IMPACT AND EFFECTIVENESS TABLE 46

Community Design

EFFECTIVENESS TABLES

Study Description	Measures & Outcomes	Effect Size or % Change	Effectiveness	Maintenance & Representativeness
United States				
Author Wells, Yang (2008) Georgia, Florida, Alabama **Design** Intervention Evaluation Prospective cohort study **Duration** Not Reported	**Measures** *Neighborhood walkability* (land-use mix, density, street connectivity [cul de sac density]) **Outcome(s) Affected** Walking (Digiwalker2 pedometers and activity log)	**Net Negative for Physical Activity in Lower-income families (Community Design)** **Community Design** PHYSICAL ACTIVITY: 1. (N=32) With respect to land-use mix, increases in the service-jobs-to-residents ratio from pre-to-post-move were associated with fewer steps per week (31,820 fewer steps per week, or 4645 fewer steps per day, std. error; 11921.57, p=0.013). 2. (N=70) Levels of walking in neo-traditional neighborhoods were slightly higher (62,207 steps/week) than in the suburban neighborhoods (58,617 steps/week) but not significantly (p=0.600).	**More Evidence Needed** Study design = Intervention evaluation Intervention duration = Not reported Effect size = Net negative for physical activity in lower-income families	**Maintenance** Not Reported **Sampling / Representativeness** Not Reported
Author Li, Harmer (2009), Li, Harmer (2008), Li Harmer (2009) Oregon **Design** Association Cross-sectional One prospective cohort study and two cross-sectional studies: Cohort study participants completed a health survey at baseline (2006-2007) and one year follow-up (2007-2008). In the same years the built environment (e.g., land use mix, fast-food density, street connectivity) were assessed however no intervention was implemented. **Duration** Not Applicable	**Measures** *Neighborhood walkability* (land-use, street connectivity, access to public transit and green and open spaces) **Outcome(s) Affected** Overweight/obesity (height and weight [body mass index]) and walking behavior (BRFSS questions)	**Positive Association for Overweight/obesity in the Study Population (Community Design)** **Positive Association for Physical Activity in the Study Population (Community Design)** **(Assumptions: 1) Individuals residing in neighborhoods with greater walkability will have a decreased BMI in comparison with their counterparts. 2) Greater access to fast food restaurants will lead to greater access to unhealthy foods, which will lead to increased consumption of unhealthy foods and higher body mass index and overweight/obesity. 3) Greater access to full-service or sit-down restaurants will lead to greater access to healthy foods which will lead to increased consumption of healthy foods and lower body mass index and overweight/obesity.)** **Community Design** OVERWEIGHT/OBESITY: 1. (cross-sectional data) Using Poisson regression model analyses, a 10% increase in the even distribution of square footage across all land uses (i.e., residential, public [offices and institutions], commercial) was associated with a 25% reduction in prevalence of overweight/obesity (p<0.01). 2. (N=1145) Multi-level analyses show that after adjustment for neighborhood- and resident-level socio-demographic characteristics, high walkability was associated with a decrease in 2.65 pounds in weight and 0.62 inches in waist circumference among residents who increased their levels of vigorous physical activity (p<0.05). PHYSICAL ACTIVITY: 3. (cross-sectional data) A one unit increase in mixed land use was associated with a 5.76 times increase in walking for transportation (p<0.001), a 4.066 times increase in neighborhood walking (p<0.001), 1.495 increase in walking for errands (p<0.047) and 1.463 times increase for meeting physical activity recommendations (p=0.025). 4. (cross-sectional data) The density of public transit stations was associated with more walking for transportation (estimated prevalence = 1.147, p=0.011) and meeting physical activity guidelines (estimated prevalence = 1.069, p=0.03). 5. Among boys, access to the total number of neighborhood destinations (0.35, p=0.03) was positively associated with weekly walking frequency. Total number of accessible destinations score remained significantly positively associated with walking frequency in the multiple regression model (p<0.05). 6. (cross-sectional data) Green and open spaces for recreation was also associated with more neighborhood walking (estimated prevalence = 1.119, p=0.032) and meeting physical activity requirements (estimated prevalence = 1.065, p<0.001). (Note: Walkability composite score consists of land-use mix, street connectivity, public transit stations, and green and open spaces)	**Positive Association for Overweight/obesity in the Study Population** **Positive Association for Physical Activity in the Study Population** Study design = Association Intervention duration = Not applicable Effect size = Positive association for physical activity and overweight/obesity the study population	**Maintenance** Not Applicable **Sampling / Representativeness** Not Reported

Study Description	Measures & Outcomes	Effect Size or % Change	Effectiveness	Maintenance & Representativeness
Author McDonald (2007) United States **Design** Association Cross-sectional **Duration** Not Applicable	**Measures** *Neighborhood walkability* (residential density and distance to desired location) **Outcome(s) Affected** Active transportation (National Household Travel Survey))	**Positive Association for Physical Activity in the Study Population (Community Design)** **(Assumption: Individuals living nearer to their desinations in more densely populated areas will be more inclined to walk to school.)** **Community Design** PHYSICAL ACTIVITY: 1. Simple averages show that 48% of students living less than 1.6 km from their school walked compared with a walk rate of 3% for students living more than 1.6 km from their school. 2. The model shows that travel times have the strongest effect on the decision to walk to school ($p<0.01$). A 1 minute increase in walk travel time leads to a 0.2% decline in an individual's probability of walking; a 10% increase in walk travel time leads to a 7.5% decrease in walk mode share. However, a 1 min increase in auto travel times leads to a 0.01% increase in the probability of walking; a 10% increase in auto travel time leads to a 0.1% increase in the likelihood of walking. 3. Population density is positively associated with walking, even after accounting for trip distance; however, the relationship is modest. A 10% increase in density for all students in our sample would increase walk mode share by 1.2%.	**Positive Association for Physical Activity in the Study Population** Study design = Association Effect size = Positive association for physical activity in the study population	**Maintenance** Not Applicable **Sampling / Representativeness** Not Reported
Author Tilt, Unfried (2007) Washington **Design** Association Cross-sectional **Duration** Not Applicable	**Measures** *Perceptions of destinations and walkability in the neighborhood* (access to mixed land-use and distance to locations) *Neighborhood aesthetic quality* (access and proximity to vegetation) **Outcome(s) Affected** Overweight/obesity (height and weight [body mass index]) and Active transportation (survey)	**Positive Association for Overweight/obesity in the Study Population (Community Design)** **Positive Association for Physical Activity in the Study Population (Community Design)** **(Assumption: Residents living in neighborhoods that had numerous types of destinations within walking distance, high amounts of vegetation, and high satisfaction with that vegetation would not only make more walking trips but also would have lower body mass index scores.)** **Community Design** OVERWEIGHT/OBESITY: 1. Having a destination within walking distance had a significant positive relation with walking trips per month, BMI was not significantly correlated with walking trips per month ($r=-.08198$, $p=.0701$). PHYSICAL ACTIVITY: 2. There was a strong association between the importance of destination index score (access to a variety of destinations) and walking trips per month ($r^2=.341410$, $p<.0001$; regression coefficient for importance of destinations index =0.0197742, $p<0.0001$).	**Positive Association for Overweight/ obesity in the Study Population** **Positive Association for Physical Activity in the Study Population** Study design = Association Effect size = Positive association for overweight/ obesity and physical activity in the study population	**Maintenance** Not Applicable **Sampling / Representativeness** Not Reported
Author Liu, Wilson (2007) Indiana **Design** Association Cross-sectional **Duration** Not Applicable	**Measures** *Neighborhood walkability* (land-use mix) *Neighborhood aesthetic quality* (access to vegetation) **Outcome(s) Affected** Overweight/obesity (height and weight [body mass index])	**Positive Association for Overweight/obesity in the Study Population (Community Design)** **(Assumptions: Increased distance to accessible food stores will increase the likelihood of overweight and obesity. Increased vegetation will lead to increased physical activity, which will lead to decreased rates of overweight and obesity.)** **Community Design** OVERWEIGHT/OBESITY: 1. With regard to findings for the Lower Population Density Townships, distance to the nearest supermarket (adjusted odds ratio=1.038 standard error=0.019; $p=0.03$) was positively associated with risk of overweight.	**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 Aytur, Rodriguez (2008) United States **Design** Association Cross-sectional **Duration** Not Applicable	**Measures** *Neighborhood walkability* (urban containment policies and density) **Outcome(s) Affected** Active transit, leisure time physical activity (BRFSS questions)	**Positive Association for Physical Activity in the Study Population (Community Design)** **(Assumptions: Decreased density and vehicle miles traveled will increase neighborhood walking. Strong urban containment policies will increase density and land-use mix, which will lead to increased neighborhood walking.)** **Community Design** <u>PHYSICAL ACTIVITY:</u> 1. Both enabling state legislation (estimate=-0.09, p=0.0002) and strong urban containment policies (estimate=0.08, p=0.0031) were independently associated with walking or bicycling to work.. 2..Strong urban containment policies remained independently associated with no leisure-time physical activity (LTPA) (estimate=-2.40, p=0.0024) when MSA-level policies were accounted. 3. Density and vehicle miles traveled per capita were not statistically significant in the final model. 4. Metropolitan areas with strong urban containment policies in states mandating urban growth boundaries showed the steepest decline in the percentage of no LTPA relative to other policy classifications (figure, no statistics shown). 5. Residents of MSAs with state legislation mandating urban growth boundaries reported approximately 53 additional minutes of LTPA per week, compared with residents of states without policies (p=0.0011). 6. Strong MSA-level urban containment policies were associated with approximately 24 additional minutes of LTPA/week (p=0.0029). 7. State legislation mandating urban growth boundaries (estimate=41.16, p=0.0132) and strong MSA policies (estimate=21.09, p=0.0181) remained independently associated with more minutes of LTPA/week.	**Positive Association for Physical Activity in the Study Population** Study design = Association Effect size = Positive association for physical activity in the study population	**Maintenance** Not Applicable **Sampling / Representativeness** Not Reported
Author Berrigan, Troiano (2002) United States **Design** Association Cross-sectional **Duration** Not Applicable	**Measures** *Level of urbanization* (home age as a proxy for style of neighborhood development) **Outcome(s) Affected** Walking, leisure time physical activity (NHANES data)	**Positive Association for Physical Activity in the Study Population (Community Design)** **(Assumptions: Neighborhoods containing older homes in urban areas are more likely to have sidewalks, have denser interconnected networks of streets, and often display a mix of business and residential uses, which will lead to increased levels of physical activity.)** **Community Design** <u>PHYSICAL ACTIVITY:</u> 1. Residents of homes built before 1974 in urban (1946-1973: 16.1%, standard error [se]= 0.9, <1946: 16.0%, se= 2.1) or suburban (1946-1973: 11.3%, se= 1.0, <1946: 12.4%, se= 1.4) areas were more likely than residents of newer homes (urban: 11.5%, se= 1.0, rural: 11.2%, se= 1.0) to walk ≥ 20 times per month. 2. There was no evidence for an association between home age and non-walking leisure time physical activity in urban/ suburban areas. 3. In urban and suburban areas, adult residents of homes built before 1946 (OR: 1.43, 95% CI: 1.03-1.98) and between 1946 and 1973 (OR: 1.36, 95% CI: 1.13-1.65) were significantly more likely to be in the higher walking category.	**Positive Association for Physical Activity in the Study Population** Study design = Association Effect size = Positive association for physical activity in the study population	**Maintenance** Not Applicable **Sampling / Representativeness** High The sample used for the NHANES III is nationally representative of the US population. It oversamples African Americans and Mexican-Americans.

Study Description	Measures & Outcomes	Effect Size or % Change	Effectiveness	Maintenance & Representativeness
Author Boer, Zheng (2007) MA, IL, TX, MI, NY, PA, CA, WA **Design** Association Cross-sectional **Duration** Not Applicable	**Measures** *Neighborhood walkability* (land-use mix, density, and distance to locations) **Outcome(s) Affected** Walking (1995 National Personal Transportation Survey)	**Positive Association for Physical Activity in the Study Population (Community Design)** **(Assumptions: Increased residential density, land-use diversity, and home age increase the likelihood of neighborhood walking. Decreased distance to businesses increases the likelihood of walking.)** **Community Design** PHYSICAL ACTIVITY: 1. Walking correlates with the number of businesses in a neighborhood; average walking distance in miles increased from an average low of 0.136 for neighborhoods with 0 businesses to a high of 0.833 miles in neighborhoods with 6-7 businesses. 2. Walking correlates with housing density; average walking distance in miles increased from an average low of 0.139 for a housing density of 0-4 units/acre to a high of 0.84 miles in neighborhoods with a housing density greater than 14 units per acre. 3. Walking correlates with parking pressure; average walking distance in miles increased from an average low of 0.12 for neighborhoods with 0-0.0077 person/foot to a high of 0.792 miles in neighborhoods with 0.0599-0.4713 person/foot. 4. Higher parking pressure and older median housing age did not significantly affect walking. 5. Moving from two different business types in the neighborhood to three types significantly improved the probability of walking (OR=1.15, 95% CI: 1.001-1.320). The same effect was found when comparing four with three different business types (OR=1.24, 95% CI: 1.07-1.44). Additional increases in business diversity were not associated with a significant increase in walking. 6. Living in a neighborhood with a housing density of more than 14 units per acre significantly increased the probability of walking compared to a housing density of 11-14 units per acre (OR=2.05, 95% CI: 1.46- 2.89). 7. Living in a neighborhood with a housing density of 11-14 units/acre compared to 7-11 units/acre, the probability to walk was lower (OR=0.80, 95% CI: 0.64-1.00).	**Positive Association for Physical Activity in the Study Population** Study design = Association Effect size = Positive association for physical activity in the study population	**Maintenance** Not Applicable **Sampling / Representativeness** Not Reported

Study Description	Measures & Outcomes	Effect Size or % Change	Effectiveness	Maintenance & Representativeness
Author Frank, Kerr (2007) Georgia **Design** Association Cross-sectional **Duration** Not Applicable	**Measures** *Neighborhood walkability* (land-use diversity and street connectivity [e.g., intersection density]) **Outcome(s) Affected** Walking (Strategies for Metropolitan Atlanta's Regional Transportation and Air Quality [SMARTRAQ])	**Positive Association for Physical Activity in the Study Population (Community Design)** **(Assumption: Increased land use mix, density, and street connectivity lead to increased walking in the community.)** **Community Design** <u>PHYSICAL ACTIVITY:</u> 1. Living in the top tertile for residential density (walking ≥ 1 time per 2 days= 2nd tertile; OR= 1.4, CI: 1.0-1.9, p<0.05; 3rd tertile; OR= 2.4, CI: 1.8-3.2, p<0.001; walking ≥0.5 miles/day; 3rd tertile; OR=2.7, CI:1.7-4.4, p<0.001) was significantly related to both walking outcomes, specifically when the odds ratio for density was greater for walking 0.5 mile or more. 2. Land-use mix (walking ≥ 1 time per 2 days; OR=1.8, CI: 1.4-2.3, p<0.001; walking ≥ 0.5miles per day; OR=1.9, CI:1.3-2.9, p<0.001), commercial destinations (walking ≥1 time per 2 days; OR=1.8, CI: 1.4-2.3, p<0.001; walking ≥0.5 miles/day; OR=1.8, CI: 1.2-2.7, p<0.01), and recreation destinations (walking ≥1 time per 2 days; OR= 2.1, CI: 1.7-2.6, p<0.001; walking ≥0.5 miles/day; OR=2.1, CI: 1.5-2.9, p<0.001) within 1-km were all significantly related to walking. *Results for only top tertile;* 3. For 9-11 year olds reporting that they had walked at least once over 2 days, residential density (OR=2.3, CI; 1.2-4.3, p<0.05) and living near recreation or open space (OR=1.8, CI; 1.1-2.9, p<0.05) were significant. None of the variables was significantly related to walking ≥0.5 miles per day for this age group. 4. For 12-15 year olds reporting that they walked at least once over 2 days, density (OR=3.7, CI: 2.2-6.4, p<0.001), mixed land use (OR=2.5, CI: 1.6-3.8, p<0.001), at least one commercial use (OR=2.6, CI: 1.7-4.0, p<0.001), and at least one recreation/ open space (OR=2.5, CI: 1.7-3.6, p<0.001) were significant factors. 5. For 12-15 year olds reporting that they walked ≥0.5 miles/day, highest density (OR=4.9, CI: 2.1-11.4, p<0.001), mixed land use (OR=2.7, CI: 1.4-5.3, p<0.01), at least one commercial use (OR=2.7, CI: 1.4-5.4, P<0.001), and at least one recreation/ open space (OR=2.4, CI: 1.3-4.2, p<0.001) were significant factors. 6. For the 16-20 year olds reporting that they had walked at least once over 2 days, mixed land use (OR=1.9, CI: 1.0-3.2, p<0.05),was significant. 7. For those reporting that they had walked ≥ 0.5 miles per day, residential density (OR=3.2, CI: 1.1-9.1, p<0.05), was a significant factor. 8. In the multivariate analyses, having greater residential density (walking ≥1 time per 2 days; OR=1.7, CI: 1.1-2.3, p<0.01; walking ≥0.5 miles/day; OR=1.8, CI: 1.0-3.1, p<0.05) was significantly related to walking. 9. Intersection density, land use mix, commercial land usage, gender, and household size were not significant in the multivariate model. 10. For 5-8 year olds, living near recreation or open space (walking ≥1 time per 2 days; OR=2.1, CI: 1.3-3.4, p<0.001; walking ≥0.5 miles/day; OR=2.4, CI: 1.2-5.1, p<0.05) was significantly related to walking at least once over 2 days as well as walking ≥0.5 miles per day. 11. Having up to 5 acres of recreation space in a 1-km buffer was significantly related to walking (5-8 years; OR=2.2, CI: 1.2-4.1, p<0.01)(12-15 years; OR=2.2, CI: 1.3-3.7, p<0.01)(16-20 years; OR=2.6, CI: 1.5-4.6, p<0.001), however more than 6 acres of recreation or open space did not appear to be related to walking. (Note: Distance to nearest PA resource and access to nearest PA resources may overlap in their designated strategy categories.)	**Positive Association for Physical Activity in the Study Population** Study design = Association Effect size = Positive association for physical activity in the study population	**Maintenance** Not Applicable **Sampling / Representativeness** Not Reported
Author Lopez (2007) Massachusetts **Design** Association Cross-sectional **Duration** Not Applicable	**Measures** *Neighborhood walkability* (land-use mix, density, and street connectivity) **Outcome(s) Affected** Overweight/obesity (height and weight [body mass index])	**Positive Association for Overweight/obesity in the Study Population (Community Design)** **(Assumption: Mixed use communities with increased population, retail, and employment densities including access to supermarkets will be more walkable environments and residents will have lower BMI scores.)** **Community Design** <u>OVERWEIGHT/OBESITY:</u> 1. Using a multiple regression revealed that as median income, population density, and establishment density increased, the risk of obesity declined by 0.8% (OR=0.992; 95% CI: 0.990-0.994; p=0.01), 2% (OR=0.980; 95% CI: 0.972-0.990; p=0.01), and 1.9% (OR=0.981; 95% CI: 0.964-0.999; p=0.05), respectively. 2. Multiple regression analyses revealed that having one or more supermarket in a Zip Code Tabulation Area (ZCTA) decreased the risk of obesity by 10.7% (OR=0.893; 95% CI: 0.815-0.978; p=0.05); about 11% of the variation in the final model was attributable to neighborhood level factors. 3. Using bivariate analyses, neither supermarket nor fast food density variables were associated with obesity risk. 4. Using a multiple regression revealed that as employment density increased, obesity risk increased by 0.4% (OR=1.004; 95% CI: 1.001-1.009; p=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** Low The obesity rate in this sample (19.8%) is higher than that in Massachusetts as a whole (16.8% in 2000).

Study Description	Measures & Outcomes	Effect Size or % Change	Effectiveness	Maintenance & Representativeness
Author Kelly-Schwartz, Stockard (2004) United States **Design** Association Cross-sectional **Duration** Not Applicable	**Measures** *Urban sprawl* (residential density, land-use mix, distance to metro center, street accessibility) **Outcome(s) Affected** Walking (National Health and Nutrition Examination Survey III) Overweight/obesity (height and weight [body mass index])	**Positive Association for Overweight/obesity in the Study Population (Community Design)** **Positive Association for Physical Activity in the Study Population (Community Design)** **(Assumptions: Individuals living in less sprawling areas will participate in increased physical activity, which will lead to decreased overweight/obesity.)** **Community Design** OVERWEIGHT/OBESITY: 1. The results of the NHANES data indicate that residents of less sprawling counties tend to have lower BMIs (CE; -0.00313, t=-1.93, p=0.0532). PHYSICAL ACTIVITY: 1. The results of the NHANES data indicate that residents of less sprawling counties tend to walk more (CE; 0.0036, t=3.51, p=0.0013).	**Positive Association for Overweight/ obesity in the Study Population** **Positive Association for Physical Activity in the Study Population** Study design = Association Effect size = Positive association for overweight/ obesity and physical activity in the study population	**Maintenance** Not Applicable **Sampling / Representativeness** High Mexican- Americans and African- Americans were oversampled to allow for more accurate comparisons among race/ ethnic groups for the NHANES.
Author Ewing, Schmid (2003) United States **Design** Association Cross-sectional **Duration** Not Applicable	**Measures** *Urban sprawl* (residential density, land-use mix, presence of town core/centering, street accessibility) **Outcome(s) Affected** Leisure time physical activity and walking behavior (Behavioral Risk Factor Surveillance System [BRFSS]) and overweight/obesity (height and weight [BMI])	**Positive Association for Overweight/obesity in the Study Population (Community Design)** **Positive Association for Physical Activity in the Study Population (Community Design)** **(Assumptions: Residents of sprawling places would walk less, weigh more, and have higher prevalence of health problems linked to physical inactivity than those living in more compact places.)** **Community Design** OVERWEIGHT/OBESITY: 1. More compact county index was related to lower BMI at a highly significant level (coefficient=-0.00344, t= -2.84, p=0.005). 2. Residents of a more compact county, one standard deviation above the mean county index, would be expected to have BMIs 0.17 kg/m^2 lower than residents of a more sprawling county, one standard deviation below the mean. For example, New York residents would have BMIs almost 1 kg/m^2 less than their counterparts Geauga county for the BRFSS sample this translates into 6.3 fewer lbs of body weight. 3. Living in a more compact county index was significantly related to being less obese (coefficient=-0.00212, t= -4.24, p<0.001). 4. The odds of being obese in a more compact county, one standard deviation above the mean county index, were 0.90 times the odds in a more sprawling county, one standard deviation below the mean index (95% CI; 0.86-0.95). 5. A 25 unit increase in the county index (1 SD) is associated directly with a 0.085 kg/m^2 (25 X 0.00338) decrease in BMI. The same 25 unit increase is associated indirectly with only a 0.001 kg/m^2 (25 X 0.275 X 0.000128) decrease in BMI through its effect on leisure time walking. PHYSICAL ACTIVITY: 6. The likelihood of reporting any leisure time physical activity was not significantly related to the county index (coefficient=0.000552, t=1.01, p=0.313). 7. The number of minutes walked varied directly with county index, with residents of more compact places reporting more leisure time walking than residents of more sprawling places (coefficient=0.275, t=2.95, p=0.004). 8. All else being equal, residents of a county one standard deviation (25 units) above the mean county index would be expected to walk for leisure 14 minutes more each month compared to residents of a county one standard deviation below the mean (i.e., 50 units X 0.275 minutes per unit). Comparing the extremes (New York County with an index of 352 and Geauga County with an index of 63), New York residents would be expected to walk for leisure 79 minutes more each month. 9. Metropolitan level sprawl was similarly associated with minutes walked (coefficient=0.338, t=0.09, p=0.04) but not with the other variables.	**Positive Association for Overweight/ obesity in the Study Population** **Positive Association for Physical Activity in the Study Population** Study design = Association Effect size = Positive association for overweight/ obesity and physical activity in the study population	**Maintenance** Not Applicable **Sampling / Representativeness** Not Reported

Study Description	Measures & Outcomes	Effect Size or % Change	Effectiveness	Maintenance & Representativeness
Author Lopez (2004) United States **Design** Association Cross-sectional **Duration** Not Applicable	**Measures** *Urban sprawl* (residential density and compactness) **Outcome(s) Affected** Overweight/obesity (height and weight [body mass index])	**Positive Association for Overweight/obesity in the Study Population (Community Design)** **(Assumption: Higher levels of urban sprawl are associated with greater risk for being obese or overweight.)** **Community Design** OVERWEIGHT/OBESITY: 1. For each 1 point rise in the urban sprawl index (1-100), the risk for being overweight increased by 0.2% (Relative Risk=1.002, 95% CI=1.0006-1.003) and the risk for being obese increased by 0.5% (Relative Risk=1.005, 95% CI=1.004-1.006). 2. When compared individually without controls for other explanatory variables, the association between urban sprawl and the risk for being overweight was small (Relative Risk=1.0007, 95%CI=0.9995-1.0017), however the sprawl index was associated with an increased risk for being obese (Relative Risk=1.0032, 95% CI=1.002-1.004).	**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 Cervero, Duncan (2003) California **Design** Association Cross-sectional **Duration** Not Applicable	**Measures** *Walkability and bikability* (density, land-use mix, and street connectivity) *Pedestrian friendly designs* (4 way intersections and small quadrilateral blocks with gridiron street patterns) **Outcome(s) Affected** Walking behavior (Bay Area Travel Survey [BATS])	**Positive Association for Physical Activity in the Study Population (Community Design)** **(Assumptions: Individuals in neighborhoods with increased land-use diversity and decreased distances to destinations will participate in increased walking.)** **Community Design** PHYSICAL ACTIVITY: 1. Mixed use environs with retail services significantly induced walking, other things being equal. Similarly, land-use diversity at the destination (CE; 0.023, SE; 0.042, p= 0.590) generally encouraged walking; however, this relation was statistically weak. 2. Among built environment features, the urban design and land-use diversity factors (origin; CE; 0.156, SE; 0.098, p=0.112; destination; CE; 0.056, SE; 0.099, p=0.570) were positively associated with the decision to ride a bicycle. 3. Even within a 5-mile distance band, the likelihood of walking eroded steadily with the length of trip (CE; -1.970, SE; 0.074, p<0.001).	**Positive Association for Physical Activity in the Study Population** Study design = Association Effect size = Positive association for physical activity in the study population	**Maintenance** Not Applicable **Sampling / Representativeness** Not Reported
Author Eid, Overman (2008) United States **Design** Association Cross-sectional **Duration** Not Applicable	**Measures** *Sprawl Index* (residential sprawl, land-use mix, portion of residential, commercial and undeveloped land) **Outcome(s) Affected** Overweight/obesity (height and weight [body mass index])	**Positive Association for Overweight/obesity in the Study Population (Community Design)** **(Assumption: People in more sprawling neighborhoods will be heavier than those in less sprawling neighborhoods.)** **Community Design** OVERWEIGHT/OBESITY: *Partial control (age and ethnicity)* 1. For men, the correlation between obesity and both landscape variables (residential sprawl; coefficient= 0.455, standard error= 0.259, p<0.1) (mixed use; coefficient= -3.950, standard error= 1.073, p<0.01) is statistically significant. 2. An average man of 1.79 meters who lives in a 'sprawling' neighborhood one standard deviation above the mean weighs 0.82 kg more than an average individual who lives in a 'compact' neighborhood one standard deviation below the mean. 3. Individuals living a more mixed use environment will have lower BMI, the difference in mean weights is almost twice as much at 1.34kg in men in more sprawling areas. *Full controls (smoking, profession, age, marital status, etc.)* 4. For men there was a negative correlation between mixed-use and BMI (coefficient= -2.814, standard error= 1.072, p<0.01). 5. For women neither residential sprawl nor mixed-use are even close to being significant. 6. The results suggest that there is no relationship between BMI and neighborhood characteristics.	**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** High The NLSY79 is a survey that follows a nationally representative sample of women and men.

Study Description	Measures & Outcomes	Effect Size or % Change	Effectiveness	Maintenance & Representativeness
Author Coogan, Karash (2007) United States **Design** Association Cross-sectional **Duration** Not Applicable	**Measures** *Opportunities for active transport* (access to transit station, car ownership, neighborhood compactness and form) **Outcome(s) Affected** Walking (survey)	**Positive Association for Physical Activity in the Study Population (Community Design)** **(Assumptions: Individuals in environments with increased residential density, mixed land-use, access to transit, and decreased access to automobiles will participate in increased walking.)** **Community Design** PHYSICAL ACTIVITY: 1. Using a regression analysis, all 3 variables were associated with walking; neighborhood form; (beta= -.23, t= -6.91, p<0.001), auto availability; (β= -0.21, t=-6.22, p<0.001), urban values; (β= -0.18, t=-5.39, p<0.001). 2. For urban and environmental values, the high values group had a 16% mode share to walking, while the low values group has a 6% mode share. 3. Individuals living in a compact neighborhood have approx. a 20% walk mode share; while those not living in such a neighborhood have less than a 9% mode share. 4. For individuals living in a compact neighborhood, the high values group has a 24% walk mode share, while the low values group has only 10% (p<0.01). 5. Individuals with high values in a non-compact neighborhood have a 12% walk mode share and those with low values in a non-compact neighborhood with a 6% walk mode share (p<0.01). 6. When there is a combination of the three supportive (environment/neighborhood form, auto use, and demographics) conditions there is a range from 28% walk share while with three non-supportive conditions there is a 5% walk mode share (p<0.01). (Note: Neighborhood form consists of housing type, land use mix, and transit availability. Compact neighborhoods refer to mixed housing developments, access to commercial district, and access to transit services.)	**Positive Association for Physical Activity in the Study Population** Study design = Association Effect size = Positive association for physical activity in the study population	**Maintenance** Not Applicable **Sampling / Representativeness** Not Reported
Author Vernez Moudon, Lee (2007) Washington **Design** Association Cross-sectional **Duration** Not Applicable	**Measures** *Walkability* (land use mix, street connectivity, distance to locations, residential density) **Outcome(s) Affected** Walking behavior (survey [Behavioral Risk Factor Surveillance System, National Health Interview Survey, International Physical Activity Questionnaire-Long form])	**Positive Association for Physical Activity in the Study Population (Community Design)** **(Assumptions: Increased land-use mix and street connectivity and decreased distance to destinations will lead to increased walking.)** **Community Design** PHYSICAL ACTIVITY: 1. Having too many grocery stores near home was negatively associated with walking in one airline model (airline model [walking sufficiently relative to not walking] OR= 0.667, 95%CI= 0.454-0.980, p<0.05). 2. Walking was negatively associated with distance to NC5 (office and mixed-use; airline model, odds of walking sufficiently relative to not walking OR=1.274, 95%CI=1.041-1.559, p<0.05) and distance to (office only network model; odds of walking sufficiently relative to not walking, OR=1.581, 95%CI=1.146-2.180; network model odds of walking sufficiently relative to walking moderately; OR=1.235, 95%CI=1.020-1.495, p<0.05) as well as the size of the closest NC8 (office, airline model, odds of walking sufficiently relative to walking moderately; OR= 0.779, CI= 0.0.655-0.927, p<0.05; odds of walking sufficiently relative to walking moderately, OR=0.801, 95%CI=0.712-0.901, p<0.05) to home. 3. Living closer to a grocery store/market (Airline model odds of walking moderately relative to not walking; OR=0.375, 95%CI= 0.189-.743, p<0.01) (Airline model odds of walking sufficiently relative to not walking OR=0.443, 95% CI=0.219-0.896, p<0.05)], an eating/drinking place (Airline model odds of sufficient walking relative to walking moderately OR=0.688, 95%CI=0.493-0.959, p<0.05), a bank (Network model odds of walking moderately relative to not walking OR=0.775, 95% CI=0.620-0.968)), and a NC2 ([grocery, restaurant, retail] Network model Odds of walking sufficiently relative to not walking OR=0.640, 95%CI= 0.441-0.928, p<0.05) were correlated with increased walking. 4. The density of the respondent's parcel was also strongly associated with walking sufficiently (airline sufficient not walking, OR=1.959, 95%CI=1.148-3.346) (network sufficient relative to not walking, OR=2.021, 95%CI=1.239-3.294) (network sufficient to moderate, OR=1.457, 95%CI=1.118-1.899) (p<0.01 for all) and significantly correlated with both the network and airline models.	**Positive Association for Physical Activity in the Study Population** Study design = Association Effect size = Positive association for physical activity in the study population	**Maintenance** Not Applicable **Sampling / Representativeness** Not Reported

Study Description	Measures & Outcomes	Effect Size or % Change	Effectiveness	Maintenance & Representativeness
Author Smith, Brown (2008) Utah **Design** Association Cross-sectional **Duration** Not Applicable	**Measures** *Walkability* (land-use diversity, population density, pedestrian friendly design, neighborhood age, and walkability to work) *Pedestrian friendly street design* (street connectivity and intersection density) **Outcome(s) Affected** Overweight/obesity (height and weight [body mass index])	**Positive Association for Physical Activity in the Study Population (Community Design)** **(Assumptions: Individuals living in highly walkable neighborhoods, neighborhoods with increased accessibility, pedestrian-friendly design, density, and neighborhood age, will participate in greater amounts of physical activity, which will lead to decreased rates of overweight and obesity.)** **Community Design** OVERWEIGHT/OBESITY: 1. Higher density reduces the risk of overweight among men (OR=0.997; 95%CI 0.993, 1.00; p=0.051). Higher population density increases the obesity risk for women (OR=1.06; 95%CI 1.001, 1.011; p=0.026). 2. An analysis of weight across quartiles of walkability factors, including density, reveals the expected negative relationship (p=0.039) between the top quartile of density (compared to the lowest quartile) and women's obesity odds. The unexpected overall positive relationship is attributable to the large effect of the third quartile (50th-74th percentile, p=0.002) 3. For men, being in the top 25% of all four walkability measures (defined as highest levels of density, pedestrian-friendly street design, neighborhood age, and walking to work) is associated with approximately a 1.28-point reduction in BMI. For women, the reduction is 0.95 points. For a hypothetical 6-foot, 200-pound man, the least walkable neighborhood would be associated with approximately 10 more pounds than the most walkable neighborhood. Using the female sample's average height and weight (5 feet, 5 inches; 149 pounds), the most walkable neighborhood would be associated with nearly 6 fewer pounds than the least walkable neighborhood. 4. As the age of the housing in the neighborhood increases, BMI declines, as do the odds of overweight and obesity (men: OR=0.922, 95%CI=0.915-0.929, p<0.001 and OR=0.879, 95%CI=0.87-0.889, p<0.001, respectively and women: OR=0.933, 95%CI=0.924-0.942, p<0.001 and OR=0.925, 95%CI=0.915-0.936, p<0.001, respectively).	**Positive Association for Physical Activity in the Study Population** Study design = Association Effect size = Positive association for physical activity in the study population	**Maintenance** Not Applicable **Sampling / Representativeness** Not Reported
Author Frank, Schmid (2005) Georgia **Design** Association Cross-sectional **Duration** Not Applicable	**Measures** *Neighborhood walkability index* (land-use mix, residential density, street connectivity, and intersection density) **Outcome(s) Affected** Moderate physical activity and meeting recommendations for physical activity (travel survey and accelerometer)	**Positive Association for Physical Activity in the Study Population (Community Design)** **(Assumptions: Individuals living in neighborhoods with increased walkability [i.e., intersection density, land-use mix, residential density], will participate in higher rates of physical activity than areas with decreased walkability.)** **Community Design** PHYSICAL ACTIVITY: 1. A natural log of the minutes of moderate physical activity per day was significantly correlated with land use mix (r=0.145, p <0.01), net residential density (r=0.179, p <0.01), and intersection density (r=0.111, p <0.01). 2. The walkability index (intersection density, land-use mix, residential density) was a significant correlate for meeting the ≥30-minute physical activity recommendation. Individuals were on average thirty percent more likely to record ≥30 minutes of activity with each increase in the walkability index quartile. 3. Thirty-seven percent of individuals in the highest walkability index quartile met the minimum of ≥30 minutes for physical activity, while only eighteen percent of individuals in the lowest walkability quartile met the recommendation. 4. Results demonstrate that the odds of meeting the recommended ≥30 minutes of moderate activity per day was 2.4 (OR) times greater for the fourth quartile group (walkability) than the referent group (least walkable) with a reported confidence interval (CI) of 1.18 to 4.88 (p=0.015). However, the third quartile group approaches a significant difference from the referent group as well (OR=2.02, 95%CI=0.99–4.12, p=0.055).	**Positive Association for Physical Activity in the Study Population** Study design = Association Effect size = Positive association for physical activity in the study population	**Maintenance** Not Applicable **Sampling / Representativeness** Low Participants were more likely to be female (55.7%), and well educated, as 66.4% had at least a bachelor's degree. Study participants were 74.9% white as compared to 53.9% in the Atlanta region .

Study Description	Measures & Outcomes	Effect Size or % Change	Effectiveness	Maintenance & Representativeness
Author Lee, Cubbin (2002) United States **Design** Association Cross-sectional **Duration** Not Applicable	**Measures** *Urbanization* (multi-unit housing, urban space) **Outcome(s) Affected** Physical activity and nutrition (Youth Risk Behavior Survey)	**No Association for Physical Activity in the Study Population (Community Design)** **Positive Association for Dietary Consumption in the Study Population (Community Design)** **(Assumptions: Improved neighborhood characteristics (social disorganization, urbanization, socio-economic status) will lead to improved physical activity levels.)** **Community Design** PHYSICAL ACTIVITY: 1. Neighborhood characteristics were not associated with physical activity or smoking. NUTRITION: 2. Residence in neighborhoods with the highest proportions of multi-unit housing (a proxy for urban residence) was associated with healthier dietary habits (21.9-100% Multi-unit housing Beta=0.16, p<0.05). 3. Youths residing in neighborhoods with higher levels of mobility had poorer dietary habits (48.3-57.0%; beta=-0.21, 57.0-64.4%; beta=-0.22, p<0.01 for both) than youths residing in neighborhoods with lower levels of mobility. (Note: Neighborhood characteristics include socioeconomic status, social disorganization, racial minority concentration and urbanization.)	**More Evidence Needed** Study design = Association Effect size = No association for physical activity, positive association for dietary consumption	**Maintenance** Not Applicable **Sampling / Representativeness** High The study used an ethnically diverse, nationally representative
Author Aytur, Rodriguez (2007) North Carolina **Design** Association Cross-sectional **Duration** Not Applicable	**Measures** *Active Community Environment [ACE]* (mixed environment and non-motorized transportation improvements [sidewalks, greenways, bike paths, etc.]) **Outcome(s) Affected** Leisure physical activity, leisure walking/ bicycling, transportation activity, and meeting physical activity recommendations (North Carolina BRFSS)	**Positive Association for Physical Activity in the Study Population (Community Design)** **(Assumption: Individuals with the highest ACE scores (highest mixed environments) will be more likely to participate in physical activity within the community.)** **Community Design** PHYSICAL ACTIVITY: 1. (Full model) After adjusting for county and individual level covariates and any significant interaction terms, those living in counties with the highest ACE scores were found to have nearly twice the odds of engaging in any leisure physical activity (prevalence odds ratio (POR)=1.54, 95%CI= 1.09-2.19), leisure walking (POR=1.66, 95%CI= 1.05-2.61), any transportation physical activity (POR=2.13, 95%CI:1.24-3.65), any bicycling (POR=2.16, 95%CI:1.05-4.43), and being in a better physical activity recommendation category (POR=1.83, 95%CI= 1.21-2.75). 2. (Final model) After adjusting for sociodemographic data and keeping significant interaction terms, those living in counties with the highest ACE scores were found to have almost twice the odds of engaging in any leisure physical activity (POR=1.58, 95%CI=1.11-2.23), leisure walking (POR=1.75,95%CI= 1.35-2.36), and being in a more favorable recommended physical activity category (POR=1.94,95%CI= 1.44-2.62), and more than twice the odds of engaging in any transportation physical activity (POR=2.24, 95%CI=1.25-4) and any bicycling (POR=2.42, 95%CI=1.13-5.16).	**Positive Association for Physical Activity in the Study Population** Study design = Association Effect size = Positive association for physical activity in the study population	**Maintenance** Not Applicable **Sampling / Representativeness** Not Reported

Study Description	Measures & Outcomes	Effect Size or % Change	Effectiveness	Maintenance & Representativeness
Author Frank, Andresen (2004) Atlanta **Design** Association Cross-sectional **Duration** Not Applicable	**Measures** *Neighborhood walkability* (land-use mix, residential density, and street connectivity) **Outcome(s) Affected** Overweight/obesity (height and weight [BMI]) and physical activity (travel diary)	**Positive Association for Overweight/obesity in the Study Population (Community Design)** **Positive Association for Overweight/obesity in White Males (Community Design)** **Positive Association for Overweight/obesity in White Females (Community Design)** **No Association for Overweight/obesity in Black Individuals (Community Design)** **Positive Association for Physical Activity in the Study Population (Community Design)** **Positive Association for Physical Activity in White Males (Community Design)** **Positive Association for Physical Activity in White Females (Community Design)** **No Association for Physical Activity in Black Males (Community Design)** **(Assumptions: Individuals living in neighborhoods with increased land-use mix, increased residential density, and decreased distance to destinations will participate in more physical activity than their counterparts, which will lead to decreased rates of overweight and obesity.)** **Community Design** OVERWEIGHT/OBESITY: 1. For each quartile increase in land-use mix there was a 12.2% reduction associated with the odds of being obese (OR=0.878, 95%CI= 0.839-0.919, p<0.001). 2. The change from a land use mix of zero to the average land use mix in the region (0.15) decreases the odds of obesity for the average person by 4.65%. Increasing the land use mix to 0.25, the 90th percentile in the Atlanta metropolitan area, decreases the odds of obesity by 6.85%. 3. The proportion of obese persons in the sample declined from 20.2% in the lowest to 15.5% in the highest land-use-mix quartile. 4. For white males, all three urban form variables - mixed use r=-0.11; p<0.001), intersection density (r=-0.089; p<0.001), and net residential use (r=-0.096; p<0.001) - were inversely correlated with BMI. 5. Mixed use (r=-0.086; p<0.001) and residential density (r=-0.039; p=0.02) were negatively associated with BMI for white females. 6. No linear relationships were found between BMI and urban form for blacks. PHYSICAL ACTIVITY: 7. Walking distance was positively associated with land use mix for white males (r=0.046, p=0.01), black females (r=0.059, p=0.01), and white females (r=0.051, p<0.001) 8. Walking distance was positively related to residential density for white males and females (r=0.050, r=0.065, respectively, p<0.001). 9. No linear relationships were found between urban form and walk distance for black males.	**Positive Association for Overweight/ obesity in the Study Population** **Positive Association for Overweight/ obesity in White Males** **Positive Association for Overweight/ obesity in White Females** **No Association for Overweight/obesity in Black Individuals** **Positive Association for Physical Activity the Study Population** **Positive Association for Physical Activity in White Males** **Positive Association for Physical Activity in White Females** **No Association for Physical Activity in Black Males** Study design = Association Effect size = Positive association for overweight/ obesity in the study population and white males and females, no association for overweight/obesity in black individuals, positive association for physical activity in the study population and in white males and females, no association for physical activity in black males	**Maintenance** Not Applicable **Sampling / Representativeness** Not Reported Higher-density locations were oversampled to ensure a sample of households within a range of different types of urban environments.

