Hoehner, C., Ivy, A., Ramirez, L., Handy, S., Brownson, R. (2007). Active Neighborhood Checklist: A user friendly and reliable tool for assessing activity friendliness. *American Journal of Health Promotion 21*(6), 534-537.

Abstract

Purpose. To test the reliability of the Active Neighborhood Checklist (the Checklist), a user-friendly audit tool for assessing neighborhood environmental supports for physical activity.

Methods. Sixty-four street segments in St. Louis and southeastern Missouri were selected among diverse areas that varied with respect to socioeconomic levels, urbanization, and land use. Fifteen public health researchers and seven community stakeholders conducted audits in April 2005 following a two-hour training session. Interrater reliability was measured for the items in each section of the Checklist (land use characteristics, sidewalks, shoulders and bike lanes, street characteristics, and quality of the environment for a pedestrian) using observed agreement and the k statistic.

Results. The mean observed agreement for 57 evaluated items was 0.87 (range, 0.61–1.00). The mean k statistic was 0.68 (range, 0.21–1.00).

Discussion. With minimal training of the auditors, the Checklist demonstrated strong reliability. Future studies are needed to provide information about its usability for various stakeholders and across different settings. (Am J Health Promot 2007;21[6]:534–537.)

Key Words: Walking, Environment, Physical Activity, Environmental Audit Instrument, Reliability, Community. Manuscript format: research, Purpose: instrument development, Setting: local community, Health focus: fitness/physical activity, Strategy: built environment, Target population: adults, Target population circumstances: geographic location

Brownson, R., Hoehner, C., Day, K., Forsyth, A., Sallis, J. (2009). Measuring the built environment for physical activity: state of the science. *American Journal of Preventive Medicine 36*(4S), S99-S123.

Abstract: Physical inactivity is one of the most important public health issues in the U.S. and internationally. Increasingly, links are being identified between various elements of the physical—or built—environment and physical activity. To understand the impact of the built environment on physical activity, the development of high-quality measures is essential. Three categories of built environment data are being used: (1) perceived measures obtained by telephone interview or self-administered questionnaires; (2) observational measures obtained using systematic observational methods (audits); and (3) archival data sets that are often layered and analyzed with GIS. This review provides a critical assessment of these three types of built-environment measures relevant to the study of physical activity. Among perceived measures, 19 questionnaires were reviewed, ranging in length from 7 to 68 questions. Twenty audit tools were reviewed that cover community environments (i.e., neighborhoods, cities), parks, and trails. For GIS-derived measures, more than 50 studies were reviewed. A large degree of variability was found in the operationalization of common GIS measures, which include population density, land-use mix, access to recreational facilities, and street pattern. This first comprehensive examination of built-environment measures demonstrates considerable progress over the past decade, showing diverse environmental variables available that use multiple modes of assessment. Most can be considered first-generation measures, so further development is needed. In particular, further research is needed to improve the technical quality of measures, understand the relevance to various population groups, and understand the utility of measures for science and public health.

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