

# Active Living Research

Using Evidence to Prevent Childhood Obesity  
and Create Active Communities

## FACT SHEET

May 2012

## Supporting Physical Activity Outside of School Time

Regular physical activity promotes important health benefits, reduces risk for obesity and is linked to enhanced academic performance.<sup>1,2,3</sup> National recommendations call for children and adolescents to be active for 60 minutes a day.<sup>4</sup> The U.S. Department of Health and Human Services recently released recommendations that stress the importance of physical activity in schools, including access to places for play during non-school hours and in the summer.<sup>5</sup>

This fact sheet highlights evidence-based strategies for increasing physical activity outside of school time. It summarizes findings that show how school-based programs, facilities, and partnerships can help children be more active.

### Programs that provide opportunities for students to be active throughout the day, including after-school events, increase children's physical activity levels.

- Teens increased the amount of time spent in physical activity outside of PE class by 16 minutes per week after participating in a whole school program for six months. They also spent less time watching television and playing computer games.<sup>6</sup>
- Boys who participated in a whole school program increased their levels of physical activity more than three times as much as boys who did not participate in the program.<sup>7</sup>

### Children are more active when schools offer well-designed playgrounds, open spaces, and available facilities and equipment.

- Students in Norway were nearly three times as likely to be active when there were greater numbers of outdoor facilities (e.g. soccer fields, jump rope areas, sledding hills) at their school.<sup>8</sup>

## FAST FACTS

- National recommendations call for children and adolescents to be active for 60 minutes a day.<sup>17</sup>
- Children are more active when schools offer well-designed playgrounds, open spaces, and available facilities and equipment.<sup>18,19</sup>
- After-school programs can increase students' physical activity levels.<sup>20,21</sup>

This fact sheet highlights findings from the research synthesis, *School Policies on Physical Education and Physical Activity*.



Full research synthesis is available at:  
<http://www.activelivingresearch.org/schoolpolicy>

For more information on Active Living Research, visit: [www.activelivingresearch.org/](http://www.activelivingresearch.org/)

- Adolescents in Canada who attended schools with a greater number of recreational facilities were more active during and after school.<sup>9</sup>
- After a number of neglected schoolyards in diverse communities in Denver were renovated, elementary school students were more likely to use the playgrounds.<sup>10</sup>

### **After-school programs can help increase students' levels of physical activity.**

- In Georgia, 3<sup>rd</sup>, 4<sup>th</sup>, 5<sup>th</sup> grade students engaged in 60+min of PA each day, half of which was at a vigorous level. Following the 3-yr program, children were more physically fit than students in nonparticipating schools.<sup>11</sup>
- A study conducted in Kansas found that students engaged in 20 minutes of moderate-to-vigorous physical activity during after-school programs.<sup>12</sup>
- Some studies also show that lower-income minority children and overweight children benefit from after-school programs. For example, African-American girls who participated in an after-school dance program were more active than girls who were not in the program.<sup>13</sup> Also, overweight fourth and fifth graders who participated in an after-school soccer program were more active than their peers who attended a health education program after school.<sup>14</sup>

### **Joint-use agreements encourage physical activity after school and on weekends by opening school grounds so children have places to play.**

- A study in a low-income, African-American neighborhood in New Orleans found that opening schoolyards after school and on weekends resulted in an 84 percent increase in the number of children who were outdoors and active, compared with those in a school where the play areas were unavailable.<sup>15</sup>
- A joint-use agreement in Honolulu created a recreational program that provided physical activity for students, teachers and staff, and community residents.<sup>16</sup>

## **Summary**

Research shows that children are more active when schools offer a range of opportunities for physical activity during and after the school day. It also shows that renovating school play areas and making them available to the community outside of school hours can increase children's levels of physical activity. Policy-makers, school administrators, community leaders and parents should advocate for policies and programs that will help schools provide more opportunities for students to be active outside of the school day.

<sup>1</sup> Koplan JP, Liverman CT, Kraak VA (Eds). Preventing childhood obesity: Health in the balance. National Academy of Sciences. [www.nap.edu/catalog.php?record\\_id=11015](http://www.nap.edu/catalog.php?record_id=11015) (accessed June 22, 2010).

<sup>2</sup> Online report: Active Education: Physical Education, Physical Activity, and Academic Performance. [www.rwjf.org/pr/product.jsp?id=23456](http://www.rwjf.org/pr/product.jsp?id=23456). (accessed December 13, 2010).

<sup>3</sup> Centers for Disease Control and Prevention. The association between school-based physical activity, including physical education and academic performance. Atlanta GA: U.S. Department of Health and Human Services 2010. [www.cdc.gov/HealthyYouth/health\\_and\\_academics/index.htm#3](http://www.cdc.gov/HealthyYouth/health_and_academics/index.htm#3). (accessed April 22, 2011).

