

# National Health and Nutrition Examination Survey 2003-2004

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## Documentation, Codebook, and Frequencies

### SP Questionnaire Component: Audiometry Questionnaire Data

**Survey Years:**  
**2003 to 2004**

**SAS Export File:**  
**AUQ\_C.XPT**



November 2005

# NHANES 2003–2004 Data Documentation

Questionnaire Section: **Sample Person Questionnaire**

**Audiometry (AUQ\_C)**

Years of Coverage: 2003–2004

First Published: November 2005

Last Revised: N/A

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## **Component Description**

The Audiometry section (variable name prefix AUQ) provides interview data on self-reported hearing status, tinnitus (ringing in the ears), hearing screening history, the use of assistive devices for hearing, and risk factors for hearing loss.

Topics included in this section are:

- self-assessed hearing status;
- how recently hearing tests were performed, if ever;
- hearing aid use: ever used; current use, 12-month period prevalence; and the habitual frequency of hearing aid use;
- 12-month period prevalence of tinnitus; frequency of symptoms;
- exposure history for non-occupational loud noise from firearms, power tools or loud music; and
- whether hearing protection was used.

## **Eligible Sample**

All survey participants aged 1 year and older were eligible for the initial question (AUQ010) relating to self-reported hearing capability/deficits. Survey respondents 20 years of age and older were asked further detailed questions about hearing and noise exposure.

## **Interview Setting and Mode of Administration**

A trained household interviewer administered these questions to the survey participant during the household interview. The information was recorded using a computer-assisted personal interview (CAPI) system. Some of the questions in the VIQ section required the use of printed hand cards. When necessary, the household interviewers read the hand card selections to the respondent.

## **Quality Assurance & Quality Control**

The Audiometry questionnaire data was systematically reviewed for logical, processing, and data input errors on a periodic basis during the process of data collection.

The computer CAPI system had built-in consistency checks, online information screens that provided the interviewers with information about the terms used in the questionnaires, and hard and soft edit checks to reduce the number of keying entry errors. All of the interviews were reviewed by the NHANES field office staff for accuracy and

completeness.

## **Data Processing and Editing**

The 2001–2002 Audiometry Questionnaire data was verified against the main data file prior to public release.

## **Analytic Notes**

Audiologic data analysis is a complex endeavor requiring knowledge of the specialty content area for valid results to be obtained. If an analyst does not have professional experience in this area, it is recommended that audiologic consultation be obtained to help formulate and review the results of the analysis.

Full sample interview weights should be employed if statistical analysis involves only NHANES questionnaire data. Although these data were collected as a part of the household questionnaire, if they are merged with NHANES MEC data, MEC examination sample weights should be used for the analysis. Specifically, if AUQ data is merged with NHANES Audiometry examination data, then the Audiometry examination subsample weights should be used for analysis.

Previous National Health Interview Survey and NHANES III Audiometry questionnaires served as questionnaire sources.

Audiometry Examination data is found in the Audiometry Section of the NHANES 2003–2004 Examination Files (AUX). The Occupation Section of the SP Household Questionnaire (OCQ) has related questions regarding SP's current and past occupational noise exposure.

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

[http://www.cdc.gov/nchs/about/major/nhanes/nhanes2003-2004/analytical\\_guidelines.htm](http://www.cdc.gov/nchs/about/major/nhanes/nhanes2003-2004/analytical_guidelines.htm)

The AUQ data are publicly available at [www.cdc.gov/nchs/nhanes.htm](http://www.cdc.gov/nchs/nhanes.htm).

