

## RESEARCH ARTICLE

# Older US adults' experiences with and views about cognitive screening and blood biomarker testing for Alzheimer's disease

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## Funding information

National Institute on Aging, Grant/Award Numbers: P30 AG072931, T32 AG027708 (CGC); NPHA sponsored by AARP and Michigan Medicine

## Abstract

**INTRODUCTION:** Dementia is underdiagnosed in the United States. Understanding of older adults' experiences with screening is needed to optimize diagnosis.

**METHODS:** US adults ages 65 to 80 ( $N = 1298$ ) were surveyed on experiences with cognitive screening and blood biomarker (BBM) testing. Regression models estimated associations between characteristics and screening use.

**RESULTS:** Most older adults were aware of screening (71%); 41% reported ever being screened. Older age, higher education, retirement, poorer health, and family history of dementia were associated with higher odds of screening; Hispanic and non-Hispanic Asian race/ethnicity were associated with lower odds ( $p < .05$ ). Most older adults were unaware of BBM (81%); few wanted testing immediately (9%). Although older adults held positive views about screening and BBM, half reported concerns about distress or stigma if tests indicated risk.

**DISCUSSION:** Cognitive screening rates remain low. Older adults view screening and BBM as useful to inform health decisions but have concerns about potential harms.

## KEYWORDS

Alzheimer's disease, biomarker testing, blood-based biomarkers, cognitive screening, dementia, early detection

## Highlights

- Only one in five older US adults report having cognitive screening in the past year.
- Sociodemographic and health factors may influence whether older adults receive cognitive screening.
- Most older adults have positive views about cognitive screening and BBM testing.
- Many older adults would be concerned about distress or stigma if test result indicated dementia risk.

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## 1 | BACKGROUND

More than 6.5 million Americans have Alzheimer's disease or a related dementia (ADRD), with prevalence projected to double by 2060.<sup>1</sup> Early detection of ADRD, before the onset of dementia, is essential to improve quality of life and care planning for patients and families. Benefits of early detection include access to new treatments and clinical trials, referral to education and social support programs, and advance planning that involves the patient in financial, legal, and medical decision-making.<sup>1,2</sup> Early detection can also guide clinical decision-making, such as avoiding treatments that may worsen cognition, initiating interventions to improve or maintain cognitive function, and treating reversible causes of cognitive impairment.<sup>1</sup>

Early and accurate diagnosis of ADRD is a high priority of the US National Plan to Address Alzheimer's Disease.<sup>3</sup> Concerningly, less than half of people with ADRD have been formally diagnosed by a clinician,<sup>4</sup> and delayed or missed diagnosis is more common among Black and Hispanic older adults.<sup>5,6</sup> Multiple studies have identified barriers to ADRD diagnosis. Clinicians report time constraints, lack of knowledge and skills to perform cognitive assessments, and difficulty disclosing results to patients and families.<sup>7–10</sup> Patients and care partners report concerns about stigma, lack of knowledge of ADRD, and normalization of cognitive changes as barriers to diagnosis.<sup>7,11</sup> Contributing to these challenges are the limited availability of dementia specialists and unclear guidelines on best practices in cognitive screening and assessment.<sup>12</sup>

With the increasing prevalence of ADRD and shortage of specialists to diagnose and treat these conditions,<sup>13</sup> cognitive screening in primary care is a potential tool to improve early detection. Experts recommend that establishing a cognitive baseline in primary care could assist providers in the early detection of cognitive changes that merit further evaluation.<sup>14</sup> In alignment with this, the Centers for Medicare and Medicaid (CMS) require detection of cognitive impairment in Medicare beneficiaries ages 65 and older via routine brief cognitive assessment at annual wellness visits (AWVs). Despite policy efforts to improve ADRD detection and diagnosis, less than 20% of older adults receive regular cognitive assessments during health check-ups,<sup>15,16</sup> and only 40% of older adults with cognitive concerns report having discussed it with their provider.<sup>17</sup>

Aside from cognitive screening, blood-based biomarker (BBM) tests are emerging as a new tool to help identify early neuropathological changes associated with AD (ie, presence of amyloid beta plaques, tau tangles). Currently, BBM tests are primarily used as a screen to identify individuals likely to have AD pathology for inclusion in clinical trials of new therapeutics. These tests have also been marketed directly to consumers who may be interested in paying out of pocket to learn about their AD risk.<sup>18</sup> While more data are needed to justify use of BBM tests in clinical settings,<sup>19</sup> recent advances in the detection and treatment of AD (eg, US Food and Drug Administration approval of lecanemab<sup>20</sup> and donanemab<sup>21</sup>) necessitate greater understanding of public views and use of these tools to optimize early and accurate detection. This study aimed to (1) describe older US adults' awareness, perceptions, and use of cognitive screening and BBM testing

