

# National Health and Nutrition Examination Survey

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

### Immunization (IMQ\_L)

**Data File:** IMQ\_L.xpt

**First Published:** September 2024

**Last Revised:** NA

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### Component Description

The immunization (variable name prefix IMQ) section provides respondent-level data on immunizations, including the hepatitis A vaccine and the human papillomavirus (HPV) vaccine. The age of first HPV vaccination and number of HPV doses received is also obtained.

### Eligible Sample

Participants aged 2 years and older were asked about the hepatitis A vaccination and participants 9 to 49 years of age were asked about the HPV vaccination.

### Interview Setting and Mode of Administration

This questionnaire was asked, in the home or by telephone, by trained interviewers, using the Computer-Assisted Personal Interview (CAPI) system. A proxy provided information for survey participants who were under 16 years of age and for individuals who could not answer the questions themselves. The respondent selected the language of interview (English or Spanish) or requested that an interpreter be used.

The NHANES [August 2021-August 2023](#) questionnaire is 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, and the reasonableness of question responses was reviewed. Edits were made to ensure the completeness, consistency, and analytic usefulness of the data.

### Analytic Notes

Several questions were dropped in NHANES 2021-2023 and are not included in this data file, including IMQ020, IMQ081A, IMQ081B, IMQ081C, and IMQ081D.

The analysis of NHANES August 2021–August 2023 IMQ data must be conducted using the appropriate survey design variables, sample weights, and the basic demographic variables. Although these data were collected as part of the household questionnaire, if they are merged with the MEC exam data, exam sample weights should be used for the 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

<b>Variable Name:</b>	SEQN
<b>SAS Label:</b>	Respondent sequence number
<b>English Text:</b>	Respondent sequence number.
<b>Target:</b>	Both males and females 2 YEARS - 150 YEARS

## IMQ011 - Received Hepatitis A vaccine

**Variable Name:** IMQ011

**SAS Label:** Received Hepatitis A vaccine

**English Text:** Hepatitis (Hep-a-ti-tis) A vaccine is given as a two dose series to some children older than 2 years and also to some adults, especially people who travel outside the United States. It has only been available since 1995. {Have you/Has SP} ever received hepatitis A vaccine?

**English Instructions:** INTERVIEWER INSTRUCTION: A COMBINATION HEPATITIS A AND HEPATITIS B VACCINE SHOULD BE COUNTED AS THE A VACCINE FOR THE PURPOSE OF THIS QUESTION. CODE 'YES AT LEAST 2 DOSES' IF RESPONDENT ANSWERS 3 OR 4 DOSES WERE RECEIVED. CODE 'LESS THAN 2 DOSES' ONLY IF MENTIONED BY RESPONDENT.

**Target:** Both males and females 2 YEARS - 150 YEARS

Code or Value	Value Description	Count	Cumulative	Skip to Item
1	Yes, at least 2 doses	3465	3465	
2	Less than 2 doses	547	4012	
3	No doses	5460	9472	
7	Refused	21	9493	
9	Don't know	2072	11565	
.	Missing	0	11565	

## IMQ050 - CHECK ITEM

**Variable Name:** IMQ050

**English Instructions:** CHECK ITEM. IF SP = FEMALE AND AGE IS  $\geq 9$  AND  $\leq 49$ , CONTINUE. IF SP = MALE AND AGE IS  $\geq 9$  AND  $\leq 49$ , GO TO IMQ070. OTHERWISE, GO TO END OF SECTION.

**Target:** Both males and females 2 YEARS - 150 YEARS

## IMQ060 - Received HPV vaccine (Females)

**Variable Name:** IMQ060

**SAS Label:** Received HPV vaccine (Females)

**English Text:** Human Papillomavirus (HPV) vaccine is given to prevent HPV infection, {cervical cancer,} and other conditions caused by HPV {in girls and women}. It is given in 2 or 3 separate doses. {Have you/Has SP} ever received one or more doses of the HPV vaccine? (The brand names for the HPV vaccines are Cervarix, Gardasil or Gardasil 9.)

**Target:** Females only 9 YEARS - 49 YEARS

Code or Value	Value Description	Count	Cumulative	Skip to Item
1	Yes	1095	1095	IMQ090
2	No	1512	2607	End of Section
7	Refused	2	2609	End of Section
9	Don't know	244	2853	End of Section
.	Missing	8712	11565	

## IMQ070 - Received HPV vaccine (Males)

**Variable Name:** IMQ070

**SAS Label:** Received HPV vaccine (Males)

**English Text:** Human Papillomavirus (HPV) vaccine is given to prevent HPV infection and conditions caused by HPV in boys and men. It is given in 2 or 3 separate doses. {Have you/Has SP} ever received one or more doses of the HPV vaccine? (The brand names for the vaccines are Gardasil or Gardasil 9.)

**Target:** Males only 9 YEARS - 49 YEARS

Code or Value	Value Description	Count	Cumulative	Skip to Item
1	Yes	637	637	
2	No	1500	2137	End of Section
7	Refused	5	2142	End of Section
9	Don't know	351	2493	End of Section
.	Missing	9072	11565	

## IMQ090 - Age first dose HPV

**Variable Name:** IMQ090

**SAS Label:** Age first dose HPV

**English Text:** How old {were you/was SP} when {you/SP} received {your/his/her/SP's} first dose of HPV vaccine?

**Target:** Both males and females 9 YEARS - 49 YEARS

Code or Value	Value Description	Count	Cumulative	Skip to Item
1 to 46	Range of Values	1331	1331	
777	Refused	2	1333	
999	Don't know	399	1732	
.	Missing	9833	11565	

## IMQ100 - Received HPV, # of doses

**Variable Name:** IMQ100

**SAS Label:** Received HPV, # of doses

**English Text:** How many doses of the vaccine {have you/has SP} received?

**Target:** Both males and females 9 YEARS - 49 YEARS

Code or Value	Value Description	Count	Cumulative	Skip to Item
1	1 Dose	387	387	
2	2 Doses	720	1107	
3	3 Doses	418	1525	
7	Refused	1	1526	
9	Don't know	206	1732	
.	Missing	9833	11565	



