## NHANES 2009-2012 with adjusted weighting

### **Description**

This is survey data collected by the US National Center for Health Statistics (NCHS) which has conducted a series of health and nutrition surveys since the early 1960's. Since 1999 approximately 5,000 individuals of all ages are interviewed in their homes every year and complete the health examination component of the survey. The health examination is conducted in a mobile examination centre (MEC). These data are from 2009-2012 and are a random sample of the larger dataset.

**Format**

data frames with raw and resampled versions of the NHANES data. See below for details and descriptions of the variables.

### **Details**

The NHANES target population is "the non-institutionalized civilian resident population of the United States". NHANES, (American National Health and Nutrition Examination surveys), use complex survey designs (see http://www.cdc.gov/nchs/data/series/sr\_02/sr02\_162.pdf) that oversample certain subpopulations like racial minorities. Naive analysis of the original NHANES data can lead to mistaken conclusions. The percentages of people from each racial group in the data, for example, are quite different from the way they are in the population.

NHANES and NHANESraw each include 75 variables available for the 2009-2010 and 2011-2012 sample years. NHANESraw has 20,293 observations of these variables plus four additional variables that describe that sample weighting scheme employed. NHANES contains 10,000 rows of data resampled from NHANESraw to undo these oversampling effects. NHANES can be treated, for educational purposes, as if it were a simple random sample from the American population.

A list of the variables in the data set follows appears below along with variable descriptions and links to the original NHANES documentation.

### **NHANES warning**

The following warning comes directly from the NHANES web site:

For NHANES datasets, the use of sampling weights and sample design variables is recommended for all analyses because the sample design is a clustered design and incorporates differential probabilities of selection. If you fail to account for the sampling parameters, you may obtain biased estimates and overstate significance levels.

### **Study Variables**

SurveyYr

Which survey the participant participated in.

ID

Participant identifier.

### **Demographic Variables**

For more information on these demographic variables, see <http://www.cdc.gov/nchs/nhanes/nhanes2009-2010/DEMO_F.htm> or<http://www.cdc.gov/nchs/nhanes/nhanes2011-2012/DEMO_G.htm>.

Gender

Gender (sex) of study participant coded as male or female

Age

Age in years at screening of study participant. Note: Subjects 80 years or older were recorded as 80.

AgeDecade

Categorical variable derived from age with levels 0-9, 10-19, ... 70+

AgeMonths

Age in months at screening of study participant. Reported for participants aged 0 to 79 years for 2009 to 2010 data Reported for participants aged 0 to 2 years for 2011 to 2012 data.

Race1

Reported race of study participant: Mexican, Hispanic, White, Black, or Other.

Race3

Reported race of study participant, including non-Hispanic Asian category: Mexican, Hispanic, White, Black, Asian, or Other. Not availale for 2009-10.

Education

Educational level of study participant Reported for participants aged 20 years or older. One of 8thGrade, 9-11thGrade, HighSchool, SomeCollege, or CollegeGrad.

MaritalStatus

Marital status of study participant. Reported for participants aged 20 years or older. One of Married, Widowed, Divorced, Separated, NeverMarried, or LivePartner (living with partner).

HHIncome

Total annual gross income for the household in US dollars. One of 0 - 4999, 5000 - 9,999, 10000 - 14999, 15000 - 19999, 20000 - 24,999, 25000 - 34999, 35000 - 44999, 45000 - 54999, 55000 - 64999, 65000 - 74999, 75000 - 99999, or 100000 or More.

HHIncomeMid

Numerical version of HHIncome derived from the middle income in each category

Poverty

A ratio of family income to poverty guidelines. Smaller numbers indicate more poverty

HomeRooms

How many rooms are in home of study participant (counting kitchen but not bathroom). 13 rooms = 13 or more rooms.

HomeOwn

One of Home, Rent, or Other indicating whether the home of study participant or someone in their family is owned, rented or occupied by some other arrangement.

### **Physical Measurements**

For more information on body measurements, see <http://www.cdc.gov/nchs/nhanes/nhanes2009-2010/BMX_F.htm> and<http://www.cdc.gov/nchs/nhanes/nhanes2011-2012/BMX_G.htm>.

Weight

Weight in kg

Length

Recumbent length in cm. Reported for participants aged 0 - 3 years.

