

National Health and Nutrition Examination Survey

2017-March 2020 Data Documentation, Codebook, and Frequencies

Physical Activity (P_PAQ)

Data File: P_PAQ.xpt

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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 adult section of the Physical Activity questionnaire (variable name prefix PAQ) consists of questions PAQ605 through PAQ680. Based on the Global Physical Activity Questionnaire (GPAQ), it provides respondent-level interview data on physical activities.

Eligible Sample

All participants, 18 years and older, in the NHANES 2017-March 2020 pre-pandemic sample are included in this dataset.

Interview Setting and Mode of Administration

The questionnaire was asked, in the home, by trained interviewers using Computer-Assisted Personal Interview (CAPI) system. A proxy provided information for survey participants who could not answer the questions themselves. The respondent selected the language of interview (English or Spanish) or requested that an interpreter be used. Hand cards, showing response choices or information that survey participants needed to answer the questions, were used for some questions. The hand cards were printed in English, Spanish, Mandarin Chinese (both traditional and simplified), Korean, and Vietnamese. The interviewer directed the respondent to the appropriate hand card during the interview. When necessary, the interviewer further assisted the respondent by reading the response choices listed on the hand cards.

The NHANES [2017-2018](#) and [2019-2020](#) 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.

After collection, interview data were reviewed by the NHANES field office staff for accuracy and completeness of selected items. The interviewers were required to audio-record interviews and the recorded interviews were reviewed by NCHS staff and interviewer supervisors.

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 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 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. A special weighting process was applied to the 2017-March 2020 pre-pandemic data file. The resulting sample weights in the demographic data file should be used to calculate estimates from the combined cycles. These 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.

Suggested metabolic equivalent (MET) scores for the activities listed in this file are included in Appendix 1.

Since the question on sedentary behavior (PAD680) was first asked in 2007, several probes have been used with it. For example, midway through the 2011-12 survey cycle, a probe was added querying times less than 8 hours. These probes may partially explain any observed differences in sedentary behavior between survey cycles.

Since the questionnaire was asked during the household interview, the interview sample weights should be used in the analysis. However, if the data is joined with data from the Mobile Exam Center (MEC), the MEC sample weights should be used.

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 18 YEARS - 150 YEARS

PAQ605 - Vigorous work activity

Variable Name: PAQ605**SAS Label:** Vigorous work activity

English Text: Next I am going to ask you about the time {you spend/SP spends} doing different types of physical activity in a typical week. Think first about the time {you spend/he spends/she spends} doing work. Think of work as the things that {you have/he has/she has} to do such as paid or unpaid work, household chores, and yard work. Does {your/SP's} work involve vigorous-intensity activity that causes large increases in breathing or heart rate like carrying or lifting heavy loads, digging or construction work for at least 10 minutes continuously?

Target: Both males and females 18 YEARS - 150 YEARS

Code or Value	Value Description	Count	Cumulative	Skip to Item
1	Yes	2418	2418	
2	No	7268	9686	PAQ620
7	Refused	1	9687	PAQ620
9	Don't know	6	9693	PAQ620
.	Missing	0	9693	

PAQ610 - Number of days vigorous work

Variable Name: PAQ610

SAS Label: Number of days vigorous work

English Text: In a typical week, on how many days {do you/does SP} do vigorous-intensity activities as part of {your/his/her} work?

English Instructions: PROBE IF NEEDED: Vigorous-intensity activity causes large increases in breathing or heart rate and is done for at least 10 minutes continuously. INTERVIEWER: REMEMBER, WE ARE ONLY ASKING ABOUT WORK AND CHORES IN THIS QUESTION. (SP interview version) HARD EDIT: 1-7 (MEC interview version) HARD EDIT: LESS THAN 1 DAY OR MORE THAN 7 DAYS. ERROR MESSAGE: THE NUMBER OF DAYS SHOULD BE BETWEEN 1 AND 7. ENTER NUMBER OF DAYS

Target: Both males and females 18 YEARS - 150 YEARS

Code or Value	Value Description	Count	Cumulative	Skip to Item
1 to 7	Range of Values	2415	2415	
77	Refused	0	2415	PAQ620
99	Don't know	3	2418	PAQ620
.	Missing	7275	9693	

PAD615 - Minutes vigorous-intensity work

Variable Name: PAD615

SAS Label: Minutes vigorous-intensity work

English Text: How much time {do you/does SP} spend doing vigorous-intensity activities at work on a typical day?

