

1 **Supporting Youth Physical Activity Opportunities in Out-of-School-Time Programs**

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6 Abstract

7 According to the World Health Organization, out-of-school-time (OST) activities are a key avenue to
8 supplement youth physical activity (PA) levels. Research has shown that PA taking place after school
9 hours achieves 36% of the recommended 60 minutes of moderate-to-vigorous PA (MVPA) per day. OST
10 PA could occur at clubs, intramural programs, informal play on school grounds, and OST programs. OST
11 programs are defined as formal and supervised care programs located on or off school grounds that
12 school-age youth (5 to 18 years) regularly attend outside of school hours as well as summer breaks. These
13 programs (e.g., residential camps and not-for-profit clubs such as the Boys & Girls Clubs of America)
14 come in many forms but often provide time and space for homework and snacks or meals as well as
15 structured and unstructured PA. This policy statement calls for action to support improvement of PA
16 opportunities in OST programs as well as increased access to such programs for all youth to facilitate
17 attainment of 60 minutes per day of MVPA and healthy development. All youth should have access to PA
18 opportunities in these OST programs to reduce disparities in youth PA attainment and related health
19 outcomes.

20 Relationship to Existing Policy Statements

- 21 • APHA Policy Statement 20172: Supporting the Updated National Physical Activity Plan
- 22 • APHA Policy Statement 20079: Building a Public Health Infrastructure for Physical Activity
23 Promotion
- 24 • APHA Policy Statement 9709: Promoting Public Health Through Physical Activity
- 25 • APHA Policy Statement 20058: Supporting the WHO Global Strategy on Diet, Physical Activity
26 and Health
- 27 • APHA Policy Statement 200619: Urgent Call for a Nationwide Public Health Infrastructure and
28 Action to Reverse the Obesity Epidemic
- 29 • APHA Policy Statement 20137: Improving Health and Wellness through Access to Nature
- 30 • APHA Policy Statement 20121: Supporting the National Physical Activity Plan
- 31 • APHA Policy Statement 20211: Supporting Physical Education in Schools for All Youth
- 32 • APHA Policy Number 201911: Dietary Guidelines for Americans: Broadening the Evidence
33 Base, Applicability, and Implementation to Advance Public Health

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- APHA Policy Number 20166: Opportunities for Health Collaboration: Leveraging Community Development Investments to Improve Health in Low-Income Neighborhoods

Problem Statement

Childhood obesity continues to be a serious public health concern in the United States. According to the 2017–2018 National Health and Nutrition Examination Survey, one in five youth have obesity and an additional 16.1% are overweight.[1] Physical inactivity is a significant risk factor for obesity and a multitude of chronic diseases.[2,3] The financial impact of physical inactivity is substantial, with estimates suggesting that yearly health care costs related to preventable noncommunicable diseases associated with inactivity could reach close to \$300 billion globally by 2030.[4] In addition, physical activity (PA) contributes to several other health benefits for youth. PA has been linked to improved academic performance and mental health and more specifically reduced risk of depression.[2] These benefits are seen across the life span, as regular PA is related to cognitive development and learning in youth[5] and maintenance of cognitive function in older adults.[6] For youth, regular PA is significantly associated with lower levels of depressive symptoms and anxiety as well as increased self-image, self-esteem, and life satisfaction.[7] PA may also be an avenue to help youth connect with one another and improve household connectedness.[8] Moreover, these health benefits hold true for youth of all populations including abilities, races, ethnicities, and identities, further cementing PA’s importance.[2] Given the multitude of benefits, promoting PA should be a priority for improving overall health and well-being.

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School-age youth (6–17 years) are recommended to achieve 60 minutes of moderate-to-vigorous PA (MVPA) each day.[2] However, less than one quarter (24%) of youth in the United States meet these guidelines.[9] Disparities in PA levels exist among different population groups. Research has shown that 84% of girls do not meet PA guidelines, as compared with 69.1% of boys.[10] Evidence demonstrates that youth of color and those living in low-income households have lower levels of PA than youth who are White and living in higher-income households.[11,12] Specifically, 27.1% of White youth, 24.5% of Black youth, and 25.8% of Hispanic/Latino youth reported meeting PA guidelines.[13] In addition, youth in rural areas were more likely to engage in 60 minutes of daily PA (25.8%) than those in urban areas (18.9%); however, daily PA was comparable between those in large rural (19%) and urban areas.[14] Furthermore, researchers have found that youth living in low-income communities and communities of color have reduced access to quality PA facilities relative to their more affluent and White counterparts, which in turn was associated with lower PA levels.[15–17] Unfortunately, some youth lack access to safe play spaces and opportunities to be active before school, after school, and days without school (e.g., summertime).

