

National Health and Nutrition Examination Survey

August 2021-August 2023 Data Documentation, Codebook, and Frequencies

Audiometry (AUQ_L)

Data File: AUQ_L.xpt

First Published: September 2024

Last Revised: NA

Component Description

The audiology questionnaire (AUQ_L) data file provides personal interview data on self-assessed hearing condition, causes of hearing trouble, and a history of the hearing test.

Eligible Sample

All survey participants aged 1 year and older in the NHANES August 2021–August 2023 sample are included in this dataset.

Interview Setting and Mode of Administration

These questions were asked in the home or on the phone, by trained interviewers using the Computer-Assisted Personal Interview (CAPI) system. Hand cards showing response categories were also used for some questions. When necessary, household interviewers read the hand cards to survey participants.

Participants 16 years of age and older and emancipated minors were interviewed directly. A proxy provided information for survey participants who were under 16 years of age and for participants who could not answer the questions themselves.

The NHANES August 2021-August 2023 questionnaires are available on the NHANES website.

Quality Assurance & Quality Control

The CAPI system is programmed with built-in consistency checks to reduce data entry errors. CAPI also uses online help screens to assist interviewers in defining key terms used in the questionnaire. Interviewers were required to audio-record interviews. The recorded interviews were reviewed by interviewer supervisors and NCHS staff.

Data Processing and Editing

Frequency counts were checked, “skip” patterns were verified, and the reasonableness of question responses was reviewed. Edits were made to some variables to ensure the completeness, consistency, and analytic usefulness of the data. Edits were also made, when necessary, to address data disclosure concerns.

Analytic Notes

The analysis of NHANES August 2021–August 2023 AUQ must be conducted using the appropriate survey design variables, sample weights, and the basic demographic variables. Interview weights should only be used if questionnaire data are analyzed by themselves. However, if AUQ data are merged with the MEC examination data or laboratory full sample data, the MEC examination weights should be used for analyses. If AUQ data are merged with laboratory subsample data, subsample weights should be used for analyses.

Please also refer to the [NHANES Analytic Guidelines](#) and the on-line [NHANES Tutorial](#) for details on the use of sample weights and other analytic issues.

Codebook and Frequencies

SEQN - Respondent sequence number

Variable Name:	SEQN
SAS Label:	Respondent sequence number
English Text:	Respondent sequence number.
Target:	Both males and females 1 YEARS - 150 YEARS

AUQ054 - General condition of hearing

Variable Name: AUQ054

SAS Label: General condition of hearing

English Text: These next questions are about {your/SP's} hearing. Which statement best describes {your/SP's} hearing (without a hearing aid, personal sound amplifier, or other listening devices)? Would you say {your/his/her} hearing is excellent, good, that {you have/s/he has} a little trouble, moderate trouble, a lot of trouble, or {are you/is s/he} deaf?

Target: Both males and females 1 YEARS - 150 YEARS

Code or Value	Value Description	Count	Cumulative	Skip to Item
1	Excellent	5201	5201	AUQ413
2	Good	4217	9418	AUQ413
3	A little trouble	1354	10772	
4	Moderate hearing trouble	645	11417	
5	A lot of trouble	284	11701	
6	Deaf	36	11737	
77	Refused	1	11738	AUQ413
99	Don't know	2	11740	AUQ413
.	Missing	4	11744	

AUQ395 - CHECK ITEM

Variable Name: AUQ395

English Instructions: BOX 2A. CHECK ITEM AUQ395: IF AUQ054 = {3, 4, 5 OR 6}
CONTINUE. OTHERWISE, GO TO BOX 2B.

Target: Both males and females 1 YEARS - 150 YEARS

AUQ410A - Cause of hearing loss-Genetic/Hereditary

Variable Name: AUQ410A

SAS Label: Cause of hearing loss-Genetic/Hereditary

English Text: What are the main causes of {your/SP's} hearing loss?

English Instructions: INTERVIEWER INSTRUCTION: CODE ALL THAT APPLY HAND CARD
AUQ1

Target: Both males and females 1 YEARS - 150 YEARS

Code or Value	Value Description	Count	Cumulative	Skip to Item
1	Genetic/Hereditary causes	276	276	
77	Refused	0	276	
99	Don't know	82	358	
.	Missing	11386	11744	

AUQ410B - Cause of hearing loss-Ear infections

Variable Name: AUQ410B
SAS Label: Cause of hearing loss-Ear infections
English Text: What are the main causes of {your/SP's} hearing loss?
English Instructions: INTERVIEWER INSTRUCTION: CODE ALL THAT APPLY HAND CARD AUQ1
Target: Both males and females 1 YEARS - 150 YEARS

Code or Value	Value Description	Count	Cumulative	Skip to Item
2	Ear infections (including fluid in ears)	432	432	
.	Missing	11312	11744	

AUQ410C - Cause of hearing loss-Ear diseases

Variable Name: AUQ410C

SAS Label: Cause of hearing loss-Ear diseases

English Text: What are the main causes of {your/SP's} hearing loss?

English Instructions: INTERVIEWER INSTRUCTION: CODE ALL THAT APPLY HAND CARD
AUQ1

Target: Both males and females 1 YEARS - 150 YEARS

Code or Value	Value Description	Count	Cumulative	Skip to Item
3	Ear diseases (Otosclerosis, Menieres, Tumor)	87	87	
.	Missing	11657	11744	

AUQ410D - Cause of hearing loss-Illness/Infections

Variable Name: AUQ410D

SAS Label: Cause of hearing loss-Illness/Infections

English Text: What are the main causes of {your/SP's} hearing loss?

