



# National Health and Nutrition Examination Survey

1999-2010  
Survey Content



U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES  
Centers for Disease Control and Prevention  
National Center for Health Statistics





ACASI	Audio computer-assisted self-interview
ADHD	Attention deficit hyperactivity disorder
BV	Bacterial vaginosis
CAPI	Computer-assisted personal interview
CD4	T lymphocyte helper cells
CDISC	National Institute of Mental Health's Computerized Diagnostic Interview Schedule for Children
CIDI	World Health Organization's Composite International Diagnostic Interview
CV fitness	Cardiovascular fitness
FCBS	Flexible Consumer Behavior Survey module
FSH/LH	Follicle stimulating hormone/luteinizing hormone
HDL	High density lipoprotein
HLA-B27	Human leukocyte antigen B27
HPV	Human papillomavirus
LDL	Low density lipoprotein
Lp(a)	Lipoprotein (a)
MEC	Mobile examination center
MRSA	Methicillin resistant staphylococcus aureus
NTX	N-telopeptides of bone type I collagen
OGTT	Oral glucose tolerance test
PAH	Polyaromatic hydrocarbons
PSA	Prostate specific antigen
PTH	Parathyroid hormone
Qx	Questions
RBC	Red blood cell
SP	Survey participant
TH	Thyroxin
TIBC	Total iron binding capacity
TSH	Thyroid stimulating hormone
TTG-EMA	Anti-transglutaminase (tTG) and anti-endomysium (EMA) antibodies
VOC	Volatile organic compounds
WBC/DNA	White blood cells/deoxyribonucleic acid

- Component or lab test conducted on original sample description.
- Change from original sample description.
- Component or lab test not conducted.

**Table 1.** Examination component matrix of the National Health and Nutrition Examination Survey, 1999–2010



Component	Sample description	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	
Audiometry	1/2 sample 20–69 years <sup>1</sup>								12–19 and 70 years and older		12–19 years		12–19 and 70 years and older	
Balance	1/2 sample 40–69 years <sup>1</sup>		Note A											
Bioelectrical impedance analysis	8–49 years													
Body measurements	All SPs													
CV fitness	12–49 years <sup>1</sup>								p.m. SPs					
Dermatology	20–59 years													
Dietary	All SPs						Note B							
Dual energy x-ray absorptiometry														
Body composition	8 years and older <sup>1</sup>	Note C							8–69 years					
Bone density-hip and spine	8 years and older													
FCBS phone follow-up module	1 year and older											Note D		
Food frequency	2 years and older						Collected by mail							
Hair collection	1–5 years, females 16–49 years													
Lower extremity disease														
Peripheral neuropathy	40 years and older													
Peripheral vascular disease	40 years and older													
Mental health	8–39 years													
CDISC	8–19 years													
Anxiety	8–19 years													
Depression	8–19 years													
Eating disorders	8–19 years													
Panic disorder	8–19 years													
CIDI	1/2 sample 20–39 years													
Depression	1/2 sample 20–39 years													
Generalized anxiety	1/2 sample 20–39 years													
Panic disorder	1/2 sample 20–39 years													
Parent CDISC														
ADHD	Parent of 8–15 years													
Conduct disorders	Parent of 8–15 years													
Depression	Parent of 8–15 years													
Eating disorders	Parent of 8–15 years													
Elimination disorders	Parent of 8–11 years													

See footnotes at end of table. Acronyms and abbreviations and legend.

**Table 1.** Examination component matrix of the National Health and Nutrition Examination Survey, 1999–2010—Con.



Component	Sample description	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Ophthalmology													
Retinal photo	40 years and older												
Visual fields	40 years and older												
Oral health													
Basic screening exam	5 years and older <sup>1</sup>												3–19 years
Coronal caries	2 years and older												
Dental sealants	2–34 years												
Denture questionnaire	25 years and older												
Exclusion Qx	13 years and older <sup>1</sup>												30 years and older
Fluorosis	6–49 years												6–19 years
Incisal trauma	10–29 years												
Orofacial pain exam	13–69 years												
Orofacial pain Qx	10–69 years												
Periodontitis													Note H
Gingival bleeding	12–49 years												
Loss of attachment	18 years and older <sup>1</sup>												30 years and older
Periodontal bleeding	13 years and older												
Referral/follow-up	2 years and older <sup>1</sup>												3 years and older
Root caries	18 years and older												
Saliva	40 years and older												
Tooth count	2 years and older <sup>1</sup>												3–19 and 30 years and older
Physical activity monitor	6 years and older												
Physical functioning													
8 ft. timed walk	50 years and older												
20 ft. timed walk	50 years and older												
Isokinetic	50 years and older												
Physician exam	All SPs												
Blood pressure	8 years and older												
Respiratory health													
Exhaled nitric oxide	6–79 years												
Spirometry	6–79 years												

See footnotes at end of table. Acronyms and abbreviations and legend.