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69 Szeszulski and colleagues proposed three subcomponents to classify PA timing for youth: (1) in school,
70 (2) out of school time (OST), and (3) non-school days.[18] These three occasions for youth PA provide
71 unique opportunities to promote PA and therefore may require unique strategies to achieve PA goals.
72 Evidence suggests that children achieve 40% of their PA during school hours,[19] typically through
73 physical education, recess, and classroom activities. Policy recommendations during in-school time are
74 outlined in APHA Policy Statement 20211 (Supporting Physical Education in Schools for All Youth).
75 However, as school funding for physical education programs declines (the median budget is \$764 per
76 school annually), OST programming, which can encompass time after school, before school, and on
77 nonschool days, becomes critical for efforts to ensure that youth are physically active.[20] More
78 specifically, this policy statement reviews and makes recommendations for PA in OST programs (i.e.,
79 programs offered after school, before school, and on non-school days). Research suggests that promoting
80 PA in OST programming can be an effective strategy to increase PA, adding 10 minutes of PA to a
81 child's day.[21,22] Furthermore, OST programs may have more freedom in-school programs to provide
82 incentives and plan youth-driven activities.[23]

83

84 Many households face significant barriers to accessing quality OST programs for their children. One
85 major barrier is the high cost of these programs, which can be prohibitively expensive for low-income
86 households.[24] Also, hours of operation may not align with primary caregivers' work schedules, making
87 transportation and logistics challenging.[24] Location and availability of programs in certain
88 neighborhoods can be limited, requiring long commutes. Households may lack information and awareness
89 about available programs in their community.[24] There can also be cultural and language barriers if
90 programs are not tailored for each population.[24] Improving the quality of programs, making pricing
91 affordable, offering flexible hours, and ensuring cultural competence could help expand households'
92 access to OST care. Findings indicate that youth may be missing a significant opportunity for PA and
93 development if they do not attend quality OST programming. Therefore, policies and programs should be
94 adopted to make meaningful changes in the proportion of youth attending OST programming and meeting
95 recommended PA levels.

96

97 Evidence-Based Strategies to Address the Problem

98 Improving the quality of OST programming: National and state organizations have developed healthy
99 eating and PA standards for OST programs because of their potential to promote healthy eating and PA
100 among youth in their care.[25–27] These standards are designed to increase the amount of PA youth
101 accumulate while attending.[25,28] A set of studies assessed implementation of healthy eating and PA in

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102 OST programs facilitated by the YMCA over 2 years.[27,29–32] Staff training adoption rates increased
103 from 45% in the first year to 67% in the second year. Although no significant increases in PA attainment
104 were seen for boys or girls in the first year, the odds of meeting PA standards increased in the second year
105 for both genders. In addition, this implementation involved minimal cost to the programs, which is vital
106 for programs in low-income communities.[33] Furthermore, programs that were found to have lower
107 levels of MVPA elected to modify their program in a number of nonsupportive ways (e.g., reducing time
108 for activity opportunities and time spent outdoors), whereas programs that increased MVPA elected to
109 modify their program in more supportive ways.[34] Programs that had implemented the policies were also
110 significantly more likely to have staff observed engaging in PA with youth.[29,31]

111
112 Strategies to improve programming quality are needed to meet healthy eating and PA standards, and such
113 strategies could increase the desire for youth and primary caregivers to attend these programs.
114 Specifically, strategies to enhance practices based on the theory of expanded, extended, and enhanced
115 opportunities are widely considered gold standards to promote PA in OST settings.[35] These dynamic,
116 adaptive strategies follow an approach analogous to Maslow’s hierarchy of needs to identify
117 enhancements in policy and practice leading to desired health outcomes in youth services.[32] The
118 strategies follow six domains to assess improvements: (1) schedule of daily programming, (2) consistency
119 of following daily programming schedules, (3) whether or not PA is planned, (4) allotted time for PA, (5)
120 types of PA scheduled, and (6) skills of the staff to deliver PA programming.[32] Many of these
121 techniques urge program leaders—the people who are directly responsible for day-to-day operations—to
122 assess whether important programming elements are in place.[32] Strategies to enhance practices have
123 been proven effective at increasing PA in OST programs.[27,30]

