Nearly 18 percent of U.S. school-aged children and adolescents are obese, as the rate of childhood obesity has more than tripled in the past 30 years. The prevalence of obesity puts children at greater risk of developing heart disease, type 2 diabetes, stroke and other illnesses, and of suffering severe obesity as adults. New study results indicate that where a child lives, including factors such as the neighborhood's walkability, proximity to higher quality parks, and access to healthy food, has an important effect on obesity rates. Researchers found that children living in neighborhoods with favorable neighborhood environment attributes had 59 percent lower odds of being obese.

"Obesogenic Neighborhood Environments, Child and Parent Obesity: The Neighborhood Impact on Kids Study" was published in a special theme issue of the American Journal of Preventive Medicine. Led by Brian Saelens, PhD, of Seattle Children's Research Institute, this is among the first neighborhood environment studies to look at a combination of nutrition and physical activity environments and to assess children and their parents. It is also among the largest studies of its kind to use objective geographic information system (GIS) data to examine the physical activity and healthy food option attributes of a neighborhood related to obesity.

Researchers used GIS to assess Seattle and San Diego area neighborhoods' nutrition and physical activity environments. Nutrition environments were defined based on supermarket availability and concentration of fast food restaurants. Physical activity environments were defined based on environmental factors related to neighborhood walkability and at least one park with more or better amenities for children. Kids that lived in neighborhoods that were poorer in physical activity and nutrition environment had the highest rates of obesity—almost 16 percent—in the study. This figure is similar to the national average. On the flip side, only eight percent of children were obese in neighborhoods where physical activity and nutrition environments were positive.

"People think of childhood obesity and immediately think about an individual's physical activity and nutrition behaviors, but they do not necessarily equate obesity with where people live," said Dr. Saelens, who is also a professor of pediatrics at the University of Washington. "Everyone from parents to policymakers should pay more attention to zip codes because they could have a big impact on weight."

Fast food may not be as easy to come by in the Seattle area, based on the study. There were 3,474 fast food locations in San Diego County, as compared to 1,660 in King County, Wash. On a county-level block group average basis, San Diego had 2.0 fast food locations per block group, and King County had 1.1.

Numerous national health organizations have identified neighborhood environment and built environment, including healthy food and physical activity opportunities, as important factors in childhood obesity, including the Institute of Medicine and the Centers for Disease Control and Prevention. "Our data support recommendations from these groups that we need to change our environments to make them more supportive of physical activity and nutrition," said Saelens.

Provided by Seattle Children's