Role of Home-based Medical Care and Telemedicine in Care and Outcomes of Dementia and Coexisting Conditions in Public and Private Medicare

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Background

- Persons living with dementia (PLWD) have multiple chronic conditions and need tailored medical management

- PLWD experience worsening functional impairment and struggle to access office-based medical care

- Availability of home-based medical care (HBMC) ("house-calls") is limited

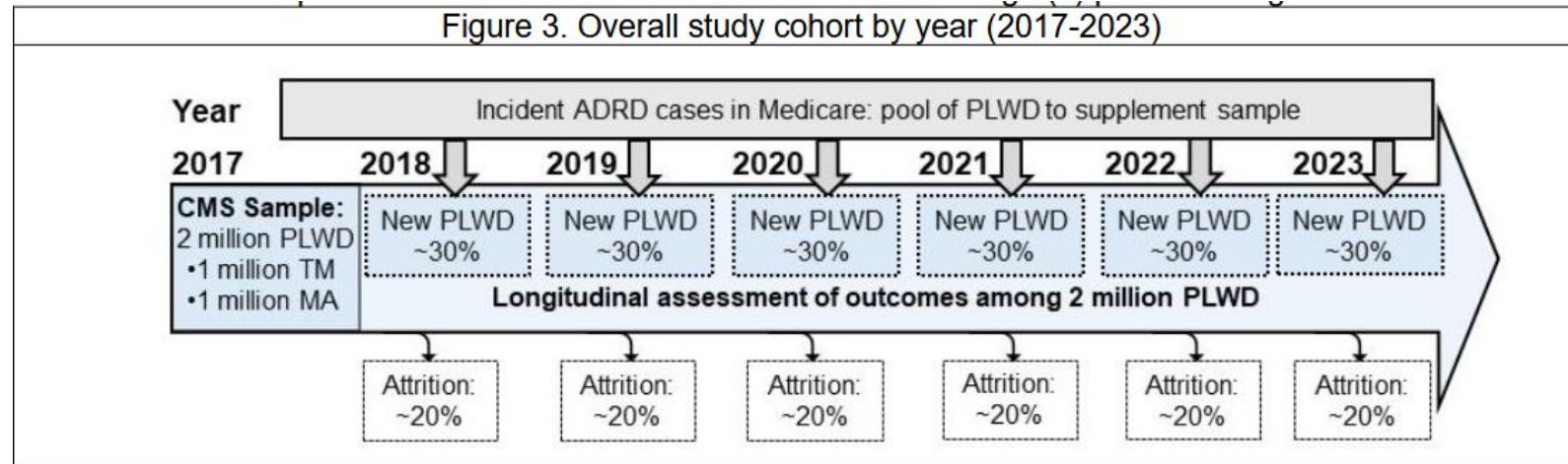- Since 2020, telemedicine offers another alternative

Research Objective

Objective: To examine HBMC and telemedicine use among PLWD in Traditional Medicare (TM) and Medicare Advantage (MA) and their impact on patient outcomes and disparities

- Aim 1: Characterize the prevalence and intensity of HBMC, telemedicine, and office-based medical care use in TM & MA during 2017-2023.

- Aim 2: Estimate and compare the impact of HBMC use on outcomes in TM and MA.

- Aim 3: Estimate and compare the impact of telemedicine on outcomes in TM and MA.

- Aim 4: Estimate the impact of HBMC and telemedicine use on outcomes stratified by sex, race, ethnicity, income, area deprivation, co-existing serious illness, and high need in TM and MA.

Data Source & Study Population

- TM and MA enrollees aged 67+ with ADRD diagnosis (CCW algorithm)

- Random sample of HRRs (expected ~70%)

- Claims/encounter data; MDS & OASIS assessments

Figure 3. Overall study cohort by year (2017-2023)

- Secondary data: HRS + Medicare

Key Measures & Outcomes

- Exposure: HBMC and/or telemedicine (with office-based)

- Primary Outcomes: Days spent at home, potentially preventable acute complications, medication deprescribing, time to transition to long-term care, death, Medicare spending

- Secondary Outcomes: Treatment for ADRD, overall contact days, continuity of care, specialist visits, transition to hospice

Analytic Approach

- Impact of HBMC: 2-stage least squares regression to estimate effect of HBMC on patient outcomes with distance to nearest HBMC provider as an IV
  - Interaction with TM/MA to compare impact in TM vs. MA

- Impact of telemedicine: Difference in differences least squares regression (pre/post telemedicine expansion) to estimate the effect of telemedicine use on patient outcomes
  - Interaction with TM/MA to compare impact in TM vs. MA

Implications for the Economics of ADRD

- Descriptive evidence on the use of HBMC, telemedicine, and office-based visits among PLWD
  - Among TM and MA enrollees
  - Among subgroups of interest (high-need, race/ethnicity, low income)
- Extent to which HBMC and telemedicine may improve patient outcomes and reduce Medicare spending
- Will inform ways to promote & extend dementia care at home

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Leveraging the Coordinating Center

- Share information (online site)
  - Data sources; public data
  - Identification / definition of ADRD, health status indicators, subgroups, resource used
  - Code
- Open hours (virtual) for Q & A
- Work in progress presentations