Variable List for C4R Harmonization

C4R is leveraging prior harmonization efforts across C4R cohorts in the TOPMed Project, the NHLBI Pooled Cohorts Study, the BP COG Study, and the CHARGE Working Groups. The following list includes core measures that are already harmonized across the majority, if not all, C4R cohorts.

Additional variable harmonization will be guided and prioritized according to scientific priority and the data needs of approved manuscript proposals.

Items with an asterisk (*) indicate variables derived/defined from the other variables collected by the cohorts.

Demographics

Variable	Label
age	Age (years), time variant
age_baseline	Age at baseline, exam 1
birth_year	Year of birth
bmi	Body mass index, time variant
edu_cat	Highest education at baseline:0=No schooling,1=Grades 1-8,2=Grades 9-11,3=High school,4=Some college,5=Bachelor's degree,6=Graduate degree
education	Highest education grade completed
exam	Exam/visit
gender	Gender: 1=Male, 0=Female
hip_cm	Hip girth (cms), time variant
ht_cm	Height (cms), time variant
ht_in	Height (inches), time variant
race_cat	Race: 1=White, 2=Asian, 3=Black, 4=American Indian/Alaskan Native, 5=Others
race_AIAN	American Indian/Alaskan Native: 1=Yes, 0=No
race_black	African American: 1=Yes, 0=No
race_asian	Asian:1=Yes, 0=No
race_others	Other race: 1=Yes, 0=No
race_white	White: 1=Yes, 0=No
ethnicity	Hispanic/Latino: 1=Yes, 0=No
site	Study center
study	Name of cohort, categorical: aric, card, chs, fhs, habc, hchs/sol, jhs, mesa, shs
waist_cm	Waist girth (cms), time variant
wt_kg	Weight (KG), time variant
wt_lbs	Weight (lbs), time variant

Smoking History

Variable	Label
exam	Exam/visit
smoking_age_start*	Age at which started smoking
smoking_age_stop*	Age at which stopped smoking
smoking_cig_yrs*	Cigarettes years of smoking, calculated from smoking_age_start & smoking_age_stop
smoking_cigs_perday	Cigarettes smoked per day; 0 for never & carried forward for former smokers
smoking_cigs_perday_base	Cigarettes smoked per day at baseline visit
smoking_cigsperday_tv	Cigarettes smoked per day, time variant; 0 for never & former smokers
smoking_current	Current smoker, time variant:1=Yes, 0=No
smoking_current_baseline	Current smoker at baseline:1=Yes, 0=No
smoking_ever	Ever smoker, time variant:1=Yes, 0=No
smoking_ever_baseline	Ever smoker at baseline:1=Yes, 0=No
smoking_former	Former smoker, time variant:1=Yes, 0=No
smoking_former_baseline	Former smoker at baseline:1=Yes, 0=No
smoking_packyears	Cigarettes pack years,time variant
smoking_packyears_baseline	Cigarettes pack years at baseline visit
smoking_status	3 levels of smoking status, time variant:0=Never, 1=Former, 2=Current
smoking_status_baseline	3 levels of smoking status at baseline:1=Yes, 0=No
smoking_traj*	Smoking trajectory: 0=Never; 1=Former; 2=Current; 3=Quitter; 4=Inconsistent; 5=Starter to current; 6=Starter to former
yrs_smok_quit	Years since quitting smoking
cigar_status	3 levels of cigar smoking status, time variant:0=Never, 1=Former, 2=Current
pipe_cigar_status	3 levels of pipe or cigar status, time variant:0=Never, 1=Former, 2=Current
pipe_status	3 levels of pipe smoking status, time variant:0=Never, 1=Former, 2=Current

Spirometry

Variable	Label
age_spiro_baseline	Age at baseline spirometry exam
exam	Exam/visit at which spirometry is performed
post_fef2575	Post-bronch: forced expiratory flow (FEF) at 25-75% of forced vital capacity, time variant
post_fev1	Post-BD: Forced expiratory volume in one sec (L), time variant
post_fev1_qc_200*	Post-BD: Quality assessment grades for FEV1: 1=Yes (A,B,C), 0=No (D,F);2 acceptable curves reproducible within 200 mL
post_fev1_qc_150*	Post-BD: Quality assessment grades for FEV1: 1=Yes (A,B), 0=No (C,D,F);2 acceptable curves reproducible within 150 mL
post_fev1_qc_grade	Post-BD: Quality assessment grades for FEV1: A,B,C,D,F
post_fev1fvc	Post-BD: Ratio of post_fev1 over post_fvc (%), time variant
post_fev1fvc_qc_200*	Post-BD: Quality assessment grades for FEV1/FVC: 1=both post_fev1_qc_200 and post_fvc_qc_200=1, 0= either post_fev1_qc or post_fvc_qc=0
post_fev1fvc_qc_150*	Post-BD: Quality assessment grades for FEV1/FVC: 1=both post_fev1_qc_150 and post_fvc_qc_150=1, 0=either post_fev1_qc_150 or post_fvc_qc_150=0
post_fvc	Post-BD: Forced vital capacity (L), time variant
post_fvc_qc_200*	Post-BD: Quality assessment grades for FVC: 1=Yes (A,B,C), 0=No (D,F);2 acceptable curves reproducible within 200 mL
post_fvc_qc_150*	Post-BD: Quality assessment grades for FVC: 1=Yes (A,B), 0=No (C,D,F);2 acceptable curves reproducible within 150 mL
post_fvc_qc_grade	Post-BD: Quality assessment grades for FVC: A,B,C,D,F
post_llnfef2575	Post-BD: Lower limit of normal for post_FEF2575 based on NHANES III equations
post_llnfev1*	Post-BD: Lower limit of normal for post_FEV1 based on NHANES III equations
post_llnfev1fvc*	Post-BD: Lower limit of normal for post_FEV1/post_FVC based on NHANES III equations
post_llnfvc*	Post-BD: Lower limit of normal for post_FVC based on NHANES III equations
post_pfev1*	Post-BD: predicted post_FEV1 based on NHANES III equations
post_pfev1fvc*	Post-BD: predicted post_FEV1/post_FVC based on NHANES III equations
post_pfvc*	Post-BD: predicted post_FVC based on NHANES III equations
post_ppfev1*	Post-BD: Percent predicted post_FEV1 based on NHANES III equations
post_ppfvc*	Post-BD: Percent predicted post_FVC based on NHANES III equations
post_ratio_lt_70	Post-BD: post_FEV1/post_FVC less than 70%: 1=Yes, 0=No
post_ratio_lt_lln	Post-BD: post_FEV1/post_FVC less than lower limit of normal: 1=Yes, 0=No