English Instructions: PROBE IF NEEDED: Think about a typical day when {you do/he does/she does} vigorous-intensity activities during {your/his/her} work. PROBE IF NEEDED: Vigorous-intensity activity causes large increases in breathing or heart rate and is done for at least 10 minutes continuously. INTERVIEWER: REMEMBER, WE ARE ONLY ASKING ABOUT WORK AND CHORES. (SP interview version) SOFT EDIT: >4 HOURS. SOFT EDIT WORDING: INTERVIEWER, YOU HAVE RECORDED THAT THE SP SPENDS MORE THAN 4 HOURS DOING VIGOROUS-INTENSITY ACTIVITIES AT WORK ON A TYPICAL DAY. PLEASE CONFIRM WITH SP THAT OVER 4 HOURS IS CORRECT. HARD EDIT: >24 HOURS. HARD EDIT: <10 MINUTES. ENTER NUMBER OF MINUTES OR HOURS (MEC interview version) SOFT EDIT: >4 hours. ERROR MESSAGE: INTERVIEWER, YOU HAVE RECORDED THAT THE SP SPENDS MORE THAN 4 HOURS DOING VIGOROUS-INTENSITY ACTIVITIES AT WORK ON A TYPICAL DAY. PLEASE CONFIRM WITH SP THAT OVER 4 HOURS IS CORRECT. HARD EDIT: LESS THAN 10 MINUTES OR 24 HOURS OR MORE. ERROR MESSAGE: THE TIME SHOULD BE 10 MINUTES OR MORE, BUT LESS THAN 24 HOURS. ENTER NUMBER (OF MINUTES OR HOURS)

Target: Both males and females 18 YEARS - 150 YEARS

Code or Value	Value Description	Count	Cumulative	Skip to Item
10 to 840	Range of Values	2394	2394	
7777	Refused	0	2394	
9999	Don't know	8	2402	
.	Missing	7291	9693	

PAQ620 - Moderate work activity

Variable Name: PAQ620**SAS Label:** Moderate work activity**English Text:** Does {your/SP's} work involve moderate-intensity activity that causes small increases in breathing or heart rate such as brisk walking or carrying light loads for at least 10 minutes continuously?**Target:** Both males and females 18 YEARS - 150 YEARS

Code or Value	Value Description	Count	Cumulative	Skip to Item
1	Yes	4187	4187	
2	No	5499	9686	PAQ635
7	Refused	0	9686	PAQ635
9	Don't know	7	9693	PAQ635
.	Missing	0	9693	

PAQ625 - Number of days moderate work

Variable Name: PAQ625

SAS Label: Number of days moderate work

English Text: In a typical week, on how many days {do you/does SP} do moderate-intensity activities as part of {your/his/her} work?

English Instructions: PROBE IF NEEDED: Moderate-intensity activity causes small increases in breathing or heart rate and is done for at least 10 minutes continuously. INTERVIEWER: REMEMBER, WE ARE ONLY ASKING ABOUT WORK AND CHORES. (SP interview version) HARD EDIT: 1-7. ENTER NUMBER OF DAYS (MEC interview version) HARD EDIT: LESS THAN 1 DAY OR MORE THAN 7 DAYS. ERROR MESSAGE: THE NUMBER OF DAYS SHOULD BE BETWEEN 1 AND 7. ENTER NUMBER OF DAYS

Target: Both males and females 18 YEARS - 150 YEARS

Code or Value	Value Description	Count	Cumulative	Skip to Item
1 to 7	Range of Values	4177	4177	
77	Refused	0	4177	PAQ635
99	Don't know	10	4187	PAQ635
.	Missing	5506	9693	

PAD630 - Minutes moderate-intensity work

Variable Name: PAD630

SAS Label: Minutes moderate-intensity work

English Text: How much time {do you/does SP} spend doing moderate-intensity activities at work on a typical day?