HeadCirc

Head circumference in cm. Reported for participants aged 0 years (0 - 6 months).

Height

Standing height in cm. Reported for participants aged 2 years or older.

BMI

Body mass index (weight/height2 in kg/m2). Reported for participants aged 2 years or older.

BMICatUnder20yrs

Body mass index category. Reported for participants aged 2 to 19 years. One of UnderWeight (BMI < 5th percentile) NormWeight (BMI 5th to < 85th percentile), OverWeight (BMI 85th to < 95th percentile), Obese (BMI >= 95th percentile).

BMI\_WHO

Body mass index category. Reported for participants aged 2 years or older. One of 12.0\_18.4, 18.5\_24.9, 25.0\_29.9, or 30.0\_plus.

Pulse

60 second pulse rate

BPSysAve

Combined systolic blood pressure reading, following the procedure outlined for BPXSAR.

BPDiaAve

Combined diastolic blood pressure reading, following the procedure outlined for BPXDAR.

BPSys1

Systolic blood pressure in mm Hg – first reading

BPDia1

Diastolic blood pressure in mm Hg – second reading (consecutive readings)

BPSys2

Systolic blood pressure in mm Hg – second reading (consecutive readings)

BPDia2

Diastolic blood pressure in mm Hg – second reading

BPSys3

Systolic blood pressure in mm Hg third reading (consecutive readings)

BPDia3

Diastolic blood pressure in mm Hg – third reading (consecutive readings)

Testosterone

Testerone total (ng/dL). Reported for participants aged 6 years or older. Not available for 2009-2010.

### **Health Variables**

For more information on these variables, see <http://www.cdc.gov/nchs/nhanes/nhanes2009-2010/HDL_F.htm> or<http://www.cdc.gov/nchs/nhanes/nhanes2011-2012/HDL_G.htm>.

DirectChol

Direct HDL cholesterol in mmol/L. Reported for participants aged 6 years or older.

TotChol

Total HDL cholesterol in mmol/L. Reported for participants aged 6 years or older.

UrineVol1

Urine volume in mL – first test. Reported for participants aged 6 years or older.

UrineFlow1

Urine flow rate (urine volume/time since last urination) in mL/min – first test. Reported for participants aged 6 years or older.

UrineVol2

Urine volume in mL – second test. Reported for participants aged 6 years or older.

UrineFlow2

Urine flow rate (urine volume/time since last urination) in mL/min – second test. Reported for participants aged 6 years or older.

Diabetes

Study participant told by a doctor or health professional that they have diabetes. Reported for participants aged 1 year or older as Yes or No.

DiabetesAge

Age of study participant when first told they had diabetes. Reported for participants aged 1 year or older.

HealthGen

Self-reported rating of participant's health in general Reported for participants aged 12 years or older. One of Excellent, Vgood, Good, Fair, or Poor.

DaysPhysHlthBad

Self-reported number of days participant's physical health was not good out of the past 30 days. Reported for participants aged 12 years or older.

DaysMentHlthBad

Self-reported number of days participant's mental health was not good out of the past 30 days. Reported for participants aged 12 years or older.

LittleInterest

Self-reported number of days where participant had little interest in doing things. Reported for participants aged 18 years or older. One ofNone, Several, Majority (more than half the days), or AlmostAll.

Depressed

Self-reported number of days where participant felt down, depressed or hopeless. Reported for participants aged 18 years or older. One of None, Several, Majority (more than half the days), or AlmostAll.

nPregnancies

How many times participant has been pregnant. Reported for female participants aged 20 years or older.

nBabies

How many of participants deliveries resulted in live births. Reported for female participants aged 20 years or older.

PregnantNow

Pregnancy status at the time of the health examination was ascertained for females 8-59 years of age. Due to disclosure risks pregnancy status was only be released for women 20-44 years of age. The information used included urine pregnancy test results and self-reported pregnancy status. Urine pregnancy tests were performed prior to the dual energy x-ray absorptiometry (DXA) exam. Persons who reported they were pregnant at the time of exam were assumed to be pregnant. As a result, if the urine test was negative, but the subject reported they were pregnant, the status was coded as "Yes". If the urine pregnancy results were negative and the respondent stated that they were not pregnant, the respondent was coded as "No" If the urine pregnancy results were negative and the respondent did not know her pregnancy status, the respondent was coded "unknown" Persons who were interviewed, but not examined also have a value of "unknown". In addition there are missing values.

