The New Jersey Child Health Study:
A Research Brief

New Jersey Child Health Study

Introduction

Food and physical activity environments where children live, play, and go to school matter. The Institute of Medicine (IOM) and the Centers for Disease Control and Prevention (CDC) have advocated that communities take local action to improve access to healthy food and opportunities for physical activity as measures for preventing childhood obesity.

Communities across the US are working to create environments that support and promote healthy behaviors among children. To be effective, allocation of scarce community resources must be supported by strong locally relevant evidence. The New Jersey Child Health Study (NJCHS), conducted by the Rutgers Center for State Health Policy and the Arizona State University School of Nutrition and Health Promotion, is producing that evidence in low-income communities in New Jersey.

The NJCHS set out to examine the prevalence of childhood obesity and associated behaviors in low-income communities in New Jersey in 2009-10 to help local partnerships design targeted interventions. We also examined environmental factors associated with children's weight status that can be changed through interventions targeting systems, policy, and the food and physical activity environments.

Methodology

Data presented in this brief were collected in 2009-10 from a phone survey of 1,708 households across five cities in New Jersey: Camden, New Brunswick, Newark, Trenton and Vineland. The phone survey, conducted in English and Spanish, included questions about eating and physical activity behaviors for both the respondent (parent) and a randomly selected child from the household, parent's perceptions of their food and physical activity environment, and key demographic variables. Parents also provided measured heights and weights for themselves and all the children in their household. Commercial and publically available data were used to determine households' proximity to parks, physical activity facilities, and various types of food outlets. Nurse measured data were also obtained for school age children from all public schools in the study cities. For analyses that included proximity as a variable, only households in Camden, New Brunswick, Newark, and Trenton were included. The results presented in this brief are based on cross-sectional analyses -- all data were collected at one point in time and therefore can show only associations, not causality. The longitudinal component of the study is currently underway. We are collecting data at multiple time points to assess how changes in the environments around children's homes and schools affect their body weight and associated behaviors. This study will elucidate directionality in associations and allow for conclusions to be drawn about causality. Results from the longitudinal study will be available in 2017.

RUTGERS Center for State Health Policy

ASU School of Nutrition & Health Promotion

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References: Ohri-Vachaspati, et al., *Preventive Medicine*, 57(3), 2013; Ohri-Vachaspati, et al., *Public Health Nutrition*, 1-12, Nov 2014 [Epub ahead of print]; Tang, et al., *Childhood Obesity*, 10 (6), 2014; Ohri-Vachaspati, *Appetite*,74, 44-47, 2013; DeWeese, et al., *American Journal of Preventive Medicine*, 45(4):393-400, 2013; DeWeese and Ohri-Vachaspati, *Journal of Physical Activity and Health*. Dec 2014. [Epub ahead of print]; Echeverría et al. *Journal of Immigration and Minority Health*. Volume 17, 2, 519-526, 2015.

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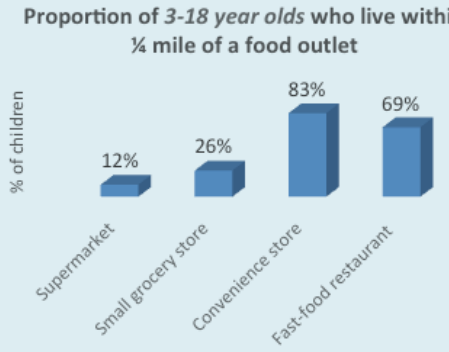
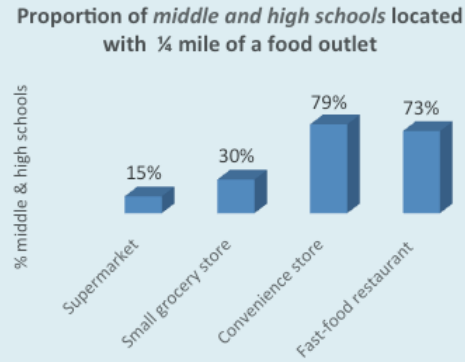
Key Findings

Food Environment

- A vast majority of children in the study live within a short walk to food outlets that primarily offer unhealthy options.



- Living within ¼ mile of a convenience store was found to increase by two-fold the odds of a child being overweight or obese.
- Parental reported ease of getting to their main food shopping store and their ability to purchase fresh fruits and vegetables at that store were significantly associated with healthier weight status among children.
- The majority of public middle and high schools in our study cities are located within a short walking distance to unhealthy food outlets.



- Students enrolled in schools located within ¼ mile of a small grocery store or a supermarket were found to have healthier weight status.
- Children whose parents perceived school meals as healthy were more likely to eat the lunch served at the school. Previous studies show that children who eat school meals have healthier diets, including a higher consumption of fruits and vegetables.

Physical Activity Environment

- Almost half of the children in the study cities live within ¼ mile of a park; almost 89% live within ½ mile of a park.
- About 11% of the children have a physical activity facility within ¼ mile of their home; 78% have one within ½ mile of their home.
- Children living within ½ mile of a large park have less than half the odds of being overweight or obese compared to those who live farther away.
- Children who walk or bike at least ½ mile to/from school have lower odds of being overweight or obese.
- Children whose parents perceive the neighborhood as unpleasant are less likely to walk or bike to school.
- Latino youth with foreign-born parents are more likely to walk or bike to school than are those with US-born parents.

Implications of Findings from the NJCHS

Food and physical activity environments around homes and schools are associated with children's weight outcomes. Interventions targeting corner stores, supermarkets, and parks, as well as initiatives promoting walking or biking to school show promise for improving weight outcomes in children. Parental perceptions are critical. Communicating with parents about enhancements to neighborhood and school food and physical activity environments may ensure that more children and families can benefit from these improvements.

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