

TEXAS ALZHEIMER'S  
RESEARCH CONSORTIUM

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## *Researching Alzheimer's Disease among Underserved Texans*

*Sid E. O'Bryant, PhD  
Director, Rural Health Research  
F. Marie Hall Institute for Rural & Community Health  
Assistant Professor  
Department of Neurology  
Texas Tech University Health Sciences Center  
Lubbock, Texas*



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# Demographics of Texas

- *Texas is rich in ethnic, cultural, and geographic diversity*
- As of 2008
  - Hispanic/Latino = 37% of TX population
  - African American = 12% of TX population
- Rural = 17% of population



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# Why is it important to study Alzheimer's Disease among Texans of Hispanic Origin?

- As of 2008, Texas was home to 8.9 million Hispanics
  - 48% of all Hispanics in U.S. reside in either Texas or California
  - Nearly one quarter of Texas population is Mexican American
  - 97% of Starr County is Hispanic
  - All top 10 U.S. counties for highest Hispanic populations are in Texas
- The Texas Hispanic population is younger than the non-Hispanic population
  - Hispanics are the fastest aging population in Texas
  - Therefore, the numbers of Hispanic Texans developing Alzheimer's disease will continue to grow rapidly
- There are cultural barriers that need to be addressed
  - Term “dementia”
  - Obtaining informant reports





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# Why is it important to study Alzheimer's Disease among Texans of Hispanic Origin?

- Hispanic elders present for initial examination to dementia specialty clinics later during the course of Alzheimer's disease
- There is evidence suggesting that Hispanics may develop the disease at a younger age
- It is possible that different biological mechanisms drive Alzheimer's disease between ethnic/racial groups
  - In Hispanics, diabetes may be stronger driving factor
- There is very little research on Alzheimer's disease among Hispanic populations (or Mexican Americans), despite the fact that this is the largest ethnic minority group in the U.S. (and Texas)



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# What is TARC doing to study Alzheimer's Disease among Texans of Hispanic Origin?

- Recent addition to UTHSC-San Antonio with specific emphasis on enrollment of Mexican Americans (AD, MCI, and controls) into TARC project
- Recruitment is from the San Antonio Heart Study (SAHS) participants who have a wealth of existing information on cardiovascular disease and associated risk factors (e.g. diabetes)
- Will follow participants over time to look at development and progression of Alzheimer's disease



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# What is TARC doing to study Alzheimer's Disease among Texans of Hispanic Origin?

- TARC has an emphasis on genetic and blood-based biomarkers associated with Alzheimer's disease, which may differ by ethnicity and race
- Many of the San Antonio participants already have genetic data related to cardiovascular disease and diabetes, which can be combined with TARC data
- Projects looking to identify a blood test for, and subgroups of (endophenotypes), Alzheimer's disease can be tailored specifically to Mexican Americans
- ❖ **TARC is taking significant steps towards meeting the Science goal of the State Alzheimer's Disease Plan by reaching out to underserved Texans**



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# Why is it important to study Alzheimer's Disease among rural Texans?

- Texas has the largest rural population in the U.S. with more than 3.6 million residents
- 80% of Texas' counties are rural
- The percentage of older (and oldest old) individuals is higher in rural counties
- The percentage is growing as
  - Rural communities become more frequent retirement locations (particularly for baby-boomers)
  - Younger rural individuals move to urban areas for employment opportunities
- By 2020, the Hispanic population in rural areas is expected to double to 1.6 million



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# Why is it important to study Alzheimer's Disease among rural Texans?

- Rural Texans have less access to healthcare
- Rural Texans make, on average, \$10,000 less than urban Texans
- The poverty rate is higher (18.5%) among rural Texans than urban (15.5%)
- 30.4% of rural Texans have not completed a high school education as compared to 23% of urban Texans



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# Why is it important to study Alzheimer's Disease among rural Texans?