Study Description	Measures & Outcomes	Effect Size or % Change	Effectiveness	Maintenance & Representativeness
Author Frank, Sallis (2006) Washington **Design** Association Cross-sectional **Duration** Not Applicable	**Measures** *Neighborhood walkability* (land-use mix, residential density, street connectivity, retail floor ratio) **Outcome(s) Affected** Overweight/obesity (height and weight [BMI]) and physical activity, active transit (IPAQ and travel diary)	**Positive Association for Overweight/obesity in the Study Population (Community Design)** **Positive Association for Physical Activity in the Study Population (Community Design)** **(Assumption: Greater walkability in the neighborhood will lead to increased physical activity.)** **Community Design** OVERWEIGHT/OBESITY: 1. When the walkability index was compared to BMI there was an expected relationship with walkability negatively related to body mass (β= -0.113, t=-3.898, p=0.000, partial correlate -0.107). 2. Researchers found a 5% increase in walkability associated with a 0.23-point reduction in body mass index. PHYSICAL ACTIVITY: 3. When the walkability index was compared to minutes per week devoted to active transportation there was an expected relationship, with walkability positively related to active transportation (β= 0.304, t=10.659, p<0.001, partial correlate=0.289). 4. Researchers found a 5% increase in walkability associated with a per capita 32.1% increase in time spent in physically active travel, 6.5% fewer vehicle miles traveled, 5.6% fewer grams of oxides of nitrogen (NOx) emitted, and 5.5% fewer grams of volatile organic compounds (VOC) emitted. (Note: Walkability is a composite score using residential density, intersection density, land-use mix, and retail floor area ratio.)	**Positive Association for Overweight/ obesity in the Study Population** **Positive Association for Physical Activity in the Study Population** Study design = Association Effect size = Positive association for overweight/ obesity and physical activity in the study population	**Maintenance** Not Applicable **Sampling / Representativeness** High The sample was well balanced by gender, education, household income, and vehicle ownership.
Author Khattak, Rodriguez (2005), Rodriguez, Khattak (2006), Brown, Khattak (2008) North Carolina **Design** Association Cross-sectional **Duration** Not Applicable	**Measures** *Urban form* (land-use mix, street connectivity, and residential density) **Outcome(s) Affected** Overweight/obesity (height and weight [BMI]) and physical activity (mail-in survey, BRFSS, Activity survey, Travel diary)	**Positive Association for Overweight/obesity in the Study Population (Community Design)** **Positive Association for Physical Activity in the Study Population (Community Design)** **(Assumptions: Individuals in neighborhoods with increased land-use mix and street connectivity will participate in more physical activity, which will lead to decreased rates of overweight and obesity.)** **Community Design** OVERWEIGHT/OBESITY: 1. Heads of households in the new urbanist multi-family units had an average BMI (23.8, p=0.03) lower than the BMI (24.9) of household heads in conventional neighborhoods. The difference in overweight prevalence between households from multi-family dwellings (27.9%) and conventional suburban neighborhoods (40.3%) approached, but did not achieve significance. 2. Indirectly through the duration of MVPA, the association between both new urbanist dwelling types and BMI was not significantly associated with a reduction in BMI. 3. Indirectly through the number of utilitarian physical activity trips the association between the new urbanist neighborhood and BMI shows a significant 0.119 reduction in BMI (0.390 [main effect] X -0.304 [coefficient] =-0.119) for household heads from the single-family dwellings compared with household heads from the conventional suburban neighborhood. 4. Indirectly through utilitarian physical activity trips for the household heads residing in the new urbanist multi-family dwellings the association between the neighborhood and BMI was not significant. PHYSICAL ACTIVITY: 5. Residents of the new urbanist neighborhoods (mean=2.03) spend more time being physically active in their neighborhood than did residents of the conventional neighborhoods (mean=1.20) (moderate or vigorous physical activity t=2.890, p<0.001). 6. Households in neo-traditional neighborhoods generate 22.1% (e(0.20)-1) fewer auto trips and 23.4% fewer external trips than households in the conventional neighborhood (after controlling for other factors and accounting for self-selection). The walk trips show a dramatic 305.5% increase in neo-traditional developments. 7. The marginal effect corresponding to the new urbanist single-family dwelling indicates that heads of household make 0.39 (p=0.02) more utilitarian physical activity trips than their counterparts residing in the conventional suburban neighborhoods. (Note: Neo-traditional/new urbanist neighborhoods had a distinct town center, mixed land use, and increased street connectivity, while new suburban/conventional neighborhoods had 50% more residential buildings and twice the land.)	**Positive Association for Overweight/ obesity in the Study Population** **Positive Association for Physical Activity in the Study Population** Study design = Association Effect size = Positive association for overweight/ obesity and physical activity in the study population	**Maintenance** Not Applicable **Sampling / Representativeness** Not Reported

Study Description	Measures & Outcomes	Effect Size or % Change	Effectiveness	Maintenance & Representativeness
Author Frank, Saelens (2007) Georgia **Design** Association Cross-sectional **Duration** Not Applicable	**Measures** *Neighborhood walkability* (land-use mix, density, retail floor ratio, street connectivity) **Outcome(s) Affected** Overweight/obesity (height and weight [BMI]) and active transit (2 day travel diary)	**Positive Association for Overweight/obesity in the Study Population (Community Design)** **Positive Association for Physical Activity in the Study Population (Community Design)** **(Assumptions: Individuals in neighborhoods with higher walkability and increased access to shops will participate in more active transportation, which will lead to decreased overweight and obesity.)** **Community Design** OVERWEIGHT/OBESITY: 1. Unexpectedly, obesity prevalence was higher in the second versus 1st non-motorized selection quartile. As expected, prevalence was lower in the fourth (most walkable) versus the first (least walkable) walkability quartile. PHYSICAL ACTIVITY: 2. Individuals in both the third and fourth quartiles for the non-motorized selection (availability to walk to shops and services) factor and walkability had significantly higher odds of any walk trips (3rd; OR=1.52, 95%CI=1.06-2.15, 4th; OR=2.49, 95%CI=1.80-3.36) and non-discretionary walk trips (3rd; OR=1.52, 95%CI=1.04-2.19, 4th; OR=2.43, 95% CI=1.71-3.36) than first quartile individuals for the selection and walkability factors (those not having access to shops and services). 3. Only the fourth quartile (the most walkable neighborhoods) on walkability showed significantly greater odds of a discretionary walk trip (OR=3.3, 95%CI=2.93-7.10). 4. Lower age, fewer motorized vehicles, lower proportion of licensed drivers, increased importance of non-motorized selection, and increased walkability were all significant predictors of increased likelihood of any walk trips (pseudo R^2=0.15).	**Positive Association for Overweight/ obesity in the Study Population** **Positive Association for Physical Activity in the Study Population** Study design = Association Effect size = Positive association for overweight/ obesity and physical activity in the study population	**Maintenance** Not Applicable **Sampling / Representativeness** High Both samples were representative of the regional distribution across gender and household size. The neighborhood preference sample was derived from a representative sample of the larger SMARTRAQ survey across income and net residential density.
Author Kerr, Rosenberg (2006) Washington **Design** Association Cross-sectional **Duration** Not Applicable	**Measures** *Neighborhood walkability* (residential density, proximity and ease of access to nonresidential land uses, street connectivity, walking or cycling facilities, aesthetics, pedestrian traffic safety, and crime safety) **Outcome(s) Affected** Active transportation (survey)	**Positive Association for Physical Activity in the Study Population (Community Design)** **(Assumption: Increased parental perceptions of neighborhood walkability will lead to more active commuting.)** **Community Design** PHYSICAL ACTIVITY: 1. Having stores within a 20-min walk were independently associated with active commuting (store distance; OR= 3.2, 95%CI= 1.68-6.01, p<0.05). 2. Perceived access to local stores and biking or walking facilities accounted for some of the effect of walkability on active commuting (OR=2.0, 95% CI=1.03-4.00, p<0.05).	**Positive Association for Physical Activity in the Study Population** Study design = Association Effect size = Positive association for physical activity in the study population	**Maintenance** Not Applicable **Sampling / Representativeness** Not Reported
Author Ewing, Brownson (2006) United States **Design** Association Cross-sectional **Duration** Not Applicable	**Measures** *Sprawl* (residential density and street accessibility) **Outcome(s) Affected** Overweight/obesity (height and weight [body mass index] from the NLSY)	**Positive Association for Overweight/obesity in the Study Population (Community Design)** **(Assumption: Greater sprawl leads to decreased physical activity, which leads to increased overweight/obesity.)** **Community Design** OVERWEIGHT/OBESITY: *Data from the NLSY97:* 1. The county sprawl index was related to overweight or risk of overweight in the expected direction at a significant level (β= -0.0030, t=-2.30, p=0.022). 2. The odds of being overweight or at risk of overweight, one standard deviation below the mean county index, were 1.16 times the odds in a more compact county, one standard deviation above the mean index (95% confidence interval= 1.02-1.31 [no p-value]). *Data from 2002:* 3. The more compact the environment the less likely respondents were to be obese (β= -0.0026, t=-1.98, p=0.048). *Data available from NLSY97-2003:* 4. The more compact the environment, BMI at mean age and BMI growth decreased but not significantly (BMI mean age and county sprawl: coefficient=-0.00014, t=-0.37, p=0.71; county sprawl and BMI: coefficient= -0.00082, t= -0.28, p=0.78, respectively)	**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 A supplemental sample of Black or Hispanic youth was included to permit analysis across race or ethnicity.

Study Description	Measures & Outcomes	Effect Size or % Change	Effectiveness	Maintenance & Representativeness
Author Atkinson, Sallis (2005); Saelens, Sallis, Black (2003) California **Design** Association Cross-sectional **Duration** Not Applicable	**Measures** *Neighborhood walkability* (residential density, mixed land use, accessibility, connectivity, infrastructure, aesthetics, traffic safety, and crime within a 10-15 minute walk) **Outcome(s) Affected** Moderate and vigorous physical activity and walking (Survey and the Godin-Shephard Leisure Time Exercise Questionnaire)	**Positive Association for Physical Activity in the Study Population (Community Design)** **(Assumption: Increased density, connectivity, and home equipment availability will lead to increased physical activity levels.)** **Community Design** PHYSICAL ACTIVITY: 1. Residents in the high-walkability neighborhood engaged in almost 60 more minutes of moderate-intensity physical activity during the past 7 days than did low-walkability residents (194.8 min vs. 130.7 min, F1,105=6.02, p=0.016). This was the primary contributor to greater overall objectively measured physical activity among high- vs. low-walkability neighborhood residents (F1,105=6.8, p=0.01). 2. Percentage of residents walking for errands was higher in the high-walkability neighborhood than in the low-walkability neighborhood (85.2% vs. 59.6%; χ^2[1]=8.72, p=0.003). 3. Self-reported vigorous physical activity (VPA) was significantly and positively correlated with residential density at a moderate level (r=0.35, p<0.01), with more modest, but significant, positive correlations with home equipment availability (r=0.27, p=0.01) and the total environment index (r=0.28, p<0.01) 4. Accelerometer-derived VPA was significantly and positively correlated with the residential density at a moderate level (r=0.39, p=0.00), having more modest correlations with connectivity (r=0.25, p=0.01) and the environmental index (r=0.23, p=0.02).	**Positive Association for Physical Activity in the Study Population** Study design = Association Effect size = Positive association for physical activity in the study population	**Maintenance** Not Applicable **Sampling / Representativeness** Not Reported The neighborhoods differed in respect to mean age (p=0.008) and percentage of residents completing college differed significantly (p=0.026).
Author Wen, Zhang (2009) Illinois **Design** Association Cross-sectional **Duration** Not Applicable	**Measures** *Neighborhood accessibility* (residential density, distance to subway and parks, land-use mix, access to neighborhood amenities) **Outcome(s) Affected** Physical activity (Metropolitan Chicago Information Center-Metro Survey [MCIC-MS])	**Positive Association for Physical Activity in the Study Population (Community Design)** **(Assumption: Individuals in neighborhoods with greater land-use diversity and access to these locations will participate in greater levels of physical activity.)** **Community Design** PHYSICAL ACTIVITY: 1. Respondents who lived in neighborhoods that had more access to restaurants and bars were more likely to report one to three times of weekly workout/exercise (OR=1.08; 95% CI; 0.99-1.19) and four times or more weekly workout/exercise (OR=1.14; 95% CI; 1.03-1.26; p<0.05) compared with those who lived in neighborhoods that had less access to restaurants and bars. 2. Access to restaurants and bars (OR=1.24; 95% CI; 1.05-1.46; p<0.01) was significantly associated with the likelihood of reporting regular exercise in the past year.	**Positive Association For Physical Activity in the Study Population** Study design = Association Effect size = Positive association for physical activity in the study population	**Maintenance** Not Applicable **Sampling / Representativeness** Not Reported

Study Description	Measures & Outcomes	Effect Size or % Change	Effectiveness	Maintenance & Representativeness
Author Forsyth, Hearst (2008), Forsyth, Oakes (2007), Oakes, Forsyth (2007) Minnesota **Design** Association Cross-sectional **Duration** Not Applicable	**Measures** *Neighborhood walkability* (street pattern and residential density) **Outcome(s) Affected** Walking behavior and total physical activity (International Physical Activity Questionnaire [IPAQ] and 7-day travel and walking diary)	**Positive Association for Physical Activity in the Study Population (Community Design)** **Community Design** PHYSICAL ACTIVITY: 1. High density areas have twice the odds of increased travel walking as low density areas (OR=1.99; 95%CI 1.29, 3.06), but block size has no similar effect. For the negative binomial model the odds ratio was (1.47, p<0.10). 2. There are small positive correlations between mean and median accelerometer counts of total physical activity with straight-line and network distances to the nearest video store, hardware store, and pharmacy, although not to other destinations (results not shown). 3. Park distance was negatively correlated with accelerometer readings, however while the values were significant they were low (results not shown). 4. Using Spearman's correlation there was significant positive association with accelerometry physical activity and having places to go in walking distance from their home, hills, and nearness to book stores and participant's job (although significant, r values were low with the highest being r=0.13 for closeness to job or school) (results not shown). 5. Regression models reveal high density areas are marginally associated with an increase in total walking and, in some cases, total physical activity for racial minorities, those without college degrees, the less healthy, and the obese (results not shown). 6. There are very few correlations with the 3 measures of total physical activity and these are all negative correlations with measures of retail (accelerometer mean; CE; -0.3488) and commercial uses (accelerometer mean; CE; -0.3473) (p<0.05). 7. Notably absent were any positive correlations with mixed use-apart from a modest one with miscellaneous retail (CE; 0.3505, p<0.05). 8. Travel walking measured both by survey and diary was positively correlated with social land uses (IPAQ; CE; 0.4166; Diary; CE; 0.3379, p<0.05). 9. Leisure walking was negatively correlated with tax exempt land uses (IPAQ CE; -0.4214, p<0.05). (Note: Social land uses includes measures of land-use mix. Tax exempt land-uses include community facilities that are tax exempt.)	**Positive Association** Study design = Association Effect size = Positive association for physical activity	**Maintenance** Not Applicable **Sampling / Representativeness** Not Reported
Author Handy, Cao (2008); Handy, Cao (2006) California **Design** Association Cross-sectional **Duration** Not Applicable	**Measures** *Neighborhood walkability* (land-use mix, aesthetic quality, distance to locations, neighborhood safety, and street connectivity) **Outcome(s) Affected** Physical activity (survey measured frequency of transport and leisure walking and walking to specific destinations in the past 30 days, change in walking and biking before the move [for movers] or from one year ago [for non-movers] and frequency/intensity of activity in the previous week)	**Positive Association for Physical Activity in Study Population** **(Assumption: Increased land-use mix, aesthetic quality, and street connectivity lead to increased physical activity levels.)** **Community Design** PHYSICAL ACTIVITY: 1. Objective measures for minimum distance to a bank (coefficient=0.082, p=0.035), number of banks within 800m (coefficient=0.091, p=0.005), and number of types of businesses within 1600m (coefficient=0.073, p=0.040) were positively associated with increased walking. 2. Individuals living in mixed-use neighborhoods (coefficient=0.0471, p=0.017) and living farther from health clubs (coefficient=0.0561, p=0.004) had higher neighborhood physical activity. 3. Individuals with higher perceptions of stores within walking distance (coefficient=0.0549, p=0.004) engaged in neighborhood physical activity more frequently. 4. The current number of household maintenance businesses within 1600 m (coefficient=0.090, p=0.012) and the minimum distance to a health club (coefficient=0.071, p=0.045) had positive effects on changes in biking. 5. Changes in perceptions of attractiveness (NPA coefficient=0.151, p<0.01) were associated with increased neighborhood physical activity and walking. 6. A significantly higher share of residents in traditional neighborhoods reported walking to a store at least once in the last 30 days compared to suburban neighborhoods (data not shown). Over 86% of residents in traditional neighborhoods strolled at least once in the last 30 days versus 79% of residents in suburban neighborhoods, with an average frequency of 10.1 strolls compared to 7.7 strolls.	**Positive Association for Physical Activity in Study Population** Study design = Association Effect size = Positive association for physical activity in the study population	**Maintenance** Not Applicable **Sampling / Representativeness** Low According to the 2000 US Census the evaluation sample tended to be older on average than neighborhood residents and the percent of households with children is lower among the evaluation sample for most neighborhoods. Median household income for the evaluation sample was higher than the census median for all but one neighborhood.

Study Description	Measures & Outcomes	Effect Size or % Change	Effectiveness	Maintenance & Representativeness
Author King, Toobert (2006) California, Oregon, Georgia, Rhode Island, Tennessee **Design** Association Cross-sectional **Duration** Not Applicable	**Measures** *Neighborhood walkability* (residential density, land use mix, access to restaurants and retail stores, street connectivity, walking and cycling facilities, aesthetics) **Outcome(s) Affected** Active transit, MVPA (Community Health Activities Model Program for Seniors (CHAMPS) questionnaire)	**Positive Association for Physical Activity in the Study Population (Community Design)** **Community Design** PHYSICAL ACTIVITY: 1. Stores within easy walking distance of home were positively associated with minutes per week of walking for errands at the Stanford site (parameter estimate=0.34(93), p=0.048, total R^2=15.6) and minutes per week of leisurely walking at the Atlanta site (parameter estimate=0.25(251), p=0.03, total R^2=6.3). 2. Living in a neighborhood of mostly detached, single-family homes was positively associated with minutes per week of moderate-and/or-vigorous intensity physical activity at the Oregon site (parameter estimate=139.0(121), p=0.02, total R^2=7.7) and negatively associated with minutes per week of leisurely walking at the Rhode Island site (parameter estimate= -1.1(94), p=0.05, total R^2=11.2).	**Positive Association for Physical Activity in the Study Population** Study design = Association Effect size = Positive association for physical activity in the study population	**Maintenance** Not Applicable **Sampling / Representativeness** Not Reported
Author Kerr, Frank (2007) Georgia **Design** Association Cross-sectional **Duration** Not Applicable	**Measures** *Neighborhood walkability* (residential density, mixed-land use, street connectivity) **Outcome(s) Affected** Walking (Strategies for Metropolitan Atlanta's Regional Transportation and Air Quality [SMARTRAQ] household travel survey [including a 2-day diary])	**Positive Association for Physical Activity in Study Population (Community Design)** **(Assumption: Urban form variables [diverse land-use, access to recreation space, etc.] are associated with increased levels of pedestrian walking.)** **Community Design** PHYSICAL ACTIVITY: 1. Residential density and mixed land use were significantly related to walking in both males and females. The relationship between urban form and walking appeared to be stronger in females for the variables land use mix (OR=2.2, 95%CI: 1.5-3.1, p<0.001), and commercial land use (OR=2.1, 95%CI: 1.5-3.1, p<0.001) than males (land use mix: OR=1.5, 95%CI: 1.1-2.1, p<0.01; commercial land use: OR=1.6, 95%CI: 1.1-2.2, p<0.01). 2. High residential density (OR=2.5, 95%CI: 1.6-3.8, p<0.001) appeared to have a stronger association among males with than females (OR=2.3, 95%CI: 1.5-3.5, p<0.001). 3. The following urban form variables were strongly and significantly related to walking in white participants in the expected direction at the p<0.001 level :residential land use (OR=3.2, 95% CI: 2.2-4.5); mixed land use (OR=1.8, 95% CI: 1.4-2.5); at least 1 commercial land use (OR=2.0, 95% CI: 1.5-2.7); at least 1 recreation/open space land use (OR=2.7, 95% CI: 2.0-3.6), all p<0.001. 4. Land use mix (OR=1.7; 95% CI: 1.1-2.7; p<0.05) was significantly related to walking in non-whites 5. In households with 1 car, only land use mix (OR=2, 95%CI: 1.1-3.5, p<0.05) and commercial land use (OR=2, 95%CI: 1.2-3.6, p<0.05) were significantly related to walking.	**Positive Association for Physical Activity in Study Population** Study design = Association Effect size = Positive association	**Maintenance** Not Applicable **Sampling / Representativeness** Not Reported
Author Hoehner, Brennan (2005) Missouri and Georgia **Design** Association Cross-sectional **Duration** Not Applicable	**Measures** *Neighborhood walkability* (land-use, street segments, access to destinations, sidewalks) **Outcome(s) Affected** Recreation and transportation physical activity and meeting recommendations (telephone survey)	**Positive Association for Physical Activity in the Study Population (Community Design)** **(Assumptions: Individuals with greater access to places to be physically active and mixed land-use will participate in increased transportation and/or recreational physical activity.)** **Community Design** PHYSICAL ACTIVITY: 1. People in the highest quartile for the total number of non-residential destinations were two to three times more likely to engage in any transportation activity (OR=3.5, 95%CI: 2.3-5.5) or meet recommendations (OR=3.3, 95%CI: 2.0-5.4) through transportation activity than respondents in the lowest quartile (p<0.05 for trend).	**Positive Association for Physical Activity in the Study Population** Study design = Association Effect size = Positive association for physical activity in the study population	**Maintenance** Not Applicable **Sampling / Representativeness** Not Reported The sample was diverse with respect to age, ethnicity, and educational attainment, and slightly under-represented men.

Study Description	Measures & Outcomes	Effect Size or % Change	Effectiveness	Maintenance & Representativeness
Author Krizek, Johnson (2006) Minnesota **Design** Association Cross-sectional **Duration** Not Applicable	**Measures** *Neighborhood accessibility* (distance to destinations and land-use mix) **Outcome(s) Affected** Bicycle and walking behavior (2000 Twin Cities Metropolitan Area Travel Behavior Inventory (TBI) 24-hour diary [origins and destinations, modes of travel, duration of trips, primary activities])	**Positive Association for Physical Activity in Study Population (Community Design)** **(Assumption: Having neighborhood access retail and bicycle facilities is associated with greater odds of walking and/or cycling.)** **Community Design** PHYSICAL ACTIVITY: 1. Using a logistic regression model, for walking behavior found those living within 200 meters of retail establishments had statistically significantly increased odds of walking compared to those in the most distant category (OR=2.51, p<0.05). 2. The odds of bicycle use did not differ significantly by proximity to any bicycle facility suggesting proximity to these facilities generally has no effect on bicycle use. 3. Using a logistic regression model, subjects living closest to an on-street bicycle facility (less than 400 meters away) had statistically significantly increased odds of bicycle use compared with subjects living more than 1600 meters from an on-street facility (OR=2.23, p<0.05). 4. Proximity to off-street bicycle trails had no effect on bicycle use (p>0.05). (Note: Distance to nearest PA resource and access to nearest PA resources may overlap in their designated strategy categories.)	**Positive Association for Physical Activity in Study Population** Study design = Association Effect size = Positive association for physical activity in the study population	**Maintenance** Not Applicable **Sampling / Representativeness** Not Reported 5.2% of the sample reported at least on bike trip during the survey, which is a higher rate of cycling than the larger TBI sample and the nation, for which approximately 2% ride a bike on any given day.
Author Grow, Saelens (2008) Massachusetts, Ohio, California **Design** Association Cross-sectional **Duration** Not Applicable	**Measures** *Neighborhood accessibility* (street connectivity and land-use mix) **Outcome(s) Affected** Bicycling/ walking behavior and physical activity (assessed with a survey)	**Positive Association for Physical Activity in the Study Population (Community Design)** **(Assumption: Individuals with access to places to be active will increase their levels of physical activity.)** **Community Design** PHYSICAL ACTIVITY: 1. Adolescents who usually walked/biked to at least 5 sites reported higher land-use mix (data not shown). 2. Living within a 10-min walk of large parks (Report for children; 69.2% active, p<0.05, Report for adolescents; 55.9% active, p<0.01, Adolescent report; 47.6% active; p<0.01) and public open spaces (Report for children; 59.5% active, p<0.01, Report for Adolescents; 30.4% active, p<0.05, Adolescent report; 36% adolescents active, p<0.01) were associated with increased likelihood of being active at those sites. 3. Multivariate analysis of parent report revealed that site proximity was only associated with adolescents' swimming pool use (RR=2.1, p<0.05). (Note: Distance to nearest PA resource and access to nearest PA resources may overlap in their designated strategy categories.)	**Positive Association for Physical Activity in the Study Population** Study design = Association Effect size = Positive association for physical activity in the study population	**Maintenance** Not Applicable **Sampling / Representativeness** Not Reported
Author Bell, Wilson (2008) Indiana **Design** Association Cross-sectional **Duration** Not Applicable	**Measures** *Aesthetic neighborhood quality* (amount of neighborhood vegetation/greenness) *Accessibility* (residential density) **Outcome(s) Affected** Overweight/obesity (survey of medical records [height and weight])	**No Association for Overweight/obesity in the Study Population (Community Design)** **(Assumption: Increased greenness and residential density will lead to decreased overweight/obesity.)** **Community Design** OVERWEIGHT/OBESITY: 1. A higher greenness (NDVI) was associated with lower Time 2 BMI (β= -0.07 SD, 95% CI=-0.11, -0.03, p<0.01) Residential density was not significantly associated with BMI at Time 2 when modeled without the greenness (NDVI). 2. Residential density was marginally associated with lower Time 2 BMI (β= -0.01, 95%CI; -0.01, 0.01, p<0.06) when greenness and density were modeled together.	**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** Low The average block group median family income was lower than in the county as a whole ($36,917/year vs. $49,387/year).

Study Description	Measures & Outcomes	Effect Size or % Change	Effectiveness	Maintenance & Representativeness
Author Norman, Nutter (2006) California **Design** Association Cross-sectional **Duration** Not Applicable	**Measures** *Neighborhood walkability* (intersection and residential density, retail floor area ratio, land-use mix, street connectivity) **Outcome(s) Affected** Overweight/obesity (height and weight) and physical activity (measured with accelerometers)	**No Association for Overweight/obesity in the Study Population (Community Design)** **Positive Association for Physical Activity for Boys in the Study Population (Community Design)** **(Assumption: Individuals living in neighborhoods with increased residential density and land-use mix will have increased levels of physical activity and decreased rates of overweight and obesity.)** **Community Design** OVERWEIGHT/OBESITY: 1. No statistically significant correlations were found between environmental variables and BMI percentile for girls or boys. PHYSICAL ACTIVITY: 2. For boys, total minutes/day of physical activity was correlated only with retail floor area ratio (r=0.12, $p<0.05$). Retail floor area ratio remained a significant contributor after multiple linear regression (R^2=0.23, β=0.135, p=0.007).	**No Association for Overweight/ obesity in the Study Population** **Positive Association for Physical Activity in the Study Population** Study design = Association Effect size = No association for overweight/ obesity and positive association for physical activity in the study population	**Maintenance** Not Applicable **Sampling / Representativeness** Not Reported
Author Rutt, Coleman (2005) Texas **Design** Association Cross-sectional **Duration** Not Applicable	**Measures** *Neighborhood walkability* (access to locations, distance to locations, and intersection density) **Outcome(s) Affected** Walking behavior (survey)	**No Association for Physical Activity in Study Population (Community Design)** **(Assumptions: Perceived benefits of walking, better overall health, more social support for walking, higher acculturation, more facilities in the neighborhood (walking/biking paths, gyms, schools, parks), less distance to facilities, and less change in neighborhood slope (elevation) leads to more walking for exercise.)** **Community Design** PHYSICAL ACTIVITY: 1. For the entire sample, total time spent walking for exercise was related to higher socio-economic status, walking frequency was related to fewer perceived barriers (β= -0.11, p=0.03, R^2=0.07), and walking duration was related to higher socio-economic status, better overall health (β= -0.12, p=0.40), fewer perceived barriers to physical activity (β= -0.11, p=0.02), and living in a more residential area (β= -0.11, p=0.04) (R^2=0.08). 2. Among the subsample of subjects who reported walking for exercise in the past month, walking frequency was related to older age, fewer physical activity facilities (β=-0.24, p=0.05), and living in a more commercial neighborhood (β=0.19 p=0.02) (R^2=0.11). None of the variables were significantly related to walking duration (R^2=0.09). 3. For all participants, no environmental variables were statistically significantly related to total time walking or walking frequency.	**No Association for Physical Activity in Study Population** Study design = Association Effect size = No association for physical activity in the study population	**Maintenance** Not Applicable **Sampling / Representativeness** Not Reported

Study Description	Measures & Outcomes	Effect Size or % Change	Effectiveness	Maintenance & Representativeness
Author Kligerman, Sallis (2007) California **Design** Association Cross-sectional **Duration** Not Applicable	**Measures** *Neighborhood walkability* (land-use mix, retail, intersection, and residential density) **Outcome(s) Affected** Overweight/obesity (height and weight were used to calculate body mass index [BMI]) and moderate-to-vigorous physical activity (measured with accelerometers)	**No Association for Overweight/obesity in the Study Population (Community Design)** **Positive Association for Physical Activity in the Study Population (Community Design)** **(Assumption: Individuals living in neighborhoods with increased land-use mix and street connectivity will have increased levels of physical activity, which will lead to decreased rates of overweight and obesity.)** **Community Design** OVERWEIGHT/OBESITY: 1. All correlations between environmental variables and BMI were low and non-significant (no statistics). PHYSICAL ACTIVITY: 2. Land-use mix ($r=0.285$, $p<0.004$) and the walkability index ($r=0.168$, $p<0.098$) for the 0.5-mile buffer were the only measures to yield significant or marginal bivariate correlations with moderate-to-vigorous physical activity. 3. In a linear regression, the walkability index was related to minutes of moderate to vigorous physical activity within 0.5 mile of homes, explaining approximately 4% of variance.	**No Association for Overweight/ obesity in the Study Population** **Positive Association for Physical Activity in the Study Population** Study design = Association Effect size = No association for overweight/ obesity in the study population, positive association for physical activity in the study population	**Maintenance** Not Applicable **Sampling / Representativeness** Not Reported
Author Troped, Saunders (2001) Massachusettss **Design** Association Cross-sectional **Duration** Not Applicable	**Measures** *Walkability and bikability* (land-use, perceived steep hill and busy street barriers, distance to bikeway, and street network including sidewalks) **Outcome(s) Affected** Trail use (Arlington Physical Activity and Bikeway Survey)	**Not Reported (for desired health outcomes)** **Positive Association for Trail Use in Study Population (Community Design)** **(Assumption: Closer proximity to the Bikeway and decreased barriers between residence and the Bikeway leads to increased use.)** **Community Design** TRAIL USE: 1. Self-reported distance was inversely associated with use of the Bikeway. Survey participants were 0.65 times as likely to use the Minuteman Bikeway for every 0.25-mile increase in self-reported distance from the trail (95% CI= 0.54-0.79). 2. Survey participants located further from the trail as measured by GIS road network distance in the GIS multivariate model were less likely to use the Bikeway (OR=0.58, 95%CI=0.45-0.73). (Note: P-values not reported. Distance to nearest PA resource and access to nearest PA resources may overlap in their designated strategy categories.)	**More Evidence Needed** Study design = Association Effect size = Not reported	**Maintenance** Not Applicable **Sampling / Representativeness** High The racial/ethnic composition of the study was consistent with that of the general Arlington population. A higher percentage of respondents were women (60% vs. 54%) and had a college degree (60% vs. 40%).

Study Description	Measures & Outcomes	Effect Size or % Change	Effectiveness	Maintenance & Representativeness
Author Roemmich, Epstein (2007) New York **Design** Association Cross-sectional **Duration** Not Applicable	**Measures** *Neighborhood walkability* (street connectivity, access to locations, and residential density) **Outcome(s) Affected** Physical activity and sedentary behavior (assessed with accelerometers and a 'Habit Book')	**Positive Association for Physical Activity in the Study Population (Community Design)** **Positive Association for Boys for Physical Activity in the Study Population (Community Design)** **(Assumption: Increased recreational space and street connectivity will lead to increased physical activity and decreased sedentary behaviors.)** **Community Design** PHYSICAL ACTIVITY: 1. For boys, neighborhood street connectivity (coefficient=0.30), percentage park area (coefficient=0.34), and percentage park and recreation area (coefficient=0.32) were positively correlated to total physical activity ($p \leq 0.05$ for all). 2. When combining the boys and girls into a single group, total physical activity was correlated to street connectivity (r=0.25, $p \leq 0.05$) and percentage park area (r=0.22, $p \leq 0.04$). SEDENTARY BEHAVIOR: 3. Percentage park area + recreation were inversely correlated with television watching in boys but not girls ($p \leq 0.05$).	**Positive Association for Physical Activity in the Study Population** **Positive Association for Physical Activity in Boys** Study design = Association Effect size = Positive association for physical activity in the study population and in boys	**Maintenance** Not Applicable **Sampling / Representativeness** Not Reported
Author Suminski, Poston (2005) Midwestern United States **Design** Association Cross-sectional **Duration** Not Applicable	**Measures** *Neighborhood walkability* (construction/integrity of sidewalks and streets, neighborhood traffic volume and speed, lighting, crime, aesthetics, availability of shops, parks, work, and schools)) **Outcome(s) Affected** Walking behavior (PA) (questionnaire)	**Positive Association for Physical Activity in Women (Community Design)** **(Assumption: Having a safe neighborhood with destinations within walking distance leads to increased physical activity and active transportation.)** **Community Design** PHYSICAL ACTIVITY: 1. Women were 5.7 times more likely to walk for transportation if they indicated having an average number of available places in and around their neighborhood to which they could walk (95%CI 1.63-19.73; $p<0.01$). 2. Women with an average number of neighborhood destinations were more likely to walk for transportation in the neighborhood (OR=5.7, 95%CI=1.63-19.73) than women with a below average number of neighborhood destinations ($p<0.01$). (Note: Neighborhood "safety" was a composite score using traffic volume and speed, lighting, and crime. The "functional" feature of the neighborhood was represented by three items related to the construction/integrity of neighborhood sidewalks and streets.)	**Positive Association for Physical Activity in Women** Study design = Association Effect size = Positive association for physical activity in women	**Maintenance** Not Applicable **Sampling / Representativeness** Not Reported
Author Samimi, Mohammadian (2008) United States **Design** Association Cross-sectional **Duration** Not Applicable	**Measures** *Neighborhood Pedestrian Friendliness* (auto use, intersection density, road density, block size) **Outcome(s) Affected** Overweight/obesity (height and weight [body mass index] from BRFSS data)	**Positive Association for Overweight/obesity in the Study Population (Community Design)** **(Assumption: Individuals living in neighborhoods with increased population density will be less likely to be overweight and obese.)** **Community Design** OVERWEIGHT/OBESITY: 1. Using forward selection, negative coefficients for population density (CE; -0.61E-05, SE; 0.75E-06) were found, suggesting that people living in urbanized areas are less likely to be obese ($p<0.001$).	**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 Cervero (2002) Maryland **Design** Association Cross-sectional **Duration** Not Applicable	**Measures** *Transit friendly neighborhoods* (comparative travel times and travel costs of competing modes of travel, socio-demographic characteristics of trip-makers, origin and destination) **Outcome(s) Affected** Transit use (1994 Household Travel Survey)	**Not Reported for desired health outcomes (Community Design)** **Positive Association for Transit Use for Study Population (Community Design)** **(Assumptions: Individuals living in communities with increased street connectivity, density, and land-use mix will be more likely to participate in active commuting.)** **Community Design** <u>TRANSIT USE:</u> 1. Land-use mixtures at both trip ends lowered the probability of driving alone or ride-sharing versus taking a bus or train (origin: coefficient estimate= -2.488, p=0.016 for drive-alone and coefficient estimate= -2.679; p=0.011 for group ride and destination: coefficient estimate= -1.984: p=0.048 for drive alone and coefficient estimate= -2.222; p=0.027 for group-ride). 2. Having high shares of apartments and condominiums near one's place of residence lowered the odds of driving alone or ride-sharing relative to transit riding (coefficient; -1.64, standard error= 0.814, p=0.151).	**More Evidence Needed** Study design = Association Effect size = Not reported	**Maintenance** Not Applicable **Sampling / Representativeness** Not Reported
Author Moudon, Lee (2005) Washington **Design** Association Cross-sectional **Duration** Not Applicable	**Measures** *Neighborhood walkability and bikability* (park layer and bus ridership, traffic volume, posted speed, number of traffic and bicycle lanes] agglomerations of destinations [grocery, retail, restaurants, convenience store, office, mixed use, sports facility, school, bank, fast food, post office, church]) **Outcome(s) Affected** Cycling behavior (telephone survey)	**Positive Association for Physical Activity in the Study Population (Community Design)** **(Assumptions: Individuals living in neighborhoods with access to greater land-use mix will be more physically active.)** **Community Design** <u>PHYSICAL ACTIVITY:</u> 1. Summed area of convenience store parcels (Airline; OR= 0.822, Network; OR= 0.784, p<0.01), number of parcels within the closest NC10 [office, fast food, and hospital] (Airline; OR= 2.160, Network; OR= 1.238, p<0.01, p<0.05, respectively), and distance to the closest trail (Airline; OR= 0.801, Network; OR= 0.728, p<0.01) were significantly positively associated with the odds of cycling. 2. Most parcels in the closest NC10 (office+fast food+hospital) from home are moderately related to the increased odds of cycling (Airline OR= 1.160, p<0.1, Network OR= 1.238, p<0.05). 3. Variables that capture the perception of problems related to automobiles (such as traffic congestion) and the perceived presence of auto-oriented facilities (such as large parking lots in the neighborhood) show a curvilinear relationship with cycling for both Airline and Network models (p<0.10 and p<0.05, respectively). Those who responded neutrally to these factors had the highest likelihood of cycling, compared to those who disagreed or agreed. 4. Perceived presence of destinations (grocery stores and schools) is negatively associated with the odds of cycling (Airline OR=0.702; p<0.10 and Network OR=0.718; p<0.10). (Note: Distance to nearest PA resource and access to nearest PA resources may overlap in their designated strategy categories.)	**Positive Association for Physical Activity in the Study Population** Study design = Association Effect size = Positive association for physical activity in the study population	**Maintenance** Not Applicable **Sampling / Representativeness** High The survey respondents are shown to be fairly representative of the sample frame.
Author Franzini, Elliot (2009) United States **Design** Association Cross-sectional **Duration** Not Applicable	**Measures** *Activity friendly neighborhood* (neighborhood traffic, physical disorder, residential density) **Outcome(s) Affected** Physical activity (Youth Behavior Survey)	**No Association for Physical Activity in the Study Population (Community Design)** **(Assumption: Perceptions of unsafe traffic and disorder lead to decreased physical activity in children.)** **Community Design** <u>PHYSICAL ACTIVITY:</u> 1. The structural model for the ordinal measure of child obesity (underweight or normal weight, overweight, obese) suggested that neighborhood physical environment had no significant association with activity levels. (Note: Neighborhood physical environment was comprised of variables for traffic, density, land-use mix, and physical disorder.)	**No Association for Physical Activity in the Study Population** Study design = Association Effect size = No association for physical activity in the study population	**Maintenance** Not Applicable **Sampling / Representativeness** Not Reported

Study Description	Measures & Outcomes	Effect Size or % Change	Effectiveness	Maintenance & Representativeness
Author Boehmer, Lovegreen (2006) Arkansas, Missouri, Tennessee **Design** Association Cross-sectional **Duration** Not Applicable	**Measures** *Neighborhood walkability* (presence of quality sidewalks and shoulders, perceived recreational facilities, land use, barriers related to traffic safety and crime, aesthetics) **Outcome(s) Affected** Overweight/obesity (height and weight [body mass index])	**Positive Association for Overweight/obesity in the Study Population (Community Design)** **(Assumptions: Access to facilities and positive perceptions of neighborhood safety and pleasantness will lead to increased physical activity, which leads to decreased overweight/obesity.)** **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. (Note: Distance to nearest PA resource and access to nearest PA resources may overlap in their designated strategy categories.)	**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.
Author Sallis, Saelens (2009) Washington and Maryland **Design** Association Cross-sectional **Duration** Not Applicable	**Measures** *Neighborhood walkability* (density, mixed land use, street connectivity, retail floor area ratio) **Outcome(s) Affected** Overweight/obesity (height and weight [body mass index]) and walking behavior (International Physical Activity Questionnaire [IPAQ], accelerometers)	**Positive Association for Overweight/obesity in the Study Population (Community Design)** **Positive Association for Physical Activity in the Study Population (Community Design)** **(Assumption: Increased neighborhood walkability will lead to increased physical activity and decreased overweight/ obesity.)** **Community Design** OVERWEIGHT/OBESITY: 1. The walkability main effect was significant (p=0.007), with the odds of being overweight or obese 35% higher for participants living in low vs. high-walkability neighborhoods (OR=1.35, 95% CI; 1.09-1.69). PHYSICAL ACTIVITY: 2. Overall, the significant walkability main effect indicated a higher average of number of minutes per week of walking for transportation in high-walkability neighborhoods 44.3 min per week, compared to low-walkability neighborhoods 12.8 min per week (walkability main effect p<0.0001). 3. Walking for transportation was significantly higher in high-walkability neighborhoods compared to low-walkability neighborhoods for both high- and low-income neighborhoods; however, the differential was larger in high-income neighborhoods at 5.1 minutes compared to low-income neighborhoods at 2.3 minutes (walkability-by-income interaction p=0.027). 4. The leisure walking main effect was significant (p=0.012), with people living in high-walkability neighborhoods averaging 18.5 minutes per week of leisure walking compared to 14.2 minutes per week in low-walkability neighborhoods. 5. On average, participants in high-walkability neighborhoods had 5.8 more minutes per day of objectively measured MVPA than those in low-walkability (main effect p=0.0002). 6. When the "reasons for moving here" score was added to control for preferences related to "activity-friendly" environments, the walkability main effect was still significant (p<0.0001). For minutes of leisure walking, the walkability main effect was no longer significant (p=0.36). (Note: The walkability index was both street (street connectivity) and community (land use mix and residential density) design variables.)	**Positive Association for Overweight/ obesity in the Study Population** **Positive Association for Physical Activity in the Study Population** Study design = Association Effect size = Positive association for overweight/ obesity and physical activity in the study population	**Maintenance** Not Applicable **Sampling / Representativeness** Not Reported

Study Description	Measures & Outcomes	Effect Size or % Change	Effectiveness	Maintenance & Representativeness
Author Lee, Vernez Moudon (2006) Washington **Design** Association Cross-sectional **Duration** Not Applicable	**Measures** *Neighborhood walkability* (land-use, street vegetation, block size, perceptions of type of neighborhood, architecture, awareness of neighbors, traffic problems, air pollution) **Outcome(s) Affected** Walking behavior (survey)	**Positive Association for Physical Activity in the Study Population (Community Design)** **(Assumptions: Increased diversity in land-use, street connectivity, and density will lead to increased active transportation.)** **Community Design** PHYSICAL ACTIVITY: *Objective Correlates of Walking* 1. Distance to the closest office and mixed use neighborhood centers for both-walkers (OR=2.591, CI: 1.463-4.587, p<0.01), the recreation walker (OR=2.233, CI: 1.198-4.161, p<0.05), and the transportation walker (OR=2.503, CI: 1.314-4.768, p<0.01) was significant in all models. 2. Area level residential density was found to be significant in all models for both recreational and transport walkers (OR= 0.135, CI: 0.036-0.511, p<0.01), and independently for the recreation walkers (OR= 0.101, CI; 0.024-0.421, p<0.05), and the transportation walker (OR= 0.186, CI: 0.043-0.798, p<0.05). 3. Parcel-level density (OR=2.740, CI: 1.239-6.056, p<0.05) showed a positive association with the likelihood of walking for both purposes relative to not walking at all. 4. Area based density (OR=0.135, CI: 0.036-0.511, p<0.001) showed a negative association with the likelihood of walking for both purposes relative to not walking at all. 5. Both socio-demographic and physical environmental variables had a stronger association with transportation walking than with recreation walking. The Frequency Models showed the fit of the recreational model (pseudo R^2=0.349) to be much poorer than that of the transportation model (pseudo R^2=0.641). (Note: Physical environment variables include neighborhood type (residential density and land use mix), aesthetics, social and traffic safety)	**Positive Association for Physical Activity in the Study Population** Design = Association Effective = Positive association for physical activity in the study population	**Maintenance** Not Applicable **Sampling / Representativeness** Not Reported
Author Joshu, Boehmer (2008) and Brownson, Baker (2001) United States **Design** Association Cross-sectional **Duration** Not Applicable	**Measures** *County sprawl* (metropolitan counties gross population density, percentage of county population living in suburban and urban densities, net density, block size, percentage of blocks with less than 1/100 square miles) *Neighborhood walkability* (perceived barriers to physical activity including hills, lack of sidewalk, sprawl index) **Outcome(s) Affected** Overweight/obesity (body mass index) and physical activity and walking behavior (surveys)	**Positive Association for Overweight/obesity in the Study Population (Community Design)** **(Assumptions: 1) Individuals with neighborhood perceptions of barriers and heavy traffic will have increased rates of overweight and obesity. 2) Individuals with access to facilities, positive neighborhood characteristics, policies supporting physical activity and other perceptions will have increased levels of physical activity.)** **Community Design** OVERWEIGHT/OBESITY: 1. Hierarchical linear modeling found that the effect of sprawl on BMI is greater for individuals who report a greater number of personal barriers. The effect of sprawl on BMI increased by -0.006 with each additional personal barrier. (Note: Perceived barriers to physical activity was a composite including hills, lack of sidewalks, personal barriers like fear of injury, limited time, and intensity and frequency of physical activity.)	**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 Rutt, Coleman (2004) Texas **Design** Association Cross-sectional **Duration** Not Applicable	**Measures** *Neighborhood walkability* (slope, land-use, street connectivity, distance to physical activity facilities, sidewalk availability, safety to exercise) **Outcome(s) Affected** Overweight/obesity (body mass index) (Behavioral Risk Factor Surveillance System Survey - BRFSS) and light, moderate, and vigorous physical activity physical Activity (San Diego Health and Exercise Survey)	**Positive Association for Overweight/obesity in the Study Population (Community Design)** **Positive Association for Physical Activity in the Study Population (Community Design)** **(Assumption: Neighborhoods with increased accessibility to physical activity facilities leads to increased physical activity levels.)** **Community Design** OVERWEIGHT/OBESITY: 1. Significant direct predictors of BMI were moderate intensity physical activity ($p=0.05$), overall health ($p=0.0004$), SES ($p=0.0003$), and living in an area with more mixed land use ($p=0.03$). PHYSICAL ACTIVITY: 2. Time spent in vigorous physical activity was predicted by fruit and vegetable intake ($p=0.04$), younger age ($p=0.0002$) and increased distance to physical activity facilities ($p=0.04$, $R^2=0.14$). (Note: Distance to nearest PA resource and access to nearest PA resources may overlap in their designated strategy categories.)	**Positive Association for Overweight/ obesity in the Study Population** **Positive Association for Physical Activity in the Study Population** Study design = Association Effect size = Positive association for overweight/ obesity and physical activity in the study population	**Maintenance** Not Applicable **Sampling / Representativeness** Not Reported
Author Greenwald, Boarnet (2001) Oregon **Design** Association Cross-sectional **Duration** Not Applicable	**Measures** *Pedestrian friendly environment* (ease of street crossing, sidewalk continuity, street connectivity, topography) **Outcome(s) Affected** Non-work walking behavior (1994 Portland Travel Diary)	**Positive Association with Physical Activity in the Study Population (Community Design)** **(Assumption: Non-work walking travel is affected by population density, street connectivity, and trip cost.)** **Community Design** PHYSICAL ACTIVITY: 1. Using an ordered probit model for non-work walking trips at the census block group level, population density positively affects the likelihood of non-work travel being completed by walking trips (coefficient= 0.0000282, Z=2.985; $p<0.05$). 2. Using an ordered probit model for non-work walking trips at the census block group level, as trip cost variables (median walking distance and speeds for individuals) are added, block group density becomes an even stronger predictor for walking (coefficient= 0.0000291, Z= 3.061; $p<0.05$). 3. Using an ordered probit model for non-work walking trips at the zip code level, regional densities are not as important in determining individual walking behavior, as indicated by the insignificance of the population and retail density variables. Additionally, individual trip costs become insignificant when analyzed in the context of regional variables, lending further support to the idea that land use impacts on pedestrian travel have highly localized impacts. 4. Using ordinary least squares and instrumental variable regressions, block group population density and PEF score show support for non-work walking travel. Block group population density and Pedestrian Environment Factor (PEF) score are both individually significant in the ordinary least squares (coefficient= 0.0000569, T= 6.122; $p<0.05$; and coefficient; 0.0606048, T=3.649; $p<0.05$, respectively) and the instrumented variable regressions (coefficient= 0.0000596, T= 2.292, $p<0.05$; and coefficient= 0.0792254, T=2.38, $p<0.05$, respectively). (Note: The Pedestrian Environment Factor or PEF scores consists of presence of crosswalks and sidewalks, and street connectivity.)	**Positive Association for Physical Activity in the Study Population** Study design = Association Effect size = Positive association for physical activity in the study population	**Maintenance** Not Applicable **Sampling / Representativeness** Not Reported

Study Description	Measures & Outcomes	Effect Size or % Change	Effectiveness	Maintenance & Representativeness
Author Zhu, Arch (2008) Texas **Design** Association Cross-sectional **Duration** Not Applicable	**Measures** *Neighborhood walkability* (distance to school, quality of sidewalks, and land-use mix) **Outcome(s) Affected** Walking behavior (survey)	**Positive Association for Physical Activity in the Study Population (Community Design)** **(Assumption: Environmental and policy factors that support physical activity and positive parental perceptions are positively associated with increased odds of walking to school in children.)** **Community Design** PHYSICAL ACTIVITY: 1. Distance to school was the strongest predictor of walking, where the child was about 4 times more likely to walk if the parent perceived the distance to be close enough for their child to walk (OR=4.918, β =1.593, p<0.01). 2. The presence of convenience stores (OR=0.588, β =-0.531, p<0.01) and office buildings (OR=0.52, β =-0.654, p<0.05) was associated with decreased likelihood of walking after controlling for other variables. 3. In the analysis using 8 separate models for individual schools, the distance to school was the most significant predictor in 6 of the 8 schools (Group 1: Zavala [n=106, OR=7.467, p<0.05)], Sanchez [n=150, OR=11.735, p<0.01], Metz [n=153, OR=9.177, p<0.01]; Group 2: Blanton [n=114, OR=10.384, p<0.01], Andrews [n=215, OR=11.68, p<0.01]; Group 3: Wooten [n=193, OR=9.441, p<0.01]).	**Positive Association for Physical Activity in the Study Population** Study design = Association Effect size = Positive association for physical activity in the study population	**Maintenance** Not Applicable **Sampling / Representativeness** Not Reported With-in groups, schools shared relatively similar socio-demographic and physical environmental characteristics. In group 2, Hispanics were slightly over-represented and African Americans were somewhat under-represented. 5th-grade students were slightly under-represented in the sample.
Author Fulton, Shisler (2003) United States **Design** Association Cross-sectional **Duration** Not Applicable	**Measures** *Neighborhood accessibility* (perceptions of safety, presence of neighborhood sidewalks, opportunities for participation in sports teams, parental support) density and compactness) **Outcome(s) Affected** Walking behavior (surveys/interviews)	**Positive Association for Physical Activity in the Study Population** **(Assumption: Positive neighborhood perceptions that increase walkability [e.g., good quality sidewalks] leads to increased Active Transportation to School [ATS] in youth.)** **Community Design** PHYSICAL ACTIVITY: 1. Compared to children in rural areas, children in central cities, suburbs, or small cities/towns were more likely to walk (OR=2.2, 95%CI= 1.0-4.6; OR=2.4, 95%CI= 1.3-4.5, and OR=2.3, 95%CI=1.3-4.2, respectively).	**Positive Association for Physical Activity in the Study Population** Study design = Association Effect size = Positive association for physical activity in the study population	**Maintenance** Not Applicable **Sampling / Representativeness** Not Reported

