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Original Article

American's overall and equity-based societal valuation of a disease-modifying Alzheimer's treatment: Results from a discrete choice experiment

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ABSTRACT

Objectives: To estimate Americans' willingness-to-pay (WTP) for universal access to a disease-modifying Alzheimer's disease (AD) treatment with a discrete choice experiment in a nationally representative sample. As part of this experiment, we examined whether providing information about the higher disease burden among minorities and persons of lower socioeconomic status (SES) changes WTP.

Methods: We conducted an information experiment using the nationally representative Understanding America Study (UAS) panel. Participants were provided with general information about AD and a hypothetical treatment that reduces disease progression by 30 %. Two-thirds of the sample were randomized to receive additional information about the higher prevalence of Alzheimer's among either lower SES groups or racial/ethnic minorities. We measured participants' WTP for making the treatment nationally available as a fixed annual fee and income-proportionate fee. Differences in WTP between those exposed to the additional information and those who were not provide the societal valuation of the equity-enhancing effects of the AD treatment.

Results: Average valuations were $252, $260 and $247 per year, and 0.59 %, 0.59 % and 0.61 % of earned income, for the control, race/ethnicity and SES frames, respectively—all statistically indistinguishable. These average results imply that Americans would be willing to pay $33.7 billion based on the fixed fee and $51.4 billion based on the income-related charge for universal access to an AD treatment annually, but their valuation does not further increase when informed about equity considerations.

Conclusions: While Americans value universal access to an AD treatment highly, health equity considerations did not significantly alter respondents' WTP.

1. Introduction

The approval of lecanemab as the first disease-modifying Alzheimer's disease (AD) treatment in the U.S. in July 2023 and subsequently in Japan, China and South Korea represents a paradigm-shifting event. After numerous failed attempts to modify the disease trajectory pharmacologically, the monoclonal antibodies lecanemab [1] and donanemab [2], which remove beta-amyloid deposits from the brain, have proven capable of slowing down the progression of the disease in phase 3 trials.

While eagerly awaited by patients and their families, the potentially large eligible population has raised concerns about the new treatments' financial cost to society. Currently, around 8 million individuals in the U.S. have MCI [3], with AD being the underlying etiology in over half of these cases [4]; numbers that are likely to grow due to population ageing. Including cost of treatment administration and monitoring, Arbanas et al. projected that treatment with lecanemab could result in an estimated $2 billion to $5 billion annual cost in the U.S [5]. Jönsson et al. estimated that 5.4 million individuals in the 27 EU countries could potentially be eligible for treatment with lecanemab, with treatment costs exceeding 133 billion EUR, assuming U.S. list prices [6].

While uptake of lecanemab thus far has been relatively modest, with an estimated 2000 -3000 patients [7] in the first half year after traditional FDA approval, historic data suggest that uptake of new treatments peaks in the sixth year after introduction. Thus, utilization of disease-

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modifying AD treatments is expected to be substantial in the future, as sales tend to peak 4 to 9 years after launch [8], and societies will need to determine what resources to devote to this therapeutic area versus others. Willingness to pay (WTP) measurements are used to inform resource allocation decisions in public policy when valuations cannot be determined based on market transactions [9]. This situation commonly arises in healthcare, as the presence of insurance distorts markets and demand arises only when need arises due to illness [9].

In this study, we used a discrete choice experiment with a nationally representative sample to estimate how much Americans would be willing to pay to provide universal access to a disease-modifying AD treatment. In addition, we provided information to a random subset of respondents about the higher prevalence of AD in disadvantaged groups. This allows us to investigate whether the redistributive properties of such a treatment affect its valuation. This is an important question, as AD has similar risk factors to cardiovascular disease, resulting in higher incidence and prevalence in persons of lower socioeconomic status and communities of color [10], although it remains unclear whether the true prevalence is elevated since amyloid positivity has not been consistently confirmed in these population [11].

