



Question: What is the relationship between acculturation, dietary intake and cardiovascular disease?

Table 1: Summary of studies examining the association between multidimensional or multiple proxy measures of acculturation and cardiovascular disease

Author, Year Data Source, Location Risk of Bias*	Race/Ethnicity Sample Size Age % Female	Acculturation Measure/Proxy CVD Measures	Results
<p>Daviglus, 2012</p> <p>Hispanic Community Health Study/Study of Latinos (HCHS/SOL) 2008-2011, New York, Illinois, Florida, California</p> <p>Risk of Bias: 4/24</p>	<p>Latino/Hispanic: Cuba; Dominican Republic, Mexico, Puerto Rico, Central America, South America, Country of birth (US/Foreign)</p> <p>N=15,079</p> <p>43.2y (Range 43.1-~44y)</p> <p>60.3% female</p>	<p>Short Acculturation Scale for Hispanics (SASH) (incorporates years of US residence, generational status, and language preference)</p> <p>Self-reported: Acculturation, physical activity, diet (1 24-hr recall), prevalent CHD, prevalence of stroke</p> <p>Measured: Height, weight, blood pressure, plasma glucose, total serum cholesterol, LDL, HbA1c</p>	<p>SASH acculturation score Low (<3) vs. High (≥3):</p> <p>Self-reported CHD % (95% CI):</p> <p><i>SASH score:</i> <i>Low vs. High: NS</i></p> <p>Self-reported Stroke % (95% CI):</p> <p><i>SASH score:</i> <i>Low: 0.7 (0.5, 1.0)</i> <i>High: 1.7 (1.2 - 2.5), P<0.001</i></p> <p>Number of adverse CVD risk factors:</p> <p>No risk factors:</p> <p><i>SASH score:</i> <i>Low: 25.8 (24.4-27.2)</i> <i>High: 20.7 (18.3-23.2), P<0.001</i></p> <p>1 and 2 risk factors: NS</p> <p>3 Risk Factors:</p> <p><i>SASH score:</i> <i>Low: 13.8 (12.8-14.8)</i> <i>High: 18.4 (16.1-20.9), P<0.001</i></p>
<p>Eamranond, 2009</p> <p>MESA, California, New York, Minnesota</p> <p>Risk of Bias: 2/24</p>	<p>Latino/ Hispanic born in Puerto Rico, Mexico, or Dominican Republic</p> <p>N=904 (Hypertension N=580; hypercholesterolemia N=539)</p> <p>63.0y (SD=10.0)</p> <p>53% female</p>	<p>Proxies: Language spoken at home (English vs. Spanish); proportion of life in the US</p> <p>Measured blood pressure (BP) and LDL cholesterol</p>	<p>Analysis among subjects with diagnosed risk factors (β±SE) (Ref groups: English language and US born)</p> <p>Language:</p> <p><i>Systolic BP: NS</i> <i>LDL cholesterol: 7.5±3.7, P=0.05</i></p> <p>Proportion of time in US:</p> <p><i>Systolic BP: NS</i> <i>LDL: NS</i></p>



Question: What is the relationship between acculturation, dietary intake and cardiovascular disease?

Table 1: Summary of studies examining the association between multidimensional or multiple proxy measures of acculturation and cardiovascular disease

Author, Year Data Source, Location Risk of Bias*	Race/Ethnicity Sample Size Age % Female	Acculturation Measure/Proxy CVD Measures	Results
<p>Eamranond PP, Wee C et al, 2009</p> <p>National Health and Nutrition Examination Survey (NHANES) 1999-2004, USA</p> <p>Risk of Bias: 0/24</p>	<p>Hispanic born in Puerto Rico, Mexico, or Dominican Republic</p> <p>N=4,729</p> <p>18-85y</p> <p>By acculturation level: Low: 57%, Medium: 47%, High: 55% female</p>	<p>Short Acculturation Scale (SAS), five-item Spanish language usage scale</p> <p>Self-reported diagnosis, current use of disease-specific medication, and/or laboratory/physical examination detected hypercholesterolemia, hypertension, diabetes, LDL cholesterol, systolic blood pressure, hemoglobin A1c</p>	<p>Analysis among subjects with diagnosed risk factors (OR (95% CI) (Ref groups: High acculturation)</p> <p>Language:</p> <p>Poorly controlled cholesterol:</p> <p><i>Moderate acculturation: 1.45 (0.70, 3.03)</i> <i>High acculturation: 4.49 (1.43, 14.09)</i></p> <p>Poorly controlled blood pressure:</p> <p><i>Moderate acculturation: NS</i> <i>High acculturation: NS</i></p>
<p>Kershaw, 2012</p> <p>NHANES 2003-2008, USA</p> <p>Risk of Bias: 2/24</p>	<p>Hispanic (26.4%), Non-Hispanic White (73.6%)</p> <p>N=8,693</p> <p>20y and older (mean ~42y)</p> <p>50% female</p>	<p>Proxy measures: Language that the questionnaire was completed in (Spanish versus English); language usually used at home (Spanish vs. English); number of years residing in the US (<10 vs. 10 or more years)</p> <p>Measured total cholesterol, HbA1C, resting blood pressure; weight and height; self-reported diabetes, use of cholesterol lowering medication, and use of antihypertensive medication</p>	<p>Low cardiovascular risk (Comparing Spanish vs. English language questionnaire): NS</p> <p>Comparing Spanish vs. English spoken at home: [OR=2.25 (95% CI=1.20-4.23)]</p> <p>Comparing foreign-born Mexican Americans living in the US for less than 10y to US-born Mexican Americans: [OR=4.30 (95% CI: 2.61, 7.10)]</p> <p>Comparing foreign-born Mexican Americans living in the US for ≥10y to US-born Mexican Americans: NS</p>



Question: What is the relationship between acculturation, dietary intake and cardiovascular disease?

Table 1: Summary of studies examining the association between multidimensional or multiple proxy measures of acculturation and cardiovascular disease

Author, Year Data Source, Location Risk of Bias*	Race/Ethnicity Sample Size Age % Female	Acculturation Measure/Proxy CVD Measures	Results
Koya DL, 2007 National Health Interview Survey (NHIS) 2002, USA Risk of Bias: 4/24	Immigrants to US born in South/Central America, Europe, Africa, and Middle East/Asia N=5,230 42.7y (SE=0.2) 50% female	Proxy measures: Years of residence (<10, 10 to <15, and ≥15 years); country of birth, analyzed separately Self-reported hypertension, hyperlipidemia diagnoses	Hypertension by length of residence and gender: NS for all groups Hyperlipidemia: >15 years of US residence: <i>All:</i> OR=1.59 (95% CI= 1.14-2.22; P<0.05) <i>Males:</i> 2.02 (95% CI=1.23-3.32; P<0.05) <i>Females:</i> NS 10 to <15 years of US residence: <i>Analyzed for all, men and women:</i> NS
van Rompay 2012 Boston Puerto Rican Health Study Risk of Bias: 2/24	Puerto Rican descent N=1,219 45-75y (mean ~58y) 72% female	Psychological Acculturation Scale; Bi-dimensional Acculturation Scale; length of stay HTN: Measured SBP ≥140mmHg, DBP≥90mmHg, or use of anti-hypertensive medication;	HTN (%) <i>By BAS quartiles:</i> P for trend NS <i>HTN by PAS or LOS quartiles:</i> NS

*Risk of Bias as determined using the Nutrition Evidence Library Bias Assessment Tool