

Appendix H

Healthy Community Design Measures & Indicators Matrix



City of Orlando
Parramore Comprehensive Neighborhood Plan
Vision for a Healthy Community



Parramore Comprehensive Neighborhood Plan

Appendix H: Healthy Community Design Measures & Indicators Matrix

As noted in the Executive Summary and Action Plan, under Plan Monitoring, the strategies and action items in this Plan will be reviewed on a periodic basis using Healthy Community Design principles and related measures or indicators. The following recommended measures and indicators were developed for this Plan with the understanding that modifications may be necessary in the future based on data availability.

Figure H-1: Healthy Community Design Measures & Indicators Matrix

Principle – Drive Economic Development by Creating a Unique Identity

Measure/Indicator	Data Source(s)	Healthcare Rationale
Number of new Small Business Association and/or Other Types of Small Business Microloans	Small Business Administration, City Economic Development Department	Promote a main street program designation for new business generation, promotion, facade & street improvements for the improvement of resident's economic health and investment into the community.
Number of Commercial & Residential Infill Projects Planned/Completed	City of Orlando Planning Division	Research shows significant reduction in the chances of being obese in places with higher densities, a mix of uses, and better street connectivity. Infill housing creates sufficient population density to attract health supportive goods and services.
Implementation of City's Streetscape Improvement Plan	City of Orlando	Built environment factors that are associated with biking as an alternative to driving include increased resident and employment density, greater diversity of land use mix (e.g. residential land use near retail land uses), shorter distances to destinations, and street design (e.g. presence of protected bike lanes and paths, grid street networks).
Number of New Retail Establishments within 1/4 mile Walking Distance of Transit	City of Orlando	Transit oriented development promotes less vehicle miles traveled, less fossil fuel emission and pollution. Attracting services with a mix of uses to neighborhoods improves walkability and health.

Principle – Improve Access to Job Opportunities

Measure/Indicator	Data Source(s)	Healthcare Rationale
Average Commute Time to Major Employers	MetroPlan Orlando	Public transportation systems can provide affordable, safe and equitable access to work, home, education, food, health services and social activities. Reducing time spent on public transit can help incentivize transit as an alternative to driving. residents dependent on transit that live in areas experiencing high than average commute times have less time available for physical and leisure activities that promote health and social well being.
Number of Residents Accessing GED Programs	Survey of OCPS and VoTech schools serving the Parramore community	Higher educational achievement predicts positive health outcomes. Education is linked to health via effects on income. Dropping out of school is associated with delayed employment opportunities, poverty and poor health.
Number of residents accessing vocational/technical training programs	Survey of OCPS and VoTech schools serving the Parramore community	Employment is a fundamental resource for good health. Employment is the primary source of income for working age adults and is necessary for material needs such as food, clothing, shelter and leisure. Educational attainment is directly related to employment status and income, with unemployment higher and income lower among those with lower educational achievement.
Number of Residents Accessing Workforce Central Florida Job and/or Internship Opportunities	Workforce Central Florida	Income is one of the strongest and most consistent predictors of health and disease in public health literature. Low income populations are at a risk factor for low birth weight babies, suffering injuries from violence, getting most cancers, and getting most chronic conditions.

Principle – Promote Social and Environmental Justice

Measure/Indicator	Data Source(s)	Healthcare Rationale
Air Quality Rates	MetroPlan Orlando / Florida Department of Health – Orange County	Motor vehicle and other forms of fossil fuel combustion emit several toxic air contaminants that are either known or probable human carcinogens.
Prevalence of Exposure to Lead Paint	Florida Department of Health – Orange County	Lead may cause a range of health care problems and behavioral problems in young children when absorbed into the body. Paint chips found in homes and lead contaminated soil are primary sources. Education, awareness and action items for eliminating known sources can protect children from this danger.

Principle – Promote Social and Environmental Justice (continued)

