

## Sodium, Hypertension, and the American Public: Second Tracking Survey

In fall 1982 the Food and Drug Administration (FDA) and the National Heart, Lung, and Blood Institute (NHLBI) conducted a survey to explore consumer response to the agencies' efforts to help persons reduce sodium intake and to assist the medical profession in managing patients. A second survey was conducted 14 months later by FDA and NHLBI to examine these same issues.

In the 1984 survey, 4,008 telephone interviews were completed, using a random-digit dialing method that results in a national probability sample. A random-selection procedure was used to designate a respondent from all adults at least 18 years old in the household. Spanish-speaking interviewers and a questionnaire in Spanish were used as necessary. The demographic profile of the sample was essentially identical to that of the 1982 survey. Except for a slight underrepresentation of men and of the severely undereducated, the profile closely matches census figures.

This report focuses on comparisons between 1982 and 1984 survey data, although occasional comparisons are possible with data from comparable FDA and NHLBI surveys conducted in the late 1970s. A more detailed report of this study is available from James T. Heimbach, PhD, 200 C St., SW, Washington, DC 20204.

**Health status.** In the 1984 survey, 19 percent of the respondents had been told at least twice that their blood pressure was high, a significant increase from 15 percent in the 1982 survey. An additional 16 percent reported that another household member had high blood pressure, compared with 13 percent in 1982. Furthermore, the proportion of people receiving treatment after being diagnosed also rose significantly in the 1984 survey. These increases were particularly marked among young adults (those under 25 years old), the elderly, and blacks.

**Sodium and hypertension.** After dramatic increases between the late 1970s and 1982, awareness among the general public of a relationship be-

tween sodium intake and hypertension and public concern about sodium have leveled off. The proportion of respondents in 1984 who knew that hypertension may be related to diet (about 80 percent) did not change significantly from 1982, although the proportion specifically naming salt or sodium declined slightly, from 54 percent in 1982 to 49 percent in 1984. The proportion of respondents who had reduced or are trying to reduce their intake of sodium did not change from 1982, remaining at 38 percent.

The majority of those persons on either medically prescribed or self-initiated low-sodium diets restricted their intake only mildly, basically by avoiding use of the salt shaker. Only 28 percent of these dieters felt a need to restrict their selection of foods. Persons dieting under medical supervision generally had stricter regimens, but a majority even of these felt they needed only refrain from adding salt to food, which may or may not be the only measure recommended by the physician.

### Sodium information on food labeling.

Thirty-eight percent of all respondents reported using ingredient lists to avoid excessive salt or sodium, little changed since 1982. Similarly, while the proliferation of products with modified sodium content has increased the public's familiarity with them, it does not appear to have resulted in greater market penetration. The incidence of occasional or regular purchase of these products has not increased since 1982, but has remained at just under 50 percent of the population.

One factor retarding sale of sodium-modified products is negative perceptions of them. Among consumers aware of these products, 49 percent thought they usually cost more than their regular counterparts, 38 percent believed they would not taste good, and 35 percent regarded them as suitable primarily for people with medical problems.

**Usefulness of quantitative declarations.** Sodium content is frequently given in a quantitative declaration in milligrams per serving, usually in the nutrition label. Although public awareness of this information has grown with its increasing availability, there have not been corresponding in-

creases in understanding, perceived usefulness, or actual use of it.

Only 30 percent of the respondents concerned about sodium viewed quantitative declarations of sodium as "very useful and understandable," down significantly from 35 percent in 1982. Although many respondents expressed confusion regarding use of metric units and others failed to understand why labels refer to sodium rather than to salt (57 percent believed the two words are interchangeable), the problem most frequently cited by respondents was lack of sufficient information, particularly how much sodium is safe or what a reasonable goal is for daily sodium intake.

Indeed, the lack of a frame of reference against which to interpret sodium content appears to lie at the heart of the issue of the usefulness of this information to consumers. Few people have sufficient knowledge of the range of sodium content in different types of foods to infer from the quantitative declaration alone whether a given product is relatively high or low in sodium. Similarly, few members of the general public have a specific daily goal for sodium intake or any idea of what might be a reasonable intake level for them. Developing a single figure analogous to U.S. Recommended Daily Allowances that would be adequate for most people is not possible either—the range of physiological need is too broad. The National Academy of Sciences has recommended 1,100–3,300 milligrams a day as safe and adequate, but even this broad range is unsuitable for many people.

However, this only applies to the general public. Patients on sodium-restricted diets that are medically directed could be given daily goals by their health professionals. Sodium labeling could then allow flexibility in food selection never before possible and still enable patients to stay within recommended intake levels. Flexibility should ameliorate the problem of noncompliance, a major issue in dietary restriction therapies.

