



Development and Testing of the Church Environment Audit Tool

Churches are located in communities across the United States, and over one-third of Americans attend a religious service at least once per week. This means that churches are well-positioned to reach groups who are at risk of chronic disease, including racial and ethnic minorities as well as rural residents. Churches are also trusted sources of information, social support, and health-promoting resources for their members. Because of these features, churches are important partners for public health promotion programs.

Past research in faith-based settings has often focused on improving chronic disease outcomes by promoting physical activity and healthy eating among individual members. However, church facilities that could support physical activity and healthy eating, such as

fellowship halls and kitchens, are often overlooked in these health promotion efforts. Little is known about how to measure church environment features to determine if they support health behaviors. The purpose of this study was to develop an objective observation tool that could be used to collect information about the characteristics of church environments.



What We Did

As a part of Phase 1 of the [Faith, Activity, & Nutrition \(FAN\) Dissemination and Implementation Study](#), which was a partnership between the University of South Carolina's Prevention Research Center and the Fairfield (SC) Community Coordinating Council (now named Fairfield Forward), the Church Environment Audit Tool (ChEAT) was developed. The ChEAT was designed to measure the physical environments of the churches that took part in FAN (N=54), all of which were located in a rural county in South Carolina.

The ChEAT was developed in three stages. First, three behavioral experts searched published research to find similar tools that could be adapted to fit the church setting. Next, the ChEAT was drafted by members



of the FAN research team and reviewed by the Prevention Research Center community advisory board members, as well as several key contacts in the faith community. Finally, the ChEAT was sent to five content area experts for review and edits.

The final ChEAT is a six-page tool that measures 218 items across seven different environmental opportunity areas. Items are scored on whether they are present and useable at each church. The seven areas (and examples of items measured in each area) are:

Area	Description/Examples
Indoor opportunities for physical activity	Equipment, such as yoga mats or exercise videos
Food preparation and equipment	Cookbooks, stovetop, cooking utensils
Type of kitchen	Commercial, standard, kitchenette, none
Food for purchase	Vending and concessions
Beverages for purchase	Vending and concessions
Media assessment	Available content on bulletin boards or health brochures
Outdoor opportunities for physical activity	Walking track, playground

FAN research staff were trained on how to use the tool. After training, staff were sent in pairs to observe each of the 54 churches that took part in the study. Research staff performed audits on the church's worship day (usually Sunday). The audits were completed with the help of an onsite church member. To test the reliability of the ChEAT, the research

staff members independently completed the ChEAT in each environmental area and then agreement between the auditors' scores was examined.

What We Found

The ChEAT took an average of 19 minutes to complete (the range among the 54 churches was 8-59 minutes). A total of 102 items could be assessed for agreement (the remaining items were less common in churches in this study). In general, staff members had high agreement in their ratings of items - for 99 out of 102 items, percent agreement between auditors was greater than 80%. Overall, the ChEAT appears to accurately measure many key church environmental features with very little burden to the auditor. Also, the ChEAT is easy for auditors to understand and use. These features make the ChEAT an accessible and attractive option for churches that may wish to conduct their own environmental audits. Church leaders can use ChEAT scores to identify areas in which their church can improve environmental supports for physical activity and healthy eating. The ChEAT may also be a helpful example to researchers who want to develop an environment audit tool in a new setting.

Summary

The ChEAT is an effective tool for public health researchers and church community members to evaluate physical activity and healthy eating environments within churches. The ChEAT is easy to use and produces consistent ratings across auditors. This study was limited geographically to churches from one rural county in South Carolina, and many of these churches had similar environmental features. Future use of the ChEAT in new and more diverse settings will enhance its application in faith-based health promotion interventions.

To learn more about the study:

The full research article about development of the ChEAT is available here: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6202683/>.

ChEAT has been listed in the National Collaborative on Childhood Obesity Research Measures Registry: <https://www.nccor.org/nccor-tools/measures/>.

ChEAT is also available for download on the University of South Carolina Prevention Research Center website: <http://prevention.sph.sc.edu/Resources/church-health-environmental-audit-tool.htm>.