Poster: EE31

Identifying Equity-Relevant Subgroup Effects in Alzheimer's Disease: A Literature Review to Support a Distributional Cost-Effectiveness Analysis

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Background & Objective

- Development of novel therapies for Alzheimer's disease (AD) has accelerated. To understand the value of new treatments, policymakers have referenced conventional cost-effectiveness analyses (CEAs), which do not provide information about the distribution of costs and health benefits.
- The health and economic impacts of AD disproportionately affect older adults, women, people of color, and individuals with lower levels of wealth and education.
- Distributional cost-effectiveness analysis (DCEA) can quantify the potential impact of AD and its treatment on concerns of health equity.
- **Objective:** Identify literature on equity-relevant subgroup effects to inform a DCEA of a hypothetical treatment for early AD.
  - We sought evidence pertinent to subgroups stratified by race/ethnicity and measures of social determinants of health (e.g., social vulnerability index).

Methods

Eligibility: English-language publications from 2012 – 2022 with focus on US care setting

Targeted Literature Search: PubMed, Ovid MEDLINE, Embase, PsychInfo, Cochrane, EconLit, CINAHL, Scopus, grey literature, and Tufts CEA Registry

Results

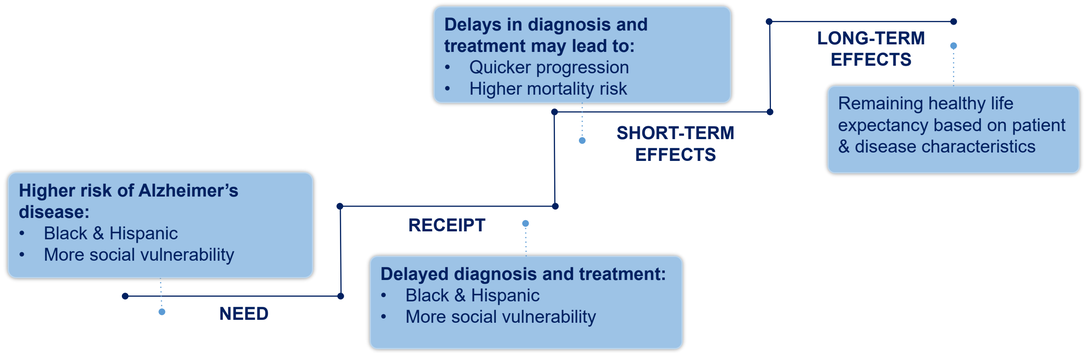
Evidence Available to Support DCEA

No evidence identified | Weak or inconsistent evidence | Sufficient evidence

Evidence Domain	Variable	Non-Hispanic Black	Non-Hispanic White	Hispanic / Latinx	Asian / Pacific Islander	American Indian / Alaska Native	Level of Social Vulnerability
Epidemiology	Prevalence MCI due to AD	●	●	●	◐	◐	◐
	Prevalence mild AD	●	●	●	◐	◐	◐
Characteristics at Diagnosis	% Female	●	●	●	○	○	○
	Age	●	●	●	○	○	○
	% MCI due to AD	●	●	●	○	○	○
	% Mild AD	●	●	●	○	○	○
Disease Progression	Progression to more severe AD stage	○	○	○	○	○	○
	Risk of death by AD stage	◐	◐	◐	◐	◐	◐
	Progression to long-term care	◐	◐	○	○	○	○
Health-Related Quality of Life	Utilities by AD stage	○	○	○	○	○	○
Caregiver Impact	Time spent caregiving	●	●	○	○	○	○
	Number of caregivers	○	○	○	○	○	○
Costs	Out-of-pocket costs	◐	◐	◐	◐	○	○
	Cost of long-term care	●	●	●	●	○	○

Figure note: MCI = mild cognitive impairment; AD = Alzheimer's disease; DCEA = distributional cost-effectiveness analysis

Equity Ladder for Treatment of Early Alzheimer's Disease



- **Robust evidence** is available for Non-Hispanic Black, Non-Hispanic White, and Hispanic/Latinx subgroups.
  - Several studies reported **higher prevalence** and **delayed diagnoses** of AD among Black and Hispanic patients compared to White patients.
- Some evidence suggests **lower out-of-pocket spending** and **mortality** among Non-White subgroups, although estimates may be confounded by other factors.
- **Limited evidence** was identified for Asian/Pacific Islander, American Indian/Alaska Native, and subgroups defined by level of social vulnerability.
- There is **uncertainty** about the **existence and magnitude of disparities** between subgroups related to AD progression, health-related quality of life, and caregiver impact.

Conclusion

- Gaps in the evidence highlight the need for systematic data collection across equity-relevant subgroups, particularly groups defined by level of social vulnerability.
- Despite uncertainties, there is sufficient evidence available to evaluate the equity impact of emerging therapies to treat early AD.
- Our forthcoming DCEA will also explore the potential impact of policies affecting access to amyloid-targeting therapies (e.g., Medicare's coverage with evidence development and prescribing requirements to confirm amyloid positivity).

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