

National Health and Nutrition Examination Survey

2017-March 2020 Data Documentation, Codebook, and Frequencies

Sleep Disorders (P_SLQ)

Data File: P_SLQ.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 sleep disorders (SLQ) data set has questions on sleep habits and disorders. Questions on the sleep time and awake time were adapted from the Munich ChronoType Questionnaire (Roenneberg et al., 2003).

Eligible Sample

All participants aged 16 and older in the NHANES 2017-March 2020 pre-pandemic sample were eligible.

Interview Setting and Mode of Administration

These questions were asked in the home, by trained interviewers, using the Computer-Assisted Personal Interview (CAPI) system.

Quality Assurance & Quality Control

The CAPI system is programmed with limited built-in consistency checks to reduce data entry errors. Additional edits were conducted post-data collection as described in "Data Processing and Editing."

Data Processing and Editing

Edits were made to ensure completeness, consistency, and analytic usefulness of the data. Approximately 3% of audio recording interviews were reviewed to validate unusual times for SLQ300, SLQ310, SLQ320, SLQ330 resulting in very long or short hours of sleep.

The most common entry errors were confusing PM and AM hours; (i.e., 12 PM instead of 12 AM), and the transposition of digits when minutes were recorded (i.e., '03' for '30'). Comments from interviewers also were considered. Edits were made to approximately 45% of the reviewed records. Summary variables for usual number of hours of sleep on weekdays (SLD012) and weekends (SLD013) were derived from reported times. Hours were rounded to the nearest half hour. For SLD012 and SLD013, very low and high sleep hours were recoded as 'less than 3 hours' and '14 hours or more.' For these participants, reported times in SLQ300, SLQ310, SLQ320, SLQ330 were set to "missing" to minimize disclosure risks.

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. A special weighting process was

applied to the 2017-March 2020 pre-pandemic data file. The examination 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.

SLD012 (hours of sleep weekdays)/workdays) and SLD013 (hours of sleep weekends/non- workdays): These are derived variables, calculated from reported usual bed time (SLQ300 and SLQ320) and wake time (SLQ310 and SLQ330) during main sleeping period (night or day). Respondents reporting that they woke up periodically or that they slept for very short periods of times at night or during the day were asked to report hours of their main sleeping period. Therefore, SLD012 and SLD013 may not represent the total hours of sleep during a 24 hour period, including naps or other periods of sleep. If either sleep and wake time was not reported, then SLD012 was not calculated. See "Data Processing and Editing" regarding the coding of short or long hours of sleep.

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

References

- Roenneberg T, Wirz-Justice A, and Mellow M (2003) Life between clocks: daily temporal patterns of human chronotypes. *J Biol Rhythms* 18:80-90.

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 16 YEARS - 150 YEARS

SLQ300 - Usual sleep time on weekdays or workdays

Variable Name: SLQ300

SAS Label: Usual sleep time on weekdays or workdays

English Text: What time {do you/does SP} usually fall asleep on weekdays or workdays?

English Instructions: Character variable 'HH:MM' ('00:00' to '23:30')

Target: Both males and females 16 YEARS - 150 YEARS

Code or Value	Value Description	Count	Cumulative	Skip to Item
Usual sleep time on weekdays or workdays	Value was recorded	10057	10057	
77777	Refused	2	10059	
99999	Don't know	73	10132	
< blank >	Missing	63	10195	

SLQ310 - Usual wake time on weekdays or workdays

Variable Name: SLQ310

SAS Label: Usual wake time on weekdays or workdays

English Text: What time {do you/does SP} usually wake up on weekdays or workdays?

English Instructions: Character variable 'HH:MM' ('00:00' to '23:30')

Target: Both males and females 16 YEARS - 150 YEARS

Code or Value	Value Description	Count	Cumulative	Skip to Item
Usual wake time on weekdays or workdays	Value was recorded	10085	10085	
77777	Refused	1	10086	
99999	Don't know	44	10130	
< blank >	Missing	65	10195	

SLD012 - Sleep hours - weekdays or workdays

Variable Name: SLD012

SAS Label: Sleep hours - weekdays or workdays

English Text: Number of hours usually sleep on weekdays or workdays.

English Instructions: Derived from SLQ300 and SLQ310

Target: Both males and females 16 YEARS - 150 YEARS

Code or Value	Value Description	Count	Cumulative	Skip to Item
3 to 13.5	Range of Values	10031	10031	
2	Less then 3 hours	46	10077	
14	14 hours or more	28	10105	
.	Missing	90	10195	

SLQ320 - Usual sleep time on weekends

Variable Name: SLQ320

SAS Label: Usual sleep time on weekends

English Text: What time {do you/does SP} usually fall asleep on weekends or non-workdays?

