

Variable Name	Description	C/N	Format	Comments
Demographic				
sampleID	NHANES ID	Character	'NHANES conducted year_seqn' Because NHANES III and NHANES 1999-2018 seqn is duplicated	1991 1999-2018
year	NHANES conducted year	Character	'1991' '1999' '2001' ⋮ '2017'	1991 1999-2018
wave	Recoded year	Numeric	0: 1991 1: 1999-2000 2: 2001-2002 ⋮ 10: 2017-2018	1991 1999-2018
gender	Gender of the sample person	Numeric	1: male 2: female	1991 1999-2018
age	Age at screening	Numeric	20-90	1991 1999-2018
annual_income	Annual family income	Numeric	1: \$0 to \$4,999 2: \$5,000 to \$9,999 3: \$10,000 to \$14,999 4: \$15,000 to \$19,999 5: \$20,000 to \$24,999 6: \$25,000 to \$34,999 7: \$35,000 to \$44,999 8: \$45,000 to \$54,999 9: \$55,000 to \$64,999 10: \$65,000 to \$74,999 11: \$75,000 and over	1999-2018

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income_recode	Recoded Annual family income	Numeric	1: \$0 to \$4,999 2: \$5,000 to \$9,999 3: \$10,000 to \$14,999 4: \$15,000 to \$19,999 5: \$20,000 to \$24,999 6: \$25,000 to \$34,999 7: \$35,000 to \$44,999 8: \$45,000 and over	1991 1999-2018
education	The highest degree received	Numeric	1: less than 9 th grade 2: 9-11 th grade 3: high school graduate/GED 4: some college 5: college graduate or higher	1991 1999-2018
edu	Recoded education	Numeric	1: less than high school 2: high school graduate 3: some college 4: bachelor's degree or higher	1991 1999-2018
ethnicity	Reported ethnicity and race information	Numeric	1: non-Hispanic white 2: non-Hispanic black 3: Mexican American 4: other	1991 1999-2018
race	Recoded ethnicity	Numeric	1: white 2: black 3: Hispanic and other	1991 1999-2018
poverty_ratio	Poverty income ratio (PIR) - a ratio of family income to poverty threshold	Numeric		1991 1999-2018
pregnant	Currently pregnant	Numeric	0: not pregnant 1: pregnant	1991 1999-2018
adl	Activities of daily livings	Numeric		1999-2018
bmi	Body mass index (kg/m ²)	Numeric		1991 1999-2018
height	Standing height (cm)	Numeric		1991 1999-2018

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waist	Waist circumference (cm)	Numeric		1991 1999-2018
weight	Weight (kg)	Numeric		1991 1999-2018
btotpf	Estimated percent body fat (%)	Numeric		1999-2004
ffm	Estimated fat-free mass (kg)	Numeric		1999-2004
fm	Estimated fat mass (kg)	Numeric		1999-2004
fev	Forced Expiratory Volume in the first 1.0 second (mL)	Numeric		1991 2007-2012
fev_new	FEV1/1000 (mL)	Numeric		1991 1999-2018
grip_r	Grip strength, right hand (kg)	Numeric		2001-2004
grip_l	Grip strength, left hand (kg)	Numeric		2001-2004
grip_d	Grip strength, dominant hand (kg)	Numeric		2001-2004
grip_scaled	Grip strength, dominant hand, scale by gender (kg)	Numeric		2001-2004
health	Self-rated health	Numeric	1: excellent 2: very good 3: good 4: fair 5: poor	1991 2001-2018
lnwalk	Log (time to complete 20ft walk) (seconds)	Numeric		1999-2002
vomeas	Estimated VO2 max (ml/kg/min)	Numeric		1999-2004
Biomarkers				
albumin	Albumin (g/dL)	Numeric		1991 1999-2018
albumin_gL	Albumin (g/L)	Numeric		1991 1999-2018
alp	Alkaline phosphatase (U/L)	Numeric		1991 1999-2018
bun	Blood urea nitrogen (mg/dL)	Numeric		1991 1999-2018
creat	Creatinine (mg/dL)	Numeric		1991 1999-2018

