Medical Xpress

Global study finds neighborhood design helps put best foot forward for health

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More walkable neighborhoods, parks and public transit could all reduce your chance of becoming one of the 600 million adults who battle obesity worldwide, according to researchers at University of California, San Diego School of Medicine. The study, recently published online in *The Lancet*, found a neighborhood's design plays a critical role in physical activity and could help reduce non-communicable diseases, such as obesity, diabetes and cardiovascular disease.

The International Physical activity and Environment Network Adult Study (IPEN) was conducted in 14 cities around the world. Nearly 7,000 adults ranging from 18 to 65 years old participated by using an accelerometer monitoring system to objectively record moderate-to-vigorous physical activity for approximately one week.

The researchers found that people living in densely populated and walkable neighborhoods with interconnected streets to shops, services, restaurants, public transit and parks got up to 90 minutes of physical activity a week - approximately 60 percent of the 150 minutes recommended.

"We studied neighborhoods ranging in socioeconomic-status and culture. Those built with more activity-supportive environmental features had residents who did more physical activity. For example, transit access is a requirement for living a lifestyle that is less car-dependent and more active because it increases walking to and from the transit facility," said James Sallis, PhD, lead study investigator and Distinguished Professor in

the Department of Family Medicine and Public Health at UC San Diego School of Medicine.

Four environmental attributes stood out as having the most impact on physical activity: net residential density, intersection density (connected streets), number of parks and public transit density.

The impact of neighborhood design on health has been studied nationally for years, but Sallis and his team are the first to research the connection worldwide with objective measures. Among the cities where research was conducted were Seattle, Washington; Baltimore, Maryland; Bogota, Colombia; Cuernavaca, Mexico; Wellington, New Zealand; Ghent, Belgium; and Hong Kong, China.

Sallis noted the findings suggest that environmental principles that support physical activity apply internationally, and a comprehensive, collaborative approach is needed when designing neighborhoods.

"The implication is if we want to do something major about the epidemic of physical inactivity, then we need to look outside of the health field to achieve that," said Sallis. "A variety of stakeholders and decision-makers, such as urban planners, elected officials and transportation and park officials, need to come together in an effort to think about how to best use resources to increase activity that could also have environmental and economic benefits."

He said next steps include working with other countries to lead their own studies that will help make changes in how residential areas are built, especially in lower income neighborhoods.

"We hope this study will be used as an educational tool to make for a healthier world one neighborhood at a time," said Sallis.

More information: *The Lancet* DOI: 10.1016/S0140-6736(15)01284-2