pre_fef2575	Forced expiratory flow between 25-75 (L), time variant
pre_fev1	Forced expiratory volume in one sec (L), time variant
pre_fev1_qc_200*	Quality assessment grades for FEV1: 1=Yes (A,B,C), 0=No (D,F);2 acceptable curves reproducible within 200 mL
pre_fev1_qc_150*	Quality assessment grades for FEV1: 1=Yes (A,B), 0=No (C,D,F);2 acceptable curves reproducible within 150 mL
pre_fev1_qc_grade	Quality assessment grades for FEV1: A,B,C,D,F
pre_fev1fvc	Ratio of pre_fev1 over pre_fvc (%), time variant
pre_fev1fvc_qc_200*	Quality assessment grades for FEV1/FVC: 1= both pre_fev1_qc and pre_fvc_qc=1, 0= either pre_fev1_qc or pre_fvc_qc=0
pre_fev1fvc_qc_150*	Quality assessment grades for FEV1/FVC: 1=both pre_fev1_qc_150 and pre_fvc_qc_150=1, 0=either pre_fev1_qc_150 or pre_fvc_qc_150=0
pre_fvc	Forced vital capacity (L), time variant
pre_fvc_qc_200*	Quality assessment grades for FVC: 1=Yes (A,B,C), 0=No (D,F);2 acceptable curves reproducible within 200 mL
pre_fvc_qc_150*	Quality assessment grades for FVC: 1=Yes (A,B), 0=No (C,D,F);2 acceptable curves reproducible within 150 mL
pre_fvc_qc_grade	Quality assessment grades for FVC: A,B,C,D,F
pre_llnfef2575*	Lower limit of normal for FEF25-75 based on NHANES III equations
pre_llnfev1*	Lower limit of normal for PRE_FEV1 based on NHANES III equations
pre_llnfev1fvc*	Lower limit of normal for PRE_FEV1/PRE_FVC based on NHANES III equations
pre_llnfvc*	Lower limit of normal for PRE_FVC based on NHANES III equations
pre_pfef2575*	Predicted FEF25-75 based on NHANES III equations
pre_pfev1*	Predicted PRE_FEV1 based on NHANES III equations
pre_pfev1fvc*	Predicted PRE_FEV1/PRE_FVC based on NHANES III equations
pre_pfvc*	Predicted PRE_FVC based on NHANES III equations
pre_ppfef2575*	Percent predicted FEF25-75 based on NHANES III equations
pre_ppfev1*	Percent predicted PRE_FEV1 based on NHANES III equations
pre_ppfvc*	Percent predicted PRE_FVC based on NHANES III equations
pre_ratio_lt_70*	PRE_FEV1/PRE_FVC less than 70%: 1=Yes, 0=No
pre_ratio_lt_lln*	PRE_FEV1/PRE_FVC less than lower limit of normal: 1=Yes, 0=No
pre_rvd_fixed*	Restrictive ventilatory defect: pre_ppfvc < 80 and pre_fev1fvc > 70; 1=Yes, 0=No
timefactor*	Time from baseline spirometry exam, years