- Environmental exposures vary between rural and urban regions
  - Groundwater metal levels often higher among rural regions
  - Agricultural runoff
- Rural individuals have higher prevalence of cardiovascular disease and related risk factors, which also increase risk for Alzheimer's disease
- Non-specialists do not identify Alzheimer's disease as early or accurately & rural elders have far less access to specialty clinics



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# Studying Alzheimer's Disease among rural Texans

- There are rural researchers involved with TARC
- By nature of Texas geography, a portion of current TARC participants reside in rural areas



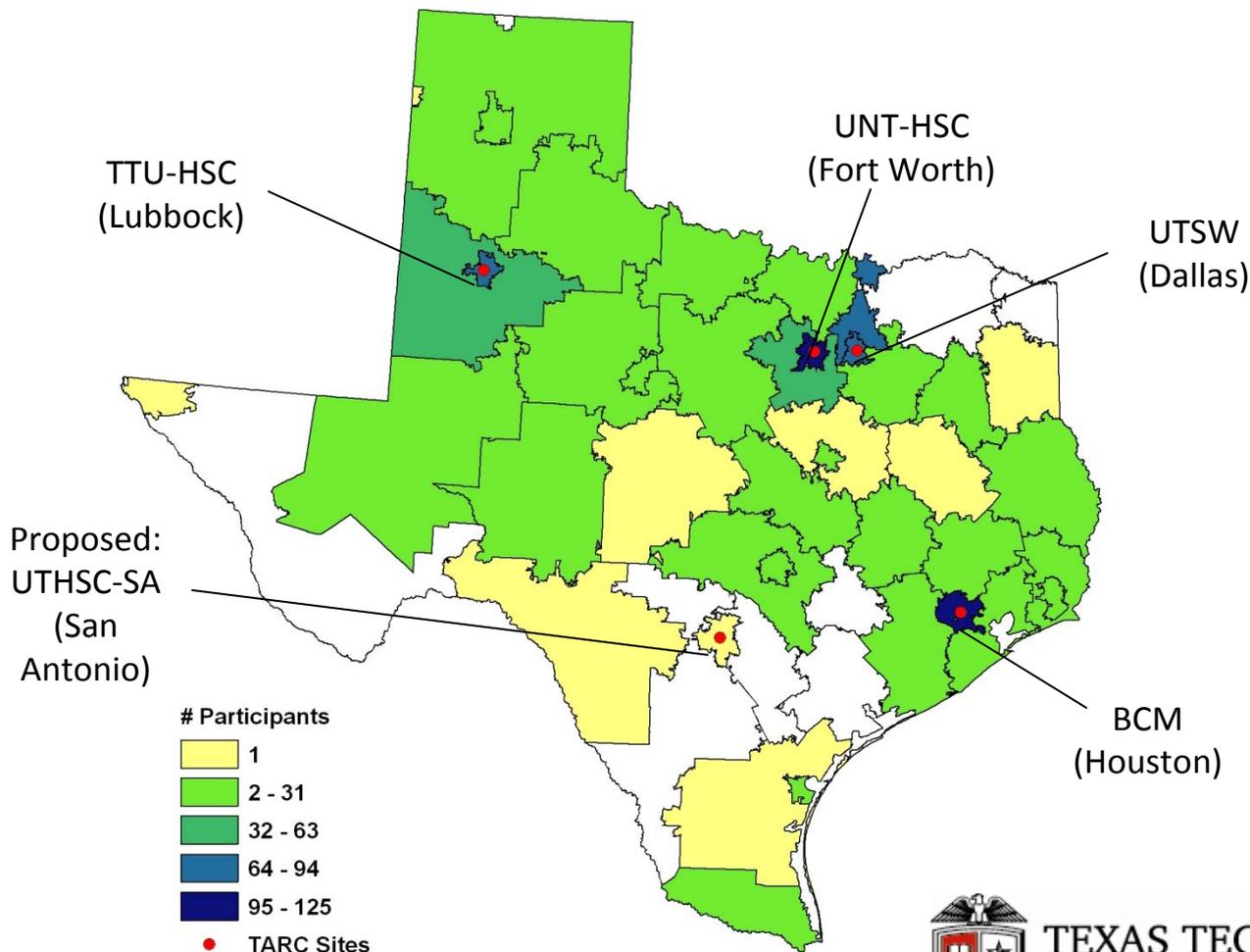
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# Distribution of participants by primary residence at baseline examination