<sup>4</sup> 2008 Physical Activity Guidelines for Americans. Washington, DC: U.S. Department of Health and Human Services; 2008; p.16. [www.health.gov/PAGuidelines/guidelines/default.aspx#toc](http://www.health.gov/PAGuidelines/guidelines/default.aspx#toc). (accessed April 22, 2011).

<sup>5</sup> [www.healthypeople.gov/2020/topicsobjectives2020/default.aspx](http://www.healthypeople.gov/2020/topicsobjectives2020/default.aspx). (accessed December 12, 2010).

<sup>6</sup> Simon C, Wagner A, DiVita C, Rauscher E, Klein-Platet C, Arveiler D et al. "Intervention centered on adolescents' physical activity and sedentary behavior (ICAPS): concepts and 6-months results." International Journal of Obesity. 28: S96–S103, 2004.

<sup>7</sup> Sallis JF, McKenzie TL, Conway TL, Elder JP, Prochaska JJ, Brown M, Zive MM, Marshall SJ, Alcaraz JE. "Environmental interventions for eating and physical activity: a randomized controlled trial in middle schools." American Journal of Preventive Medicine. 24(3): 209–17; April, 2003.

<sup>8</sup> Haug E, Torsheim T, Sallis JF et al. "The characteristics of the outdoor school environment associated with physical activity." Health Education Research. 25(2): 248–56; 2010. Epub 2008 Oct 20.

<sup>9</sup> Nichols ME, Pickett W, Janssen I. "Associations between school recreational environments and physical activity." Journal of School Health. 79: 247–254; 2009.

<sup>10</sup> Brink LA, Nigg CR, Lampe SMR, Kingston BA, Mootz AL, van Vilet W. "Influence of schoolyard renovations on children's physical activity: The Learning Landscapes Program." American Journal of Public Health, 100: 1672–1678, 2010.

<sup>11</sup> Gutin B, Yin Z, Johnson M, Barbeau P. "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." International Journal of Pediatric Obesity, 3 Suppl 1: 3-9, 2008.

<sup>12</sup> Trost SG, Rosenkranz RR, Dzewaltowski D. "Physical activity levels among children attending after-school programs." Medicine and Science in Sports Exercise. 40(4): 622–9, 2008.

<sup>13</sup> Robinson TN, Killen JD, Kraemer HC, Wilson DM, Matheson DM, Haskell WL, et al. "Dance and reducing television viewing to prevent weight gain in African-American girls: the Stanford GE MS pilot study." Ethnicity and Disease. 13: S65–7; 2003.

<sup>14</sup> Weintraub DL, Tirumalai, Haydel F, Fujimoto M, Fulton JE, Robinson TN. "Team sports for overweight children: The Stanford Sports to Prevent Obesity Randomized Trial (SPORT)." Archives of Pediatric and Adolescent Medicine. 162: 232–237; 2008.

<sup>15</sup> Farley TA, Meriwether RA, Baker ET, Rice JC, Webber LS. "Where do the children play? The influence of playground equipment on physical activity of children in free play." Journal of Physical Activity and Health. 6: 319-331, 2008.

<sup>16</sup> Choy LB, McGurk MD, Tamashiro R, Nett B, Maddock JE. "Increasing access to places for physical activity through a joint use agreement: a case study in urban Honolulu." Preventing Chronic Disease. 5(3): A91. Epub Jun 15, 2008.

<sup>17</sup> 2008 Physical Activity Guidelines for Americans. Washington, DC: U.S. Department of Health and Human Services; 2008; p.16. [www.health.gov/PAGuidelines/guidelines/default.aspx#toc](http://www.health.gov/PAGuidelines/guidelines/default.aspx#toc). (accessed April 22, 2011).

<sup>18</sup> Haug E, Torsheim T, Sallis JF et al. "The characteristics of the outdoor school environment associated with physical activity." Health Education Research. 25(2): 248–56; 2010. Epub 2008 Oct 20.

<sup>19</sup> Nichols ME, Pickett W, Janssen I. "Associations between school recreational environments and physical activity." Journal of School Health. 79: 247–254; 2009.

<sup>20</sup> Gutin B, Yin Z, Johnson M, Barbeau P. "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." International Journal of Pediatric Obesity, 3 Suppl 1: 3-9, 2008.

<sup>21</sup> Trost SG, Rosenkranz RR, Dzewaltowski D. "Physical activity levels among children attending after-school programs." Medicine and Science in Sports Exercise. 40(4): 622–9, 2008.