Measure/Indicator	Data Source(s)	Healthcare Rationale
Residential Building Code Violations	City of Orlando	Unsafe housing and habitability conditions that affect health often exist in older and poorly maintained housing. Houses have inadequate heating or ventilation, which can lead to the growth of mold, and dust mites, leading to asthma and respiratory allergies. Older housing stock Many houses also may have lead-based paint that can cause lead poisoning, particularly in young children. Other conditions include, exposed heating sources and unprotected windows. The health impacts of these physical hazards in a home can be related to housing affordability.
Number of Establishments Committed to Smoke/Tobacco-Free Environment	New Survey Question	Studies show that smokers are more likely than nonsmokers to develop heart disease, stroke, and lung cancer. Smoking causes diminished overall health, increased absenteeism from work and increased health care utilization and cost. Education, awareness, and access to programs to assist with non smoking efforts reduce risks of known adverse effects.
Contaminated Sites	State of Florida Environmental Protection Division/City of Orlando	Brownfields with high concentrations of contaminated soil threaten the air we breathe and the water we drink. These areas can also result in reduced property values.
Outdoor Noise Levels	State of Florida Environmental Protection Division	Noise levels above 55 decibels outdoors and 45 decibels indoors can adversely affect sleep, school and work performance.
Maintenance of Vacant Parcels	City of Orlando Code Enforcement	Air quality/asthma issue due to increase of pollen count. Uncared for vacant land decreases visibility making residents feel less safe in their neighborhoods as well as fostering illegal dumping and littering.
Street Tree Population, Number of Trees 4 Meters or Higher	City of Orlando	Trees provide natural cooling through the shading of streets and buildings, reducing exposure to UV radiation and the risk of skin cancer. They capture air pollution, reduce carbon dioxide, increase oxygen and help capture storm water runoff. Trees also serve as buffers to traffic and noise. Studies show that the presence of trees and other vegetation improve recovery from mental fatigue leading to reduction in socially unacceptable behavior and crime.

Principle – Promote Social and Environmental Justice (continued)

Measure/Indicator	Data Source(s)	Healthcare Rationale
Cleanliness of Streets / Working Street Lights	Walking Audit	Cleanliness of residential streets, as well as working streetlights, can indicate the level of community engagement by residents and perception of safety (or lack thereof) in reporting broken streetlights and trash.
Incidence of Domestic Violence	Orlando Police Department, Florida Department of Health – Orange County, Harbor House	Physical assaults, homicides and sexual assaults are direct and adverse health outcomes. Witnessing and experiencing community violence causes long term behavioral and emotional problems in youth. Community violence also impacts perceived safety of a neighborhood inhibiting social interactions and cohesion. Fear of crime and feelings of vulnerability to crime can be a cause of chronic stress. Resident's feelings about safety can be a disincentive to engage in physical activity outdoors.
Neighborhood Watch	Orlando Police Department	Physical assaults, homicides and sexual assaults are direct and adverse health outcomes. Witnessing and experiencing community violence causes long term behavioral and emotional problems in youth. Community violence also impacts perceived safety of a neighborhood inhibiting social interactions and cohesion. Fear of crime and feelings of vulnerability to crime can be a cause of chronic stress. Resident's feelings about safety can be a disincentive to engage in physical activity outdoors.
Violent and Non-Violent Crime Statistics	Orlando Police Department	Physical assaults, homicides and sexual assaults are direct and adverse health outcomes. Witnessing and experiencing community violence causes long term behavioral and emotional problems in youth. Community violence also impacts perceived safety of a neighborhood inhibiting social interactions and cohesion. Fear of crime and feelings of vulnerability to crime can be a cause of chronic stress. Resident's feelings about safety can be a disincentive to engage in physical activity outdoors.

Principle – Increase Housing Opportunities

Measure/Indicator	Data Source(s)	Healthcare Rationale
Number of New Housing Units Constructed	City of Orlando Planning Division	One of the best ways to stabilize the Parramore community would be to increase the number of people living and working in the neighborhood. More people would translate into better business opportunities and higher incomes which would ultimately lead to a healthier community.
Housing Wage in Comparison to Minimum Wage	U.S. Census Data	High housing or rent costs relative to the income of an individual result in adverse health consequences such as spending a high proportion of income on housing which means fewer resources for food, heating, transportation, healthcare and child care. It may force shared housing resulting in crowded conditions with risks of infectious disease, noise and fires. When there is a lack of affordable housing, rental or ownership, in a community exists, residents are often forced to move farther from social networks thereby decreasing the likelihood of social cohesion.
Affordable Rental Housing Stock	City of Orlando Housing Department, Orlando Housing Authority	When there is a lack of affordable housing, rental or ownership, in a community exists, residents are often forced to move farther from social networks thereby decreasing the likelihood of social cohesion.