## **References**

None

## Locator Record

**Title:** Audiometry (AUQ\_C)

**Contact Number:** 1-866-441-NCHS

**Years of Content:** 2003–2004

**First Published:** November 2005

**Revised:** N/A

**Access Constraints:** None

**Use Constraints:** None

**Geographic Coverage:** National

**Subject:** Audiometry

**Record Source:** NHANES 2003–2004

**Survey Methodology:** NHANES 2003–2004 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 (2003-2004)**

**Audiometry Section of the SP Questionnaire (AUQ\_C)  
Person level data -- use Interview Weights for analysis**

November 2005



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

<b>AUQ130</b>	<b>Target</b>		
	B(1 Yrs. to 150 Yrs.)		
<b>Hard Edits</b>	<b>SAS Label</b>		
	General condition of hearing		
<b>English Text:</b> Which statement best describes {your/SP's} hearing (without hearing aid)? Would you say {your/his/her} hearing is good, that {you have/s/he has} a little trouble, a lot of trouble, or {are you/is s/he} deaf?			
<b>English Instructions:</b>			
<b>Code or Value</b>	<b>Description</b>	<b>Count</b>	<b>Skip to Item</b>
1	Good	7974	
2	Little trouble	1357	
3	Lot of trouble	285	
4	Deaf	24	
7	Refused	0	
9	Don't know	5	
.	Missing	0	

<b>AUQ140</b>	<b>Target</b>		
	B(20 Yrs. to 150 Yrs.)		
<b>Hard Edits</b>	<b>SAS Label</b>		
	When was hearing last tested		
<b>English Text:</b> About how long has it been since {you/SP} last had {your/his/her} hearing tested?			
<b>English Instructions:</b> READ CATEGORIES IF NECESSARY			
Code or Value	Description	Count	Skip to Item
1	Less than 1 year ago	640	
2	1 year to 4 years ago	917	
3	More than 4 years ago	2267	
4	Never	1149	
7	Refused	1	
9	Don't know	66	
.	Missing	4605	

<b>AUQ150</b>	<b>Target</b>		
	B(20 Yrs. to 150 Yrs.)		
<b>Hard Edits</b>	<b>SAS Label</b>		
	Ever worn a hearing aid		
<b>English Text:</b> {Have you/Has SP} ever worn a hearing aid?			
<b>English Instructions:</b>			
<b>Code or Value</b>	<b>Description</b>	<b>Count</b>	<b>Skip to Item</b>
1	Yes	286	
2	No	4753	AUQ190
7	Refused	0	AUQ190
9	Don't know	1	AUQ190
.	Missing	4605	

<b>AUQ160</b>	<b>Target</b>		
	B(20 Yrs. to 150 Yrs.)		
<b>Hard Edits</b>	<b>SAS Label</b>		
	Now wearing a hearing aid		
<b>English Text:</b> { Are you/Is SP } now wearing a hearing aid?			
<b>English Instructions:</b>			
<b>Code or Value</b>	<b>Description</b>	<b>Count</b>	<b>Skip to Item</b>
1	Yes	166	AUQ180
2	No	120	
7	Refused	0	
9	Don't know	0	
.	Missing	9359	

<b>AUQ170</b>	<b>Target</b>		
	B(20 Yrs. to 150 Yrs.)		
<b>Hard Edits</b>	<b>SAS Label</b>		
	Worn hearing aid in past 12 months		
<b>English Text:</b> In the past 12 months, {have you/has SP} ever worn a hearing aid?			
<b>English Instructions:</b>			
<b>Code or Value</b>	<b>Description</b>	<b>Count</b>	<b>Skip to Item</b>
1	Yes	58	
2	No	62	AUQ190
7	Refused	0	AUQ190
9	Don't know	0	AUQ190
.	Missing	9525	

<b>AUQ180</b>	<b>Target</b>		
	B(20 Yrs. to 150 Yrs.)		
<b>Hard Edits</b>	<b>SAS Label</b>		
	How often wear hearing aid in past year		
<b>English Text:</b> In the past 12 months, how often would you say {you/SP} wore a hearing aid? Would you say . . .			
<b>English Instructions:</b>			
<b>Code or Value</b>	<b>Description</b>	<b>Count</b>	<b>Skip to Item</b>
1	Almost always,	131	
2	At least once a day,	29	
3	At least once a week,	22	
4	At least once a month, or	20	
5	Less frequently than once a month?	22	
7	Refused	0	
9	Don't know	0	
.	Missing	9421	

