IMPACT AND EFFECTIVENESS TABLE 33

Neighborhood Availability of Food Stores

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EFFECTIVENESS TABLES

Study Description	Measures & Outcomes	Effect Size or % Change	Effectiveness	Maintenance & Representativeness
United States				
Author Powell, Auld (2007) United States **Design** Association Cross-sectional study **Duration** Not Applicable	**Measures** *Access to healthy food options* (availability of chain and non-chain supermarkets) **Outcome(s) Affected** Overweight/obesity (survey)	**Positive Association for Overweight/obesity in the Study Population (Neighborhood Availability of Food Stores)** **(Assumptions: Greater access to supermarkets and grocery stores leads to access and consumption of healthier foods, which leads to lower body mass index and overweight/obesity.)** **Neighborhood Availability of Food Stores** OVERWEIGHT/OBESITY: 1. Availability of chain supermarkets had a statistically significant negative relationship with adolescent BMI and overweight status (p=0.01). Each additional chain supermarket outlet per 10,000 capita was estimated to reduce BMI by 0.11 units and the prevalence of overweight by 0.6 percentage points. 2. BMI and overweight were significantly higher in areas where there were more convenience stores (p=0.05); an additional convenience store per 10,000 capita was associated with a 0.03 unit increase in BMI and a 0.15 percentage point increase in overweight. 3. Availability of non-chain supermarkets and general grocery stores was not significantly associated with adolescent BMI. 4. Increased availability of chain supermarkets had a stronger association with BMI among African-American students compared to their white and Hispanic counterparts (p=0.01). One additional chain supermarket per 10,000 capita was associated with lower BMI among African-American students by 0.32 units; the associated BMI of white and Hispanic students was lower by 0.10 and 0.09 units, respectively. 5. Increased availability of chain supermarkets was associated with a 0.12 unit decrease in BMI among students whose mothers worked full-time (p=0.001). This decrease was ~4 times greater that students whose mother did not work.	**Positive Association for Overweight/obesity in the Study Population** Study design = Association Effect size = Positive association for overweight/obesity in the study population	**Maintenance** Not Applicable **Sampling / Representativeness** Not Reported
Author Morland, Diez Roux (2006) Mississippi, North Carolina, Maryland, Minnesota **Design** Association Cross-sectional study **Duration** Not Applicable	**Measures** *Access to healthy food options* (availability of supermarkets/grocery stores and convenience stores) **Outcome(s) Affected** Overweight/obesity (Atherosclerosis Risk in Communities [ARIC] study data)	**Positive Association for Overweight/obesity in the Study Population (Neighborhood Availability of Food Stores)** **(Assumptions: 1) Greater access to convenience stores will lead to greater access to and consumption of unhealthy foods, which will lead to higher body mass index and overweight/obesity. 2) Greater access to supermarkets and grocery stores leads to access to and consumption of healthier foods, which leads to lower body mass index and overweight/obesity.)** **Neighborhood Availability of Food Stores** OVERWEIGHT/OBESITY: 1. Compared to people who lived in areas without any supermarkets, people with a supermarket had a 9% lower prevalence of overweight (prevalence ratio [PR]=0.91,95% CI=0.87-0.95) and a 24% lower prevalence of obesity (PR=0.76, 95% CI=0.67-0.85). Adjustment for socioeconomic status & other types of food stores reduced associations between the presence of 1 or more supermarkets and the prevalence of overweight (PR=0.94, 95% CI=0.90-0.98) and obesity (PR=0.83 95% CI=0.75-0.92). 2. Compared to areas with no grocery stores, the adjusted prevalence of overweight individuals was 3% greater in areas with at least one grocery store (PR=1.03, 95% CI=1.00-1.07). Obesity was 7% more prevalent (PR=1.07, 95% CI=0.99-1.16), in areas with grocery stores; differences not significant. 3. The presence of convenience stores was associated with an increased prevalence of overweight (adjusted PR=1.06, 95% CI=1.02-1.10) and obesity (adjusted PR=1.16, 95% CI=1.05-1.27). 4. People living in areas where supermarkets and convenience stores were the only types of food stores available had a 35% higher prevalence of obesity compared to people who lived in areas where supermarkets were the only type of food store available (adjusted PR=1.35, 95% CI=1.05-1.73). 5. The greatest increase in obesity was in areas with grocery and/or convenience stores, but no supermarkets.	**Positive Association for Overweight/obesity in the Study Population** Study design = Association Effect size = Positive association for overweight/obesity in the study population	**Maintenance** Not Applicable **Sampling / Representativeness** Not Reported

Study Description	Measures & Outcomes	Effect Size or % Change	Effectiveness	Maintenance & Representativeness
Author Mushi-Brunt, Haire-Joshu (2007) United States **Design** Association Cross-sectional study **Duration** Not Applicable	**Measures** *Access to healthy food options* (access to and distance from a grocery store with fruits and vegetables) **Outcome(s) Affected** Overweight/obesity, nutrition (parent survey)	**Positive Association for Overweight/obesity (Neighborhood Availability of Food Stores)** **No Association for Nutrition in the Study Population (Neighborhood Availability of Food Stores)** **(Assumptions: Greater access to grocery stores leads to access to and consumption of healthier foods, which leads to lower body mass index and overweight/obesity.)** **Neighborhood Availability of Food Stores** OVERWEIGHT/OBESITY: 1. 60.3% of lower-income children living less than 1 mile from a grocery store were normal weight compared to 58.2% of those who lived further than 1 mile from a grocery store. 2. 58.5% of higher-income children living less than 1 mile from a grocery store were normal weight compared to 64% of those living further away. NUTRITION: 3. Children living in neighborhoods without a grocery store had a lower intake of F&V than those living in a neighborhood with at least one grocery store (not statistically significant). 4. Children residing less than one mile from the nearest grocery store had lower fruit and vegetable intake than those living farther away (not statistically significant).	**Positive Association for Overweight/obesity in the Study Population** **No Association for Nutrition in the Study Population** Study design = Association Effect size = Positive association for overweight/obesity and no association for nutrition in the study population	**Maintenance** Not Applicable **Sampling / Representativeness** Not Reported
Author Inagami, Cohen (2006) California **Design** Association Cross-sectional study **Duration** Not Applicable	**Measures** *Access to healthy food options* (availability of supermarkets/grocery stores and convenience stores) **Outcome(s) Affected** Overweight/obesity (household interviews)	**Positive Association for Overweight/obesity in the Study Population (Neighborhood Availability of Food Stores)** **(Assumptions: Individuals living closer to the neighborhood grocery store have increased access to healthier foods, which will lead to increased consumption and lowered rates of overweight and obesity.)** **Neighborhood Availability of Food Stores** OVERWEIGHT/OBESITY: 1. A distance (between centroids of individual's residential neighborhood and the grocery store that the individual frequented) of >1.76 miles was an independent predictor for a BMI increase of approx. 0.775 units ($p \leq 0.05$).	**Positive Association for Overweight/obesity in the Study Population** Study design = Association Effect size = Positive association for overweight/obesity in the study population	**Maintenance** Not Applicable **Sampling / Representativeness** Not Reported
Author Moore, Diez Roux (2008) North Carolina, Maryland, New York **Design** Association Cross-sectional study **Duration** Not Applicable	**Measures** *Access to healthy food options* (access to supermarkets and healthy food availability) **Outcome(s) Affected** Nutrition (food frequency questionnaire)	**Positive Association for Nutrition in the Study Population (Neighborhood Availability of Food Stores)** **(Assumptions: Individuals with greater access to supermarkets leads to greater access to healthy foods, which leads to increased consumption of healthy foods.)** **Neighborhood Availability of Food Stores** NUTRITION: 1. Participants with no supermarkets within 1 mile of their home were 25% less likely to have a healthy diet, as measured by the Alternative Healthy Eating Index (AHEI), than participants who had the most stores near their home (relative probability=0.75, 95% CI: 0.59-0.95). 2. Participants with no supermarkets within 1 mile of their home were 46% less likely to have a healthy diet on the basis of the Fats and Processed Meats (FPM) measure (relative probability=0.54, 95% CI: 0.42-0.70). 3. Participants living in the areas ranked worst in food availability were 22-35% less likely to have a healthy diet than those in the best-ranked areas. 4. For the AHEI, the probability of having a healthy diet was reduced in the 3 bottom categories of perceived healthy food availability in comparison with the top category. 5. For the FPM measure, the probability of having a healthy diet was lower in the bottom category than in the two middle categories for all 3 measures. There was suggestion of a dose-response trend for the FPM measure. 6. In analyses using site-specific quartiles of densities, living in areas with fewer supermarkets was still associated with worse diets, but associations were attenuated; for the AHEI, the relative probabilities were 0.84 (95% CI: 0.68-1.04), 0.99 (95% CI: 0.78-1.27), and 0.72 (95% CI: 0.56, 0.93) for the 1st, 2nd, and 3rd quartiles, respectively. 7. There was no consistent evidence that the association of food environment measures with diet differed qualitatively by age, sex, race/ethnicity, per capita income or time spent in the neighborhood.	**Positive Association for Nutrition in the Study Population** Study design = Association Intervention duration = Not applicable Effect size = Positive association for nutrition in the study population	**Maintenance** Not Applicable **Sampling / Representativeness** Not Reported

