

# Study shows value of app that finds physical activity locations in under-resourced areas

August 25 2022

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According to the National Institutes of Health (NIH), obesity and overweight are the second leading cause of preventable death in the United States. In a new study published in the *Journal of Medical*

*Internet Research*, researchers at Public Health Informatics, Computational and Operations Research (PHICOR) and the National Heart, Lung, and Blood Institute (NHLBI) tested the impact of a mobile health app that locates free fitness classes at local recreation centers in under-resourced communities.

The researchers further developed their virtual population for [obesity prevention](#) (VPOP) agent-based model to understand the potential impact [mobile apps](#) could have on African American women's [physical activity](#) levels and health. The model included the entire African American adult female population and their homes, workplaces and recreations centers in all of Washington, DC. The model simulated a mobile phone app that helps people identify and locate free fitness classes at rec centers and the impact this has on the women's physical activity levels and weight status.

The researchers found that, for the app to result in statistically significant increases in physical activity and reductions in [obesity](#) prevalence over five years, there needs to be at least 75% of women aware of the app, 75% of those aware of the app need to download it and 75% of those who download it need to opt into push notifications.

Regardless of user engagement, the app cannot fully overcome lack of access to recreation centers, says CUNY SPH Professor Bruce Y. Lee, the study's senior author.

"Public health administrators as well as parks and recreation agencies might consider incorporating this type of technology into multilevel interventions that also target the built environment and other social determinants of health," he suggests.

**More information:** Tiffany M Powell-Wiley et al, The Impact of a Place-Tailored Digital Health App Promoting Exercise Classes on

African American Women's Physical Activity and Obesity: Simulation Study, *Journal of Medical Internet Research* (2022). [DOI: 10.2196/30581](https://doi.org/10.2196/30581)

Provided by The City University of New York

Citation: Study shows value of app that finds physical activity locations in under-resourced areas (2022, August 25) retrieved 3 May 2024 from <https://medicalxpress.com/news/2022-08-app-physical-under-resourced-areas.html>

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