



In Partial Fulfillment of the Requirements for the Degree of

Master of Science

Xuyang Tang

Will defend her thesis

Food Environment around Schools and Students' Weight Status: A Study of Four New Jersey Low-Income Communities

Abstract

Easy access to outlets around schools that provide unhealthful options can influence students' food choices. Recent studies assessing associations between food environment around schools and student weight status show conflicting results. Most previous studies use self-reported weights and heights measures or are conducted using relatively small sample. We examine the association between obesity among school students across the full school-age spectrum and the food environment surrounding their schools using professionally-measured student-level data. De-identified data were obtained for over 30000 K-12 students in 82 public schools located in four New Jersey cities. School-level information was obtained from the National Center for Education Statistics. Food outlets locations (supermarkets, convenience stores, small grocery stores, and limited service restaurants) obtained from commercial sources were geocoded to develop proximity measures. Multivariate analyses were used to investigate the association between students' BMI and proximity to food outlets controlling for student- and school-level factors. 44% of the students were overweight or obese. 20% attended high schools, 15% middle, and 52% elementary schools. On average, students had 2.6 convenience stores, 2.9 limited-service-restaurants, and 0.1 supermarkets within a quarter mile of their school. Multivariate analysis will assess the associations between food outlets and school- and student-level factors and with obesity rates among students. This study uses professionally-measured heights and weights for a large sample of K-12 students. We examine a comprehensive set of proximity measures for different types of food outlets. The study's result may provide evidence for changing food environment around schools.

Friday, May, 31, 2013

10:00 am

Wrigley Hall, Room 102

Faculty, students, and the general public are invited.

Supervisory Committee:
Dr. Joshua Abbott, Co-Chair
Dr. Punam Ohri-Vachaspati, Co-Chair
Dr. Rimjhim Aggarwal, Member