Study Description	Measures & Outcomes	Effect Size or % Change	Effectiveness	Maintenance & Representativeness
Author Bodor, Rose (2007) Louisiana **Design** Association Cross-sectional study **Duration** Not Applicable	**Measures** *Access to healthy food options* (access to supermarkets and fresh vegetables) **Outcome(s) Affected** Nutrition (24hr recall questionnaire)	**Positive Association for Nutrition in the Study Population (Neighborhood Availability of Food Stores)** **(Assumptions: Greater access to fresh fruits and vegetables through food stores will lead to increased consumption of healthy foods.)** **Neighborhood Availability of Food Stores** NUTRITION: 1. Respondents who had a small food store within 100m had a significantly higher mean intake of vegetables (3.3 servings, SD= 2.3) compared to those that did not (2.4 servings, SD=1.6), p<0.05. 2. Respondents who had a small food store within 100m had a marginally significant higher mean intake of fruits than those who did not (2.4 servings, SD=2.1 versus 1.8 servings, SD=1.4, p<0.10). 3. Respondents with no fresh vegetable shelf space available within a block of their residence had the lowest mean intake of vegetables (2.4 servings per day), those who had up to 3m of fresh vegetable shelf space within a block had a higher intake (3.3 servings), and those who had a greater than 3m of fresh vegetable shelf space within a block had the highest intake (4.5 servings), p<0.05. A similar dose-response relationship was not seen for fruits. 4. Linear regression models revealed that distance to the nearest small food store or supermarket was not associated with fruit or vegetable consumption. 5. The amount of fresh vegetable space near the residence was a significant positive predictor of vegetable intake; each extra meter of shelf space was associated with an additional intake of 0.35 servings per day (β=0.351, p<0.025). None of the measures of neighborhood fruit availability (fruit shelf space, number of varieties near the residence) were significant predictors of fruit intake.	**Positive Association for Nutrition in the Study Population** Study design = Association Intervention duration = Not applicable Effect size = Positive association for nutrition in the study population	**Maintenance** Not Applicable **Sampling / Representativeness** Not Reported
Author Rose, Richards (2004) United States **Design** Association Cross-sectional study **Duration** Not Applicable	**Measures** *Access to healthy food options* (access to food stores and supermarkets) **Outcome(s) Affected** Nutrition (1 week food inventory)	**Positive Association for Nutrition in the Study Population (Neighborhood Availability of Food Stores)** **(Assumptions: Greater access to supermarkets and grocery stores leads to greater access to healthy foods, which leads to increased consumption of healthy foods.)** **Neighborhood Availability of Food Stores** NUTRITION: 1. Those living ≤ 1 mile of their principal food store consumed 285 grams per adult male equivalent per day of fruit (standard error of the mean [SEM]= 21), while those living greater than 5 miles consumed 220 grams per adult male equivalent per day (SEM=25), a difference of about 65 grams per adult male equivalent per day (p<0.023). 2. Those with shorter round-trip travel times to their principal food store consumed more fruit, 269 versus 244 grams per adult male equivalent per day, although this difference was not statistically significant (p=0.422). 3. In multivariate models adjusted for socioeconomic variables, households that purchased most of their food from supermarkets consumed 82 grams per adult male equivalent per day (95% CI: 7,157) more fruit than households that shopped from other stores. 4. Using multivariate analysis, households living further than 5 mi. from their principal store consumed significantly less fruit than the reference group of those living within a mile. (mean difference = -62 grams per adult male equivalent per day, 95% CI: -117,-7) 5. The supermarket access variable which combined store, travel time, and car ownership revealed that those with easy supermarket access consumed greater amounts of fruits (mean=84 grams per adult male equivalent per day, 95% CI: 5, 162) than did those with no access. 80 g is considered an average weight for a serving of F&V; thus those with easy supermarket access consumed about 1 more serving of fruits than those with no access.	**Positive Association for Nutrition in the Study Population** Study design = Association Intervention duration = Not applicable Effect size = Positive association for nutrition in the study population	**Maintenance** Not Applicable **Sampling / Representativeness** Not Reported

