



Hispanic Community Health Study – Study of Latinos *HCHS-SOL*

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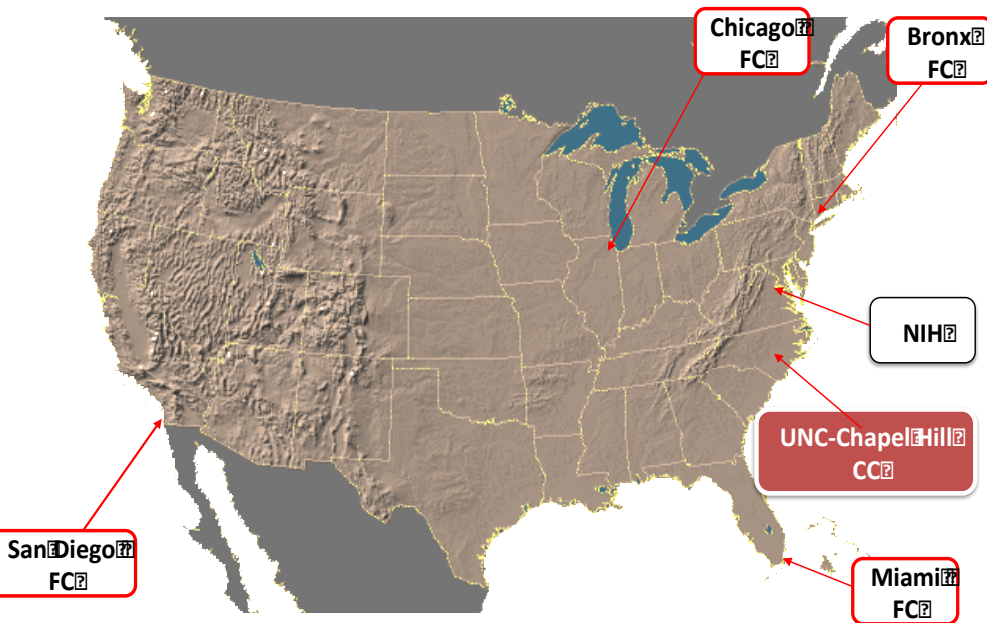
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Cohort Collaboration Meeting

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HCHS - SOL cohort overview



N=16,415 Hispanic adults

Aged 18 to 74 years old at baseline

~10K over 45 yrs old

~6K under 45 yrs old

Visit 1 2008-2011 (baseline)

Visit 2 2014-2017

Ongoing event ascertainment

Stored blood, urine, DNA, Paxgene

80% of cohort members were born outside of the 50 states

GWAS demonstrates ancestral diversity within and across groups

14% Cuban, 9% Dominican, 17% Puerto Rican, 39% Mexican, 11% Central American, 7% South American, 4% other/mixed background

Demographic Characteristics



Baseline Characteristics	ALL	Cuban	Domin. Republic	Mexico	Puerto Rican	Cent Amer	South Amer
N	16,415	2,201	1,400	6,232	2,590	1,634	1022
Men, %	40	46	34	37	41	39	40
US Residence >10 years, %	69	45	73	73	92	62	53
Prefers Spanish, %	77	91	80	81	42	89	89
College degree, %	15	20	15	12	14	14	22
Income >\$50K, %	11	8	7	14	14	7	11
Health insurance,%	50	40	72	44	77	34	41

Number of adverse CVD risk factors increases with greater exposure to US

	No major risk factors	≥ 3 major risk factors
US born	19%	19%
Foreign born, all	26%	14%
Foreign born, <10 yrs in US	29%	11%

Social and cultural determinants

- Existing data in HCHS-SOL

Diet (repeat 24 hr recalls, FPQ, Q's)

Physical activity (GPAQ, Actical)

Depression: Center for Epidemiological Studies Depression Scale

Anxiety: Spielberger Trait Anxiety Scale

Chronic Stress: Chronic Burden Scale

Functional Social support: Interpersonal Support Evaluation List

Family cohesion, social network size

Acculturation Indicators: Nativity and Residential History, Citizenship

Acculturation: Short Acculturation Scale for Hispanics

Health insurance, use and barriers to receiving care, ED visits

Additional 2-3 hr assessments performed on a 1/3 cohort subset (N=5200)

- Average SES metrics (wealth, income, occup. class, citizenship) and insurance lower than most cohorts

Agenda

1. Inventory other cohorts with comparable psychosocial, socioeconomic and lifestyle assessments
2. Look carefully at psychometric properties to assure ability to compare across populations and across languages
3. For HCHS-SOL measures that may be unique among large cohorts, generate pilot data for new data collection by others
4. Use correlations in observational data to identify psychosocial or SES aspects that may be targets of intervention
5. Bring together gene-by-environment interaction collaborations to find variation in responses to stressors
6. Consider what is the appropriate control population for Hispanics (other race/ethnic groups; other low SES or foreign-born)
7. Coordinate with other cohorts in active exam follow-up

Research areas relating to psychosocial, cultural and SES factors

- Barriers to diagnosis/treatment of heart failure, asthma, cerebrovascular disease, diabetes
- Effects of Affordable Care Act on insurance and utilization
- Effects of stressors and life adversity on CV health
- Strong social support and family cohesiveness may buffer against disadvantages and risk factors
- Older adulthood in Hispanic context: low SES; large families present support and obligations
- Patient-reported outcomes

Topics related to interventions

- Documented underuse of available CVD prevention approaches in HCHS-SOL (smoking cessation, drug and behavioral treatments for hypertension and diabetes)
- Language, cultural and socioeconomic differences often require tailoring of interventions for Hispanics
- Studying HCHS-SOL families can illuminate barriers or facilitators and present intervention opportunities
 - Average = 1.8 adult HCHS-SOL members per household
 - “SOL-Youth” cohort of 1,500 offspring 8 to 16 years old

Design of intervention studies

- Low cost mHealth interventions (Hispanics tend to be early adopters). Randomize participants and the cohort study provides passive follow up
- Younger adult populations represented in HCHS-SOL and other cohorts might be a fundable and responsive population (N~6000 aged 18- 45)
- Regional centers in cities with multiple cohort sites could provide cost efficiencies and control for geographic context

Non-standard phenotypes in HCHS-SOL

- Home sleep apnea study plus subset with sleep actigraphy
- Echocardiography
- Oral and periodontal examination
- Otoscopy and hearing examination
- Events protocol collects emergency department visits
- Maternal pregnancy complications are identified + reviewed
- Lifestyle:
 - 7 day accelerometry
 - Repeat 24 hour diet recalls supplemented by questionnaires
 - Doubly-labeled water study calibration of diet and activity

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Chicago Field Center –University of Illinois Chicago, Martha L. Daviglius, Jim Lash
Miami Field Center – University of Miami, Neil Schneiderman
San Diego Field Center –San Diego State University, Greg Talavera, Matt Allison, Michael Criqui
Coordinating Center – University of North Carolina, Jianwen Cai, Gerardo Heiss
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Echocardiography Center – Brigham and Women's Hospital, Scott Solomon
Genetic Analysis Center – University of Washington, Bruce Weir
Audiometry Center - University of Wisconsin, Karen J. Cruickshanks
ECG Reading Center – Wake Forest University, Elsayed Soliman
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