Principle – Make Education the Cornerstone of Revitalization

Measure/Indicator	Data Source(s)	Healthcare Rationale
Number of Public Educational Facilities	Orange County Public Schools	Research demonstrates that when schools are located closer to home, more children walk and/or bicycle to school and vehicle pollution emissions fall. Walking to school can be an important source of physical activity to help prevent chronic diseases such as obesity and diabetes. According to the Centers for Disease Control and Prevention, long distances to school are a primary barrier to walking to school. Decreased vehicle utilization can help reduce rates of asthma and other respiratory diseases as well as decrease rates of pedestrian/traffic injury. Additionally, shorter commuting times provide students with more free time, which can be spent on homework, participation in extracurricular activities, employment, sleep, etc.

Principle – Make Education the Cornerstone of Revitalization (continued)

Measure/Indicator	Data Source(s)	Healthcare Rationale
Accessibility to High Quality Childcare	Early Learning Coalition of Orange County	Substantial research demonstrates that accessible high quality childcare positively affects childhood growth, physical development, and physical health, cognitive, behavioral and school outcomes.
Number of Children Eligible But Not Receiving Childcare Subsidies	Early Learning Coalition of Orange County	The accessibility of childcare for low income earners is dependent on the availability of subsidies. The Urban Institute has calculated that 2.7 million people would be lifted out of poverty if child care assistance were provided to all families with children whose incomes are below 200 percent of the federal poverty line (FPL).
Number of Designated Safe Routes to School	State of Florida Safe Routes to School Program	The goal of SRTS is to make walking and bicycling to school safer and more accessible for children, including those with disabilities, and to increase the number of children who choose to walk and bicycle. On a broader level, SRTS programs can enhance children’s health and well-being, ease traffic congestion near the school and improve air quality and improve community members’ overall quality of life.

Principle – Empower Champions for a Healthy Community

Measure/Indicator	Data Source(s)	Healthcare Rationale
Creation of a <i>Healthier Parramore</i> team of residents, government, business, faith, education, healthcare and recreation members focused on reduction of health disparities and chronic disease states.	New Initiative	The residents of the Parramore community are uniquely knowledgeable about the factors influencing their community members' health. The creation of a <i>Healthier Parramore</i> team, similar to the teams created through <i>Healthy Central Florida</i> , would allow residents and other members to create lasting policy, physical and environmental changes beneficial to the health of residents.
Engage <i>Healthy Central Florida</i> trainers and team members to provide training(s) and support to the <i>Healthier Parramore</i> team.	New Initiative	The residents of the Parramore community are uniquely knowledgeable about the factors influencing their community members' health. The creation of a <i>Healthier Parramore</i> team, similar to the teams created through <i>Healthy Central Florida</i> , would allow residents and other members to create lasting policy, physical and environmental changes beneficial to the health of residents.

Principle – Empower Champions for a Healthy Community (continued)

Measure/Indicator	Data Source(s)	Healthcare Rationale
Access to Preventative or General Health Care Services including doctor's offices, clinics	OC Health Department/Florida CHARTS	Availability of public transportation to community health facilities affects the ability to maintain and utilize affordable reliable health care services. The ability to stay healthy impacts an individual's performance at school or work attendance.
Rate of Obesity	Florida Department of Health – Orange County/Florida CHARTS/Community Health Needs Assessment Survey for Parramore Zip Codes	Being overweight or obese contributes to numerous health conditions that limit the quality and length of life. Earlier onset of type 2 diabetes, heart and blood vessel disease and depression can result. Obesity is difficult to treat so prevention is extremely important.
Rate of High Blood Pressure/Hypertension	Florida Department of Health – Orange County/Florida CHARTS/Community Health Needs Assessment Survey for Parramore Zip Codes	Left uncontrolled, a high rate of high blood pressure (AKA hypertension) can lead to disability, poor quality of life or even a fatal heart attack. Lifestyle changes, such as eating healthy and exercising, can often help to mitigate high blood pressure. Access to fresh produce and places to walk, bike, recreate and be social are key to making positive lifestyle changes.
Rate of Diabetes	Florida Department of Health – Orange County/Florida CHARTS/Community Health Needs Assessment Survey for Parramore Zip Codes	Uncontrolled diabetes can affect nearly every organ in the body. However studies show that controlling one's diabetes can slow the progression of heart and blood vessel disease. Lifestyle changes, such as healthy eating and exercising, play a significant factor in controlling some types of diabetes. Therefore, access to fresh produce and places to walk, bike and recreate are key to making positive lifestyle changes.
Rate of Asthma	Florida Department of Health – Orange County/Florida CHARTS/Community Health Needs Assessment Survey for Parramore Zip Codes	Studies have shown that the risk of death from asthma is three-fold greater among African Americans than among whites, with lower income communities being affected disproportionately. There are many possible reasons for this health disparity, including poor quality of the home environment such as mold and poor air quality, as well as inadequate preventative health care and lack of money for consistent use of medications.
Preventable Hospital Stays in Medicaid/Medicare Populations	Orlando Regional Health/Florida Hospital	Preventable hospitalizations are those that could have most likely been avoided if the patient received proper outpatient care earlier. For both ethical and financial reasons, it is important to reduce preventable hospitalizations.