Study Description	Measures & Outcomes	Effect Size or % Change	Effectiveness	Maintenance & Representativeness
Author Wang, Kim (2007) California **Design** Association Cross-sectional study **Duration** Not Applicable	**Measures** *Access to healthy food options* (access to ethnic food stores, supermarkets, and small grocery stores) **Outcome(s) Affected** Overweight/obesity (BMI questionnaire)	**Negative Association for Overweight/obesity in Women (Neighborhood Availability of Food Stores)** **(Assumptions: Greater access to supermarkets and grocery stores leads to greater access to healthy foods, which leads to increased consumption of healthy foods.)** **Neighborhood Availability of Food Stores** OVERWEIGHT/OBESITY: 1. Closer proximity to ethnic markets (regression coefficient=-0.157, SE=0.079; p<0.05), supermarkets (regression coefficient=-0.300, SE= 0.131; p<0.05) and higher density of small grocery stores (regression coefficient= 0.053, SE= 0.023, p<0.05) was significantly associated with higher BMI among women only.	**Negative Association for Overweight/obesity in Women** Study design = Association Intervention duration = Not applicable Effect size = Negative association for overweight/obesity in women	**Maintenance** Not Applicable **Sampling / Representativeness** Not Reported
Author Zenk, Lachance (2009) Michigan **Design** Association Cross-sectional study **Duration** Not Applicable	**Measures** *Access to healthy food options* (access to supermarkets, grocery stores, and convenience stores) **Outcome(s) Affected** Nutrition (food frequency questionnaire)	**Positive Association for Nutrition in the Study Population (Neighborhood Availability of Food Stores)** **(Assumptions: Greater access to supermarkets and grocery stores leads to greater access to healthy foods, which leads to increased consumption of healthy foods.)** **Neighborhood Availability of Food Stores** NUTRITION: 1. After adjusting for socioeconomic status, the presence of a large grocery store in the neighborhood was associated with an average 0.69 more daily fruit and vegetable servings (p=0.002). 2. The association between distance to the nearest supermarket and daily fruit and vegetable servings was not significant. 3. The presence of other store types in the neighborhood (specialty convenience, liquor, small grocery) was negatively, but not significantly, associated with fruit and vegetable intake.	**Positive Association for Nutrition in the Study Population** Study design = Association Intervention duration = Not applicable Effect size = Positive association for nutrition in the study population	**Maintenance** Not Applicable **Sampling / Representativeness** Not Reported
Author Boehmer, Lovegreen (2006) Arkansas, Missouri, Tennessee **Design** Association Cross-sectional study **Duration** Not Applicable	**Measures** *Access to healthy nutrition and physical activity environment* (access and distance to food stores and healthy food availability, access to recreational facilities, presence and quality of sidewalks, barriers to traffic safety, levels of neighborhood crime, and environmental aesthetics.) **Outcome(s) Affected** Overweight/obesity (height and weight [body mass index])	**Positive Association for Overweight/obesity in the Study Population (Neighborhood Availability of Food Stores)** **(Assumptions: 1.) Individuals with greater access to supermarkets will consume healthier foods, which will lead to lower rates of obesity and overweight. 2) Individuals with greater access to fresh fruits and vegetables will consume more fruits and vegetables, which will lead to lower rates of overweight and obesity.)** **Neighborhood Availability of Food Stores** OVERWEIGHT/OBESITY: 1. Further distance to the nearest supermarket was associated with increased odds of obesity (OR: 1.8, 95% CI= 1.3-2.4). 2. The availability and quality of fresh fruits were not significantly associated with obesity.	**Positive Association for Overweight/obesity in the Study Population** Study design = Association Effect size = Positive association for overweight/obesity in the study population	**Maintenance** Not Applicable **Sampling / Representativeness** Not Reported The communities in TN and AR were selected to match the MO sites on size, race/ethnicity, and proportion of the population living below the poverty level. 8 communities met the US Census definition of rural; 12 were located within a nonmetropolitan county.

Study Description	Measures & Outcomes	Effect Size or % Change	Effectiveness	Maintenance & Representativeness
Author Franco, Diez-Roux (2009) Maryland **Design** Association Cross-sectional study **Duration** Not Applicable	**Measures** *Access to healthy food options* (access to food stores and healthy food availability) **Outcome(s) Affected** Nutrition (food frequency questionnaire)	**Positive Association for Nutrition in the Study Population (Neighborhood Availability of Food Stores)** **(Assumptions: 1) Individuals with greater access to convenience stores will have greater access to unhealthy foods, which leads to increased consumption of unhealthy foods. 2) Individuals with greater access to supermarkets and grocery stores will have greater access to healthy foods and increased consumption of healthy foods.)** **Neighborhood Availability of Food Stores** NUTRITION: 1. Participants in the lowest category of food availability based on the neighborhood (census tract) or closest store measure had significantly higher values for the fats and processed meats pattern (higher value = lower quality diet) than those in the highest category ($p<0.05$). This association did not change substantially after adjustment for age, sex, income, and education (adjusted mean ± SE difference: 0.23 ± 0.11, p=0.049 and 0.22 ± 0.09, p=0.021; p for linear trend across categories = 0.08 and 0.02, respectively). This association was reduced and no longer statistically significant after adjustment for race/ethnicity (mean difference: 0.12 for neighborhood, p=0.314 and 0.10 for closest store, p=0.215). 2. For each standard deviation increase in the availability of healthy foods in the neighborhood and closest store, the fats and processed meats dietary pattern score decreased by 0.04 and 0.08 units, respectively (dietary quality improved). However, this association was weakened after adjustment for race/ethnicity. 3. Participants in the low healthy food availability tertile had lower scores for the whole grains and fruit pattern (higher dietary quality) than did those in the highest tertile (mean differences: -0.16 and -0.07 for the availability in the neighborhood and closest store, respectively) after adjustment for age, sex, income, and education, but the differences were not statistically significant.	**Positive Association for Nutrition in the Study Population** Study design = Association Intervention duration = Not applicable Effect size = Positive association for nutrition in the study population	**Maintenance** Not Applicable **Sampling / Representativeness** Not Reported
Author Powell, Bao (2009) United States **Design** Association Cross-sectional study **Duration** Not Applicable	**Measures** *Access to affordable healthy food options* (availability of supermarkets and food outlets, prices of energy-dense and healthy food options) **Outcome(s) Affected** Child Overweight/ obesity (BMI) (National Longitudinal Survey of Youth 1979 data; American Chamber of Commerce Researchers Association data; Dun and Bradstreet business lists; Census 2000 population estimates)	**Positive Association for Overweight/obesity in the Study Population (Neighborhood Availability of Food Stores)** **(Assumptions: 1) Individuals with increased access to supermarkets and food outlets have increased access to healthier foods, which will lead to increased consumption of healthier foods. 2) Individuals consuming healthier foods will have lower rates of overweight and obesity.)** **Neighborhood Availability of Food Stores** OVERWEIGHT/OBESITY: 1. Increased supermarket availability is statistically significantly associated with lower BMI (-0.1928, SD=0.0772, $p<0.05$). 2. Food outlets, considered as a whole, were not found to have a strong statistical significant association with children's BMI when defined either on a per capita or per land area basis.	**Positive Association for Overweight/ obesity in the Study Population** Study design = Association Effect size = Positive association for overweight/ obesity in the study population	**Maintenance** Not Applicable **Sampling / Representativeness** Not Reported

