

The Caribbean-American Dementia and Aging Study (CADAS): a multinational initiative to address dementia in Caribbean populations.

Jorge J Llibre Guerra, MD, Jing Li, PhD, Amal Harrati, PhD, Ivonne Z. Jiménez Velázquez, MD, Daisy Acosta, MD, Juan de Jesús Llibre Rodríguez, MD, PhD, Mao-Mei Liu, PhD, William H. Dow, PhD

Introduction

Most of the studies in Alzheimer’s Disease (AD) include Latino populations within the same group, failing to sufficiently account for the diversity represented across Latino communities including:

- Genetic ancestry
- Cultural beliefs
- Environmental factors
- Socioeconomic diversity

There is substantial AD heterogeneity among Hispanic groups.



The Caribbean-American Dementia and Aging Study (CADAS) is a multinational initiative aimed to answer key questions regarding dementia determinants and consequences in Caribbean-origin populations in origin communities as well as among emigrant populations in the United States.

Objective

1. Collect survey data in non-metro Puerto Rico, Cuba and Dominican Republic that parallel existing 10/66 samples collected in capital city areas in each country/island.
2. Analyze dementia relationship with hypothesized life course socioeconomic determinants in Caribbean populations.
3. Analyze societal costs of dementia as shaped by country/island-specific factors (e.g., health care utilization, ADL/IADL limitations, co-residence patterns, and caregiving time costs)

Setting:

1. **New recruitment:** potential participants from the general population, using a door-to-door strategy and from representative non-metro areas from Dominican Republic and Puerto Rico. Subjects are eligible for the study if they fulfil the following criteria:
 - 65 years old or older
 - Presence of a knowledgeable informant and/or presence of a contact that allows the follow up of the participant

2. **Cross-country comparisons:** Harmonized analyses of dementia determinants and societal costs across these populations as well as comparing with the Cuban 10/66, the U.S HRS and Harmonized Cognitive Assessment Protocol (HCAP) data (Table 1 & Figure 1).

Table 1. Existing HRS and 10/66 data and expected recruitment.*

	HRS (N=9834)	10/66. (N=6833)	CADAS**. (N=4000)
Age mean/SD	74.3 ± 7.6	73.4 ± 7.4	73.5 ± 8.0
Female n(%)	5631 (56.3)	7444 (58.5)	2200 (55.0)
Education>9yr n(%)	6412 (65.2)	1948 (15.3)	1520 (38.0)
Dementia n(%)	895 (9.1)	1401 (11.1)	520 (13.0)
Hispanics* n(%)	937 (9.5)	12 734 (100)	4000 (100)

*Hispanics: 56.4% Caribbean, 43.6% Non-Caribbean (including 10/66 and HRS combined).