## RESEARCH IN CONTEXT

1. **Systematic review:** The authors reviewed the literature using conventional sources (eg, PubMed). While previous studies identified multiple barriers to dementia diagnosis, this study contributes data on current public views about potential screening mechanisms to improve detection among a nationally representative sample of older US adults.
2. **Interpretation:** Our findings provide insight into awareness and use of current and emerging tools to improve early detection. Though older US adults are aware of cognitive screening and view it as beneficial, it is underutilized given its widespread availability to Medicare beneficiaries. While older adults have low awareness of blood biomarker tests, like cognitive screening, they perceive testing as potentially informative and beneficial. Notable concerns about potential distress responses and social stigma were reported.
3. **Future directions:** In efforts to expand screening and early detection of dementia, public education on the potential benefits, risks, and limitations of these tools will be needed.

and (2) examine sociodemographic and health factors associated with self-reported use of cognitive screening.

## 2 | METHODS

### 2.1 | Data source

The University of Michigan National Poll on Healthy Aging (NPHA), sponsored by AARP and Michigan Medicine, fielded a survey in January 2023 to a nationally representative, cross-sectional sample of community-dwelling US adults ages 50 to 80 years. The sample was recruited via NORC at the University of Chicago's AmeriSpeak probability-based panel to complete the survey either online or by phone and was subsequently weighted to reflect population figures from the US Census Bureau. The completion rate was 61% among panel members contacted to participate ( $N = 2563/4196$ ). The margin of error was  $\pm 1$  to 3 percentage points for questions asked of the full sample and higher among subgroups.

This cross-sectional study examined data from a subgroup of respondents ages 65 to 80 years ( $N = 1298$ ) who completed a 13-item supplementary questionnaire on cognitive screening and BBM testing for ADRD. The questionnaire is publicly available at [www.healthyagingpoll.org](http://www.healthyagingpoll.org) and included in Supplementary Material. The University of Michigan Health Sciences and Behavioral Sciences

Institutional Review Board deemed this study exempt from human subject review as it involved the analysis of de-identified survey data.

## 2.2 | Characteristics of older adults

This analysis includes seven sociodemographic variables and six health-related variables relevant to ADRD diagnosis. Sociodemographic factors included age (collapsed into categories 65 to 69 years, 70 to 74 years, 75 to 80 years); sex (male vs female); race and ethnicity (collapsed into non-Hispanic White, non-Hispanic Black, non-Hispanic Asian, Hispanic, other non-Hispanic race or more than one race); education level (collapsed into high school or less, some college, bachelor's degree or higher); annual household income (collapsed into less than \$30,000, \$30,000 to \$59,999, \$60,000 or greater); employment status (collapsed into working vs retired or not working); and marital status (collapsed into not married or partnered vs married or partnered).

Health factors included self-rated physical health and mental health (collapsed into excellent or very good, good, fair or poor); self-rated memory (collapsed into excellent, good, fair or poor); level of concern about ADRD (collapsed into disagree or neutral vs agree with the statement "I am concerned that someday I will develop ADRD"); family history of ADRD (no or don't know vs yes); and personal diagnosis of ADRD (responded affirmatively to previous diagnosis of AD, dementia, senility, or any other serious memory impairment).

## 2.3 | Experiences with testing

Respondents were provided brief descriptions of cognitive screening and BBM testing (Supplementary Material):

Q4. During cognitive screening (eg, memory testing), participants are given a brief set of tasks to test their memory and thinking skills, such as remembering a short list of common words or drawing a complex figure.

Q9. Biomarker testing is a new way to tell if someone is at risk for memory and thinking problems. Biomarkers for AD can be detected with a simple blood test that looks for build-up of abnormal proteins in the brain (eg, amyloid plaques, tau tangles) that might be an early sign of the disease.

Respondents were then asked a parallel set of questions regarding their experiences with and views about each type of testing. Respondents rated their level of familiarity with cognitive screening and BBM testing on a three-point Likert scale (very familiar, somewhat familiar, not at all familiar). To examine the use of testing, respondents indicated if they had ever had cognitive screening (yes within the past year, yes more than a year ago, never). Respondents who had cognitive screening within the past year were asked where the screening took place (visit with a provider, research study visit, community event, online test, other place).

