

Survey Content Highlights from the National Health And Nutrition Examination Survey (NHANES) 2007- 2010

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CHARTING THE COURSE

NHANES Website Links

NHANES Homepage

<http://www.cdc.gov/nchs/nhanes.htm>

Survey Content Brochure

http://www.cdc.gov/nchs/data/nhanes/survey_content_99_10.pdf

NHANES Tutorials

<http://www.cdc.gov/nchs/tutorials/>

Presentation Objectives

Overview:

- Selected content NHANES 2007-08
- Selected content NHANES 2009-10
- New NHANES Web Tutorials
 - Environmental Chemicals
 - Dietary

Selected Content NHANES 2007-08

Respiratory Health (2007-12)

Objectives

- Estimate prevalence of **obstructive airway disease**
- determine the proportion of **reversible** airway disease among those with obstructive patterns
- Determine distribution of airway **inflammation** based on exhaled nitric oxide levels.

Respiratory Health (2007-2012)

Mobile Exam Center

- Ages 6-79 years
- Spirometry with bronchodilator
 - Provides 1st national estimates of **reversible** airway disease among those with obstructive patterns at baseline
- Exhaled nitric oxide
 - Provides first national data on airway inflammation among US residents
- First public release expected early 2011



Asthma Medications (2007-10)

Household Interview

- Prescription medications - birth+
- Special emphasis placed on asthma medications in the prescription medication section
- When asthma medication identified, ask for use in past 30 days
- Goal of identifying high use
- Data released April 2010



Air Pollution Alert Behavior (2007-10)

Household Interview

- Participants 16 years & older
- Outdoor air pollution is an important asthma trigger
- Identify behaviors in response to air pollution
- Compare behaviors between those affected by asthma and those not affected by asthma
- Data released September 2009

Dietary Supplements

Reasons for Use (2007-present)

Household Interview

- Ages from birth+
- Reason(s) for taking each dietary supplement reported in the past 30 days
- Answer categories based on responses during pilot study conducted in NHANES 2006
- 2007-2008 data just released - August 2010

Supplements Added (2007-present) – 24-Hour Dietary Recall Interviews



ALL NHANES examinees (from birth+) are eligible for TWO 24-hour dietary recall interviews.

- Day 1: in-person in MEC
- Day 2: telephone



Dietary Supplements Added – Dietary Interviews (2007-present)

New design allows:

- researchers to combine food & beverage data with dietary supplement data
- researchers to improve total nutrient intake estimations & examine associations by nutrient source, such as from foods versus supplements.
- 2007-08 data just released - August 2010



Omega-3 Fatty Acids (2007- present)

Laboratory

- Participants 3 years & older
- public health agencies advise eating more fish, despite associated health risks of methylmercury
 - Provide reference ranges by age, gender, race-ethnicity
 - Relate biomarker data with dietary intake data
 - Evaluate omega-fatty acids vs. methylmercury
 - Evaluate omega-fatty acids vs. trans-fat



Flexible Consumer Behavior Survey (FCBS) Module (2007-10)

Core module (household interview)

- family level questions
- participant level questions for 1 years & older
- 2007-2008 data released on May 2010

Examples of family level topics

- time spent on food shopping & cooking
- meals eaten together in the family

Examples of participant level topics

- self-assessed dietary quality
- use of convenience foods



Flexible Consumer Behavior Survey (FCBS) Module (2007-10)

Supplemental module (phone follow-up interview)

- NHANES participants age 16 years & older
- One adult in children participants' (1-15 years old) family
- 2007-2008 data to be released in 2010

Examples of topics included in 2007-08:

- Awareness of dietary recommendations
- Factors influencing grocery shopping
- Use of food labels
- Use of organic foods

Selected Content NHANES 2009-10



Inflammatory Back Pain (IBP) & Spondyloarthritis (2009-10)

- Participants 20-69 years
- Household Questionnaire - history of Inflammatory Back Pain
- Exam - Arthritis-Related Body Measures
- Laboratory - HLA-B27 & High-Sensitivity C-reactive protein

(Note: HLA-B27 - 1 year RDC data set)



Inflammatory Back Pain (IBP) & Spondyloarthritis (2009-10)