2. Methods

We conducted an information experiment in a nationally representative, probability-based internet panel. We provided all respondents with information about Alzheimer's disease (AD), its effects, and the expected benefit of a hypothetical treatment. In addition, two-thirds of the sample was randomized with equal probability into receiving either information about the disproportionate burden of the disease on: [1] persons of lower socioeconomic status, or [2] racial/ethnic minorities to test whether such framing affected WTP. We then elicited respondents' willingness-to-pay (WTP) to provide the new treatment to all Americans who need it.

2.1. Experimental design

2.1.1. Sample selection

We drew our sample from the Understanding America Study (UAS), a nationally representative, probability-based internet-panel [12]. A key feature of the UAS is that it provides broadband internet access and a tablet to those who cannot afford it. This mitigates selection problems facing convenience panels that draw from existing internet users, which harms representativeness, particularly among persons of color and individuals with low socioeconomic status.

We drew a random sample of 8260 UAS participants oversampling non-Hispanic Blacks (1930) and Hispanics (2110). The remaining half of the sample was drawn from randomly selected participants from other demographic groups (non-Hispanic White, Asian, Pacific Islander, Native American or "other"). We stratified our randomization in this way to allow enough statistical power to estimate heterogeneity by race/ethnicity. Weights were provided by the UAS to produce nationally representative estimates.

2.1.2. Survey

The survey was pre-tested with 8 cognitive interviews with participants of varying levels of education to ensure that the descriptions of AD and the disease-modifying treatment were easily understood and interpreted as intended. Participants in the cognitive interviews universally understood the presented information and were able to explain it in their own words.

In the experiment, participants were randomly assigned to either a control condition or one of two experimental groups. The control group received a disparities-neutral description of AD. The experimental groups received the same information as control, [1] along with an additional sentence highlighting that AD is twice as common in racial/ethnic minorities or individuals with low SES, respectively. Prior research has found that older adults with low SES are around one and a half to two times as likely to have AD or other dementias, depending on the population understudy and measure of SES employed. [13,14] Similarly, prior research has consistently found higher rates of dementia among black and Hispanic older adults relative to non-Hispanic whites. While estimates vary, some studies have found rates approximately twice as high among minority older adults, many studies reporting this disparity lack definitive biomarker confirmation or biologically diagnosed cases [15–18]. We kept the presented rate of increased incidence the same across the experimental groups to facilitate comparison. The full text of the intervention is documented in the Appendix.

2.1.3. Willingness to pay elicitation

All respondents were presented with a description of a hypothetical Alzheimer's treatment that would reduce disease progression by 30 %, and subsequently were asked about their willingness to pay to provide universal access. Willingness to pay was elicited with two scenarios, first in a manner where contributions were proportional to income, and second as a fixed monetary amount. Starting values were 0.05 percentage points of earned income and an annual charge of $25, respectively. Respondents were presented with progressively smaller/larger values as they rejected/accepted previous amounts until they reached a final convergent choice, the minimum possible cost (0.0001 % of earned income / $0.05 per year), or the maximum possible cost (1.55 % of earned income / $775 annual fee). The exact increments are detailed in the Appendix.

At the end of the survey experiment, participants were asked knowledge questions about differences in AD prevalence among various demographic groups to measure the impact of the treatment on knowledge.

2.1.4. Statistical analysis

We tested our hypothesis that framing the burden of AD in terms of disparities would impact WTP using a linear regression that predicted a respondent's final valuation as a function of group assignment and respondent characteristics, including age, sex, race/ethnicity, education, income, cognitive ability, and state of residence. Eq. 1 illustrates the specification:

$$Y_i = \alpha + \beta_1 SES + \beta_2 RaceEthn + \gamma X_i + \varepsilon_i \quad (1)$$

Where Y_i captures individual *i's* stated valuation, SES and $RaceEthn$ are indicator variables capturing random assignment to the socioeconomic and person of color framing described above, and X_i is the vector of respondent *i*'s characteristics. The coefficients of interest, β_1 and β_2, capture the effects of the socioeconomic and race/ethnicity framing, respectively, relative to the neutral framing adjusting for respondent characteristics. This approach represents an intent-to-treat analysis, as we analyze each respondents' answers based on their random assignment, irrespective of whether their responses to the knowledge questions described above were correct.

We pre-registered our hypotheses and analysis plan under the American Economic Association RCT registry with code AEARCTR-0012931.

