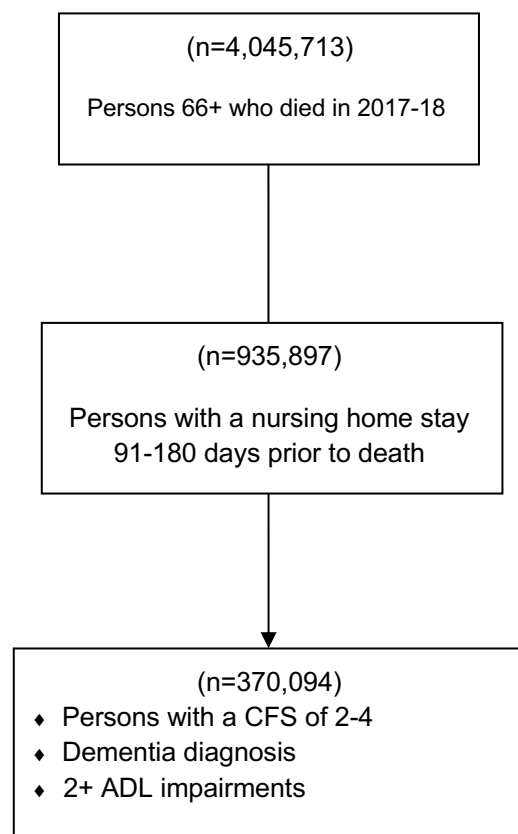## Supplementary Appendix

The following figure and tables provide additional information about the research in the paper.

Supplementary Figure 1- documents the sample flow starting with all Medicare beneficiaries who died in 2017 and 2018 who were age 66 and older. In order to utilize the rich set of covariates in the Minimum Data Set, we required the decedent to have a nursing home stay between 91 and 180 days prior to death. The sample cohort was eligible if they had a dementia diagnosis documented in the Minimum Data Set, a level of cognitive impairment that was mild to severe based on the Cognitive Function Scale, and two or more impairments in the Activities of Daily Living.

Supplementary Figure 1- Sample flow

```
┌─────────────────────────────────────┐
│          (n=4,045,713)              │
│                                      │
│   Persons 66+ who died in 2017-18   │
└─────────────────────────────────────┘
                   │
                   ▼
┌─────────────────────────────────────┐
│           (n=935,897)               │
│                                      │
│   Persons with a nursing home stay  │
│       91-180 days prior to death    │
└─────────────────────────────────────┘
                   │
                   ▼
┌─────────────────────────────────────┐
│           (n=370,094)               │
│   ♦ Persons with a CFS of 2-4       │
│   ♦ Dementia diagnosis              │
│   ♦ 2+ ADL impairments              │
└─────────────────────────────────────┘
```

Because persons may choose to disenroll form MA plans or attribution to an ACO may change from one year to another, we choose to use different cut points to assign a person to an MA plan or ACO. For MA plans, we examined enrollment on the 12th month prior to death. ACO attribution is based on health care provider E and M billing with final attribution based on data from January 1st to December 31st. For 2018 deaths, we used the final attribution for 2017 and for 2017 deaths, we used the final attribution of 2016. All analyses used the similar set of covariates documented in the methods section.

Supplementary table 1: Utilization outcomes based on different assignment to MA or ACO.

Adjusted Outcomes	Traditional Medicare	MA At Death	MA One year prior to death	ACO at Death	ACO one year prior to death
Hospital in last 30 days	Ref	0.72 (0.70, 0.74)	0.78 (0.76, 0.81)	1.05 (1.02, 1.09)	1.04 (1.01-1.08)
Died in Hospital	Ref	0.78 (0.75, 0.81)	0.83 (0.79, 0.86)	1.02 (0.96, 1.08)	1.06 (1.01, 1.12)
IMV	Ref	0.79 (0.75, 0.85)	0.86 (0.81, 0.91)	1.04 (0.92, 1.12)	1.08 (1.00, 1.16)

A second sensitivity analysis was to see if these findings hold for those decedents classified as having severe cognitive impairment. In this analysis, we use a Cognitive Function Scale score of 4, indicating severe cognitive impairment.

Supplementary table 2: Sensitivity analysis among those with severe cognitive impairment

Adjusted Outcomes	Traditional Medicare	MA At Death	ACO at Death
Hospital in last 30 days	Ref	0.68 (0.64, 0.72)	1.02 (0.94, 1.11)
Died in hospital	Ref	0.74 (0.67, 0.82)	0.96 (0.83, 1.10)
IMV	Ref	0.79 (0.79, 0.89)	1.00 (0.84, 0.94)

Supplementary table 3: Analysis restricted to only those institutions that took Indirect Medical Education (IME) funding and the hospital was not classified as a critical access hospital

Adjusted Outcomes	Traditional Medicare	MA at Death Analysis all Hospitals	MA at Death Restricted to Hospitals that took IME	ACO at Death all hospitals	ACO at Death Restricted to Hospital that took IME
Hospital in last 30 days	Ref	0.72 (0.70, 0.74)	0.82 (0.79, 0.85)	1.05 (1.02, 1.09)	1.07 (1.03-1.12)
Died in hospital	Ref	0.78 (0.75, 0.81)	0.85 (0.80, 0.89)	1.02 (0.96, 1.08)	1.02 (0.94, 1.10)
IMV	Ref	0.79 (0.75, 0.85)	0.81 (0.75, 0.86)	1.04 (0.92, 1.12)	1.05 (0.96, 1.15)