

Compliance With the Healthy Eating Standards in YMCA After-School Programs

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ABSTRACT

Objective: In 2011, the YMCA of the US adopted Healthy Eating standards for all of their after-school programs (ASPs). The extent to which YMCA ASPs comply with the standards is unknown.

Methods: Twenty ASPs from all YMCA ASPs across South Carolina (N = 102) were invited to participate. Direct observation of the food and beverages served and staff behaviors were collected on 4 nonconsecutive days per ASP.

Results: One ASP did not serve a snack. Of the remaining ASPs, a total of 26% served a fruit or vegetable and 32% served water every day; 26% served sugar-sweetened beverages, 47% served sugar-added foods, and only 11% served whole grains when grains were served. Staff members sat with the children (65%) or verbally promoted healthy eating (15%) on at least 1 observation day. Staff drank non-approved drinks (25%) or foods (45%) on at least 1 observation day. No ASPs served snacks family-style every day.

Conclusions and Implications: Additional efforts are required to assist YMCA-operated ASPs in achieving these important nutrition standards.

Key Words: child, policy, nutrition, community, YMCA (*J Nutr Educ Behav.* 2016; ■:1-8.)

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INTRODUCTION

In November, 2011, the YMCA of the US adopted the Healthy Eating (HE) standards for its after-school programs (ASPs), which called on all YMCA-operated ASPs to serve a fruit or vegetable and water every day, serve whole grains when serving grains, eliminate

sugar-sweetened beverages and foods, and serve snacks family-style, and for staff members to model healthy eating behaviors.¹ These standards have the potential to make an important public health impact as it relates to improving the quality of the foods and beverages served as snacks to the tens of thousands of children who attend thou-

sands of YMCA-operated ASPs across the country every school day.^{2,3}

Adoption of the HE standards represented an important and necessary change to the types of foods and beverages typically served in ASPs, which predominately included foods high in salt or sugar and were almost entirely void of whole grains, fruits, or vegetables.^{2,3} The national adoption of the HE standards represents a unique opportunity to evaluate how the voluntary adoption of policy at an organizational level can translate into changes in routine practice.¹ Previous studies on the adoption of healthy eating policies have indicated that when coupled with additional professional development training components, improvements in the quality of the foods and beverages served can be made in ASPs.⁴⁻⁶ For the YMCA nationally, there is limited information regarding the impact of the HE standards regarding what is served for snack in their ASPs. Such information is useful when determining the extent to which adoption of the policy is altering routine practice of ASPs, and when determining topics for professional development for ASP providers. Thus, the purpose of this study was to

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evaluate the extent to which YMCA-operated ASPs were meeting the HE standards 4 years (spring, 2015) after the standards were adopted nationally in 1 southeastern state.

METHODS

Sampling Strategy for Evaluation of ASPs

A total of 21 YMCAs operate independently across South Carolina. One association did not operate an ASP and therefore was not included in the sampling strategy. The remaining 20 associations collectively operated 102 programs with a median of 4 programs/association (range, 1–13 programs operated by a single association). Based on fall, 2014 enrollment, these programs enrolled 5,244 children aged 5–12 years for the 2014–2015 school year. Across all 20 associations, programs were operated in YMCA facilities (25%), schools (64%), churches (3%), and community locations (8%). For the purpose of this study no programs were selected that operated in churches or community locations (in this sample, community referred to programs operating within apartment complexes) because of the low number of programs within those settings.

The sampling strategy included a single program from each of the 20 associations. This was deliberate given differences in organizational structure and capacity across associations, the need to ensure representativeness of ASPs dispersed geographically throughout the state, and the need to include all YMCA partner associations. Next, to ensure sufficient sample size at the child level and representativeness of programs of all sizes, programs were first grouped by association, and then stratified by enrollment. For associations that operated a single program ($n = 5$), that program was selected. For associations that operated ≥ 2 programs ($n = 15$), the following sampling strategy was employed. For associations in which all programs enrolled < 50 children ($n = 3$), the largest program was selected. For associations that operated programs with > 50 children enrolled ($n = 12$), a single program was randomly selected from these. A single ASP in 1 association did not serve snacks; rather children brought snacks from home. For this reason, this ASP

was not included in the analyses on foods and beverages served but it was included in analyses on staff behaviors. All methods were approved by the Institution Review Board of the University of South Carolina.