Respondents also reported whether they had ever had a BBM test for AD (yes, no, don't know). Those who reported no previous blood test were asked if they would be interested in testing (1) as soon as

possible, (2) at some point in the future, (3) if a healthcare provider recommend it, (4) if they started to develop memory or thinking problems, or (5) they would not be interested. Respondents could select yes versus no for each follow-up item.

## 2.4 | Views about testing

To examine views on test benefits, risks, and limitations, respondents were asked to indicate on a five-point Likert scale (strongly agree, somewhat agree, neutral, somewhat disagree, strongly disagree) the extent to which they agreed or disagreed with six statements about cognitive screening and BBM testing: (1) if my healthcare provider thought I needed [test], they would recommend it for me; (2) [test] is not reliable or may give inaccurate results; (3) healthcare providers should offer [test] annually for all adults ages 65 and above; (4) [test] is not worth doing until there are better treatment and prevention options for Alzheimer's disease and other dementias; (5) [test] can be useful to inform the medical care and advance care planning of older adults; (6) I would be concerned about the privacy of my [test] results.

Respondents were also asked to report how likely they would be (very likely, somewhat likely, not likely) to engage in certain thoughts or behaviors if a cognitive screening or BBM test result suggested a risk for ADRD: (1) consider changes to your financial or advance care planning (eg, life or long-term care insurance, or will/trust); (2) take steps to improve your brain health; (3) believe that you were probably going to develop AD or another serious brain disorder; (4) have significant distress; (5) be concerned that others would view you differently if they found out.

## 2.5 | Statistical analyses

Survey data were used to estimate population-level characteristics, experiences, and views about cognitive screening and BBM testing among older US adults. The primary analysis used multivariable logistic regression models to estimate associations between characteristics of older adults and self-reported use of cognitive screening within the last year, and ever. A two-tailed *p* value less than .05 was considered statistically significant. Stata version 17.0 (StataCorps LLC) was used to perform analyses. All analyses applied post-stratification survey weights to reflect the population of US adults ages 65 to 80 years.

# 3 | RESULTS

## 3.1 | Characteristics of older adults

Older US adults were ages 65 to 80 years with an average age (SE) of 71.5 (0.16) years (Table 1). More than half of older adults were female (54%), 74% were non-Hispanic White, 10% non-Hispanic Black, 9% Hispanic, 2% non-Hispanic Asian, and 4% identified with another race not listed or two or more races and non-Hispanic ethnicity. A third of

**TABLE 1** Characteristics of older U.S adults (N=1,298\*).

	Sample size	Weighted percentage (%)
Sociodemographic factors		
Age category, years		
65 to 69	551	36.5
70 to 74	445	34.9
75 to 80	302	28.7
Sex		
Male	623	46.4
Female	675	53.6
Race and ethnicity		
White, non-Hispanic	754	74.2
Black, non-Hispanic	301	9.9
Asian, non-Hispanic	16	2.3
Hispanic	194	9.4
Other <sup>†</sup>	33	4.3
Education level		
High school or less	271	40.5
Some college	606	26.3
Bachelor's degree or higher	421	33.2
Annual household income		
Less than \$30,000	310	22.5
\$30,000 to \$59,999	429	33.7
\$60,000 or greater	559	43.8
Employment status		
Working	313	20.5
Retired or not working	985	79.5
Marital status		
Not married or partnered	612	43.7
Married or partnered	686	56.3
Health factors		
Physical health		
Excellent or very good	491	39.0
Good	538	40.9
Fair or poor	268	20.1
Mental health		
Excellent or very good	816	65.1
Good	347	27.4
Fair or poor	105	7.5
Self-rated memory		
Excellent	269	21.1
Good	832	63.3
Fair or poor	197	15.6
Concerned about ADRD		
Disagree or neutral	732	53.1
Agree	563	46.9

(Continues)

**TABLE 1** (Continued)

	Sample size	Weighted percentage (%)
Family history of ADRD		
No or don't know	755	57.3
Yes	541	42.7
Diagnosed with ADRD		
No	1281	98.7
Yes	17	1.3

\*Missing data on individual survey items ranged from  $n = 0$  to  $n = 30$ .<sup>†</sup>Respondents self-reported "Other, Non-Hispanic," or "2+ Races, Non-Hispanic."

older adults reported having a bachelor's degree or higher (33%), and 44% reported an annual household income of \$60,000 or greater. Most older adults were married or partnered (56%) and no longer working or retired (80%).