Study Description	Measures & Outcomes	Effect Size or % Change	Effectiveness	Maintenance & Representativeness
Author Nelson, Gordon-Larsen (2006) United States **Design** Association Cross-sectional **Duration** Not Applicable	**Measures** *Active neighborhoods* (access to places to be active) **Outcome(s) Affected** Overweight/obesity (Add Health Survey [BMI]) and physical activity and recreation center use (7-day recall of physical activity)	**Positive Association for Overweight/obesity in Study Population (Community Design)** **Positive Association for Physical Activity in the Study Population (Community Design)** **Positive Association for Recreation Use in the Study Population (Community Design)** **(Assumption: Neighborhood environments with places to be active, mixed-land use, and greater density will lead to increased physical activity and decreased weight status.)** **Community Design** OVERWEIGHT/OBESITY: 1. When examining neighborhood clusters, those who lived in rural working class (adjusted risk ratio=1.38, 95%CI=1.13-1.69, no p-values provided), exurban (adjusted risk ratio=1.30, 95%CI=1.04-1.64), and mixed-race urban neighborhoods (adjusted risk ratio=1.31, 95%CI= 1.05-1.64) were 30-40% more likely to have a BMI ≥ 95th percentile of age and gender-specific growth curves than adolescents living in newer suburban developments. 2. When examining relationships at the metropolitan statistical area level there is a lower likelihood of overweight in adolescents in urban areas (adjusted risk ratio=0.85, 95%CI= 0.75-0.96) compared to rural (adjusted risk ratio=1.9, 95%CI= 0.94-1.27) and suburban (adjusted risk ratio=1 [ref]) areas. PHYSICAL ACTIVITY: 3. Adolescents living in older suburban developments were 11% more likely to be physically active than those living in newer suburban areas (adjusted risk ratio=1.11, 95%CI=1.04-1.18), and those living in low-SES inner-city areas were more likely to be active compared to those in mixed-race urban neighborhoods (risk ratio=1.09, 95%CI=1.00-1.18). 4. Those living in older suburban areas (adjusted risk ratio=1.41, 95%CI=1.21-1.63), in mixed-race urban areas and in low-socioeconomic status inner city areas were all more likely to use a neighborhood recreation center. (Note: Exurban is defined as urban/suburban outgrowth.)	**Positive Association for Overweight/ obesity in Study Population** **Positive Association for Physical Activity in the Study Population** Study design = Association Effect size = Positive association for overweight/ obesity and physical activity in study population	**Maintenance** Not Applicable **Sampling / Representativeness** Not Reported Designed to be nationally representative of youth.
Author Mowen, Confer (2003) Ohio **Design** Association Cross-sectional **Duration** Not Applicable	**Measures** *Active neighborhoods/ walkability* (distance to park, perceptions of a newly constructed brownfield park in-fill) **Outcome(s) Affected** Park use(Questionnaire assessed short term and long term behavioral intentions related to the park [use and adoption])	**Not Reported for desired health outcomes** **Positive Association for Intention to Use the Park in the Study Population (Community Design)** **(Assumption: Greater access to parks in the neighborhood leads to increased intentions to utilize the park)** **Community Design** PARK USE: 1. The shorter the distance between the park and nearby neighborhoods, the more likely early adopters were to indicate regular visitation intentions (β= -0.208, p=0.002). 2. The more the park in-fill was perceived as accessible, convenient, and superior to other traditional neighborhood parks, the more likely visitors intended on visiting regularly (accessibility; β=0.205, p=0.002, convenience; β=0.206, p=0.009, superiority; β=0.145, p=0.038). (Note: Distance to nearest PA resource and access to nearest PA resources may overlap in their designated strategy categories.)	**More Evidence Needed** Study design = Association Effect size = Not reported	**Maintenance** Not Applicable **Sampling / Representativeness** Not Reported
Author Brownson, Housemann (2000) Missouri **Design** Association Cross-sectional **Duration** Not Applicable	**Measures** *Neighborhood accessibility* (access to community trails and paths, indoor facilities for physical activity, perceptions of safety on the trails) **Outcome(s) Affected** Walking behavior and trail use (Risk factor survey)	**No Association for Physical Activity in the Study Population (Community Design)** **(Assumption: Having greater access to trails leads to increased walking.)** **Community Design** PHYSICAL ACTIVITY: 1. Travel distance to walking trails appeared to have a slight perceived effect on walking. Those travelling 5-10 miles (prevalence odds ratio= 0.8, 95%CI= 0.4-1.9), 11-29 miles (prevalence odds ratio=0.8, 95%CI=0.3-2.1), or >30 miles to a trail (prevalence odds ratio=0.7, 95%CI=0.3-1.8) had a reduced likelihood of increasing their walking. (Note: Distance to nearest PA resource and access to nearest PA resources may overlap in their designated strategy categories.)	**No Association for Physical Activity in the Study Population** Study design = Association Effect size = No association for physical activity in the study population	**Maintenance** Not Applicable **Sampling / Representativeness** Not Reported

Study Description	Measures & Outcomes	Effect Size or % Change	Effectiveness	Maintenance & Representativeness
Author Cohen, Ashwood (2006) Washington DC, Maryland, South Carolina **Design** Association Cross-sectional **Duration** Not Applicable	**Measures** *Active neighborhoods* (access to parks, presence of lighting, restroom, shaded areas, fountains, fencing, open spaces, playing fields, courts within the parks, and street connectivity) **Outcome(s) Affected** Moderate to vigorous physical activity (accelerometers)	**Positive Association for Physical Activity in the Study Population (Community Design)** **(Assumption: Park proximity, park type, and park features leads to increased physical activity in adolescent girls.)** **Community Design** PHYSICAL ACTIVITY: 1. For the average girl having 3.5 parks within a 1-mile radius of home, accounted for an additional 68 minutes of non-school 3.0 MET MVPA and an additional 36.5 minutes of non-school 4.6 MET MVPA per 6 days. 2. For every park, regardless of type, within a half mile radius from home there was an increase in non-school MVPA by 33 minutes for 3.0 METs (coefficient estimate=0.02, $p<0.005$) and 17.2 minutes for 4.6 METs (coefficient estimate=0.03, $p=0.04$) per 6 days. Each additional park past the half-mile increased non-school MVPA by 12 minutes for 3.0 Mets (coefficient estimate=0.01, $p<0.009$) and 6.7 minutes for 4.6 Mets (coefficient estimate=0.01, $p=0.09$) per 6 days. 3. For the linear model, having either a neighborhood or community park within a half-mile of home was associated with 45.5 more 3.0 MET minutes (coefficient estimate=0.03, $p<0.05$) and 24.2 more 4.6 MET minutes (coefficient estimate=0.04; $p<0.05$) per 6 days. In the half-mile to 1-mile distance, MVPA increased by 29.6, 3.0 MET minutes (coefficient estimate=0.02, $p<0.05$) and 18.6, 4.6 MET minutes (coefficient estimate=0.03; $p<0.05$) per 6 days. 4. Additional non-school MVPA minutes increased when girls had neighborhood/community parks (3.0 MET 42 min, $p<0.05$; 4.6 MET 22 min, $p<0.05$), mini-parks (3.0 MET 92 min, $p<0.05$; 4.6 MET 40 min; $p<0.10$), natural resource areas (3.0 MET 36 min, $p<0.05$), walking paths (3.0 MET 59 min, $p<0.05$; 4.6 MET 13 min; $p<0.05$), and running tracks (3.0 MET 208 min, $p<0.05$; 4.6 MET 82 min; $p<0.05$) within a half mile of their homes. (Note: Distance to nearest PA resource and access to nearest PA resources may overlap in their designated strategy categories.)	**Positive Association for Physical Activity in the Study Population** Study design = Association Effect size = Positive association for physical activity in the study population	**Maintenance** Not Applicable **Sampling / Representativeness** Not Reported 20% Black and 6% Hispanic, and 10% of households were below poverty level (neighborhood average; ½ mile radius)
Author Jilcott, Evenson (2007) North Carolina **Design** Association Cross-sectional **Duration** Not Applicable	**Measures** *Active neighborhoods* (access to places to be active, parks and facilities) **Outcome(s) Affected** Physical activity (PA) and moderate to vigorous physical activity (MVPA) (measured with accelerometers)	**Negative Association for Physical Activity in the Study Population (Community Design)** **(Assumption: Greater access to physical activity resources will lead to increased levels of physical activity.)** **Community Design** PHYSICAL ACTIVITY: 1. No statistically significant relationships were found between activity and perceived or objectively measured proximity to parks. 2. There was a statistically significant association between the number of schools within the 1-mile buffer and minutes of MVPA (objective model: n=155, adjusted standardized parameter estimate= -0.16, $p=0.04$, adjusted $R^2=0.11$; objective and perceived model: n=155, adjusted standardized parameter estimate = -0.17, $p=0.03$, adjusted $R^2=0.10$). For example, if examining two women with the same age (53 years) and BMI (31 kg/m2), the woman with no school within her 1-mile buffer averaged 105.3 minutes of MVPA per day while the other woman with two schools within her 1-mile buffer averaged 83.2 minutes of MVPA per day ($p=0.04$). 3. There was no association between distance to PA resources identified through qualitative interviews and MVPA minutes, adjusting for age and BMI (standardized parameter estimate for GIS network distance = 0.06, $p= 0.45$). (Note: Distance to nearest PA resource and access to nearest PA resources may overlap in their designated strategy categories.)	**Negative Association for Physical Activity in the Study Population** Study design = Association Effect size = Negative association for physical activity in the study population	**Maintenance** Not Applicable **Sampling / Representativeness** Not Reported
Author Sanderson, Foushee (2003) Alabama **Design** Association Cross-sectional **Duration** Not Applicable	**Measures** *Neighborhood walkability* (access to safe, pleasant places to be active and/ or walk, presence of sidewalks)density and compactness) **Outcome(s) Affected** Physical activity (survey)	**No Association for Physical Activity in Women (Community Design)** **(Assumption: Individuals in neighborhoods with positive social dynamics and enablers for physical activity like safe and pleasant places to be active, and good quality sidewalks will have increased levels of physical activity.)** **Community Design** PHYSICAL ACTIVITY: 1. Researchers found no physical environmental variables that were significantly associated with comparison of either activity-level group. (Note: Environmental variables include a composite score of distance to places to walk, safety from crime, street lighting, unattended dogs, presence of sidewalks, and traffic safety.)	**No Association for Physical Activity in Women** Study design = Association Effect size = No association for physical activity in women	**Maintenance** Not Applicable **Sampling / Representativeness** High Education level from the evaluation sample was similar to the Alabama BRFSS demographic data for African-American women, however, income level was somewhat lower.

Study Description	Measures & Outcomes	Effect Size or % Change	Effectiveness	Maintenance & Representativeness
Author Burdette, Whitaker (2004) Ohio **Design** Association Cross-sectional **Duration** Not Applicable	**Measures** *Active neighborhoods/ walkability* (distance from home to nearest playground) **Outcome(s) Affected** Overweight/obesity (WIC program database [body mass index])	**No Association for Overweight/obesity in the Study Population (Community Design)** **(Assumption: Residential proximity to places for physical activity and decreased crime will lead to increased physical activity, which will lead to decreased overweight/obesity.)** **Community Design** OVERWEIGHT/OBESITY: 1. There was no difference in mean distance to the nearest playground when comparing children with a BMI ≥95th percentile to those with a BMI<95th percentile (playground: t=0.31 both, p=0.77) and when comparing children with a BMI ≥ 85th % to those with a BMI < 85th % (playground: t=0.31 both, p=0.32). 2. There was no significant correlation between children's BMI z scores and distance to the nearest playground. (Note: Distance to nearest PA resource and access to nearest PA resources may overlap in their designated strategy categories.)	**No Association for Overweight/ obesity in the Study Population** Study design = Association Effect size = No association for overweight/ obesity in the study population	**Maintenance** Not Applicable **Sampling / Representativeness** Not Reported
Author Voorhees, Young (2003) Virginia **Design** Association Cross-sectional **Duration** Not Applicable	**Measures** *Neighborhood walkability* (lack of lighting and sidewalks, neighborhood safety, distance to locations, access to places for physical activity) **Outcome(s) Affected** Physical activity and meeting physical activity recommendations (Women and Physical Activity Survey and Behavioral Risk Factor Surveillance System [BRFSS])	**Negative Association for Physical Activity in Hispanic Females (Community Design)** **(Assumptions: Individuals with positive perceptions of neighborhood safety and access to places to be physically active will have increased levels of physical activity and will be more likely to meet recommendations for physical activity.)** **Community Design** PHYSICAL ACTIVITY: 1. Women who reported having places within walking distance were less likely to be active (OR=0.87; 95% CI, 0.31–2.44) and meet activity recommendations (OR=1.58, 95% CI= 0.64-3.90). (Note: No p-values reported. Distance to nearest PA resource and access to nearest PA resources may overlap in their designated strategy categories.)	**Negative Association for Physical Activity in Hispanic Females** Study design = Association Effect size = Negative association for physical activity in Hispanic females	**Maintenance** Not Applicable **Sampling / Representativeness** Not Reported
Author Gomez, Johnson (2004) Texas **Design** Association Cross-sectional **Duration** Not Applicable	**Measures** *Active neighborhoods* (access to recreational facilities and safety) **Outcome(s) Affected** Outdoor physical activity (recall questionnaire)	**Positive Association for Physical Activity in Boys (Community Design)** **(Assumption: Increased neighborhood safety and access to recreational facilities leads to higher levels of outdoor physical activity.)** **Community Design** PHYSICAL ACTIVITY: 1. As distance to the nearest open play area increased, outside physical activity (OPA) for boys decreased significantly (β=-0.317, T= -2.823, p=0.006). (Note: Distance to nearest PA resource and access to nearest PA resources may overlap in their designated strategy categories.)	**Positive Association for Physical Activity in Boys** Study design = Association Effect size = Positive association for physical activity in boys	**Maintenance** Not Applicable **Sampling / Representativeness** High The barrio is inhabited primarily by Mexican-Americans and is characterized by low-income household and high crime rates. The racial/ethnic composition of the study sample closely matched that of the school district to which the study schools, except the private school, belong, with 91% of the students in the district being Mexican-American.

Study Description	Measures & Outcomes	Effect Size or % Change	Effectiveness	Maintenance & Representativeness
Author Lindsey, Han (2006) Indiana **Design** Association Non-comparative study **Duration** Not Applicable	**Measures** *Neighborhood walkability* (network mobility, neighborhood boundaries, road features, greenway vectors, gross population density, parcel-level land-use mix, vegetation) **Outcome(s) Affected** Trail use (infra-red monitor)	**Positive Association for Physical Activity in Study Population (Community Design)** **(Assumption: Increased neighborhood mobility leads to greater physical activity levels.)** **Community Design** PHYSICAL ACTIVITY: 1. Daily trail traffic is positively and significantly correlated with increases in population density (parameter estimate=0.0002, t=18.69, p<0.0001), greenness (parameter estimate=1.988, t=9.36, p<0.0001), the percentage of trail neighborhood in commercial use (parameter estimate=0.0465, t=23.56, p<0.0001), the area in trail neighborhoods in parking lots (parameter estimate=0.0346, t=16.02, p<0.0001), and mean length of street segment (parameter estimate=0.1172, t=6.27, p<0.0001). 2. An increase in population density in trail neighborhoods of 100 persons per square kilometer for example, is associated with an increase in trail traffic of nearly 2%. 3. Every 1% increase in the area of parking lots is correlated with an increase in trail traffic of less than one-tenth of a percent	**Positive Association for Physical Activity in Study Population** Study design = Association Effect size = Positive association for physical activity in the study population	**Maintenance** Not Applicable **Sampling / Representativeness** Not Reported
Author Cohen, McKenzie (2007) California **Design** Association Cross-sectional **Duration** Not Applicable	**Measures** *Neighborhood accessibility* (proximity to park, usability of park, perceived park safety, availability of supervision or equipment, visit the park at night) **Outcome(s) Affected** Leisure exercise activity (System for Observing Play and recreation in Communities [SOPARC])	**Positive Association for Physical Activity in the Study Population (Community Design)** **(Assumption: Increased accessibility, availability, and quality of amenities leads to increased levels of physical activity.)** **Community Design** PHYSICAL ACTIVITY: 1. Younger age, being male, and living within 1 mile of a park were positively associated with the frequency of leisure exercise (incident rate ratio= 1.38, 95%CI=1.04-1.84, p<0.001) 2. More residents living within 0.5 miles of the park reported leisurely exercising 5 or more times per week more often than those living more than 1 mile away (49% vs. 35%, p<0.01). 3. People who lived within 1 mile of the park had an average of 38% more exercise sessions per week than those living further away.	**Positive Association for Physical Activity in the Study Population** Study design = Association Effect size = Positive association for physical activity in the study population	**Maintenance** Not Applicable **Sampling / Representativeness** Not Reported
Author Reed, Phillips (2005) Unknown **Design** Association Cross-sectional **Duration** Not Applicable	**Measures** *Active neighborhoods* (access to places to be active, parks and facilities, and home exercise equipment) **Outcome(s) Affected** Physical activity (Modified Godin Leisure Questionnaire-Time Exercise Questionnaire assessed frequency and duration of physical activity over a 7-day period)	**Positive Association for Physical Activity in the Study Population (Community Design)** **Positive Association for Physical Activity in Males (Community Design)** **(Assumption: Physical activity intensity, duration, and frequency are associated with increased proximity to facilities, such as parks, and equipment.)** **Community Design** PHYSICAL ACTIVITY: 1. There was a significant relationship between intensity of physical activity and proximity to facilities for all students (r=0.106; p<0.05). 2. The correlation between duration of physical activity and proximity to facilities was statistically significant (r=0.119, p<0.05). 3. Frequency of physical activity showed a significant negative correlation (r=-0.195; p<0.05) with proximity in male students (n=unknown). 4. It appears that as distance between place of residence and exercise facility increase, the duration and intensity of physical activity also increase. 5. Total physical activity scores and frequency of physical activity revealed no relation to the distance from their residence that participants initiated their leisure-time physical activity. (Note: Distance to nearest PA resource and access to nearest PA resources may overlap in their designated strategy categories.)	**Positive Association for Physical Activity in the Study Population** **Positive Association for Physical Activity in Males** Study design = Association Effect size = Positive association for physical activity in the study population and males	**Maintenance** Not Applicable **Sampling / Representativeness** Not Reported

Study Description	Measures & Outcomes	Effect Size or % Change	Effectiveness	Maintenance & Representativeness
International				
Author Giles-Corti, Knuiman (2008):Tudor-Locke, Giles-Corti (2008): Giles-Corti, Timperio (2006): Giles-Corti, Knuiman (2007) Australia **Design** Intervention Evaluation Prospective cohort study **Duration** Not Reported	**Measures** *Neighborhood walkability* (proximity, access to, and use of local businesses and neighborhood) **Outcome(s) Affected** Physical activity and walking behavior (Neighborhood Physical Activity Questionnaire [NPAQ])	**Net Positive for Physical Activity in the Study Population (Community Design)** **Net Positive for Physical Activity in Women (Community Design)** **(Assumptions: Individuals moving into neighborhoods with increased land-use diversity, access to services, and increased street connectivity will participate in greater amounts of physical activity.)** **Community Design** PHYSICAL ACTIVITY: 1. Those moving into conventional design (CD) neighborhoods remained significantly more likely than those moving into hybrid design (HD) neighborhoods to meet the threshold for both sufficient walking and physical activity (OR 1.41; 95% CI; 1.07-1.86; OR; 1.31 95% CI 1.02-1.69, respectively). 2. The odds of achieving sufficient physical activity were also higher for those moving into liveable design (LD) neighborhoods compared with HDs (OR; 1.32, 95% CI; 1.00-1.75), although for walking, the adjusted difference did not reach statistical significance. 3. There were no differences in perceived access to destinations in their baseline neighborhoods among participants moving into different types of developments. 4. Overall females appeared to be taking more steps per day after moving into neighborhoods affected by new urban design codes (Spearman's r=0.551; ΔT1-T2= 34 ± 3.071). 5. The relative change in steps/day was not significant across age groups in males (χ^2=17.35, p=0.137) but was in females (χ^2=50.00, p<0.001). (Note: P-values not provided for all statistics. Conventional Design = CD, Livable Design = LD, and Hybrid Design= HD; Liveable neighborhoods were designed using New Urbanism principles, which seeks to maximized design toward mixed-use, biking/cycling, and access to services like transit. Conventional designs are the complete opposite of liveable with one type of land-use, disconnected street access, and shopping store chain centers. Hybrid neighborhoods are a combination of LD and CD.)	**More Evidence Needed** Study design = Intervention evaluation Intervention duration = Not reported Effect size = Net positive for physical activity in the study population and women	**Maintenance** Not Reported **Sampling / Representativeness** Not Reported
Author Nelson, Foley (2008) Ireland **Design** Association Cross-sectional **Duration** Not Applicable	**Measures** *Neighborhood walkability* (population density, urban form, and distance traveled to school) **Outcome(s) Affected** Active commuting (questionnaire)	**Positive Association for Physical Activity in the Study Population (Community Design)** **(Assumptions: As distance increases and population decreases from residence to school less children will use active transportation.)** **Community Design** PHYSICAL ACTIVITY: 1. There is an inverse relationship between population density and mode of travel to school (χ^2(3)=775.32, p<0.001, r=0.44). Adolescents living in more densely populated areas had greater odds of active commuting than those in the most sparsely populated areas (χ^2(df=3)=839.64, p<0.001). 2. Compared with village residents, the odds of active commuting are 12.6 (95% CI: 9.3-17.0), 10.1 (8.3-12.4) and 6.8 (5.7-8.2) times higher for those who live in cities, suburbs and towns respectively. 3. Adolescents who walk or cycle to school travel shorter distances (0.98 miles) than those who commute inactively (6.31 miles), (U=292775.0, p<0.001, r=-0.71). 4. Distance traveled to school was influenced by area of residence (H(3)=1043.69, p<0.001). Jonckheere's test revealed a trend in the data: distance traveled to school increased as population density decreased (J=3931634.5, z=29.98, r=0.47). 5. In each density group, active commuters traveled shorter distances: Big city; active (1.02±0.79) vs. inactive (3.91±5.97), Suburbs; active (1.02±0.83) vs. inactive (4.01±3.98), Town; active (0.93±0.88) vs. inactive (5.08±6.33), and Village; active (1.04±1.22) vs. inactive (7.57±5.20) (all p<0.001). 6. A 1-mile increase in distance from school decreased the odds of active commuting by 71% (χ^2(df=1)=2591.86, p<0.001). 7. Compared with village residents, the odds of active commuting are 2.1, 2.0, and 1.7 times higher for those who live in cities, suburbs and towns, respectively.	**Positive Association for Physical Activity in the Study Population** Study design = Association Effect size = Positive association for physical activity in the study population	**Maintenance** Not Applicable **Sampling / Representativeness** Not Reported

Study Description	Measures & Outcomes	Effect Size or % Change	Effectiveness	Maintenance & Representativeness
Author Hackett, Boddy (2008) United Kingdom **Design** Association Cross-sectional **Duration** Not Applicable	**Measures** *Neighborhood accessibility* (housing density, street width, green space, shops, food stores, traffic) **Outcome(s) Affected** Nutrition (food intake questionnaire)	**Negative Association for Nutrition in the Study Population (Community Design)** **(Assumptions: Children with increased land-use mix and street connectivity will lead to better dietary intake, access is created by increased land-use diversity.)** **Community Design** <u>NUTRITION:</u> 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 ordinance 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.	**Negative Association for Nutrition in the Study Population** Study design = Association Effect size = Negative association for nutrition in the study population	**Maintenance** Not Applicable **Sampling / Representativeness** Not Reported
Author Garden, Jalaludin (2009) Australia **Design** Association Cross-sectional **Duration** Not Applicable	**Measures** *Urban sprawl* (population density) **Outcome(s) Affected** Overweight/obesity (body mass index [BMI]) and physical activity and walking behavior (New South Wales Population Health Survey)	**Positive Association for Overweight/obesity in the Study Population (Community Design)** **Positive Association for Physical Activity in the Study Population (Community Design)** **(Assumptions: Living in more sprawling areas increases the risk of overweight/obesity and decreases physical activity levels.)** **Community Design** <u>OVERWEIGHT/OBESITY:</u> 1. There was a significant positive association between urban sprawl and the likelihood of being overweight (OR=1.087, 95% CI=1.035-1.141, p<0.01). 2. There was a significant positive association between urban sprawl and the likelihood of being obese (OR=1.150, 95% CI=1.080-1.225, p<0.001). <u>PHYSICAL ACTIVITY:</u> 3. There was a significant positive association between urban sprawl (population density only) and the likelihood of inadequate physical activity (OR=1.123, 95%CI=1.071-1.177; p<0.001). 4. There was a significant positive association between urban sprawl (population density only) and the likelihood of not spending any time in the last week walking (OR=1.179, 95% CI=1.095-1.271; p<0.001).	**Positive Association for Overweight/ obesity in the Study Population** **Positive Association for Physical Activity in the Study Population** Study design = Association Effect size = Positive association for overweight/ obesity and physical activity in the study population	**Maintenance** Not Applicable **Sampling / Representativeness** High The researchers used a weighted sample from the NSW Population Health Survey to gather generalizable data to metropolitan Sydney and other similar major Australian cities.
Author Owen, Cerin (2007) Australia **Design** Association Cross-sectional **Duration** Not Applicable	**Measures** *Neighborhood walkability* (dwelling density, street connectivity, land-use mix, and net retail area) **Outcome(s) Affected** Walking behavior (Survey [SMARTRAQ, IPAQ])	**Positive Association for Physical Activity in the Study Population (Community Design)** **(Assumptions: Individuals in neighborhoods with increased density, street connectivity, land-use mix, and retail area have higher levels of walkability and will participate in more physical activity.)** **Community Design** <u>PHYSICAL ACTIVITY:</u> 1. Living in areas with a walkability index that was one standard deviation above the average was associated with 37 minutes more walking than living in areas with a walkability index that was one standard deviation below the average. 2. Neighborhood walkability was associated with more walking for transport in residents for whom access to services was an important reason for living in a specific neighborhood (data not shown). 3. Weekly frequency of walking for transport was independently related to neighborhood walkability (Model 1: β=0.02; Wald test=37.6, df=1; p<0.001 and Model 2: β=0.01; Wald test=29.1, df=1; p<0.001). 4. There was no significant effect of neighborhood walkability on weekly minutes of walking for transport observed among residents for whom access to services was not an important reason for living in their neighborhood. 5. No statistically significant relationships between neighborhood walkability and walking for recreation were found. 6. No statistically significant moderators of the relationship between neighborhood walkability and walking for recreation were found. (Note: Walkability index = dwelling density, street connectivity, land-use mix, and net retail area)	**Positive Association for Physical Activity in the Study Population** Study design = Association Effect size = Positive association for physical activity in the study population	**Maintenance** Not Applicable **Sampling / Representativeness** Low Survey respondents were more likely to be older, female, and employed (all χ^2 tests significant at p<0.01) compared to the 2001 Adelaide Bureau of Statistics Census data.

Study Description	Measures & Outcomes	Effect Size or % Change	Effectiveness	Maintenance & Representativeness
Author Lee, Kawakubo (2006) Japan **Design** Association Cross-sectional **Duration** Not Applicable	**Measures** *Neighborhood walkability* (accessibility, safety, convenience, aesthetics) **Outcome(s) Affected** Walking behavior (questionnaire)	**Positive Association for Physical Activity in the Study Population (Community Design)** **(Assumption: Positive perceptions of neighborhood safety, social support, convenience, and access to active transportation lead to increased physical activity.)** **Community Design** PHYSICAL ACTIVITY: 1. In the high walkable region, those who had high scores for "There is a park nearby that is suitable for taking a walk in" (low perception mean [sd]: 190.8[195.0] vs. high perception mean [sd] 300.2[279.5], $p<0.05$), "There is a river (or a beach) within walking distance" low perception mean [sd]: 217.2[211.7] vs. high perception mean [sd] 299.1[283.6], $p<0.05$) spent significantly more time walking. (Note: Distance to nearest PA resource and access to nearest PA resources may overlap in their designated strategy categories.)	**Positive Association for Physical Activity in the Study Population** Study design = Association Effect size = Positive association for physical activity in the study population	**Maintenance** Not Applicable **Sampling / Representativeness** Not Reported
Author Ball, Bauman (2001) Australia **Design** Association Cross-sectional **Duration** Not Applicable	**Measures** *Neighborhood walkability* (aesthetics and convenience) **Outcome(s) Affected** Walking behavior (1996 Physical Activity Survey for the State of New South Wales [NSW])	**Positive Association for Physical Activity in the Study Population (Community Design)** **Positive Association for Physical Activity in Men (Community Design)** **Positive Association for Physical Activity in Women (Community Design)** **(Assumption: Individuals living near neighborhood locations in highly aesthetic neighborhoods will be more likely to participate in greater bouts of walking.)** **Community Design** PHYSICAL ACTIVITY: 1. Those reporting more convenient (both men; $\chi^2=19.1$, $p<0.05$; and women; $\chi^2=11.2$, $p<0.05$) environments had higher proportions of walkers. 2. Compared to those reporting a highly convenient environment, individuals with a moderately convenient environment were 16% less likely to walk for exercise (OR=0.84, CI=0.71-1.00, $p<0.05$), while those with a low environmental convenience were 36% less likely (OR=0.64, 95% CI=0.54-0.77, $p<0.01$) to walk for exercise.	**Positive Association for Physical Activity in the Study Population** **Positive Association for Physical Activity in Men** **Positive Association for Physical Activity in Women** Study design = Association Effect size = Positive association for physical activity in the study population, men and women	**Maintenance** Not Applicable **Sampling / Representativeness** High Demographic data for the sample (age, gender, and household size) were weighted to the NSW population of 4.22 million adults ages 18 years and over. The sample was taken from a statewide representative population of Australian adults.
Author Stafford, Cummins (2007) England and Scotland **Design** Association Cross-sectional **Duration** Not Applicable	**Measures** *Neighborhood accessibility* (land-use diversity, urban sprawl, and population density) **Outcome(s) Affected** Overweight/obesity (combined data; Health Survey for England [HSE] and Scottish Health Survey [SHS])	**Positive Association for Overweight/obesity in the Study Population (Community Design)** **(Assumption: Individuals with greater access to safe neighborhoods and increased opportunities for physical activity will participate in greater amounts of physical activity, which will lead to decreased overweight/obesity.)** **Community Design** OVERWEIGHT/OBESITY: 1. For population density, the corresponding mean difference in BMI was 0.36 kg/m^2 and for supermarkets it was 0.44 kg/m^2 (results not shown). 2. Population density was inversely associated with waist-to-hip ratio (coefficient =-0.041, $p<0.05$), indicating that average waist-to-hip ratios were lower in more densely populated areas. 3. Resident's BMI was negatively associated with average sports participation rate (coefficient=-0.038), high street facilities (coefficient= -0.033), and proximity to a post office (coefficient= -0.019) ($p<0.05$ for all). (Note: Street facilities is a variable used to demonstrate land-use mix and multiple destinations.)	**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** High The data was representative of the general population of England and Scotland. The sample of postcode sectors slightly over-represented deprived and urban post-code sectors in England and under-represented deprived postcode sectors in Scotland.

Study Description	Measures & Outcomes	Effect Size or % Change	Effectiveness	Maintenance & Representativeness
Author Spence, Cutumisu (2008) Canada **Design** Association Cross-sectional **Duration** Not Applicable	**Measures** *Neighborhood walkability* (density, street connectivity, land use mix, and availability) **Outcome(s) Affected** Overweight/obesity (height and weight)	**Positive Association for Overweight/obesity in Girls (Community Design)** **(Assumption: Greater walkability within the community leads to decreased prevalence for overweight/obesity.)** **Community Design** OVERWEIGHT/OBESITY: 1. The odds of girls being overweight were lower if they lived in walkable neighborhoods (CDC OR=0.78, 95% CI, 0.66-0.91; IOTF OR=0.73, 95% CI, 0.61-0.88) with more intersections (CDC OR=0.57, 95% CI, 0.39-0.86; IOTF OR=0.48, 95% CI, 0.30-0.76).	**Positive Association for Physical Activity in Girls** Study design = Association Effect size = Positive association for physical activity in girls	**Maintenance** Not Applicable **Sampling / Representativeness** Not Reported
Author Hume, Salmon (2007) Australia **Design** Association Cross-sectional **Duration** Not Applicable	**Measures** *Neighborhood walkability* (aesthetics, accessibility, social support, and safety) **Outcome(s) Affected** Physical activity and walking/cycling behavior (accelerometers and a student questionnaire)	**Positive Association for Physical Activity in Boys (Community Design)** **(Assumptions: Perceiving aesthetically pleasing environments with opportunities for physical activity, access to destinations, and neighborhood safety leads to increased physical activity levels and walking.)** **Community Design** PHYSICAL ACTIVITY: 1. Among boys, access to the total number of neighborhood destinations (β=0.35, p=0.03), knowing their neighbors well (β=2.13, p=0.04), and perceiving that it was a safe neighborhood to walk/cycle to school (β=-1.92, p=0.07) were positively associated with weekly walking frequency. Total number of accessible destinations score remained significantly positively associated with walking frequency in the multiple regression model (p<0.05).	**Positive Association for Physical Activity in Boys** Study design = Association Effect size = Positive association for physical activity in boys	**Maintenance** Not Applicable **Sampling / Representativeness** Not Reported
Author Carver, Salmon (2005) Australia **Design** Association Cross-sectional **Duration** Not Applicable	**Measures** *Neighborhood accessibility* (distance of locations to house, accessibility of convenience stores) **Outcome(s) Affected** Walking behavior (Questionnaire)	**Negative Association for Physical Activity in Girls (Community Design)** **(Assumption: Positive adolescent and parent perceptions of their neighborhood leads to increased physical activity in adolescents.)** **Community Design** PHYSICAL ACTIVITY: 1. Girls' perception of convenience stores near home was negatively associated with frequency (β= -0.157, p<0.01) and duration (β= -0.15, p<0.01) of walking for transport on weekends.	**Positive Association for Physical Activity in Girls** Study design = Association Effect size = Positive association for physical activity in girls	**Maintenance** Not Applicable **Sampling / Representativeness** Not Reported
Author Kirby, Levesque (2007) Canada (Moose Factory Island) **Design** Association Cross-sectional **Duration** Not Applicable	**Measures** *Neighborhood walkability* (convenience, safety, aesthetics, accessibility) **Outcome(s) Affected** Walking behavior and various intensities of physical activity (Godin Leisure-Time Questionnaire)	**No Association for Physical Activity in Native Americans (Community Design)** **(Assumption: Positive perceptions of convenience, safety, aesthetics, and the presence of features for physical activity lead to increased physical activity.)** **Community Design** PHYSICAL ACTIVITY: 1. Hierarchical regressions revealed that perceived environmental variables (e.g., convenience, safety, aesthetics) were not related to the variation in response for all intensity, strenuous, moderate, and light physical activity (p>0.05).	**No Association for Physical Activity in Native Americans** Study design = Association Effect size = No association for physical activity in Native Americans	**Maintenance** Not Applicable **Sampling / Representativeness** Not Reported Statistics Canada did not completely enumerate Moose Factory during the 1996 and 2001 Censuses, it is not possible to confirm the representativeness of the sample.

Study Description	Measures & Outcomes	Effect Size or % Change	Effectiveness	Maintenance & Representativeness
Author De Bourdequdhuij, Sallis (2003) Belgium **Design** Association Cross-sectional **Duration** Not Applicable	**Measures** *Neighborhood accessibility* (residential density, land use mix, access to public transportation, availability of sidewalks and bike lanes, neighborhood aesthetics, perceived safety from crime and traffic, connectivity of the street network) **Outcome(s) Affected** Overweight/obesity (Height and weight [body mass index]) and moderate and vigorous intensity physical activity, walking behavior, and sedentary behavior(International Physical Activity Questionnaire-short form [IPAQ] and seven-page questionnaire)	**Positive Association for Overweight/obesity in the Study Population (Community Design)** **Positive Association for Physical Activity in Men (Community Design)** **Positive Association for Physical Activity in Women (Community Design)** **(Assumptions: Neighborhood access to destinations will lead to increased physical activity and decreased body mass index [BMI].)** **Community Design** OVERWEIGHT/OBESITY: 1. Participants with a higher BMI reported fewer convenient physical activity facilities (Pearson r=-0.11, p<0.05). PHYSICAL ACTIVITY: 2. In males, moderate intensity activity was related to more satisfaction with neighborhood services (semi-partial correlate; 0.15, p≤0.05). In females, more moderate intensity physical activity was related to better access to shopping in local stores (semi-partial correlate; 0.16, p≤0.05). 3. In males, vigorous intensity physical activity was related to more convenient physical activity facilities (semi-partial correlate; 0.11, p≤0.05). In females, vigorous intensity physical activity was related to more convenient physical activity facilities (semi-partial correlate; 0.14, p≤0.05) and supportive worksite environment was related to more high intensity activity (semi-partial correlate; 0.12, p≤0.05). 4. In females, more walking was associated with longer distances to shops and businesses (semi-partial correlate; 0.15, p≤0.05). SEDENTARY ACTIVITY: 5. In males, the amount of sitting was related to higher perceived criminality in the neighborhood (semi-partial correlate; -0.22, p≤0.01), longer distances to shops and businesses (land use mix, diversity) (semi-partial correlate; 0.14, p≤0.05), and more convenience of shopping in local stores (land use mix, access to local shopping) (semi-partial correlate; 0.15, p≤0.01). (Note: Distance to nearest PA resource and access to nearest PA resources may overlap in their designated strategy categories.)	**Positive Association for Overweight/ obesity in the Study Population** **Positive Association for Physical Activity for Men** **Positive Association for Physical Activity for Women** Study design = Association Effect size = Positive association for overweight/ obesity and physical activity in men and women	**Maintenance** Not Applicable **Sampling / Representativeness** Low Respondents appear to have better jobs, have a higher education, are more often employed, and underrepresent the number of individuals living alone compared with the Flemish reference population.
Author Harten, Olds (2003) Australia **Design** Association Cross-sectional **Duration** Not Applicable	**Measures** *Neighborhood walkability* (perceptions of safety, crime, traffic, scenery, pollution, accessibility of amenities) **Outcome(s) Affected** Physical activity (Multimedia Activity Recall for Children and Adolescents [MARCA] and the activity diary)	**Positive Association for Physical Activity in the Study Population (Community Design)** **(Assumptions: Children are more likely to use active transportation methods to school if parents have a more positive perception of the environment and if the children have a shorter distance of commute.)** **Community Design** PHYSICAL ACTIVITY: 1. For every unit change in distance, there was approximately a tenfold decrease in active trips (OR=0.09, 95% CI=0.06-0.15, p<0.0001).	**Positive Association for Physical Activity in the Study Population** Study design = Association Effect size = Positive association for physical activity in the study population	**Maintenance** Not Applicable **Sampling / Representativeness** High The socioeconomic status value for the evaluation sample (1011 ± 102) was not statistically different from the nationwide average (1000 ± 100).

Study Description	Measures & Outcomes	Effect Size or % Change	Effectiveness	Maintenance & Representativeness
Author Kondo, Lee (2009) Japan **Design** Association Cross-sectional **Duration** Not Applicable	**Measures** *Neighborhood walkability* (household count, land use type count, length of streets and sidewalks, intersection count, width of streets, residential density, land use mix-diversity, land use mix-access, street connectivity, aesthetics, and traffic and crime safety) **Outcome(s) Affected** Walking and cycling behavior (Accelerometers and the International Physical Activity Questionnaire [IPAQ])	**Positive Association for Physical Activity in the Study Population (Community Design)** **Positive Association for Physical Activity in Females (Community Design)** **Community Design** PHYSICAL ACTIVITY: 1. There were no significant differences in walking steps related to land use type, length of streets or sidewalks, number of intersections, and width of streets between the high and low scoring groups. 2. Mean total walking steps was significantly higher for subjects with bookstores (10568 ± 898 vs. 6983 ± 881; p<0.01) or rental video stores (10336 ± 962 vs. 7422 ± 873; p<0.05) in the area (within 10-minute walk) than for subjects without these facilities. 3. For females, mean cycling time for transport was significantly longer in the high scoring group than in the low scoring group for the number of land use types (mean ± standard error: 11.9 ± 3.0 vs. 0.8 ± 4.4; p<0.05) including post offices (12.1 ± 3.1 vs. 1.5 ± 4.2; p<0.05), banks/credit unions (15.4 ± 3.8 vs. 3.1 ± 3.3; p<0.05), gymnasiums/fitness facilities (31.9 ± 7.8 vs. 5.8 ± 2.5; p<0.01), and/or amusement facilities (16.4 ± 4.6 vs. 4.8 ± 3.0; p<0.05) in the area when compared to subjects without these facilities. 4. There were no differences in walking steps between the high scoring group and the low scoring group for residential density, land use mix-diversity, land use mix-access, street connectivity, and safety. 5. For females, mean total walking steps was significantly higher in the high scoring group than in the low scoring group for the walking places score (mean± standard error: 9488±511 vs. 7957 ± 538; p<0.05). (Note: Multiple GIS and perception measures were used to determine respondent's walkability score.)	**Positive Association for Physical Activity in the Study Population** **Positive Association for Physical Activity in Females** Study design = Association Effect size = Positive association for physical activity in the study population and females	**Maintenance** Not Applicable **Sampling / Representativeness** Low Those who responded to the questionnaire and wore accelerometers were significantly older than those who did not.
Author Duncan, Mummery (2005) Australia **Design** Association Cross-sectional **Duration** Not Applicable	**Measures** *Neighborhood walkability* (distance, aesthetics, connectivity, street light density) **Outcome(s) Affected** Physical activity (Active Australia Physical Activity Questionnaire)	**No Association for Physical Activity in the Study Population (Community Design)** **(Assumption: Greater access to parks and paths leads to increased levels of physical activity.)** **Community Design** PHYSICAL ACTIVITY: 1. People with the most proximal parkland beyond a network distance of 0.6 kilometers (km), were 41% more likely to achieve recommended levels of activity than those with parkland within this distance (OR=1.41, CI=1.01-1.97). 2. Individuals with a euclidian distance of 0.4 km from their home to a path were 69% less likely to walk in the previous week than those who had a footpath within that distance from their place of residence (OR=0.31, CI=0.18-0.55). (Note: No p-values were provided.)	**No Association for Physical Activity in the Study Population** Study design = Association Effect size = No association for physical activity in the study population	**Maintenance** Not Applicable **Sampling / Representativeness** Not Reported

Study Description	Measures & Outcomes	Effect Size or % Change	Effectiveness	Maintenance & Representativeness
Author Carnegie, Bauman (2002) Australia **Design** Association Cross-sectional **Duration** Not Applicable	**Measures** *Perceptions of a quality environment* (aesthetics, accessibility, safety) **Outcome(s) Affected** Walking behavior (1996 Physical Activity Survey for the State of New South Wales [NSW])	**Positive Association for Physical Activity in the Study Population (Community Design)** **(Assumption: Individuals with positive impressions of their neighborhood will participate in greater amounts of physical activity, which will be reflected through the stages of change.)** **Community Design** PHYSICAL ACTIVITY: 1. There was an independent association between the stage of change variable and the aesthetic environment (F (2, 1.168) = 5.67; p<0.01) and with the practical environment factor (F (2, 1.157) =12.05; p<0.001). 2. Those who walked for less than 20 minutes and those who walked for between 20 minutes and 2 hours both reported that shops, parks, and beaches were less near to their home than those who reported walking more than 2 hours per week (F (2, 1.168) = 11.24, p<0.001). (Note: The practical environment is a composite of access to shops, parks and beaches.)	**Positive Association for Physical Activity in the Study Population** Study design = Association Effect size = Positive association for physical activity in the study population	**Maintenance** Not Applicable **Sampling / Representativeness** High The demographic composition of the sample was very similar to that provided by the most recent national census data. Respondents aged 40-45 were slightly overrepresented (29.2%), and those aged 56-60 years were slightly underrepresented (20.1%). Two percent of the resident population within the target age range were sampled for this study.
Author Tucker, Irwin (2009) Ontario, Canada **Design** Association Cross-sectional **Duration** Not Applicable	**Measures** *Parents' perceptions of a quality neighborhood* (land-use mix, opportunities for recreation) **Outcome(s) Affected** Physical activity (parent questionnaire and the Adapted Previous Day Physical Activity Recall)	**No Association for Physical Activity in Study Population (Community Design)** **(Assumption: Presence of neighborhood recreational facilities and parents' positive perceptions of recreation opportunities are associated with increased levels of physical activity in youth.)** **Community Design** PHYSICAL ACTIVITY: 1. Land-use mix and percentage of park coverage were not significant factors influencing physical activity level among London, Ontario adolescents. (Note: Percentage of park coverage can be construed as access to parks as well as the development and design of the community, which will overlap between Community Design and Availability of Parks, Playgrounds, Trails, Recreation Centers.)	**No Association for Physical Activity in Study Population** Study design = Association Effect size = No association for physical activity in the study population	**Maintenance** Not Applicable **Sampling / Representativeness** Not Reported
Author De Vries, Bakker (2007) The Netherlands **Design** Association Cross-sectional **Duration** Not Applicable	**Measures** *Neighborhood walkability* (residential vs. commercial space, type of residence, sports/recreation facilities and playgrounds, green space and water, safe walking and cycling, garbage and dirt, traffic safety, and the activity friendliness of the neighborhood) **Outcome(s) Affected** Physical activity (7-day physical activity log)	**Positive Association for Physical Activity in the Study Population (Community Design)** **(Assumptions: Individuals in areas with increased residential density that are safe from traffic hazards and have increased access within the neighborhood to recreation facilities will participate in greater amounts of physical activity.)** **Community Design** PHYSICAL ACTIVITY: 1. Children's physical activity was also positively associated with the residential density (β=0.009; 95% CI= 0.001, 0.017, p<0.05). 2. Children's physical activity was negatively associated with the frequency of staircase entrance flats (3-4 stories without elevator) (β= -1.472; 95% CI= -1.992- -0.953), unoccupied (boarded up) houses (β= -3.080; 95% CI= -4.625, -1.535), dog waste (β= -1.182; 95% CI= -2.104, -0.260) (p<0.05 for all). 3. Children's physical activity was positively associated with the frequency of terrace houses (β=1.508; 95% CI=0.726, 2.290) and blocks of flats with fewer than 6 stores (β=-1.472; 95%CI=-1.992, -0.953) in the neighborhood (p<0.05 for all). 4. Children's physical activity was negatively associated with the frequency of paved playgrounds (β= -1.372; 95% CI= -2.549, -0.195). 5. Children's physical activity was also positively associated with the frequency of parking lots (β=3.169; 95% CI=2.055, 4.284, p<0.05).	**Positive Association for Physical Activity in the Study Population** Study design = Association Effect size = Positive association for physical activity in the study population	**Maintenance** Not Applicable **Sampling / Representativeness** Not Reported No difference was found in weight, sex, or maternal education between the final and original samples.

