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Author manuscript

J Phys Act Health. Author manuscript; available in PMC 2016 July 19.

Published in final edited form as:

J Phys Act Health. 2010 March ; 7(Suppl 1): S20–S30.

National Study of Changes in Community Access to School Physical Activity Facilities: The School Health Policies and Programs Study

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Abstract

Background—A Healthy People 2010 developmental objective (22-12) was set to increase the proportion of the nation’s public and private schools that provide access to their physical activity spaces and facilities for all persons outside of normal school hours. The purpose of this study was to describe the prevalence of indoor and outdoor facilities at schools and the availability of those facilities to the public in 2000 and 2006.

Methods—In 2000 and 2006, the School Health Policies and Programs Study (SHPPS) was conducted in each state and in randomly selected districts, schools, and classrooms. This analysis focused on the school level questionnaire from a nationally representative sample of public and nonpublic elementary, middle, and high schools (n = 921 in 2000 and n = 984 in 2006).

Results—No meaningful changes in the prevalence of access to school physical activity facilities were found from 2000 to 2006, for youth or adult community sports teams, classes, or open gym.

Conclusions—These national data indicate a lack of progress from 2000 and 2006 toward increasing the proportion of the nation’s public and private schools that provide access to their physical activity facilities for all persons outside of normal school hours.

Keywords

community use; exercise; physical activity; policy; school

A Healthy People 2010 developmental objective (22-12) was set to increase the proportion of the nation's public and private schools that provide access to their physical activity spaces and facilities for all persons outside of normal school hours (eg, before and after school, on weekends, and during summer and other vacations).¹ This objective is supported by a comprehensive literature review, culminating in the Guide to Community Preventive Services, which recommends interventions that enhance or create access to places for physical activity to enhance physical activity participation.² In addition, the American Academy of Pediatrics advocates for comprehensive community sport and recreation programs that allow for community and school facilities to be open after hours and to make physical activities available to all children and youth at reasonable costs.³ In most communities, schools are a resource, and providing access to their indoor and outdoor facilities for physical activity is likely to enhance physical activity participation among community members. Moreover, in a recent concept mapping study to develop a physical activity environmental and policy research agenda,⁴ several priorities emerged relevant to community use of school facilities, including measuring levels of physical activity in communities that have schools open for public use outside of regular school hours.

The School Health Policies and Programs Study (SHPPS) can track the Healthy People 2010 developmental objective,¹ through data collected in both 2000 and 2006. During the period between 2000 and 2006, when the survey was conducted, the prevalence of overweight among children and adolescents increased,⁵ while the percent of high school students (9–12 grade) who attended physical education daily did not change.⁶ This was also a period of greater focus from researchers on changing policies and environments to enhance physical activity.^{7,8} From a community planning perspective, there was emphasis on better integration of schools with local communities.⁹

The purpose of this study was to describe the prevalence of indoor and outdoor physical activity facilities at schools and the changes in prevalence of the availability of those facilities to the public in 2000 and 2006. Secondly, we sought to determine whether the availability of these facilities differed by several potential correlates. This will help determine if progress is being made toward the Healthy People developmental objective¹ and provide some guidance for school-level interventions.

Methods

Source Population

The SHPPS is currently the largest, most comprehensive assessment of school health policies, programs, and practices in the United States (US).¹⁰ More information on the surveillance system overseen by the Centers for Disease Control and Prevention is provided elsewhere.^{11,12} Briefly, in both 2000 and 2006, surveys were conducted in each state, and in randomly selected districts, schools, and classrooms. This analysis focused only on the school level questionnaire that ascertained presence of school physical activity facilities and community use of facilities. School level data were collected from a nationally representative sample of public and nonpublic elementary, middle, and high schools. Although surveys were also conducted in 1994, relevant questions for our aims were not

included until the 2000 survey. All questions used for these analyses are provided in the Appendix for both survey years.

Data were collected by computer-assisted personal interviews at both time periods. During recruitment, the principal or another school-level contact designated a faculty or a staff member for the physical education module of the questionnaire. The most common respondents were physical education teachers, followed by other teachers or athletic directors.^{13,14} In spring 2000, 1327 schools were eligible for the physical education interview; 921 (69.4%) of these schools completed the interview. In spring 2006, 1394 schools were eligible for the physical education interview; 984 (70.6%) of these schools completed the interview.