Past Medical History

Variable	Label
exam	Exam/visit
pmh_angina_md	Doctor diagnosed angina, time variant: 1=Yes, 0=No
pmh_angioplasty	History of angioplasty:1=Yes, 0=No
pmh_artfib_md	Doctor diagnosed atrial fibrillation, time variant:1=Yes, 0=No
pmh_asthm_age_start	Age when asthma started, time variant
pmh_asthm_age_stop	Age when asthma stopped, time variant
pmh_asthm_sx_age_start	Age when first asthma symptoms started, time variant
pmh_asthma_age_start	Age of start of asthma, time variant:1=Yes, 0=No
pmh_asthma_age_stop	Age when asthma stopped, time variant
pmh_asthma_ever	Self reported asthma ever, time variant:1=Yes, 0=No
pmh_asthma_exer	Self reported exercise induxed asthma, time variant:1=Yes, 0=No
pmh_asthma_last_ex	Asthma since last exam, time variant:1=Yes, 0=No
pmh_asthma_lastyr	Self reported asthma in past 12 months, time variant:1=Yes, 0=No
pmh_asthma_md	Doctor diagnosed asthma, time variant:1=Yes, 0=No
pmh_asthma_still	Still have asthma, time variant:1=Yes, 0=No
pmh_asthma_still_md	Doctor confirmed still have asthma, time variant:1=Yes, 0=No
pmh_bronchitis_age	Age when bronchitis started, time variant
pmh_bronchitis_ever	Self reported bronchitis ever, time variant:1=Yes, 0=No
pmh_bronchitis_md	Doctor diagnosed bronchitis, time variant:1=Yes, 0=No
pmh_cancer_md	Doctor diagnosed cancer, time variant:1=Yes, 0=No
pmh_cancer_still	Still have cancer, time variant:1=Yes, 0=No
pmh_cardiomegaly_md	Doctor diagnosed cardiomegaly, time variant:1=Yes, 0=No
pmh_cardiomyopathy_md	Doctor diagnosed cardiomyopathy, time variant:1=Yes, 0=No
pmh_cbronch_age_start	Age when chronic bronchitis started, time variant
pmh_cbronch_lastyr	Self reported chronic bronchitis in past 12 months, time variant:1=Yes, 0=No
pmh_cbronchitis_ever	Self reported chronic bronchitis ever, time variant:1=Yes, 0=No
pmh_cbronchitis_md	Doctor diagnosed chronic bronchitis, time variant:1=Yes, 0=No
pmh_cbronchitis_still	Still have chronic bronchitis, time variant:1=Yes, 0=No
pmh_chd_md	Doctor diagnosed coronary heart disease at baseline:1=Yes, 0=No
pmh_chf_md	Doctor diagnosed congestive heart failure, time variant:1=Yes, 0=No
pmh_claud_md	Doctor diagnosed intermittent claudication, time variant:1=Yes, 0=No

pmh_congenital_heart_md	Doctor diagnosed congenital heart disease, time variant:1=Yes, 0=No
pmh_copd_age_start	Age when copd started, time variant
pmh_copd_ever	Self-reported COPD status includes COPD, Emph and CB, time variant:1=Yes, 0=No
pmh_copd_lastyr	Self reported copd in past 12 months, time variant:1=Yes, 0=No
pmh_copd_md	Doctor diagnosed copd, time variant:1=Yes, 0=No
pmh_cvd_md	Doctor diagnosed cardiovascular disease, time variant:1=Yes, 0=No
pmh_diabetes_ada	Diabetes status based on ADA, time variant:1=Normal,2=IGT,3=Diabetes
pmh_diabetes_md	Doctor diagnosed diabetes, time variant:1=Yes, 0=No
pmh_emph_age_start	Age when emphysema started, time variant
pmh_emphysema_ever	Self reported emphysema ever, time variant:1=Yes, 0=No
pmh_emphysema_lastyr	Self reported emphysema in past 12 months, time variant:1=Yes, 0=No
pmh_emphysema_md	Doctor diagnosed emphysema, time variant:1=Yes, 0=No
pmh_emphysema_still	Still have emphysema, time variant:1=Yes, 0=No
pmh_heart_attack_md	Doctor diagnosed myocardial infarction, time variant:1=Yes, 0=No
pmh_heart_dis_md	Doctor diagnosed heart disease, time variant:1=Yes, 0=No
pmh_hi_chol_md	Doctor diagnosed high cholestrol, time variant:1=Yes, 0=No
pmh_hi_chol_still	Still have high cholesterol, time variant:1=Yes, 0=No
pmh_htn_borderline	Clinical diagnostic impression borderline hypertension, time variant:1=Yes, 0=No
pmh_htn_jnc7	Hypertension JNC 7 categories, time variant:0=Normal,1=Pre-HTN,2=Stage I HTN,3=Stage II HTN
pmh_htn_md	Doctor diagnosed hypertension, time variant:1=Yes, 0=No
pmh_htn_still	Still have hypertension, time variant:1=Yes, 0=No
pmh_kidney_dis_md	Doctor diagnosed kidney disease, time variant:1=Yes, 0=No
pmh_liver_dis_md	Doctor diagnosed liver disease, time variant:1=Yes, 0=No
pmh_lung_cancer_md	Doctor diagnosed lung cancer, time variant:1=Yes, 0=No
pmh_lungcancer_age	Age when ;lung cancer was diagnosed
pmh_lungcancer_md	Doctor diagnosed lung cancer, time variant:1=Yes, 0=No
pmh_mvp_md	Doctor diagnosed mitral valve prolapse, time variant:1=Yes, 0=No
pmh_myocarditis_md	Doctor diagnosed myocarditis, time variant:1=Yes, 0=No
pmh_other_heart_dis_md	Doctor diagnosed other heart diseases, time variant:1=Yes, 0=No
pmh_pneumonia_md	Doctor diagnosed pneumonia, time variant:1=Yes, 0=No
pmh_pul_fib_age_start	Age of start of pulmonary fibrosis, time variant:1=Yes, 0=No
pmh_pul_fib_md	Self-reported doctor diagnosed pulmonary fibrosis, time variant:1=Yes, 0=No

