Current Covariates:

Age, (can make season of wear variable), sex, REGION

Have to import other confounders:

Ethnicity??, employment status, Education, Townsend Index, Nutrition (fruits & veggies, processed red meat), added salt intake, oily fish consumption, alcohol intake, sleep duration, average sleep duration, have smoking? O.w. add

Variable codes (ALL SELF-REPORTED!!!):

Employment status - 6142\_i0 to \_i3

Townsend Index - p189

Education - p6138 - highest qualification - ALREADY IMPORTED

Nutrition:

Fruits & veggies consumption:

P1289\_i0 to \_i3 - Cooked veggie intake (TAKE CLOSEST TO ACCEL VISIT)

P1299\_i0 to \_i3 - raw veggie intake (same point)

P1309\_i0 to \_i3 - fresh fruit intake

P1319\_i0 to \_i3 - dried fruit intake

Processed red meat consumption - p1349\_i0 to \_i3

Added salt intake - p1478\_i0 to \_i3

Oily fish consumption - p1329\_i0 to \_i3

Alcohol intake - p1558\_i0 to \_i3

Sleep Duration - p1160\_i0 to \_i3 (how many hours do you sleep a night?)

Smoking Status - p20116\_i0 to \_i3 (current/past/never); p20161\_i0 to \_i3 (pack years smoking)

Parental History of CVD:

Illness history of father - p20107\_i0 to \_i3

Illness history of mother - p20110\_i0 to \_i3

Mobility issues - p120098\_i0 to \_i3

Medication for cholesterol, blood pressure, diabetes - p6177\_i0 to \_i3

Average sleep duration - p1160\_i0 to \_i3

BMI - ALREADY IMPORTED

ALSO NEED TO ADD NON-WEAR TIME ADJUSTED AVERAGE (p90087)

NEED TO RESOLVE THIS NON-WEAR TIME ADJUSTMENT QUESTION MORE GENERALLY…

RECALCULATE TIME VARIABLE HERE (based on existing code…) - THEN do analyses w/ ONLY incident CAD and again w/ only incident CAD > 1 year after accelerometer start date to avoid reverse causation

ALSO need to create SEASON OF WEAR COVARIATE - Should also be simple w/ dates of wear available

MISSINGNESS - See how much complete case analysis removes for missingness… If too much use MICE…

Get STROBE Statement ready for this epi study…

SHOULD CONVERT THESE PAEE AND %MVPA MEASUREMENTS TO METS AND THEN TO ACTIVITIES FOR EXAMPLES - in discussion section to ground what we’re saying in real-life examples of brisk walks…

SHOULD NOTE HOW ENMO WAS CALCULATED for ACCELEROMETER DATA - USING DOHERTY PAPER IN LIT REVIEW!!!

SHOULD CLARIFY HOW TO HANDLE THE COLLINEARITY ISSUE BETWEEN OVERALL PA, MVPA, VIGOROUS PA… Can take INTERACTIVE approach like Dempsey et al. in Eur Heart Journal or “multivariate pattern analysis”!!!!!!!!!!!!!!!!! (COMPOSITION DATA ANALYSIS AND A FEW APPROACHES)

POSSIBLY worth STRATIFYING BY SEX - GIVEN MUCH HIGHER CAD RISK AMONG MEN THAN WOMEN

ALSO NEED TO MAKE NOTE THAT I STANDARDIZED PGS - Zero mean and unit variance!!!!!!!

COULD \*ALSO\* BE INTRIGUING TO LOOK AT HOW CLINICAL RISK FACTORS COMBINED WITH THIS PGS AND PA MEASURES INFLUENCES ABILITY TO DISCRIMINATE RISK…

MIGHT WANT TO CONSIDER TRIMMING 5th and 95th percentile of PAEE or something along those lines…

FIGURE INSPO:

Diagram, engineering drawing

Description automatically generated

Graphical user interface, chart, diagram, histogram

Description automatically generatedPA Intensity distribution - ours would of course be way less involved…

Diagram, engineering drawing

Description automatically generated

Table

Description automatically generated with medium confidence

From NEJM study:

Chart

Description automatically generated

Table

Description automatically generated

Chart, line chart

Description automatically generated

Graphical user interface

Description automatically generated

Table

Description automatically generated

Chart

Description automatically generated