Principle – Empower Champions for a Healthy Community (continued)

Measure/Indicator	Data Source(s)	Healthcare Rationale
Adult Smoking Rates	Florida Department of Health – Orange County/Florida CHARTS/Community Health Needs Assessment Survey for Parramore Zip Codes	Studies show that smokers are more likely than nonsmokers to develop heart disease, stroke, and lung cancer. Smoking causes diminished overall health, increased absenteeism from work and increased health care utilization and cost. Education, awareness, and access to programs to assist with non smoking efforts reduce risks of known adverse effects.
Infant Mortality Rates	Florida Department of Health – Orange County/Florida CHARTS/Community Health Needs Assessment Survey for Parramore Zip Codes	Infant mortality rates are often associated with medical and socioeconomic conditions. Factors such as maternal health, quality and accessibility of medical care, prenatal care, marital status, social and income status, poverty, race, smoking and substance abuse, air pollution and other environmental factors contribute.
Babies born with Low Birth Weight	Florida Department of Health – Orange County/Florida CHARTS/Community Health Needs Assessment Survey for Parramore Zip Codes	Low birth weights contribute to infant mortality and are usually a direct correlation with other medical complications such as preterm birth, poor maternal nutritional status and lack of prenatal care.
Childhood Asthma Rates	Florida Department of Health – Orange County/Florida CHARTS/Community Health Needs Assessment Survey for Parramore Zip Codes	Research shows that factors such as air pollution, second hand smoke, high rates of poverty, poor access to medical facilities and residents with poor living conditions translate to higher rates of and severity of asthma. Passing smoking bans, access and transit to medical facilities, educational focus on this chronic disease assist with prevention of hospitalizations and decrease severity and frequency of attacks.
Body Mass Index (BMI) Aggregate Data	State of Florida Health Department	BMI can be a useful tool in assessing fitness and health. A normal BMI range can help reduce factors leading to many chronic diseases such as obesity, heart disease and diabetes. Education is a key component for healthy choices.
Percent of Mothers Receiving Prenatal Care in the First Trimester	OC Health Department/Florida CHARTS	Adequate prenatal care is associated with reduced maternal and infant morbidity, reduced risk for preterm delivery and low birth weight.

Principle – Promote Access to Healthy Food

Measure/Indicator	Data Source(s)	Healthcare Rationale
Access to Fresh Fruits & Vegetables: Number of Stores, Supermarkets, Restaurants Offering Healthy, Affordable Food Choices within a 10 minute walk	Hebni Nutrition Consultants, City of Orlando	Presence of a supermarket predicts greater consumption of fruits and vegetables and a reduced prevalence of overweight and obesity. Facilities such as farmers markets and urban farms provide opportunities for social interaction, educational experiences for children while providing direct access to produce at affordable prices.
Percentage of Residents Obtaining Produce from Neighborhood Community Gardens and/or Farmer's Markets	Hebni Nutrition Consultants, City of Orlando	Farmer's Markets and community gardens can provide a low cost source of fresh fruits and vegetables, especially if the farmer's market is set up to accept SNAP benefits. These venues also provide an opportunity for social interaction and can promote social cohesion.
Square Footage of Land Permitted by Zoning Code for Urban Agriculture	City of Orlando	Local food environments influence the options households and individuals have. Access to healthy food choices is directly correlated to obesity and diabetes rates, which occur in higher rates among people living in low-income communities with worse food environments.
Number of Neighborhood Vendors Accepting SNAP for Fresh Fruits & Vegetables	Florida Department of Agriculture	Food stamp recipients may lack access to larger stores reducing availability of nutritious food options. Underutilization of food stamps is one likely reason why low income households continue to suffer from insufficient and unhealthy food supplies.

Principle – Invest in People, Not Cars

Measure/Indicator	Data Source(s)	Healthcare Rationale
Percentage of Proposed Publicly Funded Housing Located within a 1/4 Mile of Transit	City of Orlando	High housing costs relative to the income of an individual or household result in adverse health consequences such as spending a high proportion of income on housing, living in overcrowded housing conditions, or becoming homeless. Spending a high proportion of income on rent or a mortgage means fewer resources for food, heating, transportation, health care, and child care. Crowded conditions increase risks for infectious disease, noise and fires. Substandard housing can cause exposure to waste and sewage, physical hazards, mold, poorly maintained paint and other hazards.