pmh_pvd_md	Doctor diagnosed peripheral vascular disease, time variant:1=Yes, 0=No
pmh_rhd_md	Doctor diagnosed rheumatic heart disease, time variant:1=Yes, 0=No
pmh_rheu_fever_md	Doctor diagnosed rheumatic fever, time variant:1=Yes, 0=No
pmh_sleep_apnea_md	Self-reported doctor diagnosed sleep apnea, time variant:1=Yes, 0=No
pmh_stroke_md	Doctor diagnosed stroke, time variant:1=Yes, 0=No
pmh_tia_md	Doctor diagnosed TIA, time variant:1=Yes, 0=No
pmh_tia_stroke_md	Doctor diagnosed TIA or stroke, time variant:1=Yes, 0=No
pmh_vhd_md	Doctor diagnosed valvular heart disease, time variant:1=Yes, 0=No

Medications

Variable	Label
exam	Exam/visit
meds_acei	Medications: Angiotensin converting enzyme (ACE) inhibitors, time variant:1=Yes, 0=No
meds_acei_arbs	Medications: ACEi/ARBs, time variant:1=Yes, 0=No
meds_adrenolytic	Medications: Adrenolytic agents, time variant:1=Yes, 0=No
meds_alphago	Medications: Anti-hypertensives alhpa agonists, time variant:1=Yes, 0=No
meds_alphblk	Medications: Alpha blockers, time variant:1=Yes, 0=No
meds_antianginal	Medications: Antianginals, time variant:1=Yes, 0=No
meds_antianxiety	Medications: Antianxiety agents, time variant:1=Yes, 0=No
meds_antiarry	Medications: Anti-arrythmics, time variant:1=Yes, 0=No
meds_antiarryth	Medications: AntiArrhythmics, time variant:1=Yes, 0=No
meds_antiasthma	Medications: Antiasthmatic or bronchodilator agents, time variant:1=Yes, 0=No
meds_antichol	Medications: Anti-cholinergic, time variant:1=Yes, 0=No
meds_anticoag	Medications: Anticoagulants, time variant:1=Yes, 0=No
meds_antidepress	Medications: Antidepressants, time variant:1=Yes, 0=No
meds_antidiab	Medications: Insulin + oral hypoglycemic agents, time variant:1=Yes, 0=No
meds_antihist	Medications: Anti-histaminics, time variant:1=Yes, 0=No
meds_antiinfl	Medications: Anti-inflammatory, time variant:1=Yes, 0=No
meds_antiplatelets	Medications: Antiplatelets, time variant:1=Yes, 0=No
meds_antipsychotic	Medications: Antipsychotics, time variant:1=Yes, 0=No
meds_arbs	Medications: Angiotensin receptor blockers (ARBs), time variant:1=Yes, 0=No
meds_aspirin	Medications: Aspirin, time variant:1=Yes, 0=No
meds_aspirin_analg	Medications: Aspirin-containing analgesics, time variant:1=Yes, 0=No
meds_aspirin_der	Medications: Used Aspirin-containing analgesics in last 2 weeks, time variant:1=Yes, 0=No
meds_betablk	Medications: Beta blockers, time variant:1=Yes, 0=No
meds_bile_acid	Medications: Bile acid sequestrans, time variant:1=Yes, 0=No
meds_ccblk	Medications: Calcium channel blockers, time variant:1=Yes, 0=No
meds_centhtn	Medications: Central anti-hypertensives, time variant:1=Yes, 0=No
meds_chemo	Medications: Chemotherapy, time variant:1=Yes, 0=No
meds_chol_low	Medications: Cholestrol lowering including statins, niacin, fibric acid, etc., time variant:1=Yes, 0=No

