



Health care use patterns among older adults with dementia

National data snapshots across emergency departments, hospitals, and skilled nursing facilities

Older adults with Alzheimer's disease and related dementias (ADRD) have unique needs that may result in increased use of emergency departments (ED), hospitals, and skilled nursing facilities (SNF). Analyses to date have focused on encounter- or beneficiary-level outcomes. However, little is known regarding how key characteristics of individual facilities (i.e., hospitals) impact care seeking patterns among older adults with ADRD.

CAPRA DATA BRIEF

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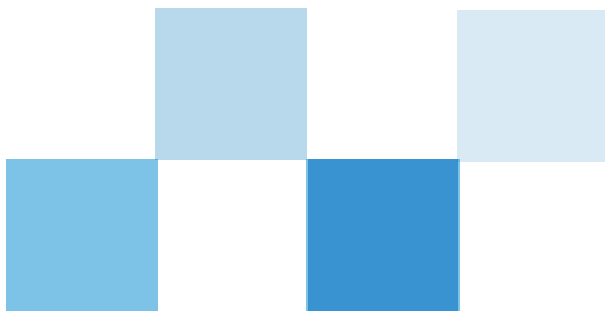
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This work is an important first step in providing foundational data regarding the frequency in which older adults with ADRD seek care across various types of facilities.



These findings underscore the national importance of planning future resources for the growing American population with ADRD across acute and post-acute care settings.

Medicare Fee-For-Service (FFS) claims data have increasingly been leveraged for health services research on ADRD, with the data capturing a large proportion of American citizens aged 65 years and older. Here we demonstrate the use of Medicare claims to examine health care use patterns among older adults with ADRD using datasets provided by the [NIA Impact Collaboratory](#).

What we did.

Using 100% Medicare data from 2019, we identified all Medicare FFS beneficiaries and FFS beneficiaries with ADRD using the [Bynum 1-Year Standard Method](#). Beneficiaries were required to be 65 years or older at the start of the year and live in the United States. We then identified all hospital-based ED visits, short stay hospitalizations (including observations), and SNF claims from these beneficiaries. For each provider in the three settings, we calculated the number of beneficiaries and events for those with and without ADRD. In addition, for each setting of care we stratified by:

- 1.) urban setting,
- 2.) hospital size (hospitals and EDs only), and
- 3.) teaching status (hospitals and EDs only).

Each hospital's Rural-Urban Commuting Area (RUCA) codes were added using data from the Economic Research Service Department of the U.S. Department of Agriculture. Information on number of hospital beds and teaching status were gathered using 2017 hospital provider data from [Dartmouth Atlas](#).