Most older adults indicated good to excellent overall health, with 20% reporting fair or poor physical health and fewer reporting fair or poor memory (16%) or mental health (8%). Nearly half of older adults somewhat or strongly agreed (47%) that they were concerned about developing ADRD, and 43% reported having at least one close blood relative (ie, parents, siblings, grandparents, aunts, uncles) who had been diagnosed with ADRD. One percent of older adults reported having previously been diagnosed with ADRD by a doctor.

### 3.2 | Experiences with cognitive screening and BBM testing

Few older adults were familiar with BBM testing for AD (2% very familiar, 17% somewhat familiar), and less than 1% (0.6%) reported having previously had a BBM test. Among those who had not had a BBM test for AD or were unsure, 39% reported interest if a healthcare provider recommended the test, 29% reported interest if they started to develop cognitive problems, 27% reported interest at some point in the future, 9% reported interest as soon as possible, and 18% reported having no interest in future testing.

While most older adults were familiar with cognitive screening (30% very familiar, 41% somewhat familiar), less than half reported ever having a cognitive test (41%), and 20% reported testing within the past year. Among those who were screened within the past year, 84% said testing took place at a visit with a healthcare provider, 5% during a research study visit, 3% using an online test, or 9% somewhere else.

Characteristics of older adults that were associated with significantly higher odds of cognitive screening included older age, higher education level, retirement, poorer physical health, and a family history of dementia (Table 2). Compared with adults ages 65 to 69, those ages 70 to 74 [OR: 1.69 (1.21, 2.35);  $p < .01$ ] and 75 to 80 [OR: 1.75 (1.20, 2.54);  $p < .01$ ] had higher odds of ever having screening. Additionally, older adults with a bachelor's degree or higher [OR: 1.40 (1.10, 1.76);  $p < .01$ ], those who were retired or not working [OR: 1.55 (1.17,

**TABLE 2** Associations with self-report of having undergone cognitive screening within the past year, and ever.

	Adjusted odds ratios (95% CI)	
	Past year	Ever
<b>Sociodemographic factors</b>		
Age category, years		
65 to 69	1.00 (reference)	1.00 (reference)
70 to 74	1.14 (0.83, 1.57)	1.69 (1.21, 2.35)**
75 to 80	0.63 (0.40, 1.00)	1.75 (1.20, 2.54)**
Sex		
Male	1.00 (reference)	1.00 (reference)
Female	1.05 (0.79, 1.39)	0.88 (0.69, 1.13)
Race and ethnicity		
White, non-Hispanic	1.00 (reference)	1.00 (reference)
Black, non-Hispanic	0.89 (0.60, 1.33)	0.91 (0.68, 1.21)
Asian, non-Hispanic	0.12 (0.03, 0.40)**	0.80 (0.41, 1.55)
Hispanic	0.39 (0.18, 0.80)*	0.65 (0.44, 0.96)*
Other	0.33 (0.10, 1.10)	1.04 (0.42, 2.62)
Education level		
Some college or less	1.00 (reference)	1.00 (reference)
Bachelor's degree or higher	1.36 (0.95, 1.96)	1.40 (1.10, 1.76)**
Annual household income		
Less than \$60,000	1.00 (reference)	1.00 (reference)
\$60,000 or greater	1.18 (0.89, 1.56)	0.81 (0.60, 1.10)
Employment status		
Working	1.00 (reference)	1.00 (reference)
Retired or not working	2.02 (1.41, 2.88)**	1.55 (1.17, 2.06)**
Marital status		
Not married or partnered	1.00 (reference)	1.00 (reference)
Married or partnered	0.80 (0.53, 1.21)	1.14 (0.81, 1.61)
<b>Health factors</b>		
Physical health		
Excellent, very good, or good	1.00 (reference)	1.00 (reference)
Fair or poor	1.20 (0.67, 2.16)	1.65 (1.23, 2.22)**
Mental health		
Excellent, very good, or good	1.00 (reference)	1.00 (reference)
Fair or poor	1.05 (0.44, 2.55)	1.45 (0.98, 2.14)
Self-rated memory		
Excellent or good	1.00 (reference)	1.00 (reference)
Fair or poor	1.05 (0.66, 1.67)	1.02 (0.69, 1.50)
Concerned about ADRD		
Disagree or neutral	1.00 (reference)	1.00 (reference)
Agree	0.95 (0.71, 1.26)	1.16 (0.88, 1.52)
Family history of ADRD		
No or don't know	1.00 (reference)	1.00 (reference)
Yes	1.14 (0.83, 1.58)	1.36 (1.02, 1.83)*

