The utilization of dementia medications has significantly increased over the observed period, with a particularly notable surge occurring between 2016 and 2020

Trend analysis in Prevalence of Dementia Medications: a perspective from Taipei Medical University

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Introduction: The global prevalence of diagnosed dementia is expected to increase dramatically from 57.4 million cases in 2019, with an uncertainty range of 50.4-65.1 million, to nearly three times this figure by 2050. Further research is required to gain a deeper understanding of the utilization, distribution, and prescribing trends of dementia medications.

Methods

Data source: Taipei Medical University Clinical Research Database (TMUCRD) which was mapped into OMOP-CDM

Target Population: Patients who have the condition occurrence of dementia for the first time in the patient's history, with continuous observation of at least 0 days after event index date and limit initial events to earliest event per person. Subjects should also receive medication for dementia (Donepezil, Rivastigmine, Galantamine, and Memantine) to ensure that they meet the accurate diagnosis.

Analysis: The analysis was conducted using IncidencePrevalence package version 0.7.4

Diagnosis	ICD 10	SNOMED-CT
Dementia	F02.x, F03.x, G31.8	52448006, 56267009, 15662003, 230270009, 12348006, 230288001, 762707000, 79341000119107
Alzheimer	F00.x G30.x	26929004
Vascular Dementia	F01.x	429998004

ATC Name	ATC Code	RxNorm Ingredient Code
Donepezil	N06DA02	135447
Rivastigmine	N06DA03	183379
Galantamine	N06DA04	4637
Memantine	N06DX01	6719

