

Healthy Eating and Physical Activity Index

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The Community Diabetes Initiatives

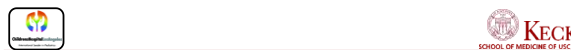


Presenter Disclosures

Valerie F. Ruelas

- (1) The following personal financial relationships with commercial interests relevant to this presentation existed during the past 12 months:

No relationships to disclose



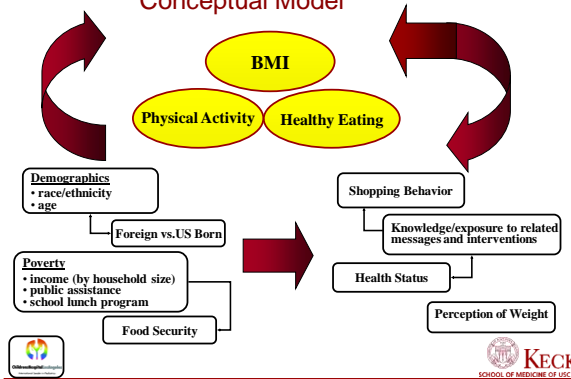
Community Diabetes Initiatives Background

The Community Diabetes Initiative (CDI) is a collaboration between local community members, the Keck School of Medicine of USC, Childrens Hospital Los Angeles and the Los Angeles County Department of Health Services with initial funding from the W.M. Keck Foundation. Since 2004, the CDI has worked to reduce the prevalence of obesity and diabetes in two low-income, high-disparity communities in South and East Los Angeles using community-based participatory research principles.

- Identify contributors to diet quality, physical activity, and healthcare utilization
 - Community Assessment – surveys, key informant interviews, spatial analysis, community observations
- In partnership with community, develop strategies to prevent diabetes and promote healthy lifestyle choices
 - Community Advisory Boards
 - Interviews with community residents and key stakeholders
- Engage and mobilize experts, government officials, community leaders, and local residents
 - Grant submissions
 - Dissemination of information
 - Advocate for policy change
- Intervention Implementation and Evaluation



Conceptual Model



Community Assessment Methods

- Community survey 2006 (N = 502) 2008 (N = 400)
 - 30-minute phone survey of adult and a reference child
 - demographics
 - food behavior
 - physical activity
 - health status
 - Random digit dial (RDD) recruitment
 - East LA (n = 250/200), South LA (n = 252/200)
 - Conducted by Field Research Corporation



Healthy Eating and Physical Activity Index

- Population-based surveys rarely report on the interplay of behaviors related to food consumption and physical activity behavior.
- The purpose of these indices is to provide a more nuanced, holistic assessment of healthy vs. unhealthy behavior, appreciating that healthy behavior in one area (e.g. daily fruit/vegetable consumption or minimal screen time) might be mitigated by unhealthy behavior in another area (e.g., high frequency of sweet beverage consumption).





Healthy Eating Index Components

- Index created from 9 survey items (from CDC's Behavioral Risk Factor Surveillance System - BRFSS California Health Interview Survey - CHIS, and the Los Angeles County Health Survey)
- Survey respondents were asked how often they consume specific food items or engage in a particular behavior, e.g. Never, 1x per week, Daily, etc...
- Each response is scored, ascribing a score of 1 to the most healthy response and 6 to the least healthy.
- A total score of 9 represents the most healthy eating behavior pattern and a total score of 54 represents the most unhealthy pattern.



Scoring Consensus

- Online questionnaire to 4 list serves – approx 800 people
 - Los Angeles Collaborative for Health Active Children
 - Health Education Stakeholders Group of LA
 - California Dietetics Association - Los Angeles
 - California State Physical Activity Specialists
- 80 respondents
 - 86% female
 - 44% White, 11% Latino, 3% African American, 8% API, 5% other
 - Expertise: Nutrition 68%, Physical Activity 18%, other 14%
 - Education: BA 30%, Masters 56%, MD/PhD 8%, other 7%
- Respondents were asked if they agreed or disagreed with how each question was scored. **Goal: 80% consensus**



Healthy Eating Index (HEI)

- How often do you eat vegetables (87%)
- How often do you eat fruits (88%)
- How often do you eat salty snacks (81%)
- How often do you eat meals prepared at home (80%)
- How often do you eat fast food (CHIS) (85%)
- How often do you eat fast food (LA County Health Survey) (90%)
- How often do you drink soda (80%)
- How often do you drink sugary drinks (84%)
- How often do you eat meals prepared at home (88%)



Physical Activity Index Components

- Physical Activity – Index created from 4 survey items
- Physical Activity (BRFSS)
 - Vigorous physical activity for at least 20 minutes
- Screen time (National Health and Nutrition Examination Survey NHANES)
 - Total screen time – computer (non-work/school related) and TV
- Scored using algorithm
- Scores totaled (most healthy = 1, least healthy = 6)

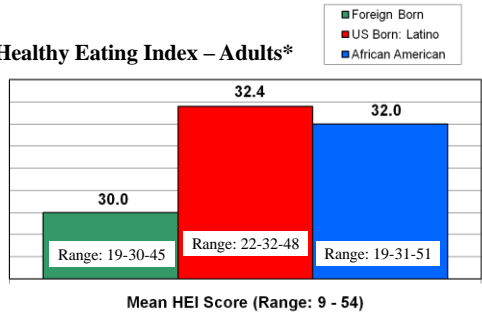


Physical Activity Scoring Algorithm

Exercise	Screen Time	Score
Daily +	No screen time	1
4-6 days	No screen time	2
1-3 days	No screen time	4
No exercise	No screen time	5
Daily +	1 hour per day	1
4-6 days	1 hour per day	2
1-3 days	1 hour per day	4
No exercise	1 hour per day	5
Daily +	2-3 hours per day	2
4-6 days	2-3 hours per day	3
1-3 days	2-3 hours per day	4
No exercise	2-3 hours per day	5
Daily +	4+ hours per day	2
4-6 days	4+ hours per day	4
1-3 days	4+ hours per day	5
No exercise	4+ hours per day	6

86%

Healthy Eating Index – Adults*

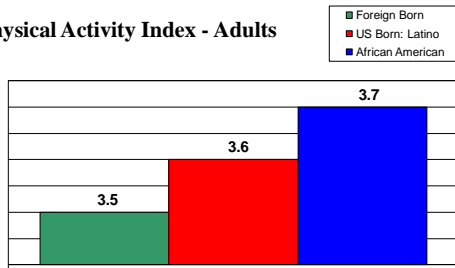


Mean HEI Score (Range: 9 - 54)

* 1 vs. 2 (p=.002); 1 vs. 3 (p<.001)



Physical Activity Index - Adults



Mean Physical Activity Score (Range: 1-6)

- Developing an index for healthy eating and physical activity can be used as a tool with behavior assessment surveys to help understand the intricacies and interplay of eating and physical activity in relation to other variables.
- This index can help inform the development of a tailored intervention.
- This approach can be applied to a variety of behavior questions to identify and reinforce healthy behavior and address behaviors that increase risk.
- We hope to utilize the index on a larger scale and include more communities with varying demographic profiles.



Questions?

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