Abbreviation: CI, confidence interval

\* $p < .05$ ; \*\* $p < .01$ 

2.06);  $p < .01$ ], those in poorer physical health [OR: 1.65 (1.23, 2.22);  $p < .01$ ], and those with a close blood relative with ADRD [OR: 1.36 (1.02, 1.83);  $p < .05$ ] had higher odds of screening. Within the past year, non-Hispanic Asian older adults [OR: 0.12 (0.03, 0.40);  $p < .01$ ] and Hispanic older adults [OR: 0.39 (0.18, 0.80);  $p < .05$ ] had lower odds of screening compared to non-Hispanic White older adults, and Hispanic older adults had lower odds of ever having screening [OR: 0.65 (0.44, 0.96);  $p < .05$ ].

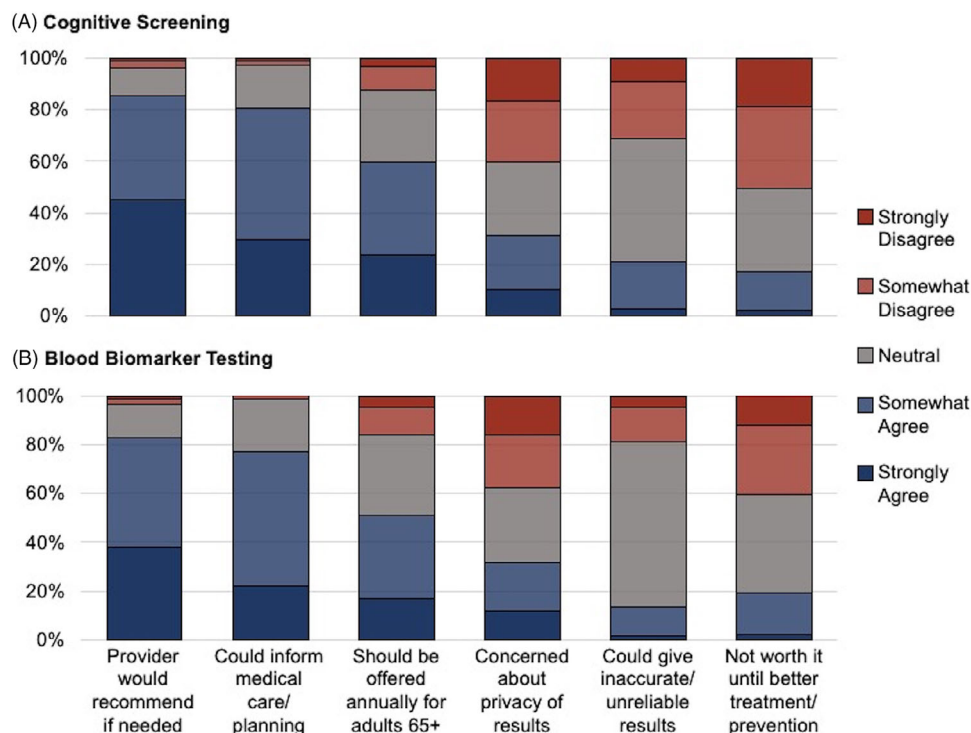
### 3.3 | Views about cognitive screening and BBM testing

Older adults' views of cognitive screening and BBM testing for AD were mostly positive (Figure 1). Most older adults agreed that their healthcare provider would recommend cognitive screening (45% strongly, 41% somewhat) or BBM testing (38% strongly, 45% somewhat) if needed and that the results would be useful to inform medical care and advance care planning (30% strongly, 51% somewhat for cognitive screening; 22% strongly, 55% somewhat for BBM testing). Sixty percent of adults agreed cognitive screening should be offered annually for all adults ages 65 and older (24% strongly, 36% somewhat), and half agreed BBM testing should be offered annually (17% strongly, 34% somewhat).