Measures

School Physical Activity Facilities—The school-based questionnaire was developed through cognitive testing and interviewing in both 2000¹² and 2006.¹¹ School respondents answered whether their school had any of 8 different indoor facilities and 9 different outdoor facilities. The lead-in to this series of questions differed between 2000 and 2006, with the 2006 questions expanded to include facilities on or off school property (the Appendix provides detail on the wording). The questions also differed in that the response option of “racquetball court” was expanded in 2006 to include a squash court and “indoor track” was not asked in 2000. In 2006, playground equipment was only asked of elementary schools. We derived a continuous measure for indoor and outdoor facilities by summing the facilities similarly in both years, not including the indoor track or playground equipment. The score ranged from 0 to 7 for indoor facilities (indoor gymnasium, pool, weight room, cardiovascular fitness center, wrestling room, dance studio, racquetball/squash court) and 0 to 8 for outdoor facilities (outdoor track, pool, volleyball, basketball court, tennis court, baseball/softball field, soccer/football field, general use field), with 1 point given for the presence of each facility.

Community Access to School for Physical Activity—Respondents reported whether youth or adults had access to indoor or outdoor school physical activity facilities when not in session to conduct community sponsored sports teams, classes/lessons, and supervised open gym or free-play. The question focusing on youth access for community sponsored sports teams yielded a test-retest (conducted 10 to 20 days in between) kappa of 69%, with 74% reporting affirmatively on the first survey and 77% on the retest survey.¹⁵ Respondents were also asked if youth or adults could use the school’s outdoor physical activity facilities without being in a supervised program. If they answered yes to this question, they were asked if the facilities were being used before school, after school, in the evening, on the weekend, or during school vacation.

Other Measures—The remaining measures in this analysis were investigated as potential correlates for the availability of school physical activity facilities.¹⁶ In both 2000 and 2006, schools were classified as public or not public. Schools were also grouped into 3 categories based on the grades taught: elementary schools, middle schools, and high schools. School size was based on the median enrollment within each of the 6 cells defined by school

type (public, not public) and school level (elementary, middle, high school). Within each cell, schools with enrollment above the median were classified as large, and all others were classified as small.

Data at the zip code level from the US 2000 Census Summary File 3 were used to divide districts into 4 strata based on 2 levels of urbanicity (urban, nonurban) and 2 levels of socioeconomic status (high, low), both divided at the median.¹¹ If the percentage of the nonurban population in a zip code exceeded the median percentage nonurban for all zip codes, then the zip code was considered non-urban, and all other zip codes were considered urban. Similarly, if the percentage of the population living below the federal poverty guideline level in a zip code exceeded the median percentage living below the poverty level for all zip codes, the zip code was considered high poverty; all other zip codes were considered low poverty. Each district in a zip code was assigned to the same stratum. Region was defined for 9 areas and we collapsed to 4 categories based on the US census bureau: Northeast (New England, Middle Atlantic), Midwest (West, North Central, East North Central), South (West South Central, East South Central, South Atlantic), and West (Pacific, Mountain).

Finally, on the school questionnaire at both time periods, respondents were asked, “Does this school offer opportunities for students to participate in intramural activities or physical activity clubs?” Response options were yes or no and the question yielded a test-retest (conducted 10 to 20 days in between) kappa of 66%, with 42% reporting affirmatively on the first survey and 48% on the retest survey.¹⁵

Statistical Analysis

SHPPS adopted a sampling design to generate nationally representative samples of districts, schools, and classrooms. More detail on the sampling and calculation of weights are described elsewhere, for 2000¹² and 2006^{11,16} surveys. All data presented were weighted to reflect national estimates for schools. To analyze changes between 2000 and 2006, some denominators were recalculated to reflect all schools and not a subset. Thus, the percentages previously reported for the 2000¹³ and 2006¹⁴ data might differ due to this recalculation. Wald chi square tests helped to evaluate whether changes in prevalence of access to indoor or outdoor school facilities occurred over time. To explore whether several factors were associated with differences in prevalence, we conducted Wald chi square tests for categorical variables using the 2006 data (data not shown). This was followed by weighted logistic modeling to examine associations of covariates (eg, type of school, school level, urbanicity, poverty, region, school size, intramural sports offered, number of indoor facility counts, number of outdoor facility counts) with 6 outcomes (youth and adult access for sports teams, classes/lessons, and supervised open gym/free-play as well as whether outdoor facilities can be used by youth or adults). All analyses were conducted using SAS version 9.1.3 (Cary, NC).