English Instructions: PROBE IF NEEDED: Think about a typical day when {you do/he does/she does} moderate-intensity activities during your work. PROBE IF NEEDED: Moderate-intensity activity causes small increases in breathing or heart rate and is done for at least 10 minutes continuously. INTERVIEWER: REMEMBER, WE ARE ONLY ASKING ABOUT WORK AND CHORES. (SP interview version) SOFT EDIT: >4 HOURS. SOFT EDIT WORDING: INTERVIEWER, YOU HAVE RECORDED THAT THE SP SPENDS MORE THAN 4 HOURS DOING MODERATE-INTENSITY ACTIVITIES AT WORK ON A TYPICAL DAY. PLEASE CONFIRM WITH SP THAT OVER 4 HOURS IS CORRECT. HARD EDIT: >24 HOURS. HARD EDIT: <10 MINUTES. ENTER NUMBER OF MINUTES OR HOURS (MEC interview version) SOFT EDIT: >4 hours. ERROR MESSAGE: INTERVIEWER, YOU HAVE RECORDED THAT THE SP SPENDS MORE THAN 4 HOURS DOING MODERATE-INTENSITY ACTIVITIES AT WORK ON A TYPICAL DAY. PLEASE CONFIRM WITH SP THAT OVER 4 HOURS IS CORRECT. HARD EDIT: LESS THAN 10 MINUTES OR 24 HOURS OR MORE. ERROR MESSAGE: THE TIME SHOULD BE 10 MINUTES OR MORE, BUT LESS THAN 24 HOURS. ENTER NUMBER (OF MINUTES OR HOURS)

Target: Both males and females 18 YEARS - 150 YEARS

Code or Value	Value Description	Count	Cumulative	Skip to Item
10 to 900	Range of Values	4147	4147	
7777	Refused	0	4147	
9999	Don't know	17	4164	
.	Missing	5529	9693	

PAQ635 - Walk or bicycle

Variable Name: PAQ635**SAS Label:** Walk or bicycle

English Text: The next questions exclude the physical activity at work that you have already mentioned. Now I would like to ask you about the usual way {you travel/SP travels} to and from places. For example to school, for shopping, to work. In a typical week {do you/does SP} walk or use a bicycle for at least 10 minutes continuously to get to and from places?

Target: Both males and females 18 YEARS - 150 YEARS

Code or Value	Value Description	Count	Cumulative	Skip to Item
1	Yes	2253	2253	
2	No	7438	9691	PAQ650
7	Refused	0	9691	PAQ650
9	Don't know	2	9693	PAQ650
.	Missing	0	9693	

PAQ640 - Number of days walk or bicycle

Variable Name: PAQ640**SAS Label:** Number of days walk or bicycle**English Text:** In a typical week, on how many days {do you/does SP} walk or bicycle for at least 10 minutes continuously to get to and from places?**English Instructions:** (SP interview version) HARD EDIT: 1-7. ENTER NUMBER OF DAYS (MEC interview version) HARD EDIT: LESS THAN 1 DAY OR MORE THAN 7 DAYS. ERROR MESSAGE: THE NUMBER OF DAYS SHOULD BE BETWEEN 1 AND 7. ENTER NUMBER OF DAYS**Target:** Both males and females 18 YEARS - 150 YEARS

Code or Value	Value Description	Count	Cumulative	Skip to Item
1 to 7	Range of Values	2247	2247	
77	Refused	0	2247	PAQ650
99	Don't know	6	2253	PAQ650
.	Missing	7440	9693	

PAD645 - Minutes walk/bicycle for transportation

Variable Name: PAD645

SAS Label: Minutes walk/bicycle for transportation

English Text: How much time {do you/does SP} spend walking or bicycling for travel on a typical day?

English Instructions: PROBE IF NEEDED: Think about a typical day when {you walk or bicycle/SP walks or bicycles} walk or bicycle for travel. (SP interview version) SOFT EDIT: >4 HOURS. SOFT EDIT WORDING: INTERVIEWER, YOU HAVE RECORDED THAT THE SP SPENDS MORE THAN 4 HOURS WALKING OR BICYCLING TO GET TO AND FROM PLACES ON A TYPICAL DAY. PLEASE CONFIRM WITH SP THAT OVER 4 HOURS IS CORRECT. HARD EDIT: >24 HOURS. HARD EDIT: <10 MINUTES. ENTER NUMBER OF MINUTES OR HOURS (MEC interview version) SOFT EDIT: >4 hours. ERROR MESSAGE: INTERVIEWER, YOU HAVE RECORDED THAT THE SP SPENDS MORE THAN 4 HOURS WALKING OR BICYCLING TO GET TO AND FROM PLACES ON A TYPICAL DAY. PLEASE CONFIRM WITH SP THAT OVER 4 HOURS IS CORRECT. HARD EDIT: LESS THAN 10 MINUTES OR 24 HOURS OR MORE. ERROR MESSAGE: THE TIME SHOULD BE 10 MINUTES OR MORE, BUT LESS THAN 24 HOURS. ENTER NUMBER (OF MINUTES OR HOURS)

Target: Both males and females 18 YEARS - 150 YEARS

Code or Value	Value Description	Count	Cumulative	Skip to Item
10 to 840	Range of Values	2236	2236	
7777	Refused	0	2236	
9999	Don't know	5	2241	
.	Missing	7452	9693	

PAQ650 - Vigorous recreational activities

Variable Name: PAQ650**SAS Label:** Vigorous recreational activities

English Text: The next questions exclude the work and transport activities that you have already mentioned. Now I would like to ask you about sports, fitness and recreational activities. In a typical week {do you/does SP} do any vigorous-intensity sports, fitness, or recreational activities that cause large increases in breathing or heart rate like running or basketball for at least 10 minutes continuously?

