Research Letter

Recruiting Rural-Dwelling African Americans With Mild Cognitive Impairment or Early-Stage Dementia and Their Care Partners for In-Home Remote Monitoring Research: Interim Descriptive Study

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Abstract

This interim report describes recruitment through community outreach and organizational partnerships for an in-home remote monitoring study involving rural-dwelling African Americans with mild cognitive impairment or early-stage dementia and their care partners, with 19 of 20 planned dyads enrolled and team observations suggesting that care partner engagement warrants further investigation.

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Introduction

Mild cognitive impairment (MCI) affects approximately 22% of US adults aged 65 years or older [1]. People with MCI may develop dementia, remain cognitively stable, or return to normal cognition. African Americans experience a disproportionate dementia burden [1,2], while rural southeastern communities face socioeconomic and health care access barriers [3].

Recruitment barriers include mistrust, limited clinician referrals [4,5], and study partner requirements [6]. Community outreach, education, and local partnerships can support recruitment [7,8]. We describe interim recruitment experiences in a 2-phase study of in-home remote monitoring involving rural-dwelling African Americans with MCI or early-stage dementia and their care partners [9].

Methods

Overview

Recruitment began in January 2025 in rural South Carolina. Phase 1 targeted 10 dyads for interviews about barriers to aging in place and attitudes toward monitoring; phase 2 targeted 10 additional dyads to evaluate in-home monitoring usability, acceptability, and feasibility over an extended period. Phase 2 began January 1, 2026. Guided by

Dennis and Neese's framework [10], outreach included flyers, mailings, social and news media, community presentations, organizational partnerships, local leaders, and participant referrals. Partners included academic, clinical, community, and government organizations. Interested individuals could request eligibility screening at churches, conferences, and community events.

We tracked prospective participants and individual organizational contacts following event sign-up, provision of contact cards, inquiries, or researcher-initiated contact. Microsoft Excel records included names, affiliations, contact methods (telephone, text, email, or mail), responses, referrals, eligibility, and enrollment. Each enrolled dyad was counted once under its recorded recruitment source. Calls and emails responding to the Alzheimer disease registry mailing were recorded. Event attendance and reasons for not expressing interest were not systematically recorded; some observational notes were taken. Eligibility was assessed by telephone regardless of recruitment route.

Telephone screening required self-reported memory impairment, a Telephone Interview for Cognitive Status score of 23 to 33, a Quick Dementia Rating System score of 1.5 or higher, African American identity, English proficiency, rural residence, ability to consent or assent, and a willing care partner. Rurality was assessed by address using the Rural Health Information Hub's "Am I Rural?" tool and the 2020 US Census Bureau definition. Care partners provided health or welfare support, were aged 18 years or older, spoke English, had a Patient-Reported Outcomes Measurement Information System Cognitive Function–Short Form 8a T-score of 50 or higher, and could legally authorize participation when assent was required. Both participants were required to accept remote monitoring for phase 2. Cognitive criteria were unchanged from the protocol [9], but the low-income requirement was removed in July 2025 because of recruitment difficulties, following amendment approval on July 12, 2025.

Data Analysis

We used Microsoft Excel to calculate descriptive statistics for demographic characteristics and recruitment by phase. Reported demographic data were complete. Recruitment yields were not compared because contact types differed and outreach denominators were incomplete.

Ethical Considerations

The University of South Carolina Institutional Review Board approved the study (Pro00137669; June 19, 2024), which followed the Declaration of Helsinki.

The informed consent form was reviewed with each dyad member. Care partners provided written consent. Participants with cognitive impairment consented after correctly answering all 5 questions in the Evaluation to Sign Consent assessment; otherwise, they assented with care partner permission.

Encrypted data were stored separately from identifiers on secure, access-restricted servers.

Compensation per person was a one-time US $100 gift card in phase 1 or US $55 monthly in phase 2.

Results

Data cutoffs were December 31, 2025, for phase 1 and March 20, 2026, for phase 2. By the cutoff date, 19 of 20 planned dyads had enrolled (10 in phase 1; 9 in phase 2; Table 1). Phase 2 recruitment remained open; interim reporting allows timely sharing of our recruitment experiences.

