This is an overview of programs used in the analysis for “Analysis of Dementia in the U.S. Population using Medicare Claims: Insights from Linked Survey and Administrative Claims Data,” by Yi Chen, Bryan Tysinger, Eileen Crimmins, and Julie Zissimopoulos.

**Pull Medicare enrollment information**

* bene\_enroll.sas **–** Pull begin and end dates for continuous enrollment in Part A and B for each beneficiary, using Medicare Beneficiary Summary Files
* sascontents.mac - Macro that runs contents on data set and outputs to specified folder
* renvars.mac – Macro that renames variable

**Pull Dementia Diagnoses**

* dementia\_dx.sas - Extract dementia diagnoses from all types of claims
* dementia\_dxdt\_typ.sas - Read files with all dementia diagnoses for a claim by type of claim and combine those with the same date of dx
* dementia\_dxdate.sas - Merge dementia diagnoses in all claim types by date
* dementia\_bene.sas - Make a beneficiary-level file that summarizes dementia dates, for all beneficiaries

**Derive Dementia State in HRS**

* prep\_hrs\_cognitive.do – Derive cognitive state variable using TICS and proxy measures. Require confirmed dementia/CIND or death in the next wave and an absorbing state of dementia

**Build Analytical Dataset**

* dementia\_bene\_wv.sas - Merges together dementia diagnosis, cognitive state, beneficiary enrollment, and RAND HRS variables
* sascontents.mac - Macro that runs contents on data set and outputs to specified folder
* renvars.mac - Macro that renames variable
* wvlist.mac - Macro that lists HRS variable
* wvlabel.mac - Macro that labels HRS variable
* make\_analytical.do - Add covariates and clean analytical sample

**Analysis**

* descriptive.do - Person-wave descriptive statistics (Table 1)
* concordance\_prev.do - Analysis of prevalence (Table 2, Figure 1, Supplementary Table 1, Supplementary Table 2)
* concordance\_inci.do - Distribution of concordance in incidence (Table 3)
* incidence\_subsample.do - Analysis of incidence subsample (Figure 2, Supplementary Table 3, Figure 3, Supplementary Table 5, Supplementary Table 6)
* cog\_change.do - Change in HRS cognitive score around incident dementia (Supplementary Table 4)