Study Description	Measures & Outcomes	Effect Size or % Change	Effectiveness	Maintenance & Representativeness
Author Hume, Salmon (2005) Australia **Design** Association Cross-sectional **Duration** Not Applicable	**Measures** *Neighborhood accessibility* (land-use mix) **Outcome(s) Affected** Low and moderate intensity physical activity and sedentary behavior (measured with accelerometers)	**Positive Association for Physical Activity in Study Population (Community Design)** **No Association for Physical Activity in Girls (Community Design)** **No Association for Physical Activity in Boys (Community Design)** **(Assumptions: Individuals living in neighborhoods with increased land-use mix, increased access to opportunities for physical activity, and increased street connectivity will participate in greater amounts of physical activity.)** **Community Design** PHYSICAL ACTIVITY: 1. Food locations drawn within the neighborhood showed a significant positive association with moderate intensity activity [F (1, 48) =4.16, p=0.05, r^2=0.08). 2. There were no associations between perceived environmental variables and low or moderate intensity activity among boys. 3. Sedentary and vigorous intensity activity was not associated with any environmental variables among girls. (Note: The perceived environment is a composite of 11 items including, but not limited to opportunities for sedentary behavior, land use mix, access to food in the neighborhood, number of streets in neighborhood, opportunities for physical activity in neighborhood and home, opportunities for socializing in the neighborhood.)	**Positive Association for Physical Activity in Study Population** **No Association for Physical Activity in Girls** **No Association for Physical Activity in Boys** Study design = Association Effect size = Positive association for physical activity in the study population, no association for physical activity in boys and girls	**Maintenance** Not Applicable **Sampling / Representativeness** Not Reported
Author Rabin, Boehmer (2007) Europe **Design** Association Cross-sectional **Duration** Not Applicable	**Measures** *Urbanization* (population density) **Outcome(s) Affected** Overweight/obesity (national level surveys and databases)	**Positive Association for Overweight/obesity in the Study Population (Community Design)** **(Assumptions: Individuals with increased levels of urbanization or population density and access to public transportation will be more likely to participate in greater bouts of physical activity and have increased access to fruits and vegetables, which will lead to decreased rates of overweight and obesity.)** **Community Design** OVERWEIGHT/OBESITY: 1. Overall obesity prevalence was inversely associated with urbanization (urban population: β=-0.095, p=0.080).	**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** 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.

Study Description	Measures & Outcomes	Effect Size or % Change	Effectiveness	Maintenance & Representativeness
Author Giles-Corti, Donovan (2002); Giles-Corti, Donovan (2002); Giles-Corti, Donovan (2003); Giles-Corti, Macintyre (2003); McCormack, Giles-Corti (2008) Australia **Design** Association Cross-sectional **Duration** Not Applicable	**Measures** *Neighborhood walkability* (access to destinations, land-use, road network distance, presence of sidewalks, distance to nearest public transit stations) **Outcome(s) Affected** Overweight/obesity (height and weight [body mass index]), physical activity (PA), meeting recommendations for walking, and walking behavior (survey)	**Positive Association for Overweight/obesity in the Study Population (Community Design)** **Positive Association for Physical Activity in the Study Population (Community Design)** **(Assumption: Individuals with greater access to places for physical activity and active transportation will be more likely to participate in greater amounts of physical activity, which will lead to decreased levels of overweight/ obesity.)** **Community Design** OVERWEIGHT/OBESITY: 1. Obese individuals were nearly twice as likely as others to perceive that there was no shop within walking distance (OR=1.84, 95%CI: 1.01-3.36). PHYSICAL ACTIVITY: 2. Residing within 1500 meters (m) of destinations including schools (OR=1.75, 95% CI: 1.28-2.39, p<0.001), convenience stores (OR=1.89, 95% CI: 1.26-2.84, p<0.001), shopping malls (OR=2.07, 95% CI: 1.43-3.00, p<0.001), newsagents (OR=2.20, 95% CI: 1.60-3.03, p<0.001) was significantly associated with regular walking for transport. 3. For each additional type of destination (including recreational and utilitarian destinations) within 400 and 1500 m, the odds of regular walking for transport increased by 43% (95% CI: 1.27-1.61, p<0.001) and 41% (95% CI: 1.26-1.58, p<0.001) and the odds of irregular walking for transport increased by 27% (95% CI: 1.12-1.44, p<0.001) and 23% (95% CI: 1.12-1.35, p<0.001). 4. For each additional type of destination located within 1500 m the odds of regular walking for recreation increased by 16% (95% CI: 1.06-1.27, p<0.01), while the odds of irregular walking increased by 12% (95% CI: 1.01-1.26, p<0.05). 5. The mix of utilitarian destinations within 1500 m was positively associated with regular walking for recreation (OR=1.17, 95% CI: 1.05-1.29, p<0.01). 6. Destination mix was not associated with time spent walking for recreation or vigorous physical activity. 7. In comparison with those who had no sidewalk and no shop on their street, those who had access to either or both of these attributes were about 25% more likely to achieve recommended levels of walking (combined OR=1.25, 95% CI: 0.90-1.74). 8. Among individuals who frequented pay for use recreational destinations, each additional pay destination (OR=1.51, 95%CI: 1.32-1.73, p<0.001) was associated with the use of pay-destinations located in the neighborhood. 9. Respondents were more likely to walk for transport if they had a shop within walking distance (OR=3, 95%CI: 2.04-4.4, p <0.001).	**Positive Association for Overweight/ obesity in the Study Population** **Positive Association for Physical Activity in the Study Population** Study design = Association Effect size = Positive association for overweight/ obesity and physical activity in the study population	**Maintenance** Not Applicable **Sampling / Representativeness** Not Reported
Author Santos, Silva (2008) Portugal **Design** Association Cross-sectional **Duration** Not Applicable	**Measures** *Neighborhood walkability* (access to destinations and aesthetics, residential density, street connectivity) **Outcome(s) Affected** Physical activity (International Physical Activity Questionnaire [IPAQ])	**Positive Association for Physical Activity in Men (Community Design)** **Positive Association for Physical Activity in Women (Community Design)** **(Assumption: Positively perceived neighborhood attributes like access to destinations and social cohesion lead to increased physical activity (PA) levels in Azorean adults.)** **Community Design** PHYSICAL ACTIVITY: 1. Women with a positive overall perception of the dimension infrastructures; access to destinations, social environment, and aesthetics were 32.5% (95%CI: 1.150-1.528; p<0.001) more likely to have a moderate physical activity level and 31.9% (95%CI: 1.121-1.551; p<0.001) more likely to have a health enhancing physical activity (HEPA) level. 2. Normal weight women (BMI <25 kg/m^2) with a positive overall perception of the dimension infrastructures; access to destinations, social environment, and aesthetics were 44.5% (95%CI: 1.166-1.791; p<0.001) more likely to have moderate physical activity levels, whereas overweight/obese women (BMI ≥ 25 kg/m^2) 22% (95%CI: 1.007-1.478; p<0.05) more likely to have moderate physical activity levels and 34.5% (95%CI: 1.3451.080-1.675; p<0.05) more likely to have HEPA levels. 3. Normal weight men (BMI<25kg/m^2) with a positive perception of the dimension infrastructures; access to destinations, social environment, and aesthetics were 51.4% (95% CI: 1.091-2.101; p<0.05) more likely to have moderate physical activity levels. (Note: Distance to nearest PA resource and access to nearest PA resources may overlap in their designated strategy categories. Destinations refers to shops, stores, markets, and places to bicycle in the neighborhood.)	**Positive Association for Physical Activity in Men** **Positive Association for Physical Activity in Women** Study design = Association Effect size = Positive association for physical activity in men and women	**Maintenance** Not Applicable **Sampling / Representativeness** Not Reported The nature of the sampling design was not random and generalizability is limited.

Study Description	Measures & Outcomes	Effect Size or % Change	Effectiveness	Maintenance & Representativeness
Author Panter, Jones (2008) England **Design** Association Cross-sectional **Duration** Not Applicable	**Measures** *Neighborhood walkability* (residential density, street connectivity, walking/cycling facilities (such as sidewalks and pedestrian/bike trails) aesthetics and pedestrian traffic safety) **Outcome(s) Affected** Physical activity (questionnaire)	**Positive Association for Physical Activity in the Study Population (Community Design)** **(Assumptions: Access to places in the community and increased street accessibility will lead to increased levels of physical activity.)** **Community Design** PHYSICAL ACTIVITY: 1. Participants that reported 5 sessions of activity per week, lived closer to sports facilities (mean distance [standard error] = 1268.9 [104.99], p<0.05) and had higher neighborhood walkability scores (mean= 48.10 [0.79]. p<0.01) than their less active counterparts (mean distance= 1479.9 [34.25] and mean walkability scores= 44.46 [0.37]). 2. Individuals that reported 5 or more weekly aerobic activity sessions gave a higher neighborhood walkability score (mean= 46.05 [0.48]) than individuals who did not (mean =43.79 [0.54]), although this association was not apparent when walking alone was considered (p<0.01). 3. Respondents rating their neighborhood as having intermediate or good walkability were over 3 times as likely to report 5 or more sessions of physical activity per week compared to those who gave the lowest rating (OR= 3.14, p=0.02; and OR= 3.04, p=0.03 respectively). 4. Those who lived in the closest tertile to a park or green space were over twice as likely to report five or more sessions of physical activity (OR=2.17, 95% CI= 1.00-4.78, p≤0.05). 5. None of the associations with access to leisure facilities were statistically significant and were generally in a contrary direction to that expected; those living nearest to the facilities generally reported lower levels of activity than those farther away. (Note: Walkability was a composite score using multiple variables like residential density, street connectivity, access to PA facilities, access to sidewalks and pavement, aesthetics, and traffic safety. Distance and access to facilities may be used to satisfy multiple strategy categories.)	**Positive Association for Physical Activity in the Study Population** Study design = Association Effect size = Positive association for physical activity in the study population	**Maintenance** Not Applicable **Sampling / Representativeness** Low When compared with 2001 census data for the neighborhoods from which the sample was drawn, respondents tended to be older and contain a greater percentage of females. Respondents also tended to be better educated with only 17.5% of local residents reporting a post-graduate qualification in the census compared with 29.4% of survey respondents.
Author Humpel, Owen (2004), Humpel, Marshall (2004) Australia **Design** Association Cross-sectional **Duration** Not Applicable	**Measures** *Neighborhood walkability* (perceptions of access to aesthetically pleasing and convenient places to be active, safety from traffic and crime) **Outcome(s) Affected** Physical activity and walking (survey assessed frequency and duration of neighborhood weekly walking, type of walking [e.g., transport] perceptions of neighborhood aesthetics, convenience, access to services, and traffic and the International Physical Activity Questionnaire [IPAQ]-short form items assessed intensity, frequency, and duration of physical activity, total physical activity)	**Positive Association for Physical Activity in Men (Community Design)** **No Association for Physical Activity in Women (Community Design)** **(Assumption: Perceiving the environment as aesthetically pleasing, convenient, and perceiving traffic as not being a problem increases individual physical activity levels.)** **Community Design** PHYSICAL ACTIVITY: 1. Men with high scores for access (OR=1.98, 95CI=1.12-3.49, p<0.05) were more likely to walk in their neighborhood than individuals with lower scores. 2. Women with moderate access (OR=1.92, 95% CI=1,10-3.37, p<0.05) were more likely to report higher levels of walking and higher total physical activity. 3. Women with high access scores were 52% less likely (OR=0.48, 95% CI=0.27-0.87, p<0.05) to walk in the neighborhood when compared to those with low scores. (Note: The composite score for access was comprised of access to shops and public transit. Convenience scores were a composite of the accessibility of paths, parks, and other walking opportunities.)	**Positive Association for Physical Activity in Men** **No Association for Physical Activity in Women** Study design = Association Effect size = Positive association for physical activity in men and no association for physical activity in women	**Maintenance** Not Applicable **Sampling / Representativeness** Not Reported Participants did not differ in their responses whether they were part of the original sample or follow-up.

Study Description	Measures & Outcomes	Effect Size or % Change	Effectiveness	Maintenance & Representativeness
Author Craig, Brownson (2002) Canada **Design** Association Cross-sectional **Duration** Not Applicable	**Measures** *Neighborhood walkability* (number of and access to neighborhood destinations, pedestrian connectivity and accessibility, social supports [residential gathering areas like balconies, community benches, etc.], access to public transit, aesthetic neighborhood quality, and neighborhood traffic and crime safety) **Outcome(s) Affected** Walking behavior (1996 Canadian Census self-administered questionnaire)	**Positive Association for Physical Activity in the Study Population (Community Design)** **(Assumption: Access to walkable routes for pedestrians and positive perceptions of neighborhood safety and the social environment lead to increased levels of physical activity.)** **Community Design** PHYSICAL ACTIVITY: 1. Walking to work was significantly related to the environment score (T-ratio (25)=3.32, p=0.003), with a one-unit increase in the score being associated with a 25-percentage-point increase in the percentage walking to work. 2. The degree of urbanization altered the relationship between the environment score and walking to work (no statistical data) 3. The environment score was related to the percentage walking to work, controlling for degree of urbanization (T-ratio (23)=2.03, p=0.054; Coefficient=0.02). (Note: An environment score based on 18 neighborhood characteristics (e.g., variety of destinations, visual aesthetics, accessibility, transportation systems and safety from traffic and crime) was developed with a higher score indicating a more walkable environment. This score was a composite of many different characteristics incorporating multiple strategies.)	**Positive Association for Physical Activity in the Study Population** Study design = Association Effect size = Positive association for physical activity in the study population	**Maintenance** Not Applicable **Sampling / Representativeness** Not Reported The observed neighborhoods were known for diversity of urban design, social class, and economic status.
Author Bjork, Albin (2008) Sweden **Design** Association Cross-sectional **Duration** Not Applicable	**Measures** *Satisfaction of the neighborhood environment* (presence or absence of recreational values [serene, wild, lush, spacious, and culture], distance to natural environment from residence) **Outcome(s) Affected** Overweight/obesity and moderate physical activity (Public Health Survey)	**Positive Association for Overweight/obesity in the Study Population (Community Design)** **Positive Association for Physical Activity in the Study Population (Community Design)** **(Assumption: Individuals living in neighborhoods with satisfying natural environments near their residence will be more likely to participate in physical activity, which will lead to decreased body mass index.)** **Community Design** OVERWEIGHT/OBESITY: 1. There was a weak overall negative correlation between the number of recreational values within 300 meters distance from the residence and BMI (p=0.04). 2. The proportion of obese (BMI>30kg/m2) individuals among tenants was 17% in residences with zero recreational values within 300 meters compared with 13% in residences with at least one recreational value present. PHYSICAL ACTIVITY: 3. There was a clear positive correlation between the number of recreational values present within 300 meters distance from the residence and time spent on moderate physical activities every week (p<0.001). (Note: The recreational values were labeled as serene, wild, lush, spacious, and culture.)	**Positive Association for Overweight/obesity in the Study Population** **Positive Association for Physical Activity in the Study Population** Study design = Association Effect size = Positive association for overweight/obesity and physical activity in the study population	**Maintenance** Not Applicable **Sampling / Representativeness** Not Reported

Study Description	Measures & Outcomes	Effect Size or % Change	Effectiveness	Maintenance & Representativeness
Author Riva, Gauvin (2007) Canada **Design** Association Cross-sectional **Duration** Not Applicable	**Measures** *Active neighborhoods* (access to places to be active) **Outcome(s) Affected** Use of physical activity facilities (assessed with interviews that utilized the Canadian Community Health Survey to measure type and levels of activity)	**Not Reported (for desired health outcomes) (Community Design)** **No Association for Facility Use in Men (Community Design)** **Positive Association for Facility Use in Women (Community Design)** **(Assumption: Presence, proximity, and availability of places to be physically active differs across density levels and design form with less dense areas leading to lower activity levels)** **Community Design** FACILITY USE: 1. Women living in small local urban areas were significantly more likely to use facilities in their area for involvement in physical activity than women residing elsewhere (OR = 2.68; 95% CI: 1.15, 6.23, $p<0.05$). 2. For men, none of the selected individual characteristics was significantly associated with the likelihood of using local facilities for physical activity.	**More Evidence Needed** Study design = Association Effect size = Not reported for desired outcomes	**Maintenance** Not Applicable **Sampling / Representativeness** Not Reported
Author Potwarka, Kaczynski (2008) Canada **Design** Association Cross-sectional **Duration** Not Applicable	**Measures** *Neighborhood walkability* (access to paved trails, unpaved trails, paths, open spaces, playgrounds, meadows, wooded areas, water areas, soccer pitches, ball diamonds, tennis courts, basketball courts, and swimming pools, distance to locations) **Outcome(s) Affected** Overweight/obesity (BMI - parental report of height and weight)	**Positive Association for Overweight/obesity in the Study Population (Community Design)** **(Assumption: Individuals with greater access to parks will participate in greater levels of physical activity, which will lead to lower levels of overweight/obesity.)** **Community Design** OVERWEIGHT/OBESITY: 1. Compared to at-risk or overweight children, none of the 3 park variables (distance to the closest park, number of parks within 1 km, or amount of park area within 1 km) was associated with significantly increased odds of being classified in the healthy weight category for either the entire sample or either of the 2 sub-age groups. 2. Of the 13 park facilities examined, only one variable was a significant predictor of a child's weight category. Children with a park playground within 1 km of their home were almost 5 times more likely to be classified as being of a healthy weight than those children without playgrounds in nearby parks (OR=4.92; 95% CI=1.36, 9.71; no p-value provided). (Note: No p-values provided. Distance to nearest PA resource and access to nearest PA resources may overlap in their designated strategy categories.)	**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 Wendel-Vos, Schuit (2003) The Netherlands **Design** Association Cross-sectional **Duration** Not Applicable	**Measures** *Neighborhood accessibility* (access to places to be active, land utilization, amount of green and recreational space) **Outcome(s) Affected** Walking and cycling behavior and active commuting (Short Questionnaire to Assess Health Enhancing Physical Activity [SQUASH] (frequency, duration, and intensity of 4 domains of physical activity [commuting activities, occupational physical activity, household activity, and leisure-time physical activity])	**Positive Association for Physical Activity in the Study Population (Community Design)** **(Assumption: Presence of green space and recreational space leads to increased walking and biking.)** **Community Design** PHYSICAL ACTIVITY: 1. There was an association between biking for commuting purposes and the square area of parks in neighborhoods within a 300-m radius (β=0.02, 95%CI= 0.01-0.04, $p<0.05$). (Note: Distance to nearest PA resource and access to nearest PA resources may overlap in their designated strategy categories.)	**Positive Association for Physical Activity in the Study Population** Study design = Association Effect size = Positive association for physical activity in the study population	**Maintenance** Not Applicable **Sampling / Representativeness** Not Reported

Study Description	Measures & Outcomes	Effect Size or % Change	Effectiveness	Maintenance & Representativeness
Author Kaczynski, Potwarka (2009) Canada **Design** Association Cross-sectional **Duration** Not Applicable	**Measures** *Active neighborhoods* (access to quality of parks) **Outcome(s) Affected** Moderate to strenuous physical activity, park-based physical activity (7-day physical activity log booklet measured duration, intensity, location, and other details of physical activity)	**Positive Association for Physical Activity in the Study Population (Community Design)** **Positive Association for Physical Activity in Women (Community Design)** **Positive Association for Physical Activity in Men (Community Design)** **(Assumption: Greater access to parks and park characteristics increases levels of physical activity.)** **Community Design** PHYSICAL ACTIVITY: 1. Each additional hectare (i.e., 2.47 acres) of park area within 1 km increased the odds of participating in 150 or more minutes of total moderate-strenuous physical activity by 2% (OR=1.02, 95% CI= 1.01-1.03, p<0.05) and each additional park increased the odds of participating in 150 or more minutes of neighborhood-based moderate-strenuous physical activity by 17% (OR=1.17, 95% CI= 1.01-1.34, p < 0.05). 2. Both the number and total area of parks within one 1 km were significant predictors of "park-based moderate-to-strenuous physical activity," with each additional park within 1 km of participants' homes increasing the odds of engaging in some park-based physical activity by 15% (OR=1.15, CI=1.01-1.28, p<0.05). 3. Distance to the closest park did not play a significant role in predicting moderate-to-strenuous physical activity in any of the three contexts. 4. For neighborhood based activity, significant results were observed among females with each additional park and each additional hectare of park area within 1 km increasing their odds of engaging in 150 or minutes of moderate-to-strenuous physical activity by 19% and 2%, respectively (OR= 1.19, CI= 1.03-1.36 and OR= 1.02, CI= 1.01-1.03, respectively p<0.05 for both). 5. Among men, the odds of engaging in some amount of moderate-to-strenuous physical activity in parks increased 2% with each additional hectare of nearby parkland (OR= 1.02, CI= 1.01-1.03, p<0.05). 6. Both the number and total area of parks within 1 km of participants' homes increased the odds of engaging in some park-based moderate-to-strenuous physical activity among both the 18–34 year olds (number; OR= 1.19, CI= 1.03-1.33, and total; OR=1.03, CI= 1.01-1.04, n=107) and the 55 and older (number OR= 1.16, CI= 1.01-1.31, n=104 and total; OR= 1.04, CI= 1.03-1.05 age group (p<0.05 for all). (Note: Distance to nearest PA resource and access to nearest PA resources may overlap in their designated strategy categories.)	**Positive Association for Physical Activity in the Study Population** **Positive Association for Physical Activity in Women** **Positive Association for Physical Activity in Men** Study design = Association Effect size = Positive association for physical activity in the study population, women and men	**Maintenance** Not Applicable **Sampling / Representativeness** Not Reported
Author Veugelers, Sithole (2008) Nova Scotia, Canada **Design** Association Cross-sectional **Duration** Not Applicable	**Measures** *Neighborhood accessibility* (opportunities for recreation, access to neighborhood shops) **Outcome(s) Affected** Overweight/obesity (height and weight [body mass index]), sports engagement (parent survey), eating behavior (the Harvard Food Frequency Questionnaire), and sedentary behavior (screen time, parent survey)	**Positive Association for Overweight/obesity in the Study Population (Community Design)** **Positive Association for Nutrition in the Study Population (Community Design)** **(Assumption: Access to places for physical activity and greater land-use mix are related to children's diet, weight, and participation in physical and sedentary activities. Greater access leads to better behavioral and health outcomes.)** **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 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).	**Positive Association for Overweight/ obesity in the Study Population** **Positive Association for Nutrition in the Study Population** Study design = Association Effect size = Positive association for physical activity overweight/ obesity, and sedentary behavior in the study population	**Maintenance** Not Applicable **Sampling / Representativeness** Not Reported

Study Description	Measures & Outcomes	Effect Size or % Change	Effectiveness	Maintenance & Representativeness
Author Humpel, Owen (2004) Australia **Design** Association Cross-sectional **Duration** Not Applicable	**Measures** *Active neighborhoods* (aesthetics, accessibility, safety, and weather) **Outcome(s) Affected** Neighborhood walking, walking for exercise, walking for pleasure (self-reported survey)	**Positive Association for Physical Activity in the Study Population (Community Design)** **(Assumption: Perceptions of safety, close location of residence to coastal areas, and accessibility of facilities leads to increased walking.)** **Community Design** PHYSICAL ACTIVITY: 1. Participants reporting that a beach/lake was within easy walking distance reported significantly more neighborhood walking minutes (M=224) than did those reporting a beach/lake was not within walking distance (M=139; F(2,379)=11.0, p<0.001); significantly more exercise walking (M=163 compared to M=100 minutes; F(2,382)=9.72, p<0.01); and significantly more walking for pleasure compared to those perceiving that a beach/lake is not within walking distance (M=33 and M=21, respectively; F(2,380)=3.88, p<0.02). (Notes: Environmental perceptions were based on aesthetics, accessibility, safety, and weather. Distance to nearest PA resource and access to nearest PA resources may overlap in their designated strategy categories.)	**Positive Association for Physical Activity in the Study Population** Study design = Association Effect size = Positive association for physical activity in the study population	**Maintenance** Not Applicable **Sampling / Representativeness** Not Reported
Author Utter, Denny (2006) New Zealand **Design** Association Cross-sectional **Duration** Not Applicable	**Measures** *Neighborhood accessibility* (access to places to be active) **Outcome(s) Affected** General and vigorous physical activity (survey)	**Positive Association for Physical Activity in the Study Population (Community Design)** **(Assumption: Increased perceived physical activity facilities and social motivation leads to increased physical activity.)** **Community Design** PHYSICAL ACTIVITY: 1. Students were significantly more likely to engage in regular vigorous activity when they lived within walking distance of the following perceived community features: a park (OR=1.17, 95% CI= 1.1-1.3), a skateboard ramp (OR=1.32, 95% CI: 1.2-1.5), a sports field (OR=1.59, 95% CI: 1.4-1.8), a swimming pool (OR=1.38, 95% CI: 1.2-1.5), a gym (OR=1.44, 95% CI: 1.3-1.6), and a bicycle track (OR=1.44, 95% CI: 1.3-1.6). (Note: Distance to nearest PA resource and access to nearest PA resources may overlap in their designated strategy categories.)	**Positive Association for Physical Activity in the Study Population** Study design = Association Effect size = Positive association for physical activity in the study population	**Maintenance** Not Applicable **Sampling / Representativeness** High Participating students were demographically similar to the general New Zealand population of young people aged 13 to 17 years.
Author Kaczynski, Potwarka (2008) Canada **Design** Association Cross-sectional **Duration** Not Applicable	**Measures** *Neighborhood accessibility* (access to places to be active)nsity and compactness) **Outcome(s) Affected** Park-based physical activity (7-day physical activity log)	**No Association for Physical Activity in the Study Population (Community Design)** **(Assumption: Increased park size, number of features in the park, and decreased distance to a park from participants' homes will lead to increased physical activity.)** **Community Design** PHYSICAL ACTIVITY: 1. Of the 3 park variables (i.e., size, features, distance), only the number of features was a significant predictor of a park being used for some physical activity (OR=1.45, 95% CI= 1.09-1.82, p=0.03). (Note: Distance to nearest PA resource and access to nearest PA resources may overlap in their designated strategy categories.)	**No Association for Physical Activity in the Study Population** Study design = Association Effect size = No association for physical activity in the study population	**Maintenance** Not Applicable **Sampling / Representativeness** Not Reported
Author Li, Dibley (2006) China **Design** Association Cross-sectional **Duration** Not Applicable	**Measures** *Neighborhood walkability* (opportunities for recreation, safety, presence of sidewalks) **Outcome(s) Affected** Sedentary behavior (adolescent physical activity recall questionnaire)	**Positive Association for Physical Activity in the Study Population (Community Design)** **(Assumption: Lack of opportunities for physical activity and unsafe neighborhood environments will lead to increased levels of inactivity.)** **Community Design** SEDENTARY BEHAVIOR: 1. Unavailability of video game shops around the home was associated with a higher percentage of inactive boys (OR=1.5, 95% CI= 1.1-2.1, p=0.02).	**Positive Association for Physical Activity in the Study Population** Study design = Association Effect size = Positive association for physical activity in the study population	**Maintenance** Not Applicable **Sampling / Representativeness** Not Reported

IMPACT TABLES

Study Description	Population	Reach	Intervention	Impact & Sustainability	Other Results	Related Benefits & Consequences
United States						
Author Wells, Yang (2008) Georgia, Florida, Alabama	**Participation/ Potential Exposure** Participation = Not Reported Exposure = Not Reported All participants in the study received a house from Habitat Humanity, however it is unclear what each female's family composition looked like or how many people were affected by the move. **High-Risk Population** High Habitat for Humanity provides houses to lower-income families 77.1% African-American, 17.1% White, 5.7% Other (Asian, Latina, Native American), Mean annual income \$15,967 (lower income) [evaluation sample]	**Representative** Not Reported **Potential Population Reach** More Evidence Needed Participation = Not reported Representativeness = Not reported **Potential High Risk Popluation Reach** More Evidence Needed High-risk population = High Representativeness = Not reported	**Intervention Components** Simple Accessibility and presence of neighborhood land-use mix before and after a move to a newly designed neighborhood. Homes were built by Habitat for Humanity and families were relocated to new areas. MULTI-COMPONENT: 1. Street network (accessibility) **Feasibility** Intervention Feasibility = Low Policy Feasibility = High Intervention activities: Habitat for Humanity were provided names of women receiving homes in four towns in the southeastern U.S. The towns, located in Georgia, Alabama, and Florida, were selected because in each, Habitat for Humanity was constructing a new neighborhood Special Expertise: Habitat for Humanity organization and their team Resources: Labor and supplies for building, land for building, moving costs Cost: Not reported **Implementation Complexity** High Intervention components = Simple Feasibility = High	**Population Impact** More Evidence Needed Effectiveness = More evidence needed Potential population reach =More evidence needed Implementation complexity = Simple **High-risk Population Impact** More Evidence Needed Effectiveness for high-risk populations = Not reported Potential high-risk population reach = More evidence needed Implementation complexity = High **Sustainability** Not Reported	**Street Design** PHYSICAL ACTIVITY: 1. (N=32) In terms of street network patterns, moving to an area with fewer culs-de-sacs was associated with about 5303 more steps per week (757 more steps per day, std. error; 2219.76, p=0.025).	Not Reported

Study Description	Population	Reach	Intervention	Impact & Sustainability	Other Results	Related Benefits & Consequences
Author Li, Harmer (2009); Li, Harmer (2008); Li, Harmer (2009) Oregon	**Participation/ Potential Exposure** Not Applicable **High-Risk Population** Not Applicable Only cross-sectional data provided Adults aged 50-75 27% lower income 92% White 57% Male (evaluation sample)	**Representative** Not Applicable **Potential Population Reach** Not Applicable **Potential High Risk Population Reach** Not Applicable	**Intervention Components** Not Applicable Only cross-sectional data provided Land-use mix and total number of neighborhood destinations MULTI-COMPONENT: 1. Density of neighborhood fast food outlets 2. Density and access to transit stations 3. Neighborhood walkability (street connectivity) **Feasibility** Not Applicable **Implementation Complexity** Not Applicable	**Population Impact** Not Applicable **High-risk Population Impact** Not Applicable **Sustainability** Not Applicable	**Street Design** PHYSICAL ACTIVITY: 1. (cross-sectional data) A one standard deviation increase in street connectivity increased walking prevalence by 16% for neighborhood walking ($p=0.034$), 20% for transportation ($p=0.004$) and 11% for errands ($p=0.025$). 2. Among girls, the perceptions of nice houses in the neighborhood ($\beta=2.98$, $p=0.003$) and having an easily walkable/cyclable neighborhood ($\beta=2.75$, $p=0.0001$) was significantly positively associated with walking frequency. Easy to walk/cycle remained significantly associated with walking frequency in the multiple regression model ($p<0.05$). **Transportation** PHYSICAL ACTIVITY: 1. (cross-sectional data) The density of public transit stations was associated with more walking for transportation (estimated prevalence = 1.147, $p=0.011$) and meeting physical activity guidelines (estimated prevalence = 1.069, $p=0.03$). **Neighborhood Availability of Restaurants** OVERWEIGHT/OBESITY: 1. (cross-sectional data) Residents living in high density fast food outlet neighborhoods who visited fast food or buffet restaurants 1 or 2 times weekly or more, were 1.878 (95% CI: 1.063,3.496; $p<0.05$) times more likely to be obese than those who lived in low density fast food outlet neighborhoods. 2. (cross-sectional data) Similar results for likelihood of being obese in areas with high density fast food outlets compared to those with low density fast food outlets were found for residents who did not meet recommended levels of physical activity, OR=1.792 (95%, CI:1.006, 3.190, $p<0.05$). 3. (N=1145) Multi-level analyses show that after adjustment for neighborhood- and resident-level socio-demographic characteristics a high density of fast-food outlets was associated with an increase of 3.09 pounds in weight and 0.81 inches in waist circumference among residents who frequently ate at fast-food restaurants ($p<0.05$). 4. (cross-sectional data) A one standard deviation increase in the density of fast-food outlets was associated with a 7% increase in the prevalence of overweight/obesity ($p<0.01$). (Note: Walkability composite score consists of land-use mix, street connectivity, public transit stations, and green and open spaces.)	Not Reported

Study Description	Population	Reach	Intervention	Impact & Sustainability	Other Results	Related Benefits & Consequences
Author McDonald (2007) United States	**Participation/ Potential Exposure** Not Applicable **High-Risk Population** Not Applicable Only cross-sectional data provided 5-10 year olds, 11-13 year olds, 14% Minority (evaluation sample)	**Representative** Not Applicable **Potential Population Reach** Not Applicable **Potential High Risk Population Reach** Not Applicable	**Intervention Components** Not Applicable Only cross-sectional data provided Access and ease of travel (i.e., distance, density, time spent in travel) and active transportation) **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 Tilt, Unfried (2007) Washington	**Participation/ Potential Exposure** Not Applicable **High-Risk Population** Not Applicable Only cross-sectional data provided General population (target sample)	**Representative** Not Applicable **Potential Population Reach** Not Applicable **Potential High Risk Population Reach** Not Applicable	**Intervention Components** Not Applicable Only cross-sectional data provided Access and distance to multiple destinations (land-use mix) MULTI-COMPONENT: 1. Street connectivity and aesthetics **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. In areas with high accessibility, BMI was lower in areas that had high NDVI, or more greenness (r^2=.129428, model p<.0001; t test of interaction p=.0257). 2. Objective accessibility was related to walking trips per month (r^2=.051, p<.0001), although objective measures of actual greenness were not.	1. Areas with low NDVI (vegetated/green) were associated with overestimation of the number of destinations with walking distance (F(1, 499)=11.009, p=.001).
Author Liu, Wilson (2007) Indiana	**Participation/ Potential Exposure** Not Applicable **High-Risk Population** Not Applicable Only cross-sectional data provided 3-18 year olds, 77.2% Minority (evaluation sample)	**Representative** Not Applicable **Potential Population Reach** Not Applicable **Potential High Risk Population Reach** Not Applicable	**Intervention Components** Not Applicable Only cross-sectional data provided Access to various types of food retail locations MULTI-COMPONENT: 1. Presence of vegetation in the neighborhood **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. In the Higher Population Density Townships vegetation (adjusted odds= 0.899 standard error=1.038; p<0.01) was negatively associated with risk of overweight (fully adjusted model).	Not Reported

Study Description	Population	Reach	Intervention	Impact & Sustainability	Other Results	Related Benefits & Consequences
Author Aytur, Rodriguez (2008) United States	**Participation/ Potential Exposure** Not Applicable **High-Risk Population** Not Applicable Only cross-sectional data provided Adults, general population (target 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 Urban containment policies, on state adoption of growth management and density at the population level **Feasibility** Not Applicable **Implementation Complexity** Not Applicable	**Population Impact** Not Applicable **High-risk Population Impact** Not Applicable **Sustainability** Not Applicable	Not Reported	1. 47% of metropolitan statistical areas [MSA] were classified as having either state growth-management legislation or urban containment policies in place during the study period. Of those with urban containment policies, 83% had adopted policies by 1990, and 17% adopted them between 1991 and 1998.
Author Berrigan, Troiano (2002) United States	**Participation/ Potential Exposure** Not Applicable **High-Risk Population** Not Applicable Only cross-sectional data provided Adults ≥ 20 years old, General population (target 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 Style of urban environment and development (home age as a proxy) **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 Boer, Zheng (2007) MA, IL, TX, MI, NY, PA, CA, WA	**Participation/ Potential Exposure** Not Applicable **High-Risk Population** Not Applicable Only cross-sectional data provided General population (target sample)	**Representative** Not Applicable **Potential Population Reach** Not Applicable **Potential High Risk Population Reach** Not Applicable	**Intervention Components** Not Applicable Only cross-sectional data provided Access and proximity to destinations, density, and diversity of land-use within the neighborhood MULTI-COMPONENT: 1. Street connectivity **Feasibility** Not Applicable **Implementation Complexity** Not Applicable	**Population Impact** Not Applicable **High-risk Population Impact** Not Applicable **Sustainability** Not Applicable	**Street Design** PHYSICAL ACTIVITY: 1. Walking correlates with the fraction of four-way intersections; average walking distance in miles increased from an average low of 0.13 m for neighborhoods with less than 25% four-way intersections to a high of 0.957 m for neighborhoods with 100% four-way intersections. 2. When block lengths are greater than 400 feet, block length was correlated with fewer walking trips; average walking distance in miles decreased from an average of 0.476 in neighborhoods with 600-804 foot long blocks to a low of 0.117 miles for those living in neighborhoods with greater than 2132 foot long blocks. 3. Moving from block lengths less than 600 feet to 600-804 feet increased the probability of walking (odds ratio [OR]= 1.26, 95% confidence interval [CI]: 1.04-1.53). 4. Within block lengths of more than 804 feet, there were no significant effects on walking. 5. The difference between the areas with the lowest percentage of four-way intersections (0-24%) and those with 25%-49% was a 36% increase in walking (OR=1.36, 95% CI: 1.18-1.58). 6. For residents living in areas where 25%-74% of intersections are four-way, the probability to walk was higher at the level of 50%-74% compared to the level of 25%-49% (OR=1.38, 95% CI: 1.09-1.75). 7. Neighborhoods with 75%-99.9% of the intersections as four-way intersections promote walking compared to the level of 50%-74% (OR=1.20, 95% CI: 1.02-1.41). 8. There was no significant effect on walking at the level of 100% four-way intersections, compared to 75%-99.9%. 9. Walking in neighborhoods with 50%-74% 4-way intersection had an Odds Ratio for walking of 1.4 (95% CI: 1.09-1.78) relative to those with 25%-49% 4-way intersections.	Not Reported

Study Description	Population	Reach	Intervention	Impact & Sustainability	Other Results	Related Benefits & Consequences
Author Frank, Kerr (2007) Georgia	**Participation/ Potential Exposure** Not Applicable **High-Risk Population** Not Applicable Only cross-sectional data provided 5-20 year olds (target sample) 38% Minority 20% Lower income 20% had a household income less than $30,000 ~50% 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 Land use diversity MULTI-COMPONENT: 1. Access to open and recreation spaces 2. Street connectivitytreet connectivity) **Feasibility** Not Applicable **Implementation Complexity** Not Applicable	**Population Impact** Not Applicable **High-risk Population Impact** Not Applicable **Sustainability** Not Applicable	**Availability** PHYSICAL ACTIVITY: 1. In 9-11 year olds, only four or more recreation spaces (OR=2.6, CI: 1.3-5.4, p<0.01) were associated with an increased likelihood of walking, size of park was not related to walking behavior. 2. For 5-8 year olds, living near recreation or open space (walking ≥1 time per 2 days; OR=2.1, CI: 1.3-3.4, p<0.001; walking ≥0.5 miles/day; OR=2.4, CI: 1.2-5.1, p<0.05) was significantly related to walking at least once over 2 days as well as walking ≥0.5 miles per day. 3. Having up to 5 acres of recreation space in a 1-km buffer was significantly related to walking (5-8 years; OR=2.2, CI: 1.2-4.1, p<0.01) (12-15 years; OR=2.2, CI: 1.3-3.7, p<0.01)(16-20 years; OR=2.6, CI: 1.5-4.6, p<0.001), however more than 6 acres of recreation or open space did not appear to be related to walking. 4. In the multivariate analyses having access to recreation and open spaces (walking ≥1 time per 2 days; OR=1.9, CI: 1.3-2.3, p<0.001; walking ≥0.5 miles/day; OR=1.7, CI: 1.2-2.4, p<0.01) was significantly related to walking. 5. For the 16-20 year olds reporting that they had walked at least once over 2 days recreation land use (OR=1.8, CI: 1.1-2.9, p<0.01) was significant. 6. For those reporting that they had walked ≥ 0.5 miles per day, recreation land use (OR=2.1, CI: 1.1-3.7, p<0.05) was a significant factor. **Street Design** PHYSICAL ACTIVITY: 1. Living in the top tertile for street connectivity (3rd tertile; walking ≥ 1 time per 2 days; OR=1.7, CI:1.3-2.2, p<0.001; walking ≥ 0.5 miles/day; OR=1.8, CI: 1.2-2.7, p<0.01) was significantly related to both walking outcomes, specifically when the odds ratio for density was greater for walking 0.5 mile or more. 2. For 12-15 year olds reporting that they walked at least once over 2 days, number of intersections (OR=1.7, CI: 1.1-2.8, p<0.05) was significant. 3. For 12-15 year olds reporting that they walked ≥0.5 miles/day, number of intersections (OR=2.4, CI: 1.1-5.1, p<0.05) was significant. 4. For the 16-20 year olds reporting that they had walked at least once over 2 days, intersection density (OR=2.0, CI: 1.1-3.6, p<0.05) was significant. 5. For those reporting that they had walked ≥ 0.5 miles per day, intersection density (OR=3.1, CI: 1.3-7.4, p<0.01) was significant. (Note: Distance to nearest PA resource and access to nearest PA resources may overlap in their designated strategy categories.)	Not Reported

Study Description	Population	Reach	Intervention	Impact & Sustainability	Other Results	Related Benefits & Consequences
Author Lopez (2007) Massachusetts	**Participation/ Potential Exposure** Not Applicable **High-Risk Population** Not Applicable Only cross-sectional data provided General Population (target sample) 11% Hispanic, 8% African-American, 81% Caucasian (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 density and land-use factors MULTI-COMPONENT: 1. Supermarkets and fast food restaurant density **Feasibility** Not Applicable **Implementation Complexity** Not Applicable	**Population Impact** Not Applicable **High-risk Population Impact** Not Applicable **Sustainability** Not Applicable	**Neighborhood Availability of Restaurants and Food Stores** PHYSICAL ACTIVITY: 1. Multiple regression analyses revealed that having one or more supermarket in a Zip Code Tabulation Area (ZCTA) decreased the risk of obesity by 10.7% (OR=0.893; 95% CI: 0.815-0.978; p=0.05); about 11% of the variation in the final model was attributable to neighborhood level factors. 2. Using bivariate analyses, neither supermarket nor fast food density variables were associated with obesity risk.	Not Reported

Study Description	Population	Reach	Intervention	Impact & Sustainability	Other Results	Related Benefits & Consequences
Author Kelly-Schwartz, Stockard (2004) United States	**Participation/ Potential Exposure** Not Applicable **High-Risk Population** Not Applicable Only cross-sectional data provided Adults (target sample) 32% Non-Hispanic white, 28% Non-Hispanic black, 33% Mexican American (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 Urban sprawl: density and land- use mix **Feasibility** Not Applicable **Implementation Complexity** Not Applicable	**Population Impact** Not Applicable **High-risk Population Impact** Not Applicable **Sustainability** Not Applicable	Not Reported	1. When BMI and walking are included in the model, the influence of the measures of sprawl declines slightly and the significance of the influence of density (for self-rated health only (CE; 0.0012 p<0.05) is somewhat lower. 2. The unidimensional measure of sprawl has no significant relationship with overall health ratings (physician rating; CE; -0.0002, t=-0.10, p=0.916; self-rating; CE; 0.00004, t=0.13, p=0.8959). 3. People who live in primary metropolitan statistical areas (PMSA) that have highly connected street networks and are less densely populated tend to have higher rated health no matter how much they walk or how much they weigh. 4. Those who frequently walk at least a mile at a time without stopping are less likely to have health rated as poor whether by themselves (CE= -0.2680) or their physician (CE= -0.0922) (p<0.001). 5. When both walking and BMI are added to the model, the influence of a highly accessible street pattern remains significant for physicians' ratings of health but declines somewhat and is below traditional levels of significance for self-ratings of health (t=-1.33, p=0.18). 6. When BMI and walking are included in the model, the significance of the influence of streets (self-report CE; -0.0021, p<0.05; physician report CE; -0.0104) is somewhat lower.

Study Description	Population	Reach	Intervention	Impact & Sustainability	Other Results	Related Benefits & Consequences
Author Ewing, Schmid (2003) United States	**Participation/ Potential Exposure** Not Applicable **High-Risk Population** Not Applicable Only cross-sectional data provided Adults (target 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 Urban sprawl: land-use mix and residential density **Feasibility** Not Applicable **Implementation Complexity** Not Applicable	**Population Impact** Not Applicable **High-risk Population Impact** Not Applicable **Sustainability** Not Applicable	Not Reported	1. County sprawl index had significant associations with hypertension (coefficient= -0.00119, t= -2.37, p=0.018). The odds of suffering from hypertension in a more compact county, one standard deviation above the mean sprawl index, was 0.94 times the odds in a more sprawling county, one standard deviation below the mean index (95% CI, 0.90-0.99). In most cases, the county index was more strongly associated with outcomes than was the metropolitan index.
Author Lopez (2004) United States	**Participation/ Potential Exposure** Not Applicable **High-Risk Population** Not Applicable Only cross-sectional data provided Adults, 74% Caucasian, 10% African-American, 13% Hispanic (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 Differences in sprawl (density and compactness) **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 Cervero, Duncan (2003) California	**Participation/ Potential Exposure** Not Applicable **High-Risk Population** Not Applicable Only cross-sectional data provided Adults (target 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 Urban design, land-use diversity, and density patterns on mode choice. MULTI-COMPONENT: 1. Pedestrian/bicycle friendly designs **Feasibility** Not Applicable **Implementation Complexity** Not Applicable	**Population Impact** Not Applicable **High-risk Population Impact** Not Applicable **Sustainability** Not Applicable	**Street Design** PHYSICAL ACTIVITY: 1. Pedestrian/bicycle friendly designs at neither origin (CE=0.037, SE= 0.048, p=0.441) nor destination (CE=0.035, SE=0.047, p=0.465) had much bearing on mode choice.	1. Pedestrians tended to shy away from lower-income settings (CE= -0.766, SE=0.523, p= 0.143), presumably because of safety concerns. 2. Steep terrain (CE=-4.109, SE=2.090, p=0.049), rain (CE=-0.729, SE=0.330, p=0.027), and nightfall (CE=-0.158, SE=0.112, p= 0.159) also deterred walking.

Study Description	Population	Reach	Intervention	Impact & Sustainability	Other Results	Related Benefits & Consequences
Author Eid, Overman (2008) United States	**Participation/ Potential Exposure** Not Applicable **High-Risk Population** Not Applicable Only cross-sectional data provided 14-21 year olds (target 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 sprawl: residential density, mixed land-use, compactness of development **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 Coogan, Karash (2007) United States	**Participation/ Potential Exposure** Not Applicable **High-Risk Population** Not Applicable Only cross-sectional data provided Adults 36% < 30 years of age, 33% 30-40 years of age, 67% Female, 81% White, 19% Minority (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 compactness and form MULTI-COMPONENT: 1. Access to transit **Feasibility** Not Applicable **Implementation Complexity** Not Applicable	**Population Impact** Not Applicable **High-risk Population Impact** Not Applicable **Sustainability** Not Applicable	**Transportation** PHYSICAL ACTIVITY: 1. Individuals living in a compact neighborhood have approx. a 20% walk mode share; while those not living in such a neighborhood have less than a 9% mode share. 2. For individuals living in a compact neighborhood, the high values group has a 24% walk mode share, while the low values group has only 10% (p<0.01). 3. Individuals with high values in a non-compact neighborhood have a 12% walk mode share and those with low values in a non-compact neighborhood with a 6% walk mode share (p<0.01). (Note: Compact neighborhoods refer to mixed housing developments, access to commercial district, and access to transit services.)	1. Car ownership changed the amount of people walking for transportation; those with one car per adult had a walk share of 19%; those from households with at least one car per adult have a walk share of 8%. For individuals with low levels of auto availability, the high value groups had a 21% walk share, compared with the low values groups at 11% (p<0.01). Individuals with high levels of auto availability in the high values group had a walk share of 12% walk compared with low values at 5% (p<0.01). Individuals with a high auto availability in a compact neighborhood had a 13% walk share compared with 7% living outside such a neighborhood (p<0.01). Individuals living in a compact neighborhood with low auto availability showed a 27% walk share compared with only 13% for those with high auto-availability (p<0.01).

