



# Rationale for Healthy Eating and Physical Activity Policies

Incorporating healthy food and active play into community- and school-based out-of-school time (OST) programs is an integral component of a comprehensive strategy to prevent childhood obesity. This factsheet explains the rationale for adopting healthy eating and physical activity standards as part of a comprehensive strategy. To learn more, please visit the Center's [\*Minnesota Afterschool and Out-of-School Time Toolkit for Healthy Eating and Physical Activity\*](#).

## Advancing a comprehensive prevention strategy

While innovative efforts are taking shape across the country, the evidence, to date, indicates that there is considerable room for improvement.<sup>1</sup> Research findings show that many OST programs are not meeting guidelines for nutritious snacks<sup>2</sup> and that most children who are eligible for federally funded free breakfast are not receiving it.<sup>3</sup> Before-school and afterschool programs that incorporate vigorous activity and healthy snacks and meals can multiply their impact on a child's academic and social development. According to the National School Boards Association, physically active children are more likely to be "motivated, attentive, and successful."<sup>4</sup> Children who eat breakfast at school score dramatically higher on standardized tests and are less likely to arrive late to school.<sup>5,6</sup>

## What are OST programs?

Out-of-school-time (OST) programs encompass all programming for school-age children and youth held outside of regular school hours, before or after the regular school day, on weekends, school release days, and during the summer when school is not in session. These include tutoring programs and informal sports leagues held on school premises, as well as athletic, arts, music, nature, scouting, and other programs held at school sites, recreation centers, places of worship, non-profits such as YWCA/YMCAs and other community centers.<sup>7</sup>

Before-school, afterschool, summer, and school release day programs can provide safe and nurturing environments and activities that reinforce the skills and learning students acquire during the regular school day. A study by the YMCA found that teens who did not participate in afterschool programs were three times as likely to drink, smoke, use drugs, and skip classes.<sup>8</sup> Regular participation in well-implemented, quality OST programming has been linked to stronger grades, better test scores, and reduced behavior problems.<sup>9,10</sup>

Afterschool and other OST programs also reinforce healthy messages about nutrition and physical activity and provide access to active environments where nutritious food is served. For these reasons, OST programs, particularly those that are held on school premises, should be fully integrated into school wellness policies and coordinated school health policies.<sup>12</sup>

### Studies show promise

Evidence on the ability of OST programs to encourage healthy eating and physical activity is still growing. A 2009 review of 11 studies examining the benefits of afterschool programs on physical activity found an overall positive effect on fitness, activity levels, and BMI or other measures of body composition.<sup>13</sup> Two of the reviewed studies that incorporated physical activity and nutrition components, plus one other, found strong, consistent, or significant results with the improved physical activity measures, but not with the nutrition components.<sup>14,15,16</sup>

A recent study by Harvard University at 16 YMCA and YMCA-affiliated sites, including a center in the Midwest, found that creating an active environment added 10.5 minutes of moderate and vigorous activity per day, compared to sites without the program. The extra 10 minutes placed the children significantly closer to the recommended 60 minutes of activity per

day.<sup>17</sup> Menus collected at seven of the YMCA sites showed an increase from 1.3 to 3.9 servings of fruits and vegetables after one year. Decreases were also noted in servings of desserts, foods with added sugars, and foods with trans fats.<sup>18</sup> Each of the YMCA sites in the study participated in a learning collaborative, which provided them with support and training in organizational change strategies and collaborative processes.<sup>19,20,21</sup> The YMCA recently announced that it plans to adopt the physical activity and nutrition

### Common Characteristics of Quality OST Programs

Quality OST programs provide children and youth with safe, supportive relationships and a positive emotional environment, and share certain common characteristics:

- a well-prepared and compensated staff
- structured, intentional (goal-driven) programming is aligned with school day learning, making use of alternative, innovative approaches
- youth engagement in selecting varied, creative program options
- strong, effective partnerships with community organizations
- healthy and safe program environments that espouse wellness through physical activity and nutrition practices and policies
- sustained, steady student participation and access to programs over time
- management practices focus on ongoing assessment and improvement.<sup>11</sup>



guidelines developed through this program at 85% of its centers nationwide by 2015.<sup>22</sup> The *Food & Fun in After School Time* materials are available free-of-charge.