2.1.5. Ethics considerations

Our study was reviewed and approved by BRANY SBER IRB in December 2023.

3. Results

3.1. Sample description

The survey was conducted between April 7 and June 10, 2024. We obtained 5764 responses, resulting in an overall response rate of 70 %. Among the respondents, 1348 respondents were Hispanic, 1139 were non-Hispanic Black, 2655 where non-Hispanic White, and 622 were non-Hispanic of another race. Additionally, 1927 respondents were from households with incomes below $40,000 per year.

Table 1
Baseline characteristics of the study sample.

Variable	1 Control	2 T: Increased prevalence among low SES	3 T: Increased prevalence among minority populations	(1) vs. (2), p-value	(1) vs. (3), p-value	(2) vs. (3), p-value
Male	0.370	0.377	0.374	0.658	0.807	0.847
	(0.011)	(0.011)	(0.011)			
Hispanic	0.232	0.241	0.229	0.509	0.821	0.375
	(0.010)	(0.010)	(0.010)			
White	0.482	0.458	0.453	0.139	0.076	0.753
(non-Hispanic)	(0.011)	(0.011)	(0.012)			
Black (non-Hispanic)	0.181	0.202	0.215	0.105	0.009	0.299
	(0.009)	(0.009)	(0.010)			
Other	0.110	0.106	0.110	0.657	0.999	0.660
(non-Hispanic)	(0.007)	(0.007)	(0.007)			
Years of education	14.887	14.850	14.724	0.624	0.036	0.102
	(0.054)	(0.053)	(0.056)			
Age	50.465	50.847	50.367	0.463	0.852	0.357
	(0.371)	(0.365)	(0.373)			
N	1907	1981	1876			

Table 2
impact of information on knowledge of differential AD prevalence.

	Correct: Race	Correct: Hispanics	Correct: SES
Treatment Race/Ethnicity	0.395***	0.390***	0.035**
	(0.014)	(0.013)	(0.015)
Treatment SES	0.135***	0.112***	0.303***
	(0.014)	(0.013)	(0.014)
Observations	5708	5713	5716
R-squared	0.126	0.142	0.086
Mean dependent variable for respondents in control group	0.124	0.0827	0.199

Source: Authors' calculations using the full experiment data (UAS 611, retrieved on June 10, 2024).
Notes:. Linear regression models. Dependent variable is an indicator of whether the respondent correctly answered the question of which racial/ethnic/SES group is more likely to be affected by AD. Standard errors in parentheses. Asterisks indicate results are statistically different from zero: * (10 %), ** (5 %), *** (1 %).

Table 1 shows the background demographic characteristics by randomization group. The three groups are observably and statistically similar, consistent with valid randomization.

3.2. Intervention effectiveness

Table 2 shows the interventions' effect on participants' knowledge of differential AD burden. The results show that 50 % of respondents in the low SES frame correctly reported that low SES individuals face higher burden, and over 52 % of respondents in the race/ethnicity frame correctly responded that minorities face higher burden. However, only 12 % of the control group answered the SES question correctly, and less than 20 % answered the race and ethnicity knowledge questions correctly.

3.3. Intent-to-treat results - unadjusted

Table 3 displays the mean and median valuations for both elicitation approaches across all three groups and translates these individual valuations into national estimates. The median valuation in all three groups was a willingness to pay $125 per year and acceptance of an income-related charge of 0.25 %. On average the valuations were $252, $260, and $247, and 0.59 %, 0.59 %, and 0.61 % for the control, race/ethnicity, and SES frames, respectively—all statistically indistinguishable. These average valuations imply that Americans would be willing to pay $33 billion per year based on the fixed fee elicitation and $51 billion per year based on the income-related charge for universal access to an AD treatment. The corresponding values using median estimates are $16.7 billion and $21.8 billion.

Figs. 1 and 2 show that each group has a similar distribution of WTP. Almost a quarter of respondents were willing to pay the maximum presented fee amount of $775 per year, and less than 10 % declined any payment (Fig. 1). Around 30 % in each group were willing to accept the maximum presented income-related charge (1.55 percentage points), while around 10 % were unwilling to accept any charge (Fig. 2). A Kolmogorov-Smirnov test cannot reject that the control group distribution is identical to the SES condition (p-value <0.01) or the persons of color condition (p-value <0.01) for both valuation types.

