

M182

FRONTLINE PERSPECTIVES ON THE REAL-WORLD USE OF BLOOD-BASED BIOMARKERS IN ALZHEIMER’S DISEASE

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Electronic Presentation

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Introduction

- BBMs are accessible tools for detecting amyloid pathology in suspected AD, with some assays showing strong concordance with amyloid PET and CSF.^{1–3}
- The potential scalability of BBM implementation may facilitate broader patient access to amyloid testing and support more efficient diagnostic pathways.^{4,5}
- The Alzheimer’s Association Clinical Practice Guidelines recommend BBMs as a substitute for confirmatory PET or CSF in secondary care settings where test sensitivity and specificity are ≥90%.⁶
- However, real-world evidence on BBM integration into diagnostic pathways, care team perceptions, and organizational and system-level factors remains limited.⁷
- This study aimed to assess the acceptability, appropriateness, and feasibility of using BBMs to confirm amyloid pathology in routine patient care for those with cognitive symptoms.

Methods

Study Design

- A BBM implementation survey was conducted as part of a prospective, multi-site, implementation science study across 3 geographically and structurally diverse US clinical sites (rural practice, multi-physician private practice, and academic medical center).

Participants

- The surveys were completed by clinical providers and support staff at sites with experience of:
 - Managing patients with MCI and diagnosis of AD.
 - Using BBMs in routine clinical practice to confirm amyloid pathology without additional PET/CSF testing.

Survey

- The survey evaluated participant characteristics and BBM experience, perceptions of BBM use and clinical utility, and factors influencing implementation.
- Implementation outcomes were assessed using validated measures: Acceptability of Intervention Measure, Intervention Appropriateness Measure, and Feasibility of Intervention Measure.⁸
- Survey responses were measured on a 1–5 Likert scale, with higher scores indicating more favorable perceptions.
- Implementation factors were aligned to domains from the Consolidated Framework for Implementation Research (CFIR v2),⁹ including workflow integration, available resources, and organizational context.

Results

Participant Demographics

- The BBM implementation survey was completed by 19 participants (12 clinicians, 7 non-clinicians; **Table 1**).

Acceptability, Appropriateness, and Feasibility

- Participants reported high acceptability, appropriateness, and feasibility of BBMs (**Figure 1**), with consistently positive responses across domains incorporating BBM characteristics, perceptions, and implementation process (**Figure 2**).

BBM Implementation Perceptions

- Confirmatory BBMs were reported as meeting diagnostic needs in patients with high or intermediate suspicion of AD, with lower agreement for use in low-suspicion cases (**Figure 2**).
- BBM implementation was perceived as compatible with existing workflows and supported within current organizational settings, while system-level factors, including financial considerations, showed greater variability (**Figure 2**).
- Participants reported feeling positive, proficient, and confident integrating confirmatory BBMs into their clinical practice across diverse settings (**Figure 2**).