meds_clopidogrel	Medications: Clopidogrel (Plavix), time variant:1=Yes, 0=No
meds_coumarin	Medications: Coumarin anticoagulants, time variant:1=Yes, 0=No
meds_cox2_inhi	Medications: COX-2 inhibitors, time variant:1=Yes, 0=No
meds_diuretics	Medications: Diuretics, time variant:1=Yes, 0=No
meds_estrogen	Medications: Estrogens, time variant:1=Yes, 0=No
meds_estrogen_comb	Medications: Estrogens-Combinations Only, time variant:1=Yes, 0=No
meds_fertility_reg	Medications: Fertility Regulators, time variant:1=Yes, 0=No
meds_fibric_acid	Medications: Fibrates, time variant:1=Yes, 0=No
meds_glycosides	Medications: Cardiac Glycosides, time variant:1=Yes, 0=No
meds_heparin	Medications: Heparin anticoagulants, time variant:1=Yes, 0=No
meds_high_aspirin	Medications: High-dose Aspirin, time variant:1=Yes, 0=No
meds_hrt	Medications: Any Hormone Replacement Therapy, time variant:1=Yes, 0=No
meds_hrt_ever	Medications: Harmone replacement therapy ever:1=Yes, 0=No
meds_htn	Medications: Hypertension, time variant:1=Yes, 0=No
meds_inhaled_strds	Medications: Inhaled steroids, time variant:1=Yes, 0=No
meds_insulin	Medications: Insulin, time variant:1=Yes, 0=No
meds_kspare	Medications: Potassium spring diuretics, time variant:1=Yes, 0=No
meds_lhrh_ago	Medications: LHRH/GnRH Agonist Analog, time variant:1=Yes, 0=No
meds_lhrh_anta	Medications: LHRH/GnRH Antagonists, time variant:1=Yes, 0=No
meds_lhrh_gnrh	Medications: LHRH/GnRH Only, time variant:1=Yes, 0=No
meds_loopdiu	Medications: Loop diuretics, time variant:1=Yes, 0=No
meds_low_aspirin	Medications: Low-dose Aspirin, time variant:1=Yes, 0=No
meds_niacin	Medications: Niacin, time variant:1=Yes, 0=No
meds_nitrates	Medications: Nitrates, time variant:1=Yes, 0=No
meds_nsaids	Medications: NSAIDs, time variant:1=Yes, 0=No
meds_ocps	Medications: Contraceptives, time variant:1=Yes, 0=No
meds_ohga	Medications: Oral hypoglycemic agents, time variant:1=Yes, 0=No
meds_opthal_betablk	Medications: Ophthalmic Beta Blockers, time variant:1=Yes, 0=No
meds_oral_strds	Medications: Oral steroids, time variant:1=Yes, 0=No
meds_other_diuretics	Medications: Other diuretics, time variant:1=Yes, 0=No
meds_progestins	Medications: Progestins, time variant:1=Yes, 0=No
meds_pulmonary	Medications: Pulmonary medication, time variant:1=Yes, 0=No
meds_resp_bd	Medications: Bronchodilators, time variant:1=Yes, 0=No
meds_smrelax	Medications: Smooth muscle relaxants, time variant:1=Yes, 0=No

meds_ssri	Medications: Antidepressants-selective serotonin re-uptake inhibitors, time variant:1=Yes, 0=No
meds_statin	Medications: Statins, time variant:1=Yes, 0=No
meds_steroids	Medications: Steroids, time variant:1=Yes, 0=No
meds_tca	Medications: Antidepressants tricyclic antidepressants, time variant:1=Yes, 0=No
meds_thiazides	Medications: Thiazides diuretics, time variant:1=Yes, 0=No
meds_vasodia	Medications: Vasodilators, time variant:1=Yes, 0=No
meds_warfarin	Medications: Warfarin, time variant:1=Yes, 0=No

Renal Biomarkers

Variable	Label
GFR_EPI_CREAT*	eGFR based on EPI Sr. Creatinine equations(mL/min/1.73 m2), time variant
GFR_EPI_CREAT_CYSC*	eGFR based on EPI Sr. Creatinine and CystC equations(mL/min/1.73 m2), time variant
GFR_EPI_CYSC*	eGFR based on EPI CystC equations(mL/min/1.73 m2), time variant
GFR_creat*	GFR-Creatinine (mL/min/1.73 m2), time variant
GFR_mdrd*	GFR MDRD calculated from equation (mL/min/1.73 m2), time variant
creatinine_serum	Serum creatinine (mg/dl), time variant
cysc	Cystatin C (mg/L), time variant
exam	Exam/visit
urine_acr	Urine albumin-creatinine ratio (mg/g), time variant
urine_acr_grade*	Grades of microalbuminuria:0= <30ACR, 1=30-299,2=300+ACR, time variant
urine_albumin	Urine albumin measured (mg/L), time variant
urine_creatinine	Urine creatinine measured (mg/dL), time variant

Blood Pressure

Variable	Label
bp_diastolic	Sitting Diastolic blood pressure, time variant
bp_diastolic_baseline	Sitting Baseline diastolic blood pressure
bp_systolic	Sitting Systolic blood pressure, time variant
bp_systolic_baseline	Sitting Baseline systolic blood pressure
exam	Exam/visit

Blood Glucose Levels

Variable	Label
exam	Exam/visit
fast_glucose	Fasting blood glucose level mg/dl, time variant
fast_glucose_baseline	Baseline fasting blood glucose level mg/dl
fast_glucose_baseline_mmol	Baseline fasting blood glucose level mmol/L
fast_glucose_mmol	Fasting blood glucose level mmol/L, time variant

Alcohol

Variable	Label
alcohol_current	Current alcohol drinker, time variant:1=Yes, 0=No
alcohol_days_wk	# days in a week drink alcohol, time varaiant
alcohol_ever	Ever alcohol drinker, time variant:1=Yes, 0=No
alcohol_former	Former alcohol drinker, time variant:1=Yes, 0=No
alcohol_ml_day	Amount of alcohol/day in mL; 0 for former and never , time variant
alcohol_status	3 levels of alcohol drinking status, time variant:0=Never, 1=Former, 2=Current
alcohol_stop_yrs	Years since stopped drinking:0=Never/current drinkers,1= <1yr,2= 1 to <2yrs,3= 2 to <3yrs,4=3+yrs
alcohol_yrs_drink	Total # years of alcohol consumption
exam	Exam