3.4. Multivariate results

The first column of Table 4 examines regression-adjusted intent-to-treat results using logarithmic transformations of the WTP variable (fixed amount).

When measuring WTP using annual fees, both experimental conditions have statistically insignificant effects on acceptable fee increases. The race/ethnicity condition would reduce the willingness to pay by 0.01 log points or approximately $1.25 for the median respondent (95 % CI: -0.13 to 0.11 log points). The SES condition reduces the average acceptable fee by 0.04 log points, or about $5 for the median respondent (95 % confidence interval: - 0.16 to 0.08). These confidence intervals imply that while the median respondent in control would agree to pay $125 annually, those in the Race/Ethnicity treatment group would agree to pay $123.75 (CI: $108 and $139), and those in the SES treatment group would agree to pay $120 (CI: $105 and $136).

Table A.1 in the Appendix shows the corresponding results when using the income-proportional measure. We find that being randomly assigned to the Race/Ethnicity condition reduces WTP by an insignificant 0.002 log points (95 % CI:-0.03 to 0.02), while being randomly assigned to the SES condition increases WTP by an insignificant 0.002 points (95 % CI: -0.02 to 0.03). The coefficients vary little with inclusion

Table 3
Mean and Median Valuations, by Randomization group.

		Valuation-WTP ($ per year)	Valuation WTP (% of earned income)
Control group	Median	125	0.25
	Implied Aggregate valuation (in $billions per year)	16.7	21.8
	Mean	252	0.59
	Implied Aggregate valuation (in $billions per year)	33.7	51.4
Treatment SES	Median	125	0.25
	Implied Aggregate valuation (in $billions per year)	16.7	21.8
	Mean	247	0.61
	Implied Aggregate valuation (in $billions per year)	32.9	52.9
Treatment Race /Ethnicity	Median	125	0.25
	Implied Aggregate valuation (in $billions per year)	16.7	21.8
	Mean	260	0.59
	Implied Aggregate valuation (in $billions per year)	34.7	51.3

Source: Authors' calculations using the full experiment data (UAS 611, retrieved on June 10, 2024).
Notes:. Median and mean Valuations are statistically indistinguishable across treatment arms in all cases.

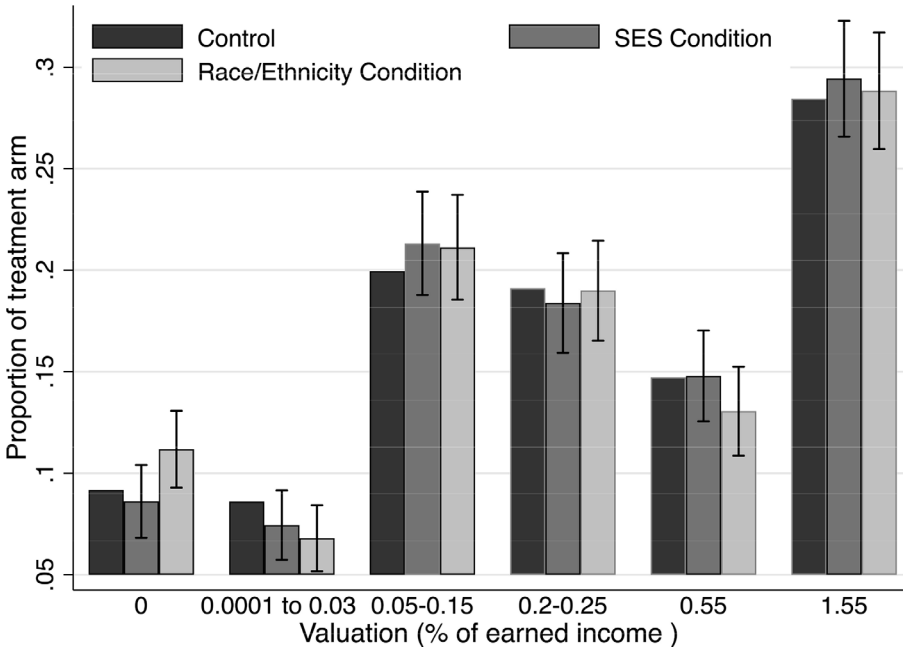

Fig. 1. Stated valuation, fixed amount measure, by condition.