English Instructions: INTERVIEWER INSTRUCTION: CODE ALL THAT APPLY HAND CARD
AUQ1

Target: Both males and females 1 YEARS - 150 YEARS

Code or Value	Value Description	Count	Cumulative	Skip to Item
4	Illness/Infections (Measles, Meningitis, Mumps)	86	86	
.	Missing	11658	11744	

AUQ410E - Cause of hearing loss-Drugs/Medications

Variable Name: AUQ410E

SAS Label: Cause of hearing loss-Drugs/Medications

English Text: What are the main causes of {your/SP's} hearing loss?

English Instructions: INTERVIEWER INSTRUCTION: CODE ALL THAT APPLY HAND CARD
AUQ1

Target: Both males and females 1 YEARS - 150 YEARS

Code or Value	Value Description	Count	Cumulative	Skip to Item
5	Drugs/Medications	30	30	
.	Missing	11714	11744	

AUQ410F - Cause of hearing loss-Head/Neck injury

Variable Name: AUQ410F
SAS Label: Cause of hearing loss-Head/Neck injury
English Text: What are the main causes of {your/SP's} hearing loss?
English Instructions: INTERVIEWER INSTRUCTION: CODE ALL THAT APPLY HAND CARD AUQ1
Target: Both males and females 1 YEARS - 150 YEARS

Code or Value	Value Description	Count	Cumulative	Skip to Item
6	Head or neck injury/trauma	134	134	
.	Missing	11610	11744	

AUQ410G - Cause of hearing loss-Loud brief noise

Variable Name: AUQ410G

SAS Label: Cause of hearing loss-Loud brief noise

English Text: What are the main causes of {your/SP's} hearing loss?

English Instructions: INTERVIEWER INSTRUCTION: CODE ALL THAT APPLY HAND CARD
AUQ1

Target: Both males and females 1 YEARS - 150 YEARS

Code or Value	Value Description	Count	Cumulative	Skip to Item
7	Loud brief explosive noise/sounds	450	450	
.	Missing	11294	11744	

AUQ410H - Cause of hearing loss-Long-term noise

Variable Name: AUQ410H

SAS Label: Cause of hearing loss-Long-term noise

English Text: What are the main causes of {your/SP's} hearing loss?

English Instructions: INTERVIEWER INSTRUCTION: CODE ALL THAT APPLY HAND CARD
AUQ1

Target: Both males and females 1 YEARS - 150 YEARS

Code or Value	Value Description	Count	Cumulative	Skip to Item
8	Noise exposure, long-term (machinery, etc.)	806	806	
.	Missing	10938	11744	

AUQ410I - Cause of hearing loss-Aging

Variable Name: AUQ410I

SAS Label: Cause of hearing loss-Aging

English Text: What are the main causes of {your/SP's} hearing loss?

English Instructions: INTERVIEWER INSTRUCTION: CODE ALL THAT APPLY HAND CARD
AUQ1

Target: Both males and females 1 YEARS - 150 YEARS

Code or Value	Value Description	Count	Cumulative	Skip to Item
9	Aging, getting older	1179	1179	
.	Missing	10565	11744	

AUQ410J - Cause of hearing loss-Others

Variable Name: AUQ410J
SAS Label: Cause of hearing loss-Others
English Text: What are the main causes of {your/SP's} hearing loss?
English Instructions: INTERVIEWER INSTRUCTION: CODE ALL THAT APPLY HAND CARD AUQ1
Target: Both males and females 1 YEARS - 150 YEARS

Code or Value	Value Description	Count	Cumulative	Skip to Item
10	Other causes	66	66	
.	Missing	11678	11744	

AUQ413 - CHECK ITEM

Variable Name: AUQ413

English Instructions: BOX 2B. CHECK ITEM AUQ413: IF AGE = 20 CONTINUE.
OTHERWISE, GO TO END OF SECTION.

Target: Both males and females 1 YEARS - 150 YEARS

AUQ144 - Last time hearing tested by specialist?

Variable Name: AUQ144

SAS Label: Last time hearing tested by specialist?

English Text: A hearing test by a specialist is one that is done in a sound proof booth or room, or with headphones. Hearing specialists include audiologists, ear nose and throat doctors, and trained technicians or occupational nurses. When was the last time {you /SP} had {your/his/her} hearing tested by a hearing specialist?

English Instructions: READ CATEGORIES IF NECESSARY

Target: Both males and females 20 YEARS - 150 YEARS

Code or Value	Value Description	Count	Cumulative	Skip to Item
1	Less than a year ago	717	717	
2	1 year to 4 years ago	1378	2095	
3	5 to 9 years ago	969	3064	
4	Ten or more years ago	2561	5625	
5	Never	1963	7588	
7	Refused	1	7589	
9	Don't know	218	7807	
.	Missing	3937	11744	

AUQ101 - Difficult to follow conversation w/noise

Variable Name:

AUQ101

SAS Label:

Difficult to follow conversation w/noise

English Text:

How often {do you/does SP} have difficulty hearing and understanding if there is background noise, for example, when other people are talking, TV or radio is on, or children are playing? Would you say...

Target:

Both males and females 20 YEARS - 150 YEARS

Code or Value	Value Description	Count	Cumulative	Skip to Item
1	Always	494	494	
2	Usually	696	1190	
3	About half the time	1315	2505	
4	Seldom	2834	5339	
5	Never	2444	7783	
7	Refused	2	7785	
9	Don't know	19	7804	
.	Missing	3940	11744	