Lipids

Variable	Label
exam	Exam/visit
lipids_hdl	Total HDL (mg/dl), time variant
lipids_hdl_sub2	HDL subfraction 2 (mg/dl), time variant
lipids_hdl_sub3	HDL subfraction 3 (mg/dl), time variant
lipids_ldl	LDL (mg/dl), time variant
lipids_tot_chol	Total cholesterol (mg/dl), time variant
lipids_tot_tgl	Total triglycerides (mg/dl), time variant
lipids_vldl	VLDL (mg/dl), time variant

Inflammatory Markers

Variable	Label
crp	C-reactive protein (mg/L), time variant
exam	Exam/Visit
fibrinogen	Fibrinogen (mg/dl), time variant
hs_crp	High sensitivity C-reactive protein (ug/mL), time variant

Respiratory Symptoms

Variable	Label
CC_or_CP*	Cough or phlegm for at least 3 months of 2 consecutive years
MRC_CB*	Cough and phlegm for at least 3 months of 2 consecutive years
MRC_dyspnea*	MRC dyspnea scale (calculated), time variant
chronic_cough	Cough for at least 3 months for 2 consecutive years
chronic_phlegm	Phlegm for at least 3 months for 2 consecutive years
cough	Have a cough, time variant:1=Yes, 0=No
cough_3months	Cough on most days for 3 consecutive months, time variant:1=Yes, 0=No
cough_4days	Cough 4-6 times/day for 4 or more days, time variant:1=Yes, 0=No
cough_and_phlegm_3m	Cough and phlegm on most days for 3 consecutive months, time variant:1=Yes, 0=No
cough_awake	Ever been awakened by cough in past years, time variant:1=Yes, 0=No
cough_awake_freq	How often have you been awakened by coughing?
cough_day_night	Cough at all during day or night, time variant:1=Yes, 0=No
cough_getup	Cough at all on getting up, time variant:1=Yes, 0=No
cough_months	Number of months had this cough
cough_or_phlegm_3m	Cough or phlegm on most days for 3 consecutive months, time variant:1=Yes, 0=No
cough_phlegm_3months	Cough and phlegm on most days for 3 consecutive months, time variant:1=Yes, 0=No
cough_phlegm_years	Number of years of episodes of cough and phlegm
cough_years	Number of years had this cough
exam	Exam/visit
phlegm	Bring up phlegm, time variant:1=Yes, 0=No
phlegm_3months	Phlegm on most days for 3 consecutive months, time variant:1=Yes, 0=No
phlegm_4days	Phlegm 4-6 times/day for 4 or more days, time variant:1=Yes, 0=No
phlegm_cough	Productive cough, time variant:1=Yes, 0=No
phlegm_day_night	Phlegm at all during day or night, time variant:1=Yes, 0=No
phlegm_getup	Phlegm at all on getting up, time variant:1=Yes, 0=No
phlegm_years	Number of years had this phlegm
sob_100yards	Shortness of breath after walking about 100 yards (or after a few minutes) on the level, time variant:1=Yes, 0=No
sob_awake	Ever been awakened by shortness of breath in past years, time variant:1=Yes, 0=No

sob_level_ground	Shortness of breath while walking on level ground, time variant:1=Yes, 0=No
sob_light_act	Shortness of breath while on light physical activity, time variant:1=Yes, 0=No
sob_mod_act	Shortness of breath while on moderate physical activity, time variant:1=Yes, 0=No
sob_noact	Too breathless to leave the house or breathless on dressing or undressing, time variant:1=Yes, 0=No
sob_pace	Stop for breath when walking at our own pace on the level, time variant:1=Yes, 0=No
sob_rest_chair	Shortness of breath while resting in a chair, time variant:1=Yes, 0=No
sob_slow_peers	Walk slower than people of your age on the level because of breathlessness, time variant:1=Yes, 0=No
sob_stop	Stop walking because of breathlessness, time variant:1=Yes, 0=No
sob_strn_act	Shortness of breath while on strenous physical activity, time variant:1=Yes, 0=No
sob_uphill	Troubled by shortness of breath when hurrying on the level or walking up a slight hill, time variant:1=Yes, 0=No
sob_walk_quick	Shortness of breath while walking quickly or uphill, time variant:1=Yes, 0=No
wheeze	Wheezing/whistling in chest in past years, time variant:1=Yes, 0=No
wheeze_12months	Wheezing in last 12 months, time variant:1=Yes, 0=No
wheeze_12months_freq	Frequency of wheezing in last 12 months, time variant
wheeze_2_18age	Wheezing between age 2 and 18: 1=Yes, 0=No
wheeze_2attacks	Two or more wheezing attacks with shortness of breath, time variant:1=Yes, 0=No
wheeze_af_18age	Wheezing after age 18: 1=Yes, 0=No
wheeze_age	Age when wheezing/whistling started
wheeze_attack_meds	Medicine required for wheezing attack, time variant:1=Yes, 0=No
wheeze_awake	Ever been awakened by wheezing in past years, time variant:1=Yes, 0=No
wheeze_bf_2age	Wheezing before age 2: 1=Yes, 0=No
wheeze_cold	Wheezing / whistling in chest when have cold, time variant:1=Yes, 0=No
wheeze_cold_years	Number of years with wheezing and cold/ whistling in chest
wheeze_meds	Medications for wheezing attacks, time variant:1=Yes, 0=No
wheeze_most_days	Wheezing / whistling in chest on most days or nights, time variant:1=Yes, 0=No
wheeze_most_daysonly	Wheezing / whistling in chest on most days, time variant:1=Yes, 0=No
wheeze_most_nightsonly	Wheezing / whistling in chest on most nights, time variant:1=Yes, 0=No
wheeze_nocold	Wheezing / whistling in chest without cold, time variant:1=Yes, 0=No
wheeze_nocold_years	Number of years with wheezing without cold/ whistling in chest