124
125 The theory of expanded, extended, and enhanced opportunities posits that the primary mechanisms of
126 change in many youth PA interventions are approaches that fall into one of the following three categories:
127 (1) expansion of opportunities for youth to be active by the inclusion of new occasions to be active, (2)
128 extension of existing PA opportunities by increasing the amount of time allocated for those opportunities,
129 and (3) enhancement of existing PA opportunities through strategies designed to increase PA above
130 routine practice.[35] In OST programs, the theory of expanded, extended, and enhanced opportunities
131 would suggest a focus on extending the amount of allocated time for youth to be physically active each
132 day, creating schedules that clearly define the roles and responsibilities of staff during PA opportunities
133 and other scheduled times, and enhancing the games commonly played by using the LET US Play
134 principles (lines, elimination, team size, uninvolved staff/kids, space, equipment, and rules) for modifying
135 games to maximize MVPA.[30] This framework also recommends that, when time is scheduled for PA,

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136 youth not have a choice of selecting a nonactive alternative (e.g., play on playground versus stay inside at
137 computer lab).[30]

138

139 In addition to following best practices, OST programs should be culturally tailored and inclusive of youth
140 with disabilities. Programs should offer activities that resonate with the cultural backgrounds of their
141 participants. Hiring staff who represent the diversity of the youth served and can communicate in their
142 native languages is key. Programs must be physically and socially accessible for youth with disabilities,
143 with reasonable accommodations made so that every child can participate fully. OST programs should
144 partner with households and community organizations to understand how to make activities welcoming
145 and engaging for all. Taking these steps to improve cultural competence, tailor programming, and support
146 inclusion will enhance the quality and appeal of OST offerings. OST programs should also actively
147 engage primary caregivers and provide education on the importance of regular PA. Programs can offer
148 opportunities for primary caregivers to participate in activities with their children such as household
149 fitness nights, weekend hikes, and games. OST staff should communicate with primary caregivers about
150 what physical activities their child enjoyed and share tips on continuing active play at home. Educational
151 seminars can be provided to primary caregivers on PA guidelines for youth, overcoming barriers to active
152 play, and setting healthy routines. Programs can distribute newsletters and social media posts reinforcing
153 these messages. Engaging primary caregivers helps reinforce PA as a household value. It also keeps
154 primary caregivers informed about the benefits their child is gaining, increasing the perceived value of
155 OST participation.

156

157 Increasing access to OST programs: Several barriers to OST participation involve program access (e.g.,
158 cost, transportation, and primary caregiver needs). The cost of programs is sometimes impractical and
159 unnecessarily burdensome for a household living at or below the federal poverty level, excluding the very
160 youth who might benefit the most from these programs.[36] Although organizations have offered full
161 scholarships and used sliding scale pricing structures to reduce enrollment fees based on income level,
162 these strategies often rely on donations or the enrollment of middle- and high-income households to cover
163 the costs.[24,36] Regardless of their financial level, nine out of 10 primary caregivers support public
164 funding for these initiatives.[24] While scholarships and sliding scales do allow some children from low-
165 income households to attend, they allow only a limited number of youth to qualify.[24,36] As a result,
166 due to a limited number of scholarships, relatively few children from low-income households can access
167 programming.[24,36] Demand-side financing has been shown to be more effective than other forms of
168 economic assistance in boosting access to child-care programs, particularly OST activities.[36] For
169 example, in one study, children who attended Head Start, a free preschool program, saw greater decreases

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170 in body mass index (BMI) than non-attendees regardless of Medicare coverage, suggesting that access to
171 structured programs such as Head Start can have a positive impact on children’s body composition, even
172 if the programs are not focused on weight loss.[37]

173

174 While vouchers for structured programming may be a feasible alternative for addressing accelerated
175 harmful changes in body composition and fitness loss, research has shown that vouchers must be tailored
176 to the needs of the targeted participants.[36,38] Moreover, barriers such as primary caregiver time needs
177 and transportation should be addressed. To improve this situation, activities should be available at
178 convenient times and offered throughout the year.[38] Furthermore, lawmakers should consider direct
179 payment to OST program providers for enrolling and serving a child from a low-income household in a
180 qualified program or improvements to programming and infrastructure along with these vouchers.[38]
181 This funding could be used to develop transportation infrastructure such as busing or shuttle programs.
182 Providing youth safe transportation to these programs would improve access for low-income households.