Study Description	Measures & Outcomes	Effect Size or % Change	Effectiveness	Maintenance & Representativeness
Author Laraia, Siega-Riz (2004) North Carolina **Design** Association Cross-sectional study **Duration** Not Applicable Only cross-sectional data provided	**Measures** *Access to healthy food options* (availability of supermarkets, grocery stores, and convenience stores) **Outcome(s) Affected** Nutrition environment (food frequency questionnaire)	**Positive Association for Nutrition in the Lower-income Women (Neighborhood Availability of Food Stores)** **(Assumptions: 1) Greater access to convenience stores leads to greater access to unhealthy foods which leads to increased consumption of unhealthy foods. 2) Greater access to supermarkets and grocery stores leads to greater access to healthy foods which leads to increased consumption of healthy foods.)** **Neighborhood Availability of Food Stores** NUTRITION: 1. Women living > 4 miles from a supermarket had a 3-fold greater probability of falling into the lowest compared to the highest diet quality index for pregnancy (DQI-P) tertile (crude OR= 3.02, 95% CI: 1.8-5.2). 2. Women living > 4 miles from a supermarket had more than twice the odds of falling into the lowest compared to the highest DQI-P tertile compared to women living within 2 miles of a supermarket, after controlling for individual characteristics (age, race, marital status, income, and education) and distance to grocery and convenience stores (OR=2.16; 95% CI=1.2, 4.0). 3. Each 1-mile change in distance to the closest convenience store was associated with increased odds of falling into the lowest compared to the highest DQI-P tertile, after adjusting for individual characteristics (adjusted OR=1.17, 95% CI=1.02, 1.35). 4. No association was found between a 1-mile change in distance to the closest grocery store and a change in the odds of falling into the lowest compared to the highest DQI-P tertile. (Note: Diet quality index for pregnancy = DQI-P)	**Positive Association for Nutrition in Lower-income Women** Study design = Association Effect size = Positive association for nutrition in lower-income women	**Maintenance** Not Applicable **Sampling / Representativeness** Not Reported
International				
Author Cummins, Petticrew (2005) Scotland **Design** Intervention Evaluation Non-randomized trial **Duration** High On-going - Development of a hypermarket	**Measures** *Access to healthy food options* (access to large scale food retailer) **Outcome(s) Affected** Nutrition (questionnaire)	**Net Positive for Nutrition in Lower-income Individuals (Neighborhood Availability of Food Stores)** **Neighborhood Availability of Food Stores** NUTRITION: 1. After adjusting for baseline consumption, sex, age, employment, and education there is weak evidence for an effect of the intervention on mean fruit consumption (-0.03 portions/day, 95% CI: -0.25 to 0.30), mean vegetable consumption (-0.11 portions/day, 95% CI: -0.44 to 0.22), and fruit and vegetables combined (-0.10 portions/day, 95% CI: -0.59 to 0.40). 2. Among switchers (those who reported 'switching' their main food purchase from other stores to the hypermarket at follow up), adjusted analyses showed a minor increase in fruit (0.23 portions/day, 95% CI: -0.15 to 0.60), vegetable (0.09 portions/day, 95% CI: -0.36 to 0.54), and fruit and vegetable (0.35 portions/day, 95% CI: -0.33 to 1.03) consumption compared with non-switchers.	**Effective for Nutrition in Lower-income individuals** Study design = Intervention evaluation Intervention duration = High Effect size = Net positive for nutrition in lower-income individuals	**Maintenance** Not Applicable **Sampling / Representativeness** High Oversampled high-risk populations. Chose neighborhoods with a Carstairs-Morris DEPCAT score of 7 representing the most deprived areas.

Study Description	Measures & Outcomes	Effect Size or % Change	Effectiveness	Maintenance & Representativeness
Author Veugelers, Sithole (2008) Nova Scotia, Canada **Design** Association Cross-sectional study **Duration** Not Applicable	**Measures** *Access to a healthy nutrition and physical activity environment* (access to food stores with moderately priced produce, access to parks and playgrounds for sports and recreation, and safe neighborhood surroundings) **Outcome(s) Affected** Overweight, obesity, nutrition, overall diet quality, physical activity and computer and TV screen time (parent survey, food frequency questionnaire, child height and weight)	**Positive Association for Overweight/obesity in the Study Population (Neighborhood Availability of Food Stores)** **Positive Association for Nutrition in the Study Population (Neighborhood Availability of Food Stores)** **(Assumptions: 1) Individuals with greater access to shops carrying produce will consume healthier foods, which will lead to decreased rates of overweight and obesity. 2) Individuals with greater access to parks, playgrounds, and a safe neighborhood environment will be more physically active, which will lead to decreased rates of overweight and obesity.)** **Neighborhood Availability of Food Stores** OVERWEIGHT/OBESITY: 1. Children in neighborhoods with good access to shops were 26% less likely to be overweight (OR=0.74. 95% CI=0.60-0.91) and 33% less likely to be obese (OR=0.67, 95% CI=0.48-0.94) than children from neighborhoods with poor access to shops. NUTRITION: 2. Children in neighborhoods with the best access to shops (highest one-third) reported more consumption of F&V (incremental risk [IR]=1.04, 95% CI: 1.00-1.09), substantially less consumption of dietary fat (IR=0.51, 95% CI: 0.33-0.78), and a higher diet quality index (IR=2.26, 95% CI: 1.09-4.69) in comparison to neighborhoods with the poorest access to shops (lowest one-third). (Note: Access to shops refers to food stores carrying produce.)	**Positive Association for Overweight/obesity in the Study Population** **Positive Association for Nutrition in the Study Population** Study design = Association Intervention duration = Not applicable Effect size = Positive association for overweight/obesity and nutrition in the study population	**Maintenance** Not Applicable **Sampling / Representativeness** Not Reported
Author Hackett, Boddy (2008) United Kingdom **Design** Association Cross-sectional study **Duration** Not Applicable	**Measures** *Access to a healthy, walkable community* (access to grocery stores, density of housing and retail in an area) **Outcome(s) Affected** Nutrition (food intake questionnaire)	**Positive Association for Nutrition in the Study Population (Neighborhood Availability of Food Stores)** **(Assumptions: A higher quality neighborhood with higher street connectivity, areas to play, and mixed land-use will have healthier lifestyles, which includes increased consumption of healthy foods.)** **Neighborhood Availability of Food Stores** NUTRITION: 1. The area where children with the least desirable eating habits lived was found to have dense housing, small terraced houses, and narrow streets based on observations from the ordnance survey census matching map. Observations based on a visit to the area found no greenery, little space, many shops especially selling sweets and take-away meals (many boarded up), a large supermarket and several mini-markets and very heavy traffic on the "main" road. 2. The area where children with the most desirable eating habits lived was found to have less dense housing, larger terraced houses, wider streets, wider service ways and allotments based on observations from the ordnance survey census matching map. Observations based on a visit to the area found trees, grass and some flowers, small front gardens on all houses, more space to play, and no shops of any kind.	**Positive Association for Nutrition in the Study Population** Study design = Association Intervention duration = Not applicable Effect size = Positive association for nutrition in the study population	**Maintenance** Not Applicable **Sampling / Representativeness** Not Reported
Author Pearson, Russell (2005) United Kingdom **Design** Association Cross-sectional study **Duration** Not Applicable	**Measures** *Access to affordable, healthy food options* (access to supermarkets and pricing of healthy food options) **Outcome(s) Affected** Nutrition (24-hour recall, demographics questionnaire; shopping basket survey)	**No Association for Nutrition in the Study Population (Neighborhood Availability of Food Stores)** **(Assumptions: Individuals with greater access to healthy and affordable foods will consume healthier foods.)** **Neighborhood Availability of Food Stores** NUTRITION: 1. Deprivation, supermarket fruit and vegetable price, distance to nearest supermarket and potential difficulties with grocery shopping were not significantly associated with either fruit or vegetable consumption.	**No Association for Nutrition in the Study Population** Study design = Association Effect size = No association for nutrition in the study population	**Maintenance** Not Applicable **Sampling / Representativeness** Not Reported