<b>AUQ190</b>	<b>Target</b>		
	B(20 Yrs. to 150 Yrs.)		
<b>Hard Edits</b>	<b>SAS Label</b>		
	Ears ringing, roaring, buzzing past year		
<b>English Text:</b> In the past 12 months, {have you/has SP} ever had ringing, roaring, or buzzing in {your/his/her} ears?			
<b>English Instructions:</b>			
<b>Code or Value</b>	<b>Description</b>	<b>Count</b>	<b>Skip to Item</b>
1	Yes	1315	
2	No	3714	AUQ210
7	Refused	0	AUQ210
9	Don't know	11	AUQ210
.	Missing	4605	

<b>AUQ200</b>	<b>Target</b>		
	B(20 Yrs. to 150 Yrs.)		
<b>Hard Edits</b>	<b>SAS Label</b>		
	How often ringing, roaring, buzzing		
<b>English Text:</b> How often did this happen? Would you say . . .			
<b>English Instructions:</b>			
<b>Code or Value</b>	<b>Description</b>	<b>Count</b>	<b>Skip to Item</b>
1	Almost always,	315	
2	At least once a day,	99	
3	At least once a week,	155	
4	At least once a month, or	232	
5	Less frequently than once a month?	509	
7	Refused	0	
9	Don't know	5	
.	Missing	8330	

<b>AUQ210</b>	<b>Target</b>		
	B(20 Yrs. to 150 Yrs.)		
<b>Hard Edits</b>	<b>SAS Label</b>		
	Firearm noise exposure outside work		
<b>English Text:</b> Outside of work, {have you/has SP} ever been exposed to firearms noise for an average of at least once a month for a year?			
<b>English Instructions:</b>			
<b>Code or Value</b>	<b>Description</b>	<b>Count</b>	<b>Skip to Item</b>
1	Yes	380	
2	No	4655	AUQ230
7	Refused	0	AUQ230
9	Don't know	5	AUQ230
.	Missing	4605	

<b>AUQ220</b>	<b>Target</b>		
	B(20 Yrs. to 150 Yrs.)		
<b>Hard Edits</b>	<b>SAS Label</b>		
	Use ear protection around firearm noise		
<b>English Text:</b> {Have you/Has SP} ever worn hearing protection devices when exposed to firearms noise?			
<b>English Instructions:</b>			
<b>Code or Value</b>	<b>Description</b>	<b>Count</b>	<b>Skip to Item</b>
1	Yes	170	
2	No	210	
7	Refused	0	
9	Don't know	0	
.	Missing	9265	

<b>AUQ230</b>	<b>Target</b>		
	B(20 Yrs. to 150 Yrs.)		
<b>Hard Edits</b>	<b>SAS Label</b>		
	Loud noise exposure outside work		
<b>English Text:</b> Outside of work, {have you/has SP} ever been exposed to other types of loud noise, such as noise from power tools or loud music, for an average of at least once a month for a year? By loud noise I mean noise so loud that {you/s/he} had to speak in a raised voice to be heard.			
<b>English Instructions:</b>			
<b>Code or Value</b>	<b>Description</b>	<b>Count</b>	<b>Skip to Item</b>
1	Yes	1190	
2	No	3847	End of Section
7	Refused	0	End of Section
9	Don't know	3	End of Section
.	Missing	4605	

<b>AUQ240</b>	<b>Target</b>		
	B(20 Yrs. to 150 Yrs.)		
<b>Hard Edits</b>	<b>SAS Label</b>		
	Use ear protection around loud noise		
<b>English Text:</b> {Have you/Has SP} ever worn hearing protection devices when exposed to these loud noises?			
<b>English Instructions:</b>			
<b>Code or Value</b>	<b>Description</b>	<b>Count</b>	<b>Skip to Item</b>
1	Yes	316	
2	No	874	
7	Refused	0	
9	Don't know	0	
.	Missing	8455	