About a third of older adults agreed they would be concerned about the privacy of their cognitive screening (10% strongly, 21% somewhat) or BBM (12% strongly, 20% somewhat) results. A notable subset of older adults indicated doubts about the accuracy and reliability of testing, with 21% agreeing cognitive tests (3% strongly, 18% somewhat) and 14% agreeing BBM tests (2% strongly, 12% somewhat) could give inaccurate or unreliable results. About a fifth of older adults agreed that cognitive screening (2% strongly, 15% somewhat) and BBM testing (2% strongly, 17% somewhat) would not be worth doing until better treatment and prevention options became available.

Older adults' anticipated reactions were similar were they to receive a positive result on a cognitive test (ie, indicating concerns about memory/thinking skills) or a BBM test (ie, indicating presence of AD pathology in the brain) (Figure 2). Most older adults reported they would be likely to take steps to improve their brain health in the event of a positive cognitive screen (62% very, 34% somewhat) or BBM result (62% very, 35% somewhat), and most would likely consider changes to their financial or advance care planning (28% very, 47% somewhat for cognitive screening; 32% very, 44% somewhat for BBM testing). Most older adults also indicated a positive result would make them likely to believe they would develop AD (10% very, 54% somewhat for cognitive screening; 14% very, 60% somewhat for BBM testing) and that they would likely experience significant distress (13% very, 47% somewhat for cognitive screening; 16% very, 49% somewhat for BBM testing). More than half of older adults reported they would likely be concerned that others would view them differently if they had a positive cognitive screening (14% very, 44% somewhat) or BBM (14% very, 41% somewhat) result.





**FIGURE 1** Older US adults' level of agreement with six statements about (A) cognitive screening and (B) blood biomarker testing for Alzheimer's disease. The stacked bar chart presents weighted proportions of the extent to which older adults agreed (blue), were neutral (gray), or disagreed (red) with six statements about (A) cognitive screening and (B) blood biomarker testing: (1) if my healthcare provider thought I needed [test], they would recommend it for me; (2) [test] can be useful to inform the medical care and advance care planning of older adults; (3) healthcare providers should offer [test] annually for all adults ages 65 and above; (4) I would be concerned about the privacy of my [test] results; (5) [test] is not reliable or may give inaccurate results; (6) [test] is not worth doing until there are better treatment and prevention options for Alzheimer's disease and other dementias.