wheeze_sob_2att	Shortness of breath with two or more wheezing attack, time variant:1=Yes, 0=No
wheeze_sob_att	Shortness of breath with wheezing attack, time variant:1=Yes, 0=No
wheeze_sob_att_age	Age at first shortness of breath with wheezing attack
wheeze_sob_att_meds	Medications taken for shortness of breath with wheezing attack, time variant:1=Yes, 0=No
wheeze_years	Number of years with wheezing / whistling in chest

Major Adverse Cardiovascular Events (MACE) and Mortality

Variable	Label
chd_death	Death due to CHD:1=Yes
chd_event	Coronary heart disease (MI,Resuscitated Cardiac Arrest,CHD Death):1=Yes, 0=No
chf_event	Congestive heart failure:1=Yes, 0=No
chf_type_40	If ejection fraction ≥ 40 then chf_type_40 ="HFpEF"; if ejection fraction < 40 then chf_type_40 ="HFrEF"
chf_type_50	If ejection fraction ≥ 50 then chf_type_40 ="HFpEF"; if ejection fraction < 50 then chf_type_40 ="HFrEF"
claud_event	Claudication event:1=Yes, 0=No
cvd_death	Death due to CVD:1=Yes
cvd_event	Cardiovascular disease (CHD + Stroke):1=Yes, 0=No
date_chd	Date of CHD
date_chf	Date of CHF
date_death	Date of death
date_stroke	Date of stroke
death	Indicator of death:1=Yes, 0=No
ef_cat	Ejection fraction categories:0=Normal (>=55%),1=Major (severe, <=35%),2=Minor (mild-moderate, 36-45%),3=Borderline (46-54%)
ef_date	Ejection fraction measurement, date
ejection_frac	Ejection fraction
stroke_death	Death due to Stroke:1=Yes
stroke_event	Stroke event:1=Yes, 0=No
tia_event	TIA event:1=Yes, 0=No
tot_tty_chd	Time to CHD event, years
tot_tty_chf	Time to CHF event, years
tot_tty_claud	Time to Claudication event, years
tot_tty_cvd	Time to CVD event, years
tot_tty_death	Time to death, years
tot_tty_stroke	Time to Stroke event, years
tot_tty_tia	Time to TIA event, years
v1_date	Date of visit 1
year_chd_event	Year when CHD event occurred
year_chf_event	Year when CHF event occurred

year_claud	Year when Claudication event occurred
year_cvd_event	Year when CVD event occurred
year_death	Year when death occurred
year_stroke_event	Year when Stroke event occurred
year_tia	Year when TIA event occurred
year_visit1	Year when visit 1 occurred

Chronic Lower Respiratory Disease (CLRD) Events

Variable	Label
any_asthma_event	Asthma hospitalization or death: Physician adjudicated primary, underlying or contributing cause or ICD-9: 493 or ICD-10: J45-J46 at **any** position; 1=Yes, 0=No
any_bronchitis_event	Chronic bronchitis hospitalization or death: Physician adjudicated primary, underlying or contributing cause or ICD-9: 490-491 or ICD-10: J40-J42 at **any** position; 1=Yes, 0=No
any_cld_event	CLRD hospitalization or death: Hospitalization or death due to "Any" asthma/chronic bronchitisCOPD/emphysema; derived from any_asthma_event, any_bronchitis_event, any_copd_event_tot; 1=Yes, 0=No
any_copd_event	COPD hospitalization or death: Physician adjudicated primary, underlying or contributing cause or ICD-9: 496 or ICD-10: J44 at **any** position; 1=Yes, 0=No
any_copd_event_tot	COPD or emphysema hospitalization or death: if either any_copd_event or any_emphysema_event=1 then any_copd_event_tot=1; else any_copd_event_tot=0
any_emphysema_event	Emphysema hospitalization or death: Physician adjudicated primary, underlying or contributing cause or ICD-9: 492 or ICD-10: J43 at **any** position; 1=Yes, 0=No
any_lung_ca_event	Lung cancer hospitalization or death: Physician adjudicated primary, underlying or contributing cause or ICD-9: 162.9 or ICD-10: C34 or C38.4 at **any** position; 1=Yes, 0=No
any_tty_asthma_tot	Time to "Any" asthma hospitalization or death, years
any_tty_bronchitis	Time to "Any" chronic bronchitis hospitalization or death, years
any_tty_cancer_tot	Time to "Any" lung cancer hospitalization or death, years
any_tty_cld_tot	Time to "Any" CLRD hospitalization or death, years
any_tty_copd	Time to "Any" COPD hospitalization or death, years
any_tty_copd_tot	Time to "Any" COPD or emphysema hospitalization or death, years
any_tty_emphysema	Time to "Any" emphysema hospitalization or death, years
any_year_asthma	Year when "Any" asthma event occurred
any_year_bronchits	Year when "Any" chronic bronchitis event occurred
any_year_cancer	Year when "Any" lung cancer event occurred
any_year_cld	Year when "Any" CLRD event occurred
any_year_copd	Year when "Any" COPD event occurred
any_year_copd_tot	Year when "Any" COPD/emphysema event occurred
any_year_emphysema	Year when "Any" emphysema event occurred
asthma_death	Asthma death; 1=Yes, 0=No
cld_baseline	Self-reported physician-diagnosed asthma/chronic bronchitisCOPD/emphysema or taking bronchodilators
cld_death	CLRD (Asthma/chronic bronchitis/COPD/emphysema) death: 1=Yes, 0=No
copd_death	COPD (COPD/emphysema) death; 1=Yes, 0=No
lung_cancer_death	Lung cancer death; 1=Yes, 0=No
pri_asthma_event	Asthma hospitalization or death: Physician adjudicated primary cause or ICD-9: 493 or ICD-10: J45-J46 at **first** position; 1=Yes, 0=No
pri_bronchitis_event	Chronic bronchitis hospitalization or death: Physician adjudicated primary cause or ICD-9: 490-491 or ICD-10: J40-J42 at **first** position; 1=Yes, 0=No

