Documentation, Codebook, and Frequencies

Hepatitis A Antibody (Anti-HAV)

Laboratory

Survey Years:
2005 to 2006

SAS Transport File:
HEPA_D.XPT

nhanes

March 2008

NHANES 2005–2006 Data Documentation

Laboratory Assessment: Hepatitis A (HEPHA_D)

First Published: March 2008   **Revised:** N/A

Component Description	Hepatitis viruses constitute a major public health problem because of the morbidity and mortality associated with the acute and chronic consequences of these infections. New immunization strategies have been developed to eliminate the spread of hepatitis B virus (HBV) and hepatitis A virus (HAV) in the United States. Recommendations have also been developed for the prevention and control of hepatitis C virus (HCV) infection. Because of the high rate of asymptomatic infection with these viruses, information about the prevalence of these diseases is needed to monitor prevention efforts. By testing a nationally representative sample of the U.S. population, NHANES will provide the most reliable estimates of age-specific prevalence needed to evaluate the effectiveness of the strategies to prevent these infections. In addition, NHANES provides the means to better define the epidemiology of other hepatitis viruses. NHANES testing for markers of infection with hepatitis viruses will be used to determine secular trends in infection rates across most age and racial/ethnic groups, and will provide a national picture of the epidemiologic determinants of these infections.
Eligible Sample	**Hepatitis A:** participants aged 2 years and older are eligible to be tested.
Description of Laboratory Methodology	**Hepatitis A** A qualitative determination of total antibody to hepatitis A virus (anti-HAV) contained in human serum or plasma is measured by using solid-phase competitive enzyme immunoassay (EIA) (1-3). A test sample is mixed with detection-phase reagent in a reaction well. The detection-phase reagent consists of anti-HAV conjugated with peroxidase (anti-HAV/PO). The sample-conjugate mixture is incubated with a bead coated with HAV antigen. Any anti-HAV in the test sample competes with the conjugate for HAV epitopes present on the bead. Thus, at the end of the incubation period, the amount of conjugate immunochemically bound to the bead will be inversely proportional to the concentration of anti-HAV in the sample. The beads are washed to remove any unbound material. The beads are then incubated with a hydrogen peroxide/o-phenylenediamine (H2O2/OPD) chromogenic

substrate solution. The reaction of substrate solution with peroxidase yields a yellow-orange color. The reaction is stopped by the addition of 1-N sulfuric acid. The intensity of the color generated is measured spectrophotometrically at 492 nm. The instruments used to measure the test results are equipped with software that calculates a cutoff value. The cutoff calculation is based upon values obtained from control reagents included with each testing series. Results are expressed as "positive" or "negative" for anti-HAV.

Laboratory Quality Control and Monitoring

The NHANES quality assurance and quality control (QA/QC) protocols 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 the Division of Viral Hepatitis, National Center for Infectious Diseases, National Centers for Disease Control and Prevention. 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 Notes for Data Users section below. Detailed instructions on specimen collection and processing can be found on the NHANES website.

Analytic Notes

The analysis of NHANES laboratory data must be conducted with the key survey design and basic demographic variables. The NHANES Household Questionnaire Data Files contain demographic data, health indicators, and other related information collected during household interviews. They also contain all survey design variables and 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.

The age ranges and constraints for hepatitis testing are as follows:
- The hepatitis A core antibody test is performed on all examinees 2 years old and older.

- The assay used in this study can not differentiate between natural infection and vaccination. Therefore seropositivity for anti-HAV reflects either natural or vaccine induced immunity

References N/A

Locator Fields

Title: Hepatitis A

Contact Number: 1-866-441-NCHS

Years of Content: 2005–2006

First Published: March 2008

Revised: N/A

Access Constraints: None

Use Constraints: None

Geographic Coverage: National

Subject: Hepatitis A

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)

Hepatitis A Antibody (HEPA_D)
Person Level Data

March 2008

SEQN	Target
	B(2 Yrs. to 150 Yrs.)
Hard Edits	**SAS Label**
	Respondent sequence number

English Text: Respondent sequence number.

English Instructions:

LBXHA	Target
	B(2 Yrs. to 150 Yrs.)
Hard Edits	**SAS Label**
	Hepatitis A Antibody (Anti-HAV)

English Text: Hepatitis A Antibody (Anti-HAV)

English Instructions:

Code or Value	Description	Count	Cumulative	Skip to Item
1	Positive	3227	3227	
2	Negative	4769	7996	
.	Missing	1098	9094	