chronic Disease Prevention and Health Promotion. 1994 Behavioral Risk Factor Questionnaire. Atlanta: US Department of Health and Human Service, CDC, 1994.
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7. *Caring for Health. Implementation Statement: Putting Policy into Action*. Sydney: NSW Health Department, 1997.