Results

Prevalence of School Physical Activity Facilities

In total, 921 and 984 schools participated in the surveys in 2000 and 2006, respectively. The national prevalence of schools' indoor and outdoor physical activity facilities for both years is reported in Table 1. Figure 1 displays the weighted percent for the count of each type of physical activity facility, separately for indoors and outdoors, in 2006. These counts reflect the diversity of the types of facilities the school reported in 2006. During this year, 86.5% of schools reported at least 1 indoor physical activity facility from a list of specific facilities. A gymnasium was the most common indoor facility in both 2000 and 2006, followed by a weight room. In 2000 and 2006, 94.5% and 96.5% of schools, respectively, reported at least 1 outdoor physical activity facility from a list of specific facilities. Playground equipment was reported in most elementary schools. The most common outdoor facilities for all schools were general use fields, baseball or softball fields, outdoor basketball courts, and soccer or football fields.

Changes in Prevalence of Access to School Facilities

Next we explored changes in prevalence of access to school physical activity facilities for children and adults. We excluded schools that did not report any indoor or outdoor physical activity facilities ($n = 10$ in 2000 and $n = 3$ in 2006) from these analyses. Approximately two-thirds of the schools allowed community sponsored youth sports teams to use the school outside of school hours, but only one-third allowed community sponsored youth activity classes/lessons or supervised open gym/free-play among schools with any facilities (Table 2). Approximately half of the schools allowed community sponsored adult sports teams to use the school outside of school hours, but only one-quarter allowed community sponsored adult classes/lessons or supervised open gym/free-play among schools with any facilities. There were no meaningful changes in prevalence, from 2000 to 2006, of access to school physical activity facilities for either youth or adult community sports teams, classes/lessons, or supervised open gym/free-play. Sixty-seven percent of schools allowed children or adults from the community to use any of the school's outdoor facilities without being in a supervised program; this prevalence was similar in both 2000 and 2006. Facility availability for this was higher after school, in the evening, on the weekend, or during school vacation time (94% to 97%) as compared with before school (70% to 71%) for both survey years among schools with any facilities.

Correlates of Access to School Physical Activity Facilities

In 2006, most correlates of community use for sports teams, classes or lessons, and supervised open gym or free-play were similar whether answered for youth or adults (Table 3). The odds of youth or adult community use of school facilities for sports teams was higher in public schools compared with nonpublic schools, in the northeast and western region compared with the southern region, in schools where intramurals were offered, and in schools with 1 or more indoor facilities. The odds of youth or adult access for classes or lessons were higher in public schools compared with nonpublic schools and in schools with 1 or more indoor facilities. The odds of youth or adult access for supervised open gym or free-play was also higher among public compared with nonpublic schools, in the Midwest

compared with the southern region, and in schools with 1 or more indoor facilities. The odds of use of outdoor facilities in an unsupervised program by children or adults was higher among public schools compared with nonpublic schools, among schools with higher compared with lower poverty, in the Midwest compared with the southern region, and less likely among high schools as compared with elementary schools (Table 3, last column).

Discussion

According to these SHPPS data, access to schools for youth or adults to participate in sports teams, classes, or supervised open gym/free-play did not change from 2000 to 2006. In both survey years, youth access to the school for sports teams was 67% to 69%, while access for physical activity related classes or supervised open gym/free-play ranged from 31% to 41% (Table 2). Adult access was lower than youth access for all corresponding items. Approximately two-thirds of schools allowed children or adults to use the school's outdoor physical activity facilities without being in a supervised program in both survey years.