183

184 Supporting community collaborations facilitating child services: Community collaborations can help
185 maximize the reach and impact of OST programming. OST providers should partner with schools, public
186 health agencies, parks and recreation, youth sports leagues, cultural centers, and other organizations to
187 align efforts. Building a coalition of OST providers allows sharing of best practices and resources.
188 Schools can promote available OST opportunities to households and provide space, while public health
189 provides expertise in healthy eating and implementation of PA standards. Municipal parks and recreation
190 departments can offer OST programming utilizing public facilities and green space. Partnerships with
191 culturally based community centers improve the cultural relevance of programming for diverse youth.
192 Funders can bring together invested organizations to develop a coordinated OST network. These
193 collaborations were critical for OST programs during the COVID-19 response.[39] Formalized
194 memorandums of understanding can institutionalize these community partnerships. One common joint-
195 use agreement is between a city government and school district to grant community access to school
196 facilities outside of regular school hours. Opening school resources to community members has been
197 found to relate to higher overall levels of youth PA.[40] Within these efforts, collaborations with research
198 entities would improve program evaluation and implementation. Ultimately, a collaborative approach
199 improves the availability, use, and quality of OST services.

200

201 Opposing Arguments and Evidence

202 Some may argue that OST PA programs should not be a priority intervention strategy. Potential opposing
203 viewpoints include those outlined below.

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205 OST programs reach a limited population: These programs inherently have limited enrollment capacity,
206 and many households face barriers to access such as cost and transportation. Critics could contend that
207 other interventions to promote PA will have broader population impact. However, after-school programs
208 enroll more than 10 million youth nationwide, representing a significant opportunity to influence health
209 behaviors. Expanding access through scholarships, subsidies, and transportation can also mitigate
210 disparities.

211

212 OST programs have limited impact: While studies show that OST programs add about 10 minutes of PA
213 per day, some may argue this is insufficient to provide meaningful health benefits. However, even small
214 increases in daily PA can have a positive impact on health markers such as BMI and cardiovascular
215 fitness when sustained over time. OST programs help establish lifelong healthy habits.

216

217 OST programs detract from limited funding: Building quality OST programming requires investment in
218 staff training, facilities and equipment, and enrollment support. In addition, finding and retaining high-
219 quality staff can be a challenge for many programs. Critics might argue that dedicating scarce public
220 health dollars to OST diverts funding from potentially more impactful programs such as those focused on
221 enhancing physical education. Although a reasonable concern, the benefits of OST programs for
222 vulnerable youth merit funding priority when paired with the multitude of resources these programs
223 provide.

224

225 Household dynamics matter more: Some emphasize that targeting PA at home through household
226 interventions will have the greatest impact on PA levels. While the home environment is important, many
227 households face substantial barriers to providing sufficient active play time. OST programs give all youth
228 access to activity, not only those with active primary caregivers. A comprehensive approach should
229 include both OST and household strategies.

230

231 Alternative Strategies

232 OST programs for PA promotion are critical to the health and well-being of school-aged youth as they
233 develop. In addition to OST programs, alternative strategies should be considered for PA participation
234 before and after school time, including organized sports, nature play, and active transportation. These
235 alternative strategies, in concert with OST programs and in-school support (e.g., physical education,
236 recess), provide opportunity for youth to meet national PA guidelines and consequently accrue the
237 benefits associated with regular PA.

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239 Organized sports: In 2018–2019, only about half (56.1%) of U.S. youth 6 to 17 years of age participated
240 in sports.[41] Although organized sports are a viable opportunity to increase youth PA, barriers such as
241 cost, access, and time have contributed to girls, youth of color, youth from low-income households, youth
242 in rural areas, and youth with disabilities being less likely to participate in sports than their peers.[41]
243 Eliminating these barriers could increase the proportion of youth reaching national PA guidelines. One
244 organization that has had marked success in increasing youth PA is Girls on the Run, a national nonprofit
245 that has reached more than 1.7 million girls between third and eighth grade. A 2016 study revealed that
246 the least active girls at the start of Girls on the Run increased their overall PA by more than 40% by
247 program end. Furthermore, almost all participating girls (97%) said that they learned critical life skills,
248 and 85% said that they improved their confidence, competence, caring, character, or connection.[41]