Target: Both males and females 18 YEARS - 150 YEARS

Code or Value	Value Description	Count	Cumulative	Skip to Item
1	Yes	2422	2422	
2	No	7271	9693	PAQ665
7	Refused	0	9693	PAQ665
9	Don't know	0	9693	PAQ665
.	Missing	0	9693	

PAQ655 - Days vigorous recreational activities

Variable Name: PAQ655**SAS Label:** Days vigorous recreational activities**English Text:** In a typical week, on how many days {do you/does SP} do vigorous-intensity sports, fitness or recreational activities?**English Instructions:** PROBE IF NEEDED: Vigorous-intensity activity causes large increases in breathing or heart rate and is done for at least 10 minutes continuously. (SP interview version) HARD EDIT: 1-7. ENTER NUMBER OF DAYS (MEC interview version) HARD EDIT: LESS THAN 1 DAY OR MORE THAN 7 DAYS. ERROR MESSAGE: THE NUMBER OF DAYS SHOULD BE BETWEEN 1 AND 7. ENTER NUMBER OF DAYS**Target:** Both males and females 18 YEARS - 150 YEARS

Code or Value	Value Description	Count	Cumulative	Skip to Item
1 to 7	Range of Values	2421	2421	
77	Refused	0	2421	PAQ665
99	Don't know	1	2422	PAQ665
.	Missing	7271	9693	

PAD660 - Minutes vigorous recreational activities

Variable Name: PAD660**SAS Label:** Minutes vigorous recreational activities**English Text:** How much time {do you/does SP} spend doing vigorous-intensity sports, fitness or recreational activities on a typical day?

English Instructions: PROBE IF NEEDED: Think about a typical day when {you do/SP does} vigorous-intensity sports, fitness or recreational activities. (SP interview version) SOFT EDIT: >4 HOURS. SOFT EDIT WORDING: INTERVIEWER, YOU HAVE RECORDED THAT THE SP SPENDS MORE THAN 4 HOURS DOING VIGOROUS-INTENSITY RECREATIONAL ACTIVITIES ON A TYPICAL DAY. PLEASE CONFIRM WITH SP THAT OVER 4 HOURS IS CORRECT. HARD EDIT: >24 HOURS. HARD EDIT: <10 MINUTES. ENTER NUMBER OF MINUTES OR HOURS (MEC interview version) SOFT EDIT: >4 hours. ERROR MESSAGE: INTERVIEWER, YOU HAVE RECORDED THAT THE SP SPENDS MORE THAN 4 HOURS DOING VIGOROUS-INTENSITY RECREATIONAL ACTIVITIES ON A TYPICAL DAY. PLEASE CONFIRM WITH SP THAT OVER 4 HOURS IS CORRECT. HARD EDIT: LESS THAN 10 MINUTES OR 24 HOURS OR MORE. ERROR MESSAGE: THE TIME SHOULD BE 10 MINUTES OR MORE, BUT LESS THAN 24 HOURS. ENTER NUMBER (OF MINUTES OR HOURS)

Target: Both males and females 18 YEARS - 150 YEARS

Code or Value	Value Description	Count	Cumulative	Skip to Item
10 to 480	Range of Values	2415	2415	
7777	Refused	0	2415	
9999	Don't know	2	2417	
.	Missing	7276	9693	

PAQ665 - Moderate recreational activities

Variable Name: PAQ665**SAS Label:** Moderate recreational activities**English Text:** In a typical week {do you/does SP} do any moderate-intensity sports, fitness, or recreational activities that cause a small increase in breathing or heart rate such as brisk walking, bicycling, swimming, or volleyball for at least 10 minutes continuously?**Target:** Both males and females 18 YEARS - 150 YEARS

Code or Value	Value Description	Count	Cumulative	Skip to Item
1	Yes	3904	3904	
2	No	5787	9691	PAD680
7	Refused	0	9691	PAD680
9	Don't know	2	9693	PAD680
.	Missing	0	9693	

PAQ670 - Days moderate recreational activities

Variable Name: PAQ670

SAS Label: Days moderate recreational activities

English Text: In a typical week, on how many days {do you/does SP} do moderate-intensity sports, fitness or recreational activities?