Measures

Measurements occurred during spring, 2015 (March to April). Consistent with established protocols, each ASP was visited for data collection on 4 non-consecutive, unannounced days Monday through Thursday.^{7–11} Evaluation of the YMCA HE standards was operationalized as the following: Programs on each day of operation will serve (1) a fruit or vegetable, and (2) water; and each day programs will not serve (3) sugar-sweetened candy, desserts (eg, cookies, toaster pastries), or beverages (eg, chocolate milk, powdered drink mixes); and (4) when serving grains, programs will serve whole grains determined by the first word on the ingredient list containing the word “whole” in front of the grain. Food preparation and storage amenities were collected via self-report from the ASP site leaders. Each site leader was asked to indicate what access the program had to locations where they could store foods and beverages (eg, refrigerator, pantry) and to wash and prepare foods (eg, sinks not located in bathrooms, kitchens).

The primary outcome for this study was the type of foods and beverages ASPs served for a snack. The type of foods and beverages served as a snack was recorded via direct observation by trained research personnel. Immediately at the start of the snack, the trained observer recorded the brand name(s), size, and packaging, when appropriate, of the foods and beverages served as a snack for that day. Food and beverage items served as snacks were classified according to existing categories for snacks and beverages:^{2,6,11} sugar-sweetened beverages (eg, soda, powered drink mixes, sports drinks); dairy food (eg, string cheese, yogurt); unsweetened milk (nonfat, 1%, 2%, and whole); sweetened milk (eg, chocolate, strawberry); 100% fruit juice; salty flavored snacks (eg, Doritos, Chex Mix), salty unflavored snacks (eg, pretzels, plain corn tortilla chips); desserts (eg, cookies, Pop-Tarts); candy (eg, chocolate, frozen

treats); non-fruit fruit (eg, Fruit Roll-Ups; fruit leather); prepackaged fruit (eg, applesauce, fruit in syrup); sugar-sweetened cereal (eg, Froot Loops); unsweetened cereal (eg, Cheerios); and fruits and vegetables (eg, fresh, frozen, dried). Water was recorded if programs provided water in cups or bottles during snack time. Grain products were classified as whole grains if the ingredients list on the package indicated that the first ingredient contained the word “whole” in front of the grain. This definition is consistent with the exact policy language in the HE standards.

Family-style serving was defined having children serve themselves from common bowls and pitchers with limited help from adults. This definition is taken directly from the HE standards of the YMCA of the US.

The System for Observing Staff Promotion of Physical Activity and Nutrition, a systematic observation instrument,¹² was used to track staff healthy eating behaviors. Trained observers completed all observations. Observers completed classroom training, video analysis, and field practice before data collection. Classroom training lasted 3 hours and included a review of study protocol, orientation to the instrument, and committing observational codes to memory. Video analysis included watching video clips from ASPs and rating those clips using System for Observing Staff Promotion of Physical Activity and Nutrition protocols. Field practice and reliability scans were completed on at least 6 days. Interobserver agreement criteria were set at $>80\%$ using interval-by-interval agreement for each category; consistent with published reliability protocols, reliability was collected before measurement and on at least 30% of data collection days.¹³ Interobserver reliability for the ASP context and staff behaviors were estimated via interval-by-interval percent agreement and weighted kappa. Percent agreement ranged from 92.9% to 100% and weighted kappa ranged from 0.46 to 0.93. Reliability was checked weekly to identify disagreements. Operational definitions of variables with borderline or low reliability ($< 90\%$ agreement) were then discussed with observers to ensure reliability and prevent observer drift.

On observation days, observers systematically rotated through areas

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