National Health and Nutrition Examination Survey 2001–2002

Documentation, Codebook, and Frequencies

Surplus Specimen Laboratory Component: Antibody to human herpes virus 1 (Ages 6 to 13) (Surplus Sera)

Survey Years:
2001 to 2002

SAS Export File:
SSHSV1_b.XPT

First Published: October 2006
Last Revised: N/A

NHANES 2001–2002 Data Documentation

Laboratory Assessment: Antibody to Herpes Simplex Virus Type-1 (HSV-1) for 6-13 Year Olds (NHANES 1999+ Surplus Sera)

Years of Coverage: 2001-2002 **First Published:** October 2006 **Last Revised:** N/A

Component Description

Sera from consenting children age 6-13 years examined in NHANES 1999-2002 were tested for antibodies to Herpes Simplex Virus Type-1 (HSV-1) using a solid-phase enzymatic immunodot assay. Purified glycoprotein specific for HSV-1 (gG-1) was used as antigen. All results in this data release are reported as positive or negative or indeterminate.

Eligible Sample

All participants 6-13 years from NHANES 1999-2002 who gave consent for further testing using stored sera (n = 3,115).

Description of Laboratory Methodology

Although extensive antigenic cross-reactivity exists between the two viral types of herpes, a viral glycoprotein specific for herpes simplex virus type 2 (HSV-2) (designated gG-2), and a glycoprotein specific for herpes simplex virus type 1 (HSV-1) (designated gG-1) have been identified. Monoclonal antibodies and affinity chromatography have been used to purify these glycoproteins and thus provide antigens for type-specific herpes serologic assays. Solid-phase enzymatic immunodot assays are used to detect antibodies reactive to these antigens. The purified glycoprotein gG-1 is adsorbed to the center of a nitrocellulose disk. The rest of the disk surface is coated with bovine serum albumin (BSA) to prevent further nonspecific protein adsorption. Incubation of test serum with the disk allows specific antibodies, if present, to bind to the immobilized antigen. After extensive washing to remove non-reactive antibodies, the bound antibodies are detected by sequential treatment with peroxidase-conjugated goat-anti-human IgG and the enzyme substrate (H_2O_2 with chromogen 4-chloro-1-naphthol). A positive reaction is demonstrated by the appearance of a blue dot at the center of the disk. Serum reactive to an immunodot charged with gG-1 indicates previous and probable latent HSV-1 infection.

Laboratory Quality Control and Monitoring

Assay performance was monitored throughout the testing period by testing positive and negative controls derived from reference sera. gG-1 immunodot results were run in duplicate and 2% were randomly repeated.

Data Processing and Editing

Data was received after all the antibody testing was complete. The data were not edited.

Data Access: All data are publicly available.

Analytic Notes

SSHSVGG1 (HSV-1 antibody)
1= positive
2= negative
3= indeterminate

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

References

Aarnisalo J, Ilonen J, Vainionpaa R, Volanen I, Kaitosaari T, Simell O. Development of antibodies against cytomegalovirus, varicella-zoster virus and herpes simplex virus in Finland during the first eight years of life: a prospective study. Scand J Infect Dis. 2003;35(10):750-3.

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Fleming DT, McQuillan GM, Johnson RE, Nahmias AJ, Aral SO, Lee FK, St Louis ME. Herpes simplex virus type 2 in the United States, 1976 to 1994. N Engl J Med. 1997 Oct 16;337(16):1105-11.

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Lee FK, Coleman RM, Pereira L, Griffin C, Reid E, Nahmias A. Detection of herpes simplex virus type-2-specific antibody with glycoprotein G. J Clin Microbiol 1985; 22:641-4.

Lee FK, Pereira L, Griffin C, Reid E, Nahmias A. A novel glycoprotein (gG-1) for detection of herpes simplex virus specific antibodies. J Virol Methods 1986;14:111-8.

Locator Fields

Title: Antibody to Herpes Simplex Virus Type-1 (HSV-1)

Contact Number: 1-866-441-NCHS

Years of Content: 2001–2002

First Published: October 2006

Revised: N/A

Access Constraints: None

Use Constraints: None

Geographic Coverage: National

Subject: Antibody to Herpes Simplex Virus Type-1

Record Source: NHANES 2001–2002

Survey Methodology: NHANES 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 (2001-2002)

Herpes I for 6-13 year olds (Surplus Sera) (SSHSV1_B)
Person Level Data

First Published: October 2006
Last Revised: N/A

SEQN	Target
	B(6 Yrs. to 13 Yrs.)
Hard Edits	**SAS Label**
	Respondent sequence number
English Text: Respondent sequence number.	
English Instructions:	

SSXHE1	Target
	B(6 Yrs. to 13 Yrs.)
Hard Edits	**SAS Label**
	Herpes I
English Text: Herpes I antibody	
English Instructions:	

Code or Value	Description	Count	Cumulative	Skip to Item
1	positive	577	577	
2	negative	985	1562	
3	indeterminate	1	1563	
.	Missing	0	1563	