

Don't do anything for us without us"

Evaluating Environments with Citizen Scientists to Improve Local Health

Key Takeaways:

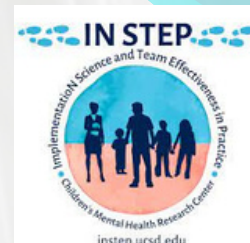
1. Physical environment can have a large impact on access and use of health services. Consider physical environment in your contextual evaluations for program development and implementation.
2. Macro and Microlevel environmental evaluations provided unique information. Macro level provides community layout and land use (e.g. access to bus stops). Micro level provides context specific environmental features that are observable.
3. While macro level evaluations can be assessed using a map, in person assessment of the environment (e.g. walking audits) is best to provide microlevel assessment of an environment.
4. When evaluating the microlevel environment consider factors from the natural (weather, vegetation), social (people, culture), and built (benches, buildings).
5. The population of interest in your work can be key data collectors (citizen scientists) providing important information on the physical environment and how it can impact their health.
6. When engaging with citizen scientists ensure your methods consider the population attributes. For example, mobility challenges may require different walking audit requirements or people who use substances may prefer anonymity and be less likely to engage with group discussions.
7. When implementing an evidence based program, iterative strategies with citizen scientists and organization teams provide an opportunity to ideate and strategize with both feasibility and desirability taken into account.
8. Using data, photos, and quotes from citizen scientists offers an opportunity to engage with an implementation team when anonymity may be a desire.
9. When collecting information on neighborhood environment conditions, whether for observational research or implementation, consider involving community members in the process.
10. Neighborhood audits can support communities by increasing capacity among community members to serve as advocates for their neighborhoods and providing data to inform decision making.



Nicole Wagner, PhD
nicole.wagner@
cuanschutz.edu



Jordan Carlson, PhD
jacarlson@cmh.edu



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Resources

Our voice methodology

- <https://med.stanford.edu/ourvoice.html>
- Buman MP, Winter SJ, Sheats JL, Hekler EB, Otten JJ, Grieco LA, King AC. The Stanford Healthy Neighborhood Discovery Tool: a computerized tool to assess active living environments. *Am J Prev Med*. 2013 Apr;44(4):e41-e47. doi: 10.1016/j.amepre.2012.11.028. PMID: 23498112; PMCID: PMC3601583.
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Resources, continued

PRISM

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- Feldstein, Adrienne C., and Russell E. Glasgow. "A practical, robust implementation and sustainability model (PRISM) for integrating research findings into practice." *The joint commission journal on quality and patient safety* 34.4 (2008): 228-243.
- Holtrop, Jodi Summers, et al. "Understanding and applying the RE-AIM framework: Clarifications and resources." *Journal of Clinical and Translational Science* 5.1 (2021): e126.
- Fort, Meredith P., Spero M. Manson, and Russell E. Glasgow. "Applying an equity lens to assess context and implementation in public health and health services research and practice using the PRISM framework." *Frontiers in Health Services* 3 (2023): 1139788.

Neighborhood Environment Assessment

- Carlson, J.A., Dean, K.M., & Sallis, J.F. (2017). National Collaborative on Childhood Obesity Research Measures Registry User Guide: Physical Activity Environment. Available at: <http://nccor.org/tools-mruserguides/physical-activity-environment/>.
- Cain et al. Developing and validating an abbreviated version of the Microscale Audit for Pedestrian Streetscapes (MAPS-Abbreviated). *Journal of Transport and Health*, 2017, 5:84-96.

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