Evaluating instruments measuring nutrition environments

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A nutrition environment can be defined simply as "the places in a community where people buy or eat food".[1] Nutrition environments involve physical access, or how easy it is for an individual to go to a place where they can obtain food, as well as other constructs such as affordability, desirability, cultural appropriateness, and diversity of food. Glanz, Sallis, Saelens, and Frank (2005) developed a model for conceptualizing and studying nutrition environments.[2] The model divides the broader nutrition environment into four smaller environments and notes the various external influences that create or change each smaller environment. The starting place for this model, and for the study of nutrition environments in general, is that an individual's surrounding environment can have a significant effect on the daily food choices they make (or have the capacity to make).

A variety of instruments have been developed and tested in order to measure nutrition environments, but the majority of this testing has been completed in North America. This literature review sought to examine the global scope of the research on measurement instruments, and determine whether measurement tools have been tested in urban areas of developing countries, where urbanization is occurring.

The most widely used and evaluated measurement instrument is the NEMS-S tool, which has been tested in a variety of locations. However, only two articles included in this review described measurement instruments that had been evaluated in developing countries (Brazil and Guatemala).[3,4] Both of these studies employed a modified version of the NEMS-S instrument. Based on the results of this review, it can be concluded that the NEMS instrument appears to be the easiest to modify to different settings. Further research is needed in multiple settings to test the broader application of the NEMS tool is a variety of countries and communities, however the modified version applied in urban Brazil shows that the instrument is adaptable.[3] Extensive research on the community in question will allow for proper adaptation of the NEMS instrument, resulting in a more accurate picture of the nutrition environment in developing settings.

Global Health Relevancy

- Overnutrition and undernutrition is occurring simultaneously (double burden of nutrition) in rapidly urbanizing spaces in developing countries
- Necessary to reliably measure nutrition environments to understand where/how food is procured in these urbanizing spaces, in order to improve access to healthy, sustainable food