ASSOCIATION OF SOCIO DEMOGRAPHIC CHARACTERISTICS AND HEALTH BEHAVIORS WITH MEASURES OF ADIPOSITY IN A SAMPLE OF MIAMI HISPANICS

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Learning Outcome
To identify socio-demographic characteristics and health behaviors correlated to three measures of adiposity: body mass index (BMI), waist circumference (WC), and waist-hip ratio (WHR) in a sample of Miami Hispanics and assess the impact of those characteristics and behaviors on these measures.

Background
Unlike most US Hispanics, those in our Miami sample are mostly from the Caribbean, Central and South America. Less than 2% are Mexican. Socioeconomic factors including low education, unemployment, and lack of health insurance have been shown to be associated with measures of adiposity in other populations including Mexican Americans. Approximately 32.4% of the 45 million uninsured Americans are Hispanic.

Methods
Analysis was performed on retrospective data from 727 Hispanic participants aged 18+ who responded to free cardiovascular screenings; more than 90% was uninsured.
Data gathered included socio-economic, marital, educational, employment and insurance status. Health behaviors included: alcohol use, smoking status, and exercise activity. Indices of adiposity included: BMI, WC, and WHR. Chi-square analysis was used to determine significant associations.

Results
Exercise, insurance, education, marital status showed association with BMI but did not reach statistical significance.

WC (>35 in females and >40 in males) was associated with lower education level (p<0.001) and employment status (p<0.001). Alcohol consumption was inversely correlated with WC (p<0.001). There was a correlation with exercise (p=0.018) and lack of insurance (p=0.015) Waist to hip ratio (≥ 0.88 in females and ≥ 0.95 in males) was associated with lower education (p=0.004) and inversely correlated with increased alcohol consumption (p<0.001).

Conclusions
WC appears to be the measure of adiposity that correlates most closely with the socioeconomic and health behaviors studied in this population.

One interesting finding is that measured by both WC and WHR, moderate Hispanic drinkers are less adipose than abstainers; whether this is due to the type of alcohol consumption or other factors is unknown and warrants further study. Moderate consumption has been reported to be cardiovascular-protective. Socio-economic factors such as employment and education were associated with central adiposity in this sample and suggest the need for unique intervention strategies for effective health behaviors initiatives for reducing abdominal obesity.