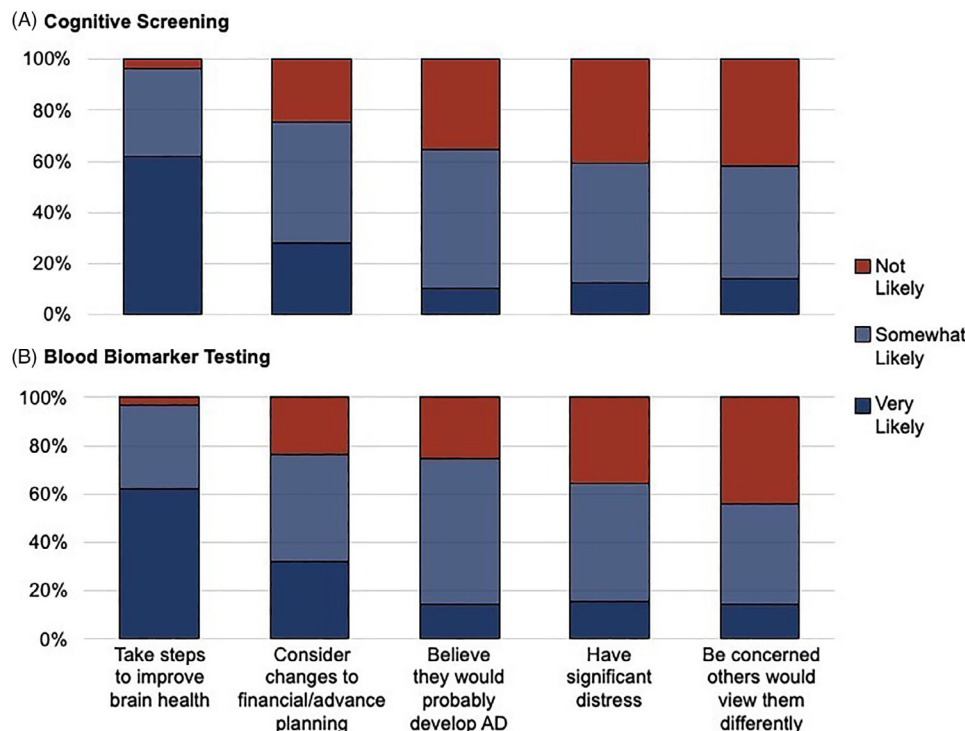
## 4 | DISCUSSION

In this nationally representative survey, older adults were more familiar and experienced with cognitive screening compared with BBM testing but viewed both options as useful for informing medical decisions regarding treatment and prevention of AD/DRD. This study found most older adults believed screening and BBM testing could help inform healthcare and future planning, including taking steps to improve brain health and making changes to financial and advance care plans. These data are consistent with previous qualitative studies among patients and care partners that indicate support for routine cognitive screening and early detection of AD/DRD in primary care to facilitate future financial, living, and care arrangements.<sup>22,23</sup> This is encouraging given that previous survey studies report patient beliefs in the benefits of early detection is a significant predictor of cognitive screening behaviors.<sup>24,25</sup>

Despite their familiarity with and positive perceptions of screening, only one in five older adults reported having received cognitive screening within the past year. Compared with their non-Hispanic White counterparts, Hispanic and non-Hispanic Asian older adults were less likely to report having cognitive screening in this timeframe. This is consistent with previous research documenting racial and ethnic disparities in diagnosis.<sup>26</sup> For example, one study found Asian American older adults were less likely to receive recommended diagnostic

work-up for cognitive impairment compared to non-Hispanic White older adults.<sup>27</sup> Another study found Hispanic and Asian older adults were more likely to lack follow-up on cognitive concerns compared to non-Hispanic White and Black patients.<sup>28</sup> Factors contributing to diagnostic disparities may include inadequate health insurance, language barriers, and lack of diversity in healthcare.<sup>26</sup> While more research is needed to understand racial and ethnic disparities in screening behaviors,<sup>29</sup> increasing public and provider knowledge and utilization of cognitive assessment at Medicare AWW may be one opportunity to improve dementia detection among groups at higher risk of underdiagnosis.<sup>30</sup>

More than half of older adults agreed cognitive screening should be offered annually, and most indicated they would rely on a healthcare provider to recommend it. Previous research, however, suggests many providers report lack of time and skill to perform cognitive testing and communicate results.<sup>31</sup> Among patients who screen positive for cognitive impairment, additional time and testing are needed to determine whether the underlying cause is AD/DRD. Prioritization of periodic cognitive screening among patients at increased risk for AD/DRD may be one strategy to address time constraints for providers and improve early diagnosis for patients. For example, the electronic health record (EHR) Risk of Alzheimer's and Dementia Assessment Rule (eRADAR), validated in two diverse health systems, routinely collects clinical data to identify older adults at risk of having undiagnosed dementia.<sup>32</sup> This



**FIGURE 2** Older US adults' anticipated reactions if they were to receive a positive result on (A) cognitive screening or (B) blood biomarker testing for Alzheimer's disease. The stacked bar chart presents weighted proportions of how likely (blue) or unlikely (red) older adults would be to react if a (A) cognitive screening or (B) blood biomarker test suggested risk for Alzheimer's disease or a related dementia: (1) *take steps to improve your brain health*; (2) *consider changes to your financial or advance care planning (eg, life or long-term care insurance, or will/trust)*; (3) *believe that you were probably going to develop AD or another serious brain disorder*; (4) *have significant distress*; (5) *be concerned that others would view you differently if they found out*.

survey revealed that some known risk factors for ADRD (ie, poorer self-rated memory and mental status) were not associated with cognitive screening, whereas older age, poorer physical health, and family history of dementia were associated with increased odds of screening. In addition to EHR integration models, education to improve public and provider knowledge of common risk factors may facilitate identification of older adults most appropriate for screening. A promising approach to addressing provider training gaps in ADRD detection and diagnosis is Project ECHO (Extension for Community Healthcare Outcomes), which is currently being implemented by the Alzheimer's Association.<sup>33</sup>

BBM tests have more recently emerged as part of dementia care. This type of testing is expected to play an increasing role in the early detection of ADRD as plasma biomarkers are developed and validated.<sup>34–36</sup> More research is needed, however, to inform clinical implementation of BBM tests in cognitively unimpaired patient populations. Currently, such testing is only recommended in specialized memory clinics to assist in diagnosing patients with objective symptoms of cognitive decline.<sup>19</sup> It is therefore not surprising that most older adults were not familiar with this type of testing, very few had undergone it, and most were not immediately interested in pursuing it. The survey indicated potential preconceptions about BBM testing (eg, how frequently it should be administered) that remain to be answered by ongoing research. As BBM testing gains public attention,

more in-depth studies will be needed to understand testing perspectives, behaviors, and outcomes across diverse patient and provider populations to ensure safe and equitable access to timely diagnosis and treatment. An example is a recent qualitative study of primary care providers and dementia specialists that found a range of views on clinical use of BBM, largely shaped by providers' beliefs about the value of AD diagnosis.<sup>37</sup> Providers who had concerns about stigma and lack of effective treatments for patients were more hesitant to use BBM tests.

