

National Health Interview Survey (NHIS) Cancer Control Supplement (CCS)

Providing National Surveillance in the Fight against Cancer

Overview

The National Health Interview Survey (NHIS) is a continuing, nationwide in-person survey of approximately 40,000 households in the civilian non-institutionalized population. This survey is conducted by the National Center for Health Statistics (NCHS) and administered by the US Census Bureau. Since 1987, a Cancer Control Supplement (CCS) has been periodically fielded on the NHIS. Because the NHIS is the premier population-based general health survey conducted continuously in the United States, NCI chose it for the CCS.

Since 2000, the NHIS CCS has been co-sponsored by the NCI and CDC. In 1987, 1992, 2000, and 2005, a CCS was administered to one sample adult (aged 18 years or older) in each household. Respondents were interviewed about their knowledge, attitudes, and practices concerning cancer-related health behaviors and cancer-screening use. Respondents who identified as Hispanic/ Latino were administered a section on Hispanic Acculturation. Starting in 2005, these questions were replaced with questions on language and time in the United States, and administered to all respondents. The NHIS over samples African-American and Hispanic respondents. Since 2006, NHIS public use data, including questionnaires, datasets, and related documentation, are available on the NCHS Web site.

The 2005 NHIS dataset was publicly released June 30, 2006. The CCS covered the following topics:

- Diet and Nutrition
- Physical Activity
- Cancer Screening
- Sun Avoidance
- Tobacco Use and Control
- Genetic Testing
- Family History of Cancer
- Cancer Risk Assessment

Use of NHIS CCS

NHIS data are used widely throughout the US Department of Health and Human Services (DHHS) to monitor trends in illness and disability and to track progress toward achieving national health objectives. The data also are used to characterize health and illness, to determine barriers to accessing and using appropriate health care, and to evaluate federal health programs. The NHIS is the official tool for monitoring Healthy People cancer screening and tobacco control objectives. NCI and CDC are jointly responsible for monitoring these goals. Over 100 papers have already been published on cancer screening, tobacco control, and diet – the three main areas monitored by the NHIS cancer modules.

Frequency of NHIS CCS

An NHIS CCS (see list of topics above) has been fielded every 5 years since 2000. Questions on cancer screening and sun protection are fielded at more frequent intervals in order to update cancer screening patterns and trends. Screening questions are fielded more often than other items because the NHIS CCS is the only source of national population-based data on cancer screening.

Continual Quality Improvement in NHIS

Key to improving the efficiency of the NHIS CCS was development of the multifactor food screener, used to assess approximate intakes of fruits and vegetables, percent energy from fat, and fiber. The screener asks respondents to report how frequently they consume foods in 16 categories. Before implementation of the short multifactor food screener on the 2000 NHIS, a split sample design was used because an entire instrument was needed to field the food frequency questions. Since 2000, all respondents are administered the same questionnaire which increases the

effective sample size of the survey and allows researchers to analyze cancer control data in greater detail.

Other refinements in questions also have increased the utility of national trend data. For example, in 2000, respondents were asked to distinguish whether their colorectal endoscopy was a colonoscopy or sigmoidoscopy (in previous years, questions asked about protoscopy only). In 2000, respondents were asked whether their Fecal Occult Blood Test (FOBT) was performed at home or in their physician's office (in previous years, this distinction was not included).

Questions were added to the 2005 NHIS to monitor use of the new DHHS Smoking Cessation Hotline. Questions about family history of cancer were refined in 2000 and again in 2005.

Selected Publications

Berrigan D, Dodd K, Troiano RP, Reeve BB, Ballard-Barbash R. Physical activity and acculturation among adult Hispanics in the United States. *Res Q Exerc Sport*. 2006 Jun; 77 (2):147-5.

Burns DM, Lee L, Shen LZ, Gilpin E, Tolley HD, Vaughn J, Shanks TG. Cigarette Smoking Behavior in the United States. National Cancer Institute Monograph No. 8. Bethesda, MD: U.S. Department of Health and Human Services, National Institutes of Health, 1991 Chapter 2.

Freedman AN, Graubard BI, Rao SR, McCaskill-Stevens W, Ballard-Barbash R, Gail MH. Estimates of the number of U.S. women who could benefit from tamoxifen for breast cancer chemoprevention. *J Natl Cancer Inst*. 2003 Apr 2;95(7):526-32.

Hiatt RA, Klabunde C, Breen N, Swan J, Ballard-Barbash R. Cancer screening practices from National Health Interview Surveys: past, present, and future. *J Natl Cancer Inst*. 2002 Dec 18;94(24):1837-46. Review.

Potosky AL, Breen N, Graubard BI, Parsons PE. The association between health care coverage and the use of cancer screening tests: results from the 1992 National Health Interview Survey. *Med Care* 1998;36(3):257-70.

Rao RS, Graubard BI, Breen N, Gastwirth JL. Understanding the Factors Underlying Disparities in Cancer Screening Rates Using the Peters-Belson Approach: Results for the 1998 National Health Interview Survey. *Med Care* 2004;42(8):789-800.

Thompson FE, Midthune D, Subar AF, Kahle LL, Schatzkin A, Kipnis V. Performance of a short tool to assess dietary intakes of fruits and vegetables, percentage energy from fat and fiber. *Public Health Nutr*. 2004 Dec;7(8):1097-105.

Additional Information

NHIS CCS

<http://www.appliedresearch.cancer.gov/surveys/nhis>

Multifactor Food Screener

<http://appliedresearch.cancer.gov/surveys/nhis/multifactor>

NCHS/NHIS Website

Data and questionnaires from the 2000 CCS and 2003 NHIS data on cancer screening and sun protection:
<http://www.cdc.gov/nchs/nhis.htm>

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