

National Health and Nutrition Examination Survey 2005–2006

Documentation, Codebook, and Frequencies

Ferritin

Laboratory

**Survey Years:
2005 to 2006**

**SAS Transport File:
FERTIN_D.XPT**



April 2008

NHANES 2005–2006 Data Documentation

Laboratory Assessment: Ferritin (FERTIN_D)

First Published: April 2008

Last Revised: N/A

Component Description

The objectives of this component are: 1) to provide data for monitoring secular trends in measures of nutritional status in the U.S. population; 2) to evaluate the effect of people's habits and behaviors such as physical activity and the use of alcohol, tobacco, and dietary supplements on people's nutritional status; and 3) to evaluate the effect of changes in nutrition and public health policies including welfare reform legislation, food fortification policy, and child nutrition programs on the nutritional status of the U.S. population. These data will be used to estimate deficiencies and toxicities of specific nutrients in the population and subgroups, to provide population reference data, and to estimate the contribution of diet, supplements, and other factors to serum levels of nutrients. Data will be used for research to further define nutrient requirements as well as optimal levels for disease prevention and health promotion.

Eligible Sample

Participants aged 1-5 years both genders and females 12 to 49 years who do not meet any of the exclusion criteria are eligible.

Description of Laboratory Methodology

Roche/Hitachi assay:

The method principle for measurement of Ferritin is immuno-turbidimetry using the Roche/Hitachi 912 clinical analyzer. Latex bound Ferritin antibodies react with the antigen in the sample to form an antigen/antibody complex. Following agglutination, this is measured turbidimetrically. Complexes formed are proportional to the Ferritin concentration, and were measured at 700nm (primary wavelength).

Laboratory Quality Control and Monitoring

The NHANES quality control and quality assurance protocols (QA/QC) meet the 1988 Clinical Laboratory Improvement Act mandates. Detailed quality control and quality assurance instructions are discussed in the NHANES Laboratory/Medical Technologists Procedures Manual (LPM). Read the LABDOC file for detailed QA/QC protocols.

A detailed description of the quality assurance and quality control procedures can be found at NHANES web site.

Data Processing and Editing

Serum specimens were processed, stored, and shipped to the Division of Environmental Health Laboratory Sciences, National Center for Environmental Health, Centers for Disease Control and Prevention for analysis.

Detailed specimen collection and processing instructions are discussed in the NHANES Laboratory/Medical Technologists Procedures Manual (LPM). Vials are stored under appropriate frozen (-20°C) conditions until they are shipped to National Center for Environmental Health for testing.

One derived variable (LBDFERSI) was created in this data file. The formula for its derivation is as follows:

The ferritin measurement in ng/mL was converted to $\mu\text{g/L}$ by multiplying by 1.0.

Detailed instructions on specimen collection and processing can be found at NHANES web page.

Analytic Notes

General Analytical Note:

The analysis of NHANES 2005–2006 laboratory data must be conducted with the key survey design and basic demographic variables. The NHANES 2005–2006 Household Questionnaire Data Files contain demographic data, health indicators, and other related information collected during household interviews. The Household Questionnaire Data Files also contain all survey design variables and sample weights required to analyze these data. The Phlebotomy Examination file includes auxiliary information on duration of fasting, the time of day of the venipuncture, and the conditions precluding venipuncture. The Household Questionnaire and Phlebotomy Exam files may be linked to the laboratory data file using the unique survey participant identifier SEQN.

Please refer to the Analytic Guidelines for further details on the use of sample weights and other analytic issues.

References

None

Locator Fields

Title: Ferritin

Contact Number: 1-866-441-NCHS

Years of Content: 2005–2006

First Published: April 2008

Revised: N/A

Access Constraints: None

Use Constraints: None

Geographic Coverage: National

Subject: Ferritin

Record Source: NHANES 2005–2006

Survey Methodology: NHANES 2005–2006 is a stratified multistage probability sample of the civilian non-institutionalized population of the U.S.

Medium: NHANES Web site; SAS transport files

National Health and Nutrition Examination Survey Codebook for Data Production (2005-2006)

Ferritin (FERTIN_D)

April 2008



SEQN	Target
	B(1 Yrs. to 5 Yrs.) F(12 Yrs. to 49 Yrs.)
Hard Edits	SAS Label
	Respondent sequence number
English Text: Respondent sequence number.	
English Instructions:	

LBXFER	Target
	B(1 Yrs. to 5 Yrs.) F(12 Yrs. to 49 Yrs.)
Hard Edits	SAS Label
	Ferritin(ng/mL)
English Text: Ferritin(ng/mL)	
English Instructions:	

Code or Value	Description	Count	Cumulative	Skip to Item
3 to 611	Range of Values	3020	3020	
2	Below Detection Limit Fill Value	11	3031	
.	Missing	879	3910	

LBDFERSI		Target		
		B(1 Yrs. to 5 Yrs.) F(12 Yrs. to 49 Yrs.)		
Hard Edits		SAS Label		
		Ferritin(ug/L)		
English Text: Ferritin(ug/L)				
English Instructions:				
Code or Value	Description	Count	Cumulative	Skip to Item
3 to 611	Range of Values	3020	3020	
2	Below Detection Limit Fill Value	11	3031	
.	Missing	879	3910	