



## PHYSICAL ACTIVITY FOR YOUTH

Community organizations can help promote children’s regular exercise by encouraging walking and biking to school, improving local schoolyards and ensuring that school playgrounds are open for use after the school day is done.

Increased physical activity is closely correlated with better health. Low- and moderate-income communities may have the density to encourage walking and other activity, but a lack of playgrounds, parks and facilities—as well as concerns for public safety—can limit resident exercise. Local schools can be an asset to provide children in the community opportunities for physical activity.

### Walking and biking to school helps health

Walking and biking to school, also referred to as “active school commuting,” is associated with increasing the level of daily physical activity<sup>1</sup> and with lower body mass index (BMI) in children.<sup>2</sup>

- In a study of 114 primary school children, the 65 percent who walked to school averaged approximately 82 more accelerometer counts per minute than children who

traveled to by car, suggesting a significantly higher overall level of daily physical activity.<sup>3</sup>

- A study of existing data showed that children who actively commute to school have lower BMI and higher levels of daily moderate-to-vigorous physical activity. Thirty minutes of daily active school commuting yields an increase in 7.5 percent of the recommended daily amount of moderate-to-vigorous physical activity.<sup>4</sup>

Despite the documented benefits of active school commuting, in the span of a generation the percentage of children who actively commuted to school declined from 48 percent in 1969 to less than 15 percent in 2001.<sup>5</sup>

- The sharp decline in active school commuting is the result of factors that include parental concerns,<sup>6</sup> neighborhood environmental characteristics (i.e., distance to school,<sup>7</sup> population density,<sup>8</sup> street connectivity,<sup>9</sup> walkability<sup>10</sup> and traffic-related danger<sup>11</sup>) and the number of other children in the neighborhood who walk to school.<sup>12</sup>

- Programs recently developed to overcome some of these barriers include the federally sponsored Safe Routes to School (SRTS) program, which currently exists in all 50 states and the District of Columbia.<sup>13</sup>
  - > An analysis of the land area surrounding schools across the country determined that SRTS programs could be implemented in many more urban areas.<sup>14</sup>
  - > An evaluation of a district-wide implementation of SRTS in a California county reported an increase in alternatives to driving to school, including walking (64 percent increase) and biking (114 percent increase).<sup>15</sup>
  - > A statewide evaluation of SRTS programs across California revealed walking and biking to school increased in the range of 20 to 200 percent in participating districts.<sup>16</sup>
- Walking School Bus programs, which encourages children and accompanying adults to commute together, have been successfully implemented in communities around the world.<sup>17</sup> An evaluation in Albuquerque, New Mexico, determined that WSB are feasible to implement in low-income neighborhoods at minimal cost and with a strong return on investment.<sup>18</sup>

## Renovating schoolyards leads to more physical activity

Enhancing existing schoolyards with innovative and culturally sensitive renovations leads to more local physical activity, particularly for children.<sup>19</sup> Several initiatives across the country demonstrate that the quality of equipment and play space influences the intensity and duration of children's moderate-to-vigorous physical activity.

- Two evaluations in Denver found that an average of 14.5 children per 100 enrolled in a school with renovated playgrounds were observed on the playground, as compared to 9.8 per 100 on non-renovated playgrounds.<sup>20</sup> Seventy percent of boys on renovated playgrounds were active, compared to 65.9 percent of boys on non-renovated playgrounds.<sup>21</sup>
- In Cleveland, a study found that 40 percent more individuals used renovated playgrounds than non-renovated playgrounds at any given time.
- Even simple modifications to a playground environment, like painting surfaces, have also been found to increase the

level of children's physical activity. One study found the percentage of children who were physically active at recess increased from 36.7 percent before the painting to 50.3 percent afterward. At a comparison school where there were no improvements, activity dropped from 39.9 percent to 33.4 percent.<sup>22</sup>

## Keep school playgrounds open and used after hours

Safe places to play are often difficult to find in poor and minority communities.<sup>23</sup> Providing the community after-hours access to public school recreational facilities increases opportunities for physical activity and is an explicit recommendation of *Healthy People 2020*.<sup>24</sup>

- The number of children who were physically active in an inner-city community with an open, supervised schoolyard during non-school hours was 84 percent higher as compared to a similar community that did not have an open schoolyard.<sup>25</sup>
- In a study that investigated the relationship between weekend accessibility of school playgrounds and adolescent girls' body mass index and physical activity levels, researchers found that each additional locked school recreational facility within a half mile of study participants' homes was associated with a 3 percent increase in BMI.<sup>26</sup>

Shared-use (or "joint-use") arrangements between schools and a government entity or a third-party nonprofit organization allow the school grounds to be used by the wider community.<sup>27</sup>

A recent study found that, between 2000 and 2006, little progress was made in increasing the accessibility of school recreational facilities during non-school hours.<sup>28</sup> Barriers that impede wide-spread adoption of joint-use agreements include liability concerns<sup>29</sup> and funding programming and maintenance costs.<sup>30</sup>

Advocates of joint-use agreements argue, however, that these barriers may be overcome with readily accessible resources.<sup>31</sup> Recently, leaders of several national foundations recognized the value and impact of joint-use agreements,<sup>32</sup> suggesting a strong return on investment when they are developed.

This Research Overview is part of a series that summarizes academic studies on the relationship between community development and health, education, and other aspects of community well-being.

For more information on these health studies and others, visit [www.instituteccd.org/health](http://www.instituteccd.org/health).

## ENDNOTES

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