P96 Assessing the Retail Food Environment Surrounding Elementary Schools Across New York City (NYC) Neighborhoods Varying in Their Level of Gentrification

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Objective: The retail food environment constrains and supports the ability to purchase healthy foods. We examine the food stores surrounding schools across NYC neighborhoods experiencing varying levels of gentrification ("early", "middle" and "hyper").

Design, Setting, Participants, and Intervention: We purposefully selected one school from each of nine neighborhoods (three of each gentrification level). As gentrification increased so did percent white students (5.7% vs. 53% vs. 59.4%), neighborhood percentage of white residents (8.8% vs. 38.7% vs. 53.%) and median income (\$34,070 vs. \$47,640 vs. \$75,720) while free/reduced price lunch eligible decreased (91% vs. 54.7% vs. 13.3%).

Outcome Measures and Analysis: For the nearest 15 food stores surrounding each school, we completed a modified version of the Nutrition Environment Measures Survey – Stores (NEMS-S) to assess the availability, quality, food prices, SNAP/WIC eligibility, and store satisfaction.

Results: As gentrification increased bodegas decreased (56% vs. 44% vs. 22%), SNAP/WIC eligibility decreased (72%/43% vs. 36%/16% vs. 48%/33%) and store satisfaction (score from 0 to 55) increased (31.78 [9.79] vs. 36.29 [8.89] vs. 39.37 [11.83]). Additionally total fruit types (4.32 ± 3.12 vs. 5.05 ± 3.30 vs. 7.25 ± 3.04), total vegetable types (5.91 ± 3.58 vs. 5.83 ± 3.71 vs. 9.00 ± 0.90), availability of organic fruit (11% vs. 18% vs. 37%) and availability of organic vegetables (11% vs. 22% vs. 37%) all increased with gentrification.

Conclusions and Implications: The gentrification process is complicated and can have mixed impacts on low-income families. This study showed that families living in neighborhoods beginning gentrification have lower availability of fruits and vegetables and organic options and stores with lower satisfaction scores, while low income families living in gentrified neighborhoods have less support for food assistance programs.

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P97 Evaluation of the Transdisciplinary Obesity Prevention Research Sciences Program

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Objective: To develop and evaluate an applied research methods curriculum for undergraduates on the causes and consequences of childhood obesity.

Design, Setting, and Participants: The Transdisciplinary Obesity Prevention Research Sciences Program (TOPRS) has been developed by a multidisciplinary team from the University of Illinois at Urbana-Champaign, Purdue University, and California State University, Fresno. Students learn about the causes, consequences and correlates of obesity from an ecological framework from cell to society. The class format is a "flipped" version with students viewing 10 minute microlectures and class time spent in interactive discussions and activities focusing on research design and methodologies. Each micro-lecture is presented by national experts in nutritional sciences, animal science, child development, early care and education, community health, and public health. A pilot study included 53 undergraduate students at two institutions.

Outcome Measures and Analysis: Pre-and-post changes in nutrition related knowledge, confidence in research skills, and interest in attending graduate school were measured.

Results: A significant change in knowledge was found in the following areas: breastfeeding and pediatric nutrition, changing food environment and media, culturally relevant interventions focused on increasing healthy eating, child-care & feeding practices, family mealtimes and nutrition, and diabetes. Additionally, at the end of the course students were more confident in their research skills and also more likely to consider attending graduate or professional school.

Conclusions and Implications: The innovative curriculum was effective at increasing nutrition related knowledge, research skills, and interest in graduate school. The curriculum represents a model for integrative, interdisciplinary program development and will be available for dissemination.

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P98 A Comparison of Dietary Supplement Use of Wisconsin and Colorado Adults

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Objective: The purpose of this study was to examine and compare the use, attitudes and behaviors of dietary supplement use across two states.

Design, Setting, and Participants: Residents of Colorado Springs, Colorado and Oshkosh, Wisconsin were recruited to participate in a 10-minute survey on dietary supplement use. Recruitment was targeted to convenient populations representing a wide variety of ages and facilities. A total 307 participants (40.67 ± 20.65 yr) were surveyed for this cross-sectional study.

Outcome Measures and Analysis: Both quantitative (descriptive statistics, chi squared and independent sample t-tests using SPSS, v.22) and qualitative analyses were used.