Another study that used a learning collaborative model to facilitate policy change found that schools with policies to increase water intake during afterschool snack time served water three more times per week compared to control sites; these schools also were able to reduce average daily caloric intake from beverages by 61 calories.<sup>23</sup> A pilot study at a middle school in suburban Minneapolis that provided healthy snacks to students in an afterschool homework program saw improvements in preferences for healthy snacks, with one third of students reporting that they had asked their parents to purchase healthy snacks or had bought them on their own.<sup>24</sup>

Several studies on afterschool programs serving children of color have shown a small, but significant, impact on weight gain in Latino, African-American, and Asian children. A study of a soccer, creative writing, and community service program,

*America SCORES*, found that Latino and Asian program participants gained about two pounds less than expected after one school year in the program.<sup>25</sup> Soccer was used as a “hook” for the program, and the 3rd through 5th grade participants practiced and played the sport three times a week.<sup>26</sup> An afterschool program in Texas with 61% African-American children participating saw improved fitness and bone density and decreases in percent body fat and Body Mass Index (BMI). Children chose the activities they wanted to participate in and program staff modified familiar games so that the children stayed active throughout. One third of the total program time was spent on tutoring and other academic enrichment.<sup>27</sup>

One homework, healthy snack, and physical activity program for African-American youth and teens also found decreases in BMI, percent body fat, and increases in moderate physical activity.<sup>28</sup> A culturally appropriate dance and screen-time reduction program for eight- to ten-year-old African-American pre-teens had no effect on weight gain, yet

found clinically significant decreases in cholesterol levels, excess insulin, and symptoms of depression.<sup>29</sup>

More research is needed on the effectiveness of programs and policies to improve physical activity and nutrition in OST settings. A recent review of the scientific literature points out that studies have not yet measured whether physical activity programs are meeting the guidelines they set.<sup>30</sup> A separate review of articles on both physical activity and nutrition programs in afterschool settings also found that studies published from 2006 to 2011 rarely evaluated how well the initiatives were implemented. The researchers found very few studies on programs that reduced the amount of time children spend in television watching, internet use, and other sedentary activity.<sup>31</sup>

### Reinforcing school day initiatives

Children and youth spend up to 15 hours per week in afterschool and other OST activities when school is in session, or as many as 40 hours per week during summer months or other extended school breaks. Implementation of nutrition and physical activity standards and programming in OST settings is a natural complement to wellness initiatives during the school day, and will help ensure that children and youth do not lose ground in building healthy habits when participating in OST programs. While the evidence for the effectiveness of physical activity and nutrition guidelines in OST programs is still growing, multiple studies have found that OST programs can make modest improvements in unhealthy weight gain in children and youth. A focus on the OST environment must be part of a comprehensive strategy to prevent obesity in school-aged children and youth. As one researcher points out, “the complex nature of the etiology of obesity demands far-reaching interventions that penetrate every aspect of a child’s world.”<sup>32</sup>

### Uneven program participation: An opportunity gap in healthy development

Nationally, about 8 million children and youth, or 15% of all K-12 students, participate in programs outside of regular school time.<sup>33</sup> The [\*Afterschool Alliance\*](#), a national afterschool advocacy organization, estimates that 113,000 school-age students, or 12% of Minnesota children, participate in OST programs.<sup>34,35</sup> According to the [\*Minnesota School-Age Care Alliance\*](#), an affiliate of the [\*National Afterschool Association\*](#), there has been tremendous growth in afterschool programs in Minnesota due to recent private and public investments.<sup>36</sup> The Afterschool Alliance estimates that, on average, a Minnesota child in an afterschool program attends three days a week for a total of six hours.<sup>37</sup> About a third of Minnesota’s school children, or 255,000 students, participate in summer programs.<sup>38</sup>

About two-thirds of U.S. school children who participate in afterschool programs are eligible for free and reduced lunch.<sup>39</sup> Children of color are more likely to participate in afterschool programs than their white counterparts.<sup>40,41,42</sup> Statistics such as these reflect the makeup of programs that, as a condition of funding, are required to serve students in need. In Minnesota, for example, spurred by the federally funded 21st Century Community Learning Center (21st CCLC) program requirement that grantees serve populations with greater poverty (as measured by eligibility for free and reduced lunch), 80% of children and youth in afterschool programs are eligible for free and reduced lunch and about 25% speak English as a second language. Almost 20% of the children in Minnesota who participate in afterschool programs have special needs or learning differences.<sup>43</sup> More low-income children and children of color participate in summer learning and enrichment programs, too. Compared to the national average of 25%, 27% of low-income children, 29%

of Hispanic children, and 35% of African American children participate in summer learning programs.<sup>44</sup>

Overall, the need for well-implemented, quality OST programs has not yet been met. According to *Youthprise*, over half of Minnesota parents “struggle to find high-quality activities for their children to do when they are not in school, and the issue becomes significantly worse for low-income and racially diverse families,” creating a huge disparity.<sup>45</sup> Approximately 33% (263,443) of all Minnesota children *not* currently enrolled in OST

opportunities would be likely to participate if a program were available in their community. National research suggests that disparities are pervasive in middle- and high-school OST programs, in that the supply of programs and access to them are not distributed equally across communities.<sup>46</sup>

By supporting OST program expansion, funding, and quality, public health leaders can build awareness for strengthening physical activity and nutrition standards and expand the reach of OST programs to realize their full potential.