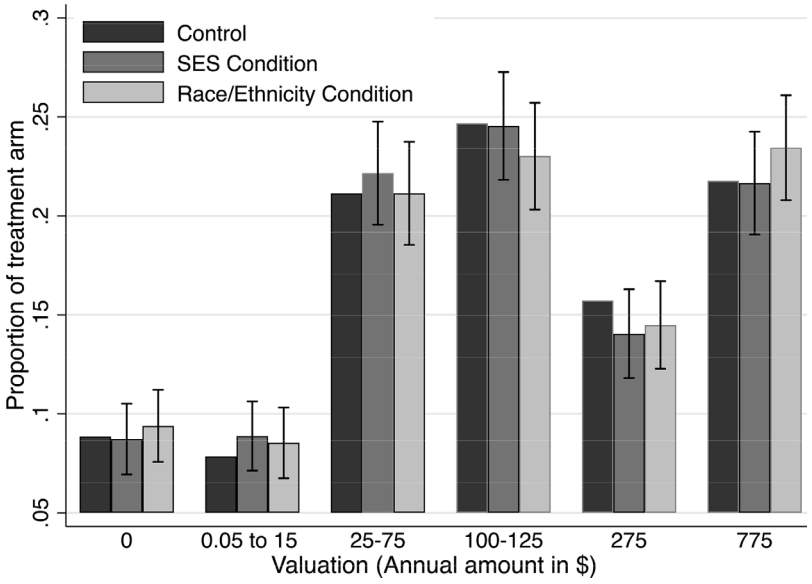

Fig. 2. Stated valuation, Income-proportional measure, by condition.

Table 4
The impact of information on valuation (log WTP: Annual, fixed amount measure) by population subgroup.

	All	Whites[1]	Blacks[2]	Hispanics	Other[3]	Low HH-Income	High HH-Income
Treatment Race /Ethnicity	-0.010	0.007	0.023	-0.164	0.131	-0.162	0.035
	(0.064)	(0.094)	(0.148)	(0.132)	(0.189)	(0.115)	(0.114)
Treatment SES	-0.039	-0.027	-0.062	-0.047	-0.079	-0.173	0.035
	(0.063)	(0.092)	(0.149)	(0.129)	(0.188)	(0.114)	(0.113)
Observations	5724	2636	1131	1338	619	1913	1751
R-squared	0.000	0.000	0.000	0.001	0.002	0.001	0.000
Mean dependent variable for respondents in control group	4.465	4.371	4.561	4.621	4.389	4.501	4.420

Source: Authors' calculations using the full experiment data (UAS 611, retrieved on May 13, 2024).
Notes: Dependent variable is the logarithm of one plus the logarithm of Willingness to Pay for the hypothetical AD treatment, using the fixed annual amount measure. Standard errors in parentheses. Asterisks indicate results are statistically different from zero: * (10 %), ** (5 %), *** (1 %).
[1] Non-Hispanic White respondents.
[2] Non-Hispanic Black respondents.
[3] Non-Hispanic, non-White and non-Black respondents.

of demographic controls. These confidence intervals imply that while the median respondent in control would agree to pay 0.25 % of salary, those in the race/ethnicity treatment group would agree to pay somewhere between 0.243 % and 0.256 % of earned income, and those in the SES treatment group would agree to pay somewhere between 0.244 % and 0.257 % of salary.