Age1stBaby

Age of participant at time of first live birth. 14 years or under = 14, 45 years or older = 45. Reported for female participants aged 20 years or older.

SleepHrsNight

Self-reported number of hours study participant usually gets at night on weekdays or workdays. Reported for participants aged 16 years and older.

SleepTrouble

Participant has told a doctor or other health professional that they had trouble sleeping. Reported for participants aged 16 years and older. Coded as Yes or No.

### **Lifestyle Variables**

More information about these variables is available at <http://www.cdc.gov/nchs/nhanes/nhanes2009-2010/SMQ_F.htm> or<http://www.cdc.gov/nchs/nhanes/nhanes2011-2012/SMQ_G.htm>.

PhysActive

Participant does moderate or vigorous-intensity sports, fitness or recreational activities (Yes or No). Reported for participants 12 years or older.

PhysActiveDays

Number of days in a typical week that participant does moderate or vigorous-intensity activity. Reported for participants 12 years or older.

TVHrsDay

Number of hours per day on average participant watched TV over the past 30 days. Reported for participants 2 years or older. One of0\_to\_1hr, 1\_hr, 2\_hr, 3\_hr, 4\_hr, More\_4\_hr. Not available 2009-2010.

CompHrsDay

Number of hours per day on average participant used a computer or gaming device over the past 30 days. Reported for participants 2 years or older. One of 0\_hrs, 0\_to\_1hr, 1\_hr, 2\_hr, 3\_hr, 4\_hr, More\_4\_hr. Not available 2009-2010.

TVHrsDayChild

Number of hours per day on average participant watched TV over the past 30 days. Reported for participants 2 to 11 years. Not available 2011-2012.

CompHrsDayChild

Number of hours per day on average participant used a computer or gaming device over the past 30 days. Reported for participants 2 to 11 years old. Not available 2011-2012.

Alcohol12PlusYr

Participant has consumed at least 12 drinks of any type of alcoholic beverage in any one year. Reported for participants 18 years or older as Yes or No.

AlcoholDay

Average number of drinks consumed on days that participant drank alcoholic beverages. Reported for participants aged 18 years or older.

AlcoholYear

Estimated number of days over the past year that participant drank alcoholic beverages. Reported for participants aged 18 years or older.

SmokeNow

Study participant currently smokes cigarettes regularly. Reported for participants aged 20 years or older as Yes or No, provieded they answered Yes to having somked 100 or more cigarettes in their life time. All subjects who have not smoked 100 or more cigarettes are listed as NA here.

Smoke100

Study participant has smoked at least 100 cigarettes in their entire life. Reported for participants aged 20 years or older as Yes or No.

SmokeAge

Age study participant first started to smoke cigarettes fairly regularly. Reported for participants aged 20 years or older.

Marijuana

Participant has tried marijuana. Reported for participants aged 18 to 59 years as Yes or No.

AgeFirstMarijAge participant first tried marijuana. Reported for participants aged 18 to 59 years.

RegularMarij

Participant has been/is a regular marijuana user (used at least once a month for a year). Reported for participants aged 18 to 59 years as Yes or No.

AgeRegMarij

Age of participant when first started regularly using marijuana. Reported for participants aged 18 to 59 years.

HardDrugs

Participant has tried cocaine, crack cocaine, heroin or methamphetamine. Reported for participants aged 18 to 69 years as Yes or No.

SexEver

Participant had had vaginal, anal, or oral sex. Reported for participants aged 18 to 69 years as Yes or No.

SexAge

Age of participant when had sex for the first time. Reported for participants aged 18 to 69 years.

SexNumPartnLife

Number of opposite sex partners participant has had any kind of sex with over their lifetime. Reported for participants aged 18 to 69 years.

SexNumPartYear

Number of opposite sex partners participant has had any kind of sex with over the past 12 months. Reported for participants aged 18 to 59 years.

SameSex

Participant has had any kind of sex with a same sex partner. Reported for participants aged 18 to 69 years ad Yes or No.

SexOrientation

participant's sexual orientation (self-described). Reported for participants aged 18 to 59 years. One of Heterosexual, Homosexual, Bisexual.