Results

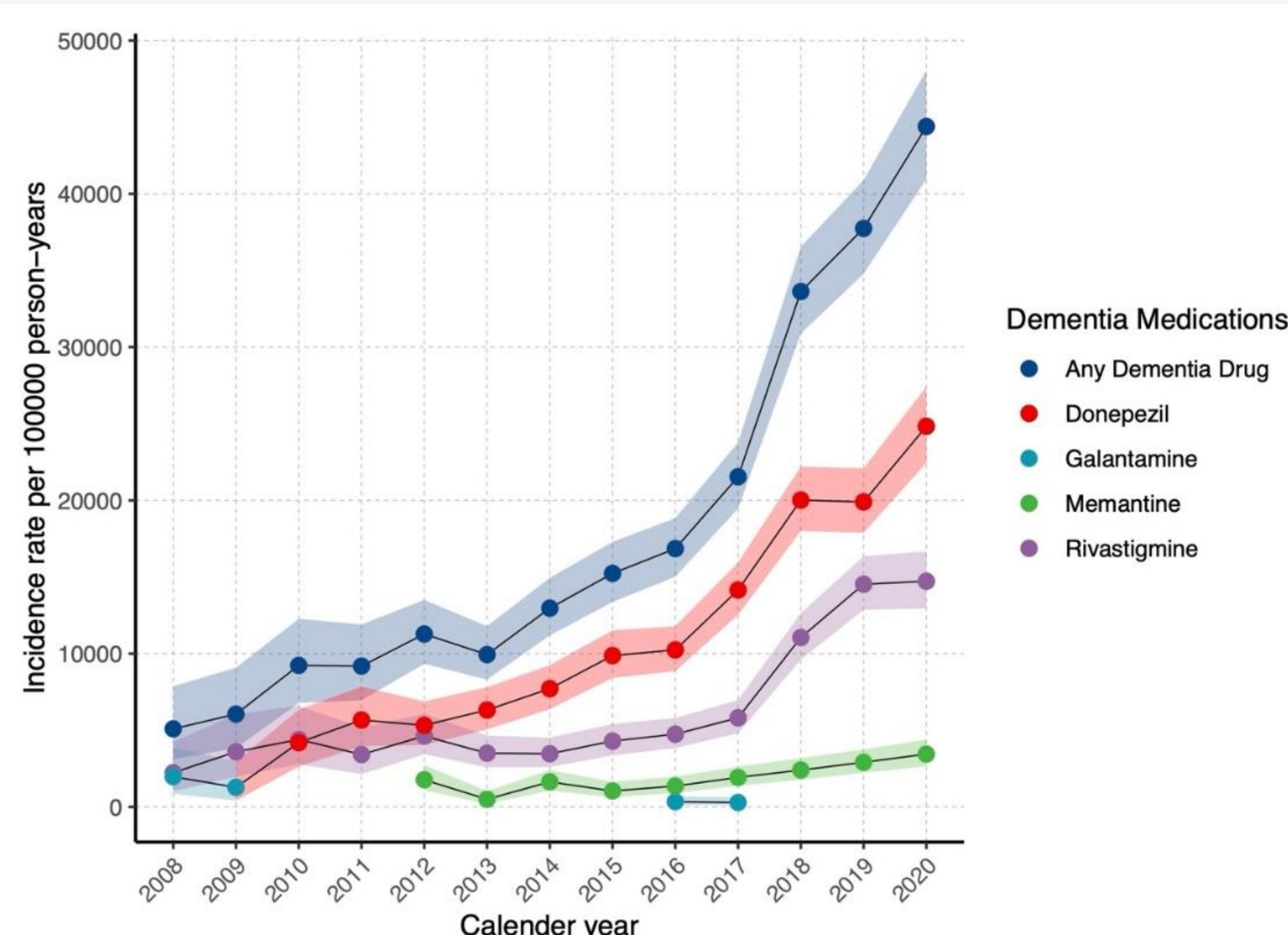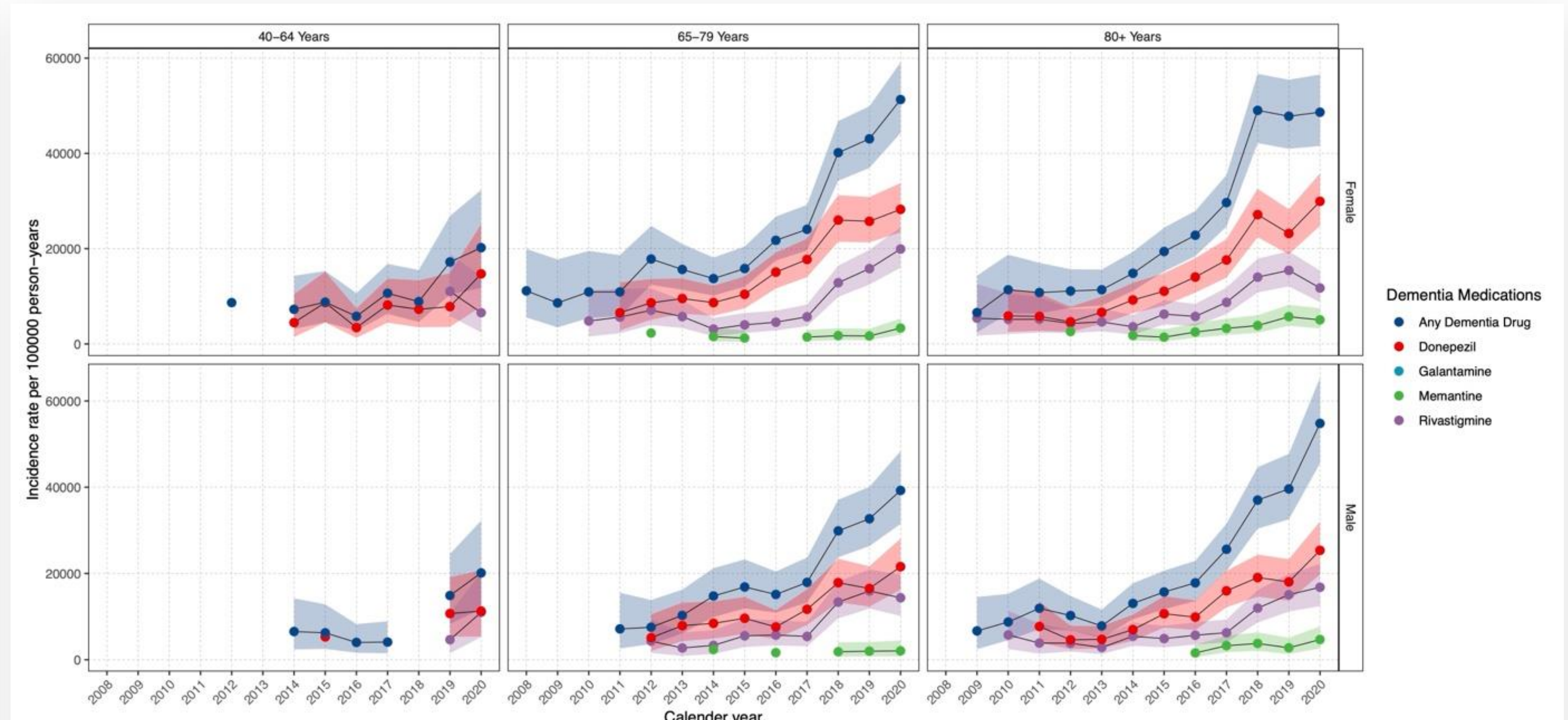**Figure 1**: Trends in Dementia Medication Incidence Rates (2008–2020)

Figure 2. Incidence Rates of Dementia Medication Use by Age Group and Gender (2008–2020)

Conclusion: Donepezil remains the most frequently prescribed drug for dementia, followed by Rivastigmine, both demonstrating significant growth in usage. In contrast, Galantamine and Memantine show relatively lower and more stable usage patterns. A stratified analysis by age and gender reveals that the highest prescription rates occur in the oldest age group (80+ years), with women generally exhibiting higher usage rates than men. This trend underscores an increasing reliance on dementia medications, particularly among older adults, signalling a rising demand for dementia care in this demographic.

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