*Last updated: August, 2013*

The Public Health Law Center thanks Hanna Kite, MPH, Health Policy Workshop, for her assistance in writing and editing this series, as well as Cassie Benson for her work on the project. The Public Health Law Center would also like to thank Allison Anfinson, Senior Program Evaluator, Center for Prevention, Blue Cross and Blue Shield of Minnesota, Dr. Dale Blyth, University of Minnesota, Extension Professor, School of Social Work, College of Education and Human Development, and Dr. Marilyn S. (Susie) Nanney, Associate Professor, Family Medicine and Community Health, Program in Health Disparities Research, University of Minnesota, for their assistance in reviewing this document.



This publication was prepared by the Public Health Law Center at William Mitchell College of Law, St. Paul, Minnesota, with financial support provided by Blue Cross and Blue Shield of Minnesota.

The Public Health Law Center provides information and technical assistance on issues related to public health. The Public Health Law Center does not provide legal representation or advice. This document should not be considered legal advice. For specific legal questions, consult with an attorney.

## Endnotes

- <sup>1</sup> MICHAEL W. BEETS, ROBERT WOOD JOHNSON FOUND., POLICIES AND STANDARDS FOR PROMOTING PHYSICAL ACTIVITY IN AFTER-SCHOOL PROGRAMS (2012), available at <http://www.activelivingresearch.org/afterschool>.
- <sup>2</sup> Richard G. Weaver et al., *A Conceptual Model for Training After-School Program Staffers to Promote Physical Activity and Nutrition*, 82 J. SCH. HEALTH 186 (2012).
- <sup>3</sup> FOOD AND RESEARCH CTR., SCHOOL BREAKFAST PROGRAM 2010–2011 PARTICIPATION (2012), available at <http://frac.org/federal-foodnutrition-programs/school-breakfast-program>.
- <sup>4</sup> COLIN PEKRUHN, NAT’L ASS’N OF STATE BOARDS OF EDUC., PREVENTING CHILDHOOD OBESITY: A SCHOOL HEALTH POLICY GUIDE (2009), available at <http://www.rwjf.org/content/dam/web-assets/2009/01/preventing-childhood-obesity->.
- <sup>5</sup> THE JAMES IRVINE FOUND., THE CAL. ENDOWMENT & THE WILLIAM AND FLORA HEWLETT FOUND., HEALTH STEPS TOWARD STUDENT ACHIEVEMENT: RESEARCH-BASED RECOMMENDATIONS FOR POLICY AND PRACTICE (2011), available at [http://www.hewlett.org/uploads/documents/Healthy\\_Steps\\_Toward\\_Student\\_Achievement.pdf](http://www.hewlett.org/uploads/documents/Healthy_Steps_Toward_Student_Achievement.pdf).

