

Cedarville University DigitalCommons@Cedarville

Pharmacy and Nursing Student Research and Evidence-Based Medicine Poster Session

Fall 12-6-2013

Access to Healthy Foods Across America

Aaron D. Le Poire adlepoire@cedarville.edu

Ginger D. Cameron Cedarville University, gcameron@cedarville.edu

Heather Evankow hevankow@cedarville.edu

Andrea Bashore abashore@cedarville.edu

Jacob Farran jfarran@cedarville.edu

See next page for additional authors

Follow this and additional works at: http://digitalcommons.cedarville.edu/ pharmacy_nursing_poster_session



Part of the Other Pharmacy and Pharmaceutical Sciences Commons

Recommended Citation

Le Poire, Aaron D.; Cameron, Ginger D.; Evankow, Heather; Bashore, Andrea; Farran, Jacob; and Hickey, Jesse, "Access to Healthy Foods Across America" (2013). Pharmacy and Nursing Student Research and Evidence-Based Medicine Poster Session. 51. http://digitalcommons.cedarville.edu/pharmacy_nursing_poster_session/51

This Poster Session is brought to you for free and open access by DigitalCommons@Cedarville, a service of the Centennial Library. It has been accepted for inclusion in Pharmacy and Nursing Student Research and Evidence-Based Medicine Poster Session by an authorized administrator of DigitalCommons@Cedarville. For more information, please contact digitalcommons@cedarville.edu.



Authors Aaron D. Le Poire, Ginger D. Cameron, Heather Evankow, Andrea Bashore, Jacob Farran, and Jesse Hickey	



Access To Healthy Foods Across America

Andrea Bashore, Heather Evankow, Jacob Farran, Jesse Hickey, Aaron LePoire

STATEMENT OF THE PROBLEM

Background

An unhealthy food environment is one of the leading causes of obesity in the United States. Access to healthy foods becomes one of the most important aspects for avoiding all of the disease states associated with excess weight. Some of the major health consequences of obesity include cardiovascular disease, type 2 diabetes, hypertension, stroke, high cholesterol, osteoarthritis, and some cancers. Children can also be affected adversely by being overweight or obese by being prone to high blood pressure, early symptoms of hardening of the arteries, type 2 diabetes, and nonalcoholic fatty liver disease. These health conditions may be accelerated or exacerbated later in life due to childhood overweight and obesity. It is of utmost importance that adults and children alike have access to a healthy food environment. People who have better access to healthy foods have also been shown to eat healthier. Area household income can have a large impact on access to healthy food choices. Income levels have been shown to affect access to healthy foods in local areas, but no study has shown if this is prevalent across the United States.

Significance of the Problem

- Price of low quality food versus healthy alternatives
- Lower income areas have higher priced healthy food choices
- Quality of fresh produce
- Higher income areas have more traditional grocery stores
- Lower income areas have more convenience stores
- Poor quality food has a longer shelf-life
- Inconvenient store hours
- Transportation to grocery stores
- Distance to grocery stores

PROPOSED METHODS

Study Design

 Cross-sectional study designed to compare access to healthy foods across the United States of America.

Sample

• This study will comprise approximately 380 grocery stores with 190 from high income and 190 from low income.

Data Collection

- Nutrition Environment Measures Survey (NEM-S)
- Eligible participants recruited from LinkedIn
- Qualtrics Online Survey that is mobile friendly, scanned and emailed, or filled out by hand and mailed
- Data entered on SPSS

Measurement

• The Nutrition Environment Measures Survey was used to measure and evaluate food availability and quality in grocery stores

OBJECTIVES

To determine if the socioeconomic level of counties affect access to healthier food options across the United States.

- **H_o:** The socioeconomic level of counties does not affect access to healthier food options across the United States.
- \mathbf{H}_{Δ} : The socioeconomic level of counties affects access to healthier food options across the United States.

HYPOTHESES

- REFERENCES
- 2. Daniels SR. The consequences of childhood overweight and obesity. Future Child. 2006;16(1):47-67. 3. Kaufman, MacDonald, Lutz, Mallwood. Do the Poor Pay More for Food? Item Selection and Price Differences Affect Low-Income Household Food Costs.

Must A, Spadano J, Coakley EH, Field AE, Colditz G, Dietz WH. The disease burden associated with overweight and obesity. JAMA. 1999;282(16):1523-9.

- Economic Research Service. 1997. http://www.ers.usda.gov/media/921672/aer759.pdf. Accessed September 8, 2013. 4. Access to Affordable and Nutritious Food: Measuring and Understanding Food Deserts and Their Consequences. Economic research Service. 2009. Available at http://www.ers.usda.gov/media/242675/ap036_1_.pdf. Accessed September 8, 2013.
- 5. Larson NI, Story MT, Nelson MC. Neighborhood environments: disparities in access to healthy foods in the U.S. Am J Prev Med. 2009;36(1):74-81. 6. Morland K, Wing S, Diez roux A, Poole C. Neighborhood characteristics associated with the location of food stores and food service places. Am J Prev Med.
- 2002;22(1):23-9.
- 7. Cheadle A, Psaty BM, Curry S, et al. Community-level comparisons between the grocery store environment and individual dietary practices. Prev Med 1991;20: 250 - 61.

ACKNOWLEDGEMENTS

We would like to thank Dr. Ginger Cameron for contributing her experience and knowledge to this research project.

PROPOSED ANALAYSES

Quantitative

- SPSS software
- Compare high income areas to low income areas based on NEM-S scores

PROJECT TIMELINE

December 2013 Recruitment Begins

Fall 2014 Data Collection Ends

Winter 2014 Analyses and Conclusions Completed

LIMITATIONS

- Limited application of the instrument Nutrition Environment Measures Survey in stores (NEMS-
- Unknown effectiveness of using social media to recruit researchers

FUTURE DIRECTIONS

The goal of this study is to provide a framework for further public health studies of similar nature.