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# Executive Summary

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## *Chapter One: 4-H Healthy Living programs with impact: A national environmental scan*

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The 4-H youth development program of the nation's 109 land-grant universities and the Cooperative Extension System is one of the largest youth development organizations in the United States serving approximately six million youth. The 4-H Healthy Living initiative began in 2008 to promote achievement of optimal physical, social, and emotional well-being for youth and families. In 2013, the National 4-H Council sought to identify 4-H Healthy Living programs in the domains of healthy eating and physical activity that adhered to the national 4-H Healthy Living mission and were ready for comprehensive outcome evaluation or replication at a national level. This chapter shares findings from an environmental scan of 4-H programs and (a) identifies programs with evidence of promoting a healthy diet and physical activity, (b) describes program impacts related to healthy diet and physical activity, and (c) clarifies select program characteristics associated with reported healthy eating and/or physical activity outcomes. The RE-AIM evaluation framework is introduced as an effective approach to assessing program impact for 4-H Healthy Living and similar out-of-school time programs.

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## ***Chapter Two: Concerns in measurement of healthy eating and physical activity standards implementation***

**Katherine H. Hohman, Karah D. Mantinan**

As part of its 2011 commitment to the Partnership for Healthier America, the YMCA of the USA (Y-USA) pledged that by 2015, 85 percent of its local Y associations with early childhood or afterschool programs would have at least one program site that met 100 percent of the Y-USA's healthy eating and physical activity (HEPA) standards. To inform the measurement and monitoring of HEPA standards, the Y-USA designed a thirty-three-item on-line survey to assess which HEPA standards were being met in afterschool program sites each year in order to track progress over time. Verification activities including direct observation, key informant interviews, and document review generated overall compliance ratings for each standard. Compliance ratings were then compared to the self-reported survey results to determine the validity of the survey for assessing each HEPA standard. The survey had variable accuracy when compared to the validation methods. This chapter aims to inform the measurement and monitoring of HEPA standards implementation in larger afterschool networks by reporting on learnings from the Y-USA's early efforts in its network.

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## ***Chapter Three: Creating healthier afterschool environments in the Healthy Eating Active Communities program***

**Arnell J. Hinkle, Sallie Yoshida**

Afterschool programs in California have the potential to play a major role in obesity prevention given that they serve close to a million low-income children. A five-year initiative called the Healthy Eating Active Communities (HEAC) was funded in 2005 by the California Endowment to demonstrate that disparities related to

childhood obesity and diabetes could be reduced in communities that offered families accessible and affordable opportunities for healthy eating and physical activity. The afterschool program setting constituted one of five key settings targeted in the initiative. This chapter describes the HEAC afterschool program initiative, reviews findings from the HEAC afterschool program nutrition and physical activity evaluation, and shares strategies that were used to implement the five-year training and technical assistance intervention.

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***Chapter Four: Effects of a competency-based professional development training on children's physical activity and staff physical activity promotion in summer day camps***

**R. Glenn Weaver, Michael W. Beets, Gabrielle Turner-McGrievy, Collin A. Webster, Justin Moore**

The YMCA of the USA serves more than nine million youth in its summer day camping programs nationwide. In spring 2011, the YMCA of Columbia, SC, with support from the University of South Carolina, adopted a competency-based staff-level training approach in an attempt to align staff behaviors with the YMCA of the USA new physical activity standards for summer camp programs. This chapter presents findings from a multiyear evaluation of a competency-based training approach using a single group design with preassessments and multiple postassessments. Training consisted of participatory exercises and video demonstrations. Data on staff physical activity promotion behaviors were collected using SOSPAN, an instrument that utilizes momentary time sampling to record instances of staff physical activity promotion behaviors consistent with physical activity standards. This chapter describes how a competency-based professional development training may be effective at increasing physical activity promoting and decreasing physical activity discouraging staff behaviors and related child activity levels.

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***Chapter Five: Impact of implementation factors on children's water consumption in the Out-of-School Nutrition and Physical Activity group-randomized trial***

**Rebekka M. Lee, Cassandra Okechukwu, Karen M. Emmons, Steven Gortmaker**

National data suggest that children are not consuming enough water. Experimental evidence has linked increased water consumption to obesity prevention, and the National AfterSchool Association has named serving water as one of its standards for healthy eating and physical activity in out-of-school time settings. From fall 2010 to spring 2011, twenty Boston afterschool program sites participated in the Out-of-School Nutrition and Physical Activity (OSNAP) initiative, a group-randomized trial investigating nutrition and physical activity policies and practices that promote child health. Researchers used data from OSNAP to study the key factors that influence the implementation of practices that promote water intake. Aspects of the organizational capacity of the afterschool programs, characteristics of the providers, and the community context were hypothesized to impact changes in children's water consumption. This chapter demonstrates the effectiveness of an afterschool intervention on increases in children's water consumption. It also outlines the substantial influence that implementation factors can have on the effectiveness of an obesity prevention intervention, highlighting the importance of understanding how interventions are delivered in real-world settings.

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***Chapter Six: Evidence-based fitness promotion in an afterschool setting: Implementation fidelity and its policy implications***

**Jean M. Thaw, Manuela Villa, David Reitman, Christian DeLucia, Vanessa Gonzalez, K. Lori Hanson**

Little is known about how the adoption of evidence-based physical activity (PA) curricula by out-of-school time (OST) programs

affects children's physical fitness, and there are no clear guidelines of what constitutes reasonable gains given the types of PA instruction currently offered in these programs. Using a three-wave, quasi-experimental, naturalistic observation design, this study evaluated the implementation of an evidence-based PA instruction curriculum (*Sports, Play, and Active Recreation for Kids* [SPARK]) and examined whether the potential health benefits of evidence-based PA instruction can be replicated in this context when compared to OST programs that do not use evidence-based PA curricula. Quality of PA instruction and SPARK implementation fidelity were also assessed. Results indicated that children in the non-evidence-based/standard PA instruction programs engaged in higher levels of moderate-to-vigorous PA (MVPA) and showed greater improvements in fitness levels over time. The findings from this chapter suggest that while it is generally accepted that evidence-based approaches yield higher levels of PA when implemented by researchers under controlled conditions, findings are inconsistent when evidence-based PA instruction is implemented in the field, under presumably less controlled conditions. It appears that when it comes to PA instruction in afterschool, either less structured activities or well-implemented evidence-based practices could be the key to promoting higher PA levels and greater health and fitness for school-aged children.

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***Chapter Seven: Active summers matter: Evaluation of a community-based summertime program targeting obesogenic behaviors of low-income, ethnic minority girls***

**Amy M. Bohnert, Amanda K. Ward, Kimberly A. Burdette, Rebecca L. Silton, Lara R. Dugas**

Low-income minority females are disproportionately affected by obesity. The relevance of summer months to weight gain is often overlooked. Some evidence suggests that summer programming,

such as day camps, may offer increased opportunities for structured physical activities resulting in less weight gain. This study examined the effectiveness of Girls in the Game, a six-hour four-week sports and fitness summer camp program, in increasing physical activity (PA) and reducing body mass index and media use. Statistically significant increases were observed in four physical activity measures including total PA, MVPA, average number of ten-minute bouts of MVPA, and minutes participants spent in bouts of at least ten minutes of MVPA. This chapter highlights the importance of investigating the potential relationships among weight, physical activity, sedentary time, media use, and participation in summer camp programming.