National Health and Nutrition Examination Survey

2017-March 2020 Data Documentation, Codebook, and Frequencies

Diabetes (P_DIQ)

Data File: P_DIQ.xpt

First Published: May 2021

Last Revised: NA

Component Description

The NHANES program suspended field operations in March 2020 due to the coronavirus disease 2019 (COVID-19) pandemic. As a result, data collection for the NHANES 2019-2020 cycle was not completed and the collected data are not nationally representative. Therefore, data collected from 2019 to March 2020 were combined with data from the NHANES 2017-2018 cycle to form a nationally representative sample of NHANES 2017-March 2020 pre-pandemic data. These data are available to the public. Please refer to the Analytic Notes section for more details on the use of the data.

The 2017-March 2020 pre-pandemic diabetes data file (P_DIQ) provides personal interview data on diabetes, prediabetes, use of insulin or oral hypoglycemic medications, and diabetic retinopathy. It also provides self-reported information on the general knowledge of diabetic complications, and medical or personal cares for the management of diabetes.

Eligible Sample

All survey participants aged 1 year and older in the NHANES 2017-March 2020 pre-pandemic sample are included in this dataset. The questions asked varied by age and history of diabetes. Please refer to the diabetes questionnaire and corresponding codebook for question-specific details about the eligible target group.

Interview Setting and Mode of Administration

These questions were asked, in the home, 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 2017-2018 and 2019-2020 diabetes 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.

DID040: How old when a doctor first told you that you had diabetes?
All responses of age 80 years and older are coded as "80", to be consistent with the coding for the participant age variable in the demographics file. Also, the onset of diabetes at age less than 1 year was coded as 666.

DID060: For how long have you been taking insulin?
Taking insulin less than 1 month was coded as 666.

DID250: How many times have you seen doctor in the past 12 months?
The value was coded as 0 for participants who reported "None."

DID260: How often do you check your blood for glucose or sugar?
This variable was coded as 0 for participants who reported "Never."

DID310S/D: What does doctor say your blood pressure should be?
If a participant reported "Provider did not specify goal," the value of corresponding variable was coded as 6666.

DID320: What was your most recent LDL cholesterol number?
This variable was coded as 5555 and 6666 for participants who reported "Never heard of LDL" and "Never had cholesterol test" respectively.

DID330: What does doctor say your LDL cholesterol should be?
If a participant reported "Provider did not specify goal," the value of corresponding variable was coded as 6666.

DID341: During the past 12 months, how many times has a doctor checked your feet for any sores or irritations?
The value was coded as 0 for participants who reported "None."

DID350: How often do you check your feet for sores or irritation?
The value was coded as 0 for participants who reported "None."

Analytic Notes

The COVID-19 pandemic required suspension of NHANES 2019-2020 field operations in March 2020 after data were collected in 18 of the 30 survey locations in the 2019-2020 sample. Because the collected data from 18 locations were not nationally representative, these data were combined with data from the previous cycle (2017-2018) to create a 2017-March 2020 pre-pandemic data file. The resulting sample weights in the demographic file should be used to calculate estimates from the combined cycles. The sample weights are not appropriate for independent analyses of the 2019-2020 data and will not yield nationally representative results for either the 2017-2018 data alone or the 2019-March 2020 data alone. Please refer to the NHANES website for additional information for the NHANES 2017-March 2020 pre-pandemic data, and for the previous 2017-2018 public use data file with specific weights for that 2-year cycle.

The insulin use question (variables DIQ050, DID060, DIQ060U) was only reported for participants with diagnosed diabetes in the P_DIQ data. In addition, questions related to the risk of diabetes (variables DIQ170, DIQ172, DIQ175) were not collected in 2019-2020 so they are not included in the P_DIQ data. All other core questions including doctor diagnosed diabetes, duration of diabetes, oral diabetic medication, and diabetic retinopathy are the same as in the previous public use data. The questions about the participants' knowledge of their own levels of A1C, blood pressure, and cholesterol and knowledge of appropriate target levels, as suggested by their physicians, are also the same as in the previous public use data. The responses to these questions reflect the participants' knowledge and may not be biologically reasonable for a few cases.

When combining DIQ data from different survey cycles, please note that there is a possible name change for the same question across survey cycles due to data processing and editing. The following cross reference table shows these variable names from the 1999–2000 data through the 2017–March 2020 pre-pandemic data.

Variable names across survey cycles

Label	1999–2000	2001–2004	2005–2008	2009–Mar2020
Age when first told you had diabetes	DIQ040G	DID040G	DID040	DID040
Number of years of age	DIQ040Q	DID040Q		
How long taking insulin	DIQ060G	DID060G	DID060	DID060
Number of mos/yrs taking insulin	DIQ060Q	DID060Q		
Take diabetic pills to lower blood sugar	DIQ070	DIQ070	DID070	DIQ070
Past year times Dr check feet for sore	NA	NA	DID340	DID341

The analysis of NHANES 2017–March 2020 pre-pandemic diabetes questionnaire data 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 DIQ data are merged with the MEC examination data or laboratory full sample data, the MEC examination weights should be used for analyses. If DIQ data are merged with laboratory subsample data, subsample weights should be used for analyses.

Please 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

DIQ010 - Doctor told you have diabetes

Variable Name:	DIQ010
SAS Label:	Doctor told you have diabetes
English Text:	The next questions are about specific medical conditions. {Other than during pregnancy, {have you/has SP}/{Have you/Has SP}} ever been told by a doctor or health professional that {you have/{he/she/SP} has} diabetes or sugar diabetes?
English Instructions:	CAPI INSTRUCTION: IF SP AGE < 15, DISPLAY "HAVE SP" FOR THE FIRST DISPLAY AND "SP HAS" FOR THE SECOND DISPLAY. IF SP IS FEMALE AND AGE >= 20, DISPLAY "OTHER THAN DURING PREGNANCY, {HAVE YOU/HAS SP}".
Target:	Both males and females 1 YEARS - 150 YEARS

Code or Value	Value Description	Count	Cumulative	Skip to Item
1	Yes	1445	1445	
2	No	13249	14694	DIQ159
3	Borderline	284	14978	DIQ159
7	Refused	0	14978	DIQ159
9	Don't know	8	14986	DIQ159
.	Missing	0	14986	