English Instructions: PROBE IF NEEDED: Moderate-intensity sports, fitness or recreational activities cause small increases in breathing or heart rate and is done for at least 10 minutes continuously. (SP interview version) HARD EDIT: 1-7. ENTER NUMBER OF DAYS (MEC interview version) HARD EDIT: LESS THAN 1 DAY OR MORE THAN 7 DAYS. ERROR MESSAGE: THE NUMBER OF DAYS SHOULD BE BETWEEN 1 AND 7. ENTER NUMBER OF DAYS

Target: Both males and females 18 YEARS - 150 YEARS

Code or Value	Value Description	Count	Cumulative	Skip to Item
1 to 7	Range of Values	3901	3901	
77	Refused	0	3901	
99	Don't know	3	3904	
.	Missing	5789	9693	

PAD675 - Minutes moderate recreational activities

Variable Name: PAD675**SAS Label:** Minutes moderate recreational activities**English Text:** How much time {do you/does SP} spend doing moderate-intensity sports, fitness or recreational activities on a typical day?

English Instructions: PROBE IF NEEDED: Think about a typical day when {you do/SP does} moderate-intensity sports, fitness or recreational activities. PROBE IF NEEDED: Moderate-intensity sports, fitness or recreational activities cause small increases in breathing or heart rate and is done for at least 10 minutes continuously. (SP interview version) SOFT EDIT: >4 HOURS. SOFT EDIT WORDING: INTERVIEWER, YOU HAVE RECORDED THAT THE SP SPENDS MORE THAN 4 HOURS DOING MODERATE-INTENSITY RECREATIONAL ACTIVITIES ON A TYPICAL DAY. PLEASE CONFIRM WITH SP THAT OVER 4 HOURS IS CORRECT. HARD EDIT: >24 HOURS. HARD EDIT: <10 MINUTES. ENTER NUMBER OF MINUTES OR HOURS (MEC interview version) SOFT EDIT: >4 hours. ERROR MESSAGE: INTERVIEWER, YOU HAVE RECORDED THAT THE SP SPENDS MORE THAN 4 HOURS DOING MODERATE-INTENSITY RECREATIONAL ACTIVITIES ON A TYPICAL DAY. PLEASE CONFIRM WITH SP THAT OVER 4 HOURS IS CORRECT. HARD EDIT: LESS THAN 10 MINUTES OR 24 HOURS OR MORE. ERROR MESSAGE: THE TIME SHOULD BE 10 MINUTES OR MORE, BUT LESS THAN 24 HOURS. ENTER NUMBER (OF MINUTES OR HOURS)

Target: Both males and females 18 YEARS - 150 YEARS

Code or Value	Value Description	Count	Cumulative	Skip to Item
10 to 600	Range of Values	3892	3892	
7777	Refused	0	3892	
9999	Don't know	1	3893	
.	Missing	5800	9693	

PAD680 - Minutes sedentary activity

Variable Name: PAD680**SAS Label:** Minutes sedentary activity

English Text: The following question is about sitting at school, at home, getting to and from places, or with friends including time spent sitting at a desk, traveling in a car or bus, reading, playing cards, watching television, or using a computer. Do not include time spent sleeping. How much time {do you/does SP} usually spend sitting on a typical day?

English Instructions: SOFT EDIT: 18 HOURS OR MORE. ERROR MESSAGE: PLEASE VERIFY TIMES OF 18 HOURS OR MORE. HARD EDIT: 24 HOURS OR MORE. ERROR MESSAGE: THE TIME SHOULD BE LESS THAN 24 HOURS. ENTER NUMBER OF MINUTES OR HOURS.

Target: Both males and females 18 YEARS - 150 YEARS

Code or Value	Value Description	Count	Cumulative	Skip to Item
0 to 1320	Range of Values	9610	9610	
7777	Refused	6	9616	
9999	Don't know	60	9676	
.	Missing	17	9693	

Appendix 1. Suggested MET Scores

Variable	Label	Score
PAD615	Vigorous work-related activity	8.0
PAD630	Moderate work-related activity	4.0
PAD645	Walking or bicycling for transportation	4.0
PAD660	Vigorous leisure-time physical activity	8.0
PAD675	Moderate leisure-time physical activity	4.0