Investment in neighborhood parks may curb obesity rates, save costs

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It may sound simple, but adding a neighborhood park or playground can lower children's obesity rates and improve their physical fitness, says new research from Ball State University. And parks might reap immediate and long-term savings in health care.

"Do Neighborhood Parks and Playgrounds Reduce Childhood Obesity?" analyzed the 2007 National Survey of Children's Health, which collected information on neighborhood parks and playgrounds as well as sidewalks and paths, community centers and children's clubs in all 50 states.

Researchers compared the weight of children with access to outdoor recreational facilities to those without a nearby park. The effects varied with gender, race, household income and neighborhood amenities, and the impact was greater among children in unsafe neighborhoods than those in safe neighborhoods.

"Neighborhood parks and playgrounds provide physical locations for children to engage in outdoor physical activity and to develop physically active lifestyles," said Maoyong Fan, a Ball State economics professor who conducted the study with Yanhong Jin, a Rutgers University professor. "These parks simply make children more fit. The children get to play outdoors and enjoy life much more than those who don't have access to such facilities."

Fan believes that by adding parks and playgrounds, the U.S. could spend less on health care as a result of the reduction of childhood obesity.

According to the U.S. Centers for Disease Control and Prevention, obesity in the nation has more than doubled in children and quadrupled in adolescents over the past 30 years. The percentage of obese children ages 6-11 increased from 7 percent in 1980 to nearly 18 percent in 2012. Over the same time, the percentage of obese adolescents ages 12-19 increased from 5 percent to nearly 21 percent.

Previous research estimates the annual direct medical costs in the U.S. for overweight children range from $3 billion to $14 billion. The hospital costs alone skyrocketed, from $35 million during 1979 to 1981 to $127 million during 1997 to 1999.

"Childhood obesity has long-lasting negative impacts on adult health, employment, productivity and socioeconomic status," Jin said. "From this perspective, the cost savings from playgrounds could be more significant in the long run."

Researchers pointed out their recent study found that neighborhood parks and playgrounds may make children more fit as they decrease body mass index (BMI), as well as lower the risk of being overweight or obese. BMI quantifies the amount of tissue mass (muscle, fat and bone) in an individual and is used to categorize that person as underweight, normal weight, overweight or obese.

Fan said adding parks to a neighborhood may reduce the probability of being overweight or obese by about 3 percentage points for boys and by 5 to 6 percentage points for girls.

The study also found:

- The effect is greater for ages 10-13 compared with those age 14-17.
- Existence of community centers and kids' clubs reduces the

effect of parks and playgrounds among both boys and girls, but sidewalks and pathways enhance the effect.

More information: Do Neighborhood Parks and Playgrounds Reduce Childhood Obesity? cms.bsu.edu/-/media/WWW/Images … ChildhoodObesity.pdf

Provided by Ball State University