Data instructions

Description

This document was created to facilitate data usage regarding the following article:

> *Association of Cumulative Blood Pressure With Cognitive Decline, Dementia, and Mortality*
> *DOI: j.jacc.2022.01.045*

All original datasets constitute the analytical sample of the above article came from the Health and Retirement Study (HRS). We appreciate the remarkable efforts made by the HRS team for data collection and their contributions for facilitating access to the data. Researchers are required to use the shared dataset under the full compliance of Conditions of Use. Please note that the dataset does not contain any restricted HRS data, which is solely based on public use files.

SAS programming

The following codes will be required to read the SAS format file before using the dataset.

```
/**
Provided that the sasfmts file has been placed at the following
directory:
C:\Users\cheng\Desktop\data
**/


libname hrs_fmt "C:\Users\cheng\Desktop\hrs_data";


proc format cntlin=hrs_fmt.sasfmts2018;
run;
```

Additionally, the following code will be required to create the transposed dataset to conduct the linear mixed effects models analysis regarding cognitive decline.

```
data hrs_data_long(label="the transposed dataset for cognitive
decline");
  set hrs_data;
    array Zcom{5} Z_mem_f1-Z_mem_f5;/**calculated Z score of memory
from waves 10 to 14**/
    array Zcoe{5} Z_exe_f1-Z_exe_f5;/**calculated Z score of
executive function from waves 10 to 14**/
    array Zcoo{5} Z_ori_f1-Z_ori_f5;/**calculated Z score of
orientation from waves 10 to 14**/
    array Zcomean{5} Z_glob_f1-Z_glob_f5;/**calculated Z score of
global cognition from waves 10 to 14**/
   do wave=1 to 5;
      Z_mem = Zcom {wave};
    Z_exe =  Zcoe {wave};
      Z_ori = Zcoo{wave};
      Z_glob = Zcomean {wave};
    output;
   end;
run;

/**Please note that the time scale should be converted from wave to
year, as all waves were conducted at a biennial fashion**/
data hrs_data_long;
  set hrs_data_long;
  year=wave*2; /** This was the time scale variable for evaluating
annual decline rate in cognition **/
run;
```