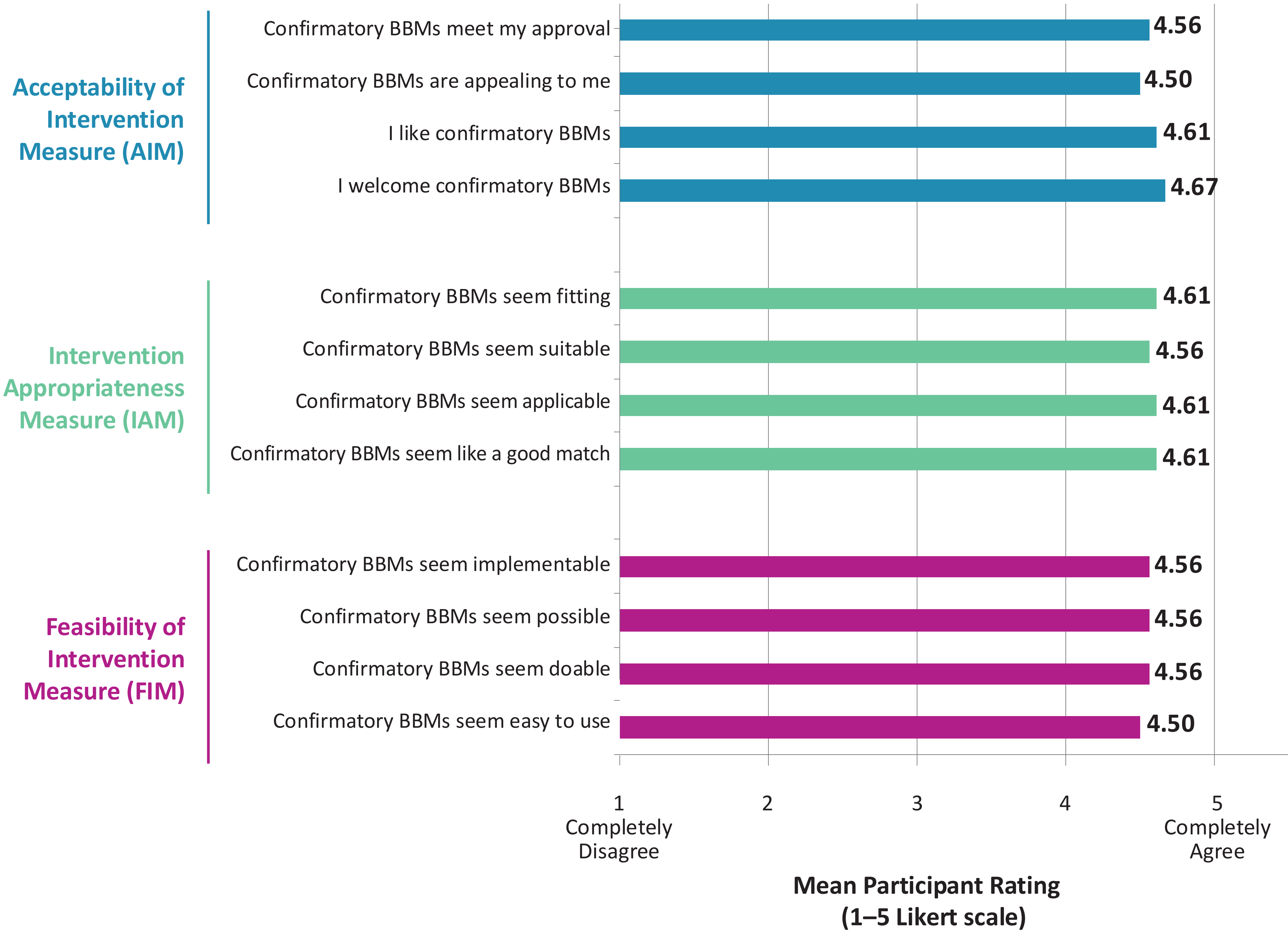
Table 1. Survey Participant Demographics

Participants (N=19)	n (%)
Role	
Clinician*	12 (63)
Non-clinician†	7 (37)
Race and Ethnicity	
White: Hispanic or Latino	2 (11)
White: not Hispanic or Latino	14 (74)
Other: Hispanic or Latino	1 (5)
Other: not Hispanic or Latino	1 (5)
Mixed: Hispanic or Latino	1 (5)
Gender	
Female	13 (68)
Male	6 (32)
Education	
Professional degree (MD, PhD)	7 (37)
Master’s degree	7 (37)
Bachelor’s degree	4 (21)
Associate’s degree	1 (5)

* Clinicians: neurologists (n=6), physician assistants (n=3), nurse practitioners (n=3).
† Non-clinicians: clinical research coordinator, licensed clinical social worker, medical assistant, neurology manager, neuropsychologist, nurse, patient coordinator (all n=1).