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Participants were asked to select dietary supplements/herbals used on a regular basis and a few questions about attitudes and behaviors.

Results: Reasons for supplement use included: health, immunity, muscle, deficiency, optimal energy/mood. Of the supplements utilized, 53% utilized a multi-vitamin (56% Colorado vs. 49% Wisconsin), 24% used protein as a sports supplement (17% Colorado vs. 38% Wisconsin, $p < 0.05$) and of the herbals and dietary supplements surveyed, 35% used fish oil (35% for both Colorado and Wisconsin). less than 10% of people reported using herbals. Only 58% informed their doctor about supplement use; 64% used medications and supplements simultaneously. Registered dietitians were some of the most underutilized professionals for knowledge acquisition.

Conclusions and Implications: People use supplements and many don't inform their healthcare providers about it. Dietitians should be the knowledge source for dietary supplements, but they are not. More effort should be made to have dietitians become trusted sources for supplement education.

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P99 Differences in Glycemic Control of Food Pantry Clients by Food Security Status and Health

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Objective: The objective of this study was to characterize glycated hemoglobin levels and associations between food security and health risks among food pantry clients.

Design, Setting, and Participants: Using data from "CARE Connect," a food pantry-based health screening initiative, objectively measured indices of health included waist circumference (WC), blood glucose (BG), and glycated hemoglobin (A1c). The 6-question USDA Food Security Survey Module was used to assess food security status. Participants also completed self-reported sociodemographic and health surveys.

Outcome Measures and Analysis: Data were analyzed and stratified based on A1c levels (high $\geq 6.5\%$, low $< 6.5\%$) and food security status (food secure=marginal/high, food insecure=low/very low). Frequency and Chi square tests were utilized to determine differences in A1c, food security status, and comorbidities. Data were tabulated using SPSS with statistical significance set at $\alpha < 0.05$.

Results: Of the total participants ($N=115$), 71% had high A1c levels, indicative of poorer glycemic control yet only 42% self-reported a diagnosis of diabetes. Significant differences were also noted in BG between A1c groups ($p < 0.001$). In the high A1c group, 72% were food insecure compared to 61% in the low A1c group. High-risk WC was

more common in the high versus low A1c groups (84% vs. 52%) in addition to the prevalence of comorbidities (79% vs. 52%).

Conclusions and Implications: This study documents that food pantry clients with poorer glycemic control are often undiagnosed, untreated, and are at greater risk for food insecurity and obesity-related comorbidities. A multi-disciplinary team approach may be necessary to fully address the complex health issues in underserved pantry populations.

Funding: Ohio State University

P100 Evaluating the Public Health Impact of a Community-Based Family-Focused Diabetes Prevention Program Using RE-AIM

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Objective: The purpose of this study was to use a process evaluation framework to evaluate a diabetes prevention intervention for 9-12-year-old children, and to assess its potential for future adoption, implementation, and maintenance by the YMCA.

Design, Setting, Participants, and Intervention: EPIC Kids is a 12-week randomized family-focused lifestyle intervention for 9-12-year-old children at risk of diabetes. The primary outcome is change in percent overweight. Potential public health impact was guided by the RE-AIM framework, wherein program reach, efficacy, adoption, implementation, and maintenance data were collected from YMCA administrators ($n=4$), lifestyle coaches ($n=12$) and participants ($n=47$ families) using qualitative and quantitative methods.

Outcome Measures and Analysis: Reach was evaluated using eligible versus participation rates. Preliminary efficacy was determined by changes in anthropometric measures, and potential adoption determined by YMCA administrator interviews. Implementation was assessed through researcher observation, attendance data, and YMCA lifestyle coach surveys. Preliminary maintenance was assessed with YMCA membership use data.

Results: Forty-five families out of 128 screened were eligible, 28 enrolled. Twenty families completed 12-week measures. There was no significant percent change in overweight at 12 weeks. Participants expressed high program satisfaction, with 88% rating weekly activities as enjoyable and 75% highly likely to adopt changes. Weekly attendance was 64%, program sessions were implemented as planned; 29% of participants used memberships at least once per week, with 75% indicating high likelihood for continued use.

Conclusions and Implications: Preliminary evaluation of EPIC Kids using RE-AIM suggested a moderate to high potential for public health impact, and provided direction for scaling and replication of the program in a community setting.

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