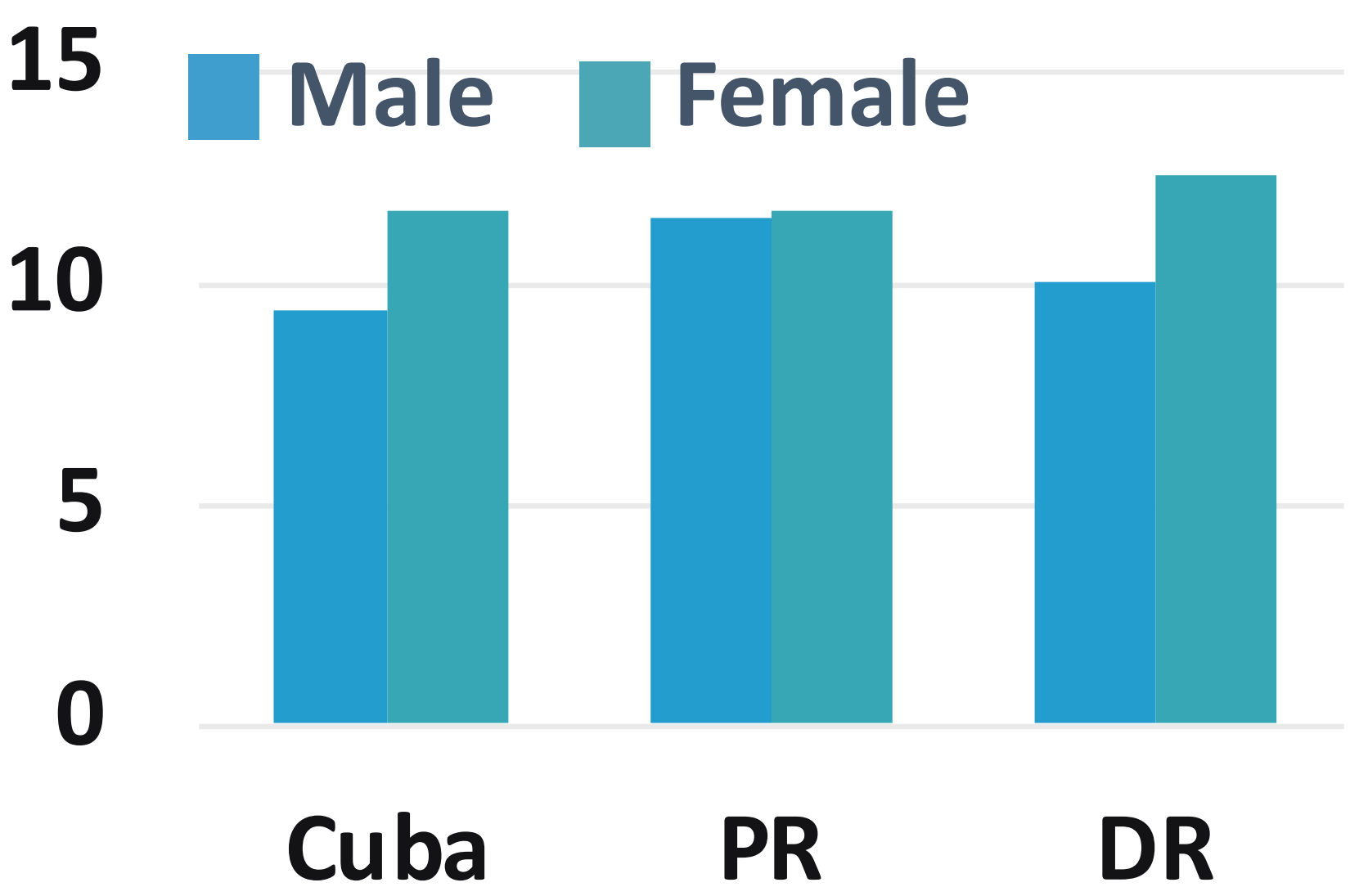
**Estimated recruitment

Methods/design



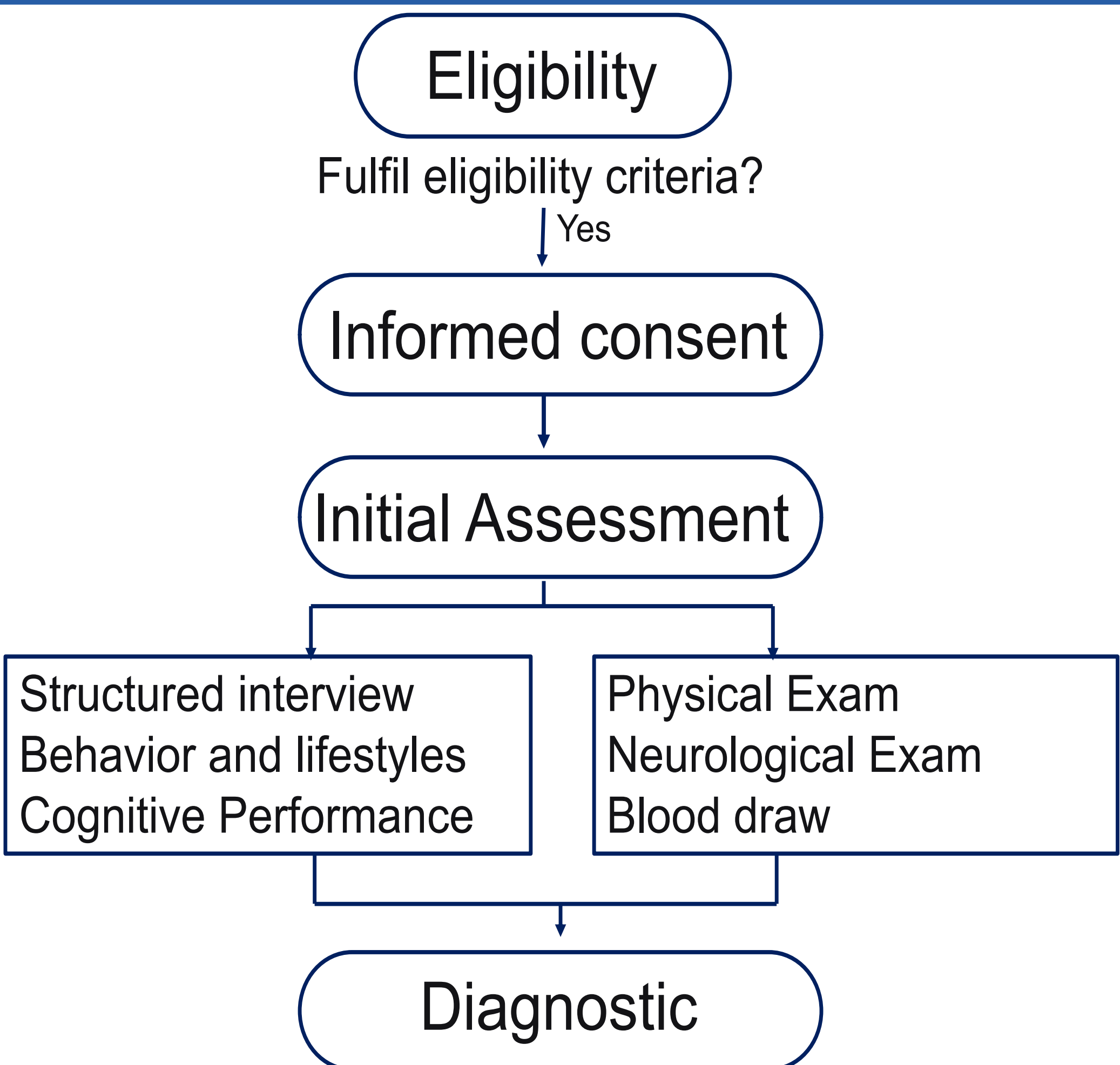
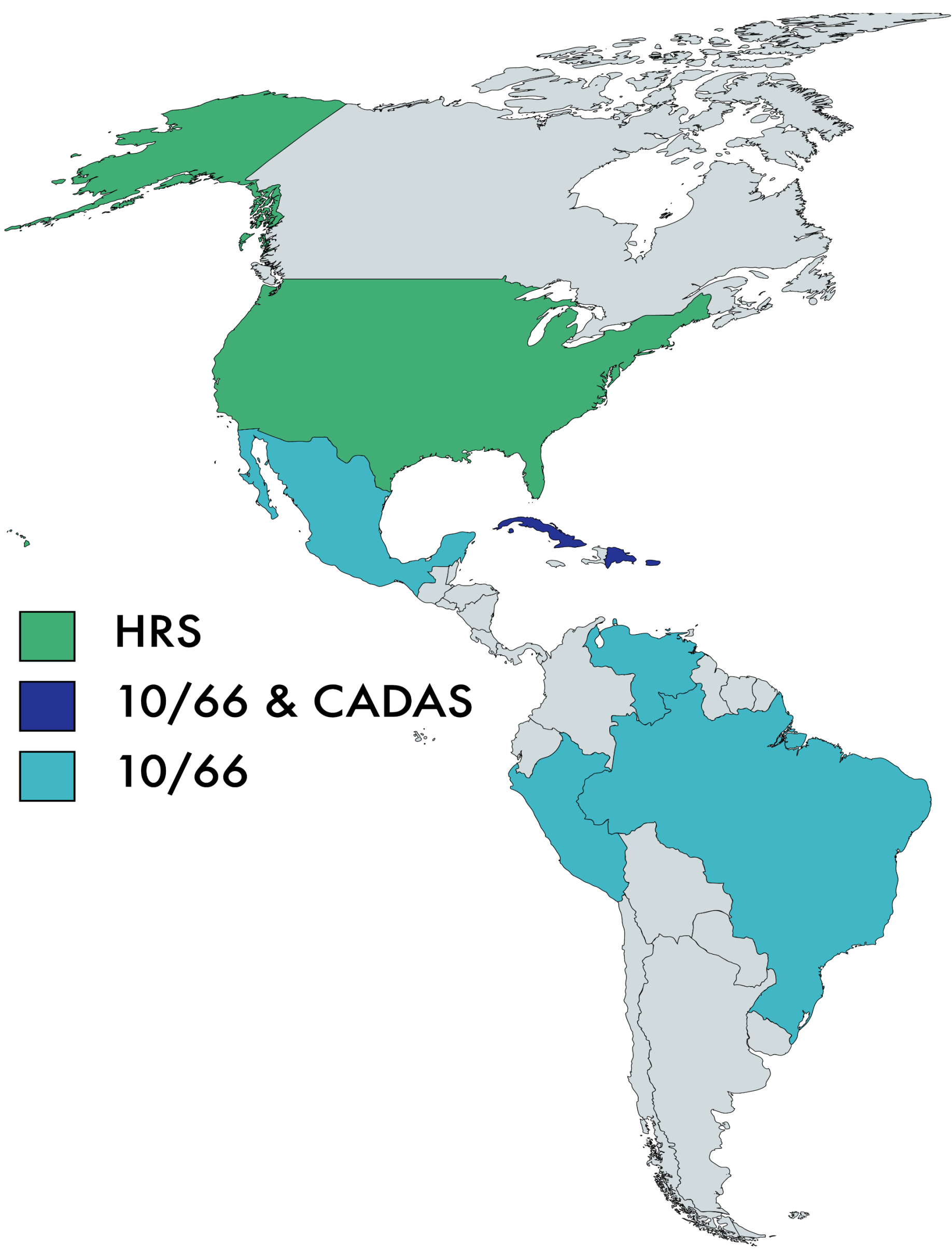
More than 365,000
Caribbean-Hispanic living with dementia.

Dementia Prevalence by gender.



*10/66 urban sample ages 65+

Figure 1. Population based cohorts



Future Directions

CADAS will enable substantial advances in:

- Estimation of dementia prevalence levels in these Caribbean populations relative to the those in the U.S. using instruments harmonized with the U.S. HRS.
- Studying risk factors driving dementia prevalence in Caribbean-origin populations, and comparisons across populations to simulate how prevalence could plausibly be different if social circumstances changed.
- Quantifying societal costs of dementia, to understand how these costs could plausibly be different if societal arrangements changed.

Contact Information:

Jorge J Llibre Guerra MD,MSc.
Dominantly Inherited Alzheimer's Network Trials Unit|
Washington University School of Medicine in St.Louis.
Email: jllibre-guerra@wustl.edu

Acknowledgements: This research is supported by NIH grant R01AG064778