Paper Title: The impact of Medicare Advantage on healthcare utilization for beneficiaries with Dementia

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Over seven million adults in the U.S. are living with Alzheimer's disease or Alzheimer's disease–related dementias (ADRD). Beyond cognitive impairment, most individuals with ADRD experience numerous comorbid conditions. Consequently, clinical management of these patients requires interaction with many providers and services.

Medicare Advantage (MA) offers an opportunity to improve efficiency and quality of care for beneficiaries with ADRD. MA plans face strong financial incentives to manage chronic conditions, coordinate services, and limit avoidable health care use. Compared with Traditional Medicare (TM), MA plans may rely more on care coordination tools, chronic disease management programs, and preventive services for high-need, high-cost beneficiaries such as those with ADRD. At the same time, MA's cost-control strategies raise concerns about potential reductions in necessary and beneficial care for this vulnerable population.

The limited prior research comparing healthcare use between ADRD beneficiaries in MA and TM finds fewer inpatient hospital admissions, outpatient visits, and long-term care stays in MA, with no differences in care satisfaction. However, prior research is primarily cross-sectional, comparing outcomes between MA and TM while adjusting for observed characteristics. Because MA enrollment is voluntary and MA enrollees tend to be healthier than those in TM, cross-sectional estimates may be biased and overstate MA's benefits. Additionally, higher disenrollment from MA among beneficiaries with ADRD suggests gaps in the program's ability to adequately serve this population.

This study uses a natural experiment created by five states (AL, AZ, CO, CT, NJ) that shifted their retiree health benefits from supplemental plans covering cost sharing in TM to sponsored MA plans between 2016 and 2019 to estimate the causal impact of MA enrollment on healthcare utilization among beneficiaries with ADRD.

Outcomes include outpatient care, inpatient care, post-acute care, and imaging/testing. Using event study regressions, we estimate effects of MA on quarterly outcomes during the year before and after the benefit change among ADRD beneficiaries, comparing state retirees (treatment group) to other FFS enrollees with Part D coverage in the same states.

We find that 91% of state retirees with ADRD switched to MA after the benefit change, compared to 5% in the control group. Preliminary results (all per 1000 beneficiaries per quarter) indicate state retirees experienced more annual wellness visits (19.7; $p=0.001$) and home visits (42.7; $p<0.001$), but fewer behavioral health visits (-47.7; $p<0.001$) than the comparison group. State retirees experienced fewer hospitalizations (-17.9, non-significant), but more observation stays (8.8; $p=0.001$) and no difference in ER visits relative to the comparison group. For post-acute care, state retirees had fewer skilled nursing stays and more home health episodes. Differences in imaging and testing were non-significant, except

laboratory tests which was higher in the state retiree group relative to the comparison group (270; p=0.018). There were no differences in days spent in an institution.

Our results suggest that MA enrollees with ADRD used less intensive care (hospital and post-acute care) and more preventive services (annual wellness visits and home visits), without any adverse effect on health and functional status, which may imply greater efficiency in care.

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