249

250 Nature play: Nature play—any type of play that involves interaction with or use of objects provided by
251 the physical world as opposed to human creations—is a form of PA that has been shown to have
252 consistent positive impacts on PA outcomes and cognitive play behaviors (i.e., imaginative and dramatic
253 play).[42] Along with nature play providing benefits associated with PA, nature contact has been shown
254 to relate to improvements in physical health, cognitive functioning and self-control, psychological well-
255 being, and affiliation with other species and the natural world.[43] At the national level, Every Kid
256 Outdoors is a program run by the U.S. National Park Service that encourages nature play by providing a
257 pass to students in fourth grade that grants free access to national parks, lands, and waters for a full
258 year.[44] Locally, installation of nature-based play elements such as nature trails, balance logs, stump
259 jumps, and loose parts play can activate city parks, natural areas, and recreation centers. Trees and other
260 green features in youth play spaces are also a proven strategy for adapting to climate change: during high
261 temperatures, youth have been shown to seek tree shade in school parks where air temperatures measured
262 as much as 10°F cooler than unshaded areas.[45]

263

264 Active school transport: Outside of school hours, walking and biking for transportation purposes provide
265 important opportunities for daily PA. Policy intervention strategies such as walking school bus programs,
266 crossing guard policies, and drop-off/pick-up policies have been shown to increase active transport among
267 youth.[46] Strategies at the environmental level have also been shown to be effective in increasing active
268 transport opportunities, not only to and from school but to other destinations as well, and the Centers for
269 Disease Control and Prevention recommends such community design interventions to promote PA.[47]
270 However, the decline of active school transport over time has been due, in part, to factors such as school
271 siting, urban sprawl, school choice policies, and closing of neighborhood schools; these factors are

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272 difficult to target through programmatic interventions, and built environment interventions can be
273 costly.[48] Increasing the number of youth who can safely participate in active transport to and from
274 school would improve total daily PA.

275

276 Action Steps

277 APHA supports/recommends the actions outlined below to improve the reach and quality of OST PA.

278

279 Improving Quality

- 280 • National OST networks and associations should develop training and sample schedules
281 promoting strategies to enhance practices.
- 282 • State licensing agencies should integrate healthy eating and PA standards into OST program
283 licensure requirements.
- 284 • OST providers should offer multicultural programming and staff training in cultural competence
285 to better serve diverse populations.
- 286 • Greater diversity in programming should be implemented so that youth can be exposed to a
287 variety of activities that those of all abilities and cultures might enjoy.
- 288 • OST provider organizations should invest in ongoing professional development for staff to
289 improve PA facilitation skills.
- 290 • OST providers should offer educational seminars for parents on youth PA guidelines, overcoming
291 barriers to active play, and setting healthy activity routines at home.

292 Increasing Access

- 293 • Federal and state agencies (e.g., U.S. Department of Health and Human Services and health
294 departments) should increase funding to support OST programs, especially those serving
295 disadvantaged communities, in implementing evidence-based healthy eating and PA standards.
- 296 • The Administration for Children and Families should expand federal 21st Century Community
297 Learning Center grants to increase the availability of free/low-cost OST programs in underserved
298 areas.
- 299 • Philanthropic organizations and foundations should provide grants to expand evidence-based
300 OST PA programs nationwide.
- 301 • OST providers should develop innovative scholarship programs and sliding fee scales to increase
302 accessibility for low-income families.
- 303 • State education agencies should issue guidance encouraging school districts to provide free
304 transportation options to OST programs.

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- OST providers should offer programming at convenient neighborhood locations and times to minimize barriers.

Supporting Collaborations

- Public health institutions should foster partnerships including joint-use agreements between OST providers, schools, parks/recreation departments, youth sports organizations, and cultural centers to enhance programming.
- Researchers should partner with community organizations to develop and evaluate innovative, culturally tailored PA programs.
- Parent-teacher associations should promote extracurricular OST PA opportunities through information sharing and facilitating access to facilities.
- Communities, especially communities of color and low-income communities, should develop a network of organizations that deliver OST programming to align programming, share data, and provide wraparound support.

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