**Table 1.** Examination component matrix of the National Health and Nutrition Examination Survey, 1999–2010—Con.



Component	Sample description	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Spinal mobility	20–69 years												
Tuberculosis	1 year and older												
Vision	12 years and older												

<sup>1</sup>Except where noted otherwise.

Note A: Increased to full sample, 40 years and older.

Note B: New interview system implemented; all SPs asked to complete a second recall by phone.

Note C: Age range for females was 18 years and older.

Note D: Ten additional questions added.

Note E: Oral health component changed from comprehensive dentist based exam to a simplified oral health screening for SPs 5 years and older.

Note F: Oral health component changed from a simplified health screening to a more comprehensive exam done by a dental hygienist.

Note G: Added identifying caries status on residual dental roots.

Note H: Comprehensive periodontal exam covering the full mouth.

Note I: Age range changed to 13 years and older; LOA measurement positions modified; a third site added.

Note J: Added recommendations to seek care for removable dental prosthetics.

Note K: Discontinued mid-year 2000.

Note L: Added counting residual dental roots.

[Acronyms and abbreviations and legend.](#)

**Table 2.** Laboratory component matrix of the National Health and Nutrition Examination Survey, 1999–2010



Lab test	Sample description	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	
Acrylamide	3 years and older <sup>1</sup>										6 years and older			
Albumin (urine)	6 years and older											Note A		
Apolipoprotein (B)	1/2 sample 12 years and older									a.m. SPs				
Arsenic (urine)	1/3 sample 6 years and older													
Bone alkaline phosphatase	8 years and older <sup>1</sup>					8–49 years								
BV/trichomonas	Females 14–49 years													
Cadmium (blood)	1 year and older													
Caffeine exposure	6 years and older													
CD4/CD8	18–49 years/HIV+ and controls													
Chemistry panel	12 years and older													
Chlamydia (urine)	14–39 years													
Cholesterol (total)	3 years and older <sup>1</sup>									6 years and older				
HDL	3 years and older <sup>1</sup>									6 years and older				
LDL	Subsample 3 years and older <sup>1</sup>									a.m. SPs 12 years and older				
Complete blood count	1 year and older													
Cotinine	3 years and older													
C-reactive protein	3 years and older <sup>1</sup>						1 year and older			3 years and older				
Creatinine (urine)	6 years and older													
Cryptosporidium	6–49 years													
Dust allergens	1 year and older													
Environmental phenols	1/3 sample 6 years and older													
Erythrocyte protoporphyrin	1 year and older <sup>1</sup>					3–5 years and females 12–49 years								
Fatty acids	3–11 years, a.m. SPs 12 years and older													
Ferritin	1 year and older <sup>1</sup>					1–5 years and females 12–49 years								
Fibrinogen	40 years and older													
Folate (RBC)	3 years and older <sup>1</sup>									1 year and older				
Folate (serum)	3 years and older <sup>1</sup>									1 year and older				
FSH/LH	Females 35–60 years													
Fungicides	1/3 sample 6 years and older <sup>1</sup>	Note B												
Glucose (plasma)	Subsample 12 years and older													

See footnotes at end of table. Acronyms and abbreviations and legend.