Goal - U.S. national prevalence data

- 1st estimate for Inflammatory Back Pain (IBP) related to arthritis
- Provisional estimate for Spondyloarthritis (SpA)
- 1st study of HLA-B27 arthritis biomarker prevalence, population distribution & associations
- Collect genetic testing database for future IBP & SpA research

Audiometry (hearing) (2009-10)

Mobile Exam Center (MEC)

- Participants 70+ added back to survey
- Audiometry last done in this age group in NHANES in 2006

Human Papillomavirus (HPV) – Oral Rinse (2009-present)

Mobile Exam Center (MEC)

- Participants 14 – 69 years
- perform the first population-based study of oral HPV infection
- determine the prevalence & type distribution of infection
- investigate the demographic & behavioral factors associated with infection



Celiac Disease (2009-present)

- Intolerance to dietary glutens
- U.S. prevalence not known
- Participants 6 years & older
- Questions
 - history of having been diagnosed with celiac disease
 - history of following a gluten free diet
- Laboratory blood tests

(Note: low prevalence expected; will be on NHANES 4 to 6 years)



Home Urine Collection (2009-present)

- Participants 6 & older
- 26 million American adults have Chronic Kidney Disease (CKD)
- Early detection can help prevent progression to kidney failure
- Multiple high risk groups
 - Diabetes, hypertension, family history of kidney disease, African Americans, Hispanics, Pacific Islanders, Native Americans & older persons
- NHANES provides national estimates of the prevalence of CKD in the US

Urine Flow Rate (2009-present)

- Participants 6 years & older, who provide urine samples
- Urine specimen volume, date and time of collection
- Many NHANES environmental toxicants measured in urine
- Difficult to quantify exposures levels because concentrations vary by amount of urine produced
- estimates of urine flow rate allow for better quantification of exposures



Dietary Screener Module (2009-10)

- Food frequency questionnaire without measurement of quantity
- Useful to assess specific food components or nutrients
- Questionnaire
 - Participants 2-11 years old by proxy in the Household Interview
 - Participants 12 years and older during the MEC Interview

Dietary components of interest (2009-10)



Red meat

Beef
Pork
Lamb



Processed Meat

Red Meat
Chicken
Turkey



Added Sugar

Soda
Fruit drinks
Cookies
Cake
Pie
Doughnuts
Ice cream



Flexible Consumer Behavior Survey (FCBS) Supplemental Module (2007-10)

- Core module the same through 2010
- Supplemental module modified in 2009-10

Additional topics :

- why people use or don't use food labels
- use of organic foods among different food categories
- awareness of regulations related to organic foods

New NHANES Tutorials

National Health and Nutrition Examination Survey

- National Health and Nutrition Examination Survey**
- About NHANES
- What's New
- Questionnaires, Datasets, and Related Documentation
- Tutorials
- Proposal Guide
- Survey Results and Products
- Listserv

The National Health and Nutrition Examination Survey (NHANES) is a program of studies designed to assess the health and nutritional status of adults and children in the United States. The survey is unique in that it combines interviews and physical examinations.

- Selected Participants**
If you have been selected to take part in the National Health and Nutrition Examination Survey...
- Information for Health Professionals**
Learn about participant involvement and benefits with the National Health and Nutrition Examination Survey

- Notes**
- 2007-2008 Data Documentation
 - 2007-2008 Sampling Methodology

What's New

- New**
- Dietary Supplement Database - File 3: Supplement Information (DSQ3_E 2007-2008)
 - Dietary Supplement Database - File 4: Ingredient Information (DSQ4_E 2007-2008)
 - Dietary Supplement Database - File 5: Supplement Blend (DSQ5_E 2007-2008)
 - Dietary Supplement Use (Individual Dietary Supplements -- First Day) (DS1IDS_E 2007-2008)
 - Dietary Supplement Use (Individual Dietary Supplements -- Second Day) (DS2IDS_E 2007-2008)
 - Dietary Supplement Use (Total Dietary Supplements -- First Day) (DS1TOT_E 2007-2008)
 - Dietary Supplement Use (Total Dietary Supplements -- Second Day) (DS2TOT_E 2007-2008)



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Spanish (Español)
Participantes de NHANES



50th Anniversary

Contact Us:

- National Center for Health Statistics
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Hyattsville, MD 20782
- 1 (800) 232-4636
- cdcinfo@cdc.gov

http://www.cdc.gov/nchs/nhanes.htm

NHANES Environmental Chemical Data Tutorial

The screenshot shows the CDC website header with the logo and text: "CDC Home", "Centers for Disease Control and Prevention", and "Your Online Source for Credible Health Information". Below the header is a navigation bar with an "A-Z Index" and a list of letters from A to Z, plus a hash symbol. The main heading is "NHANES Environmental Chemical Data Tutorial".