These data indicate a lack of progress toward the Healthy People 2010 developmental objective (22-12) to increase the proportion of the nation's public and private schools that provide access to their physical activity spaces and facilities for all persons outside of normal school hours.¹ The impetus behind this national objective was to provide more places for youth and adults to be active, ideally close to home and in low cost or free facilities, thereby reducing barriers to physical activity with regards to access and cost. In addition, access might foster connections between schools and their communities. This strategy also maximizes scarce resources by utilizing existing facilities to avoid duplication. However, this strategy does not consider issues regarding scheduling, staffing, maintenance, and liability, concerns cited by a sample of schools that did not allow their physical activity facilities to be used by the public.¹⁷

One strategy schools have used to help overcome these concerns is through a joint use agreement. A joint use agreement is a policy that allows for shared use of facilities among partners by formally outlining the terms and conditions of use, management, scheduling, maintenance, and liability as well as the roles and responsibilities of partners.¹⁸⁻²⁰ This type of policy can result in cost sharing and put limitations on liability while encouraging greater community access to school facilities. It has been successful in several US locations, in a variety of forms.^{9,18,21} For example, Choy et al¹⁸ describe a joint use agreement between a public high school and the local parks and recreation department, to use the school facilities for park programming (eg, organized recreational classes). With joint use, consideration should be given to funding, communication, decision making, supervision, maintenance, security, and liability.^{9,19}

Other models of success for opening the school to the public for physical activity also exist. For example, a previously locked outdoor schoolyard opened with an attendant present during after school hours and for 5 to 8 hours on the weekends over a 2-year period at an elementary school in New Orleans.²² An evaluation of this intervention found that compared with the control school, the intervention school experienced a substantial increase in the number of children being physically active outdoors and the students in the intervention

school experienced a decline in time spent on sedentary activities when compared with the control school.

The US Department of Agriculture Child Nutrition and Women, Infants and Children Reauthorization Act (public law 108–265) required schools participating in federal school meal programs to develop a local wellness policy by the 2006–07 school year that would, in part, include goals for physical activity, nutrition education, and other school-based activities designed to promote student wellness. Creating access to the school for physical activity when school is not in session is a strategy that local wellness groups may take on as part of their wellness focus. Thus, it is possible that future examinations of the SHPPS data could identify changes in the availability of facilities for physical activity due to changes at the local level.

Correlates of Access to School Physical Activity Facilities

The results from our regression analyses (Table 3) help highlight schools more likely to allow community access to their facilities for physical activity. Similar to another smaller study,¹⁷ we found that public schools allowed access to the school physical activity facilities much more often than nonpublic schools. A study of West Virginia schools found that community access outside of school hours to indoor facilities was lower among elementary schools, but that access to outdoor facilities was higher among those same elementary schools, as compared with middle and high schools.²³ They also reported that access before school was lower than during other time periods, similar to the SHPPS national data. Another consistent finding in the SHPPS data were that the higher indoor facility count, but to a lesser extent the outdoor facility count (indicating more diversity in the type of facilities and not representative of exact count), was associated with allowing access for youth or adults. This makes intuitive sense, as schools with more diverse facilities might be more attractive for use by the public.

Limitations

Several limitations of the study should be considered. First, the presence of facilities was asked differently in 2000 and 2006; thus we cannot determine if their presence changed (Table 1). We also cannot distinguish whether access differed for outdoor or indoor facilities, since they were combined in these questions (Table 2, first 6 questions). Second, the characteristics (such as length of pool or surface of track) and quality of the indoor and outdoor physical activity facilities was not ascertained and availability may vary by these factors. Third, these data are based on self-report without any objective verification. Verification on a subsample of schools would help us interpret the validity of these questions. Fourth, test-retest reliability was available for only a subset of the questions reported here and it is not known how responses to the questions varied by job classification. It would be useful to compare whether the facilities and availability reported would remain consistent if several different respondents with different job titles were surveyed from the same school.

Conclusions

These national data indicate a lack of progress from 2000 and 2006 toward increasing the proportion of the nation’s public and private schools that provide access to their physical activity spaces and facilities for all persons outside of normal school hours. Future research in this area should include developing effective joint use agreements for shared facility use and identifying the effect of access to school facilities on physical activity levels of community members. This work could lead to interventions to help advocates work with school officials to address barriers regarding opening schools for community use for physical activity and to facilitate community sponsored classes and open gym.

Acknowledgments

This work was supported through the Centers for Disease Control and Prevention (CDC) cooperative agreement #U48-DP000059 with the North Carolina Physical Activity Policy Research Center, UNC Center for Health Promotion and Disease Prevention (HPDP), and cooperative agreement #U48-DP000060 with the Physical Activity Policy Research Network. The UNC Center for HPDP is a member of the Prevention Research Centers Program of CDC. The content is solely the responsibility of the authors and does not necessarily represent the official views of the CDC. The authors thank Ginny Lee and the anonymous reviewers who provided critique of earlier drafts of this paper.