Table 1. Participant characteristics by role and study phase.

Characteristic	PLWCI[a]			Care partners			Overall
	Phase 1 (n=10)	Phase 2 (n=9)	Total (n=19)	Phase 1 (n=10)	Phase 2 (n=9)	Total (n=19)	(n=38)
Age (years), mean (SD)	83.8 (7.2)	74.1 (7.7)	79.2 (8.8)	61.2 (9.1)	58.8 (16.5)	60.1 (12.8)	69.6 (14.5)
Sex, n (%)							
Female	7 (70)	8 (88.9)	15 (78.9)	8 (80)	6 (66.7)	14 (73.7)	29 (76.3)
Male	3 (30)	1 (11.1)	4 (21.1)	2 (20)	3 (33.3)	5 (26.3)	9 (23.7)
Marital status, n (%)							
Married	2 (20)	2 (22.2)	4 (21.1)	6 (60)	4 (44.4)	10 (52.6)	14 (36.8)
Divorced	1 (10)	2 (22.2)	3 (15.8)	2 (20)	1 (11.1)	3 (15.8)	6 (15.8)
Living as if married	1 (10)	0 (0)	1 (5.3)	1 (10)	0 (0)	1 (5.3)	2 (5.3)
Widowed	6 (60)	2 (22.2)	8 (42.1)	1 (10)	1 (11.1)	2 (10.5)	10 (26.3)
Single	0 (0)	2 (22.2)	2 (10.5)	0 (0)	3 (33.3)	3 (15.8)	5 (13.2)
Separated	0 (0)	1 (11.1)	1 (5.3)	0 (0)	0 (0)	0 (0)	1 (2.6)
Highest education, n (%)							
Junior high school (≤ninth grade)	1 (10)	0 (0)	1 (5.3)	1 (10)	0 (0)	1 (5.3)	2 (5.3)
Some high school	3 (30)	0 (0)	3 (15.8)	0 (0)	0 (0)	0 (0)	3 (7.9)
High school diploma/GED[b]	2 (20)	4 (44.4)	6 (31.6)	1 (10)	2 (22.2)	3 (15.8)	9 (23.7)
Some college	1 (10)	1 (11.1)	2 (10.5)	4 (40)	1 (11.1)	5 (26.3)	7 (18.4)

Characteristic	PLWCI[a]			Care partners			Overall
	Phase 1 (n=10)	Phase 2 (n=9)	Total (n=19)	Phase 1 (n=10)	Phase 2 (n=9)	Total (n=19)	(n=38)
Associate degree	0 (0)	1 (11.1)	1 (5.3)	0 (0)	0 (0)	0 (0)	1 (2.6)
Bachelor degree	2 (20)	3 (33.3)	5 (26.3)	2 (20)	3 (33.3)	5 (26.3)	10 (26.3)
Master degree	1 (10)	0 (0)	1 (5.3)	1 (10)	1 (11.1)	2 (10.5)	3 (7.9)
Doctoral degree	0 (0)	0 (0)	0 (0)	1 (10)	2 (22.2)	3 (15.8)	3 (7.9)

[a]PLWCI: persons living with cognitive impairment (mild cognitive impairment or early-stage dementia).
[b]GED: General Educational Development.

In total, 770 contacts were engaged during our recruitment process. Of 49 referred individuals with cognitive impairment, 24 were eligible and 19 enrolled (Table 2). Five eligible individuals did not enroll: 1 was lost to follow-up (phase 1), 2 reported competing health demands (1 per phase), and 2 considered their impairment insufficient to benefit (phase 1). Specific eligibility screening outcomes for the remaining 25 referrals of persons living with cognitive impairment could not be reliably determined from the available records.