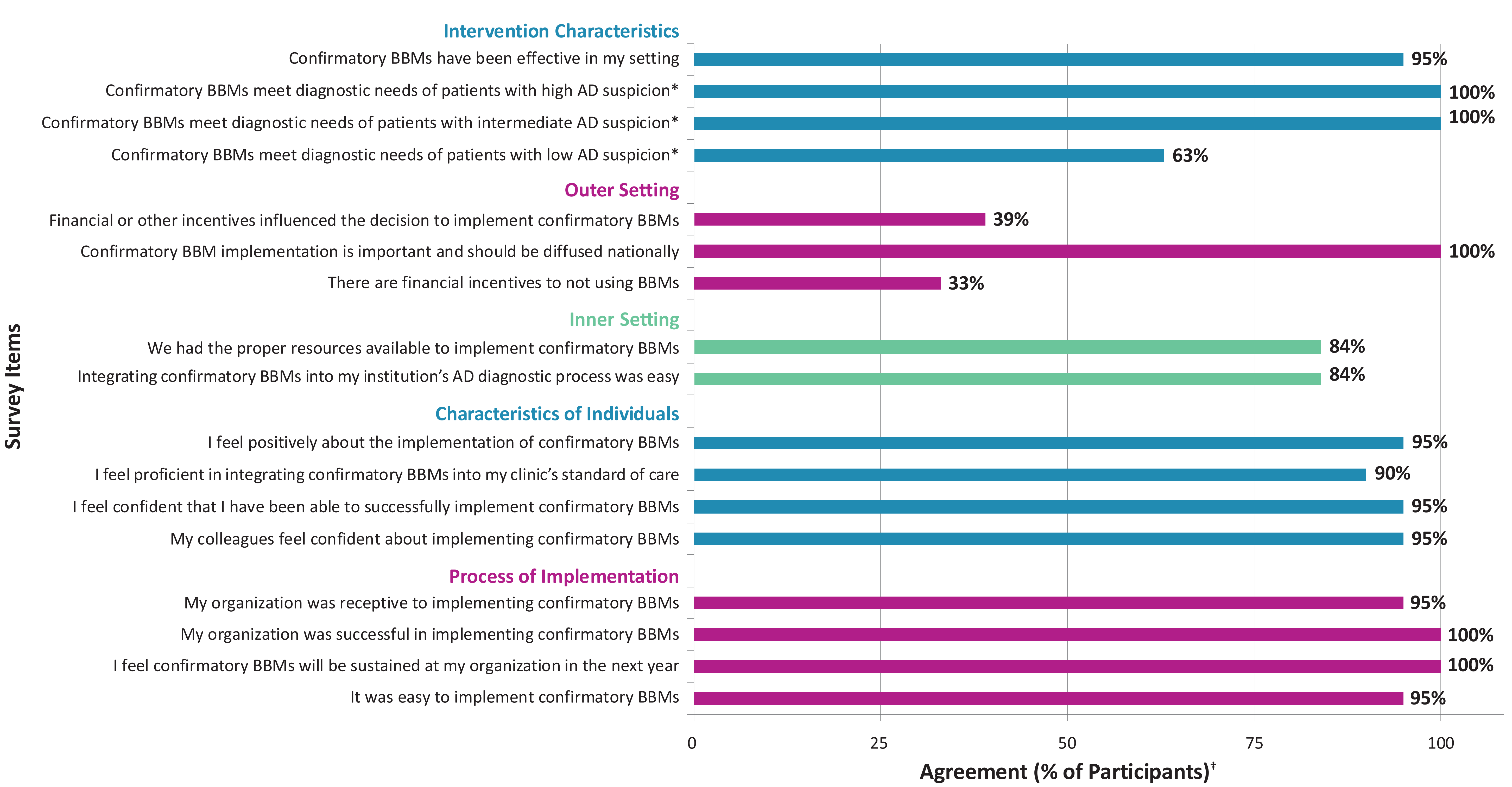
Results

Figure 1. Acceptability, Appropriateness, and Feasibility of BBM Implementation



AIM, IAM, and FIM each consisted of 4 items rated on a 5-point scale (“completely disagree,” “disagree,” “neither agree nor disagree,” “agree,” “completely agree”). Responses were mapped to numeric scores from 1 to 5 and averaged across respondents to produce a mean score for each item.

Figure 2. Agreement on Intervention and Individual Characteristics, Outer and Inner Setting, and Implementation Process for Confirmatory BBMs



* AD suspicion levels were not predefined and reflect respondents’ clinical judgement and perceived appropriateness of BBMs in each scenario. † Results were based on a 5-point Likert scale; “agreement” is a combination of “strongly agree” and “agree” responses. Denominators (n) for each item exclude non-substantive responses such as “N/A,” “not available,” and “this is not within my role at the clinic,” as well as missing values.