Study Description	Population	Reach	Intervention	Impact & Sustainability	Other Results	Related Benefits & Consequences
Author Vernez Moudon, Lee (2007) Washington	**Participation/ Potential Exposure** Not Applicable **High-Risk Population** Not Applicable Only cross-sectional data provided Adults, General population, Urban and Suburban	**Representative** Not Applicable **Potential Population Reach** Not Applicable **Potential High Risk Population Reach** Not Applicable	**Intervention Components** Not Applicable Only cross-sectional data provided Land-use mix, density, and distance to commercial facilities MULTI-COMPONENT: 1. Complete sidewalks and route directness 2. Access to grocery stores and restaurants COMPLEX: 1. Perceptions of social support **Feasibility** Not Applicable **Implementation Complexity** Not Applicable	**Population Impact** Not Applicable **High-risk Population Impact** Not Applicable **Sustainability** Not Applicable	**Street Design** PHYSICAL ACTIVITY: 1. Living in an area with more complete sidewalks along major streets was significant in the airline but not in the network models and was positively associated with the likelihood of walking sufficiently (airline model; odds of walking sufficiently relative to walking moderately; OR=1.090, 95%CI=1.008-1.179, p<0.05). 2. Two route directness (airline/network ratio) variables, showed moderately significant (all p<0.05) associations with walking to the closest grocery store/market (network model; odds of walking sufficiently relative to not walking; OR= 1.025, 95%CI= 1.004-1.047) and to the school (OR= 0.987, 95%CI= 0.974-1.00). **Neighborhood Availability of Food Stores and Restaurants** PHYSICAL ACTIVITY: 1. Living closer to a grocery store/market (airline model; odds of walking moderately relative to not walking; OR=0.375, 95%CI= 0.189-.743, p<0.01) (airline model; odds of walking sufficiently relative to not walking OR=0.443, 95% CI=0.219-0.896, p<0.05)], an eating/drinking place (airline model; odds of sufficient walking relative to walking moderately OR=0.688, 95%CI=0.493-0.959, p<0.05), a bank (network model; odds of walking moderately relative to not walking OR=0.775, 95% CI=0.620-0.968)), and a NC2 ([grocery, restaurant, retail] network model; odds of walking sufficiently relative to not walking OR=0.640, 95%CI= 0.441-0.928, p<0.05) were correlated with increased walking.	1. Survey variables strongly associated with walking sufficiently to enhance health included household income, not having difficulty walking, using transit, perceiving social support for walking, walking outside of the neighborhood, and having a dog (p<0.01). PSYCHOSOCIAL: 1. Perceived social support for walking in the neighborhood had the strongest association with increased odds of walking. Odds of walking moderately to not walking, (OR= 1.622, 95%CI=1.216-2.165, p<0.01) and odds of walking sufficiently relative to not walking, (OR=1.855, 95% CI=1.366-2.520, p<0.01).
Author Smith, Brown (2008) Utah	**Participation/ Potential Exposure** Not Applicable **High-Risk Population** Not Applicable Only cross-sectional data provided 25-64 year olds, Adults, General Population	**Representative** Not Applicable **Potential Population Reach** Not Applicable **Potential High Risk Population Reach** Not Applicable	**Intervention Components** Not Applicable Only cross-sectional data provided Population density and land-use diversity MULTI-COMPONENT: 1. Street connectivity and intersection density **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. The higher the number of intersections within 0.25 miles of the home, the more reduced the risk for overweight and obesity is in men (OR=0.991, 95%CI=0.993-1.0, p=0.004 and OR=0.988, 95%CI 0.992-1.001; p=0.004, respectively) and the more reduced the risk is for overweight in women (OR=0.993, 95%CI=0.958-1.0, p=0.042). 2. For men, being in the top 25% of all four walkability measures (defined as highest levels of density, pedestrian-friendly street design, neighborhood age, and walking to work) is associated with approximately a 1.28-point reduction in BMI. For women, the reduction is 0.95 points. For a hypothetical 6-foot, 200-pound man, the least walkable neighborhood would be associated with approximately 10 more pounds than the most walkable neighborhood. Using the female sample's average height and weight (5 feet, 5 inches; 149 pounds), the most walkable neighborhood would be associated with nearly 6 fewer pounds than the least walkable neighborhood.	Not Reported

Study Description	Population	Reach	Intervention	Impact & Sustainability	Other Results	Related Benefits & Consequences
Author Frank, Schmid (2005) Georgia	**Participation/ Potential Exposure** Not Applicable **High-Risk Population** Not Applicable Only cross-sectional data provided Adults, General Population (target sample) 74.9% White, 15.9% Black, 43.8 average years old (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 Land-use mix and residential density MULTI-COMPONENT: 1. Intersection density and street connectivity **Feasibility** Not Applicable **Implementation Complexity** Not Applicable	**Population Impact** Not Applicable **High-risk Population Impact** Not Applicable **Sustainability** Not Applicable	**Street Design** PHYSICAL ACTIVITY: 1. A natural log of the minutes of moderate physical activity per day was significantly correlated with land use mix (r=0.145, p <0.01), net residential density (r=0.179, p <0.01), and intersection density (r=0.111, p <0.01). 2. The walkability index (intersection density, land-use mix, residential density) was a significant correlate for meeting the ≥30-minute physical activity recommendation. Individuals were, on average, thirty percent more likely to record ≥30 minutes of activity with each increase in the walkability index quartile. 3. Thirty-seven percent of individuals in the highest walkability index quartile met the minimum of ≥30 minutes for physical activity, while only eighteen percent of individuals in the lowest walkability quartile met the recommendation. 4. Results demonstrate that for individuals in the fourth quartile group (most walkable), the odds of meeting the recommended ≥30 minutes of moderate activity per day was 2.4 times than in the referent group (least walkable) with a reported confidence interval (CI) of 1.18 to 4.88 (p=0.015). However, the third quartile group approaches a significant difference from the referent group as well (OR=2.02, 95%CI=0.99–4.12, p=0.055).	Not Reported
Author Lee, Cubbin (2002) United States	**Participation/ Potential Exposure** Not Applicable **High-Risk Population** Not Applicable Only cross-sectional data provided 49.5% Male, 19.1% non-Hispanic Black,12.5% Hispanic, 68.4% non-Hispanic White, 16.5 years ± 4.5 mean age (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 Levels of urbanization (residential density, type of housing units, etc.) **Feasibility** Not Applicable **Implementation Complexity** Not Applicable	**Population Impact** Not Applicable **High-risk Population Impact** Not Applicable **Sustainability** Not Applicable	Not Reported	1. Residence in neighborhoods characterized by low socioeconomic status and high social disorganization (results not shown) was related to poorer dietary behaviors. 2. Residence in neighborhoods with high Hispanic concentrations or urban areas was related to better dietary habits (results not shown).

Study Description	Population	Reach	Intervention	Impact & Sustainability	Other Results	Related Benefits & Consequences
Author Aytur, Rodriguez (2007) North Carolina	**Participation/ Potential Exposure** Not Applicable **High-Risk Population** Not Applicable Only cross-sectional data reported. Median proportion of non-white was 28 (range, 2.8-62.5).	**Representative** Not Applicable Only cross-sectional data reported. County sociodemographic characteristics were generally representative of the state, although the sample included a higher percentage of metropolitan counties and had higher median income. **Potential Population Reach** Not Applicable **Potential High Risk Popluation Reach** Not Applicable	**Intervention Components** Not Applicable Only cross-sectional data provided. Active community environments (ACE): mixed land-use and non-motorized transportation improvements (NMTI) **Feasibility** Not Applicable **Implementation Complexity** Not Applicable	**Population Impact** Not Applicable **High-risk Population Impact** Not Applicable **Sustainability** Not Applicable	Not Reported	1. Individuals that engaged in transportation physical activity were significantly more likely to meet public health guidelines for leisure physical activity ($p<0.001$; analyses not shown in article). 2. In stratified analyses, lower-income individuals (<$25,000) living in high scoring counties were 3 times more likely to participate in transportation physical activity compared with those living in low ACE scoring counties (POR=3.2, 95% CI= 1.4-7.3). Those with a household income ≥$25,000 had 1.8 times the odds of engaging in transportation physical activity (95%CI= 1.1-3.1)

Study Description	Population	Reach	Intervention	Impact & Sustainability	Other Results	Related Benefits & Consequences
Author Frank, Andresen (2004) Atlanta	**Participation/ Potential Exposure** Not Applicable **High-Risk Population** Not Applicable Only cross-sectional data was provided Adults, African-American, Caucasian (target) 65% White, 35% African-American (evaluation sample)	**Representative** Not Applicable **Potential Population Reach** Not Applicable **Potential High Risk Population Reach** Not Applicable	**Intervention Components** Not Applicable Only cross-sectional data provided. Land-use mix, distance to locations, and net residential density MULTI-COMPONENT: 1. Intersection density **Feasibility** Not Applicable **Implementation Complexity** Not Applicable	**Population Impact** Not Applicable **High-risk Population Impact** Not Applicable **Sustainability** Not Applicable	**Street Design** PHYSICAL ACTIVITY: 1. For white males, all three urban form variables - mixed use r=-0.11; p<0.001), intersection density (r=-0.089; p<0.001), and net residential use (r=-0.096; p<0.001) - were inversely correlated with BMI.	1. Minutes spent in the car per day was negatively associated with land-use mix for white males (r=-.107, p<0.001) and females (r=-0.108, p<0.001). 2. Minutes spent in the car per day was positively associated with land-use mix for black females (r=0.042, p=0.05). 3. Car time was negatively associated with intersection density for black females (r=-0.046, p<0.05), white males (r= -0.039, p<0.05), and white females (r=-0.046, p=0.01). 4. Car time was negatively associated for all ethnic/sex combinations for residential density: black males (r=-0.076, p<0.001), white males (r=-0.074, p<0.001), black females (r=-0.050, p<0.05), white females (r=-0.090, p<0.001). 5. The odds of obesity decline by 4.8% for each additional kilometer walked, but conversely increased by 6% for each hour spent in a car per day.
Author Frank, Sallis (2006) Washington	**Participation/ Potential Exposure** Not Applicable **High-Risk Population** Not Applicable Only cross-sectional data provided. Adults, general population	**Representative** Not Applicable **Potential Population Reach** Not Applicable **Potential High Risk Population Reach** Not Applicable	**Intervention Components** Not Applicable Only cross sectional data provided. Land-use mix, residential density, and retail floor ratio MULTI-COMPONENT: 1. Street connectivity **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. When the walkability index was compared to BMI there was an expected relationship with walkability negatively related to body mass (β= -0.113, t=-3.898, p<0.001, partial correlate -0.107). 2. Researchers found a 5% increase in walkability associated with a 0.23-point reduction in body mass index. PHYSICAL ACTIVITY: 3. When the walkability index was compared to minutes per week devoted to active transportation there was an expected relationship, with walkability positively related to active transportation (β= 0.304, t=10.659, p<0.001, partial correlate=0.289). 4. Researchers found a 5% increase in walkability associated with a per capita 32.1% increase in time spent in physically active travel and 6.5% fewer vehicle miles traveled. (Note: Walkability is a composite score using residential density, intersection density, land-use mix, and retail floor area ratio.)	1. The walkability index was significantly related to emissions that cause the formation of ozone (β=-0.140, t=-10.841, p<0.001, partial correlation=-0.131). 2. Researchers found a 5% increase in walkability associated with 5.6% fewer grams of oxides of nitrogen (NOx) emitted and 5.5% fewer grams of volatile organic compounds (VOC) emitted.

Study Description	Population	Reach	Intervention	Impact & Sustainability	Other Results	Related Benefits & Consequences
Author Khattak, Rodriguez (2005), Rodriguez, Khattak (2006), Brown, Khattak (2008) North Carolina	**Participation/ Potential Exposure** Not Applicable **High-Risk Population** Not Applicable Only cross-sectional data provided. Adults, general population	**Representative** Not Applicable Only cross-sectional data provided. Responding individuals compared well in terms of socioeconomic characteristics with census and the regional survey. Number of people and vehicles per household are largely consistent with the National Household Travel Survey. **Potential Population Reach** Not Applicable **Potential High Risk Popluation Reach** Not Applicable	**Intervention Components** Not Applicable Only cross-sectional data provided. Land-use mix and residential density MULTI-COMPONENT: 1. Street connectivity COMPLEX: 1. Neighborhood self-selection **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. Indirectly through the duration of Moderate to Vigorous Physical Activity (MVPA), the association between both new urbanist dwelling types and BMI was not significantly associated with a reduction in BMI. 2. Indirectly through the number of utilitarian physical activity trips the association between the new urbanist neighborhood and BMI shows a significant 0.119 reduction in BMI (0.390 [main effect] X -0.304 [coefficient] =-0.119) for household heads from the single-family dwellings compared with household heads from the conventional suburban neighborhood. 3. Indirectly through utilitarian physical activity trips for the household heads residing in the new urbanist multi-family dwellings the association between the neighborhood and BMI was not significant. PHYSICAL ACTIVITY: 4. Residents of the new urbanist neighborhoods (mean=2.03) spend more time being physically active in their neighborhood than did residents of the conventional neighborhoods (mean=1.20) (moderate or vigorous physical activity t=2.890, p<0.001). 5. Households in neo-traditional neighborhoods generate 22.1% (e(0.20)-1) fewer auto trips and 23.4% fewer external trips than households in the conventional neighborhood (after controlling for other factors and accounting for self-selection). The walk trips show a dramatic 305.5% increase in neo-traditional developments. 6. The marginal effect corresponding to the new urbanist single-family dwelling indicates that heads of household make 0.39 (p=0.02) more utilitarian physical activity trips than their counterparts residing in the conventional suburban neighborhoods. (Note: Neighborhood type was defined by presence of town center, land-use mix, and street connectivity.)	Not Reported
Author Frank, Saelens (2007) Georgia	**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. Land-use mix, density, retail floor ratio, and distance to locations MULTI-COMPONENT: 1. Street connectivity **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. Unexpectedly, obesity prevalence was higher in the second versus first non-motorized selection quartile. As expected, prevalence was lower in the fourth (most walkable) versus the first (least walkable) walkability quartile. PHYSICAL ACTIVITY: 2. Individuals in both the third and fourth quartiles for the non-motorized selection (availability to walk to shops and services) factor and walkability had significantly higher odds of any walk trips (3rd; OR=1.52, 95%CI=1.06-2.15, 4th; OR=2.49, 95%CI=1.80-3.36) and non-discretionary walk trips (3rd; OR=1.52, 95%CI=1.04-2.19, 4th; OR=2.43, 95% CI=1.71-3.36) than first quartile individuals for the selection and walkability factors (those not having access to shops and services). 3. Only the fourth quartile (the most walkable neighborhoods) on walkability showed significantly greater odds of a discretionary walk trip (OR=3.3, 95%CI=2.93-7.10). 4. Lower age, fewer motorized vehicles, lower proportion of licensed drivers, increased importance of non-motorized selection, and increased walkability were all significant predictors of increased likelihood of any walk trips (pseudo R^2=0.15).	Not Reported

Study Description	Population	Reach	Intervention	Impact & Sustainability	Other Results	Related Benefits & Consequences
Author Kerr, Rosenberg (2006) Washington	**Participation/ Potential Exposure** Not Applicable **High-Risk Population** Not Applicable Only cross-sectional data provided. Parents: 20-65 years old, 83.3% White, 16.7% Minority Children: 45.9% were >12 years old (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. Diverse land use mix MULTI-COMPONENT: 1. Perceptions of neighborhood safety (crime) 2. Perceptions of neighborhood traffic 3. Street connectivity and perceptions of neighborhood aesthetics 4. Perceived access to local shops and facilities **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** PHYSICAL ACTIVITY: 1. Perceived access to local stores and biking or walking facilities accounted for some of the effect of walkability on active commuting (OR=2.0, 95% CI=1.03-4.00, p<0.05). **Safety-Traffic** PHYSICAL ACTIVITY: 1. Parents of children aged 12-18 had significantly fewer concerns about active commuting (p=0.004) than parents of children 5-11 years old. 2. Parent concerns were independently associated with active commuting (parent concerns; OR= 5.2, 95%CI 2.71-9.96, p<0.05). 3. A parental concerns scale was most strongly associated with child active commuting (OR=5.2, 95% CI= 2.71-9.96, p<0.05). 4. Parent concerns were independently associated with active commuting (parent concerns; OR=4.9, 95% CI=2.54-9.40, p<0.05). **Safety-Interpersonal** PHYSICAL ACTIVITY: 1. Parents of children aged 12-18 had significantly fewer concerns about active commuting (p=0.004) than parents of children 5-11 years old. 2. Parent concerns were independently associated with active commuting (parent concerns; OR= 5.2, 95%CI 2.71-9.96, p<0.05). 3. A parental concerns scale was most strongly associated with child active commuting (OR=5.2, 95% CI= 2.71-9.96, p<0.05). 4. Parent concerns were independently associated with active commuting (parent concerns; OR=4.9, 95% CI=2.54-9.40, p<0.05). **Street Design** PHYSICAL ACTIVITY: 1. Neighborhoods aesthetics were independently associated with active commuting (aesthetics; OR=2.5, 95% CI=1.33-4.80, p<0.05). 2. Neighborhood aesthetics were independently associated with active commuting (aesthetics; OR=2.4, 95% CI=1.23-4.56, p<0.05). (Note: Parental concerns were based on a scale that included both interpersonal and traffic fears.)	1. Parent concerns about their child walking or biking to school were significantly inversely associated with residential density and neighborhood-level walkability (OR= 2.0, 95%CI= 1.08-3.84, p<0.05 and OR=1.7, 95%CI=1.00-2.85, p<0.05, respectively).

Study Description	Population	Reach	Intervention	Impact & Sustainability	Other Results	Related Benefits & Consequences
Author Ewing, Brownson (2006) United States	**Participation/ Potential Exposure** Not Applicable **High-Risk Population** Not Applicable Only cross-sectional data provided. 12-23 year olds (mean age=14.9 years), 26.0% Black non-Hispanic, 21.2% Hispanic, 3.5% other race, 51.2% Male (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. Residential density **Feasibility** Not Applicable **Implementation Complexity** Not Applicable	**Population Impact** Not Applicable **High-risk Population Impact** Not Applicable **Sustainability** Not Applicable	Not Reported	1. Data from a subsample from the NLSY97 showed that county sprawl was more significant with the TV variable in the model (β= -0.045, t= -2.47, p=.014), thus adolescents in compact areas watch slightly more TV than those in sprawling areas. 2. The relationship between sprawl and overweight for US youth actually proved stronger than between sprawl and obesity for adults in the original study by Ewing et al (2003). The coefficient of sprawl was .0030 for adolescents, 0.0026 for young adults and 0.0021 for older adults. Significance was lower in this study only because the sample of individuals and the sample of counties represented were smaller in this study than in the original study. 3. A youth's BMI after a move was most strongly associated with his or her BMI before the move. (β= 0.917, t=51.6, p<.001) 4. Crime and climatic variables were not significant in combination with county sprawl and individual characteristics.

Study Description	Population	Reach	Intervention	Impact & Sustainability	Other Results	Related Benefits & Consequences
Author Atkinson, Sallis (2005); Saelens, Sallis, Black (2003) California	**Participation/ Potential Exposure** Not Applicable **High-Risk Population** Not Applicable Only cross-sectional data provided. Adults, 81% White, 9% Hispanic/Latino, 5% Asian/Pacific Islander, 1% African-American, 34% Multiple ethnicities; 52% female; >90% with some college/ vocational training; mean age=48.2 years (SD=11.6) (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. Land-use mix and residential density MULTI-COMPONENT: 1. Access to equipment and places to be physically active 2. Street connectivity **Feasibility** Not Applicable **Implementation Complexity** Not Applicable	**Population Impact** Not Applicable **High-risk Population Impact** Not Applicable **Sustainability** Not Applicable	**Availability of Parks, Playgrounds, and Recreational Facilities** PHYSICAL ACTIVITY: 1. Self-reported total physical activity was positively correlated with home equipment availability at a moderate level (r=0.34, p<0.01). **Street Design** PHYSICAL ACTIVITY: 1. Accelerometer-derived total physical activity was positively correlated with connectivity at a modest level (r=0.21, p=0.04).	Not Reported

Study Description	Population	Reach	Intervention	Impact & Sustainability	Other Results	Related Benefits & Consequences
Author Wen, Zhang (2009) Illinois	**Participation/ Potential Exposure** Not Applicable **High-Risk Population** Not Applicable Only cross-sectional data was provided. Adults, General Population, 56.29% non-white respondents (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 was provided. Residential density, land-use mix, neighborhood amenities (access to health and human services) MULTI-COMPONENT: 1. Access to restaurants and bars COMPLEX: 1. Social environment (trust, social capital, norms of reciprocity) **Feasibility** Not Applicable **Implementation Complexity** Not Applicable	**Population Impact** Not Applicable **High-risk Population Impact** Not Applicable **Sustainability** Not Applicable	**Neighborhood Availability of Restaurants** PHYSICAL ACTIVITY: 1. Respondents who lived in neighborhoods that had more access to restaurants and bars were more likely to report one to three times of weekly workout/exercise (OR=1.08; 95% CI; 0.99-1.19; p<0.01) and four times or more weekly workout/exercise (OR=1.14; 95% CI; 1.03-1.26; p<0.05) compared with those who lived in neighborhoods that had less access to restaurants and bars. 2. Access to restaurants and bars (OR=1.24; 95% CI; 1.05-1.46; p<0.01) and neighborhood social environment (OR=1.37; 95% CI; 1.11-1.69; p<0.05) both were significantly associated with the likelihood of reporting regular exercise in the past year.	1. Correlation analyses (data not shown) suggested that an advantaged neighborhood social environment was positively correlated with access to neighborhood amenities, such as restaurants, bars, libraries, and museums, and to lower pedestrian injury rates, whereas it was negatively correlated with mixed land use, access to subway stations and parks, and access to services. Meanwhile, neighborhoods with more mixed land use had better access to subway and amenities but also had higher pedestrian injury rates. 2. The beneficial effect of neighborhood social environment was significantly stronger for women (data not shown). 3. Access to neighborhood social environment (OR=1.37; 95% CI; 1.11-1.69; p<0.05) was significantly associated with the likelihood of reporting regular exercise in the past year.

Study Description	Population	Reach	Intervention	Impact & Sustainability	Other Results	Related Benefits & Consequences
Author Forsyth, Hearst (2008), Forsyth, Oakes (2007), Oakes, Forsyth (2007) Minnesota	**Participation/ Potential Exposure** Not Applicable **High-Risk Population** Not Applicable Only cross-sectional data provided. Adults, 65% Female, 81% Caucasian (evaluation sample)	**Representative** Not Applicable Only cross-sectional data provided. Study participants appear relatively homogenous with respect to SES but heterogeneous with respect to density and street connectivity. The northern sector of the Minneapolis-St. Paul metropolitan area was chosen for its environmental diversity. **Potential Population Reach** Not Applicable **Potential High Risk Popluation Reach** Not Applicable	**Intervention Components** Not Applicable Only cross-sectional data provided. Residential density <u>MULTI-COMPONENT:</u> 1. Perceptions of neighborhood safety from crime 2. Access to places for physical activity 3. Access to transit 4. Street connectivity <u>COMPLEX:</u> 1. Social environment **Feasibility** Not Applicable **Implementation Complexity** Not Applicable	**Population Impact** Not Applicable **High-risk Population Impact** Not Applicable **Sustainability** Not Applicable	**Street Design** <u>PHYSICAL ACTIVITY:</u> 1. Larger blocks seem to increase odds ratios for leisure walking by about 40% (OR=1.40; 95%CI 0.96, 2.05, p-value not reported). 2. Total walking in mean miles per day is positively correlated with sidewalks (length per unit area; CE; 0.4510; length divided by road length; CE; 0.3449), street lights (CE; 0.4874), traffic calming (CE; 0.3629), and several of our many measures of connected street patterns (signs vary) (p<0.05). 3. Travel walking measured both by survey and diary was positively correlated with sidewalks (length per unit (lpu)/IPAQ; CE; 0.4866; lpu Diary; CE; 0.6224; length/road(l/r) IPAQ; CE; 0.5282; l/r Diary; CE; 0.5945), transit (IPAQ; CE; 0.3716, Diary; CE; 0.4652), litter/ graffiti (IPAQ; CE; 0.3325; Diary; CE; 0.5238) and connected street patterns (# access pts./ IPAQ; CE; 0.5176, # pts/Diary; CE; 0.5384; intersections IPAQ; CE; 0.4052, int. Diary; CE; 0.5279; 4-way IPAQ; CE; 0.4602; 4-way Diary; CE; 0.5782; nodes IPAQ; CE; 0.4284, nodes Diary; CE; 0.4673; ratio 4-way IPAQ; CE; 0.4164, 4-way Diary; CE; 0.4698) (all p<0.05). 4. Leisure walking was negatively correlated with transit (IPAQ CE; -0.4882; Diary CE; -0.3360), sidewalks (length/road IPAQ CE; -0.3318), street lights and connected street patterns (IPAQ # access points CE; -0.3349; IPAQ connected nodes CE; -0.3643, p<0.05). **Availability of Parks, Playgrounds, Trails and Recreation Centers** <u>PHYSICAL ACTIVITY:</u> 1. Using Spearman's correlations there was significant positive association with accelerometry physical activity and whether people spoke to others in their neighborhood, perceptions of crime, and access to bicycle and pedestrian paths (although significant, r values were low with the highest being r=0.13 for closeness to job or school) (results not shown). **Safety Interpersonal** <u>PHYSICAL ACTIVITY:</u> 1. Using Spearman's correlations there was significant positive association with accelerometry physical activity and whether people spoke to others in their neighborhood, perceptions of crime, and access to bicycle and pedestrian paths (although significant, r values were low with the highest being r=0.13 for closeness to job or school) (results not shown). 2. Travel walking measured both by survey and diary was positively correlated with sidewalks (length per unit (lpu)/IPAQ; CE; 0.4866; lpu Diary; CE; 0.6224; length/road(l/r) IPAQ; CE; 0.5282; l/r Diary; CE; 0.5945), transit (IPAQ; CE; 0.3716, Diary; CE; 0.4652), litter/ graffiti (IPAQ; CE; 0.3325; Diary; CE; 0.5238) and connected street patterns (# access pts./ IPAQ; CE; 0.5176, # pts/Diary; CE; 0.5384; intersections IPAQ; CE; 0.4052, int. Diary; CE; 0.5279; 4-way IPAQ; CE; 0.4602; 4-way Diary; CE; 0.5782; nodes IPAQ; CE; 0.4284, nodes Diary; CE; 0.4673; ratio 4-way IPAQ; CE; 0.4164, 4-way Diary; CE; 0.4698) (all p<0.05). **Transportation** <u>PHYSICAL ACTIVITY:</u> 1. Travel walking measured both by survey and diary was positively correlated with sidewalks (length per unit (lpu)/IPAQ; CE; 0.4866; lpu Diary; CE; 0.6224; length/road(l/r) IPAQ; CE; 0.5282; l/r Diary; CE; 0.5945), transit (IPAQ; CE; 0.3716, Diary; CE; 0.4652), litter/ graffiti (IPAQ; CE; 0.3325; Diary; CE; 0.5238) and connected street patterns (# access pts./ IPAQ; CE; 0.5176, # pts/Diary; CE; 0.5384; intersections IPAQ; CE; 0.4052, int. Diary; CE; 0.5279; 4-way IPAQ; CE; 0.4602; 4-way Diary; CE; 0.5782; nodes IPAQ; CE; 0.4284, nodes Diary; CE; 0.4673; ratio 4-way IPAQ; CE; 0.4164, 4-way Diary; CE; 0.4698) (all p<0.05). 2. Leisure walking was negatively correlated with transit (IPAQ CE; -0.4882; Diary CE; -0.3360), sidewalks (length/road IPAQ CE; -0.3318, p<0.05), street lights and connected street patterns (IPAQ # access points CE; -0.3349; IPAQ connected nodes CE; -0.3643, p<0.05).	1. Using Spearman's correlations there was significant positive association with accelerometry physical activity and whether people spoke to others in their neighborhood, perceptions of crime, and access to bicycle and pedestrian paths (although significant, r values were low with the highest being r=0.13 for closeness to job or school) (results not shown).

Study Description	Population	Reach	Intervention	Impact & Sustainability	Other Results	Related Benefits & Consequences
Author Handy, Cao (2008); Handy, Cao (2006) California	**Participation/ Potential Exposure** Not Applicable **High-Risk Population** Not Applicable Only cross-sectional data provided. Adults, General population, Urban, Suburban (target 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. Distance to retail MULTI-COMPONENT: 1. Access to public transit 2. Perceptions of safety (crime) 3. Street connectivity **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** PHYSICAL ACTIVITY: 1. Individuals with higher perceptions of physical activity options (coefficient=0.0395, p=0.083) engaged in neighborhood physical activity more frequently. 2. Changes in perceptions of physical activity options (NPA coefficient=0.0586, p=0.046; walking coefficient=0.103, p<0.001) were associated with increased neighborhood physical activity and walking. 3. The minimum distance to a health club (coefficient=0.071, p=0.045) had positive effects on changes in biking. **Safety-Interpersonal** PHYSICAL ACTIVITY: 1. Respondents who preferred to be safe (coefficient=-0.102, p=0.008) walked less frequently, suggesting a self-selection effect. After controlling for all effects, distance to potential destinations, both objective (coefficient=-0.144, p<0.001) and perceived (coefficient=0.268, p<0.001) remained positively associated with neighborhood walking. Perceived safety (coefficient =-0.071, p=0.029) remained negatively associated with walking and attractiveness (coefficient=0.078, p=0.038) remained positively associated. 2. Residents in suburban neighborhoods on average perceived their neighborhoods as having greater safety (mean=0.16 vs. mean=-0.14, p<0.01) and outdoor spaciousness (mean=0.06 vs. mean=-0.05, p=0.02). 3. Changes in perceptions of current safety (NPA coefficient=0.0672, p=0.025; walking coefficient=0.15, p<0.001) were associated with increased neighborhood physical activity and walking. **Street Design** PHYSICAL ACTIVITY: 1. Respondents who preferred to have cul-de-sacs (coefficient=-0.065, p=0.084) walked less frequently, suggesting a self-selection effect. After controlling for all effects, distance to potential destinations, both objective (coefficient=-0.144, p<0.001) and perceived (coefficient=0.268, p<0.001) remained positively associated with neighborhood walking. Perceived safety (coefficient =-0.071, p=0.029) remained negatively associated with walking and attractiveness (coefficient=0.078, p=0.038) remained positively associated. 2. Compared to suburban residents, residents in traditional neighborhoods perceived their neighborhoods on average as having higher accessibility (mean=0.15 vs. mean=-0.18, p<0.01), opportunities for socializing (mean=0.09 vs. mean=-0.12, p<0.01), and attractiveness (mean=0.28 vs. mean=-0.33, p<0.01). 3. Changes in perceptions of accessibility (walking coefficient=0.103, p<0.001) were associated with increased neighborhood physical activity and walking.	1. Compared to suburban residents, residents in traditional neighborhoods perceived their neighborhoods on average as having higher attractiveness (mean=0.28 vs. mean=-0.33, p<0.01). Residents in suburban neighborhoods on average perceived their neighborhoods as having greater outdoor spaciousness (mean=0.06 vs. mean=-0.05, p=0.02). 2. Travel-minimizing attitude (coefficient=-0.077, p=0.014), pro-transit attitude (coefficient=-0.121, p<0.001), and preference for spaciousness (coefficient=-0.111, p=0.002) were all negatively associated with changes in biking, while attractiveness preference (coefficient=0.074, p=0.019) was positively associated. 3. Changes in perceptions of socializing (NPA coefficient=0.0549, p=0.052; walking coefficient=0.14, p<0.001) were associated with increased neighborhood physical activity and walking.

Study Description	Population	Reach	Intervention	Impact & Sustainability	Other Results	Related Benefits & Consequences
Author King, Toobert (2006) California, Oregon, Georgia, Rhode Island, Tennessee	**Participation/ Potential Exposure** Not Applicable **High-Risk Population** Not Applicable Only cross-sectional data was provided. Adults, Elderly, African-American, Lower-income (target population) 55 years and older (Stanford); 18-72 years old (Atlanta); 65 years and older (Rhode Island) 10.6% minorities (California); 3.3% minorities (Oregon); 97.7% minority (Georgia); 1.9% minority (Rhode Island); 100% minority (Tennessee) (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 was provided. Land-use mix and distance to locations MULTI-COMPONENT: 1. Perceptions of neighborhood traffic safety 2. Perceptions of neighborhood safety from crime 3. Street connectivity COMPLEX: 1. Perceptions of social support **Feasibility** Not Applicable **Implementation Complexity** Not Applicable	**Population Impact** Not Applicable **High-risk Population Impact** Not Applicable **Sustainability** Not Applicable	**Safety-Traffic** PHYSICAL ACTIVITY: *CHAMPS baseline and intervention:* 1. In Stanford, participants who strongly agreed with "most drivers exceed the posted speed limits while driving in the neighborhood" showed fewer minutes per week of 6-month moderate-intensity or more vigorous physical activity (by approximately 90 minutes or more per week) relative to intervention participants reporting speeding drivers to be less of an issue this interaction effect reached significance (F for interaction term= 3.8, [1,89], p=0.05). 2. In Oregon, the interaction term involving the item that states "the crosswalks in my neighborhood help walkers feel safe crossing busy streets" reached significance [F for interaction term=5.2(1,1170, p=0.02)]. Participants who strongly agreed with this item showed more minutes per week of 24-month moderate-intensity or more vigorous physical activity (by approximately 100 minutes/week) relative to intervention participants endorsing lower levels of this item. 3. In Oregon, the neighborhood traffic and crime-related safety subscale reached statistical significance (F for interaction term= 5.9[1,117], p=0.016). **Street Design** PHYSICAL ACTIVITY: 1. Having many alternative routes when going from place to place was positively associated with minutes per week of walking for errands at the Oregon site (parameter estimate=0.35(121), p=0.02, total R^2=6.6). **Safety-Interpersonal** PHYSICAL ACTIVITY: 1. Seeing stray or loose dogs in one's neighborhood was negatively associated with minutes per week of moderate-intensity or more vigorous physical activity in the Atlanta sample (parameter estimate=-63.2(218), p=0.006, total R^2=6.7) and was negatively associated with hours per week walking for errands at the Memphis site (parameter estimate = -0.27(73), p=0.04, total R^2=26.0). Seeing stray or loose dogs in one's neighborhood was negatively associated with minutes per week of leisurely walking at the Memphis (parameter estimate=-0.45(73), p=0.03, total R^2=13.9) and Atlanta sites (parameter estimate=-0.30(251), p=0.017, total R^2=6.3). *CHAMPS baseline and intervention;* 2. In Oregon, participants who strongly agreed that their neighborhood was generally safe showed more minutes per week of 24-month moderate-intensity or more vigorous physical activity (by approximately 150 minutes or more per week) relative to intervention participants reporting their neighborhoods as being less safe. 3. In Oregon, the neighborhood traffic and crime-related safety subscale reached statistical significance (F for interaction term= 5.9[1,117], p=0.016). Participants who strongly agreed that "my neighborhood is safe enough that I would let a 10-year old boy walk around my block alone in the daytime" showed more minutes per week of 24-month moderate-intensity or more vigorous physical activity (by approximately 150 minutes per week) relative to intervention participants reporting lower levels of this item. 4. In Atlanta, the interaction involving a variable of perceived neighborhood safety-the presence of crosswalks in the neighborhood that helped walkers feel safe crossing busy streets-reached statistical significance (F for interaction term=3.1(2,197), p=0.048). Participants randomized to the physical activity intervention involving tailored messages plus telephone follow-up who strongly agreed that "the crosswalks in my neighborhood help walkers feel safe crossing busy streets" showed more minutes per week of 12-month moderate-intensity or more vigorous physical activity (by more than 100 minutes/week) relative to intervention participants reporting lower values on this item.	1. Seeing or speaking with others when walking in one's neighborhood was positively associated with minutes per week of moderate-and/ or-vigorous intensity physical activity at the Stanford (parameter estimate=70.4(93), p=0.009, R^2=13.3) and Atlanta sites (parameter estimate=59.3(218), p=0.029, total R^2=6.7), while seeing or speaking with others when walking in the neighborhood was positively associated with minutes per week of walking for errands at the Stanford (parameter estimate=0.46(93), p=0.02, total R^2=15.6) and Memphis sites (parameter estimate=0.25(73), p=0.05, total R^2=26.0).

Study Description	Population	Reach	Intervention	Impact & Sustainability	Other Results	Related Benefits & Consequences
Author Kerr, Frank (2007) Georgia	**Participation/ Potential Exposure** Not Applicable **High-Risk Population** Not Applicable Only cross-sectional data provided. 5-18 year olds, ~33% non-White, 50%male, 50% with annual household income >$60,000	**Representative** Not Applicable **Potential Population Reach** Not Applicable **Potential High Risk Popluation Reach** Not Applicable	**Intervention Components** Not Applicable Only cross-sectional data provided. Density and land-use mix MULTI-COMPONENT: 1. Access to recreation spaces 2. Intersection density and street connectivity **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** PHYSICAL ACTIVITY: 1. Participants with more than 2 cars in the household were almost 3 times as likely to walk if they had access to recreation space (95%CI: 1.6-4.2, p<0.001) or lived in an area of high residential density (95%CI: 1.6-5.1, p<0.001). 2. Access to recreation space (OR=2.3, 95%CI: 1.7-3.2, p<0.001) appeared to have a stronger association among males with than females (access to recreation: OR=1.7, 95%CI: 1.2-2.4, p<0.001). 3. Access to recreation spaces (OR=1.4; 95% CI: 1.0-2.0, p<0.05) was significantly related to walking in non-whites. **Street Design** PHYSICAL ACTIVITY: 1. Intersection density was significantly related to walking in both males and females. The relationship between urban form and walking appeared to be stronger in females for intersection density (OR=1.8, 95%CI: 1.2-2.7, p<0.01) than males (intersection density: OR=1.5, p<0.05) 2. Intersection density was strongly and significantly related to walking in white participants in the expected direction at the p<0.001 level (OR=1.9, 95% CI: 1.4-2.8).	1. Participants were significantly more likely to walk if they had fewer than 3 cars; 25% as opposed to 8.9% walked at least once over the 2 days.

Study Description	Population	Reach	Intervention	Impact & Sustainability	Other Results	Related Benefits & Consequences
Author Hoehner, Brennan (2005) Missouri and Georgia	**Participation/ Potential Exposure** Not Applicable **High-Risk Population** Not Applicable Only cross-sectional data provided. Adults, 18 to 96 years old, 63.6% White, 32.6% Black, 3.8% other minority (sample)	**Representative** Not Applicable **Potential Population Reach** Not Applicable **Potential High Risk Population Reach** Not Applicable	**Intervention Components** Not Applicable Only cross-sectional data provided. Land-use and access to locations MULTI-COMPONENT: 1. Access to recreational areas 2. Presence and absence of sidewalks 3. Physical disorder 4. Bus stops **Feasibility** Not Applicable **Implementation Complexity** Not Applicable	**Population Impact** Not Applicable **High-risk Population Impact** Not Applicable **Sustainability** Not Applicable	**Transportation** PHYSICAL ACTIVITY: 1. Those in the top quartile for street segments of bus stops were 1.5 times more likely to engage in transportation activity (95%CI: 1.0-2.3) and 1.6 times more likely to meet recommendations through transportation activity (95%CI: 0.99-2.6) compared to those in the lowest quartile as assessed by the audit (p<0.05 for trend). **Safety-Interpersonal** PHYSICAL ACTIVITY: 1. Those in the highest quartile for segments with minimal garbage, litter, or broken glass were 0.4 times less likely (95%CI: 0.3-0.7) to engage in transportation activity and 0.4 times less likely (95%CI: 0.2-0.7) to meet recommendations through transportation activity than those in the lowest quartile (p<0.05 for trend). 2. Those in the highest quartile of physical disorder were 0.5 (95%CI: 0.3-0.8) and 0.4 (95%CI: 0.2-0.7) times less likely to engage in transportation activity or meet recommendations through transportation activity, respectively (p<0.05 for trend). **Street Design** PHYSICAL ACTIVITY: 1. Levelness of sidewalks as assessed by the audit showed a significant negative association (OR=0.6, 95%CI: 0.4-0.9) for engaging in any transportation activity and with meeting recommendations (OR=0.5, 95%CI: 0.3-0.8) through transportation activity (p<0.05 for trend). **Availability of Parks, Playgrounds, Trails and Recreation Centers** PHYSICAL ACTIVITY: 1. Those who agreed that they had many places to exercise in their community and who reported more facilities within a 5-minute walk were slightly more likely to meet recommendations, but the direction of the trends and significance of the associations at different levels of these measures were inconsistent (data not shown).	1. Compared to never using the nearest trail in the past 30 days, the odds of meeting recommendations through recreational activity were 1.4 (95%CI: 0.97-2.0) for 1 to 5 days; 2.4 (95%CI: 1.4-4.1) for 6 to 10 days; and 3.4(95%CI: 2.2-5.1) for >10 days (p<0.05 for trend). 2. For use of the nearest private fitness facility, individuals were 1.3 times more likely (95%CI: 0.8-1.9) for 1 to 5 days; 2.3 times more likely (95%CI: 1.3-4.0) for 6 to 10 days; and 5.3 times more likely (95%CI: 3.3-8.6) for > 10 days (p<0.05 for trend) to meet recommendations through recreational activity. 3. Compared with never using the park in the last 30 days, the odds of meeting recommendations through recreational activity individuals were 1.2 (95%CI: 0.8-1.7) for using it 1 to 5 days; 2.1 (95%CI: 1.3-3.4) for using it 6 to 10 days; and 4.3 (95%CI: 2.9-6.2) for using it >10 days (p<0.05 for trend). 4. Respondents with >92 active people observed within 400 m of their home (highest quartile) were about two to three times more likely to engage in any (OR=2.1, 95%CI: 1.4-3.2) or recommended levels of activity (OR=2.7, 95%CI: 1.7-4.3) through transportation compared to those with <47 active people.

Study Description	Population	Reach	Intervention	Impact & Sustainability	Other Results	Related Benefits & Consequences
Author Krizek, Johnson (2006) Minnesota	**Participation/ Potential Exposure** Not Applicable **High-Risk Population** Not Applicable Only cross-sectional data provided. Adults, Urban, 48% male, 36% < $50,000 annual household 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. Distance to locations and land-use mix: access to neighborhood retail MULTI-COMPONENT: 1. Access to neighborhood facilities for physical activity including on-and-off-road bicycle paths **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** PHYSICAL ACTIVITY: 1. The odds of bicycle use did not differ significantly by proximity to any bicycle facility suggesting proximity to these facilities generally has no effect on bicycle use. 2. Using a logistic regression model, subjects living closest to an on-street bicycle facility (less than 400 meters away) had statistically significantly increased odds of bicycle use compared with subjects living more than 1600 meters from an on-street facility (OR=2.23, $p<0.05$). 3. Proximity to off-street bicycle trails had no effect on bicycle use ($p>0.05$).	Not Reported

Study Description	Population	Reach	Intervention	Impact & Sustainability	Other Results	Related Benefits & Consequences
Author Grow, Saelens (2008) Massachusetts, Ohio, California	**Participation/ Potential Exposure** Not Applicable **High-Risk Population** Not Applicable Only cross-sectional data provided. 11-18 year old adolescents Parents: 80.5% White, 9.2% Black, and 5.7% Other Adolescents: 75.0% White, 18.8% Black, 2.7% Asian/Pacific Islander, and 3.6% 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. Land-use mix <u>MULTI-COMPONENT:</u> 1. Neighborhood traffic safety 2. Access to recreational facilities 3. Street connectivity and pedestrian infrastructure 4. Safety from crime **Feasibility** Not Applicable **Implementation Complexity** Not Applicable	**Population Impact** Not Applicable **High-risk Population Impact** Not Applicable **Sustainability** Not Applicable	**Street Design** <u>PHYSICAL ACTIVITY:</u> 1. Adolescent and parent report multivariate regression models revealed that positive estimates were found for street connectivity and pedestrian infrastructure in relation to the number of sites to which adolescents walked/biked. **Safety-Traffic** <u>PHYSICAL ACTIVITY:</u> 1. Adolescents who usually walked/biked to at least 5 sites (site median) had higher scores on perceived pedestrian infrastructure and on traffic safety both by parent report and self-report and had higher land use mix and street connectivity for adolescent report only (data not shown). 2. Parents and adolescents who usually walked/biked to at least 5 sites reported higher perceptions for pedestrian infrastructure and traffic safety. Only adolescents reported higher land-use mix and street connectivity (data not shown). 3. On the basis of adolescent and parent report multivariate regression models revealed that positive estimates were found for street connectivity, pedestrian infrastructure, and traffic safety and a negative estimate was found for crime threat in relation to the number of sites to which adolescents walked/biked. After adding proximity to the model, only traffic safety remained highly significantly associated with usual walking/biking to sites for both parent (β=0.55, p<0.01) and adolescent (β=0.3, p<0.01) reports. **Safety Interpersonal** <u>PHYSICAL ACTIVITY:</u> 1. Adolescent and parent report multivariate regression models revealed a negative estimate was found for crime threat in relation to the number of sites to which adolescents walked/biked. **Availability of Parks, Playgrounds, Trails, and Recreation Centers** <u>PHYSICAL ACTIVITY:</u> 1. Living within a 10-min walk of large parks (Report for children; 69.2% active, p<0.05, Report for adolescents; 55.9% active, p<0.01, Adolescent report; 47.6% active; p<0.01) and public open spaces (Report for children; 59.5% active, p<0.01, Report for Adolescents; 30.4% active, p<0.05, Adolescent report; 36% adolescents active, p<0.01) were associated with increased likelihood of being active at those sites. <u>FACILITY USE:</u> 2. For adolescents, walking/biking to sites was associated with use of play fields and courts (parental report only: 54.5% active, p<0.05), swimming pools (self-report only: 58.5% active, p<0.01), beach/lack/river/creek (parent report: 42.9% active, p<0.01; self report: 48.5% active, p<0.01), and bike/hike/walk trail (parent report: 52% active, p<0.01; self-report: 49.1%, p<0.01). (Note: Distance to nearest PA resource and access to nearest PA resources may overlap in their designated strategy categories.)	1. Parents reported that children walking/biking to the site was significantly associated with active use of most recreation sites: indoor recreation sites (72.7% active, p<0.05), basketball courts (45.5% active, p<0.01), walking/running tracks (68.8% active, p<0.01), school recreation site (70.8% active, p<0.01), small (73.7% active, p<0.01) and large public parks (68.8% active, p<0.05), public playgrounds (71.1% active, p<0.05), and open space (63% active, p<0.01). The same trend was found for parental report for adolescents (indoor recreation facilities: 54.5% active, p<0.05; basketball courts: 57.5% active, p<0.01; walking/running tracks: 62.5% active, p<0.01; school recreation site: 56.7% active, p<0.01; small parks: 52.4% active, p<0.01; large parks: 59% active, p<0.01; playgrounds: 43.1% active, p<0.01; open spaces: 45.5% active, p<0.01) and adolescent self-report (indoor recreation facilities: 53.8% active, p<0.05; basketball courts: 43.4% active, p<0.01; walking/running tracks: 56.8% active, p<0.01; school recreation sites: 44.4% active, p<0.01; small parks: 50% active, p<0.01; large parks: 48.1% active, p<0.01; playgrounds: 37.3% active, p<0.01; open spaces: 50% active, p<0.01). 2. Multivariate analysis of self-reported data revealed that walking/biking was the frequent transport for 9 of 12 sites (swimming pools: RR=1.9, p<0.05; basketball courts, RR=2.1, p<0.05; walking/running tracks: RR=3.3, p<0.01; school recreation sites: RR=2.3, p<0.05; small parks: RR=6.9, p<0.01; large parks: RR=2.9, p<0.05; playgrounds: RR=5.1, p<0.05; bike/hike/walk trails: RR=4.7, p<0.01; open spaces: RR=9.8, p<0.01) and also 8 of 12 by parent report (basketball courts: RR=4.5, p<0.01; walking/running tracks: RR=4.6, p<0.01; school recreation sites: RR=4.4, p<0.01; small parks: RR=6, p<0.01; large parks: RR=4.1, p<0.01; playgrounds: RR=5, p<0.01; bike/hike/walk trails: RR=3.7, p<0.01; open spaces: RR=7.3, p<0.01). 3. Adolescents who usually walked/biked to at least 5 sites (site median) had higher scores on perceived pedestrian infrastructure and had higher street connectivity for adolescent report only (no statistics).