Study Description	Measures & Outcomes	Effect Size or % Change	Effectiveness	Maintenance & Representativeness
Author Rabin, Boehmer (2007) Europe **Design** Association Cross-sectional study **Duration** Not Applicable	**Measures** *Access to a healthy nutrition and physical activity environment* (access to and availability of stores containing healthy food options, percentage of paved roads and relative proximity of streets, population density within the urban areas, and quality of public transit) **Outcome(s) Affected** Overweight/obesity (national level surveys and databases)	**Positive Association for Overweight/obesity in the Study Population (Neighborhood Availability of Food Stores)** **(Assumptions: Increased levels of urbanization or population density and access to public transportation will lead to increased levels of physical activity and increased access to fruits and vegetables, which will lead to lower body mass index and overweight/obesity.)** **Neighborhood Availability of Food Stores** OVERWEIGHT/OBESITY: 1. Overall obesity prevalence was inversely associated with food availability (available fat: β=-0.323, p=0.010, available fruits/vegetables: β=-0.019, p=0.049). 2. Female obesity prevalence was inversely associated with food availability (available fat: β=-0.399, p=0.004). 3. Male obesity prevalence was inversely associated with available fruits/vegetables (β=-0.022, p=0.028).	**Positive Association for Overweight/obesity in the Study Population** Study design = Association Effect size = Positive Association for overweight/obesity the study population	**Maintenance** Not Applicable **Sampling / Representativeness** High As part of the selection criteria only studies that were nationally representative (both rural and urban samples) and based on self-reported data were used for evaluation.

IMPACT TABLES

Study Description	Population	Reach	Intervention	Impact & Sustainability	Other Results	Related Benefits & Consequences
United States						
Author Powell, Auld (2007) United States	**Participation/ Potential Exposure** Not Applicable **High-Risk Population** Not Applicable Only cross-sectional data provided. 11-18 year olds, 30.34% racial/ethnic populations	**Representative** Not Applicable **Potential Population Reach** Not Applicable **Potential High Risk Popluation Reach** Not Applicable	**Intervention Components** Not Applicable Only cross-sectional data provided. Availability of local-area food stores **Feasibility** Not Applicable **Implementation Complexity** Not Applicable	**Population Impact** Not Applicable **High-risk Population Impact** Not Applicable **Sustainability** Not Applicable	Not Reported	Not Reported
Author Morland, Diez Roux (2006) Mississippi, North Carolina, Maryland, Minnesota	**Participation/ Potential Exposure** Not Applicable **High-Risk Population** Not Applicable Only cross-sectional data provided. 23.2% racial/ ethnic populations (evaluation sample)	**Representative** Not Applicable **Potential Population Reach** Not Applicable **Potential High Risk Popluation Reach** Not Applicable	**Intervention Components** Not Applicable Only cross-sectional data provided. Access to food store outlets **Feasibility** Not Applicable **Implementation Complexity** Not Applicable	**Population Impact** Not Applicable **High-risk Population Impact** Not Applicable **Sustainability** Not Applicable	Not Reported	1. Compared to people who lived in areas without any supermarkets, people with a supermarket had a 12% lower prevalence of hypertension (PR=0.88, 95% CI=0.79-0.97). Adjustment for socioeconomic status & other types of food stores reduced associations between the presence of 1 or more supermarkets and the prevalence of hypertension (PR=0.92, 95% CI=0.85-1.01).
Author Mushi-Brunt, Haire-Joshu (2007) United States	**Participation/ Potential Exposure** Not Applicable **High-Risk Population** Not Applicable Only cross-sectional data provided. 5-13 year olds, 60.3% Black and 39.7% White. 40.3% Lower-income. 66% Female (evaluation sample)	**Representative** Not Applicable **Potential Population Reach** Not Applicable **Potential High Risk Popluation Reach** Not Applicable	**Intervention Components** Not Applicable Only cross-sectional data provided. Availability and accessibility of grocery stores with fruits and vegetables **Feasibility** Not Applicable **Implementation Complexity** Not Applicable	**Population Impact** Not Applicable **High-risk Population Impact** Not Applicable **Sustainability** Not Applicable	Not Reported	1. There were significant differences in mean F&V intake, such that children in low poverty neighborhoods ate more servings (mean=3.16 servings) than children in high poverty neighborhoods (mean=2.3 servings), t=4.03, p<0.001.

Study Description	Population	Reach	Intervention	Impact & Sustainability	Other Results	Related Benefits & Consequences
Author Inagami, Cohen (2006) California	**Participation/ Potential Exposure** Not Applicable **High-Risk Population** Not Applicable Only cross-sectional data provided. Adults; 55.2% Latino, 8.6% African American, 25.6% White, 6.8% Asian, 3.6% Other; 68.2% lower-income (evaluation sample) Poor neighborhoods in Los Angeles County were oversampled	**Representative** Not Applicable **Potential Population Reach** Not Applicable **Potential High Risk Popluation Reach** Not Applicable	**Intervention Components** Not Applicable Only cross-sectional data provided. Access to neighborhood grocery stores **Feasibility** Not Applicable **Implementation Complexity** Not Applicable	**Population Impact** Not Applicable **High-risk Population Impact** Not Applicable **Sustainability** Not Applicable	Not Reported	1. Independent of individual-level factors and residential-level SES, individual exposure to grocery store neighborhoods with a greater disadvantage relative to the individuals' residential neighborhood increased BMI (data not shown). 2. If the average resident from a low-SES area shops in an area with a neighborhood indicator score of -3.98, -2 SD from the mean (meaning a higher SES area than where they live), a 5'5" individual will weigh 9.2 lbs less than if he or she lived in a low-SES area where the average resident shops in an area with a neighborhood indicator of 2.74, +2 SD from the mean (meaning a lower SES area than where they live). 3. Individuals who lived in very-low-SES areas were 1.51 BMI units higher than individuals who lived in very-high-SES areas. When grocery store neighborhood disadvantage indicators were taken into account, the association between BMI and very-low-residential SES became stronger, increasing 39%.
Author Moore, Dies Roux (2008) North Carolina, Maryland, New York	**Participation/ Potential Exposure** Not Applicable **High-Risk Population** Not Applicable Only cross-sectional data provided. Adults; 41.7% Non-Hispanic Black, 14.7% Hispanic, 43.6% Non-Hispanic White (evaluation sample)	**Representative** Not Applicable **Potential Population Reach** Not Applicable **Potential High Risk Popluation Reach** Not Applicable	**Intervention Components** Not Applicable Only cross-sectional data provided. Availability of local-area food stores **Feasibility** Not Applicable **Implementation Complexity** Not Applicable	**Population Impact** Not Applicable **High-risk Population Impact** Not Applicable **Sustainability** Not Applicable	Not Reported	Not Reported

Study Description	Population	Reach	Intervention	Impact & Sustainability	Other Results	Related Benefits & Consequences
Author Bodor, Rose (2007) Louisiana	**Participation/ Potential Exposure** Not Applicable **High-Risk Population** Not Applicable Only cross-sectional data provided. Urban, Adults; 37.4% White, 53.5% Black, 9.1% Other; 31% Lower-income (evaluation sample)	**Representative** Not Applicable **Potential Population Reach** Not Applicable **Potential High Risk Popluation Reach** Not Applicable	**Intervention Components** Not Applicable Only cross-sectional data provided. Neighborhood access to food store outlets with in-store availability of fruits and vegetables **Feasibility** Not Applicable **Implementation Complexity** Not Applicable	**Population Impact** Not Applicable **High-risk Population Impact** Not Applicable **Sustainability** Not Applicable	Not Reported	Not Reported
Author Rose, Richards (2004) United States	**Participation/ Potential Exposure** Not Applicable **High-Risk Population** Not Applicable Only cross-sectional data provided. 62.9% Lower-Income; 44.1% White, 39.4% African American, 13.3% Hispanic, 3.2% Other (evaluation sample)	**Representative** Not Applicable **Potential Population Reach** Not Applicable **Potential High Risk Popluation Reach** Not Applicable	**Intervention Components** Not Applicable Only cross-sectional data provided. Household access by participants in the Food Stamp Program (FSP) to neighborhood food stores with in-store availability of fruits and vegetables **Feasibility** Not Applicable **Implementation Complexity** Not Applicable	**Population Impact** Not Applicable **High-risk Population Impact** Not Applicable **Sustainability** Not Applicable	Not Reported	1. The results on vegetable consumption generally followed the same pattern as fruit consumption, although only diet attitude and awareness of guidelines were significant (data not shown).

