

Recruiting Multi-Origin African Ancestry Populations for Research Studies in Heterogenous South Florida Communities

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³Department of Population and Quantitative Health Sciences, School of Medicine, Case Western Reserve University, ⁴Cleveland Institute for Computational Biology, Case Western Reserve University, ⁵The Dr. John T. Macdonald Foundation Department of Human Genetics, University of Miami Miller School of Medicine, ⁶College of Medicine, University of Ibadan, Ibadan, Oyo State, Nigeria, ⁷Neuroscience and Aging Research Unit, Institute of Advanced Medical Research and Training, College of Medicine, University of Ibadan, Ibadan, Nigeria, ⁸The Dr. John T. Macdonald Foundation Department of Human Genetics & Department of Neurology, University of Miami Miller School of Medicine , ⁹Department of Social Sciences and Health Policy, Wake Forest University School of Medicine

To optimize recruitment of multi-origin African Ancestry populations, we must move beyond study access. It’s essential to employ relevant communication and build trust through educational opportunities and strategic community partnerships.

INTRODUCTION	METHODS	RESULTS	CONCLUSION	REFERENCES																																																																			
- The inclusion of individuals with varied ancestral backgrounds is key to the identification of risk and protective genetic factors for Alzheimer’s disease (AD). - The US arm of the international DAWN study (AG074865), is a multi-site community-based study focusing on the recruitment of individuals of African Ancestry (AfA) and Hispanic/Latino Ancestry (H/L). H/L recruitment includes admixed Caribbean Hispanic (CHI) populations with European, African and Amerindian ancestry. (Figure 1) - US individuals of AfA are not monolithic populations, especially in South Florida (SF), home to individuals that identify as either African Americans (AA), Caribbean American (CA) or one of several admixed CHI populations. - SF is comprised of a Tri-County area (Miami-Dade, Broward, and Palm Beach) that is home to a population with a considerable number of Individuals Identifying as one of these groups. Admixture in America <table><caption>Figure 1: Admixture in America</caption><tr><th>Population</th><th>African (%)</th><th>European (%)</th><th>Amerindian (%)</th></tr><tr><td>African Americans</td><td>79</td><td>21</td><td>0</td></tr><tr><td>Mexican Americans</td><td>40</td><td>56</td><td>4</td></tr><tr><td>Cuban Americans</td><td>20</td><td>72</td><td>8</td></tr><tr><td>Puerto Ricans</td><td>22</td><td>63</td><td>15</td></tr><tr><td>Dominicans</td><td>40</td><td>50</td><td>10</td></tr><tr><td>Peruvians</td><td>73</td><td>22</td><td>5</td></tr></table>	Population	African (%)	European (%)	Amerindian (%)	African Americans	79	21	0	Mexican Americans	40	56	4	Cuban Americans	20	72	8	Puerto Ricans	22	63	15	Dominicans	40	50	10	Peruvians	73	22	5	- We drew upon publicly available data from the U.S. Census Bureau to establish demographic context for the study area and to guide our outreach efforts. - Our engagement strategies included presentations, literature distribution, tabling at health fairs, and community chew & chat sessions with various groups. - During presentations information on genetics, Alzheimer’s disease and related dementias, and risk factors were reviewed. Community members engaged in Q&A with clinical staff and received details on research study participation. - We modified verbiage and presentation materials to amplify traditionally relevant aspects of the heterogenous AfA SF population, and when possible leveraged translation. (Figure 2). Disease risks can affect anyone <table><caption>Figure 2: Disease risks can affect anyone</caption><tr><th>Individual</th><th>Condition</th></tr><tr><td>Toni Braxton - Singer</td><td>Lupus</td></tr><tr><td>Sofia Vergara - Actress</td><td>Thyroid Cancer</td></tr><tr><td>Celia Cruz - Cuban Singer</td><td>Colorectal Disease</td></tr><tr><td>Robin Roberts - TV Host</td><td>Breast Cancer</td></tr><tr><td>Muhammad Ali - Boxer</td><td>Parkinson's</td></tr><tr><td>Venus Williams - Professional Tennis Player</td><td>Sjogren's Disorder</td></tr><tr><td>Ronald Reagan - US President</td><td>Alzheimer's Disease</td></tr></table> Figure 2 Interested seniors completed a contact form and were called to schedule an enrollment appointment. After over 70 recruitment efforts we measured the conversion rate from interested to enrolled.	