**Table 2.** Laboratory component matrix of the National Health and Nutrition Examination Survey, 1999–2010—Con.



Lab test	Sample description	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	
Glycohemoglobin	12 years and older	[Blue bar]												
Gonorrhea (urine)	14–39 years	[Blue bar]												
Halogenated phenolic compounds	1/3 sample 6 years and older <sup>1</sup>	Note B				[Blue bar]								
Helicobacter pylori	3 years and older	[Blue bar]				[Blue bar]								
Hepatitis antiHBs	2–5 years	[Blue bar]												
Hepatitis A, B, C, D	6 years and older	[Blue bar]									Note C			
Hepatitis C follow-up	SPs with Hep C	[Blue bar]												
Herbicides: substituted ureas and others	1/3 sample 6 years and older <sup>1</sup>	Note B				[Blue bar]								
Herpes 1 and 2 antibody	14–49 years	[Blue bar]												
HIV antibody	18–49 years <sup>1</sup>	[Blue bar]											18–59 years	
HLA-B27 (inflammatory arthritis)	20–69 years	[Blue bar]												
Homocysteine	3 years and older <sup>1</sup>	[Blue bar]							20 years and older					
HPV (oral rinse)	14–69 years	[Blue bar]												
HPV (serum)	14–59 years	[Blue bar]												
HPV (swab)	Females 14–59 years	[Blue bar]												
Hydroxylated polychlorinated biphenyls	1/3 sample 12 years and older	[Blue bar]							[Blue bar]					
Immunoglobulin E-allergens	1 year and older	[Blue bar]								[Blue bar]				
Insulin/C-peptide	Subsample 12 years and older	[Blue bar]							Insulin only					
Iodine (urine)	1/3 sample 6 years and older	[Blue bar]												
Iron	1 year and older <sup>1</sup>	[Blue bar]					Note D							
Latex	12–59 years	[Blue bar]												
Lead (blood)	1 year and older	[Blue bar]												
Lead dust	Households with 1–5 years	[Blue bar]												
Lp(a)	Subsample 12 years and older	[Blue bar]								[Blue bar]				
Measles/varicella/rubella	6–49 years	[Blue bar]										Mumps added		
Metals (urine)	1/3 sample 6 years and older	[Blue bar]												
Mercury (blood)	1–5 years, females 16–49 years <sup>1</sup>	[Blue bar]					1 year and older							
Mercury (hair)	1–5 years, females 16–49 years	[Blue bar]												
Mercury (urine)	Females 16–49 years <sup>1</sup>	[Blue bar]					1/3 sample 6 years and older							
Methylmalonic acid	3 years and older	[Blue bar]												

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**Table 2.** Laboratory component matrix of the National Health and Nutrition Examination Survey, 1999–2010—Con.



Lab test	Sample description	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
MRSA	1 year and older												
Non-dioxin-like polychlorinated biphenyls	1/3 sample 12 years and older												
NTX	8 years and older												
OGTT	Subsample 12 years and older									a.m. SPs			
Omega fatty acids	3–11 years, a.m. SPs 12 years and older												
Organophosphate insecticides	1/3 sample 6 years and older <sup>1</sup>		Note B										
Osmolality	6 years and older												
PAH	1/3 sample 6 years and older												
Perchlorate (urine)	6 years and older <sup>1</sup>			Note E						Note F			
Perchlorate (water)	1/2 sample 12 years and older												
Perfluorinated compounds	1/3 sample 12 years and older <sup>1</sup>	Note G											
Pesticides													
Organochlorine	1/3 sample 12 years and older												
Other	1/3 sample 6 years and older <sup>1</sup>		Note B										
Pyrethroid	1/3 sample 6 years and older <sup>1</sup>			Note H									
Phthalates	1/3 sample 6 years and older												
Phytoestrogens	1/3 sample 6 years and older												
Polybrominated diphenyl ethers	1/3 sample 12 years and older												
Polychlorinated and polybrominated dibenzo-p-dioxins, dibenzofurans, coplanar and mono-ortho-substituted biphenyls	1/3 sample 12 years and older												
Polychlorinated naphthalene	1/3 sample 12 years and older												
PSA	Males 40 years and older												
PSA follow-up	Males 40 years and older with high results <sup>1</sup>							Males 40–70 years					
PTH	6 years and older												
Selenium	3–11 years <sup>1</sup>					40 years and older							
Surplus sera	6 years and older									Reduced number of vials			
Syphilis	18–49 years												
Thyroid function testing	1/3 sample 12 years and older <sup>1</sup>										Note I		

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**Table 2.** Laboratory component matrix of the National Health and Nutrition Examination Survey, 1999–2010—Con.



Lab test	Sample description	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	
TIBC	1 year and older <sup>1</sup>					Note D								
Toxaphenes	1/3 sample 12 years and older													
Toxoplasma	6–49 years	Note G												
Transferrin receptor	1–5 years, females 12–49 years													
Triglycerides	Subsample 3 years and older <sup>1</sup>								a.m. SPs 12 years and older					
TTG-EMA (celiac disease)	6 years and older													
Urine flow rate calculation	6 years and older													
Vitamin A/E/carotenoids	3 years and older <sup>1</sup>					6 years and older								
Vitamin B6	1 year and older													
Vitamin B12	3 years and older <sup>1</sup>					1 year and older								
Vitamin C	6 years and older													
Vitamin D	6 years and older <sup>1</sup>						1 year and older							
VOC (blood)	Subsample 20–59 years <sup>1</sup>								1/2 sample 12 years and older					
VOC exposure monitor	Subsample 20–59 years													
VOC (water)	Subsample 20–59 years <sup>1</sup>								1/2 sample 12 years and older					
WBC/DNA	20 years and older													

<sup>1</sup>Except where noted otherwise.

Note A: Second specimen is collected in home.

Note B: In 1999, subsample was one-fourth of those aged 12–59 years; in 1999–2002, subsample was one-half of those aged 6–11 years.

Note C: Age range changed to 6–19 years for hepatitis A only.