The second through seventh columns in Table 4 present heterogeneity analyses examining the impacts of the information on WTP among racial/ethnic and household income groups. We find little evidence that the experimental conditions differentially increased valuations among those who face a higher incidence of AD– none of the estimates for heterogeneity are statistically significant, though standard errors are larger given smaller subsamples. For example, the Race/Ethnicity treatment increased valuations, on average, by 0.007 log points (95 % CI: -0.18 to 0.19) among non-Hispanic Whites. The point estimate would suggest an increase of 0.02 log points among Blacks (95 % CI: -0.27 to 0.31) but a decreased valuations among Hispanics by 0.16 log points (95 % CI: -0.42 to 0.09). None of these effects are statistically significantly different from zero. The SES Treatment was associated with a decrease in valuation of 0.17 log points among respondents with household incomes in the first tercile of the distribution (95 % CI: -0.40 to 0.05), and an increase by 0.04 log points among those from the upper tercile (95 % CI: -0.19 to 0.26). Again, neither of the coefficients for the SES treatment are statistically significant.

Similarly, the results in columns 2 through 7 in Table A.1 in the Appendix show no evidence of an impact of the equity information on valuations when using the income proportionate measure in any of the subgroups examined.

4. Discussion

We investigated Americans' willingness to pay for universal access to a disease-modifying AD treatment, revealing average valuations between $33.7 billion and $51.4 billion annually. Using a randomized discrete-choice experiment, we manipulated participants' awareness of Alzheimer's higher disease burden among minorities and individuals with low socioeconomic status. Despite significant increases in knowledge of health inequalities, the experimental groups showed statistically indistinguishable valuations from the control group, which was largely unaware of AD's unequal burden. Our results suggest that Americans highly value AD treatments and believe they should be available for all those in need, irrespective of race/ethnicity and SES. This result stands in contrast to prior findings from some health economic analyses, which suggested that lecanemab—the first traditionally approved targeted treatment for AD—provided insufficient value for money at its U.S. list price of about $26,500 per year [19–22]. However, individual valuations here align with those for symptomatic AD drugs among AD patients [23] and caregivers [24] in Canada, suggesting consistent public support across different AD treatment types with 2013 CAN$98 to $137 and 2015 CAN$214 to $277. Recently, Kinchin et al. [25] also elicited WTP for a disease-modifying AD treatment in Ireland from members of the general public. They found results suggesting higher valuations than ours, particularly among younger, more educated, and wealthier respondents.

Our finding that providing equity information has no effect on valuations prompts consideration of whether this result is driven by study design flaws, a prospect we find unlikely.

First, we rigorously tested and refined survey materials through cognitive interviews before implementation (fielding). Second, randomization successfully balanced observable baseline characteristics across groups. Third, the lack of effect was not due to ineffective knowledge interventions; while only 10 - 20 % in the control group recognized AD disparities (i.e., higher AD prevalence among SES and racial/ethnic minorities), about 50 % in treatment groups did. An "as treated" analysis, detailed in the Appendix (Table A.2), which included only those treatment group members who correctly answered these knowledge questions, also indicated no significant difference in valuation. Additionally, heterogeneity analyses revealed no evidence that treatment increased WTP among minorities or low SES participants who stand to benefit most. Significant response variation across both scales also mitigates concerns about measurement bias, ruling out that too many respondents arrived at the ends of the measurement scales and were unable to record their actual valuation.

Crucially, our study was adequately powered, exceeding recommended sample sizes to detect meaningful treatment effects. In their review article of information experiments in the social sciences [26], report that "As a minimum, we think information provision experiments should have at least 80 percent power to detect a treatment effect of 15 percent of a standard deviation. This requires a sample size of at least 700 respondents per treatment arm of interest." Our sample size is more than two times as large as the minimum suggested number, and we are able to detect treatment effects of 6.7 percent of a standard deviation. Further, the 95 % confidence intervals around our point estimates rule out economically meaningful effects, as they imply, for example, that people are willing to pay no more than $9 in annual fees per year for health equity.

The finding that even minority and low SES respondents in the treatment groups, who are more likely to become personally affected, did not state higher valuations of the treatment underscores widespread American support for universal AD treatment access, independent of demographic considerations (i.e., race, ethnicity, and socioeconomic considerations). This contrasts with findings in studies of welfare and unemployment programs where perceptions of beneficiary demographics influenced support levels among White participants; they were less likely

to support public programs when cued to perceive the beneficiaries as likely being from minority groups [27,28].