Study Description	Population	Reach	Intervention	Impact & Sustainability	Other Results	Related Benefits & Consequences
Author Bell, Wilson (2008) Indiana	**Participation/ Potential Exposure** Not Applicable **High-Risk Population** Not Applicable Only cross-sectional data provided. 3-16 year olds, 64% Minority, 58% Black, 83% Lower income (evaluation sample)	**Representative** Not Applicable **Potential Population Reach** Not Applicable **Potential High Risk Population Reach** Not Applicable	**Intervention Components** Not Applicable Only cross-sectional data provided. Residential density MULTI-COMPONENT: 1. Green space near the residence **Feasibility** Not Applicable **Implementation Complexity** Not Applicable	**Population Impact** Not Applicable **High-risk Population Impact** Not Applicable **Sustainability** Not Applicable	**Street Design** PHYSICAL ACTIVITY: 1. A 0.01-unit increase in greenness (Normalized Difference Vegetation Index - NDVI) was associated with lower BMI at Time 2 (β= -0.06 SD units, 95% CI=-0.09, -0.02, p<0.01). 2. Higher greenness was associated with lower odds of increasing BMI (OR=0.87; 95% CI=0.79, 0.97; not shown in tables, for the logistic regression model). 3. Relationships between greenness (NDVI) and Time 2 BMI were significantly modified by insurance status (F-test, p<0.01), with results of greater magnitude for children and youth with private/ other insurance (β=-0.13 SD units, 95% CI=-0.21, -0.04, p<0.01) versus Medicaid (β=-0.06 SD units, 95% CI=-0.10, -0.01, p=0.01; not shown in tables). 4. Associations between greenness (NDVI) and Time 2 BMI were similar with radial and network buffers (β=-0.07 SD units, 95% CI=-0.11, -0.03; not shown in tables), and the model fits were identical (adjusted r^2=0.53).	Not Reported
Author Norman, Nutter (2006) California	**Participation/ Potential Exposure** Not Applicable **High-Risk Population** Not Applicable Only cross-sectional data provided. Suburban, 11-18 year olds, 3.6% Asian/ Pacific Islander, 6.4% African American, 0.8% Native American, 13.1% Hispanic, 56.8% White, 19.3% Other (evaluation sample)	**Representative** Not Applicable **Potential Population Reach** Not Applicable **Potential High Risk Population Reach** Not Applicable	**Intervention Components** Not Applicable Only cross-sectional data provided. Land-use, residential density, and retail floor area ratio MULTI-COMPONENT: 1. Access to neighborhood parks and size of parks 2. Street connectivity/ network and intersection density **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. BMI percentile was marginally correlated with number of recreation facilities for boys (r=0.08, p<0.11). PHYSICAL ACTIVITY: 2. For girls, significant correlations were found for total minutes/day of moderate-to-vigorous physical activity with number of recreation facilities (r=0.11, p<0.05), number of parks (r=0.14, p<0.01), and intersection density (r=-0.14, p<0.01). 3. The number of recreation facilities (adjusted r^2=0.25, β=0.11, p=0.016) and intersection density (r^2=0.25, β=-0.127, p=0.006) remained significant after multiple linear regression, but the number of parks became non-significant. **Street Design** PHYSICAL ACTIVITY: 1. For girls, significant correlations were found for total minutes/day of moderate-to-vigorous physical activity with number of recreation facilities (r=0.11, p<0.05), number of parks (r=0.14, p<0.01), and intersection density (r=-0.14, p<0.01). 2. The number of recreation facilities (adjusted r^2=0.25, β=0.11, p=0.016) and intersection density (r^2=0.25, β=-0.127, p=0.006) remained significant after multiple linear regression, but the number of parks became non-significant.	Not Reported

Study Description	Population	Reach	Intervention	Impact & Sustainability	Other Results	Related Benefits & Consequences
Author Rutt, Coleman (2005) Texas	**Participation/ Potential Exposure** Not Applicable **High-Risk Population** Not Applicable Only cross-sectional data provided. Adults	**Representative** Not Applicable **Potential Population Reach** Not Applicable **Potential High Risk Popluation Reach** Not Applicable	**Intervention Components** Not Applicable Only cross-sectional data provided. Land-use mix and population density MULTI-COMPONENT: 1. Availability of physical activity facilities **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** PHYSICAL ACTIVITY: 1. Among the subsample of subjects who reported walking for exercise in the past month, total time spent walking was related to older age and having fewer physical activity facilities in their neighborhood (β=-0.24, p=0.05) (r^2=0.11).	1. For the entire sample, total time spent walking for exercise was related to higher socio-economic status, walking frequency was related to fewer perceived barriers (β= -0.11, p=0.03, r^2=0.07), and walking duration was related to higher socio-economic status, better overall health (β= -0.12, p=0.40), and fewer perceived barriers to physical activity (β= -0.11, p=0.02).
Author Kligerman, Sallis (2007) California	**Participation/ Potential Exposure** Not Applicable **High-Risk Population** Not Applicable Only cross-sectional data provided. 14-18 year olds (mean age 16.2 years), 61.2% Mexican- American (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. Land-use mix, residential density, and retail floor area ratio MULTI-COMPONENT: 1. Access to parks and recreational facilities 2. Intersection density **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** PHYSICAL ACTIVITY: 1. None of the recreation facilities variables were related to moderate-to-vigorous physical activity (no statistics). **Street Design** PHYSICAL ACTIVITY: 1. Land-use mix (r=0.285, p<0.004) and the walkability index (r=0.168, p<0.098) for the 0.5-mile buffer were the only measures to yield significant or marginal bivariate correlations with moderate-to-vigorous physical activity. 2. In a linear regression, the walkability index was related to minutes of moderate to vigorous physical activity within 0.5 mile of homes, explaining approximately 4% of variance.	Not Reported

Study Description	Population	Reach	Intervention	Impact & Sustainability	Other Results	Related Benefits & Consequences
Author Troped, Saunders (2001) Massachusetts	**Participation/ Potential Exposure** Not Applicable **High-Risk Population** Not Applicable Only cross-sectional data provided. Adults, 6% minority [evaluation sample]	**Representative** Not Applicable **Potential Population Reach** Not Applicable **Potential High Risk Population Reach** Not Applicable	**Intervention Components** Not Applicable Only cross-sectional data provided. Land use diversity and the distance to resources MULTI-COMPONENT: 1. Access to a community rail-trail (Minuteman Bikeway) 2. Busy street barriers **Feasibility** Not Applicable **Implementation Complexity** Not Applicable	**Population Impact** Not Applicable **High-risk Population Impact** Not Applicable **Sustainability** Not Applicable	**Safety-Traffic** TRAIL USE: 1. Based on survey data, respondents who reported that they did not have to cross a busy street to access the Bikeway were about 2 times more likely to be Bikeway users than those who reported this barrier (OR=2.01, 95%CI= 1.11-3.63). 2. Physical activity limitation and the busy street barrier, both of which showed a statistically significant association with Bikeway use in the model based on self-reported data only (and in unadjusted analyses), were not retained in the GIS predictive model. **Availability of Parks, Playgrounds, Trails, and Recreation Centers** PHYSICAL ACTIVITY: 1. Self-reported distance was inversely associated with use of the Bikeway. Survey participants were 0.65 times as likely to use the Minuteman Bikeway for every 0.25-mile increase in self-reported distance from the trail (95% CI= 0.54-0.79). 2. Survey participants located further from the trail as measured by GIS road network distance in the GIS multivariate model were less likely to use the Bikeway (OR=0.58, 95%CI=0.45-0.73). (Note: Distance to nearest PA resource and access to nearest PA resources may overlap in their designated strategy categories.)	1. In the GIS multivariate model, respondents who did not have to traverse a steep hill were almost twice as likely to be Bikeway users compared to those who had to cross a steep hill (OR=1.90, 95%CI= 1.09-3.32).
Author Roemmich, Epstein (2007) New York	**Participation/ Potential Exposure** Not Applicable **High-Risk Population** Not Applicable Only cross-sectional data provided. 8-12 year olds (10.5±1.4); 9% Black; 2% Other; 89% White (evaluation sample)	**Representative** Not Applicable **Potential Population Reach** Not Applicable **Potential High Risk Population Reach** Not Applicable	**Intervention Components** Not Applicable Only cross-sectional data provided. Area of park land MULTI-COMPONENT: 1. Access to parks and recreation areas 2. Street connectivity **Feasibility** Not Applicable **Implementation Complexity** Not Applicable	**Population Impact** Not Applicable **High-risk Population Impact** Not Applicable **Sustainability** Not Applicable	**Street Design** PHYSICAL ACTIVITY: 1. For boys, neighborhood street connectivity (coefficient=0.30), percentage park area (coefficient=0.34), and percentage park and recreation area (coefficient=0.32) were positively correlated to total physical activity (p≤0.05 for all). 2. When combining the boys and girls into a single group, total physical activity was correlated to street connectivity (r=0.25, p≤ 0.05) and percentage park area (r=0.22, p≤0.04). 3. Street connectivity was correlated with MVPA (r=0.26, p≤0.05). 4. For boys, street connectivity (0.34) was positively correlated with moderate-to-vigorous physical activity (p≤ 0.05). **Availability of Parks, Playgrounds, Trails, and Recreation Centers** PHYSICAL ACTIVITY: 1. For boys, neighborhood street connectivity (coefficient=0.30), percentage park area (coefficient=0.34), and percentage park and recreation area (coefficient=0.32) were positively correlated to total physical activity (p≤0.05 for all). 2. When combining the boys and girls into a single group, total physical activity was correlated to street connectivity (r=0.25, p≤ 0.05) and percentage park area (r=0.22, p≤0.04). SEDENTARY BEHAVIOR: 3. Percentage park area + recreation were inversely correlated with television watching in boys but not girls (p≤0.05).	1. Home environment, rather than neighborhood environment, variables were correlated with sedentary behaviors in that the number of televisions in the home was related to television watching time (r=0.31, p≤0.01).

Study Description	Population	Reach	Intervention	Impact & Sustainability	Other Results	Related Benefits & Consequences
Author Suminski, Poston (2005) Midwestern United States	**Participation/ Potential Exposure** Not Applicable **High-Risk Population** Not Applicable Only cross-sectional data provided. Adults, 89.7% White, 1.7% Hispanic, 1.5% African American, and 1.3% Asian American (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 shops MULTI-COMPONENT: 1. Perceptions of neighborhood traffic safety 2. Access to parks 3. Perceptions of neighborhood safety from crime 4. Street design and aesthetics **Feasibility** Not Applicable **Implementation Complexity** Not Applicable	**Population Impact** Not Applicable **High-risk Population Impact** Not Applicable **Sustainability** Not Applicable	**Safety-Interpersonal** PHYSICAL ACTIVITY: 1. Women were 4.5 times more likely to walk for exercise in their neighborhood if neighborhood safety was average compared to below average (95%CI 1.01-20.72; p<0.05). 2. Women were more likely (threefold) to walk their dog if neighborhood safety was average versus below average (95% CI 1.01-11.08; p<0.05). **Availability of Parks, Playgrounds, Trails, and Recreation Centers** PHYSICAL ACTIVITY: 1. Women were 5.7 times more likely to walk for transportation if they indicated having an average number of available places in and around their neighborhood to which they could walk (95%CI 1.63-19.73; p<0.01). 2. Women with an average number of neighborhood destinations were more likely to walk for transportation in the neighborhood (OR=5.7, 95%CI=1.63-19.73) than women with a below average number of neighborhood destinations (p<0.01). **Street Design** PHYSICAL ACTIVITY: 1. Men were less likely to walk for transportation in the neighborhood if the functional (OR=0.22, 95%CI=0.06-0.89) or aesthetic (OR=0.17, 95%CI=0.03-0.89) features of the neighborhood were average versus below average (p<0.05). 2. For men, environmental features were not associated with walking the dog or for exercise. However, inverse relationships between walking for transportation and environmental features were noted in men. **Safety-Traffic** PHYSICAL ACTIVITY: 1. Women were 4.5 times more likely to walk for exercise in their neighborhood if neighborhood safety was average compared to below average (95%CI 1.01-20.72; p<0.05). 2. Women were more likely (threefold) to walk their dog if neighborhood safety was average versus below average (95% CI 1.01-11.08; p<0.05). (Note: Neighborhood "safety" was a composite score using traffic volume and speed, lighting, and crime. The "functional" feature of the neighborhood was represented by three items related to the construction/integrity of neighborhood sidewalks and streets.)	Not Reported

Study Description	Population	Reach	Intervention	Impact & Sustainability	Other Results	Related Benefits & Consequences
Author Samimi, Mohammadian (2008) United States	**Participation/ Potential Exposure** Not Applicable **High-Risk Population** Not Applicable Only cross-sectional data. Adults, 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. Population density MULTI-COMPONENT: 1. Intersection density, block size, and road density **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. Using forward selection, positive correlations for auto-use (coefficient=0.41, standard error=0.03, p<0.001) and block size (coefficient; 0.28, standard error; 0.03, p<0.001) are seen for obesity. 2. Using backward selection methods, positive correlations for auto-use (marginal effects=0.120; elasticity=0.425; and p<0.001) and block-size (marginal effects=.074; elasticity=0.055; and p<0.001) were seen for obesity. 3. Using forward selection, negative coefficients for road density (CE=-0.45 E-02, SE=0.64E-03) and intersection density (CE=-0.46E-03, SE=0.56E-04) were found, suggesting that people living in urbanized areas are less likely to be obese (p<0.001).	1. Using backward selection methods, positive correlations for transit-use (marginal effects; 0.092, elasticity; 0.002, p<0.001) and block size (marginal effects=0.026, elasticity=0.006, p=0.001) were seen for general health. 2. A one percent decrease in the use of automobiles can decrease obesity by 0.4%.
Author Cervero (2002) Maryland	**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. Land-use mix and population density MULTI-COMPONENT: 1. Sidewalk infrastructure **Feasibility** Not Applicable **Implementation Complexity** Not Applicable	**Population Impact** Not Applicable **High-risk Population Impact** Not Applicable **Sustainability** Not Applicable	**Street Design** PHYSICAL ACTIVITY: 1. Neighborhoods with fairly well developed sidewalk infrastructure appear to have influenced mode choice to some degree, ostensibly by providing more attractive settings for taking a bus or joining a vanpool (ratio of sidewalk miles to road miles; origin TAZ; coefficient=-0.7282, standard error= 0.2628, p=0.0056; destination TAZ; coefficient=-0.8371, standard error= 0.2664, p=0.0017). 2. Having relatively complete sidewalk networks at the trip destination promoted transit usage (coefficient estimate=0.4701, p=0.2935).	1. Activity density at both the trip origin and destination significantly increased the odds of transit usage (coefficient estimate=0.0386, p<0.0001 and coefficient estimate=0.0258, p=0.0265, respectively). 2. A longer (in-vehicle and out of vehicle) travel time aboard transit relative to the private automobile lowered the odds of taking transit (coefficient=-0.0150, standard error= 0.0044, p=0.0009). And where transit fares exceeded the direct cost of motoring (including tolls and parking fees), residents tended to travel by car (coefficient= -0.0100, standard error= 0.0027, p<0.001).

Study Description	Population	Reach	Intervention	Impact & Sustainability	Other Results	Related Benefits & Consequences
Author Moudon, Lee (2005) Washington	**Participation/ Potential Exposure** Not Applicable **High-Risk Population** Not Applicable Only cross-sectional data provided Adults, general population, urban (target population)	**Representative** Not Applicable **Potential Population Reach** Not Applicable **Potential High Risk Population Reach** Not Applicable	**Intervention Components** Not Applicable Only cross sectional data provided Perceptions of distance and land-use mix MULTI-COMPONENT: 1. Access to recreational amenities (bicycle lanes and trails) **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** PHYSICAL ACTIVITY: 1. Perceived presence of recreational amenities (bicycle lanes/trails) is positively associated with the odds of cycling (Airline OR=1.704; p<0.01 and Network OR=1.729; p<0.01). 2. Summed area of convenience store parcels (Airline; OR= 0.822, Network; OR= 0.784, p<0.01), number of parcels within the closest NC10 [office, fast food, and hospital] (Airline: OR= 2.160, p<0.01; Network: OR= 1.238, p<0.05), and distance to the closest trail (Airline: OR= 0.801, p<.01; Network: OR= 0.728, p<0.01) were significantly positively associated with the odds of cycling. (Note: Distance to nearest PA resource and access to nearest PA resources may overlap in their designated strategy categories.)	Not Reported
Author Franzini, Elliot (2009) United States	**Participation/ Potential Exposure** Not Applicable **High-Risk Population** Not Applicable Only cross-sectional data provided. 5-10 year olds, 76% Minority, 30% Hispanic, 38% Black, 55% Female, 41% Overweight, most lived in urban areas (evaluation sample)	**Representative** Not Applicable **Potential Population Reach** Not Applicable **Potential High Risk Population Reach** Not Applicable	**Intervention Components** Not Applicable Only cross-sectional data provided. Residential density MULTI-COMPONENT: 1. Neighborhood traffic 2. Physical disorder COMPLEX: 1. Social support **Feasibility** Not Applicable **Implementation Complexity** Not Applicable	**Population Impact** Not Applicable **High-risk Population Impact** Not Applicable **Sustainability** Not Applicable	**Safety-Traffic** PHYSICAL ACTIVITY: 1. The structural model for the ordinal measure of child obesity (underweight or normal weight, overweight, obese) suggested that neighborhood physical environment had no significant association with activity levels. **Safety-Interpersonal** PHYSICAL ACTIVITY: 1. The structural model for the ordinal measure of child obesity (underweight or normal weight, overweight, obese) suggested that neighborhood physical environment had no significant association with activity levels. (Note: Neighborhood physical environment was comprised of variables for traffic, density, land-use mix, and physical disorder.)	SOCIAL SUPPORT: 1. The structural model for ordinal measure of child obesity suggested that a favorable social environment was positively associated with physical activity (standardized regression coefficient = 0.13, p<0.05), which was negatively associated with child obesity (standardized regression coefficient = -0.24, p<0.05). 2. A favorable neighborhood social environment was positively associated with overall physical activity (β=0.15, t=2.35), days of vigorous exercise (B= 0.57, t=2.90), days with physical education in school (B=0.39, t=4.18), and favoring free-time movement activities (β= 0.19, t=3.16) (all p<0.05).

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. Land-use mix and distance to grocery stores MULTI-COMPONENT: 1. Access to recreational facilities 2. Perceptions of neighborhood traffic safety 3. Perceptions of safety from crime 4. Access to fruits and vegetables, 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. **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. **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. 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.)	Not Reported

Study Description	Population	Reach	Intervention	Impact & Sustainability	Other Results	Related Benefits & Consequences
Author Sallis, Saelens (2009) Washington and Maryland	**Participation/ Potential Exposure** Not Applicable **High-Risk Population** Not Applicable Only cross-sectional data provided Adults, General population, 20-65 years (age range), 26% Minority (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 Net residential density, mixed land use, and retail floor area ratio MULTI-COMPONENT: 1. Street connectivity and intersection density COMPLEX: 1. Neighborhood social cohesion and satisfaction **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. The walkability main effect was significant (p=0.007), with the odds of being overweight or obese 35% higher for participants living in low vs. high-walkability neighborhoods (OR=1.35, 95% CI; 1.09-1.69). PHYSICAL ACTIVITY: 2. Overall, the significant walkability main effect indicated a higher average of number of minutes per week of walking for transportation in high-walkability neighborhoods (44.3 min per week), compared to low-walkability neighborhoods (12.8 min per week) (walkability main effect p<0.0001). 3. Walking for transportation was significantly higher in high-walkability neighborhoods compared to low-walkability neighborhoods for both high- and low-income neighborhoods; however, the differential was larger in high-income neighborhoods at 5.1 minutes compared to low-income neighborhoods at 2.3 minutes (walkability-by-income interaction p=0.027). 4. The leisure walking main effect was significant (p=0.012), with people living in high-walkability neighborhoods averaging 18.5 minutes per week of leisure walking compared to 14.2 minutes per week in low-walkability neighborhoods. 5. On average, participants in high-walkability neighborhoods had 5.8 more minutes per day of objectively measured MVPA than those in low-walkability (main effect p=0.0002). 6. When the "reasons for moving here" score was added to control for preferences related to "activity-friendly" environments, the walkability main effect was still significant (p<0.0001). For minutes of leisure walking, the walkability main effect was no longer significant (p=0.36). (Note: The walkability index was both street (street connectivity) and community (land use mix and residential density) design variables.)	Not Reported

Study Description	Population	Reach	Intervention	Impact & Sustainability	Other Results	Related Benefits & Consequences
Author Lee, Vernez-Moudon (2006) Washington	**Participation/ Potential Exposure** Not Applicable **High-Risk Population** Not Applicable Only cross-sectional data provided Adults, 10% Minority, 90% White, 54% Female,16% age 66 years or older (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. Distance to grocery stores, restaurants, parks and trails and density MULTI-COMPONENT: 1. Traffic volume 2. Length of sidewalks, and street vegetation (trees), and block size **Feasibility** Not Applicable **Implementation Complexity** Not Applicable	**Population Impact** Not Applicable **High-risk Population Impact** Not Applicable **Sustainability** Not Applicable	**Street Design** PHYSICAL ACTIVITY: 1. Route related variables, such as block size, traffic volume, sidewalk, and street trees, did not show a statically significant association with transportation walking; but longer sidewalks was positively associated with recreation walking (frequent walking; OR=1.117, CI: 1.001-1.245, p<0.05). 2. Both socio-demographic and physical environmental variables had a stronger association with transportation walking than with recreation walking. The Frequency Models showed the fit of the recreational model (pseudo R^2=0.349) to be much poorer than that of the transportation model (pseudo R^2=0.641). **Safety-Traffic** PHYSICAL ACTIVITY: 1. Route related variables, such as block size, traffic volume, sidewalk, and street trees, did not show a statically significant association with transportation walking; but longer sidewalks was positively associated with recreation walking (frequent walking; OR=1.117, CI: 1.001-1.245, p<0.05). 2. Both socio-demographic and physical environmental variables had a stronger association with transportation walking than with recreation walking. The Frequency Models showed the fit of the recreational model (pseudo R^2=0.349) to be much poorer than that of the transportation model (pseudo R^2=0.641). (Note: Physical environment variables include neighborhood type (residential density and land use mix), aesthetics and traffic safety)	1. The odds of transportation walking were 1.7 times higher for moderate walkers (OR=1.765, CI: 1.247-2.494, p<0.01) and 2.7 times higher for frequent walkers when compared to non-walkers with increased social support (OR=2.652, CI: 1.673-4.203, p<0.01). 2. Frequent walkers have a 17% decreased odds of walking (OR=0.825, 95% CI= 0.688-0.989, p<0.05) for transportation compared to non-walkers in a sloped environment. 3. Frequent walkers have a 15% increased odds of walking for recreation compared to non-walkers in a sloped environment. 4. Moderate walkers had a 56% decreased odds of perceiving their neighborhood as having a mix or only commercial atmosphere when (OR=0.441, CI: 0.200-0.972, p<0.05) compared to non-walkers.

Study Description	Population	Reach	Intervention	Impact & Sustainability	Other Results	Related Benefits & Consequences
Author Joshu, Boehmer (2008) and Brownson, Baker (2001) United States	**Participation/ Potential Exposure** Not Applicable **High-Risk Population** Not Applicable Only cross-sectional data provided. Adults, 45.7% Minority: 54.3% White, 29.4% Black, 2.1% Asian/Pacific Islander, 2.7% Indian/ Alaskan native, 11% Other, 0.4% missing/ unknown, 39.3% Lower-income 67.1% 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. Community sprawl <u>MULTI-COMPONENT:</u> 1. Access to places to exercise (e.g., shopping malls, parks, trails) 2. Presence of sidewalks and street lights 3. Perceptions of traffic barriers (safety) <u>COMPLEX:</u> 1. Social and personal barriers **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** <u>PHYSICAL ACTIVITY:</u> 1. Access to parks (adjusted OR=1.95, 95% CI=1.52, 2.52), indoor gyms (adjusted OR=1.94, 95% CI=1.45, 2.60), and treadmills (adjusted OR=1.48, 95% CI=1.13, 1.93) were positively associated with physical activity. 2. Among individuals indicating some degree of physical activity, the following environmental supports were associated with reports of increases in activity: shopping malls (25.9%), parks (28.5%), walking and jogging trails (29.9%), treadmills (30.6%), and indoor gyms (33.7%). **Street Design** <u>OVERWEIGHT/OBESITY:</u> 1. An increase in the number of perceived neighborhood barriers increased the odds of being obese (chi-square for linear trend, p<0.05). <u>PHYSICAL ACTIVITY:</u> 2. Neighborhood characteristics, including the presence of sidewalks (OR=1.28, 95% CI=1.02, 1.59) and enjoyable scenery (OR=1.46, 95% CI=1.13, 1.88) were positively associated with physical activity. **Safety-Traffic** <u>OVERWEIGHT/OBESITY:</u> 1. Heavy traffic was associated with obesity within large metropolitan (adjusted OR= 1.9, 95% CI: 1.3-2.9), micropolitan (adjusted OR= 2.2, 95% CI: 1.03-4.5) and rural areas (adjusted OR= 1.7, 95% CI: 0.8-3.3). <u>PHYSICAL ACTIVITY:</u> 2. Heavy traffic (OR=1.28, 95% CI=1.04, 1.58) was positively associated with physical activity. (Note: Perceived barriers to physical activity was a composite including hills, lack of sidewalks, personal barriers like fear of injury, limited time, and intensity and frequency of physical activity.)	1. An increase in the number of personal barriers increased the odds of being obese (chi-square for linear trend, p<0.001). 2. Obese individuals in small metropolitan (adjusted OR= 2.3, 95% CI: 1.05-5.2) and micropolitan areas (adjusted OR= 4.8, 95% CI: 1.6-14.2) were more likely to report being self-conscious about the appearance while active. 3. Obesity residents of micropolitan areas were more likely to report no time for activity (adjusted OR= 2.6, 95% CI: 1.1-6.1), and fear of injury (adjusted OR= 4.1, 95% CI: 1.2-14.1) and dislike of exercise (adjusted OR= 3.9, 95% CI: 1.3-11.7) were strongly associated with obesity in rural areas compared with other areas. 4. Two policy variables were positively associated with physical activity: believing that employers should provide time for exercise (adjusted OR=1.27, 95% CI=1.01, 2.01), and support for the use of local government funds for walking or jogging trails (adjusted OR=1.42, 95% CI=1.00, 2.01). 5. The presence of sidewalks was the most important neighborhood variable among those with higher incomes (OR = 1.46, 95% CI = 1.08, 1.97). 6. Hills (OR=1.28, 95% CI=1.04, 1.58) were positively associated with physical activity. 7. Among those with lower incomes, the most important neighborhood variable for physical activity was enjoyable scenery (OR = 1.53, 95% CI = 1.07, 2.18).

Study Description	Population	Reach	Intervention	Impact & Sustainability	Other Results	Related Benefits & Consequences
Author Rutt, Coleman (2004) Texas	**Participation/ Potential Exposure** Not Applicable **High-Risk Population** Not Applicable Only cross-sectional data provided. Adults, 73% Hispanic, 29% Caucasian	**Representative** Not Applicable **Potential Population Reach** Not Applicable **Potential High Risk Popluation Reach** Not Applicable	**Intervention Components** Not Applicable Only cross-sectional data provided. Land-use diversity MULTI-COMPONENT: 1. Access to places to be active **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** PHYSICAL ACTIVITY: 1. Time spent in vigorous physical activity was predicted by fruit and vegetable intake ($p=0.04$), younger age ($p=0.0002$) and increased distance to physical activity facilities ($p=0.04$, $R^2=0.14$). (Note: Distance to nearest PA resource and access to nearest PA resources may overlap in their designated strategy categories.)	1. The only significant predictor of time spent in light physical activity was number of co-morbidities ($p=0.02$, $R^2=0.06$). 2. Other findings included increased fruit and vegetable consumption ($p=0.04$) and younger age ($p=0.02$) as predictors of time spent in moderate physical activity ($R^2=0.10$).
Author Greenwald, Boarnet (2001) Oregon	**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. Land-use mix and population density MULTI-COMPONENT: 1. Street griddedness, sidewalk continuity, and street connectivity **Feasibility** Not Applicable **Implementation Complexity** Not Applicable	**Population Impact** Not Applicable **High-risk Population Impact** Not Applicable **Sustainability** Not Applicable	**Street Design** PHYSICAL ACTIVITY: 1. The percentage of area in a ¼ mile buffer zone of the residence that is covered by a street grid format was significantly associated with non-work walking travel in the ordinary least squares model (coefficient= 0.9931173, T=2.774, $p<0.05$), but became insignificant when instrumented. 2. Using ordinary least squares and instrumental variable regressions, block group population density and PEF score show support for non-work walking travel. Block group population density and PEF score are both individually significant in the ordinary least squares (coefficient= 0.0000569, T= 6.122; $p<0.05$; and coefficient; 0.0606048, T=3.649; $p<0.05$, respectively) and the instrumented variable regressions (coefficient= 0.0000596, T= 2.292, $p<0.05$; and coefficient= 0.0792254, T=2.38, $p<0.05$, respectively). (Note: The Pedestrian Environment Factor or PEF scores consists of presence of crosswalks and sidewalks, and street connectivity.)	Not Reported

Study Description	Population	Reach	Intervention	Impact & Sustainability	Other Results	Related Benefits & Consequences
Author Zhu, Arch (2008) Texas	**Participation/ Potential Exposure** Not Applicable **High-Risk Population** Not Applicable Only cross-sectional data provided. Hispanic, Lower-Income, 5-10 year olds (target) 55.4% Hispanic (in AISD), 60.3% free/ reduced lunch (in AISD) (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. Distance to school and land-use mix (convenience stores, office buildings, etc.) <u>MULTI-COMPONENT:</u> 1. Perceptions of sidewalk quality 2. Presence of highway or freeway and busy roads as barriers (traffic safety) 3. Perceptions of safety (interpersonal) **Feasibility** Not Applicable **Implementation Complexity** Not Applicable	**Population Impact** Not Applicable **High-risk Population Impact** Not Applicable **Sustainability** Not Applicable	**Street Design** <u>PHYSICAL ACTIVITY:</u> 1. The busy road barrier (Blanton; n=114, OR=0.203, p<0.05) and sidewalk quality (Harris: n=117, OR=0.477, p<0.05) decreased the likelihood of walking, these were only significant in the individual models. 2. The sidewalk quality factor and overall walking environment factor did not show significant associations with walking. **Safety-Traffic** <u>PHYSICAL ACTIVITY:</u> 1. A 1-unit increase in the safety concern factor (range: -2.6 to 1.9) reduced the odds of walking by 22% (OR=0.776, β =-0.253, p<0.01). 2. The presence of highway or freeway barrier decreased the likelihood of walking by 52% (OR=0.483, β =-0.727, p<0.01). **Safety-Interpersonal** <u>PHYSICAL ACTIVITY:</u> 1. A 1-unit increase in the safety concern factor (range: -2.6 to 1.9) reduced the odds of walking by 22% (OR=0.776, β =-0.253, p<0.01). (Note: The safety concern factor incorporates both interpersonal and traffic components into the composite score,)	1. Analysis using a regression model of the pooled data from all 8 schools indicated that of the socio-demographic variables, only parents' highest education level was negatively correlated with walking to or from school. Every 1-unit increase in education level was associated with a 19% decreased likelihood of a child walking to or from school. A similar relationship was found for car ownership (data not shown). 2. Parents personal barriers were negatively associated with walking (OR=0.566, β= -0.569, p<0.01), while the factor capturing children's and parents' positive walking behaviors/attitudes was positively associated with walking (OR=1.461, β=-0.379, p<0.01). 3. Among social factors, students attending Blanton elementary school were less likely to walk than students from the other 7 schools (β=-1.127, OR=0.324, p<0.01). 4. Having school bus services lowered the odds of walking by 67% (OR=0.333, β =-1.100, p<0.01). 5. Positive peer influences increased the odds of walking by 19% (data not shown). 6. This analysis model showed that parental barriers were the second most important correlate for schools independently and was significant in 5 of the schools (Group 1: Zavala [n=106, OR=0.183, p<0.01], Metz [n=153, OR=0.453, p<0.05]; Group 2: Harris [n=117, OR=0.593, p<0.05], Andrews [n=215, OR=0.436, p<0.01]; Group 3: McBee [n=137, OR=0.354, p<0.01]).

Study Description	Population	Reach	Intervention	Impact & Sustainability	Other Results	Related Benefits & Consequences
Author Fulton, Shisler (2003) United States	**Participation/ Potential Exposure** Not Applicable **High-Risk Population** Not Applicable Only cross-sectional data was provided. 5-18 year olds, 7% African-American, 8% Hispanic , 4% Other, 80% 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 was provided. Levels of urbanicity (urban, suburban, and rural) MULTI-COMPONENT: 1. Presence of sidewalks and accessibility in the community **Feasibility** Not Applicable **Implementation Complexity** Not Applicable	**Population Impact** Not Applicable **High-risk Population Impact** Not Applicable **Sustainability** Not Applicable	**Street Design** PHYSICAL ACTIVITY: 1. Children who had sidewalks in the neighborhood were more likely to walk than those without sidewalks (OR=3.4; 95%CI= 2.3-5.1).	Not Reported
Author Nelson, Gordon-Larsen (2006) United States	**Participation/ Potential Exposure** Not Applicable **High-Risk Population** Not Applicable Only cross-sectional data provided. 13-18 year olds, 68.5% White, 15.2% Black, 11.4% Hispanic, and 4.0% Asian students; 14.7% of parents had less than high school education, 25% of parents had a college degree (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 design and development of housing **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 Mowen, Confer (2003) Ohio	**Participation/ Potential Exposure** Not Applicable **High-Risk Population** Not Applicable Only cross-sectional data provided. General population, 4% Minority, 2% African American, 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. Distance to a newly constructed brownfield park in-fill MULTI-COMPONENT: 1. Perceptions of access for places to be active **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** PHYSICAL ACTIVITY: 1. The less individuals perceived the park as compatible with surrounding communities, the more likely respondents intended to re-visit in the future (compatibility; β= -0.211, p=0.014). 2. The shorter the distance between the park and nearby neighborhoods, the more likely early adopters were to indicate regular visitation intentions (β= -0.208, p=0.002). 3. The more the park in-fill was perceived as accessible, convenient, and superior to other traditional neighborhood parks, the more likely visitors intended on visiting regularly (accessibility; β=0.205, p=0.002, convenience; β=0.206, p=0.009, superiority; β=0.145, p=0.038). (Note: Distance to nearest PA resource and access to nearest PA resources may overlap in their designated strategy categories.)	Not Reported

Study Description	Population	Reach	Intervention	Impact & Sustainability	Other Results	Related Benefits & Consequences
Author Brownson, Housemann (2000) Missouri	**Participation/ Potential Exposure** Not Applicable **High-Risk Population** Not Applicable Only cross-sectional data was provided. Adults	**Representative** Not Applicable **Potential Population Reach** Not Applicable **Potential High Risk Popluation Reach** Not Applicable	**Intervention Components** Not Applicable Only cross-sectional data was provided. Travel distance to trails MULTI-COMPONENT: 1. Availability of places to walk and be physically active and barriers and enablers for trails and use of trails 2. Perceptions of safety **Feasibility** Not Applicable **Implementation Complexity** Not Applicable	**Population Impact** Not Applicable **High-risk Population Impact** Not Applicable **Sustainability** Not Applicable	**Safety-Interpersonal** PHYSICAL ACTIVITY: 1. Concerns about safety did not appear to be a barrier to use, as 86.9% of trail users felt very safe when using trails. **Availability of Parks, Playgrounds, Trails, and Recreation Centers** PHYSICAL ACTIVITY: 1. Persons who were regular walkers were more likely to have access to indoor exercise facilities (prevalence odds ratio=1.3, 95%CI=1.0-1.7). 2. Travel distance to walking trails appeared to have a slight perceived effect on walking. Those travelling 5-10 miles (prevalence odds ratio= 0.8, 95%CI= 0.4-1.9), 11-29 miles (prevalence odds ratio=0.8, 95%CI=0.3-2.1), or >30 miles to a trail (prevalence odds ratio=0.7, 95%CI=0.3-1.8) had a reduced likelihood of increasing their walking. 3. Among persons with access to walking trails, 38.8% had used the trails. (Note: Distance to nearest PA resource and access to nearest PA resources may overlap in their designated strategy categories.)	1. Persons using longer trails (>0.25 miles) were more likely to report an increase in physical activity (0.25 to 0.50 miles in length: prevalence odds ratio= 2.8, 95%CI=1.1-7.2; >0.50 miles in length: prevalence odds ratio= 13.2, 95%CI= 1.4-124.6). 2. Among persons who had used the trails, 55.2% reported that they had increased their amount of walking since they began using the trail. 3. Women were more than twice as likely (prevalence odds ratio= 2.1, 95%CI=1-4.4) as men to report that they had increased the amount of walking since they began using the trails. 4. Lower-income groups were more likely to have increased walking due to trail use than were higher income persons ($15-35K: prevalence odds ratio= 0.9, 95%CI=0.4-2; ≥ $35K: prevalence odds ratio= 0.4, 95%CI= 0.2-1) 5. African Americans were more likely to have increased walking due to trail use (prevalence odds ratio= 1.9, 95%CI= 0.5-7.7) than were Caucasians.

Study Description	Population	Reach	Intervention	Impact & Sustainability	Other Results	Related Benefits & Consequences
Author Cohen, Ashwood (2006) Washington DC, Maryland, South Carolina	**Participation/ Potential Exposure** Not Applicable **High-Risk Population** Not Applicable Only cross-sectional data provided. 11-13 year old females	**Representative** Not Applicable **Potential Population Reach** Not Applicable **Potential High Risk Popluation Reach** Not Applicable	**Intervention Components** Not Applicable Only cross-sectional data provided. Distance to neighborhood parks MULTI-COMPONENT: 1. Access to parks and amenities 2. Presence of street lights 3. Presence of shaded areas **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** PHYSICAL ACTIVITY: 1. For the average girl having 3.5 parks within a 1-mile radius of home, accounted for an additional 68 minutes of non-school 3.0 MET MVPA and an additional 36.5 minutes of non-school 4.6 MET MVPA per 6 days. 2. For every park, regardless of type, within a half mile radius from home there was an increase in non-school MVPA by 33 minutes for 3.0 METs (coefficient estimate=0.02, p<0.005) and 17.2 minutes for 4.6 METs (coefficient estimate=0.03, p=0.04) per 6 days. Each additional park past the half-mile increased non-school MVPA by 12 minutes for 3.0 METs (coefficient estimate=0.01, p<0.009) and 6.7 minutes for 4.6 METs (coefficient estimate=0.01, p=0.09) per 6 days. 3. For the linear model, having either a neighborhood or community park within a half-mile of home was associated with 45.5 more 3.0 MET minutes (coefficient estimate=0.03, p<0.05) and 24.2 more 4.6 MET minutes (coefficient estimate=0.04; p<0.05) per 6 days. In the half-mile to 1-mile distance, MVPA increased by 29.6, 3.0 MET minutes (coefficient estimate=0.02, p<0.05) and 18.6, 4.6 MET minutes (coefficient estimate=0.03; p<0.05) per 6 days. 4. Additional non-school MVPA minutes increased when girls had neighborhood/community parks (3.0 MET 42 min, p<0.05; 4.6 MET 22 min, p<0.05), mini-parks (3.0 MET 92 min, p<0.05; 4.6 MET 40 min; p<0.10), natural resource areas (3.0 MET 36 min, p<0.05), walking paths (3.0 MET 59 min, p<0.05; 4.6 MET 13 min; p<0.05), and running tracks (3.0 MET 208 min, p<0.05; 4.6 MET 82 min; p<0.05) within a half mile of their homes. 5. Playgrounds (39 min for 3.0 MET; 28 min for 4.6 MET, p<0.05 for both), shaded areas (20 min for 3.0 MET; 14 min for 4.6 MET, p<0.10 for both), drinking fountains (24 min for 3.0 MET, p<0.05; 14 min for 4.6 MET, p<0.10), streetlights (28 min for 3.0 MET; 18 min for 4.6 MET, p<0.05 for both), basketball courts (37 min for 3.0 MET, p<0.10; 30 min for 4.6 MET, p<0.05), multipurpose rooms (13 min for 3.0 MET and 4.6 MET, p<0.05 for both), park offices (14 min for 3.0 MET, p<0.10), an ice rink (28 min for 3.0 MET, p<0.10), a running track (208 min for 3.0 MET, p<0.05), a swimming area (32 min for 4.6 MET, p<0.05), and an amphitheater (16 min for 3.0 MET, p<0.10) were associated with increased MVPA. 6. Lawn games (-161 min for 3.0 MET, p<0.05; -55 min for 4.6 MET, p<0.10) and skateboard areas (-94 min for 3.0 MET; -48 min for 4.6 MET, p<0.05 for both) were negatively associated with increased MVPA. 7. Special use parks were negatively associated with both 3.0 MET and 4.6 MET MVPA (each p<0.05). **Street Design** PHYSICAL ACTIVITY: 1. Shaded areas (20 min for 3.0 MET; 14 min for 4.6 MET, p<0.10 for both), were associated with increased MVPA. (Note: Distance to nearest PA resource and access to nearest PA resources may overlap in their designated strategy categories.)	Not Reported

Study Description	Population	Reach	Intervention	Impact & Sustainability	Other Results	Related Benefits & Consequences
Author Jilcott, Evenson (2007) North Carolina	**Participation/ Potential Exposure** Not Applicable **High-Risk Population** Not Applicable Only cross-sectional data provided. Adults, Females	**Representative** Not Applicable **Potential Population Reach** Not Applicable **Potential High Risk Population Reach** Not Applicable	**Intervention Components** Not Applicable Only cross-sectional data provided. Proximity to neighborhood locations including public parks, gyms and recreation centers, and public schools MULTI-COMPONENT: 1. Availability of places to be active **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** PHYSICAL ACTIVITY: 1. No statistically significant relationships were found between activity and perceived or objectively measured proximity to parks. 2. There was no association between distance to resources identified through qualitative interviews and MVPA minutes, adjusting for age and BMI (standardized parameter estimate for GIS network distance = 0.06, p= 0.45). (Note: Distance to nearest PA resource and access to nearest PA resources may overlap in their designated strategy categories.)	1. Women who wore the accelerometer all 7 days had a lower average BMI than women who wore it 4 to 6 days (p =0.006, data not shown). 2. The association between number of schools within the 1-mile buffer and MVPA minutes was stronger and statistically significant for women who wore the accelerometer for 7 days (adjusted standardized parameter estimate = –0.38, p≤ 0.01, n = 44) compared with women who wore it 4 to 6 days (standardized parameter estimate = –0.08, p = 0.36, n =111).
Author Sanderson, Foushee (2003) Alabama	**Participation/ Potential Exposure** Not Applicable **High-Risk Population** Not Applicable Only cross-sectional data was provided. Rural, Female, Adults, 20-50 years old, 75-77% African American (evaluation sample) The data was collected from a predominately impoverished rural area.	**Representative** Not Applicable **Potential Population Reach** Not Applicable **Potential High Risk Population Reach** Not Applicable	**Intervention Components** Not Applicable Only cross-sectional data was provided. Access to neighborhood places within walking distance MULTI-COMPONENT: 1. Presence or absence of sidewalks and lighting 2. Perceptions of safety from crime 3. Perceptions of traffic safety 4. Availability of places to walk COMPLEX: 1. Neighborhood social support and self-efficacy **Feasibility** Not Applicable **Implementation Complexity** Not Applicable	**Population Impact** Not Applicable **High-risk Population Impact** Not Applicable **Sustainability** Not Applicable	**Street Design** PHYSICAL ACTIVITY: 1. Researchers found no physical environmental variables that were significantly associated with comparison of either activity-level group. **Safety-Traffic** PHYSICAL ACTIVITY: 1. Researchers found no physical environmental variables that were significantly associated with comparison of either activity-level group. **Safety-Interpersonal** PHYSICAL ACTIVITY: 1. Researchers found no physical environmental variables that were significantly associated with comparison of either activity-level group. 2. Women reporting good lighting at night were less likely (OR=0.48, 95% CI= 0.27- 0.88) to report any physical activity. **Availability of Parks, Playgrounds, Trails, and Recreation Centers** PHYSICAL ACTIVITY: 1. Researchers found no physical environmental variables that were significantly associated with comparison of either activity-level group. (Note: Environmental variables include a composite score of distance to places to walk, safety from crime, street lighting, unattended dogs, presence of sidewalks, and traffic safety.)	1. Women meeting recommendations (n=221) compared to women who did not (n=346) were more than twice as likely to see people exercising in the neighborhood (87.2%, OR=2.02, CI=1.08-3.77) and to attend religious services (84.9%, OR=2.10, CI=1.21-3.65). 2. Women who reported any activity (n=481) compared with inactive women (n=86) were more likely to know people who exercise (OR=1.82, 95% CI=1.06-3.15), have higher social issue scores (OR=1.29, 95% CI=1.11-1.49), and were more than 3 times as likely to report attending religious services (OR=3.82, 95% CI=2.16-6.75).