**Changes in medical practices.** It seems unlikely that there has been a major change in the number of hypertensive persons in the country since 1982. The significantly increased rates of diagnosis and treatment of high

blood pressure cited earlier more likely indicate an increasing readiness of physicians to direct attention to an existing or impending blood pressure problem and willingness to begin treatment (not necessarily pharmacological) early.

Most people on medically prescribed low-sodium diets in 1982 received little or no professional advice on using sodium-content information. This appears to have improved since then—41 percent of the respondents in 1984 reported receiving such advice, compared with 23 percent in 1982. Specifically, advice to look at the ingredient list and details on exactly what to look for increased greatly. However, there was not any improvement in the frequency of advice using the more informative and potentially more useful verbal descriptors or quantitative sodium-content information in the nutrition label, despite rapidly expanding availability. It remains to be seen whether the medical community will accept and use as tools quantitative declarations and verbal descriptors (labels reading "sodium free," and "very low," "low," and "reduced" sodium).

**New developments.** Several new factors since completion of the survey may affect these findings. The FDA has issued final regulations on sodium labeling, effective sometime in 1986, that will result in wider use of quantitative labeling and verbal descriptors, giving the issue greater prominence. The FDA and NHLBI have also been making efforts to reach high hypertensive risk populations, such as the elderly, minorities, and urban poor, that have likely not been effectively reached by nationwide information programs. Similarly, the FDA and NHLBI have been encouraging the medical community to use sodium-content labeling to help their patients. The success of these efforts will be measured in future surveys.

—JAMES T. HEIMBACH, PhD, Head of the Consumer Research and Education Staff, Division of Consumer Studies, Center for Food Safety and Applied Nutrition, Food and Drug Administration.

## **Navy Launches Fitness Program for Youngsters**

A new program to enhance the physical fitness of young people was launched at U.S. Navy installations

throughout the world in May, National Physical Fitness and Sports Month.

Called "Fun & Fitness," the program offers a variety of sports and physical fitness activities for boys and girls 6 to 18 years of age and their families. It is also open to children and families in local civilian communities.

The program was developed in cooperation with the President's Council on Physical Fitness and Sports and has been pilot tested at four naval installations since December 1984: Mayport and Orlando, FL; Long Beach, CA; and Solomons, MD.

## **New Surveillance System Helps States Target Efforts to Cut Premature Deaths**

Since 1984, the Centers for Disease Control (CDC) has been helping interested States develop a surveillance system, using standard telephone survey procedures, under which data are regularly collected about behaviors by adults that are associated with adverse health outcomes. The data collected by the Behavioral Risk Factor Surveillance System (BRFSS) are important to State health departments in planning interventions to reduce premature morbidity and mortality.

Behaviors about which information is sought include cigarette smoking, compliance with treatment for hypertension, seatbelt use, physical activity, and use of alcohol. Information on height and weight is also solicited, so that it can be determined whether or not the respondent is overweight. These items were selected because of their relationship to the nation's 10 leading causes of premature death. They represent behaviors amenable to health promotion interventions, and information on them can be easily obtained by telephone interview.

The BRFSS evolved from an earlier effort (1981-83) by CDC to help States collect similar information through one-time telephone surveys. For that initiative, CDC developed a standard questionnaire and training for interviewers. As a result of this initial effort, 32 States and the District of Columbia have completed statewide surveys using the CDC protocol, and another 9 States have collected similar data on their own.

The BRFSS, which consists of regular telephone interviewing of adults in

participating States, was initiated because of the States' interest and need. CDC provides partial funding for the system through cooperative agreements that cover essential interviewing and data handling costs. Supervisory and management expenses are absorbed by the States. The BRFSS was initially limited to 19 States and the District of Columbia; however, four more States have been added this year. The system currently covers approximately 55 percent of the nation's adult population.

BRFSS interviews are conducted mostly on weekends and in the evenings, take about 10 minutes, and question only adults. All States participating in the system use a standard core questionnaire developed by CDC but typically add questions of their choice at the end, to solicit more detailed information on issues of particular interest to the State. Interviews are conducted throughout the calendar year to spread the workload and to ensure that the data are seasonally adjusted.

Individual States' samples usually include about 1,200 persons a year but may range in size from 600 to 1,500. Most States use a three-stage cluster sampling design to increase sampling efficiency.

Upon completion of the interviewing cycle each month, the data are keyed and sent to CDC for editing. Once the editing is completed, quarterly unweighted tabulations are provided by CDC to the States. Both weighted and unweighted tabulations of behavioral risk factor prevalence are supplied to the States annually. This year, processing of data gathered by the BRFSS will be speeded by implementation of computer-assisted telephone interviewing in a number of participating States.