NHANES Environmental Chemical Data Tutorial

[Using the Tutorial](#)

[Environmental Chemical Data Survey Orientation](#)

[Preparing an Environmental Chemical Analytic Dataset](#)

[Sample Program and Output](#)

[Additional Information](#)

Related Sites

- [Continuous NHANES Web Tutorial](#)
- [NHANES III Web Tutorial](#)
- [NHANES II Web Tutorial](#)
- [NHANES I Web Tutorial](#)
- [NHANES Dietary Data Tutorial](#)

[NCHS Home](#) > [Tutorials](#)

The National Health and Nutrition Examination Survey (NHANES) Environmental Chemical Data Web Tutorial was developed by the National Center for Health Statistics (NCHS) and National Center for Environmental Health (NCEH) to meet the growing needs of NHANES data users. This tutorial is one of several [NHANES Tutorials](#) that have been developed to promote broader and more proficient use of NHANES data. To use the tutorial, you can either start from the beginning and pursue the whole tutorial in a linear fashion, or pick and choose topics of interest presented in different modules.

Currently, the first two courses - Environmental Chemical Data Survey Orientation and Preparing an Environmental Chemical Analytic Dataset - have been released. Upcoming courses include:

- Critical Issues for Analysis of Environmental Chemical Data, and
- Environmental Chemical Data Analysis

These courses will be released prior to the National Conference on Health Statistics (formerly the Data Users Conference) in August.

Looking for a specific topic? Use the [Objectives Page](#) to find your topic.

Before you get started:

Environmental Chemical Data Tutorial Roadmap Check out this map to orient yourself to the tutorial's content.

Introduction Read this page to find answers to frequently asked questions about NHANES environmental chemical data and this tutorial.

Trusted sites 125%

<http://www.cdc.gov/nchs/tutorials/environmental/index.htm>

NHANES

Environmental Chemical Tutorial

Rationale

- Meet the growing demands of NHANES environmental chemical data users
- Promote broader and more proficient use of this NHANES data



Example topics - NHANES

Environmental Chemical Tutorial

- Understanding subsample designs & weighting of environmental specimens
- Creating an environmental data set for analysis (**sample programs provided**)
- Managing limit of detection & non-normality of environmental chemicals
- Use of lipid & creatinine adjustments when analyzing environmental data

Dietary Tutorial – Advanced Modules

★ NHANES Dietary Web Tutorial Home

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Centers for Disease Control and Prevention

CDC en Español

Search: GO

National Center for Health Statistics...*Monitoring the Nation's Health*

NHANES Dietary Web Tutorial

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- [Dietary Data Survey Orientation](#)**
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- > [3. Dietary Data Structure & Contents](#)
- > [4. Resources for Dietary Data Analysis](#)

NHANES Dietary Web Tutorial Home

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New and Updated Content

2/6/2009		The Basic Dietary Analyses course has been approved for .2 CEUs. Please see the Continuing Professional Education page for more information on obtaining credit.
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Welcome to the NHANES Dietary Data Web Tutorial! The National Cancer Institute (NCI), National Center for Health Statistics (NCHS), and U.S. Department of Agriculture (USDA) developed this tutorial to meet the growing needs of NHANES dietary data users.

This tutorial is one of several [NHANES Tutorials](#) that have been developed to promote broader and more proficient use of NHANES data.



Advanced Dietary Tutorial Modules

Module 17 - Estimate prevalence and examine relationships using supplement data

Module 18 - Model usual intake using dietary recall data

Module 19 - Evaluate the effects of covariates on usual dietary intakes



Advanced Dietary Tutorial Modules

- Module 20 - Estimate population-level distributions of usual dietary intake
- Module 21 - Examine the relationship between usual dietary intake and some outcome measure
- Module 22 - Examining usual total nutrient intake from supplements and diet

Thank You

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