

Name: Living Within a Half-Mile of a Park

Short Description: Percentage of the population that lives within a half-mile of a park.

Data Source:

- **Name:** National Environmental Public Health (EPH) Tracking Network Query Tool
- **Link to Source:** <https://ephtracking.cdc.gov/DataExplorer/>

Year(s): 2015

Source Geographic Level: Census Tract

Stratification: Not applicable to parks

Selection Rationale: This measure helps capture the effects of access to parks as spaces to engage with nature, as well as recreation and physical activity, on mental wellness.

Strengths and Limitations:

- **Strengths:**
 - [*Importance*] Proximity to recreation/natural areas such as parks is associated with mental health benefits.^{1,2} In a study of proximity to urban parks, better mental health was found to be significantly related to living within short walking distance (400 m) of a park, and the mental health scores of those living further than this distance incrementally diminished; however, better mental health scores were still found for those within 800 m (approximately a half-mile) of a park.³
 - [*Relevance and Usability*] This measure is easy to understand and may provide information on areas lacking access to recreation areas such as parks.
 - [*Scientific Soundness*] An independent quality assurance and quality control analysis was conducted and found less than a .0001% difference between a 5% random sample and the original, overall estimate of individuals living within a half-mile of a park, suggesting that these data are accurate and reliable.⁴

¹ Balseviciene, B., Sinkariova, L., Grazuleviciene, R., Andrusaityte, S., Uzdanaviciute, I., Dedele, A., & Nieuwenhuijsen, M. J. (2014). Impact of residential greenness on preschool children's emotional and behavioral problems. *International Journal of Environmental Research and Public Health*, 11(7), 6757–6770. <https://doi.org/10.3390/ijerph110706757>

² Mitchell, R. J., Richardson, E. A., Shortt, N. K., & Pearce, J. R. (2015). Neighborhood environments and socioeconomic inequalities in mental well-being. *American Journal of Preventive Medicine*, 49(1), 80–84. <https://doi.org/10.1016/j.amepre.2015.01.017>

³ Sturm, R., & Cohen, D. (2014). Proximity to urban parks and mental health. *The Journal of Mental Health Policy and Economics*, 17(1), 19–24. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4049158/>

⁴ Centers for Disease Control and Prevention. (n.d.). *National Environmental Public Health Tracking Network Query Tool*. Retrieved June 2021, from <https://ephtracking.cdc.gov/DataExplorer/>

- **Limitations:**

- [Equity] Although proximity to parks and green spaces correlates with mental health, there are many factors that can impact and attenuate this relationship. Proximity to parks and green space alone is likely not enough to achieve better mental health because not all parks are of equal quality; levels of accessibility, aesthetics, activity opportunities, and social interactions of these parks should ideally be taken into consideration.⁵
- [Feasibility] The EPH Tracking Tool pulls park data from Navteq (2010),⁶ Esri StreetMap Premium HERE parks datasets (2015),⁷ and the U.S. Geological Survey Protected Areas Database (2015).⁸ While the data are currently publicly available, it is unknown if these data will continue to be updated in the coming years.
- [Scientific Soundness] This dataset represents a wide spectrum of infrastructure that encourages physical activity, but it is not possible to determine the completeness of data coverage.⁹

Calculation:

$$\text{Living within } \frac{1}{2} \text{ mile of a park} = \frac{\text{\# of people within a buffer of } \frac{1}{2} \text{ mile radius of a park boundary}}{\text{total \# of people}} \times 100\%$$

⁵ Carter, M., & Horwitz, P. (2014). Beyond proximity: the importance of green space useability to self-reported health. *EcoHealth*, 11(3), 322–332. <https://doi.org/10.1007/s10393-014-0952-9>

⁶ NAVTEQ. (n.d.) Looking for NAVTEQ map updates? <https://www.here.com/navteq>

⁷ ArcGIS. (n.d.) ArcGIS StreetMap Premium. <https://www.esri.com/en-us/arcgis/products/arcgis-streetmap-premium/overview?rsource=%2Fdata%2Fstreetmap>

⁸ USGS. (n.d.) Protected Areas. <https://www.usgs.gov/core-science-systems/science-analytics-and-synthesis/gap/science/protected-areas>

⁹ Centers for Disease Control and Prevention. (n.d.). *National Environmental Public Health Tracking Network Query Tool*. Retrieved June 2021, from <https://ephtracking.cdc.gov>