- <sup>6</sup> CHARLES E. BASCH, TEACHERS COLL., COLUMBIA UNIV., HEALTHIER STUDENTS ARE BETTER LEARNERS: A MISSING LINK IN SCHOOL REFORMS TO CLOSE THE ACHIEVEMENT GAP (2010), available at [http://www.equitycampaign.org/i/a/document/12557\\_EquityMattersVol6\\_Web03082010.pdf](http://www.equitycampaign.org/i/a/document/12557_EquityMattersVol6_Web03082010.pdf).
- <sup>7</sup> Michael W. Beets et al., *After-School Program Impact on Physical Activity and Fitness: A Meta-Analysis*, 36 AM. J. PREVENTATIVE MED. 527 (2009).
- <sup>8</sup> YMCA OF THE USA, AFTER SCHOOL FOR AMERICA'S TEENS: A NATIONAL SURVEY OF TEEN ATTITUDES AND BEHAVIORS IN THE HOURS AFTER SCHOOL (2001), as cited in CHRISANNE L. GAYL, PROGRESSIVE POLICY INST., AFTER-SCHOOL PROGRAMS: EXPANDING ACCESS AND ENSURING QUALITY (2004).
- <sup>9</sup> AFTERSCHOOL ALLIANCE, AFTERSCHOOL ESSENTIALS: RESEARCH AND POLLING (2012), available at [http://www.afterschoolalliance.org/documents/2012/Essentials\\_4\\_20\\_12\\_FINAL.pdf](http://www.afterschoolalliance.org/documents/2012/Essentials_4_20_12_FINAL.pdf).
- <sup>10</sup> Joseph A. Durlak et al., *A Meta-Analysis of After-School Programs that Seek to Promote Personal and Social Skills in Children and Adolescents*, 45 AM. J. COMMUNITY PSYCHOL. 294 (2010).
- <sup>11</sup> AFTERSCHOOL ALLIANCE, QUALITY AFTERSCHOOL: HELPING PROGRAMS ACHIEVE IT AND POLICIES SUPPORT IT, ISSUE BRIEF NO. 47, nn.7, 8, & 9 (2011), available at [http://www.afterschoolalliance.org/issue\\_47\\_quality.cfm](http://www.afterschoolalliance.org/issue_47_quality.cfm).
- <sup>12</sup> CONN. STATE DEPT OF EDUC., ACTION GUIDE FOR SCHOOL NUTRITION AND PHYSICAL ACTIVITY POLICIES (2009), available at [http://www.sde.ct.gov/sde/lib/sde/PDF/DEPS/Student/NutritionEd/Action\\_Guide.pdf](http://www.sde.ct.gov/sde/lib/sde/PDF/DEPS/Student/NutritionEd/Action_Guide.pdf).
- <sup>13</sup> Michael W. Beets et al., *supra* note 7.
- <sup>14</sup> Mary Story et al., *An After-School Obesity Prevention Program for African-American Girls: The Minnesota GEMS Pilot Study*, 13 (Supp. 1) Ethnicity & Disease 1 (2003); Steve Kelder et al., *The CATCH Kids Club: A Pilot After-School Study for Improving Elementary Students' Nutrition and Physical Activity*, 8 Pub. Health Nutrition-Wallingford 133 (2005); David A. Dzewaltowski et al., *HOP'N After-School Project: An Obesity Prevention Randomized Controlled Trial*, 7 Int'l J. Behav. Nutrition & Physical Activity (2010).
- <sup>15</sup> Many studies had small sample sizes or lacked a comparison group.
- <sup>16</sup> Jennifer Slawta et al., *Promoting Health Lifestyles in Children: A Pilot Program of Be A Fit Kid*, 9 Health Promotion Prac. 305 (2008); Kristen Colchico et al., *Effects of After-School Physical Activity on Fitness, Fatness, and Cognitive Self-Perceptions: A Pilot Study among Urban, Minority, Adolescent Girls*, 90 Am. J. Pub. Health 977 (2000); Bernadette Mazurek Melynk et al., *The COPE Healthy Lifestyles TEEN Program: Feasibility, Preliminary Efficacy, and Lessons Learned From an After School Group Intervention with Overweight Adolescents*, 21 J. Pediatric Health Care 315 (2007); D.L. Weintraub et al., *Team Sports for Overweight Children: The Stanford Sports to Prevent Obesity Randomized Trial (SPORT)*, 162 Archives Pediatrics & Adolescent Med. 232 (2008).
- <sup>17</sup> Steven L. Gortmaker et al., *Effect of an After-School Intervention on Increases in Children's Physical Activity*, 44 Med. & Sci. in Sports & Exercise 450 (2012).
- <sup>18</sup> Rebecca S. Mozaffarian et al., *Impact of an Organizational Intervention Designed to Improve Snack and Beverage Quality in YMCA After-School Programs*, 100 Am. J. Pub. Health 925 (2010); Ctr. for Disease Control and Prevention, *Changes in YMCA Afterschool Programs Increase Children's Physical Activity and Healthy Food Options (2012)*, available at <http://www.cdc.gov/prc/prevention-strategies/YMCA-Harvard-Afterschool-Food-and-Fitness-Project.htm>.
- <sup>19</sup> Gortmaker et al., *supra* note 17.
- <sup>20</sup> The learning collaborative used in this study was based on the Institute for Healthcare Improvement's Breakthrough Series. The Breakthrough model facilitates learning between organizations to implement best practices. See Inst. for Healthcare Improvement, *The Breakthrough Series: IHI's Collaborative Model for Achieving Breakthrough Improvement (2012)*, available at <http://www.ihl.org/knowledge/Pages/IHIWhitePapers/TheBreakthroughSeriesIHI'sCollaborativeModelforAchievingBreakthroughImprovement.aspx>.
- <sup>21</sup> *Id.*; Steven L. Gortmaker et al., *supra* note 17.
- <sup>22</sup> Ctr. for Disease Control and Prevention, *supra* note 18.
- <sup>23</sup> Catherine M. Giles et al., *Increasing Water Availability During Afterschool Snack: Evidence, Strategies, and Partnerships from a Group Randomized Trial*, 43 Am. J. Preventative Med. S136 (2012).
- <sup>24</sup> Marilyn S. Nanney et al., *Incorporating a Health Reimbursable Snack in an Afterschool Homework Program for Middle School Students: A Case Study*, 39 Health Educ. & Behav. 127 (2012).