Study Description	Population	Reach	Intervention	Impact & Sustainability	Other Results	Related Benefits & Consequences
Author Wang, Kim (2007) California	**Participation/ Potential Exposure** Not Applicable **High-Risk Population** Not Applicable Only cross-sectional data provided. Adults (25-74 years); 11.2% racial/ ethnic populations (evaluation sample)	**Representative** Not Applicable **Potential Population Reach** Not Applicable **Potential High Risk Popluation Reach** Not Applicable	**Intervention Components** Not Applicable Only cross-sectional data provided. Availability of food stores COMPLEX: 1. Neighborhood socioeconomic characteristics **Feasibility** Not Applicable **Implementation Complexity** Not Applicable	**Population Impact** Not Applicable **High-risk Population Impact** Not Applicable **Sustainability** Not Applicable	Not Reported	1. Neighborhood SES was significantly associated with BMI. Participants living in low socioeconomic neighborhoods had an adjusted mean BMI that was about 0.6 kg/m^2 higher than that of participants living in high socioeconomic neighborhoods ($p<0.01$). 2. There was no evidence of interaction effects between neighborhood socioeconomic and physical characteristics, after controlling for individual-level sociodemographic and behavioral factors.
Author Zenk, Lachance (2009) Michigan	**Participation/ Potential Exposure** Not Applicable **High-Risk Population** Not Applicable Only cross-sectional data provided. Urban, Adults (25 years and older), 56.8% African American, 22.2% Latino, 18.8% White, 2.3% Other	**Representative** Not Applicable **Potential Population Reach** Not Applicable **Potential High Risk Popluation Reach** Not Applicable	**Intervention Components** Not Applicable Only cross-sectional data provided. Neighborhood retail food environment **Feasibility** Not Applicable **Implementation Complexity** Not Applicable	**Population Impact** Not Applicable **High-risk Population Impact** Not Applicable **Sustainability** Not Applicable	Not Reported	1. Latinos who had a large grocery store in the neighborhood, compared to African-Americans, consumed 2.20 more daily servings of fruits and vegetables ($p=0.010$). 2. The presence of a convenience store in the neighborhood was associated with 1.84 fewer daily fruit and vegetable servings in Latinos than African-Americans ($p=0.016$) 3. On average, across all neighborhoods, each additional store that sold fresh produce was associated with a 0.35 daily serving increase in fruits and vegetables in Latinos relative to African-Americans ($p=0.053$).

Study Description	Population	Reach	Intervention	Impact & Sustainability	Other Results	Related Benefits & Consequences
Author Boehmer, Lovegreen (2006) Arkansas, Missouri, Tennessee	**Participation/ Potential Exposure** Not Applicable **High-Risk Population** Not Applicable Only cross-sectional data provided. Adults, 74.4% Female, 93.4% White, 36.8% income <$25,000, 59.1% income >$25,000; 27% obese; 31% overweight (evaluation sample)	**Representative** Not Applicable **Potential Population Reach** Not Applicable **Potential High Risk Popluation Reach** Not Applicable	**Intervention Components** Not Applicable Only cross-sectional data provided. Access and distance to grocery stores with in-store availability of fruits and vegetables MULTI-COMPONENT: 1. Access to recreational facilities 2. Perceptions of neighborhood traffic safety 3. Perceptions of safety from crime 4. Land-use mix and distance to grocery stores 5. Presence and absence of sidewalks and shoulders on the street and aesthetic quality of the environment **Feasibility** Not Applicable **Implementation Complexity** Not Applicable	**Population Impact** Not Applicable **High-risk Population Impact** Not Applicable **Sustainability** Not Applicable	**Street Design** OVERWEIGHT/OBESITY: 1. Having no sidewalks or shoulders on most streets was not significantly associated with obesity. 2. Finding the community somewhat pleasant (OR=1.44, 95%CI= 1.13-1.92) or not pleasant (OR=1.85; 95%CI=1.31-2.59, p<0.05) was associated with being obese. 3. Women had stronger associations between obesity and indicators of poor aesthetics (OR= 1.3, 95% CI= 1.0-1.7 for interesting things; OR= 1.7, 95% CI= 1.2-2.3 for well-maintained). 4. Finding the community somewhat pleasant (OR=1.73, 95%CI= 1.28-2.34) or not pleasant (OR=2.02, 95% CI= 1.29-3.15, p<0.05) was all associated with being obese/ inactive. **Availability of Parks, Playgrounds, Trails, and Recreation Centers** OVERWEIGHT/OBESITY: 1. Perceived lack of equipment for physical activity was associated with being obese (OR= 1.8, 95% CI= 1.3-2.4) and obese/inactive (OR= 1.8, 95% CI= 1.2-2.7) among only women. 2. Neighborhood perceptions of a lack of places to be physically active (OR=1.46, 95%CI= 1.1-1.94) and no available equipment (OR=1.55, 95%CI=1.19-2.02) was associated with being obese. 3. Furthest distance (>20 minutes) to the nearest recreational facility (OR=1.53, 95% CI= 1.1-2.11) was a neighborhood environmental perception associated with being obese. 4. Furthest distance (>20 minutes) to the nearest recreational facility (OR=2.74, 95% CI= 1.68-4.48) was a neighborhood environmental perception associated with being obese. **Community Design** OVERWEIGHT/OBESITY: 1. In a stratified analysis neighborhood perceptions of having no or a few destinations within close proximity (3-6 destinations: OR=2.03, 95%CI= 1.33-3.09; 1-2 destinations: OR=1.72,95%CI= 1.13-2.62; none: OR=1.63, 95%CI= 1.07-2.5) was associated with being obese/inactive. 2. In a stratified analysis further distance to the nearest supermarket was associated with increased odds of obesity (OR: 1.8, 95% CI= 1.3-2.4). 3. In a stratified analysis few or moderate number of destinations within close proximity (3-6 destinations: OR=1.49, 95%CI= 1.08-2.06; 1-2 destinations: OR=1.42,95%CI= 1.03-1.97) was associated with being obese. 4. Using a multivariate analysis showed that furthest distance (>20 minutes) to the nearest recreational facility (OR=2.74, 95% CI= 1.68-4.48) and having 3-6 destination types near home (OR=1.76, 95%CI= 1.09-2.84) were neighborhood environmental perceptions associated with being obese. 5. Using a multivariate analysis showed that furthest distance (>20 minutes) to the nearest recreational facility (OR=1.53, 95% CI= 1.1-2.11) was a neighborhood environmental perception associated with being obese. **Safety-Interpersonal** OVERWEIGHT/OBESITY: 1. Women had stronger associations between obesity and feeling slightly or not at all safe from crime (OR= 2.4; 95% CI= 1.6-3.5). 2. Feeling unsafe from crime (OR=2.91, 95%CI= 1.86-2.55, p<0.05) was more strongly associated with the odds of being obese/inactive. 3. Feeling unsafe from crime (OR=2.09, 95%CI= 1.5-2.92, p<0.05) and having an unmaintained community (OR=1.48, 95%CI=1.09-1.99) were more strongly associated with the odds of being obese. 4. Feeling unsafe from crime (OR=2.59, 95% CI= 1.56-4.28) was a neighborhood environmental perception associated with being obese. *(continued next page)*	Not Reported