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creat_umol	Creatinine (umol/L)	Numeric		1991 1999-2018
lncreat	Log (creatinine) (mg/dL)	Numeric		1991 1999-2018
lncreat_umol	Log (creatinine) (umol/L)	Numeric		1991 1999-2018
glucose	Serum glucose (mg/dL)	Numeric		1991 1999-2018
glucose_mmol	Serum glucose (mmol/L)	Numeric		1991 1999-2018
ttbl	Total bilirubin (mg/dL)	Numeric		1991 1999-2018
uap	Uric acid (mg/dL)	Numeric		1991 1999-2018
bap	Bone alkaline phosphatase (ug/L)	Numeric		1999-2004
basopa	Basophils percent (%)	Numeric		1999-2018
eosnpa	Eosinophils percent (%)	Numeric		1999-2018
lymph	Lymphocyte percent (%)	Numeric		1991 1999-2018
mcv	Mean cell volume (fL)	Numeric		1991 1999-2018
monopa	Monocyte percent (%)	Numeric		1991 1999-2018
neut	Segmented neutrophils percent (%)	Numeric		1999-2018
rbc	Red blood cell count (million cells/uL)	Numeric		1991 1999-2018
rdw	Red cell distribution width (%)	Numeric		1991 1999-2018
wbc	White blood cell count (1000 cells/uL)	Numeric		1991 1999-2018
cadmium	Cadmium (nmol/L)	Numeric		1999-2016
crp	C-reactive protein (mg/dL)	Numeric		1991 1999-2010

Variable Name	Description	C/N	Format	Comments
				2015-2018
crp_cat	Dichotomous c-reactive protein (mg/dL)	Numeric	0: crp < 3 1: crp ≥ 3	1991 1999-2010 2015-2018
lncrp	Log (c-reactive protein) (mg/dL)	Numeric		1991 1999-2010 2015-2018
cycst	Cystatin C (mg/L)	Numeric		1999-2002
dbp	Diastolic blood pressure (mm Hg)	Numeric		1991 1999-2018
sbp	Systolic blood pressure (mm Hg)	Numeric		1991 1999-2018
meanbp	Mean blood pressure (mm Hg)	Numeric		1991 1999-2018
pulse	Pulse	Numeric		1991 1999-2018
ggt	Gamma glutamyl transferase (U/L)	Numeric		1991 2001-2018
glucose_fasting	Plasma fasting glucose (mg/dL)	Numeric		1999-2016
insulin	Insulin (uU/mL)	Numeric		1999-2016
phpfast	Number of hours since last ate or drank (hours)	Numeric		1991 1999-2018
hba1c	Glycohemoglobin (%)	Numeric		1991 1999-2018
hdl	HDL (mg/dL)	Numeric		1991 1999-2018
ldl	LDL (mg/dL)	Numeric		1991 1999-2016
trig	Triglyceride (mg/dL)	Numeric		1991 1999-2016
totchol	Total cholesterol (mg/dL)	Numeric		1991 1999-2018
vitaminA	Vitamin A (umol/L)	Numeric		1999-2006

Variable Name	Description	C/N	Format	Comments
vitaminE	Vitamin E (umol/L)	Numeric		1999-2006
vitaminB12	Vitamin B12 (umol/L)	Numeric		1999-2014
vitaminC	Vitamin C (umol/L)	Numeric		2003-2006
Mortality				
eligstat	Eligibility status for mortality follow-up	Numeric	1: eligible 2: under age 18 3: ineligible	1991 1999-2010
status	Final mortality status	Numeric	0: assumed alive 1: assumed deceased	1991 1999-2010
ucod_leading	Underlying leading cause of death	Numeric	1: diseases of heart 2: malignant neoplasms 3: chronic lower respiratory diseases 4: accidents 5: cerebrovascular diseases 6: Alzheimer's disease 7: diabetes mellitus 8: influenza and pneumonia 9: nephritis, nephrotic syndrome and nephrosis 10: all other causes	1991 1999-2010
diabetes	Diabetes flag from multiple cause of death	Numeric	0: no 1: yes	1991 1999-2010
hyperten	Hypertension flag from multiple cause of death	Numeric	0: no 1: yes	1991 1999-2010
permth_int	Number of person months of follow-up from NHANES interview date (months)	Numeric		1991 1999-2010
time	Number of person months of follow-up from NHANES Mobile Examination Center date	Numeric		1991 1999-2010
The following variables are also included in the dataset from the bioage results:				
bioage0	Original KDM biological age	Numeric		1991 2007-2010
bioage_advance0	Original KDM biological age advancement	Numeric		1991 2007-2010

Variable Name	Description	C/N	Format	Comments
bioage_residual0	Original KDM biological age residual	Numeric		1991 2007-2010
Phenoage0	Original Levine's phenotypic age	Numeric		1991 1999-2010 2015-2018
phenoage_advance0	Original Levine's phenotypic age advancement	Numeric		1991 1999-2010 2015-2018
phenoage_residual0	Original Levine's phenotypic age residual	Numeric		1991 1999-2010 2015-2018