Study Description	Population	Reach	Intervention	Impact & Sustainability	Other Results	Related Benefits & Consequences
Author Burdette, Whitaker (2004) Ohio	**Participation/ Potential Exposure** Not Applicable **High-Risk Population** Not Applicable Only cross-sectional data provided. 3-4 year-olds 100% lower-income 76% Black, 23% 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. Proximity to nearest playground MULTI-COMPONENT: 1. Perceptions of neighborhood safety 2. Distance to fast food restaurants 3. Access to playgrounds **Feasibility** Not Applicable **Implementation Complexity** Not Applicable	**Population Impact** Not Applicable **High-risk Population Impact** Not Applicable **Sustainability** Not Applicable	**Neighborhood Availability of Restaurants** OVERWEIGHT/OBESITY: 1. There was no difference in mean distance to fast food restaurants when comparing children with a BMI ≥95th percentile to those with a BMI<95th percentile (fast food: t=0.70 and 0.69, respectively, p=0.91) and when comparing children with a BMI ≥ 85th % to those with a BMI < 85th % (fast food: t=0.69 and 0.70, respectively, p=0.43). 2. There was no significant correlation between children's BMI z scores and distance to the nearest fast food restaurant. 3. When comparing overweight and non-overweight children, there was no difference in the percentage living in neighborhoods without fast food restaurants (44.0% vs. 44.5%, p=0.84). **Safety-Interpersonal** OVERWEIGHT/OBESITY: 1. The prevalence of children with BMI ≥ 95th percentile and BMI ≥ 85th percentile did not differ statistically across the quintiles of neighborhood crime rate, but did differ significantly for 911 call rate, % BMI ≥95th percentile ranged from 10.7% in the lowest quintile to 9.4% in the highest quintile (p=0.04). %BMI ≥85th percentile ranged from 22.7% in the lowest quintile of call rate to 22.1% in the highest quintile (p=0.02). There was no clear trend suggesting that lower levels of neighborhood safety were associated with a higher prevalence of overweight. 2. After controlling for poverty ratio (as a measure of SES), child race, and child sex, the 3 environmental predictor variables (playground proximity, fast food restaurant proximity and neighborhood safety) were still not significantly associated with childhood overweight. **Availability of Parks, Playgrounds, Trails, and Recreation Centers** OVERWEIGHT/OBESITY: 1. There was no difference in mean distance to the nearest playground when comparing children with a BMI ≥95th percentile to those with a BMI<95th percentile (playground: t=0.31 both, p=0.77) and when comparing children with a BMI ≥ 85th % to those with a BMI < 85th % (playground: t=0.31 both, p=0.32). 2. There was no significant correlation between children's BMI z scores and distance to the nearest playground. 3. When comparing overweight and non-overweight children, there was no difference in the percentage living in neighborhoods without playgrounds (3.3% vs. 4.1%, p=0.29). (Note: Distance to nearest PA resource and access to nearest PA resources may overlap in their designated strategy categories.)	Not Reported

Study Description	Population	Reach	Intervention	Impact & Sustainability	Other Results	Related Benefits & Consequences
Author Voorhees, Young (2003) Virginia	**Participation/ Potential Exposure** Not Applicable **High-Risk Population** Not Applicable Only cross-sectional data was provided. Urban, Female, Hispanic, Adults (target sample) 31.9 years old [mean age], 44.0% Spanish-speaking only (evaluation sample)	**Representative** Not Applicable **Potential Population Reach** Not Applicable **Potential High Risk Population Reach** Not Applicable	**Intervention Components** Not Applicable Only cross-sectional data was provided. Access to neighborhood destinations within walking distance MULTI-COMPONENT: 1. Perceptions of neighborhood traffic safety 2. Perceptions of neighborhood safety from crime 3. Distance to neighborhood locations COMPLEX: 1. Neighborhood social support **Feasibility** Not Applicable **Implementation Complexity** Not Applicable	**Population Impact** Not Applicable **High-risk Population Impact** Not Applicable **Sustainability** Not Applicable	**Safety-Interpersonal** PHYSICAL ACTIVITY: 1. Neighborhoods in which women reported that unattended dogs were not a problem were less likely to be active (OR=0.91, 95% CI=0.54-1.54) and meet recommendations (OR=0.79; 95% CI, 0.44–1.41). 2. Women who perceived their neighborhood as safe from crime (either extremely or somewhat safe) were also more likely to be active (OR=1.34, 95% CI=0.81-2.20) and meet recommendations (OR=1.69; 95% CI, 0.82–3.47). **Safety-Traffic** PHYSICAL ACTIVITY: 1. Women were more likely to be active (OR=1.36, 95% CI= 0.50–3.66) and meet recommendations (OR=1.66, 95% CI, 0.70–3.94) if vehicular traffic is light in the neighborhood. **Availability of Parks, Playgrounds, Trails, and Recreation Centers** PHYSICAL ACTIVITY: 1. Women who reported having places to exercise in their neighborhood were less likely to meet activity recommendations (OR=0.56, 95% CI= 0.27-1.17) and be active (OR=0.54; 95% CI, 0.26–1.11). (Note: No p-values reported. Distance to nearest PA resource and access to nearest PA resources may overlap in their designated strategy categories.)	Not Reported
Author Gomez, Johnson (2004) Texas	**Participation/ Potential Exposure** Not Applicable **High-Risk Population** Not Applicable Only cross-sectional data provided. Urban, Hispanic, 11-13 year olds (target) 94% Mexican-Americans, 2% non-Hispanic Whites, 3% African-Americans, and 1% Other ethnicity, 97.7% minority, Annual income ranged from $3927 to $15,887 (evaluation sample)	**Representative** Not Applicable **Potential Population Reach** Not Applicable **Potential High Risk Population Reach** Not Applicable	**Intervention Components** Not Applicable Only cross-sectional data provided. Distance to neighborhood playgrounds MULTI-COMPONENT: 1. Perceptions of neighborhood safety from crime 2. Availability of recreational facilities **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** PHYSICAL ACTIVITY: 1. As distance to the nearest open play area increased, outdoor physical activity for boys decreased significantly (β=-0.317, T= -2.823, p=0.006). **Safety-Interpersonal** PHYSICAL ACTIVITY: 1. For girls, as violent crime within 1/2 mile of home increased, OPA significantly decreased (β= -0.34,T= -0.3.568, p<0.001) (accounted for 9.4% of variances in girls' OPA). While the perception of feeling safe in the neighborhood increased, OPA also increased significantly (β=0.223, T=2.343, p=0.021). (Note: Distance to nearest PA resource and access to nearest PA resources may overlap in their designated strategy categories.)	Not Reported

Study Description	Population	Reach	Intervention	Impact & Sustainability	Other Results	Related Benefits & Consequences
Author Lindsey, Han (2006) Indiana	**Participation/ Potential Exposure** Not Applicable **High-Risk Population** Not Applicable Only cross-sectional data provided. General population, 58% Male, 83% White, 14% African-American, 3% Other (evaluation 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. Population density and land-use mix MULTI-COMPONENT: 1. Street connectivity and greenness in the neighborhood **Feasibility** Not Applicable **Implementation Complexity** Not Applicable	**Population Impact** Not Applicable **High-risk Population Impact** Not Applicable **Sustainability** Not Applicable	**Street Design** PHYSICAL ACTIVITY: 1. Daily traffic is positively and significantly correlated with mean length of street segment (parameter estimate=0.1172, t=6.27, p<0.0001). 2. A 1% increase in the length of the mean street segment length is associated with an increase in trail traffic of 0.117%. 3. Daily trail traffic is positively and significantly correlated with increases in population density (parameter estimate=0.0002, t=18.69, p<0.0001), greenness (parameter estimate=1.988, t=9.36, p<0.0001), the percentage of trail neighborhood in commercial use (parameter estimate=0.0465, t=23.56, p<0.0001), the area in trail neighborhoods in parking lots (parameter estimate=0.0346, t=16.02, p<0.0001), and mean length of street segment (parameter estimate=0.1172, t=6.27, p<0.0001).	1. Daily trail traffic ranged from 52 to 6155. For the year, the mean daily traffic was 87% higher on weekend days (2553) than on weekdays (1360). 2. Every 1% increase in the area of parking lots is correlated with an increase in traffic of less than one-tenth of a percent.
Author Cohen, McKenzie (2007) California	**Participation/ Potential Exposure** Not Applicable **High-Risk Population** Not Applicable Only cross-sectional data provided. Adults (targeted sample) On average, the neighborhoods surrounding the parks were 63.5% Latino, 31.0% African American. 1.8% White and 30.4% 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. Distance to neighborhood parks MULTI-COMPONENT: 1. Neighborhood availability of parks 2. Park safety **Feasibility** Not Applicable **Implementation Complexity** Not Applicable	**Population Impact** Not Applicable **High-risk Population Impact** Not Applicable **Sustainability** Not Applicable	**Safety-Interpersonal** PHYSICAL ACTIVITY: 1. Concerns about park safety were not associated with either park use or frequency of exercise. **Availability of Parks, Playgrounds, Trails, and Recreation Centers** PHYSICAL ACTIVITY: 1. Younger age, being male, and living within 1 mile of a park were positively associated with the frequency of leisure exercise (incident rate ratio= 1.38, 95%CI=1.04-1.84, p<0.001) 2. More residents living within 0.5 miles of the park reported leisurely exercising 5 or more times per week more often than those living more than 1 mile away (49% vs. 35%, p<0.01). 3. People who lived within 1 mile of the park had an average of 38% more exercise sessions per week than those living further away.	1. Among observed park users, 43% lived within 0.25 mile, and another 21% lived between 0.25 and 0.5 mile of the park (p<0.001). Only 13% of park users lived more than 1 mile from the park. 2. Of local residents, 38% living more than 1 mile away were infrequent park visitors, compared with 19% of those living less than 0.5 mile away (p<0.001). 3. Younger age, being male, and living within 1 mile of a park were positively associated with park use (incident rate ratio=4.21, 95%CI=2.54-7.00, p<0.001). 4. People who lived within 1 mile of the park were 4 times as likely to visit the park once a week or more than those living further away. 5. Nearly all respondents (98%) living near the 2 parks with the lowest percentage of households in poverty indicated that they felt the parks were safe, compared with between 50% and 74% for parks in neighborhoods with over 40% of households in poverty (no p-values given).

Study Description	Population	Reach	Intervention	Impact & Sustainability	Other Results	Related Benefits & Consequences
Author Reed, Phillips (2005) Unknown	**Participation/ Potential Exposure** Not Applicable **High-Risk Population** Not Applicable Only cross-sectional data provided. Adults	**Representative** Not Applicable **Potential Population Reach** Not Applicable **Potential High Risk Popluation Reach** Not Applicable	**Intervention Components** Not Applicable Only cross-sectional data provided. Distance to physical activity facilities MULTI-COMPONENT: 1. Access to physical activity facilities **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** PHYSICAL ACTIVITY: 1. There was a significant relationship between intensity of physical activity and proximity for all students (r=0.106; p<0.05). 2. The correlation between duration of physical activity and proximity to facilities was statistically significant (r=0.119, p<0.05). 3. Frequency of physical activity showed a significant negative correlation (r=-0.195; p<0.05) with proximity in male students (n=unknown). 4. It appears that as distance between place of residence and exercise facility increase, the duration and intensity of physical activity also increase. 5. Total physical activity scores and frequency of physical activity revealed no relation to the distance from their residence that participants initiated their leisure-time physical activity. (Note: Distance to nearest PA resource and access to nearest PA resources may overlap in their designated strategy categories.)	Not Reported

Study Description	Population	Reach	Intervention	Impact & Sustainability	Other Results	Related Benefits & Consequences
International						
Author Giles-Corti, Knuiman (2008):Tudor-Locke, Giles-Corti (2008): Giles-Corti, Timperio (2006): Giles-Corti, Knuiman (2007) Australia	**Participation/ Potential Exposure** Participation = Not Reported Exposure = Not Reported Anyone buying or developing new property would be exposed to the new urban design codes. **High-Risk Population** Not Reported Adults, General population, 25% of households income was <$50,000	**Representative** Not Reported **Potential Population Reach** More Evidence Needed Participation = Not reported Representativeness = Not reported **Potential High Risk Popluation Reach** More Evidence Needed High-risk population = Not reported Representativeness = Not reported	**Intervention Components** Multi-component State implemented neighborhood housing development (RESIDE-The Residential Environments Project) design relating to proximity, access to, and use of local businesses and neighborhood self-selection MULTI-COMPONENT: 1. Pedestrian/bicycling friendly street design **Feasibility** Intervention Feasibility = Low Policy Feasibility = High Intervention activities: In 1998, the Western Australian state government began implementing a new subdivision design code (the Liveable Neighborhood Guidelines), based on new urbanism principles. Housing developments were built following these codes. Specialized expertise: Not reported Resources needed: Supplies, labor, and funding for housing development construction Costs: Not reported **Implementation Complexity** High Intervention components = Multi-component Feasibility = High	**Population Impact** More Evidence Needed Effectiveness = More evidence needed Potential population reach = More evidence needed Implementation complexity = Simple **High-risk Population Impact** More Evidence Needed Effectiveness for high-risk populations = Not reported Potential high-risk population reach = More evidence needed Implementation complexity = Simple **Sustainability** Not Reported	**Street Design** PHYSICAL ACTIVITY: 1. Those moving into CDs remained significantly more likely than those moving into HDs to meet the threshold for both sufficient walking and physical activity (OR 1.41; 95% CI; 1.07-1.86; OR; 1.31 95% CI 1.02-1.69, respectively). 2. The odds of achieving sufficient physical activity were also higher for those moving into LDs compared with HDs (OR; 1.32, 95% CI; 1.00-1.75), although for walking, the adjusted difference did not reach statistical significance. 3. There were no differences in perceived access to destinations in their baseline neighborhoods among participants moving into different types of developments. 4. Overall females appeared to be taking more steps per day after the move (Spearman's r=0.551; Δ T1-T2= 34 ± 3.071). 5. The relative change in steps/day was not significant across age groups in males (χ^2=17.35, p=0.137) but was in females (χ^2=50.00, p<0.001). (Note: P-values not provided. Conventional Design = CD, Livable Design = LD, and Hybrid Design= HD; Liveable neighborhoods were designed using New Urbanism principles, which seeks to maximized design toward mixed-use, biking/cycling, and access to services like transit. Conventional designs are the complete opposite of liveable with one type of land-use, disconnected street access, and shopping store chain centers. Hybrid neighborhoods are a combination of LD and CD.)	1. Participants moving into CDs remained significantly less likely than those moving into LDs to rate as important a desire to be nearby shops and services (OR; 0.65; 95% CI; 0.52-0.82); ease of walking (OR; 0.76; 95% CI; 0.60-0.95); sense of community (OR; 0.64; 95% CI; 0.51-0.81); the presence of footpaths (OR 0.65; 95% CI; 0.52-0.82); closeness to parks (OR; 0.69; 95% CI; 0.55-0.86); closeness to the beach (OR 0.59; 95% CI; 0.47-0.73); closeness to transit (OR 0.59; 95% CI; 0.47-0.73); and ease of cycling (OR 0.69; 95% CI 0.54-0.87). 2. The only differences in perceived importance between those moving into HDs compared with LDs related to the development's sense of community (OR 0.73; 95% CI 0.55-0.97); access to a variety of parks (OR 0.66; 95% CI 0.50-0.87); and access to beach (OR 0.30; 95% CI; 0.22-0.41).

Study Description	Population	Reach	Intervention	Impact & Sustainability	Other Results	Related Benefits & Consequences
Author Nelson, Foley (2008) Ireland	**Participation/ Potential Exposure** Not Applicable **High-Risk Population** Not Applicable Only cross-sectional data provided 15-17 year olds, mean age 16.02 ± 0.66 years (evaluation sample) Subset; mean age 15.93±0.63 years 51.6% male	**Representative** Not Applicable **Potential Population Reach** Not Applicable **Potential High Risk Population Reach** Not Applicable	**Intervention Components** Not Applicable Only cross-sectional data provided Population density, urban form, and distance traveled to school **Feasibility** Not Applicable **Implementation Complexity** Not Applicable	**Population Impact** Not Applicable **High-risk Population Impact** Not Applicable **Sustainability** Not Applicable	Not Reported	1. Time (17.2%) and intrinsic factors (6.3%) were the next most commonly cited reasons for inactive commuting after distance (57.1). 2. Other factors such as weather (2.7%), heavy bags (1.7%), and safety (0.5) were reported less than expected. 3. Traffic related danger, unsafe environments, and poor infrastructure for walking and cycling were cited by less than 5% of adolescents. 4. 74% of adolescents who cited distance as a reason for inactive commuting lived less than or equal to 5 miles from school and 92.8% lived less than or equal to 2.5 miles from school. Individuals who cited distance as a reason for inactive commuting lived significantly further from school (7.89 miles) than those who cited other reasons (2.86 miles), (U=471671.5, p<0.001, r=-0.56).
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	**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 design including residential density and mixed land-use MULTI-COMPONENT: 1. Neighborhood access to food stores **Feasibility** Not Applicable **Implementation Complexity** Not Applicable	**Population Impact** Not Applicable **High-risk Population Impact** Not Applicable **Sustainability** Not Applicable	**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 ordinance 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.	Not Reported

Study Description	Population	Reach	Intervention	Impact & Sustainability	Other Results	Related Benefits & Consequences
Author Garden, Jalaludin (2009) Australia	**Participation/ Potential Exposure** Not Applicable **High-Risk Population** Not Applicable Only cross-sectional data provided Adults (16+ years), General Population	**Representative** Not Applicable **Potential Population Reach** Not Applicable **Potential High Risk Population Reach** Not Applicable	**Intervention Components** Not Applicable Only cross-sectional data provided Density and urban sprawl in a metropolitan area. **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 Owen, Cerin (2007) Australia	**Participation/ Potential Exposure** Not Applicable **High-Risk Population** Not Applicable Only cross-sectional data provided General population, Adults, Urban	**Representative** Not Applicable **Potential Population Reach** Not Applicable **Potential High Risk Popluation Reach** Not Applicable	**Intervention Components** Not Applicable Only cross-sectional data provided Land-use mix, street and net retail area ratio MULTI-COMPONENT: 1. Street connectivity COMPLEX: 1. Neighborhood self-selection **Feasibility** Not Applicable **Implementation Complexity** Not Applicable	**Population Impact** Not Applicable **High-risk Population Impact** Not Applicable **Sustainability** Not Applicable	**Street Design** PHYSICAL ACTIVITY: 1. Living in areas with a walkability index that was one standard deviation above the average was associated with 37 minutes more walking than living in areas with a walkability index that was one standard deviation below the average. 2. Neighborhood walkability was associated with more walking for transport in residents for whom access to services was an important reason for living in a specific neighborhood (data not shown). 3. Weekly frequency of walking for transport was independently related to neighborhood walkability (Model 1: β=0.02; Wald test=37.6, df=1; p<0.001 and Model 2: β=0.01; Wald test=29.1, df=1; p<0.001). 4. There was no significant effect of neighborhood walkability on weekly minutes of walking for transport observed among residents for whom access to services was not an important reason for living in their neighborhood. 5. No statistically significant relationships between neighborhood walkability and walking for recreation were found. 6. No statistically significant moderators of the relationship between neighborhood walkability and walking for recreation were found. (Note: Walkability index = dwelling density, street connectivity, land-use mix, and net retail area)	1. Neighborhood self-selection was a significant independent predictor of weekly minutes of walking for transport (β=29.8; Wald Test=25.8, df=1; p<0.001). 2. Weekly minutes and weekly frequency of walking for recreation were independently associated with neighborhood self-selection (p<0.05, no other results shown). 3. Choosing to live in a specific neighborhood because of its access to services was predictive of more weekly minutes of walking for transport. 4. Neighborhood self-selection was the only significant moderator of the relationship between neighborhood walkability and weekly minutes of walking for transport (β=1.59; SE=0.73; Wald test: $\chi^2(1)$=4.78; p=0.029). 5. Weekly frequency of walking for transport was independently related neighborhood self-selection (Model 2: β=0.13; Wald test=109.9, df=1; p<0.001). 6. For weekly minutes of walking for transport, there were no significant effects of objective walkability and neighborhood SES.

Study Description	Population	Reach	Intervention	Impact & Sustainability	Other Results	Related Benefits & Consequences
Author Lee, Kawakubo (2006) Japan	**Participation/ Potential Exposure** Not Applicable **High-Risk Population** Not Applicable Only cross-sectional data was provided. Adults, 56% Female (evaluation sample)	**Representative** Not Applicable **Potential Population Reach** Not Applicable **Potential High Risk Population Reach** Not Applicable	**Intervention Components** Not Applicable Only cross-sectional data was provided. Access to locations within walking distance from residence MULTI-COMPONENT: 1. Perceptions of neighborhood traffic safety 2. Perceptions of neighborhood safety [lighting] 3. Access to parks and trails 4. Street connectivity (alternate routes to locations) and presence of sidewalks **Feasibility** Not Applicable **Implementation Complexity** Not Applicable	**Population Impact** Not Applicable **High-risk Population Impact** Not Applicable **Sustainability** Not Applicable	**Safety-Traffic** PHYSICAL ACTIVITY: 1. In the safety category, the score for "vehicular traffic does not hinder taking a walk" was significantly higher in the low walkable region (high: mean[sd]: 2.49[1.48], vs. low: 3.08[1.55], $p<0.01$). **Availability of Parks, Playgrounds, Trails and Recreation Centers** PHYSICAL ACTIVITY: 1. In the high walkable region, those who had high scores for "There is a park nearby that is suitable for taking a walk in" (low perception mean [sd]: 190.8[195.0] vs. high perception mean [sd] 300.2[279.5], $p<0.05$) and "There is a river (or a beach) within walking distance" low perception mean [sd]: 217.2[211.7] vs. high perception mean [sd] 299.1[283.6], $p<0.05$) spent significantly more walking time.	1. Those who had high scores for "Residents in the neighborhood are friendly" spent significantly more walking time in both regions (high walkable: low perception mean [sd]: 234.2[212.2] vs. high perception mean [sd] 381.0[254.5], $p<0.01$) (low walkable: low perception mean [sd]: 135.9[157.1] vs. high perception mean [sd]: 228.3[271.0], $p<0.05$). 2. In the low walkable region, those who had high scores for "There are several ways to get to one place" (low perception mean [sd]: 124.9[139.9] vs. high perception mean [sd]: 201.4[249.4], $p<0.05$), "It is easy to cross streets" (low perception mean [sd]: 145.1[162.7] vs. high perception mean [sd]: 214.6[270.2], $p<0.05$), "The sidewalks have few inclines and are easy to walk on" [low perception mean [sd]: 89.7[88.2] vs. high perception mean [sd]: 215.6[245.9], $p<0.01$) and "The sidewalks are wide enough to walk on" (low perception mean [sd]: 132.2[138.8] vs. high perception mean [sd]: 232.8[284.5], $p<0.01$) spent significantly more walking time.

Study Description	Population	Reach	Intervention	Impact & Sustainability	Other Results	Related Benefits & Consequences
Author Ball, Bauman (2001) Australia	**Participation/ Potential Exposure** Not Applicable **High-Risk Population** Not Applicable Only cross-sectional data was provided. General population, Adults 54.2% Females (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 was provided. Convenience of locations within walking distance from residence MULTI-COMPONENT: 1. Neighborhood aesthetic environment COMPLEX: 1. Neighborhood social factors (companionship for walking) **Feasibility** Not Applicable **Implementation Complexity** Not Applicable	**Population Impact** Not Applicable **High-risk Population Impact** Not Applicable **Sustainability** Not Applicable	**Street Design** PHYSICAL ACTIVITY: 1. Those reporting more aesthetically pleasing (women only; χ^2=23.5, p<0.05) environments had higher proportions of walkers. 2. Compared to those reporting a highly favorable aesthetic environment, individuals with a moderately aesthetic environment were 16% less likely (OR=0.84, 95%CI=0.71-0.99, p<0.05) to walk for exercise, while those reporting a low aesthetic environment were 41% less likely (OR=0.59, 95%CI=0.47-0.75, p<0.01) to walk for exercise.	1. Individuals with poor physical health component scores (PHCS) and individuals with good physical health component scores (PHCS) with lower environmental aesthetics (poor PHCS; OR=0.62, 95%CI=0.46-0.85, good PHCS; OR=0.57, 95%CI=0.41-0.79) and convenience ratings (poor PHCS; OR=0.72, 95% CI=0.56-0.93, good PHCS; OR=0.60, 95% CI=0.46-0.77), and with no company to walk with (poor PHCS; OR=0.64, 95%CI=0.52-0.78, good PHCS; OR=0.72, 95%CI=0.59-0.89), had a decreased likelihood of walking for exercise. 2. Those with poor mental health (MHCS) were comparable with those with good mental health (MHCS), although there was a trend for those with poorer mental health to have slightly weaker associations between walking and both environmental aesthetics (poor MHCS; OR=0.72, 95%CI=0.54-0.97, good MHCS; OR=0.46, 95%CI=0.33-0.64) and convenience (poor MHCS; OR=0.68, 95%CI=0.53-0.87, good MHCS; OR=0.61, 95%CI=0.48-0.79). 3. Having company was significantly associated with the likelihood of walking for exercise in the past 2 weeks (OR=1.00), individuals without company were 31% less likely to report walking for exercise in the past 2 weeks (OR=0.69, CI=0.59-0.80, p<0.01).

Study Description	Population	Reach	Intervention	Impact & Sustainability	Other Results	Related Benefits & Consequences
Author Stafford, Cummins (2007) England and Scotland	**Participation/ Potential Exposure** Not Applicable **High-Risk Population** Not Applicable Only cross-sectional data provided. 16 years and older, General population (targeted 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. Land-use diversity, urban sprawl, and population density MULTI-COMPONENT: 1. Perceptions of neighborhood disorder (crime) **Feasibility** Not Applicable **Implementation Complexity** Not Applicable	**Population Impact** Not Applicable **High-risk Population Impact** Not Applicable **Sustainability** Not Applicable	**Safety Interpersonal** OVERWEIGHT/OBESITY: 1. BMI was indirectly linked to neighborhood disorder through average sports participation rate (indirect path coefficient =0.013, p<0.05). 2. Greater neighborhood disorder was associated with a higher waist-to-hip ratio (coefficient=0.053, p<0.05).	1. Comparing the 75th and 25th percentile of average sports participation, mean BMI was 0.23 kg/m2 lower in places with greater participation.
Author Spence, Cutumisu (2008) Canada	**Participation/ Potential Exposure** Not Applicable **High-Risk Population** Not Applicable Only cross-sectional data provided. 3-4 year olds and 5-10 year olds	**Representative** Not Applicable **Potential Population Reach** Not Applicable **Potential High Risk Popluation Reach** Not Applicable	**Intervention Components** Not Applicable Only cross-sectional data provided. Density and land use mix MULTI-COMPONENT: 1. Street connectivity **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. No significant associations were found between boys body weight status and intersection density. 2. The odds of girls being overweight were lower if they lived in neighborhoods with more intersections (CDC OR=0.57, 95% CI, 0.39-0.86; IOTF OR=0.48, 95% CI, 0.30-0.76).	1. Neither physical activity nor junk food consumption was associated with overall bodyweight status. 2. Significant interactions were found between sex and intersection density for both Center for Disease Control and Prevention, χ^2(df=2)=9.01, N=501, p=0.011, and International Obesity Task Force criteria, χ^2(2)=11.76, N=501, p=0.003) when examining components of walkability.

Study Description	Population	Reach	Intervention	Impact & Sustainability	Other Results	Related Benefits & Consequences
Author Hume, Salmon (2007) Australia	**Participation/ Potential Exposure** Not Applicable **High-Risk Population** Not Applicable Only cross-sectional data provided. 10-year-olds, Lower income; 49% boys (evaluation sample)	**Representative** Not Applicable **Potential Population Reach** Not Applicable **Potential High Risk Population Reach** Not Applicable	**Intervention Components** Not Applicable Only cross-sectional data provided. Land-use mix and distance to neighborhood destinations MULTI-COMPONENT: 1. Perceptions of neighborhood safety 2. Safety from traffic 3. Pedestrian/bicycling friendly street design Complex: 1. Social support (presence of friends in the area) **Feasibility** Not Applicable **Implementation Complexity** Not Applicable	**Population Impact** Not Applicable **High-risk Population Impact** Not Applicable **Sustainability** Not Applicable	**Safety-Traffic** PHYSICAL ACTIVITY: 1. Among girls, the perceptions of lots of neighborhood graffiti (β=2.59, p=0.04) and safety when crossing the road (β=1.99, p=0.07) were significantly positively associated with walking frequency. 2. Chi square analyses showed that significantly more boys than girls reported access to a walking or cycling track in their neighborhood (94% vs. 85%; χ^2[1]=5.59, p=0.02), lots of graffiti (27% vs. 15%; χ^2[1]=5.34, p=0.02), that it is safe to walk or cycle to school (71% vs. 56%; χ^2[1]=5.79, p=0.02), and that they knew all their neighbors quite well (73% vs. 61%; χ^2[1]=3.86, p=0.05). In contrast, more girls than boys reported that they were worried about strangers in their neighborhood (45% vs. 30%; χ^2[1]=6.06, p=0.01). **Safety-Interpersonal** PHYSICAL ACTIVITY: 1. Among boys, perceiving that it was a safe neighborhood to walk/ cycle to school (β=-1.92, p=0.07) was positively associated with weekly walking frequency. 2. Among girls, the perceptions of lots of neighborhood graffiti (β=2.59, p=0.04) and safety in the neighborhood for walking/cycling to school (β=2.78, p=0.03) were significantly positively associated with walking frequency. Lots of graffiti remained significantly associated with walking frequency in the multiple regression model (both p<0.05). 3. Perceiving lots of litter and rubbish in the neighborhood (β=51.28, p=0.02) was significantly associated with overall physical activity among boys. 4. For boys' overall physical activity, having friends living in walking/ cycling distance and presence of lots of litter (both p<0.05) remained significantly positively associated in the multiple regression model. 5. Chi square analyses showed that significantly more boys than girls reported access to a walking or cycling track in their neighborhood (94% vs. 85%; χ^2[1]=5.59, p=0.02), lots of graffiti (27% vs. 15%; χ^2[1]=5.34, p=0.02), that it is safe to walk or cycle to school (71% vs. 56%; χ^2[1]=5.79, p=0.02), and that they knew all their neighbors quite well (73% vs. 61%; χ^2[1]=3.86, p=0.05). In contrast, more girls than boys reported that they were worried about strangers in their neighborhood (45% vs. 30%; χ^2[1]=6.06, p=0.01). **Street Design** PHYSICAL ACTIVITY: 1. Among girls, the perceptions of nice houses in the neighborhood (β=2.98, p=0.003); lots of neighborhood graffiti (β=2.59, p=0.04); nice neighborhood house gardens (β=1.91, p=0.03); having an easily walkable/cyclable neighborhood (β=2,75, p=0.0001) was significantly positively associated with walking frequency. Easy to walk/cycle and lots of grafitti remained significantly associated with walking frequency in the multiple regression model (both p<0.05).	1. Perceiving lots of children in the neighborhood to play with (β=110.51, p=0.03), friends within walking/ cycling distance of home (β=104.79, p= 0.04), and the overall neighborhood social environment scale (B=31.68, p=0.006) were significantly associated with overall physical activity among boys.

Study Description	Population	Reach	Intervention	Impact & Sustainability	Other Results	Related Benefits & Consequences
Author Carver, Salmon (2005) Australia	**Participation/ Potential Exposure** Not Applicable **High-Risk Population** Not Applicable Only cross-sectional data provided. 12-13 year olds, mean age 13.0 ±0.2 (evaluation sample)	**Representative** Not Applicable **Potential Population Reach** Not Applicable **Potential High Risk Population Reach** Not Applicable	**Intervention Components** Not Applicable Only cross-sectional data provided. Perceptions of access to convenience stores (land-use mix) MULTI-COMPONENT: 1. Perceptions of access to sports facilities 2. Neighborhood perceptions of safety (unattended dogs) 3. Neighborhood perceptions of safety (traffic) COMPLEX: 1. Social support **Feasibility** Not Applicable **Implementation Complexity** Not Applicable	**Population Impact** Not Applicable **High-risk Population Impact** Not Applicable **Sustainability** Not Applicable	**Safety-Interpersonal** PHYSICAL ACTIVITY: 1. Girls' worry about roaming dogs was negatively associated with frequency (β= -0.164, p<0.01) and duration (β= -0.153, p<0.05) of cycling for recreation on weekends, frequency (β= -0.219, p<0.01) and duration (β= -0.183, p<0.05) of cycling for recreation on weekdays, and frequency of walking the dog on weekends (β= -0.138, p<0.05). 2. Boys' worry about roaming dogs was negatively associated with frequency (β= -0.213, p<0.05) and duration (β= -0.194, p<0.05) of walking for exercise on weekdays, duration of walking for exercise on weekends (β= -0.189, p<0.05), and duration of walking for transport on weekdays (β=-0.159, p<0.05). **Safety-Traffic** PHYSICAL ACTIVITY: 1. Girls' perception of road safety was positively associated with frequency (β=0.179, p<0.05) and duration (β=0.183, p<0.01) of walking for transport on weekdays, frequency of walking for exercise on weekdays (β=0.094, p<0.01), duration of walking for exercise on weekends (β=0.184, p<0.05), and frequency of walking the dog on weekends (β=0.128, p<0.05). 2. Parents' perception that there was so much traffic that it was difficult/unpleasant to go for a walk was negatively associated with girls' frequency (β=-0.164, p<0.01) and duration (β=-0.161, p<0.05) of cycling for recreation on weekends, girls' frequency (β=-0.190, p<0.01) and duration (β=-0.188, p<0.01) of walking for exercise on weekdays, girls' duration of cycling for recreation on weekdays (β=-0.109, 0.05), girls' duration of walking to school (β=-0.128, p<0.01), and boys' frequency of walking for transport on weekdays (β=-0.138,p<0.05). **Availability** PHYSICAL ACTIVITY: 1. Parents' perception that their neighborhood had good sports facilities for their child to use was positively associated with girls' frequency (β=0.115, p<0.01) and duration (β=0.092, p<0.05) of cycling for recreation of weekdays, girls' frequency of cycling for recreation on weekends (β=0.092, p<0.05), girls' frequency of walking the dog on weekends (β=0.123, p<0.05), and boys' frequency of cycling for transport on weekdays (β=0.155, p<0.05).	SOCIAL ENVIRONMENT: 1. Boys' perception of having lots of boys/girls the same age to hang out with was positively associated with duration (β=0.27, p<0.01) and frequency (β=0.242, p<0.01) of cycling for recreation on weekdays, frequency of cycling for transport on weekdays (β=0.141, p<0.05), and duration of walking for transport weekdays (β=0.129, p<0.05). 2. Boys' perception of waving/talking to neighbors most days was positively associated with duration (β=0.108, <0.05) and frequency (β=0.149, p<0.05) of walking for transport on weekdays. 3. Girls' reports of waving/talking to neighbors most days were positively associated with frequency (β=0.119, p<0.05) and duration (β=0.103, p<0.01) of walking for transport on weekdays and frequency (β=0.16, p<0.01) and duration (β=0.156, p<0.01) of walking for exercise on weekdays. 4. Girls' perception of having many friends in the neighborhood was positively associated with frequency (β=0.078, p<0.05) and duration of walking (β=0.119, p<0.01) for transport on weekdays, frequency (β=0.193, p<0.01) and duration (β=0.189, p<0.01) of walking for transport on weekends, and frequency (β=0.211, p<0.01) and duration (β=0.23, p<0.01) of walking to school. 5. Girls' perception of having lots of boys/girls the same age to hang out with was positively associated with frequency (β=0.118, p<0.01) and duration (β=0.1, p<0.01) of walking to school and frequency of cycling for recreation on weekends (β=0.164, p<0.01). 6. Girls' perception of having friends close to home was positively associated with frequency of walking for transport on weekdays (β=0.069, p<0.05).

Study Description	Population	Reach	Intervention	Impact & Sustainability	Other Results	Related Benefits & Consequences
Author Kirby, Levesque (2007) Canada (Moose Factory Island)	**Participation/ Potential Exposure** Not Applicable **High-Risk Population** Not Applicable Only cross-sectional data was provided. Adults in an Aboriginal Community 130 women (mean age 35.6 years ±12.3), 133 men (mean age=36.3 years ±12.7) (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 was provided. Convenient access to neighborhood destinations MULTI-COMPONENT: 1. Perceptions of safety for walking in the community 2. Aesthetic quality of the neighborhood **Feasibility** Not Applicable **Implementation Complexity** Not Applicable	**Population Impact** Not Applicable **High-risk Population Impact** Not Applicable **Sustainability** Not Applicable	**Safety-Interpersonal** PHYSICAL ACTIVITY 1. The square root of safety was significantly related to total weekly walking ($p<0.05$; $\beta=0.130$). 2. Hierarchical regressions revealed that perceived environmental variables (e.g., convenience, safety, aesthetics) were not related to the variation in response for all intensity, strenuous, moderate, and light physical activity ($p>0.05$). **Street Design** PHYSICAL ACTIVITY: 1. The square root of aesthetics was significantly related to total weekly walking ($p<0.05$; $\beta=0.186$ respectively). 2. Hierarchical regressions revealed that perceived environmental variables (e.g., convenience, safety, aesthetics) were not related to the variation in response for all intensity, strenuous, moderate, and light physical activity ($p>0.05$).	1. Total weekly physical activity involvement decreased with increasing BMI ($\chi^2(4)=11.72$, $p=0.02$, n=253) and total weekly walking decreased with increasing BMI ($\chi^2(4)=19.59$, N=253, $p=0.001$).

Study Description	Population	Reach	Intervention	Impact & Sustainability	Other Results	Related Benefits & Consequences
Author De Bourdequdhuij, Sallis (2003) Belgium	**Participation/ Potential Exposure** Not Applicable **High-Risk Population** Not Applicable Only cross-sectional data was provided. Adults,18-65 year olds (target sample) 41 ± 12.22 (mean ± SD) years, 48.3% Female, 70.1% employed, 39.3% urban dwellers, 54.8% suburban, 5.9% countryside (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 was provided. Residential density and land-use mix MULTI-COMPONENT: 1. Quality and access to sidewalks and street connectivity 2. Perceptions of neighborhood safety from crime 3. Access to physical activity facilities 4. Proximity to public transportation stops **Feasibility** Not Applicable **Implementation Complexity** Not Applicable	**Population Impact** Not Applicable **High-risk Population Impact** Not Applicable **Sustainability** Not Applicable	**Street Design** PHYSICAL ACTIVITY: 1. Greater availability of sidewalks in the neighborhood was associated with walking in males (semi-partial correlate=0.14, p≤0.05). In females, more walking was associated with greater ease of the walk to public transportation stops (semi-partial correlate=0.16, p≤0.05) and to longer distances to shops and businesses (semi-partial correlate=0.15, p≤0.05). **Safety-Interpersonal** OVERWEIGHT/OBESITY: 1. Participants with a higher BMI reported less safety from crime (Pearson r= -0.11, p<0.05). SEDENTARY BEHAVIOR: 2. In males, the amount of sitting was related to higher perceived criminality in the neighborhood (semi-partial correlate=-0.22, p≤0.01), longer distances to shops and businesses (land use mix, diversity) (semi-partial correlate=0.14, p≤0.05), and more convenience of shopping in local stores (land use mix, access to local shopping) (semi-partial correlate=0.15, p≤0.01). For females, less emotional satisfaction with the neighborhood was associated with greater amounts of sitting (semi-partial correlate= -0.15, p≤0.05). **Availability of Park, Playgrounds, Trails, and Recreation Centers** OVERWEIGHT/OBESITY: 1. Participants with a higher BMI reported fewer convenient physical activity facilities (Pearson r=-0.11, p<0.05). PHYSICAL ACTIVITY: 2. In males, vigorous intensity physical activity was related to more convenient physical activity facilities (semi-partial correlate=0.11, p≤0.05). In females, vigorous intensity physical activity was related to more convenient physical activity facilities (semi-partial correlate=0.14, p≤0.05) and supportive worksite environment was related to more high intensity activity (semi-partial correlate=0.12, p≤0.05). **Transportation** PHYSICAL ACTIVITY: 1. In females, more walking was associated with greater ease of the walk to public transportation stops (semi-partial correlate=0.16, p≤0.05) and to longer distances to shops and businesses (semi-partial correlate= 0.15, p≤0.05). (Note: Distance to nearest PA resource and access to nearest PA resources may overlap in their designated strategy categories.)	1. In males, moderate intensity activity was related to more satisfaction with neighborhood services (semi-partial correlate=0.15, p≤0.05). 2. In females, more moderate intensity physical activity was related to more emotional satisfaction with the neighborhood (semi-partial correlate=0.13, p≤0.05) 3. For females, less emotional satisfaction with the neighborhood was associated with greater amounts of sitting (semi-partial correlate= -0.15, p≤0.05). 4. Participants with a higher BMI reported less physical activity equipment in the home (Pearson r= -0.15, p<0.001).

Study Description	Population	Reach	Intervention	Impact & Sustainability	Other Results	Related Benefits & Consequences
Author Harten, Olds (2003) Australia	**Participation/ Potential Exposure** Not Applicable **High-Risk Population** Not Applicable Only cross-sectional data was provided. 11-12 year olds, 58% Male (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 was provided. Distance to neighborhood destinations **Feasibility** Not Applicable **Implementation Complexity** Not Applicable	**Population Impact** Not Applicable **High-risk Population Impact** Not Applicable **Sustainability** Not Applicable	Not Reported	1. Trips made by children whose parents were highly dissatisfied with their environment were less likely to be active than those with low environmental dissatisfaction (OR=0.53, 95% CI=0.28-1.00, p<0.05).

Study Description	Population	Reach	Intervention	Impact & Sustainability	Other Results	Related Benefits & Consequences
Author Kondo, Lee (2009) Japan	**Participation/ Potential Exposure** Not Applicable **High-Risk Population** Not Applicable Only cross-sectional data was provided. Adults, 30-69 years old (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 was provided. Residential density and land-use mix diversity MULTI-COMPONENT: 1. Perceptions of neighborhood safety from crime 2. Perceptions of neighborhood traffic safety 3. Street connectivity and length of streets and sidewalks 4. Availability of places to be active **Feasibility** Not Applicable **Implementation Complexity** Not Applicable	**Population Impact** Not Applicable **High-risk Population Impact** Not Applicable **Sustainability** Not Applicable	**Safety-Traffic** PHYSICAL ACTIVITY: 1. There were no differences in mean walking time for transport or cycling time for transport related to neighborhood environment perception scores between the high and low scoring groups. 2. For males, there were no differences in walking steps between the high scoring group and the low scoring group for residential density, land use mix-diversity, land use mix-access, street connectivity, and safety. **Safety-Interpersonal** PHYSICAL ACTIVITY: 1. There were no differences in mean walking time for transport or cycling time for transport related to neighborhood environment perception scores between the high and low scoring groups. 2. For males, there were no differences in walking steps between the high scoring group and the low scoring group for residential density, land use mix-diversity, land use mix-access, street connectivity, and safety. **Street Design** PHYSICAL ACTIVITY: 1. There were no significant differences in walking steps related to land use type, length of streets or sidewalks, number of intersections, and width of streets between the high and low scoring groups. There were no differences in walking time for leisure or transport associated with objective neighborhood measures between the high and low scoring groups. 2. For males, there were no differences in walking steps between the high scoring group and the low scoring group for residential density, land use mix-diversity, land use mix-access, street connectivity, and safety. 3. For females, mean total walking steps was significantly higher in the high scoring group than in the low scoring group for the walking places score (mean± standard error: 9488±511 vs. 7957 ± 538; p<0.05). 4. For males, mean walking time for leisure was significantly longer in the high scoring group than in the low scoring group for the aesthetics score (mean ± standard error: 20.6 ± 6.0 vs. 0.6 ± 6.7; p<0.05). **Availability of Parks, Playgrounds, Trails, and Recreation Centers** PHYSICAL ACTIVITY: 1. For females, mean total walking steps was significantly higher in the high scoring group than in the low scoring group for the walking places score (mean± standard error: 9488±511 vs. 7957 ± 538; p<0.05). 2. For males, mean walking time for leisure was significantly longer in the high scoring group than in the low scoring group for individuals with parks in the area compared to those without (26.2 ± 6.4 vs. 2.7 ± 6.9; p<0.05). 3. For males, mean cycling time for transport was significantly longer in the high scoring group than in the low scoring group for the number of land use types (mean ± standard error: 11.9 ± 3.0 vs. 0.8 ± 4.4; p<0.05) including post offices (12.1 ± 3.1 vs. 1.5 ± 4.2; p<0.05), banks/credit unions (15.4 ± 3.8 vs. 3.1 ± 3.3; p<0.05), gymnasiums/fitness facilities (31.9 ± 7.8 vs. 5.8 ± 2.5; p<0.01), and/or amusement facilities (16.4 ± 4.6 vs. 4.8 ± 3.0; p<0.05) in the area when compared to subjects without these facilities. 4. For males, mean walking time for leisure was significantly longer in the high scoring group than in the low scoring group for individuals with parks in the area compared to those without (26.2 ± 6.4 vs. 2.7 ± 6.9; p<0.05). (Note: Multiple GIS and perception measures were used to determine respondent's walkability score because of this results will belong to multiple strategies.)	Not Reported

Study Description	Population	Reach	Intervention	Impact & Sustainability	Other Results	Related Benefits & Consequences
Author Duncan, Mummery (2005) Australia	**Participation/ Potential Exposure** Not Applicable **High-Risk Population** Not Applicable Only cross-sectional data provided. General population, Ages 18 and older	**Representative** Not Applicable **Potential Population Reach** Not Applicable **Potential High Risk Popluation Reach** Not Applicable	**Intervention Components** Not Applicable Only cross-sectional data provided. Distance to places for physical activity MULTI-COMPONENT: 1. Access to opportunities for physical activity 2. Perceptions of neighborhood safety and cleanliness 3. Route directness (street connectivity) COMPLEX: 1. Social support **Feasibility** Not Applicable **Implementation Complexity** Not Applicable	**Population Impact** Not Applicable **High-risk Population Impact** Not Applicable **Sustainability** Not Applicable	**Street Design** PHYSICAL ACTIVITY: 1. People who had unacceptable route directness to the nearest parkland were 41% more likely to achieve sufficient levels of activity than those people who had acceptable route directness to parkland (OR=1.41, CI=1.00-1.98). 2. People who did not agree that the neighborhood footpaths were in good condition were 38% more likely to participate in recreational walking than those who thought the footpaths were in good condition (OR=1.38, CI=1.00-1.91). **Safety-Interpersonal** PHYSICAL ACTIVITY: 1. People not agreeing that their neighborhood was clean and tidy (physical disorder)were 2.67 times more likely to attain sufficient levels of activity than those people who agreed with the statement (OR=2.67, CI=1.28-5.55). 2. People whose home was classed as being in the middle tertile of registered dog numbers within 0.8 km were 66% more likely to have reported some recreational walking than those people living in a residence with the lowest tertile of registered dog numbers (OR=1.66, CI=1.13-2.43). **Availability** PHYSICAL ACTIVITY: 1. People with the most proximal parkland beyond a network distance of 0.6 k, were 41% more likely to achieve recommended levels of activity than those with parkland within this distance (OR=1.41, CI=1.01-1.97). (Note: Footpaths are equivalent to sidewalks.)	1. People reporting high levels of self-efficacy were 93% more likely to attain sufficient activity than those people reporting low levels of self-efficacy (OR=1.93, CI=1.40-2.64). 2. People reporting high levels of social support for activity were 65% more likely to participate in recreational walking than those people who reported low levels of social support [OR=1.65, CI=(1.17-2.34)].

Study Description	Population	Reach	Intervention	Impact & Sustainability	Other Results	Related Benefits & Consequences
Author Carnegie, Bauman (2002) Australia	**Participation/ Potential Exposure** Not Applicable **High-Risk Population** Not Applicable Only cross-sectional data was provided. General population, Adults 40-60 years old, 57.4% Female (evaluation sample)	**Representative** Not Applicable **Potential Population Reach** Not Applicable **Potential High Risk Population Reach** Not Applicable	**Intervention Components** Not Applicable Only cross-sectional data was provided. Land-use mix <u>MULTI-COMPONENT:</u> 1. Perceptions of neighborhood traffic safety 2. Perceptions of neighborhood perceptions of safety (dogs barking) 3. Access to open spaces (beaches and parks) 4. Perceptions of aesthetics **Feasibility** Not Applicable **Implementation Complexity** Not Applicable	**Population Impact** Not Applicable **High-risk Population Impact** Not Applicable **Sustainability** Not Applicable	**Safety-Traffic** <u>PHYSICAL ACTIVITY:</u> 1. Those who walked more than 2 hours per week (M=2.96, SD=1.1) strongly agreed that they perceived traffic to be bothersome more than those who walked less than 20 minutes per week (M=3.15, SD=1.12; F(2, 1.168)=5.19; p=0.006). **Safety-Interpersonal** <u>PHYSICAL ACTIVITY:</u> 1. The "dogs barking" variable showed no relationship with walking activity nor did the "safety at night" question. 2. The "feel safe walking at night" question was much more of an issue for women than men (M=3.7 for women and 2.4 for men, p<0.001), showing that women felt much less safe than men walking at night. **Availability of Parks, Playgrounds, Trails, and Recreation Centers** <u>PHYSICAL ACTIVITY:</u> 1. Those who walked for less than 20 minutes and those who walked for between 20 minutes and 2 hours both reported that shops, parks, and beaches were less near to their home than those who reported walking more than 2 hours per week (F (2, 1.168) = 11.24, p<0.001). 2. There was an independent association between the stage of change variable and the aesthetic environment (F (2, 1.168) = 5.67; p<0.01) and with the practical environment factor (F (2, 1.157) =12.05; p<0.001). **Street Design** <u>PHYSICAL ACTIVITY:</u> 1. Those who did little waking (20 min or less per week) reported more negative perceptions of their aesthetic environment than those who reported walking for between 20 min and 2 hr and those who reported walking for more than 2 hr (F (2, 1.163)= 5.19, p<0.01). (Note: The practical environment is a composite of access to shops, parks and beaches.)	1. There was an independent association between the stage of change variable and the aesthetic environment (F (2, 1.168) = 5.67; p<0.01) and with the practical environment factor (F (2, 1.157) =12.05; p<0.001).