(Continued from previous study)						
					5. Feeling unsafe from crime (OR=1.71, 95% CI= 1.19-2.46) was a neighborhood environmental perception associated with being obese. 6. Having an unmaintained community (OR=1.48, 95%CI=1.09-1.99) was associated with being obese. **Safety-Traffic** OVERWEIGHT/OBESITY: 1. Feeling unsafe from traffic (OR=2.46, 95%CI= 1.63-3.71, p<0.05) was more strongly associated with the odds of being obese and inactive than normal and active. 2. Feeling unsafe from traffic (OR=1.65, 95%CI=1.2-2.27, p<0.05) was more strongly associated with the odds of being obese than normal weight. (Note: Distance to nearest PA resource and access to nearest PA resources may overlap in their designated strategy categories.)	

Study Description	Population	Reach	Intervention	Impact & Sustainability	Other Results	Related Benefits & Consequences
Author Franco, Diez-Roux (2009) Maryland	**Participation/ Potential Exposure** Not Applicable **High-Risk Population** Not applicable Only cross-sectional data provided. Adults; 50.4% Black, 49.6% White; 17% lower-income; Mean age = 63 years (evaluation sample)	**Representative** Not Applicable **Potential Population Reach** Not Applicable **Potential High Risk Popluation Reach** Not Applicable	**Intervention Components** Not Applicable Only cross-sectional data provided. Availability of healthy food in neighborhood food stores **Feasibility** Not Applicable **Implementation Complexity** Not Applicable	**Population Impact** Not Applicable **High-risk Population Impact** Not Applicable **Sustainability** Not Applicable	Not Reported	Not Reported
Author Powell, Bao (2009) United States	**Participation/ Potential Exposure** Not Applicable **High-Risk Population** Not Applicable Only cross-sectional data provided. 5-18 year olds; 21% racial/ethnic populations (evaluation sample)	**Representative** Not Applicable **Potential Population Reach** Not Applicable **Potential High Risk Popluation Reach** Not Applicable	**Intervention Components** Not Applicable Only cross-sectional data provided. Food store outlet availability MULTI-COMPONENT: 1. Food pricing of energy-dense foods and healthy foods **Feasibility** Not Applicable **Implementation Complexity** Not Applicable	**Population Impact** Not Applicable **High-risk Population Impact** Not Applicable **Sustainability** Not Applicable	**Food Pricing** OVERWEIGHT/OBESITY: 1. A $1 increase in the price of fruits and vegetables raises BMI by 2.0 units. Increasing the price of fruit and vegetables by 1 standard deviation increases BMI by 2.0 units (p=0.01). 2. A 10% increase in the price of fruits and vegetables was associated with a 0.7% increase in child BMI (p=0.01). 3. Fast food prices were not found to be statistically significant in the full sample but were weakly negatively associated with BMI among adolescents with an estimated price elasticity of 0.12. 4. The associations of fruit and vegetable and fast food prices with BMI were significantly stronger both economically and statistically among low-versus high-socioeconomic status children. 5. For the full sample, the BMI fruit and vegetable price elasticity is 0.07(p=0.01) and the fast food price elasticity of BMI is -0.07 (not significant).	Not Reported
Author Laraia, Siega-Riz (2004) North Carolina	**Participation/ Potential Exposure** Not Applicable **High-Risk Population** Not Applicable Only cross-sectional data provided Pregnant women,16 - 42 yrs old; 62% Lower-income; 47.8% African American, 34.7% White, 17.5% Other	**Representative** Not Applicable **Potential Population Reach** Not Applicable **Potential High Risk Popluation Reach** Not Applicable	**Intervention Components** Not Applicable Only cross-sectional data provided Accessibility of supermarkets, grocery and convenience stores **Feasibility** Not Applicable **Implementation Complexity** Not Applicable	**Population Impact** Not Applicable **High-risk Population Impact** Not Applicable **Sustainability** Not Applicable	Not Reported	Not Reported

Study Description	Population	Reach	Intervention	Impact & Sustainability	Other Results	Related Benefits & Consequences
International						
Author Cummins, Petticrew (2005) Scotland	**Participation/ Potential Exposure** Participation = Not Reported Exposure = Low All residents living near the hypermarket were exposed to the intervention. Participant access (e.g., transportation, affordability of products) was not assessed. **High-Risk Population** High Lower-income Hypermarket was built in a "food-retail deficit" community, in a deprived area in Glasgow, Scotland	**Representative** Not Applicable **Potential Population Reach** More Evidence Needed Participation = Not reported Exposure = Low Representativeness = Not reported **Potential High Risk Popluation Reach** More Evidence Needed High-risk population = High Representativeness = Not reported	**Intervention Components** Simple Development of a large scale food retail store in a deprived Scottish community **Feasibility** Intervention Feasibility = Low Policy Feasibility = High Intervention components: Development of new hypermarket Specialized expertise: Developers to design, build and maintain the food store Resources: Funds to design and build the store, 10 pound shopping voucher for incentives Cost: Not reported **Implementation Complexity** High Intervention components = Simple Feasibility = High	**Population Impact** More Evidence Needed Effectiveness = Not reported Potential population reach = More evidence needed Implementation complexity = High **High-risk Population Impact** More Evidence Needed Effectiveness = Effective for nutrition in the study population Potential high-risk population reach = More evidence needed Implementation complexity = High **Sustainability** Not Reported	Not Reported	1. Respondents with fair to poor self-reported health increased in the intervention area compared with the comparison area at follow-up (adjusted OR=1.52, 95% CI: 0.77 to 2.99). Conversely, the odds of having poor psychological health were reduced but were not statistically significant. 2. The odds of poor psychological health was reduced among switchers compared to non-switchers (adjusted OR=0.24, 95% CI: 0.09 to 0.66).