Appendix: Questions Used in This Analysis on Physical Activity Facilities and School Community Use From the 2000 and 2006 SHPPS Physical Education Questionnaire

2000 SHPPS questions	2006 SHPPS questions
<p>Physical activity facilities</p> <p>#54: This card lists facilities that this school might have for indoor PE. As I read the list, please tell me which facilities this school has. Does this school have:</p> <ul style="list-style-type: none"> ...a gymnasium? ...an indoor pool? ...a weight room? ...a cardiovascular fitness center? ...a wrestling room? ...a dance studio? ...a racquetball court? ...regular classrooms? ...a cafeteria, auditorium, or other multi-purpose room? ...any trailers or mobile buildings? <p>yes or no</p> <p>#56: As I read this list, please tell me which facilities this school has for outdoor PE. Does this school have:</p> <ul style="list-style-type: none"> ...a track for walking, jogging, running, or biking? ...an outdoor pool? ...an outdoor volleyball court? ...an outdoor basketball court? ...an outdoor tennis court? ...a baseball or softball field? ...a soccer or football field? ...a general use field? ...outdoor athletic or playground equipment? ...parking lot or black top areas? <p>yes or no</p> <p>Community use of school facilities</p>	<p>Physical activity facilities</p> <p>#57: This card lists facilities that this school might have access to for indoor physical education either on or off school property. As I read the list, please tell me which facilities this school has access to for indoor physical education. Does this school have access to:</p> <ul style="list-style-type: none"> ...a gymnasium ...an indoor track ...an indoor pool ...a weight room ...a cardiovascular fitness center ...a wrestling room ...a dance studio ...a racquetball or squash court <p>yes or no</p> <p>#60: As I read this list, please tell me which facilities this school has access to for outdoor physical education on or off school property. Does this school have access to:</p> <ul style="list-style-type: none"> ...a track for walking, jogging, or running ...an outdoor pool ...an outdoor volleyball court ...an outdoor basketball court ...an outdoor tennis court ...a baseball or softball field ...a soccer or football field ...a general use field ...playground equipment (asked of elementary schools only) <p>yes or no</p> <p>Community use of school facilities</p>

2000 SHPPS questions	2006 SHPPS questions
<p>(Answer #75–82 is this school has any indoor or outdoor facilities that could be used for physical education or activity (any #54 or #56 is yes; otherwise skip to #83.) The following questions are about the use of school facilities for programs sponsored by community organizations such as a YMCA, parks and recreation department, or Boys and Girls Clubs. Do not include school-sponsored interscholastic sports, intramurals, or physical activity clubs.</p>	<p>(Answer #80–85 if this school has any indoor or outdoor facilities that could be used for physical education or activity (any #57 or #60 is yes; otherwise skip to #86) The following questions are about the use of facilities on school property for programs sponsored by community organizations such as a YMCA, parks and recreation department, or Boys and Girls Clubs. Do not include school-sponsored interscholastic sports, intramural activities, or physical activity clubs.</p>
<p>#75.1–3: Outside of school hours or when school is not in session, do children or adolescents use any of this school's physical activity or athletic facilities for ...community-sponsored sports teams? ...community-sponsored classes or lessons, such as tennis or gymnastics? ...community-sponsored supervised "open gym" or "free-play"? yes or no (if no to all then skip to #78)</p>	<p>#80a–c: Outside of school hours or when school is not in session, do children or adolescents use any of this school's physical activity or athletic facilities for ...community-sponsored sports teams? ...community-sponsored classes or lessons, such as tennis or gymnastics? ...community-sponsored supervised "open gym" or "free-play"? yes or no (if no to all then skip to #82)</p>
<p>#77.1–5: Are any of these physical activity programs for children and adolescents offered ...before school? ...after school? ...in the evenings? ...on the weekends? ...during school vacations? yes or no</p>	<p>#81a–e: Are any of these physical activity programs for children and adolescents offered ...before school? ...after school? ...in the evenings? ...on the weekends? ...during school vacations? yes or no</p>
<p>#78.1–3: Outside of school hours or when school is not in session, do adults who are not school employees use any of this school's physical activity or athletic facilities for ...community-sponsored sports teams? ...community-sponsored classes or lessons, such as tennis or aerobics? ...community-sponsored "open gym"? yes or no (if no to all then skip to #81)</p>	<p>#82a–c: Outside of school hours or when school is not in session, do adults who are not school employees use any of this school's physical activity or athletic facilities for ...community-sponsored sports teams? ...community-sponsored classes or lessons, such as tennis or aerobics? ...community-sponsored "open gym"? yes or no (if no to all then skip to #84)</p>
<p>#80.1–5: Are any of these physical activity programs for adults offered ...before school? ...after school? ...in the evenings? ...on the weekends? ...during school vacations? yes or no</p>	<p>#83a–e: Are any of these physical activity programs for adults offered ...before school? ...after school? ...in the evenings? ...on the weekends? ...during school vacations? yes or no</p>
<p>#81: Can children or adults in the community use any of this school's outdoor physical activity and athletic facilities without being in a supervised program? yes or no (if no, skip to #83)</p>	<p>#84: Can children or adults in the community use any of this school's outdoor physical activity and athletic facilities without being in a supervised program? yes, no, school does not have outdoor physical activity facilities / athletic facilities (if no or no facilities, skip to #86)</p>
<p>#82: Can children or adults in the community use this school's outdoor physical activity and athletic facilities without being in a supervised program ...before school? ...after school? ...in the evenings? ...on the weekends? ...during school vacations? yes or no</p>	<p>#85: Can children or adults in the community use this school's outdoor physical activity and athletic facilities without being in a supervised program ...before school? ...after school? ...in the evenings? ...on the weekends? ...during school vacations? yes or no</p>