*Areas based on first 3 digits of zip code*

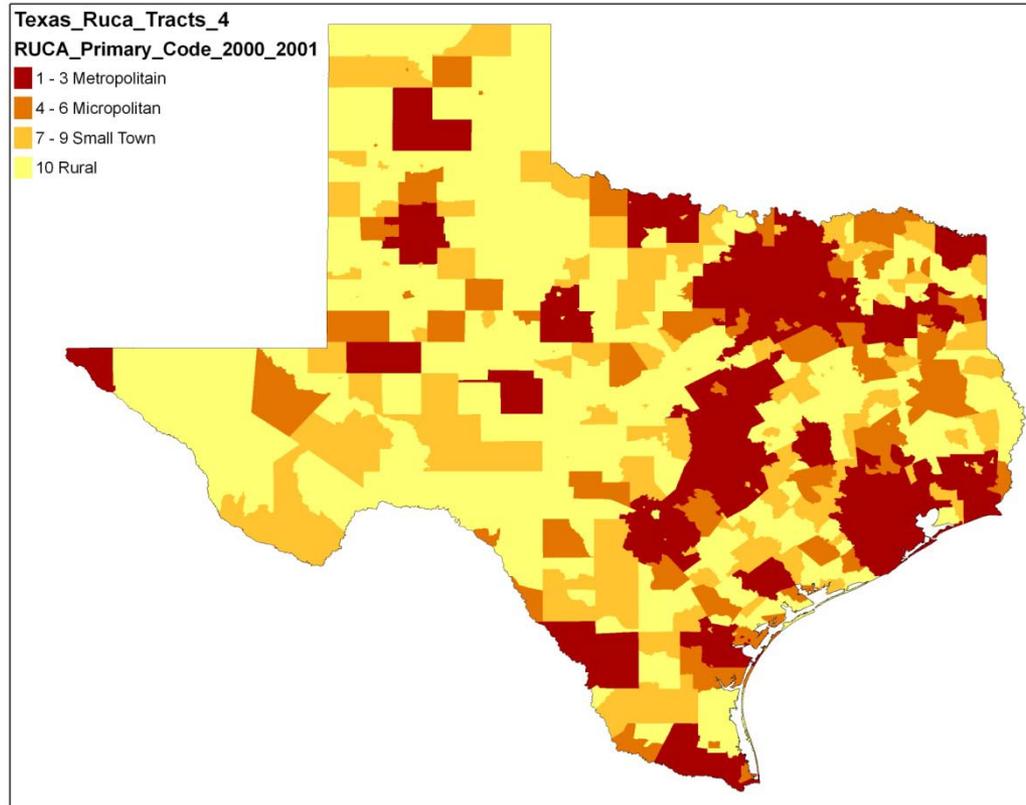


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# Geography of Texas



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# Ongoing Studies of Alzheimer's Disease among rural Texans

- There are ongoing studies in Texas available for collaboration
  - Drinking water and Alzheimer's disease project
  - Project FRONTIER – Facing Rural Obstacles to healthcare Now Through Intervention, Education, and Research
    - Epidemiological study of health of rural Texas adults and elders
- ❖ **Building collaborative relations between TARC and existing Texas-based studies and scientists will further the Texas State Alzheimer's Disease Plan science goal of reaching underserved Texans**



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# Summary

- TARC has taken noteworthy strides for advancing the science of Alzheimer's disease in Texas
  - Have made significant steps towards creating a blood test for AD
  - Novel genetics
- TARC has begun recruiting Mexican Americans which will provide one of the largest studies in the U.S. of how Alzheimer's disease impacts this large, but underserved, segment of Texas
- TARC has collaborative opportunities with ongoing studies, including those focusing on rural older Texans
- ❖ **TARC can, and should be, a springboard for advancing the science goal of the State Alzheimer's Disease Plan**



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# Questions?



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