*For more information about the BRFSS, contact Gary Hogelin, Chief, Field Services Branch, Division of Nutrition, Center for Health Promotion and Education, Centers for Disease Control, Atlanta, GA 30333; telephone 404: 329-3075.*

## **'Healthfinder' Resource Guides Available**

The National Health Information Clearinghouse (NHIC), a service of the Public Health Service's Office of Disease Prevention and Health Promotion, has developed a series of re-

source guides on topics of interest to health consumers and health professionals. The series, known as "Healthfinder," provides annotated descriptions of many kinds of health resources: organizations, books, pamphlets, journal articles, audiovisual materials, and computer software.

The Healthfinder series is not intended to be comprehensive; rather, each guide is designed as a starting point for locating information resources and readily available, inexpensive or free educational materials. In selecting topics and preparing individual Healthfinders, NHIC staff seek assistance and advice from experts in the various Public Health Service agencies, who help identify resources and review the Healthfinders before printing. A regular schedule for updating individual titles is maintained.

**Topics.** Healthfinder guides on the following topics are currently available:

- Exercise for Older Americans (June 1985, 4 pages)—describes current books and pamphlets on this topic; includes materials for people who want to initiate an exercise program as well as for instructors who conduct such programs.
- Health Fairs (September 1984, 2 pages)—lists guides on conducting a health fair and articles that discuss the effectiveness of these events in achieving health promotion objectives.
- Health Promotion Software (October 1984, 14 pages)—describes many health education software programs on the market as of September 1984. The information for each entry, supplied by the vendor or producer, includes a brief description of the program, compatible hardware, price, review information, and intended audience. Also included is a guide to evaluating software and a list of software review sources.
- Health Risk Appraisals (June 1985, 6 pages)—describes 52 currently available health risk appraisals, including computer-scored HRAs, which are mailed to a central computer facility for batch processing; microcomputer-based HRAs, which can be processed by a microcomputer at home, in schools, or in offices; and self-scored questionnaires.
- Health Statistics (January 1985, 5 pages)—lists generally available resources for health-related statistical data, including general reference works and guides to statistics; a selection of Federal agencies, private orga-

nizations, and voluntary associations that supply statistical data; and health-related data files available to the public.

- Herpes Information Resources (September 1984, 4 pages)—lists pamphlets, books, and audiovisuals that provide current information on the psychological and physical aspects of herpes; includes a toll-free telephone number for answers to questions about herpes.
- Indochinese Health Information Resources (November 1984, 3 pages)—lists organizations and groups that produce or distribute materials in Indochinese languages, directories of additional Indochinese materials, and journal articles in English for health professionals who work with Indochinese patients.
- Locating Audiovisual Materials (July 1984, 5 pages)—lists general directories of health-related AV materials for rent or sale, and directories of AV producers; describes some data bases that provide online access to AV information; suggests ways to locate AV materials on specific health topics.
- Medications: Sources of Information (January 1985, 4 pages)—lists books, pamphlets, periodicals, and patient information leaflets on prescription and nonprescription drugs.
- National Health Observances: 1985 (November 1984, 2 pages)—lists special events that health professionals, teachers, and community groups can use to launch a health promotion activity; includes sources of promotional materials.
- Posters for Health Promotion (July 1984, 5 pages)—describes health-related posters designed for the general public and available from Federal Government agencies.
- Selected Federal Health Information Clearinghouses and Information Centers (May 1985, 2 pages)—briefly describes 36 clearinghouses and information centers operated by the Federal Government and lists addresses and telephone numbers.
- Stress Information Resources (August 1984, 2 pages)—describes organizations concerned with stress and stress management; lists free or inexpensive publications, written for the lay person, on adult and childhood stress.
- Toll-Free Numbers for Health Information (May 1985, 3 pages)—lists toll-free information resources, briefly describes their services, and specifies their hours of operation.

- Vitamins (February 1985, 3 pages)—lists books and pamphlets on vitamins and describes functions, U.S. Recommended Daily Allowances, and significant food sources of the 10 most common vitamins.
- Weight Control (September 1984, 2 pages)—highlights currently available pamphlets and books on weight loss; focuses on eating habits, sample diets, exercise, and diet fads.

*Single, free copies of Healthfinder guides are available, while supplies last, from the National Health Information Clearinghouse, P.O. Box 1133, Washington, DC 20013-1133. (Enclose a self-addressed mailing label to expedite handling.) Requesters are urged to reproduce additional copies at their own expense for further distribution to their constituents.*

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