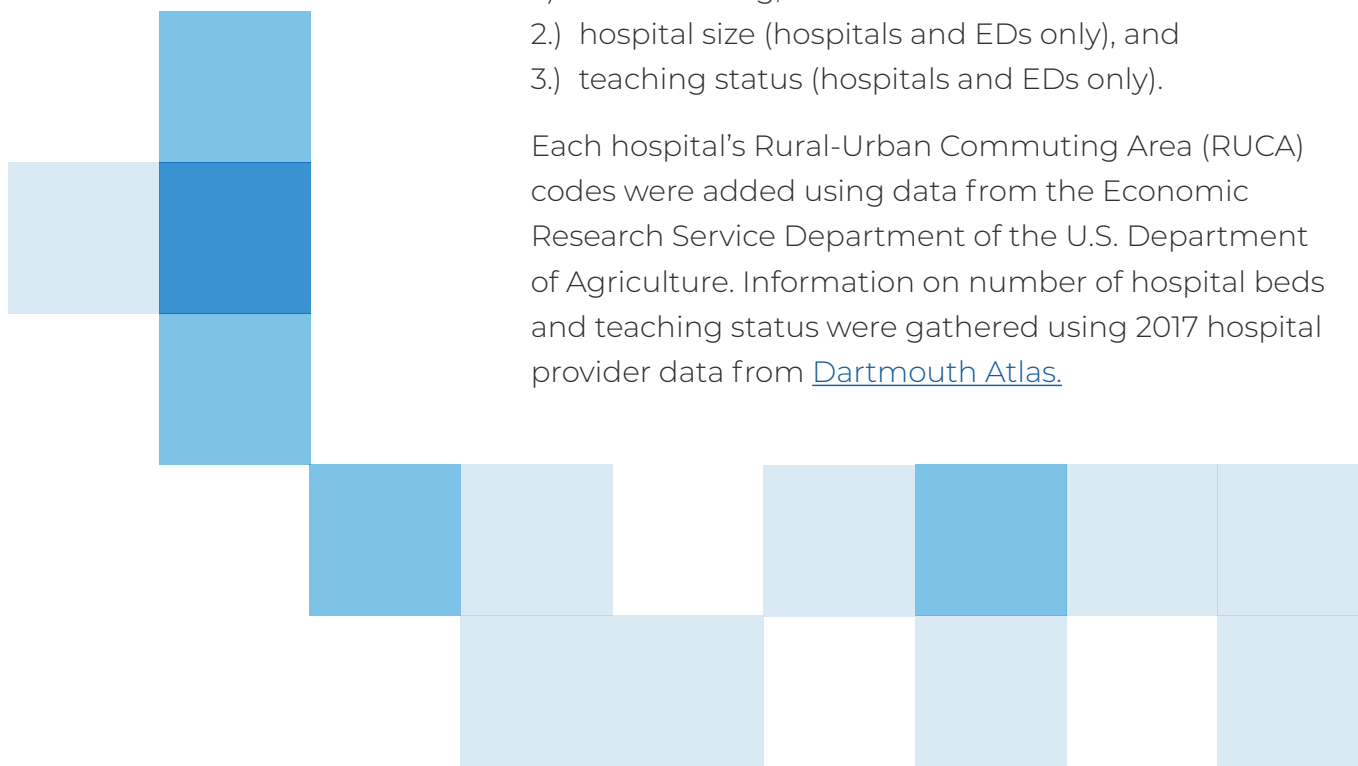


Figure 1
Variation in Percentage of ADRD Events per Facility by Facility Type

■ Mean

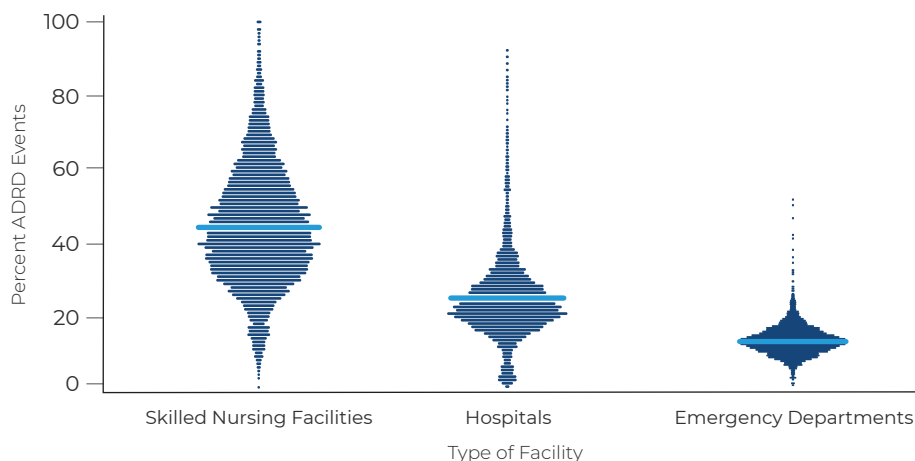
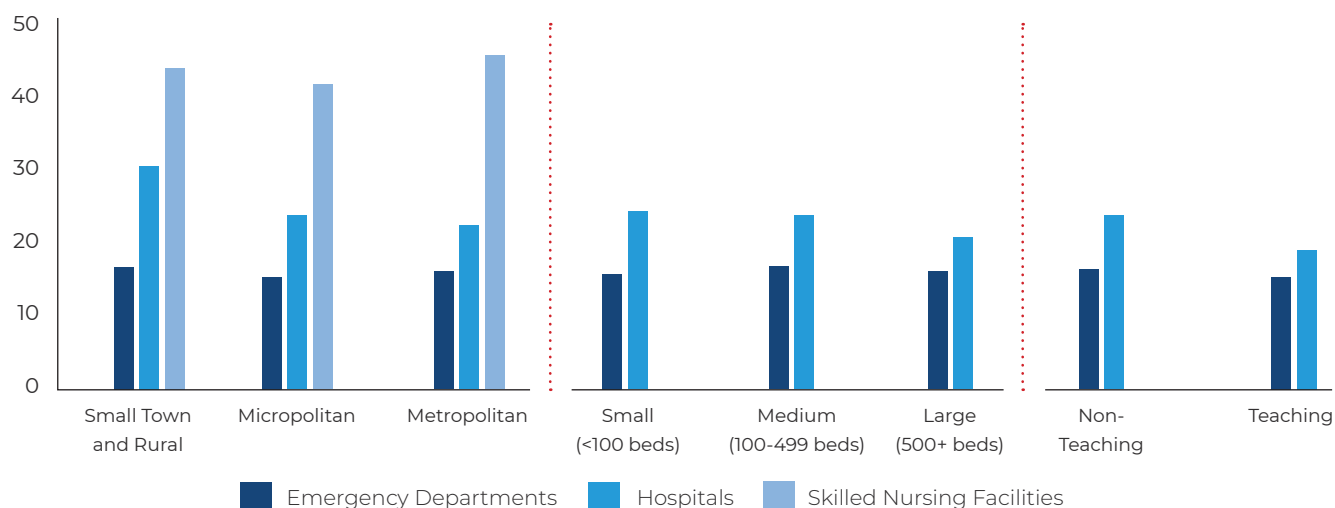


Figure 2
Mean Percent of Events from ADRD Patients Across Provider-Level Characteristics



What we found.

- Among Medicare FFS beneficiaries, U.S. older adults with ADRD accounted for a mean of 16.0% of visits at EDs, 23.2% of admissions at hospitals, and 44.2% of encounters at SNFs in 2019.
- Across urban settings, the mean proportion of ED and SNF encounters by those with ADRD were similar. In contrast, those with ADRD accounted for a greater mean proportion of admissions at hospitals in small town and rural settings (30%) than micropolitan (23.6%) or metropolitan (22.2%) settings.
- Those with ADRD accounted for a greater mean proportion of admissions at small (23.6%) and medium (23.4%) hospitals compared to larger hospitals (20.1%).
- Those with ADRD accounted for a greater mean proportion (23.6%) of admissions at non-teaching hospitals compared to teaching hospitals (18.8%).

What does this mean for ADRD research?

This report demonstrates the use of national claims data to evaluate health care use patterns across settings among patients living with ADRD. With 8% of Medicare FFS beneficiaries nationally estimated to have ADRD, these analyses identify the increasing proportion of services that are required by these patients as the intensity of care increases from ED to hospitalization to SNF. While slight differences were present, the proportion of events among those with ADRD in each of the three settings remained relatively stable across several key hospital characteristics. These findings underscore the national importance of planning future resources for the growing American population with ADRD across acute and post-acute care settings.

The data used to create this brief report are available and can be found at the [CAPRA data resources](#) page.

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