Study Description	Population	Reach	Intervention	Impact & Sustainability	Other Results	Related Benefits & Consequences
Author Tucker, Irwin (2009) Ontario, Canada	**Participation/ Potential Exposure** Not Applicable **High-Risk Population** Not Applicable Only cross-sectional data provided. 11-13 year olds Parent demographics: 75.3% White, 1.5% Black, 6.6% Latin-American, 5.8% Asian, 8.8% Other, 9 % 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. Land-use mix <u>MULTI-COMPONENT:</u> 1. Presence of neighborhood recreational opportunities (percentage of park space) **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** <u>PHYSICAL ACTIVITY:</u> 1. Land-use mix and percentage of park coverage were not significant factors influencing physical activity level among London, Ontario adolescents. 2. Children with parent-reported recreation facilities in their neighborhood were 13.91 minutes more active after school than children without facilities (p=0.03). 3. Children whose parents reported access to neighborhood recreation facilities were 2.04 (95% CI=1.06-3.92, p=0.03) times more likely to fall within the upper quartile of after school physical activity (>180 minutes per day) than those in the bottom quartile (<60 minutes per day). 4. Students who had 2 or more recreational facilities in their neighborhood were 1.65 times (95% CI=1.09-2.50, p=0.02) more likely to be categorized in the upper quartile for after school physical activity. 5. Children with more than 2 recreation opportunities engaged in 16.49 (standard error 4.97, p=0.004) more minutes of physical activity than those with fewer than 2. (Note: Percentage of park coverage can be construed as access to parks as well as the development and design of the community, which will overlap between Community Design and Availability of Parks, Playgrounds, Trails, Recreation Centers.)	Not Reported
Author De Vries, Bakker (2007) The Netherlands	**Participation/ Potential Exposure** Not Applicable **High-Risk Population** Not Applicable Only cross-sectional data provided. 8.3 ± 1.4 year olds (mean), 6-11 years old (range)	**Representative** Not Applicable **Potential Population Reach** Not Applicable **Potential High Risk Popluation Reach** Not Applicable	**Intervention Components** Not Applicable Only cross-sectional data provided. Residential density <u>MULTI-COMPONENT:</u> 1. Access to neighborhood recreation spaces 2. Intersection density 3. Safety from traffic <u>COMPLEX:</u> 1. Friendliness of neighborhood **Feasibility** Not Applicable **Implementation Complexity** Not Applicable	**Population Impact** Not Applicable **High-risk Population Impact** Not Applicable **Sustainability** Not Applicable	**Street Design** <u>PHYSICAL ACTIVITY:</u> 1. Children's physical activity was also positively associated with the frequency of parallel parking spaces (β=2.152; 95%CI= 1.408, 2.897) and parking lots (β=3.169; 95% CI=2.055, 4.284) (p<0.05 for both). 2. Children's physical activity was negatively associated with intersections in the neighborhood (β= -1.035; 95% CI= -1.825, -0.246). **Availability of Parks, Playgrounds, Trails, and Recreation Centers** <u>PHYSICAL ACTIVITY:</u> 1. No significant associations were found for sports and recreation facilities, except for sports fields (p<0.05). 2. Children's physical activity was negatively associated with the frequency of paved playgrounds (β= -1.372; 95% CI= -2.549, -0.195). 3. Children's physical activity was positively associated with the proportion of green space (β=0.865; 95% CI= -0.494, 2.225) and cycle tracks (β=2.445; 95%CI= 0.439, 4.451) in the neighborhood (p<0.05 for both). **Safety -Traffic** <u>PHYSICAL ACTIVITY:</u> 1. Children's physical activity was negatively associated with the frequency of heavy traffic (lorry and bus) (β= -2.356; 95% CI= -3.587, -1.125) and the frequency of striped crossings (β= -1.815; 95% CI -2.854, -0.776) (p<0.05 for all). 2. Children's physical activity was positively associated with the proportion of 30-km speed zones (β=1.815; 95% CI=0.700, 2.929, p<0.05) in the neighborhood.	1. Children's physical activity was also positively associated with the residential density (β=0.009; 95% CI= 0.001, 0.017), and with the general rating of activity-friendliness of neighborhood (β=1.990; 95%CI= 1.255, 2.724) (p<0.05 for both).

Study Description	Population	Reach	Intervention	Impact & Sustainability	Other Results	Related Benefits & Consequences
Author Hume, Salmon (2005) Australia	**Participation/ Potential Exposure** Not Applicable **High-Risk Population** Not Applicable Only cross-sectional data provided. 10.1 ± 0.4 years old (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 diverse locations in the neighborhood <u>MULTI-COMPONENT:</u> 1. Presence of parks and green spaces 2. Access to food stores and restaurants **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** <u>PHYSICAL ACTIVITY:</u> 1. Among girls, physical activity opportunities in the neighborhood were positively associated with low intensity activity [F (1, 51)=5.29, p=0.03, r^2=0.09]. **Neighborhood Availability of Restaurants and Food Stores** <u>PHYSICAL ACTIVITY:</u> 1. Food locations drawn within the neighborhood showed a significant positive association with moderate intensity activity [F (1, 48)=4.16, p=0.05, r^2=0.08). (Note: The perceived environment is a composite of 11 items including, but not limited to, opportunities for sedentary behavior, land use mix, access to food in the neighborhood, number of streets in neighborhood, opportunities for physical activity in neighborhood and home and opportunities for socializing in the neighborhood.)	1. Opportunities for sedentary behaviors drawn at home showed a significant positive association with vigorous activity [F(1, 60) =4.06, p=0.05, r^2=0.06] and an inverse association with time spent being sedentary [F(1, 60)=3.65, p=0.06, r^2=0.06].
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 Only cross-sectional data provided As part of the selection criteria only studies that were nationally representative were used. **Potential Population Reach** Not Applicable **Potential High Risk Popluation Reach** Not Applicable	**Intervention Components** Not Applicable Only cross-sectional data provided Urbanization (urban population density) <u>MULTI-COMPONENT:</u> 1. Neighborhood availability of fruits and vegetables 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	**Neighborhood Availability of Food Stores** <u>OVERWEIGHT/OBESITY:</u> 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). **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: b=-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).

Study Description	Population	Reach	Intervention	Impact & Sustainability	Other Results	Related Benefits & Consequences
Author Giles-Corti, Donovan (2002); Giles-Corti, Donovan (2002); Giles-Corti, Donovan (2003); Giles-Corti, Macintyre (2003); McCormack, Giles-Corti (2007); McCormack, Giles-Corti (2008) Australia	**Participation/ Potential Exposure** Not Applicable **High-Risk Population** Not Applicable Only cross-sectional data provided. Adults, 18-59 years old (evaluation sample) The sample was comprised of relatively young, healthy, sedentary workers and homemakers living in high or low SES areas.	**Representative** Not Applicable **Potential Population Reach** Not Applicable **Potential High Risk Population Reach** Not Applicable	**Intervention Components** Not Applicable Only cross-sectional data provided. Access to destinations and land-use mix MULTI-COMPONENT: 1. Access to transit stations 2. Neighborhood perceptions of traffic safety 3. Access to recreation destinations 4. Road network distance and presence of sidewalks 5. Perceived neighborhood safety **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. Overweight individuals were more likely to live on streets with no sidewalks (OR=1.4, 95%CI: 1.01-1.95), streets with sidewalks on one side only (OR=1.32; 95%CI: 0.98-1.79) and perceive no paths within walking distance (OR=1.42; 95% CI: 1.08-1.86). 2. Male obesity prevalence was inversely associated with density of motorways (β=-0.197, p=0.067). PHYSICAL ACTIVITY: 2. In comparison with those who had no sidewalk and no shop on their street, those who had access to either or both of these attributes were about 25% more likely to achieve recommended levels of walking (combined OR=1.25, 95%CI: 0.90-1.74). 3. Respondents were more likely to walk for transport if they perceived that their neighborhood had sidewalks (OR=1.65, 95%CI: 1.12-2.41, p=0.011). 4. The likelihood of walking for recreation was higher in residents who perceived their neighborhood as being attractive, safe and interesting (OR=1.49, 95%CI: 1.14-1.95, p=0.003). 5. Respondents were more likely to walk as recommended if they perceived their neighborhood as being attractive, safe, and interesting (OR=1.50, 95%CI: 1.08-2.09, p=0.017). 6. Those who exercised vigorously perceived their neighborhood as being attractive, safe, and interesting (OR=1.39, 95%CI: 1.08-1.79; p=0.01) and claimed that there were sidewalks in the neighborhood (OR=1.52, 95%CI: 1.05-2.21, p=0.027). 7. Respondents were more likely to walk for transport if they had a shop within walking distance (OR=3, 95%CI: 2.04-4.4, p<0.001). **Availability of Parks, Playgrounds, Trails, and Recreation Centers** OVERWEIGHT/OBESITY: 1. Overweight individuals were more likely to perceive no paths within walking distance (OR=1.42; 95% CI: 1.08-1.86). PHYSICAL ACTIVITY: 2. Having a beach within 1500 m was positively associated with irregular walking for recreation (OR=1.97, 95% CI: 1.01-3.83, p<0.05) and regular vigorous physical activity (OR=1.93, 95% CI: 1.20-3.13, p<0.01). 3. Among individuals who frequented pay for use recreational destinations, each additional pay destination (OR=1.51, 95%CI: 1.32-1.73, p<0.001) was associated with the use of pay-destinations located in the neighborhood. 4. Those who used a pay destination located within or outside (OR=8.46, 95%CI: 3.98-18.00, p<0.001 and OR=3.48, 95%CI: 2.59-4.66, p<0.001, respectively) the neighborhood were more likely than those who did not use a pay destination to achieve sufficient vigorous-intensity physical activity. 5. Respondents using free destinations within and outside (OR=1.56, 95%CI: 1.00-2.33, p<0.05 and OR=2.13, 95%CI: 1.56-2.89, p<0.001, respectively) the neighborhood were more likely to achieve sufficient levels of vigorous-intensity physical activity than those not using a free recreational destination. 6. The likelihood of walking for recreation was higher in residents in the top quartile of access to the beach (OR=1.49, 95%CI: 1.14-1.93, p=0.003). 7. Respondents were more likely to walk as recommended if they were in top quartile of access to public open space (OR=1.43, 95%CI: 1.07-1.91, p=0.015). *(continued next page)*	1. Walking at recommended levels was significantly associated with perceived behavioral control, frequency of a behavioral skill used in past month, intention to be active (high vs. low, OR=1.83, 95%CI: 1.14-2.94, p=0.13), having a club membership (OR=0.53, 95%CI: 0.39-0.74, p<0.01), owning a dog (OR=1.58, 95%CI: 1.19=2.09), social support for physical activity in the past 3 months, and being in the top quartile of access to attractive public open space (OR=1.47, 95%CI: 1-2.15, p=0.048). 2. Those who always had access to a motor vehicle were about half as likely to be obese as those who never had access to a motor vehicle (OR=0.56, 95%CI: 0.32-0.99). 3. Relative to respondents in the lowest determinant score categories, the odds of achieving recommended levels of walking were 3.1 times higher among those in the high individual determinant score category (95%CI: 2.2-4.37, p<0.001), 2.79 times higher among those in the high social environmental determinant score category (95%CI: 2-3.9, p<0.001), and 2.13 times higher among those in the high physical environmental determinant score category (95%CI: 1.54-2.94, p<0.001). 4. The greater the number of significant others who exercised weekly with the respondent, the more likely recommended levels of activity were achieved (four or more vs. none, OR=1.37, 95%CI: 0.83-2.25) test for trend p<0.001). 5. Those who used a pay destination located within or outside (OR=8.46, 95%CI: 3.98-18.00, p<0.001 and OR=3.48, 95%CI: 2.59-4.66, p<0.001, respectively) the neighborhood were more likely than those who did not use a pay destination to achieve sufficient vigorous-intensity physical activity. *(continued next page)*

(Continued from previous study)

					8. Those who exercised vigorously were more likely to be in the top quartile of access to the beach (OR=1.38, 95%CI: 1.07-1.79, p=0.013). 9. Individuals with poor access to 4 or more recreational facilities were 68% more likely to be obese compared with others (95%CI: 1.11-2.55). 10. Respondents were more likely to walk as recommended if they were in top quartile of access to public open space (OR=1.43, 95%CI: 1.07-1.91, p=0.015). **Transportation** PHYSICAL ACTIVITY: 1. Residing within 1500 m of transit stations (OR=2.38, 95% CI: 1.67-3.39, p<0.001) was significantly associated with regular walking for transport. 2. Having a transit station located within 1500 m was positively associated with regular walking for recreation (OR=1.50, 95% CI: 1.09-2.05, p<0.05). **Safety-Interpersonal** PHYSICAL ACTIVITY: 1. The likelihood of walking for recreation was higher in residents who perceived their neighborhood as being attractive, safe and interesting (OR=1.49, 95%CI: 1.14-1.95, p=0.003). 2. Respondents were more likely to walk as recommended if they perceived their neighborhood as being attractive, safe, and interesting (OR=1.50, 95%CI: 1.08-2.09, p=0.017). 3. Those who exercised vigorously were more likely perceive their neighborhood as being attractive, safe, and interesting (OR=1.39, 95%CI: 1.08-1.79; p=0.01). 4. The likelihood of walking for recreation was higher in residents that perceived their neighborhood as being attractive, safe and interesting (OR=1.49, 95%CI: 1.14-1.95, p=0.003). 5. Respondents were more likely to walk as recommended if they perceived their neighborhood as being attractive, safe, and interesting (OR=1.50, 95%CI: 1.08-2.09, p=0.017). 6. Those who exercised vigorously were more likely to perceive their neighborhood as being attractive, safe, and interesting (OR=1.39, 95%CI: 1.08-1.79; p=0.01). **Safety-Traffic** OVERWEIGHT/OBESITY: 1. Overweight individuals were more likely to live on highways (OR=4.24; 95%CI: 1.62-11.09). PHYSICAL ACTIVITY: 2. Respondents were more likely to walk for transport if they perceived more traffic and busy roads (OR=1.26, 95%CI: 1.01-1.56, p=0.038). 3. In comparison with those who had major traffic and no trees on their street, the odds of achieving recommended levels of walking were nearly 50% higher among those who lived on a street with one or both of these features (combined)R=1.49, 95%CI: 0.96-2.33).	6. Respondents using free destinations within and outside (OR=1.56, 95%CI: 1.00-2.33, p<0.05 and OR=2.13, 95%CI: 1.56-2.89, p<0.001, respectively) the neighborhood were more likely to achieve sufficient levels of vigorous-intensity physical activity than those not using a free recreational destination. 7. The likelihood of walking for recreation was higher in residents who perceived that there was support for walking locally (OR=1.8, 95%CI: 1.36-2.4, p<0.001) 8. The likelihood of walking for recreation was higher in those who perceived their neighborhood as having support for walking locally (OR=1.8, 95%CI: 1.36-2.4, p<0.001) 9. Respondents were more likely to walk as recommended if they perceived their neighborhood as being supportive of walking locally (OR=1.52, 95%CI: 1.09-2.11, p=0.014).

Study Description	Population	Reach	Intervention	Impact & Sustainability	Other Results	Related Benefits & Consequences
Author Santos, Silva (2008) Portugal	**Participation/ Potential Exposure** Not Applicable **High-Risk Population** Not Applicable Only cross-sectional data provided. Adults (18 years and older) Azorean	**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 destinations (land-use mix) and residential density MULTI-COMPONENT: 1. Availability of places to be active 2. Aesthetic quality of the neighborhood **Feasibility** Not Applicable **Implementation Complexity** Not Applicable	**Population Impact** Not Applicable **High-risk Population Impact** Not Applicable **Sustainability** Not Applicable	**Availability of Playgrounds, Parks, Trails, and Recreation Centers** PHYSICAL ACTIVITY: 1. Women with a positive overall perception of the dimension infrastructures; access to destinations, social environment, and aesthetics were 32.5% (95%CI: 1.150-1.528; $p<0.001$) more likely to have a moderate physical activity level and 31.9% (95%CI: 1.121-1.551; $p<0.001$) more likely to have a health enhancing physical activity (HEPA) level. 2. Normal weight women (BMI <25 kg/m^2) with a positive overall perception of the dimension infrastructures; access to destinations, social environment, and aesthetics were 44.5% (95%CI: 1.166-1.791; $p<0.001$) more likely to have moderate physical activity levels, whereas overweight/obese women (BMI ≥ 25 kg/m^2) were 22% (95%CI: 1.007-1.478; $p<0.05$) more likely to have moderate physical activity levels and 34.5% (95%CI: 1.3451.080-1.675; $p<0.05$) more likely to have HEPA levels. 3. Normal weight men (BMI<25kg/m^2) with a positive perception of the dimension infrastructures; access to destinations, social environment, and aesthetics were 51.4% (95% CI: 1.091-2.101; $p<0.05$) more likely to have moderate physical activity levels. **Street Design** PHYSICAL ACTIVITY: 1. Women with a positive overall perception of the dimension infrastructures; access to destinations, social environment, and aesthetics were 32.5% (95%CI: 1.150-1.528; $p<0.001$) more likely to have a moderate physical activity level and 31.9% (95%CI: 1.121-1.551; $p<0.001$) more likely to have a health enhancing physical activity (HEPA) level. 2. Normal weight women (BMI <25 kg/m^2) with a positive overall perception of the dimension infrastructures; access to destinations, social environment, and aesthetics were 44.5% (95%CI: 1.166-1.791; $p<0.001$) more likely to have moderate physical activity levels, whereas overweight/obese women (BMI ≥ 25 kg/m^2) were 22% (95%CI: 1.007-1.478; $p<0.05$) more likely to have moderate physical activity levels and 34.5% (95%CI: 1.3451.080-1.675; $p<0.05$) more likely to have HEPA levels. 3. Normal weight men (BMI<25kg/m^2) with a positive perception of the dimension infrastructures; access to destinations, social environment, and aesthetics were 51.4% (95% CI: 1.091-2.101; $p<0.05$) more likely to have moderate physical activity levels. (Note: Distance to nearest PA resource and access to nearest PA resources may overlap in their designated strategy categories. Destinations refers to shops, stores, markets, and places to bicycle in the neighborhood.)	Not Reported

Study Description	Population	Reach	Intervention	Impact & Sustainability	Other Results	Related Benefits & Consequences
Author Panter, Jones (2008) England	**Participation/ Potential Exposure** Not Applicable **High-Risk Population** Not Applicable Only cross-sectional data provided. Adults	**Representative** Not Applicable **Potential Population Reach** Not Applicable **Potential High Risk Popluation Reach** Not Applicable	**Intervention Components** Not Applicable Only cross-sectional data provided. Residential density MULTI-COMPONENT: 1. Access to indoor and outdoor facilities for physical activity, access to green space and biking and walking facilities for physical activity 2. Street connectivity and neighborhood aesthetics 3. Perceptions of traffic safety **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** PHYSICAL ACTIVITY: 1. Participants that reported 5 sessions of activity per week, lived closer to sports facilities (mean distance [standard error] = 1268.9 [104.99], p<0.05) and had higher neighborhood walkability scores (mean= 48.10 [0.79]. p<0.01) than their less active counterparts (mean distance= 1479.9 [34.25] and mean walkability scores= 44.46 [0.37]). 2. Individuals that reported 5 or more weekly aerobic activity sessions gave a higher neighborhood walkability score (mean= 46.05 [0.48]) than individuals who did not (mean =43.79 [0.54]), although this association was not apparent when walking alone was considered (p<0.01). 3. Respondents rating their neighborhood as having intermediate or good walkability were over 3 times as likely to report 5 or more sessions of physical activity per week compared to those who gave the lowest rating (OR= 3.14, p=0.02; and OR= 3.04, p=0.03, respectively). 4. Those who lived in the closest tertile to a park or green space were over twice as likely to report five or more sessions of physical activity (OR=2.17, 95% CI= 1.00-4.78, p≤0.05). 5. None of the associations with access to leisure facilities were statistically significant and were generally in a contrary direction to that expected; those living nearest to the facilities generally reported lower levels of activity than those farther away. **Street Design** PHYSICAL ACTIVITY: 1. Individuals that reported 5 or more weekly aerobic activity sessions gave a higher neighborhood walkability score (mean= 46.05 [0.48]) than individuals who did not (mean =43.79 [0.54]), although this association was not apparent when walking alone was considered (p<0.01). 2. Respondents rating their neighborhood as having intermediate or good walkability were over 3 times as likely to report 5 or more sessions of physical activity per week compared to those who gave the lowest rating (OR= 3.14, p=0.02; and OR= 3.04, p=0.03 respectively). **Safety -Traffic** PHYSICAL ACTIVITY: 1. Individuals that reported 5 or more weekly aerobic activity sessions gave a higher neighborhood walkability score (mean= 46.05 [0.48]) than individuals who did not (mean =43.79 [0.54]), although this association was not apparent when walking alone was considered (p<0.01). 2. Respondents rating their neighborhood as having intermediate or good walkability were over 3 times as likely to report 5 or more sessions of physical activity per week compared to those who gave the lowest rating (OR= 3.14, p=0.02; and OR= 3.04, p=0.03, respectively). (Note: Walkability was a composite score using multiple variables like residential density, street connectivity, access to PA facilities, access to sidewalks and pavement, aesthetics, and traffic safety.)	Not Reported

Study Description	Population	Reach	Intervention	Impact & Sustainability	Other Results	Related Benefits & Consequences
Author Humpel, Owen (2004), Humpell, Marshall (2004) Australia	**Participation/ Potential Exposure** Not Applicable **High-Risk Population** Not Applicable Only cross-sectional data provided. General, Population (target Sample) Ages ranged from 18 to 71 years of age (mean age 43 years), 49.8% women (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. Perceptions of community convenience to facilities MULTI-COMPONENT: 1. Perceptions of traffic safety 2. Access to public transit 3. Accessibility of paths, parks, and other walking opportunities 4. Neighborhood aesthetic quality **Feasibility** Not Applicable **Implementation Complexity** Not Applicable	**Population Impact** Not Applicable **High-risk Population Impact** Not Applicable **Sustainability** Not Applicable	**Safety-Traffic** PHYSICAL ACTIVITY: 1. Men who perceived traffic as being less of a problem were found to be less likely to have increased their walking across all three outcome variables (any increase in walking; OR=0.40, 95%CI=0.22-0.72, p<0.01, increase of 30 minutes; OR=0.29, 95%CI=0.15-0.54, p<0.001, increase of 60 minutes; OR=0.39, 95%CI= 0.21-0.73, p<0.01). 2. Increased perceptions that traffic was not a problem were significantly associated with women being 1.76 (95%CI=1.01-3.05, p<0.05) times more likely to have increased their walking for 30 minutes or more. 3. Participants with low baseline scores reporting traffic as a problem had a relative change increase of 1.13 (SD=1.83), whereas those with high initial scores reported a decrease of -0.2 (SD=0.22). **Transportation** PHYSICAL ACTIVITY: 1. Men with moderate access (OR=1.98, 95CI=1.12-3.49, p<0.05) were more likely to walk in their neighborhood than individuals with lower scores. 2. Women with moderate access (OR=1.92, 95% CI=1,10-3.37, p<0.05) were more likely to report higher levels of walking and higher total physical activity, respectively. 3. Women with high access scores were 52% less likely (OR=0.48, 95% CI=0.27-0.87, p<0.05) to walk in the neighborhood when compared to those with low scores. **Availability of Parks, Playgrounds, Trails, and Recreation Centers** PHYSICAL ACTIVITY: 1. Men with highest scores for convenience (OR=2.20, 95% CI=2.21-3.99, p<0.01) were more likely to walk in their neighborhood than individuals with lower scores. 2. Women with moderate convenience (OR=3.19, 95% CI=1.81-5.59, p<0.001) were more likely to report higher levels of walking and higher total physical activity. 3. Women with increased perceptions of convenience were twice as likely to report increased walking (any increase; OR=2.58; 95%CI=1.46-4.56, p<0.001, increase of 30 minutes or more; OR=2.31, 95% CI= 1.29-4.14, p<0.01, increase of 60 minutes or more; OR=2.01, 95%CI= 1.09-3.70, p<0.05) compared to those who did not positively change perceptions. 4. Participants with low baseline convenience scores reported a mean relative change increase of 0.79 (SD=0.87) and those with high baseline scores reported a relative change decrease of -0.21 (SD=0.22). 5. Participants with low baseline convenience scores reported a mean relative change increase of 0.79 (SD=0.87), and those with high scores reported a relative change decrease of -0.21 (SD=0.22). 6. Men with a high convenience score were 1.82 times more likely to engage in total physical activity than those with a lower score (95%CI= 1.02-3.24, p<0.05). 7. Men who increased their perception of convenience (OR=1.95, 95% CI=1.10-3.45, p<0.05) were more likely to have increased walking and twice as likely to have increased walking more than 30 minutes (convenience; OR=2.02, 95% CI=1.12-3.65, p<0.05) compared to men with no perception change. Men with increased perceptions of convenience were also 1.98 (95%CI 1.08-3.61; p<0.05) times more likely to have increased their walking to more than 60 minutes. 8. Women with high convenience scores were 3.78 times more likely (95% CI=2.12-6.73, p<0.001) to report the highest levels of neighborhood walking in the neighborhood when compared to those with low scores. *(continued next page)*	1. Participants with low initial access scores reported a mean relative increase of 0.35 (SD=2.14). A decrease score of -0.24 (SD=0.24) was reported for those with an initial high score. 2. Participants with low aesthetic scores at baseline reported a mean relative increase of 0.42 (SD=0.46), whereas those with high initial scores reported a decrease, with a relative change score of -0.16 (SD=0.18). 3. Participants with low baseline convenience scores reported a mean relative increase of 0.79 (SD=0.87) and those with high baseline scores reported a relative decrease of -0.21 (SD=0.22). 4. Participants with low aesthetic scores at baseline reported a mean relative increase of 0.42 (SD=0.46), whereas those with high scores reported a decrease, with a relative change of -0.16 (SD=0.16). 5. Participants with low baseline convenience scores reported a mean relative increase of 0.79 (SD=0.87), and those with high scores reported a relative decrease of -0.21 (SD=0.22). 6. Participants with low baseline scores for traffic as a problem reported a relative change increase of 1.13 (SD=1.83), whereas those with high initial scores reported a decrease of -0.2 (SD=0.22).

(Continued from previous study)						
					Street Design PHYSICAL ACTIVITY: 1. Men with moderate (OR=1.77, 95% CI=1.06-2.97, p<0.05) and high (OR=1.91, 95% CI=1.08-3.37, p<0.05) aesthetic scores were more likely to walk in their neighborhood than individuals with lower scores. 2. Men who increased their perception of aesthetics (OR=2.25, 95% CI= 1.24-4.05, p<0.01) were more likely to have increased walking and twice as likely to have increased walking more than 30 minutes (aesthetics; OR=2.0, 95%CI=1.12-3.79, p<0.05) compared to men with no perception change. (Note: The composite score for access was comprised of access to shops and public transit. Convenience scores were a composite of the accessibility of paths, parks, and other walking opportunities.)	

Study Description	Population	Reach	Intervention	Impact & Sustainability	Other Results	Related Benefits & Consequences
Author Craig, Brownson (2002) Canada	**Participation/ Potential Exposure** Not Applicable **High-Risk Population** Not Applicable Only cross-sectional data was provided. General Population (target population) The observed neighborhoods were known for diversity of urban design, social class, and economic status.	**Representative** Not Applicable **Potential Population Reach** Not Applicable **Potential High Risk Popluation Reach** Not Applicable	**Intervention Components** Not Applicable Only cross-sectional data was provided. Level of urbanization (suburban and urban) MULTI-COMPONENT: 1. Perceptions of safety from crime 2. Perceptions of traffic safety 3. Access to public transit 4. Street connectivity and aesthetic quality COMPLEX: 1. Social support in the environment **Feasibility** Not Applicable **Implementation Complexity** Not Applicable	**Population Impact** Not Applicable **High-risk Population Impact** Not Applicable **Sustainability** Not Applicable	**Street Design** PHYSICAL ACTIVITY: 1. Walking to work was significantly related to the environment score (T-ratio (25)=3.32, p=0.003), with a one-unit increase in the score being associated with a 25-percentage-point increase in the percentage walking to work. 2. The environment score was related to the percentage walking to work, controlling for degree of urbanization (T-ratio (23)=2.03, p=0.054; Coefficient=0.02). **Safety-Traffic** PHYSICAL ACTIVITY: 1. Walking to work was significantly related to the environment score (T-ratio (25)=3.32, p=0.003), with a one-unit increase in the score being associated with a 25-percentage-point increase in the percentage walking to work. 2. The environment score was related to the percentage walking to work, controlling for degree of urbanization (T-ratio (23)=2.03, p=0.054; Coefficient=0.02). **Safety-Interpersonal** PHYSICAL ACTIVITY: 1. Walking to work was significantly related to the environment score (T-ratio (25)=3.32, p=0.003), with a one-unit increase in the score being associated with a 25-percentage-point increase in the percentage walking to work. 2. The environment score was related to the percentage walking to work, controlling for degree of urbanization (T-ratio (23)=2.03, p=0.054; Coefficient=0.02). **Transportation** PHYSICAL ACTIVITY: 1. Walking to work was significantly related to the environment score (T-ratio (25)=3.32, p=0.003), with a one-unit increase in the score being associated with a 25-percentage-point increase in the percentage walking to work. 2. The environment score was related to the percentage walking to work, controlling for degree of urbanization (T-ratio (23)=2.03, p=0.054; Coefficient=0.02). (Note: An environment score based on 18 neighborhood characteristics (e.g., variety of destinations, visual aesthetics, accessibility, transportation systems and safety from traffic and crime) was developed with a higher score indicating a more walkable environment. This score was a composite of many different characteristics incorporating multiple strategies.)	1. The environmental factor coefficients ranged from -1.82 to 2.20. Each factor was a significant contributor to the variation of the environment score (mean p=0.10 for "transportation system" and p<0.05 for other factors), except for visual interest and aesthetics. The inclusion of environmental factors (destinations, social dynamics, transportation system, and traffic) reduced the variation in the score by 46%. 2. The predicted environment score was lower in both small urban (T-ratio (23)=-3.61, p=0.002; Coefficient; -0.77) and suburban neighborhoods (T-ratio (23)=-4.42, p<0.001; Coefficient=-0.12) than in urban neighborhoods.

Study Description	Population	Reach	Intervention	Impact & Sustainability	Other Results	Related Benefits & Consequences
Author Bjork, Albin (2008) Sweden	**Participation/ Potential Exposure** Not Applicable **High-Risk Population** Not Applicable Only cross-sectional data provided. Adults, 54.3% Female, Rural, Suburban (evaluation sample)	**Representative** Not Applicable **Potential Population Reach** Not Applicable **Potential High Risk Population Reach** Not Applicable	**Intervention Components** Not Applicable Only cross-sectional data provided. Presence and absence of 5 recreational values (types of natural environment: serene, wild, lush, spacious, culture), distance to natural spaces, and neighborhood satisfaction **Feasibility** Not Applicable **Implementation Complexity** Not Applicable	**Population Impact** Not Applicable **High-risk Population Impact** Not Applicable **Sustainability** Not Applicable	Not Reported	1. The number of recreational values near the residence was positively correlated with neighborhood satisfaction (p<0.001 both for 100 and 300 meters, see figure). 2. There was a positive correlation between the number of recreational values and good self-rated health for 300 meters (p=0.03) but not for 100 meters distance from the residence (p>0.30). 3. Vitality correlated positively with the numbers of recreational values both within 100 and 300 meters distance from the residence (p=0.02 and p<0.001).
Author Riva, Gauvin (2007) Canada	**Participation/ Potential Exposure** Not Applicable **High-Risk Population** Not Applicable Only cross-sectional data provided. Adults, General population, 49% Women, 51% Men (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. Distance to facilities and neighborhood design **Feasibility** Not Applicable **Implementation Complexity** Not Applicable	**Population Impact** Not Applicable **High-risk Population Impact** Not Applicable **Sustainability** Not Applicable	Not Reported	1. Women reporting average and higher involvement in vigorous physical activity were more likely to use facilities to engage in physical activity than lower exercisers (the difference in facility use between average and high exercisers was not statistically significant; $x^2(1) = 0.05$; $p > 0.50$).

Study Description	Population	Reach	Intervention	Impact & Sustainability	Other Results	Related Benefits & Consequences
Author Potwarka, Kaczynski (2008) Canada	**Participation/ Potential Exposure** Not Applicable **High-Risk Population** Not Applicable Only cross-sectional data provided. 2-17 year olds	**Representative** Not Applicable **Potential Population Reach** Not Applicable **Potential High Risk Population Reach** Not Applicable	**Intervention Components** Not Applicable Only cross-sectional data provided. Proximity to parks and facilities in the neighborhood MULTI-COMPONENT: 1. Availability of parks **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. Compared to at-risk or overweight children, none of the 3 park variables (distance to the closest park, number of parks within 1 km, or amount of park area within 1 km) was associated with significantly increased odds of being classified in the healthy weight category for either the entire sample or either of the 2 sub-age groups. 2. Of the 13 park facilities examined, only one variable was a significant predictor of a child's weight category. Children with a park playground within 1 km of their home were almost 5 times more likely to be classified as being of a healthy weight than those children without playgrounds in nearby parks (OR=4.92; 95% CI=1.36, 9.71; no p-value provided)). 3. No significant associations were found for the other park facilities or when the 2 age sub-samples were examined. No significant associations were found for the other park facilities or when the two age sub-samples were examined. (Note: No p-values provided. Distance to nearest PA resource and access to nearest PA resources may overlap in their designated strategy categories.)	Not Reported
Author Wendel-Vos, Schuit (2003) The Netherlands	**Participation/ Potential Exposure** Not Applicable **High-Risk Population** Not Applicable Only cross-sectional data provided. General population 46% Men, 54% Women, 20-59 years old, mean age of 49 yrs (evaluation sample)	**Representative** Not Applicable **Potential Population Reach** Not Applicable **Potential High Risk Population Reach** Not Applicable	**Intervention Components** Not Applicable Only cross-sectional data provided. Distance to parks MULTI-COMPONENT: 1. Neighborhood access to green space and parks **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** PHYSICAL ACTIVITY: 1. No associations were found for attributes of green and recreational space and walking. 2. In neighborhoods within a 300-m radius, inhabitants spent more time biking for leisure (β=0.04, 95%CI= 0.01-0.07, p<0.05) and commuting purposes (β=0.02, 95%CI= 0.01-0.04, p<0.05) where there was more square area of sports ground. 3. There was an association between square area of sports ground and total time spent biking and walking (β=0.06, 95%CI= 0.01-0.1, p<0.05) 4. The association between biking during leisure time and square area of sports grounds was not present in neighborhoods with a 500-m radius. 5. There was an association between biking for commuting purposes and the square area of parks in neighborhoods within a 300-m radius (β=0.02, 95%CI= 0.01-0.04, p<0.05). (Note: Distance to nearest PA resource and access to nearest PA resources may overlap in their designated strategy categories.)	Not Reported

Study Description	Population	Reach	Intervention	Impact & Sustainability	Other Results	Related Benefits & Consequences
Author Kaczynski, Potwarka (2009) Canada	**Participation/ Potential Exposure** Not Applicable **High-Risk Population** Not Applicable Only cross-sectional data provided. Adults (18-88 years of age, mean age 45.8 ± 15.6 years) General Population, 62.8% 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. Distance to parks within the neighborhood and total neighborhood used for park space <u>MULTI-COMPONENT:</u> 1. Availability of parks, presence and absence of amenities **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** <u>PHYSICAL ACTIVITY:</u> 1. Each additional hectare (i.e., 2.47 acres) of park area within 1 km increased the odds of participating in 150 or more minutes of total moderate-strenuous physical activity by 2% (OR=1.02, 95% CI= 1.01-1.03, p<0.05) and each additional park increased the odds of participating in 150 or more minutes of neighborhood-based moderate-strenuous physical activity by 17% (OR=1.17, 95% CI= 1.01-1.34, p < 0.05). 2. Both the number and total area of parks within 1 km were significant predictors of "park-based moderate-to-strenuous physical activity," with each additional park within 1 km of participants' homes increasing the odds of engaging in some park-based physical activity by 15% (OR; 1.15, CI; 1.01-1.28, p<0.05). 3. Distance to the closest park did not play a significant role in predicting moderate-to-strenuous physical activity in any of the three contexts. 4. For neighborhood based activity, significant results were observed among females with each additional park and each additional hectare of park area within 1 km increasing their odds of engaging in 150 or minutes of moderate-to-strenuous physical activity by 19% and 2%, respectively (OR= 1.19, CI= 1.03-1.36 and OR= 1.02, CI= 1.01-1.03, respectively p<0.05 for both). 5. Among men, the odds of engaging in some amount of moderate-to-strenuous physical activity in parks increased 2% with each additional hectare of nearby parkland (OR= 1.02, CI= 1.01-1.03, p<0.05). 6. Among women, each additional hectare was related to a 3% increase and each additional park to a 17% increase in engaging in at least some moderate-to strenuous park-based physical activity (OR= 1.03, CI= 1.01-1.05, OR= 1.17, CI= 1.02-1.31, respectively, p<0.05 for both). 7. Both the number and total area of parks within 1 km of participants' homes increased the odds of engaging in some park-based moderate-to-strenuous physical activity among both the 18–34 year olds (number; OR= 1.19, CI= 1.03-1.33, and total; 1.03, CI= 1.01-1.04, n=107) and the 55 and older (number OR= 1.16, CI= 1.01-1.31, n=104 and total; OR= 1.04, CI= 1.03-1.05 age group (p<0.05 for all). (Note: Distance to nearest PA resource and access to nearest PA resources may overlap in their designated strategy categories.)	Not Reported

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 (income <20,000) [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 shops (mixed land-use) MULTI-COMPONENT: 1. Neighborhood access to parks, playgrounds and recreational facilities 2. Access to a safe neighborhood 3. Access to shops with moderately priced fresh produce **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 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: 0.62-0.84; IR=0.64, 95% CI: 0.55-0.75, respectively) [no p-values provided]. **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). **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.)	Not Reported

Study Description	Population	Reach	Intervention	Impact & Sustainability	Other Results	Related Benefits & Consequences
Author Humpel, Owen (2004) Australia	**Participation/ Potential Exposure** Not Applicable **High-Risk Population** Not Applicable Only cross-sectional data provided. Adults, 57% Female	**Representative** Not Applicable **Potential Population Reach** Not Applicable **Potential High Risk Popluation Reach** Not Applicable	**Intervention Components** Not Applicable Only cross-sectional data provided. Distance to facilities MULTI-COMPONENT: 1. Perceptions of neighborhood safety 2. Access to areas for physical activity (beach, lake, facilities) 3. Aesthetic quality of the neighborhood **Feasibility** Not Applicable **Implementation Complexity** Not Applicable	**Population Impact** Not Applicable **High-risk Population Impact** Not Applicable **Sustainability** Not Applicable	**Safety-Interpersonal** PHYSICAL ACTIVITY: 1. No evidence of a relationship between safety and neighborhood walking was found for men or women. 2. Men who perceived their environment as highly safe for walking were less likely to walk for pleasure (OR=0.22; 95% CI 0.06-0.78; $p<0.05$). 3. A higher proportion of those with the most positive perceptions for all four environmental perception categories reported more neighborhood walking (data not shown). 4. Significantly higher proportions of those walking for exercise were found among those with the most positive perceptions for all four environmental perception categories (results not shown). **Availability of Parks, Playgrounds, Trails, and Recreation Centers** PHYSICAL ACTIVITY: 1. A higher proportion of those with the most positive perceptions for accessibility reported more walking for pleasure (45.2%; X^2=7.28, $p<0.05$). 2. Participants reporting that a beach/lake was within easy walking distance reported significantly more neighborhood walking minutes (M=224) than did those reporting a beach/lake was not within walking distance (M=139; $F(2,379)=11.0$, $p<0.001$); significantly more exercise walking (M=163 compared to M=100 minutes; $F(2,382)=9.72$, $p<0.01$); and significantly more walking for pleasure compared to those perceiving that a beach/lake is not within walking distance (M=33 and M=21, respectively; $F(2,380)=3.88$, $p<0.02$). 3. For men, accessibility of facilities for walking demonstrated a negative relationship with neighborhood walking (for high walkers: OR=0.30; 95% CI 0.09-0.91; $p<0.05$). 4. Women with moderately positive perceptions about accessibility were more than three times more likely to walk for pleasure (OR=3.51; 95% CI 1.64-9.15, $p<0.01$). 5. A higher proportion of those with the most positive perceptions for all four environmental perception categories reported more neighborhood walking (data not shown). 6. Significantly higher proportions of those walking for exercise were found among those with the most positive perceptions for all four environmental perception categories (results not shown). **Street Design** PHYSICAL ACTIVITY: 1. Higher proportions of neighborhood walkers were found among those with high perceptions for aesthetics (66.7%; X^2=17.08, $p<0.001$). 2. Men with the most positive perceptions about the aesthetic nature of the environment were more than seven times more likely to be high neighborhood walkers (OR=7.43; 95%CI 1.92-28.82; $p<0.05$). 3. Men with a high score on aesthetics were nearly four times as likely to walk for exercise (OR=3.86; 95%CI 1.03-14.46; $p<0.05$). 4. A higher proportion of those with the most positive perceptions for all four environmental perception categories reported more neighborhood walking (data not shown). 5. Significantly higher proportions of those walking for exercise were found among those with the most positive perceptions for all four environmental perception categories (results not shown). (Note: Environmental perceptions were based on aesthetics, accessibility, safety, and weather.) (Note: Distance to nearest PA resource and access to nearest PA resources may overlap in their designated strategy categories.)	Not Reported

Study Description	Population	Reach	Intervention	Impact & Sustainability	Other Results	Related Benefits & Consequences
Author Utter, Denny (2006) New Zealand	**Participation/ Potential Exposure** Not Applicable **High-Risk Population** Not Applicable Only cross-sectional data was provided. 13-17 year olds No racial/ethnic demographics given.	**Representative** Not Applicable **Potential Population Reach** Not Applicable **Potential High Risk Population Reach** Not Applicable	**Intervention Components** Not Applicable Only cross-sectional data was provided. Distance to community locations MULTI-COMPONENT: 1. Neighborhood safety 2. Accessibility of community-based recreational facilities and physical activity resources **Feasibility** Not Applicable **Implementation Complexity** Not Applicable	**Population Impact** Not Applicable **High-risk Population Impact** Not Applicable **Sustainability** Not Applicable	**Safety-Interpersonal** PHYSICAL ACTIVITY: 1. Neighborhood safety was positively associated with participation in regular physical activity (OR=1.46, 95% CI: 1.3-1.6, no p-value given). **Availability of Parks, Playgrounds, Trails, and Recreation Centers** PHYSICAL ACTIVITY: 1. Students were significantly less likely to engage in activity if they perceived there was nothing to do where they lived (OR=0.78, 95% CI= 0.7-0.9). 2. Students were significantly more likely to engage in regular vigorous activity when they lived within walking distance of the following perceived community features: a park (OR=1.17, 95% CI= 1.1-1.3), a skateboard ramp (OR=1.32, 95% CI: 1.2-1.5), a sports field (OR=1.59, 95% CI: 1.4-1.8), a swimming pool (OR=1.38, 95% CI: 1.2-1.5), a gym (OR=1.44, 95% CI: 1.3-1.6), and a bicycle track (OR=1.44, 95% CI: 1.3-1.6). (Students could respond yes to more than one facility.) (Note: Distance to nearest PA resource and access to nearest PA resources may overlap in their designated strategy categories.)	Not Reported
Author Kaczynski, Potwarka (2008) Canada	**Participation/ Potential Exposure** Not Applicable **High-Risk Population** Not Applicable Only cross-sectional data provided. Adults, 18-88 years old with mean age of 45.8 years, 36.2% men (evaluation sample)	**Representative** Not Applicable **Potential Population Reach** Not Applicable **Potential High Risk Population Reach** Not Applicable	**Intervention Components** Not Applicable Only cross-sectional data provided. Distance to neighborhood features MULTI-COMPONENT: 1. Access to parks and park amenities (water fountain, toilet, trash can, bench, bike rack) **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** PHYSICAL ACTIVITY: 1. Of the 3 park variables (i.e., size, features, distance), only the number of features was a significant predictor of a park being used for some physical activity (OR=1.45, 95% CI= 1.09-1.82, p=0.03). 2. Only the number of facilities was significantly associated with increased odds of at least some physical activity occurring in the park (OR=2.04, 95% CI= 1.05-3.96, p=0.03). 3. The presence of paved trails (OR=25.93, 95% CI=2.15-312.51, p=0.01), was significantly related to park-based physical activity. (Note: Distance to nearest PA resource and access to nearest PA resources may overlap in their designated strategy categories.)	Not Reported

Study Description	Population	Reach	Intervention	Impact & Sustainability	Other Results	Related Benefits & Consequences
Author Li, Dibley (2006) China	**Participation/ Potential Exposure** Not Applicable **High-Risk Population** Not Applicable Only cross-sectional data provided. 11-17 year olds	**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 shops in the neighborhood MULTI-COMPONENT: 1. Perceptions of safety from crime 2. Presence and absence of sidewalks 3. Access to recreational facilities (playgrounds, gyms, sports equipment, and public open spaces) 4. Access to physical activity during recess **Feasibility** Not Applicable **Implementation Complexity** Not Applicable	**Population Impact** Not Applicable **High-risk Population Impact** Not Applicable **Sustainability** Not Applicable	**Safety-Interpersonal** PHYSICAL ACTIVITY: *Community Level* 1. Concerns about neighborhood safety (OR= 2.1, 95% CI=1.1-4.1, p=0.03) was positively associated with inactivity. 2. Perceived unsafe neighborhoods were associated with a higher percentage of inactive adolescents, but the difference was not statistically significant (p=0.08). **Street Design** PHYSICAL ACTIVITY: 1. Adolescents living in a house without sidewalks were 30% more likely to be inactive (OR= 1.3, 95% CI= 1.0-1.6, p=0.01). 2. Lack of sidewalks around the house was associated with physical inactivity in girls (OR= 1.5, 95% CI= 1.04-2.0, p=0.03). **Availability of Parks, Playgrounds, Trails, and Recreation Centers** PHYSICAL ACTIVITY: 1. Access to public physical activity facilities (OR= 1.4, 95% CI=1.0-1.9, p=0.03 for moderate access and OR= 1.7, 95% CI=1.2-2.4, p<0.01 for difficult access) was positively associated with inactivity. 2. Lack of recreational facilities was associated with a higher percentage of inactivity in girls (OR=2.4, 95%CI= 1.6-3.5, p<0.001). 3. Adolescent boys living in surroundings without vacant fields were 1.7 times (95% CI= 1.2-2.5, p=0.01) more likely to be inactive. **School Physical Activity Policies** SEDENTARY BEHAVIOR: 1. Lack of recess exercise or sports meetings was associated with higher percentages of inactivity in boys (OR=2.2, 95% CI= 1.2-4.0, p=0.02 and OR=1.5, 95% CI= 1.0-2.2, p=0.05, respectively). 2. For boys, lack of class recess sports (OR= 2.2, 95% CI=1.2-4.0, p=0.02) and sports meetings (OR= 1.5, 95% CI= 1.0-2.2, p=0.05) were associated with low levels of physical activity, and boys at schools forbidding bike riding to school were 60% less likely to be inactive (OR= 0.4, 95% CI= 0.2-0.8, p=0.02).	1. Lack of extracurricular sports (OR= 1.3, 95% CI= 1.1-1.6, p=0.01) and sports meetings (OR= 2.0, 95% CI=1.4-2.9, p<0.01) were significantly associated with physical inactivity, but physical education was inversely associated with inactivity (OR= 3.1, 95% CI=1.6-6.0, p<0.01 for twice a week and OR= 2.6, 95% CI=1.3-5.1, p=0.01 for three times a week). 2. For girls, fewer sports meetings (OR= 1.7, 95% CI= 1.03-2.8, p=0.04) was associated with inactivity.