English Instructions: Character variable 'HH:MM' ('00:00' to '23:30')

Target: Both males and females 16 YEARS - 150 YEARS

Code or Value	Value Description	Count	Cumulative	Skip to Item
Usual sleep time on weekends	Value was recorded	10057	10057	
77777	Refused	2	10059	
99999	Don't know	72	10131	
< blank >	Missing	64	10195	

SLQ330 - Usual wake time on weekends

Variable Name: SLQ330

SAS Label: Usual wake time on weekends

English Text: What time {do you/does SP} usually wake up on weekends or non-workdays?

English Instructions: Character variable 'HH:MM' ('00:00' to '23:30')

Target: Both males and females 16 YEARS - 150 YEARS

Code or Value	Value Description	Count	Cumulative	Skip to Item
Usual wake time on weekends	Value was recorded	10077	10077	
77777	Refused	3	10080	
99999	Don't know	50	10130	
< blank >	Missing	65	10195	

SLD013 - Sleep hours - weekends

Variable Name: SLD013

SAS Label: Sleep hours - weekends

English Text: Number of hours usually sleep on weekends or non-workdays.

English Instructions: Derived from SLQ320 and SLQ330

Target: Both males and females 16 YEARS - 150 YEARS

Code or Value	Value Description	Count	Cumulative	Skip to Item
3 to 13.5	Range of Values	10007	10007	
2	Less then 3 hours	24	10031	
14	14 hours or more	68	10099	
.	Missing	96	10195	

SLQ030 - How often do you snore?

Variable Name: SLQ030

SAS Label: How often do you snore?

English Text: In the past 12 months, how often did {you/SP} snore while {you were/s/he was} sleeping?

English Instructions: INTERVIEWER INSTRUCTION: IF R SAYS "DON'T KNOW", PROBE IF ANYONE HAS TOLD THEM THEY SNORE.

Target: Both males and females 16 YEARS - 150 YEARS

Code or Value	Value Description	Count	Cumulative	Skip to Item
0	Never	2805	2805	
1	Rarely - 1-2 nights a week	2393	5198	
2	Occasionally - 3-4 nights a week	1721	6919	
3	Frequently - 5 or more nights a week	2561	9480	
7	Refused	8	9488	
9	Don't know	707	10195	
.	Missing	0	10195	

SLQ040 - How often do you snort or stop breathing

Variable Name: SLQ040

SAS Label: How often do you snort or stop breathing

English Text: In the past 12 months, how often did {you/SP} snort, gasp, or stop breathing while {you were/s/he was} asleep?

English Instructions: INTERVIEWER INSTRUCTION: IF THE RESPONDENT ASKS "HOW WOULD I KNOW IF I SNORE, GASP OR STOP BREATHING WHEN I AM SLEEPING? PROBE IF ANYONE TOLD THEM THAT THEY DO THIS.

Target: Both males and females 16 YEARS - 150 YEARS

Code or Value	Value Description	Count	Cumulative	Skip to Item
0	Never	7424	7424	
1	Rarely - 1-2 nights a week	1177	8601	
2	Occasionally - 3-4 nights a week	566	9167	
3	Frequently - 5 or more nights a week	501	9668	
7	Refused	5	9673	
9	Don't know	522	10195	
.	Missing	0	10195	

SLQ050 - Ever told doctor had trouble sleeping?

Variable Name: SLQ050**SAS Label:** Ever told doctor had trouble sleeping?**English Text:** {Have you/Has SP} ever told a doctor or other health professional that {you have/s/he has} trouble sleeping?**Target:** Both males and females 16 YEARS - 150 YEARS

Code or Value	Value Description	Count	Cumulative	Skip to Item
1	Yes	2738	2738	
2	No	7449	10187	
7	Refused	2	10189	
9	Don't know	6	10195	
.	Missing	0	10195	

SLQ120 - How often feel overly sleepy during day?

Variable Name: SLQ120

SAS Label: How often feel overly sleepy during day?

English Text: In the past month, how often did {you/SP} feel excessively or overly sleepy during the day?

English Instructions: HAND CARD SLQ1

Target: Both males and females 16 YEARS - 150 YEARS

Code or Value	Value Description	Count	Cumulative	Skip to Item
0	Never	1780	1780	
1	Rarely - 1 time a month	2407	4187	
2	Sometimes - 2-4 times a month	3373	7560	
3	Often- 5-15 times a month	1775	9335	
4	Almost always - 16-30 times a month	840	10175	
7	Refused	2	10177	
9	Don't know	18	10195	
.	Missing	0	10195	