- <sup>25</sup> Kristine Madsen et al., After-School Program to Reduce Obesity in Minority Children: A Pilot Study, 13 J. Child Health Care 333 (2009).
- <sup>26</sup> *Id.*
- <sup>27</sup> Bernard Gutin et al., Preliminary Findings of the Effect of a 3-Year After-School Physical Activity Intervention on Fitness and Body Fat: The Medical College of Georgia Fitkid Project, 3 (Supp. 1) Int'l J. Pediatric Obesity 3 (2008).
- <sup>28</sup> Paule Barbeau et al., Ten Months of Exercise Improves General and Visceral Adiposity, Bone, and Fitness in Black Girls, 15 Obesity 2077 (2007).
- <sup>29</sup> Thomas N. Robinson et al., A Randomized Controlled Trial of Culturally Tailored Dance and Reducing Screen Time to Prevent Weight Gain in Low-Income African American Girls: Stanford GEMS, 164 Archives Pediatrics & Adolescent Med. 995 (2010).
- <sup>30</sup> Michael W. Beets, Robert Wood Johnson Found., *supra* note 1.
- <sup>31</sup> Paul Branscum & Manoj Sharma, After-School Based Obesity Prevention Interventions: A Comprehensive Review of the Literature, 9 Int'l J. Envtl. Res. & Pub. Health 1438 (2012).
- <sup>32</sup> Christina D. Economos et al., A Community Intervention Reduces BMI Z-Score in Children: Shape Up Somerville First Year Results, 15 Obesity 1325, 1333 (2012).
- <sup>33</sup> Afterschool Alliance, America After 3pm: Key Findings (2009), available at [http://www.afterschoolalliance.org/documents/AA3PM\\_Key\\_Findings\\_2009.pdf](http://www.afterschoolalliance.org/documents/AA3PM_Key_Findings_2009.pdf).
- <sup>34</sup> Afterschool Alliance, Minnesota After 3pm (2009), available at [http://www.afterschoolalliance.org/documents/AA3PM\\_2009/AA3\\_Factsheet\\_MN\\_2009.pdf](http://www.afterschoolalliance.org/documents/AA3PM_2009/AA3_Factsheet_MN_2009.pdf).
- <sup>35</sup> The Minnesota School-Age Care Alliance estimates that 600,000 children and youth participate in about 5,000 programs in the state.
- <sup>36</sup> Minn. School-Age Care Alliance, <http://www.mnaeyc.org> (last visited Nov. 25, 2012).
- <sup>37</sup> Afterschool Alliance, *supra* note 34.
- <sup>38</sup> Afterschool Alliance, America After 3pm, Special Report on Summer: Missed Opportunities, Unmet Demand (2010), available at [http://www.afterschoolalliance.org/documents/Special\\_Report\\_on\\_Summer\\_052510.pdf](http://www.afterschoolalliance.org/documents/Special_Report_on_Summer_052510.pdf).
- <sup>39</sup> Afterschool Alliance, *supra* note 33.
- <sup>40</sup> Afterschool Alliance, *supra* note 33; Afterschool Alliance *supra* note 34.
- <sup>41</sup> Access to afterschool programs may not be equal. Studies from the early 2000s found that African-American children were more likely than white children to attend afterschool tutoring programs. However, the studies also found that children from higher income families were more likely to participate in more than one afterschool program, participate more frequently, and participate for longer periods of time than children from low-income families.
- <sup>42</sup> Harvard Family Research Project, Demographic Differences in Youth Out-of-School Time Participation: A Research Summary (2007), available at <http://www.hfrp.org/publications-resources/browse-our-publications/demographic-differences-in-youth-out-of-school-time-participation-a-research-summary>.
- <sup>43</sup> Afterschool Alliance, *supra* note 8.
- <sup>44</sup> Afterschool Alliance, *supra* note 38.
- <sup>45</sup> Youthprise, <http://www.youthprise.org/take-action> (last visited Jan. 8, 2013).
- <sup>46</sup> Ann Lochner et al., Ctr. for Youth Dev., Univ. of Minn. Extension, Exploring the Supply and Demand for Community Learning Opportunities in Minnesota 6 n.8 (2009), available at <http://www.extension.umn.edu/youth/docs/Exploring-the-supply-and-demand-whole.pdf>