Table 2. Recruitment contacts, referrals, eligibility, and enrollment by source and phase.[a] Phase 2 recruitment is ongoing.[b]

Source and contacts, n (phase 1, phase 2)	Referrals and recruitment outcomes by phase							
	Other partners (n=95)		PLWCI[c] (n=49)		Eligible individuals (n=24)		Enrolled dyads (n=19)	
	Phase 1	Phase 2	Phase 1	Phase 2	Phase 1	Phase 2	Phase 1	Phase 2
Academic, n=27 (26, 1)	9	1	1	0	0	0	0	0
Clinical, n=71 (70, 1)	24	0	4	1	2	1	2	1
Community organization, n=106 (99, 7)	27	0	4	0	3	0	1	0
General community members and family, n=145 (98, 47)	5	2	20	6	9	2	7	2
Self-referrals, n=10 (2, 8)[d]	0	0	1	8	0	7	0	6
Government, n=55 (53, 2)	26	1	2	0	0	0	0	0
Media, n=6 (6, 0)	0	0	2	0	0	0	0	0
Mailings, n=350 (350, 0)	0	0	0	0	0	0	0	0

[a]Eligible counts refer to individuals with cognitive impairment; each enrollment represents 1 dyad.
[b]Counts represent individual contacts within each source, not numbers of organizations. Mailings were sent once to 350 unique recipients with no overlap with other routes. Two community organization contacts approached in both phases were counted only in phase 1 because they generated no additional referrals. Contact totals are not comparable recruitment denominators. Other partners are organizational or community contacts, not participants' care partners.
[c]PLWCI: persons living with cognitive impairment.
[d]Self-referrals arose at community events.

We had difficulty identifying people with MCI or early-stage dementia rather than more advanced dementia, particularly outside clinical settings. Other observed barriers included limited awareness of cognitive impairment, stigma, and limited staff capacity. Clinical recruitment required staff-mediated initial contact with potentially eligible patients, adding to staff workloads. Care partners appeared to support trust, screening, and participation, including among self-referrals, though these observations were not systematically quantified.

Discussion

Principal Results and Comparison With Previous Work

Referrals from general community members and families accounted for the largest share of enrolled dyads (self-referrals followed, but only in phase 2). However, these descriptive counts do not establish comparative effectiveness. We observed that care partners assessed potential family benefits, helped build trust, arranged screening, and encouraged participation. Although previous research indicates that requiring study partner participation can limit dyad

research enrollment [6], we found that engagement with care partners may also facilitate participation. These observations specifically suggest that engaging care partners through education may support recruitment, consistent with prior work [7,8]. For example, face-to-face education could address misperceptions that cognitive impairment is simply normal aging. Clinical partnerships may also be valuable for future recruitment of rural-dwelling African Americans because of their diagnostic capabilities and population access but would require additional staff support. However, our study also did not test this approach.

Limitations

The small sample from 1 state limits generalizability. Incomplete outreach and screening information prevents calculation of conversion rates or attribution of nonparticipation to specific barriers. Phase-specific results should not be interpreted as comparisons of strategy effectiveness, because eligibility, study burden, and recruitment progress differed. Removing the income criterion also changed eligibility during recruitment. The observed barriers and facilitators require prospective evaluation.

Conclusions

This interim study describes recruitment pathways and practical barriers for rural African American dyads. Prospective tracking of screening outcomes and reasons for nonparticipation are needed to evaluate recruitment strategies. Future evaluations should distinguish people approached, screened, eligible, and enrolled and should document the resources required for each recruitment route.

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Generative AI Use

AI was not used for study conception, data collection, data management, statistical analyses, interpretation of results, or generation of scientific conclusions. A professional editor reviewed the final publication and helped the team meet the word limit. The authors developed all scientific content, performed all analyses and interpretations, made all final editorial decisions, reviewed and approved the final manuscript, and take full responsibility for its content.

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Data Availability

The data generated or analyzed during this study are available from the corresponding author on reasonable request.

Conflicts of Interest

Authors from Oregon Health & Science University (JK, ZB, TR, NS) have a financial interest in Life Analytics, Inc. (CEO: LF), a company that may have a commercial interest in the study findings and associated technology. This potential conflict of interest has been reviewed and managed by Oregon Health & Science University.

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Abbreviations

GED: General Educational Development
MCI: mild cognitive impairment

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