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Exploring the Availability and Distribution of Public Green Spaces among Riyadh Residential Neighborhoods

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Abstract : Public green space promotes community health including daily activities, but these resources may not be available enough or may not equitably be distributed. This paper measures and compares the availability of public green spaces (PGS) among low, middle, and high-income neighborhoods in the Riyadh city. Additionally, it compares the total availability of PGS to WHO standard and Dubai availability of PGS per person. All PGS were mapped using geographical information systems, and total area availability of PGS compared to WHO and Dubai standards. To evaluate the significant differences in PGS availability across low, medium, and high-income Riyadh neighborhoods, we used a One-way ANOVA analysis of covariance to test the differences. As a result, by comparing PGS of Riyadh neighborhoods to WHO and Dubai-availability, it was found that Riyadh PGS were lower than the minimum standard of WHO and as well as Dubai. Riyadh has only 1.13 m²per capita of PGS. The second finding, the availability of PGS, was significantly different among Riyadh neighborhoods based on socioeconomic status. The future development of PGS should be focused on increasing PGS availability and should be given priority to those low-income and unhealthy communities.

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