4.1. Limitations

The results should be interpreted in the context of the limitations of the study. We elicited stated preferences, which may not align perfectly with actual behavior (revealed preferences), thus caution is warranted in interpreting the magnitude of the WTP estimates. Additionally, the study was conducted among individuals who largely did not personally suffer from the disease, which may affect the generalizability of population-level estimates. Further, these findings pertain specifically to health equity in the context of Alzheimer's disease and do not preclude the possibility that Americans may value equity improvements differently in other health conditions and scenarios. Lastly, while our information interventions substantially increased awareness of inequitable burdens associated with AD, not all participants fully internalized the message. Accordingly, it is possible that WTP for improved equity might have been higher (or lower) had all participants in the treatment groups absorbed the information completely. However, as previously discussed, our study is well powered, and the 95 % confidence intervals effectively rule out economically meaningful valuations for health equity in this context.

5. Conclusion

Overall, the findings indicate that Americans place a high value on universal access to AD treatment, in contrast to some prior health economic analyses. However, presenting information about the disproportionate burden of AD on disadvantaged groups did not influence these valuations, even among those directly affected by such disparities. Future research should analyze how results from such WTP studies can inform drug pricing and coverage decisions.

Disclosures

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Supplementary materials

Supplementary material associated with this article can be found, in the online version, at doi:10.1016/j.tjpad.2024.100036.