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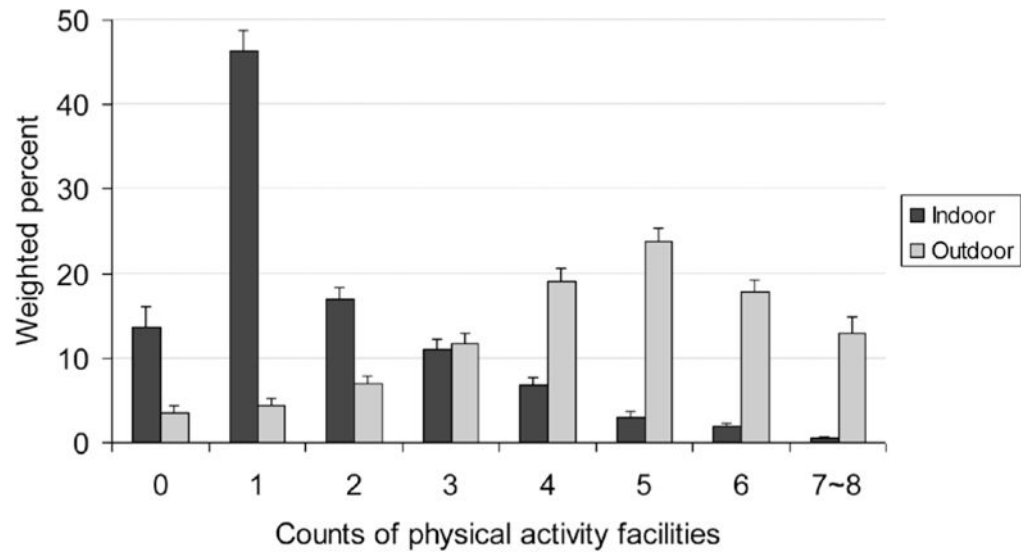


Figure 1. Weighted percent (with standard error bars) of counts for each type of physical activity facility, separately for indoor and outdoor facilities, 2006.