pri_cld_event	CLRD hospitalization or death: Hospitalization or death due to "Primary" asthma/chronic bronchitisCOPD/emphysema; derived from pri_asthma_event, pri_bronchitis_event, pri_copd_event_tot; 1=Yes, 0=No
pri_copd_event	COPD hospitalization or death: Physician adjudicated primary cause or ICD-9: 496 or ICD-10: J44 at **first** position; 1=Yes, 0=No
pri_copd_event_tot	COPD or emphysema hospitalization or death: if either pri_copd_event or pri_emphysema_event=1 then pri_copd_event_tot=1; else pri_copd_event_tot=0
pri_emphysema_event	Emphysema hospitalization or death: Physician adjudicated primary cause or ICD-9: 492 or ICD-10: J43 at **first** position; 1=Yes, 0=No
pri_lung_ca_event	Lung cancer hospitalization or death: Physician adjudicated primary cause or ICD-9: 162.9 or ICD-10: C34 or C38.4 at **first** position; 1=Yes, 0=No
pri_tty_asthma_tot	Time to "Primary" asthma hospitalization or death, years
pri_tty_bronchitis	Time to "Primary" chronic bronchitis hospitalization or death, years
pri_tty_cancer_tot	Time to "Primary" lung cancer hospitalization or death, years
pri_tty_cld_tot	Time to "Primary" CLRD hospitalization or death, years
pri_tty_copd	Time to "Primary" COPD hospitalization or death, years
pri_tty_copd_tot	Time to "Primary" COPD or emphysema hospitalization or death, years
pri_tty_emphysema	Time to "Primary" emphysema hospitalization or death, years
pri_year_asthma	Year when "Primary" asthma event occurred
pri_year_bronchits	Year when "Primary" chronic bronchitis event occurred
pri_year_cancer	Year when "Primary" lung cancer event occurred
pri_year_cld	Year when "Primary" CLRD event occurred
pri_year_copd	Year when "Primary" COPD event occurred
pri_year_copd_tot	Year when "Primary" COPD/emphysema event occurred
pri_year_emphysema	Year when "Primary" emphysema event occurred
resp_death	Death due to any respiratory cause; 1=Yes, 0=No

Aryl-Hydrocarbon Receptor Repressor (AHRR) Methylation

Variable	Label
ahrr	M- value for AHRR
ahrr_beta	Beta-value for AHRR
exam	Exam/Visit
log_ahrr	Log of M- value for AHRR
log_ahrr_beta	Log of Beta-value for AHRR

Hormone Replacement Therapy (HRT)

Variable	Label
current_hrt	Use of HRT, time variant: 1=Yes, 0=No
current_hrt_final	Use of HRT at the last follow-up
current_ocp	Use of oral contraceptives, time variant: 1=Yes, 0=No
current_ocp_final	Use of oral contraceptives at the last follow-up: 1=Yes, 0=No
ever_hrt	Ever use of HRT, time variant: 1=Yes, 0=No
ever_hrt_final	Use of HRT anytime during the course of the study
ever_ocp	Ever use of oral contraceptives, time variant: 1=Yes, 0=No
ever_ocp_final	Use of oral contraceptives anytime during the course of the study: 1=Yes, 0=No
exam	Exam/Visit
hrt_age	Age started HRT, time variant
hrt_years	Years taking HRT, time variant
hysterectomy	Had hysterectomy? time variant: 1=Yes, 0=No
hysterectomy_age	Age at hysterectomy as reported by participant
hysterectomy_age_final	Age whenever had hysterectomy during the course of the study: 1=Yes, 0=No
hysterectomy_final	Had hysterectomy anytime during the course of the study? 1=Yes, 0=No
menarche_age	Age of menarche
menopause	Undergone natural menopause, time variant: 1=Yes, 0=No
menopause_age	Age of natural menopause
menopause_age_final	Age at menopause
menopause_final	Undergone menopause either naturally or through hysterectomy: 1=Yes, 0=No