References

[1] van Dyck CH, Swanson CJ, Aisen P, et al. Lecanemab in early alzheimer's disease. N Engl J Med 2023;388(1):9–21. doi:10.1056/NEJMoa2212948.
[2] Sims JR, Zimmer JA, Evans CD, et al. Donanemab in early symptomatic alzheimer disease: the Trailblazer-Alz 2 randomized clinical trial. JAMA 2023;330(6):512–27. doi:10.1001/jama.2023.13239.
[3] Mattke S, Hanson M. Expected wait times for access to a disease-modifying Alzheimer's treatment in the United States. Alzheimers Dement 2022;18(5):1071–4. doi:10.1002/alz.12470.
[4] Rabinovici GD, Gatsonis C, Apgar C, et al. Association of amyloid positron emission tomography with subsequent change in clinical management among medicare beneficiaries with mild cognitive impairment or dementia. JAMA 2019;321(13):1286–94. doi:10.1001/jama.2019.2000.
[5] Arbanas JC, Damberg CL, Leng M, et al. Estimated annual spending on lecanemab and its ancillary costs in the us medicare program. JAMA Intern Med 2023;183(8):885. doi:10.1001/jamainternmed.2023.1749.
[6] Jönsson L, Wimo A, Handels R, et al. The affordability of lecanemab, an amyloid-targeting therapy for Alzheimer's disease: an EADC-EC viewpoint. the lancet regional health. Europe 2023;29:100657. doi:10.1016/j.lanepe.2023.100657.
[7] AlzforumRising leqembi prescriptions are straining clinic capacity. Journal 2024;2024(Issue).
[8] Robey S, David FS. Drug launch curves in the modern era. Nature Reviews Drug Discovery 2017;16(1):13–14. doi:10.1038/nrd.2016.236.
[9] Steigenberger C, Flatscher-Thoeni M, Siebert U, Leiter AM. Determinants of willingness to pay for health services: a systematic review of contingent valuation studies. Eur J Health Econ 2022;23(9):1455–82. doi:10.1007/s10198-022-01437-x.
[10] Lines L. Racial and ethnic disparities among individuals with alzheimer's disease in the united states: a literature review. Journal 2014(Issue). doi:10.3768/rtipress.2014.rr.0024.1412.
[11] Wilkins CH, Windon CC, Dilworth-Anderson P, et al. Racial and ethnic differences in amyloid pet positivity in individuals with mild cognitive impairment or dementia: a secondary analysis of the imaging dementia-evidence for amyloid scanning (ideas) cohort study. JAMA Neurol 2022;79(11):1139–47. doi:10.1001/jamaneurol.2022.3157.
[12] Burke J, Kieffer C, Mottola G, Perez-Arce F. Can educational interventions reduce susceptibility to financial fraud? J Econ Behav Organ 2022;198:250–66. doi:10.1016/j.jebo.2022.03.028.
[13] Li R, Li R, Xie J, et al. Associations of socioeconomic status and healthy lifestyle with incident early-onset and late-onset dementia: a prospective cohort study. Lancet Healthy Longev 2023;4(12):e693 -e702. doi:10.1016/S2666-7568(23)00211-8.
[14] Cadar D, Lassale C, Davies H, et al. Individual and area-based socioeconomic factors associated with dementia incidence in england: evidence from a 12-year follow-up in the english longitudinal study of ageing. JAMA Psychiatry 2018;75(7):723–32. doi:10.1001/jamapsychiatry.2018.1012.
[15] Manly JJ, Jones RN, Langa KM, et al. Estimating the prevalence of dementia and mild cognitive impairment in the us: the 2016 health and retirement study harmonized cognitive assessment protocol project. JAMA Neurol 2022;79(12):1242–9. doi:10.1001/jamaneurol.2022.3543.
[16] Rajan KB, Weuve J, Barnes LL, Wilson RS, Evans DA. Prevalence and incidence of clinically diagnosed Alzheimer's disease dementia from 1994 to 2012 in a population study. Alzheimers Dement 2019;15(1):1–7. doi:10.1016/j.jalz.2018.07.216.
[17] Samper-Ternent R, Kuo YF, Ray LA, et al. Prevalence of health conditions and predictors of mortality in oldest old Mexican Americans and non-Hispanic whites. J Am Med Dir Assoc 2012;13(3):254–9. doi:10.1016/j.jamda.2010.07.010.
[18] Gurland B, Wilder D, Lantigua R, et al. Differences in rates of dementia between ethno-racial groups. Journal 1994(Issue):233–69.
[19] Nguyen HV, Mital S, Knopman DS, GC Alexander. Cost-effectiveness of lecanemab for individuals with early-stage Alzheimer disease. Neurology 2024;102(7):e209218. doi:10.1212/WNL.0000000000209218.
[20] Ito K, Chapman R, Pearson SD, et al. Evaluation of the cost-effectiveness of drug treatment for alzheimer disease in a simulation model that includes caregiver and societal factors. JAMA Netw Open 2021;4(10) e2129392. doi:10.1001/jamanetworkopen.2021.29392.
[21] Boustani M, Doty EG, Garrison LP Jr, et al. Assessing the cost-effectiveness of a hypothetical disease-modifying therapy with limited duration for the treatment of early symptomatic Alzheimer disease. Clin Ther 2022;44(11):1449–62. doi:10.1016/j.clinthera.2022.09.008.
[22] Lin G, Whittington M, Wright A, et al. Beta-amyloid antibodies for early Alzheimer's disease: effectiveness and value. Evid Rep J 2023(Issue).
[23] Oremus M, Tarride JE, Pullenayegum E, et al. Patients' willingness-to-pay for an Alzheimer's disease medication in Canada. Patient 2013;6(3):161–8. doi:10.1007/s40271-013-0014-3.
[24] Oremus M, Tarride JE, Pullenayegum E, et al. Caregivers' willingness-to-pay for Alzheimer's disease medications in Canada. Dementia (London) 2015;14(1):63–79. doi:10.1177/1471301213490709.
[25] Kinchin I, Walsh S, Dinh R, et al. Dissonance in the face of Alzheimer's disease breakthroughs: clinician and lay stakeholder acceptance, concerns and willingness to pay for emerging disease-modifying therapies. Br J Psychiatry 2024;224(6):230–6. doi:10.1192/bjp.2024.24.
[26] Haaland I, Roth C, Wohlfart J. Designing information provision experiments. J Econ Lit 2023;61(1):3–40. doi:10.1257/jel.20211658.
[27] HARELL A, SOROKA S, Race IYENGAR S. prejudice and attitudes toward redistribution: a comparative experimental approach. Eur J Polit Res 2016;55(4):723–44. doi:10.1111/1475-6765.12158.
[28] Ford R. Who should we help? an experimental test of discrimination in the british welfare state. Polit Stud (Oxf) 2016;64(3):630–50. doi:10.1111/1467-9248.12194.