Importantly, many older US adults reported concerns about both cognitive screening and BBM testing, including privacy and accuracy of results, potential distress responses, and social stigma. These findings are consistent with previous studies examining cognitive screening attitudes and barriers to timely ADRD diagnosis.<sup>7,11</sup> For example, studies using the Perceptions Regarding Investigational Screening for Memory in Primary Care (PRISM-PC) questionnaire report concerns about emotional distress, loss of driving privileges, and discrimination related to health insurance and employment among older adult patients.<sup>38,39</sup> More recently, a survey using the Attitudes Around Cognitive Testing questionnaire found that while most participants were willing to engage in testing, they were highly sensitive to how positive versus negative results should be delivered.<sup>40</sup> These data suggest some older adults will have concerns about receiving a positive screen that will require attention from providers who administer these tests and communicate results.

While this study constitutes a timely analysis of public views about current and emerging tools to improve early detection of ADRD, there are several limitations. The data used rely on cross-sectional, self-reported measures that could introduce recall bias. Respondents may have differed in their level of understanding or recollection of cognitive screening. More research is needed to examine barriers and facilitators of cognitive screening and BBM testing among older adults using objective sources of data, such as Medicare claims data. Since the NPHA survey was fielded in January 2023, the additional approval of lecanemab and newly marketed direct-to-consumer BBM tests for AD could alter public knowledge, views, and use of testing. Though these data represent a national sample of older US adults, subgroup analyses (eg, by age, sex, race, and ethnicity) were not performed, limiting interpretation of the results. Drivers of racial and ethnic disparities in screening and early detection of ADRD (eg, stigma, healthcare access<sup>41</sup>) require further investigation, particularly in larger samples of Hispanic and Asian populations that account for heterogeneity among subgroups.

As the prevalence of ADRD increases with the growing older adult population, strategies to optimize early detection are urgently needed to reduce dementia burden on patients, families, and healthcare systems. This study provides insight into older adults' perceptions of current and emerging tools to improve early detection. Though older adults are aware of cognitive screening and view it as beneficial, it is underutilized given its widespread availability to Medicare beneficiaries ages 65 and older. Although not currently recommended for older adults without objective cognitive decline, BBM testing may become more commonplace with continued improvements in ADRD treatment and prevention options. While older adults have low awareness of BBM tests for AD, like cognitive screening, they perceive testing as potentially informative and beneficial. Public and provider education on the potential benefits, risks, and limitations of these tools should be carefully considered in efforts to expand screening for ADRD.

## ACKNOWLEDGMENTS

The National Poll on Healthy Aging is sponsored by AARP and Michigan Medicine and directed by the University of Michigan Institute for Healthcare Policy and Innovation. CGC is supported by the University of Michigan Rackham Merit Fellowship and National Institute on Aging training grant T32 AG027708. JSR is supported by National Institute on Aging grant P30 AG072931 (Michigan Alzheimer's Disease Research Center). Support was also provided by the Department of Veterans Affairs, Veterans Health Administration, Health Services Research, and Development Service. The views expressed in this article are those of the authors and do not necessarily reflect the position or policy of the Department of Veterans Affairs or the United States government.

## CONFLICT OF INTEREST STATEMENT

The authors declare no conflicts of interest regarding the publication of this article. Author disclosures are available in the [supporting information](#).

## CONSENT STATEMENT

The University of Michigan Health Sciences and Behavioral Sciences Institutional Review Board deemed this study exempt from human subjects review as it involved analysis of de-identified survey data.

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## SUPPORTING INFORMATION

Additional supporting information can be found online in the Supporting Information section at the end of this article.

**How to cite this article:** Cox CG, Kirch M, Singer D, et al. Older US adults' experiences with and views about cognitive screening and blood biomarker testing for Alzheimer's disease. *Alzheimer's Dement*. 2025;17:e70067. <https://doi.org/10.1002/dad2.70067>