Note D: Age range changed to 3–5 years and females 12–59 years.

Note E: Analyzed retrospectively from surplus sera, 2001–2004.

Note F: In 2009–2010, subsample was one-third of those 6 years and older.

Note G: Analyzed retrospectively from surplus sera, 1999–2000.

Note H: In 2001–2002, subsample was one-half of those aged 6–11 years.

Note I: In 2007–2008, full sample; in 2009–2010, one-third sample.

[Acronyms and abbreviations and legend.](#)

**Table 3. Questionnaire component matrix of the National Health and Nutrition Examination Survey, 1999–2010**



Component	Sample description	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
<b>SP questionnaire</b>													
Acculturation (ACQ)	12 years and older												
Allergy (ARQ)	1 year and older												
Audiometry (AUQ)	20 years and older <sup>1</sup>									1 year and older			
Balance (BAQ)	40 years and older												
Blood pressure (BPQ)	16 years and older												
Cardiovascular disease (CDQ)	40 years and older												
Demographics (DMQ)	Birth and older												
Dermatology (DEQ)	6 years and older <sup>1</sup>									20–59 years			
Diabetes (DIQ)	1 year and older												
Diet behavior and nutrition (DBQ)	Birth and older												
Dietary screener module (DTQ)	2–69 years												
Dietary supplements and medications (DSQ)	Birth and older												
Digit symbol substitution test (CFQ)	60 years and older												
Early childhood (ECQ)	Birth–15 years												
Health insurance (HIQ)	Birth and older												
Hospital utilization and access to care (HUQ)	Birth and older												
Immunization (IMQ)	Birth and older												
Inflammatory back pain (ARQ)	20–69 years												
Introduction and verification (IVQ)	Birth and older												
Kidney conditions (KIQ)	20 years and older												
Medical conditions (MCQ)	1 year and older												
Miscellaneous pain (MPQ)	20 years and older												
Occupation (OCQ)	12 years and older <sup>1</sup>									16 years and older			
Oral health (OHQ)	2 years and older <sup>1</sup>									18 years and older		30 years and older	
Osteoporosis (OSQ)	20 years and older												
Physical activity and physical fitness (PAQ)	2 years and older												
Physical functioning (PFQ)	1 year and older <sup>1</sup>												5 years and older
Respiratory health and disease (RDQ)	1 year and older												

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**Table 3. Questionnaire component matrix of the National Health and Nutrition Examination Survey, 1999–2010—Con.**



Component	Sample description	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Sleep disorders (SLQ)	16 years and older												
Smoking and tobacco use (SMQ)	20 years and older												
Social support (SSQ)	60 years and older <sup>1</sup>								40 years and older				
Tuberculosis (TBQ)	1 year and older												
Vision (VIQ)	20 years and older <sup>1</sup>								12 years and older				
Weight history (WHQ)	16 years and older												
<b>Family questionnaire</b>													
Consumer behavior (CBQ)	Birth and older												
Demographic background/ occupation (DMQ)	Birth and older												
Food security (FSQ) <sup>2</sup>	Birth and older												
Health insurance (HIQ)	Birth and older									Found in SP questionnaire			
Housing characteristics (HOQ)	Birth and older												
Income (INQ)	Birth and older												
Pesticide use (PUQ)	Birth and older									Found in MEC interview			
Smoking (SMQ)	Birth and older												
<b>MEC questionnaire</b>													
ACASI	12 years and older												
Alcohol use	12–19 years												
Conduct disorders	12–19 years												
Drug use	12–59 years <sup>1</sup>										12–69 years		
Food security	12–15 years												
Prostate conditions	Males 20 years and older									Moved to CAPI			
Sexual behavior	14–59 years												
Tobacco use	12–19 years												
CAPI	12 years and older												
Alcohol use	20 years and older												
Bowel health	20 years and older												
Current health status	12 years and older												
Depression screener	12 years and older												

See footnotes at end of table. Acronyms and abbreviations and legend.

**Table 3.** Questionnaire component matrix of the National Health and Nutrition Examination Survey, 1999–2010—Con.



Component	Sample description	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Kidney conditions-urology	20 years and older	[Data present]											
Pesticide exposure	8 years and older	[Data present]											
Physical activity	12–15 years	[Data present]											
Prostate conditions	Males 20 years and older	[Data present]											
Reproductive health	Females 12 years and older	[Data present]											
Tobacco use	20 years and older	[Data present]											
Volatile toxicants	1/3 sample 12 years and older	[Data present]											
Weight history	8–15 years	[Data present]											

<sup>1</sup>Except where noted otherwise.

<sup>2</sup>Adult and child person-level food security data collected after the dietary recall.

[Acronyms and abbreviations and legend.](#)

