National Health and Nutrition Examination Survey 2005–2006

Documentation, Codebook, and Frequencies

C-Reactive Protein

Laboratory

Survey Years:
2005 to 2006

SAS Transport File:
CRP_D.XPT

November 2007

NHANES 2005–2006 Data Documentation

Laboratory Assessment: C-Reactive Protein (CRP_D)

First Published: November 2007 **Last Revised:** N/A

Component Description

C-reactive protein (CRP)

C-reactive protein is considered one of the best measures of the acute-phase response to an infectious disease or other cause of tissue damage and inflammation. It is used to correct the iron status measures, which are affected by inflammation. It can also be used to measure the body's response to inflammation from chronic conditions, such as arthritis, and environmental exposures to agents such as tobacco smoke.

Eligible Sample

Participants aged 1 year and older. .

Description of Laboratory Methodology

This method quantified CRP by latex-enhanced nephelometry. Particle-enhanced assays were based on the reaction between a soluble analyte and the corresponding antigen or antibody bound to polystyrene particles. For the quantification of CRP, particles consisting of a polystyrene core and a hydrophilic shell were used to link anti-CRP antibodies covalently. A dilute solution of test sample was mixed with latex particles coated with mouse monoclonal anti-CRP antibodies. CRP present in the test sample forms an antigen antibody complex with the latex particles.

An automatic blank subtraction was performed. CRP concentrations were calculated by using a calibration curve. Data reduction of the signals was performed by using a storable logit-log function for the calibration curve performed data reduction of the signals. These assays were performed on a Behring Nephelometer for quantitative CRP determination.

There were no changes to the equipment, lab method, or lab site for CRP from the previous 2 years.

A detailed description of the laboratory method used can be found on the NHANES website.

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 on the NHANES website.

Data Processing and Editing

Blood specimens are processed, stored and shipped to University of Washington, Seattle, WA. Detailed specimen collection and processing instructions are discussed in the NHANES LPM. Read the LABDOC file for detailed data processing and editing protocols. The analytical methods are described in the Analytic methodology section.
There is no top coding or derived variables in this file.

Detailed instructions on specimen collection and processing can be found on the NHANES website.

Analytic Notes

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. They also contain sample weights for these age groups. The phlebotomy file includes auxiliary information such as the conditions precluding venipuncture. The household questionnaire and phlebotomy files may be linked to the laboratory data file using the unique survey participant identifier SEQN.

References

N/A

Locator Fields

Title: C-reactive protein (CRP)

Contact Number: 1-866-441-NCHS

Years of Content: 2005–2006

First Published: November 2007

Last Revised: N/A

Access Constraints: None

Use Constraints: None

Geographic Coverage: National

Subject: C-reactive protein (CRP)

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)

Laboratory Section:

C-reactive Protein (CRP_D)

November 2007

SEQN	Target
	B(1 Yrs. to 150 Yrs.)
Hard Edits	**SAS Label**
	Respondent sequence number
English Text: Respondent sequence number.	
English Instructions:	

LBXCRP	Target
	B(1 Yrs. to 150 Yrs.)
Hard Edits	**SAS Label**
	C-reactive protein(mg/dL)
English Text: C-reactive protein (mg/dL)	
English Instructions:	

Code or Value	Description	Count	Cumulative	Skip to Item
0.02 to 17.5	Range of Values	7093	7093	
0.01	At or below detection limit fill value	1079	8172	
.	Missing	1268	9440	