Principle – Invest in People, Not Cars (continued)

Measure/Indicator	Data Source(s)	Healthcare Rationale
Proportion of Population within a 1/4 Mile Walking Distance of Transit	City of Orlando	Easy access to public transit reduces auto congestion and pollution from auto emissions. Poor air quality is linked to respiratory and cardiovascular conditions ranging from asthma to heart disease.
Total Acreage of Proposed Zoning Revisions That Apply to Pedestrian Friendly Zoning	City of Orlando	Walking is the easiest and most low cost way to build physical activity into daily routines, and has the lowest environmental impact of any commute mode.
Square Feet of New Development within a 1/4 mile of SunRail and Lymmo Stations	City of Orlando	Lowering vehicle miles traveled improves air quality which can have a strong impact on respiratory health. Living in a mixed use community with a variety of shops and services is a negative indicator of obesity. Increasing non-automotive access to goods enables children, seniors and those with mobility impairments equitable access.
Number of New Retail Establishments within 1/4 mile Walking Distance of Transit	City of Orlando	Transit oriented development promotes less vehicle miles traveled, less fossil fuel emission and pollution. Attracting services with a mix of uses to neighborhoods improves walkability and health.

Principle – Maximize Opportunity for All Residents to Get Physical Activity

Measure/Indicator	Data Source(s)	Healthcare Rationale
Number of Existing and Planned Trails	MetroPlan Orlando, City of Orlando	Off street trails, buffered bike lanes and grade separated pedestrian facilities improve safety for cyclists and pedestrians making it easier to achieve recommended levels of fitness and decreasing the chance of obesity and overweight related illnesses.
Linear miles of off-street trails and sidepaths planned and/or constructed	MetroPlan Orlando, City of Orlando	Off street trails, buffered bike lanes improve safety for cyclists and pedestrians. Community on foot or by bike builds physical activity directly into daily routines decreasing the chance of obesity and associated chronic illnesses.
Linear miles of on- and off-street pedestrian/bicycle friendly Complete Streets planned/completed	MetroPlan Orlando, City of Orlando	Complete streets provide safe opportunities for active transportation such as walking and biking. Health benefits include a reduced risk of premature mortality and reduced risks of chronic diseases such as obesity, hypertension, and heart disease.

Principle – Maximize Opportunity for All Residents to Get Physical Activity (continued)

Measure/Indicator	Data Source(s)	Healthcare Rationale
Number of Safe Routes to Public Facilities, Community Venues, Neighborhood Centers and Park	Walking Audit	Similar to Safe Routes to School, providing safe routes to public and community venues, parks and other community benefit places can make walking and bicycling safer. On a broader level, safe routes to public facilities can enhance a community's health and well-being, ease traffic congestion and improve air quality and improve community members' overall quality of life.

Principle – Encourage Mixed Use Development

Measure/Indicator	Data Source(s)	Healthcare Rationale
Proportion of Residents (or Households) Located within a 1/2 Mile of a Community Facility	City of Orlando	Community facilities, located within walking and biking distance to residents, can decrease the dependence of cars and increase walkability to access programs and other services that can increase knowledge and skills of residents. Opportunities to access community facilities can also lead to greater social interaction.
Number of Recreational Facilities	City of Orlando	Access to community recreational facilities also provides a space for social engagement, which may promote the development of social networks and social cohesion in a place. Children who live in close proximity to parks, playgrounds, and recreational facilities tend to be more active compared to children who do not live near those facilities.
Proportion of Parramore population within 1/4 mile walking distance of Parks and Recreation facilities	City of Orlando	Reduced rates of depression and isolation, and an increase in physical activity and social interactions, is seen in populations who reside within a 1/4 mile of parks and recreation facilities and routinely access these facilities.
Proportion of Parramore population within 1/4 mile of the greater City network of Trails	City of Orlando	Reduced rates of depression and isolation, and an increase in physical activity and social interactions, is seen in populations who reside within a 1/4 mile of parks and recreation facilities and routinely access these facilities.
Number of Faith Based Organizations Serving Area Residents	City of Orlando	Spiritual and religious centers may foster social cohesion by facilitating the development of social networks among constituents. Social networks and social integration have profound effects on individual health providing social support. They may also encourage volunteerism and philanthropy and civic participation.