Study Description	Population	Reach	Intervention	Impact & Sustainability	Other Results	Related Benefits & Consequences
Author Veugelers, Sithole (2008) Nova Scotia, Canada	**Participation/ Potential Exposure** Not Applicable **High-Risk Population** Not Applicable Only cross-sectional data provided. 5-13 year olds; 10.8% lower-income	**Representative** Not Applicable **Potential Population Reach** Not Applicable **Potential High Risk Popluation Reach** Not Applicable	**Intervention Components** Not Applicable Only cross-sectional data provided. Neighborhood access to shops with moderately priced fresh produce MULTI-COMPONENT: 1. Access to parks, playgrounds and recreational facilities 2. Perceptions of safety from crime 3. Access to shops (mixed land-use) **Feasibility** Not Applicable **Implementation Complexity** Not Applicable	**Population Impact** Not Applicable **High-risk Population Impact** Not Applicable **Sustainability** Not Applicable	**Availability of Parks, Playgrounds, Trails, and Recreation Centers** OVERWEIGHT/OBESITY: 1. Children in neighborhoods with good access to playgrounds and parks were 24% less likely to be overweight (OR=0.76, 95% CI=0.62-0.95) and 29% less likely to be obese (OR=0.71, 95% CI=0.53-0.99) than children in neighborhoods with poor access. 2. Children in neighborhoods with good access to recreational facilities were 29% less likely to be overweight (OR=0.71, 95% CI=0.56-0.90) and 42% less likely to be obese (OR=0.58, 95% CI=0.40-0.84) than children in neighborhoods with poor access. PHYSICAL ACTIVITY: 3. Children in neighborhoods with good access to playgrounds, parks and recreational facilities engaged more in sports with a coach than children in neighborhoods with poor access (IR=1.64, 95% CI: 1.38-1.95; IR=1.76, 95% CI: 1.47-2.12, respectively). SEDENTARY BEHAVIOR: 4. Children in neighborhoods with good access to playgrounds, parks and recreational facilities spent less time in front of a computer or TV screen than children in neighborhoods with poor access (IR=0.72, 95% CI: **Safety-Interpersonal** OVERWEIGHT/OBESITY: 1. No association between neighborhood safety and overweight and obesity. PHYSICAL ACTIVITY: 2. Children in safe neighborhoods engaged more in sports without a coach than children in unsafe neighborhoods (OR=1.23, 95% CI: 1.04-1.46). **Community Design** OVERWEIGHT/OBESITY: 1. Children in neighborhoods with good access to shops were 26% less likely to be overweight (OR=0.74. 95% CI=0.60-0.91) and 33% less likely to be obese (OR=0.67, 95% CI=0.48-0.94) than children from neighborhoods with poor access to shops. NUTRITION: 2. Children in neighborhoods with the best access to shops (highest one-third) reported more consumption of fruit and vegetable (incremental risk [IR]=1.04, 95% CI: 1.00-1.09), substantially less consumption of dietary fat (IR=0.51, 95% CI: 0.33-0.78), and a higher diet quality index (IR=2.26, 95% CI: 1.09-4.69) in comparison to neighborhoods with the poorest access to shops (lowest one-third).	Not Reported

Study Description	Population	Reach	Intervention	Impact & Sustainability	Other Results	Related Benefits & Consequences
Author Hackett, Boddy (2008) United Kingdom	**Participation/ Potential Exposure** Not Applicable **High-Risk Population** Not applicable Only cross-sectional data provided. 9-10 year olds, overall data are presented from approx. 32% of Liverpool's 9-10 year old children	**Representative** Not Applicable **Potential Population Reach** Not Applicable **Potential High Risk Popluation Reach** Not Applicable	**Intervention Components** Not Applicable Only cross-sectional data provided. Availability of food outlets MULTI-COMPONENT: 1. Presence of land-use mix **Feasibility** Not Applicable **Implementation Complexity** Not Applicable	**Population Impact** Not Applicable **High-risk Population Impact** Not Applicable **Sustainability** Not Applicable	**Community Design** OVERWEIGHT/OBESITY: 1. The area where children with the least desirable eating habits lived was found to have dense housing, small terraced houses, and narrow streets based on observations from the ordnance survey census matching map. Observations based on a visit to the area found no greenery, little space, many shops especially selling sweets and take-away meals (many boarded up), a large supermarket and several mini-markets and very heavy traffic on the "main" road.	Not Reported
Author Pearson, Russell (2005) United Kingdom	**Participation/ Potential Exposure** Not Applicable **High-Risk Population** Not Applicable Only cross-sectional data provided Adults (evaluation sample)	**Representative** Not Applicable **Potential Population Reach** Not Applicable **Potential High Risk Popluation Reach** Not Applicable	**Intervention Components** Not Applicable Only cross-sectional data provided. Access to supermarkets MULTI-COMPONENT: 1. Fruit and vegetable (F&V) pricing COMPLEX: 1. Area socioeconomic deprivation **Feasibility** Not Applicable **Implementation Complexity** Not Applicable	**Population Impact** Not Applicable **High-risk Population Impact** Not Applicable **Sustainability** Not Applicable	**Food Pricing** NUTRITION: 1. Supermarket fruit and vegetable price was not significantly associated with either fruit or vegetable consumption.	1. Deprivation, supermarket fruit and vegetable price, distance to nearest supermarket and potential difficulties with grocery shopping were not significantly associated with either fruit or vegetable consumption. 2. Male grocery shoppers ate less fruit, approximately one third of a portion per day, than female grocery shoppers (β=-0.30; 95% CI: -0.57, -0.02; p=0.04). 3. Consumption of vegetables increased slightly with age, by one-tenth of a serving per day per 15 year age increment (β=0.12; 95% CI: 0.00, 0.23; p=0.05). 4. There was a similar trend of an increase in fruit consumption with age, but the effect was not statistically significant (β=0.13 servings/day/15 year age increment; 95% CI: -0.01, 0.27; p=0.07).

Study Description	Population	Reach	Intervention	Impact & Sustainability	Other Results	Related Benefits & Consequences
Author Rabin, Boehmer (2007) Europe	**Participation/ Potential Exposure** Not Applicable **High-Risk Population** Not Applicable Only cross-sectional data provided General population	**Representative** Not Applicable **Potential Population Reach** Not Applicable **Potential High Risk Popluation Reach** Not Applicable	**Intervention Components** Not Applicable Only cross-sectional data provided. Neighborhood availability of fruits and vegetables in food stores <u>MULTI-COMPONENT:</u> 1. Urbanization (urban population density) 2. Public transportation 3. Density of motorways **Feasibility** Not Applicable **Implementation Complexity** Not Applicable	**Population Impact** Not Applicable **High-risk Population Impact** Not Applicable **Sustainability** Not Applicable	**Community Design** <u>OVERWEIGHT/OBESITY:</u> 1. Overall obesity prevalence was inversely associated with urbanization (urban population: β=-0.095, p=0.080). **Street Design** <u>OVERWEIGHT/OBESITY:</u> 1. Male obesity prevalence was inversely associated with density of motorways (β=-0.197, p=0.067). **Transportation** <u>OVERWEIGHT/OBESITY:</u> 1. Overall obesity prevalence was inversely associated with transportation (total passenger cars: β=-0.017, p<0.001, new passenger cars: β=-0.081, p=0.018, price of gasoline: β=-0.095, p=0.042, paved roads: β=-0.064, p=0.033, motorways: β=-0.224, p=0.022). 2. Female obesity prevalence was inversely associated with transportation (passenger cars: β=-0.020, p<0.001, new passenger cars: β=-0.087, p=0.028, price of gasoline: β=-0.096, p=0.041, paved roads: β=-0.073, p=0.032, density of motorways: β=-0.227, p=0.030). (Note: Light rail and public transit is often referred to as a passenger car in Europe.)	1. Overall obesity prevalence was inversely associated with economic variables (real domestic product: β=-0.175, p=0.002; gross domestic product: β=-0.168, p<0.001) and policy (governance indicator: β=-2.528, p=0.007).