Individual	Condition	Toni Braxton - Singer	Lupus	Sofia Vergara - Actress	Thyroid Cancer	Celia Cruz - Cuban Singer	Colorectal Disease	Robin Roberts - TV Host	Breast Cancer	Muhammad Ali - Boxer	Parkinson's	Venus Williams - Professional Tennis Player	Sjogren's Disorder	Ronald Reagan - US President	Alzheimer's Disease	- Our analysis indicated that the participant conversion rate from interest to enrollment differed significantly based on the recruitment source ($p=1.1 \times 10^{-4}$). (Figure 3). Figure 3 <table><caption>Figure 3: Recruitment Source</caption><tr><th>Recruitment Source</th><th>Interest to Enrollment Conversion Rate (%)</th></tr><tr><td>Expos/ Health Fairs</td><td>40.20%</td></tr><tr><td>Social/ Civic Groups</td><td>53.90%</td></tr><tr><td>Senior Centers</td><td>56.80%</td></tr><tr><td>Active Older Adults</td><td>66%</td></tr><tr><td>Direct Referrals</td><td>69.20%</td></tr><tr><td>Wellness Partnerships</td><td>85.70%</td></tr></table> - The recruitment efforts with the highest conversion rates were those from Wellness Partnership Organizations (85.7%), Direct Referrals from participants or community members (69.2%) and individuals from Active Older Adults programs (66%). - When evaluating all recruitment efforts, educational presentation exposure was associated with a higher enrollment conversion (58.7%) vs. 47.1%; $p=0.0048$. (Figure 4). Figure 4 <table><caption>Figure 4: Presentation</caption><tr><th>Presentation</th><th>Enrolled (%)</th><th>Did Not Enroll (%)</th></tr><tr><td>No Presentation</td><td>47.10%</td><td>52.90%</td></tr><tr><td>Presentation</td><td>58.70%</td><td>41.30%</td></tr></table>	Recruitment Source	Interest to Enrollment Conversion Rate (%)	Expos/ Health Fairs	40.20%	Social/ Civic Groups	53.90%	Senior Centers	56.80%	Active Older Adults	66%	Direct Referrals	69.20%	Wellness Partnerships	85.70%	Presentation	Enrolled (%)	Did Not Enroll (%)	No Presentation	47.10%	52.90%	Presentation	58.70%	41.30%	- Expos and Health Fairs were the least successful mode of recruitment, which can be linked to the limited time available in those busy settings. - The high conversion rate in active older adults’ programs compared to senior centers signaled that independence likely influenced study enrollment outcomes. - Educational presentations proved critical in providing meaningful opportunities to build trust with clinical staff and contribute to informed decision-making. These outreach opportunities allowed for community members to spend significant interactive time with clinical staff prior to expressing interest in study participation. - Our findings suggest that the support and approval of peers, as evidenced by direct referrals and knowledgeable professionals seen in wellness organization partnerships were a determining factor in research participation in our AfA SF population.	1 US Census Bureau, American Community Survey. 2 Flanagan A et al. The Reporting of Race and Ethnicity in Medical and Science Journals. 3 Shaw AR et al. Recruitment of Older African Americans in Alzheimer’s Disease Clinical Trial Using a Community Education Approach. 4 Byrd GS et al. Recruiting Intergenerational African American Males for Biomedical Research Studies: A Major Research Challenge. 5 Lang, R et al. African American Participation in health-Related Research Studies: Indicators for Effective Recruitment. 6 NIH, National Institute on Minority Health and Disparities Social & Economic Environment Population Map. CONTACT Tina Duke tinaduke@miami.edu https://thedawnstudy.com/ Funding: This research was supported by grant U19AG074865 and RO1AG072547 from the NIA of NIH. Acknowledgements: The authors want to thank the participants and their families for contributing to this research project.
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