Conclusions

- Clinical providers and support staff viewed confirmatory BBMs positively across implementation domains, with strong agreement on acceptability, appropriateness, feasibility, and integration into existing workflows. These perspectives were consistent across diverse US clinical settings, independent of practice size, geography, structure, and available resources.
- Participants agreed that confirmatory BBMs meet diagnostic needs in patients with high and intermediate suspicion of AD, with lower agreement observed in low-suspicion cases. These findings are aligned with clinical practice guidelines recommending confirmatory BBMs in cases where AD pathology is suspected.⁶
- Overall, findings support the potential for scalable, evidence-aligned use of BBMs to confirm amyloid pathology as an alternative to amyloid PET and CSF testing in appropriate patient populations.

References: 1. Palmqvist S, et al. JAMA. 2024;332:1245–1257. 2. Jack CR, et al. Brain. 2023;146:2029–2044. 3. Ashton NJ, et al. JAMA Neurol. 2024;81:255–263. 4. Schöll M, et al. Lancet Healthy Longev. 2024;5:100630. 5. Schindler SE, et al. Nat Rev Neurol. 2024;20:426–439. 6. Palmqvist S, et al. Alzheimers Dement. 2025;21:e70535. 7. Pruter Q C Araujo I, et al. Alzheimer’s Dement. 2025;21:e70891. 8. Weiner BJ, et al. Implement Sci. 2017;12:108. 9. Damschroder LJ, et al. Implement Sci. 2022;17(1):75. **Abbreviations:** AD, Alzheimer’s disease; AIM, Acceptability of Intervention Measure; BBM, blood-based biomarker; CFIR, Consolidated Framework for Implementation Research; CSF, cerebrospinal fluid; FIM, Feasibility of Intervention Measure; IAM, Intervention Appropriateness Measure; MCI, mild cognitive impairment; PET, positron emission tomography; US, United States. **Acknowledgments:** The study was conducted by Premier Inc., funded by Eisai Inc. and Biogen. Medical writing support was provided by Panacea85 Ltd, funded by Eisai Inc. and Biogen. **Disclosures:** Feride Frech is an employee of Eisai Inc. RSD receives consulting/speaker fees from Eli Lilly and Amgen; serves as a principal investigator for Abbvie, Alnylam, Ariobio, Biogen, Biohaven, Eisai, Eli Lilly, ONO pharma, and Vima. LZ receives consulting fees from Novartis and Eisai. ABA is a principal investigator for Eisai Inc., Eli Lilly, Bristol Myers Squibb, Cassava, and Novo Nordisk. JEG reports NIH research support and consulting relationships with Beckmann Coulter, Biogen, BMS, CervoMed, Cognition Therapeutics, Cognivue, Eisai, Eli Lilly, GE Healthcare, Genentech, Lobe, and Roche. DG serves as editor of Alzheimer’s Disease Research and Treatment; membership on data safety monitoring boards for Elan and Janssen; participation as an investigator in trials sponsored by Eli Lilly and Avid; and NIH research support (P50 AG05131 [PI] and U01 AG10483 [co-investigator]). SM serves on the Board of Directors of Sencio Systems and scientific advisory boards of AiCure Technologies, Alzpath, and Boston Millennia Partners; receives consulting fees from Biogen, C2N, Eisai, Genentech, Novartis, Novo Nordisk, and Roche-Genentech; and is principal investigator on research contracts between USC and Biogen, Eisai, and Roche-Genentech. MMM receives research funding from NIH/NIA, the Department of Defense, the Alzheimer’s Association, and the Davos Alzheimer’s Consortium; serves as Senior Editor for Alzheimer’s Research and Therapy and Alzheimer’s & Dementia; and receives consulting/advisory fees from Althira, Biogen, Cognito Therapeutics, Eisai, LabCorp, Eli Lilly, Merck, Neurogen Biomarking, Novo Nordisk, Roche, and Siemens Healthineers. MNS holds stock/stock options in Alzheon and Lighthouse Pharmaceuticals, serves on the Board of Directors for CervoMed, and receives consulting/speaker fees from AbbVie, Alzinova, Anavex, Cognito Therapeutics, Eisai, GSK, NeuroTherapia, Otsuka, Recall Therapeutics, and Signant. NJG is an employee of Premier Applied Sciences, Premier Inc., which received funding from Eisai Inc. for the study. CA, KP, and DRJ are employees of Eisai Inc.