Table 1

Weighted Percent of Indoor and Outdoor Facilities at Schools in 2000 and 2006

	2000 (n = 921)		2006 (n = 984)	
	Weighted percent	Standard error	Weighted percent	Standard error
Indoor facilities				
Any indoor facilities (calculated)	76.2	2.3	86.5	2.5
...a gymnasium?	73.7	2.3	85.0	2.7
...an indoor track? ^a	–	–	3.5	0.6
...an indoor pool?	5.3	0.8	8.9	1.1
...a weight room?	28.9	1.8	35.2	2.0
...a cardiovascular fitness center?	7.5	0.9	15.1	1.3
...a wrestling room?	11.3	1.1	14.3	1.4
...a dance studio?	4.7	0.7	8.7	1.0
...a racquetball or squash court? ^b	2.3	0.6	3.2	0.6
Outdoor facilities				
Any outdoor facilities (calculated)	94.5	1.0	96.5	0.9
...a track for walking, jogging, or running? ^c	40.6	2.2	54.4	2.2
...an outdoor pool?	2.5	0.6	7.9	1.3
...an outdoor volleyball court?	26.3	2.0	33.1	2.3
...an outdoor basketball court?	67.1	2.1	73.3	2.1
...an outdoor tennis court?	27.1	1.9	33.9	1.9
...a baseball or softball field?	71.4	2.1	78.4	1.8
...a soccer or football field?	65.0	2.3	75.1	2.0
...a general use field?	86.8	1.6	91.6	1.3
...playground equipment? ^d	93.6	1.5	93.9	1.4
Any indoor/outdoor facilities (calculated)	98.7	0.5	99.6	0.3

^aIndoor track was not asked on the 2000 questionnaire.

^bIn 2006, “or squash court” was added.

^cIn 2000, “biking” was also included in the list.

^dPlayground equipment was reported only among elementary schools.

Table 2

Weighted Percent of Community Access to Indoor or Outdoor School Facilities for Physical Activity Use in 2000 and 2006 Among Schools With Any Indoor or Outdoor Physical Activity Facilities

	2000 (n = 911)		2006 (n = 981)		p-value ^a
	Weighted percent	Standard error	Weighted percent	Standard error	
Outside of school hours or when school is not in session, do children or adolescents use any of this school's physical activity facilities for					
...community-sponsored sports teams?	66.9	2.3	68.9	2.0	0.52
...community-sponsored classes/lessons?	31.4	2.1	33.5	2.1	0.49
...community-sponsored supervised "open gym" or "free-play"?	37.6	2.2	40.5	2.2	0.36
Outside of school hours or when school is not in session, do adults who are not school employees adults use any of this school's physical activity facilities for					
...community-sponsored sports teams?	52.6	2.4	47.6	2.0	0.11
...community-sponsored classes/lessons?	26.3	2.0	23.3	1.7	0.24
...community-sponsored supervised "open gym" or "free-play"?	27.9	2.1	30.9	2.3	0.33
Can children or adults in the community use any of this school's outdoor physical activity and athletic facilities without being in a supervised program?					
Yes	66.6	2.2	66.7	2.1	0.98
If yes, can they use it					
...before school?	70.4	2.5	71.4	2.9	0.78
...after school?	93.7	1.1	94.4	1.2	0.67
...in the evening?	96.6	0.8	95.3	1.2	0.34
...on the weekend?	97.3	0.8	96.0	1.1	0.35
...during school vacation?	96.6	0.9	95.2	1.2	0.36

^a p-value is obtained from Wald chi-square test to examine changes between 2000 and 2006.

Table 3

Weighted Percent and Odds Ratios (OR) With 95% Confidence Interval (CI) From Weighted Logistic Regression (Full Models) Predicting Community Access to School Facilities for Physical Activity Use, 2006 (n = 984^a)

	Weighted percent	Children/adolescent access			Adults access			Outdoor facilities used by children/adults in community unsupervised OR (95% CI)
		Sports teams OR (95% CI)	Classes/lessons OR (95% CI)	Supervised open gym/free-play OR (95% CI)	Sports teams OR (95% CI)	Classes/lessons OR (95% CI)	Supervised open gym/free-play OR (95% CI)	
Type of school								
public	72.7	5.63 (3.49, 9.09)	4.13 (2.51, 6.81)	2.75 (1.79, 4.21)	2.99 (1.92, 4.66)	4.87 (2.63, 9.04)	2.30 (1.36, 3.90)	3.98 (2.51, 6.31)
non-public	27.3	1.00	1.00	1.00	1.00	1.00	1.00	1.00
School level								
high school	18.4	1.43 (0.85, 2.40)	1.26 (0.74, 2.14)	1.54 (0.99, 2.41)	1.31 (0.83, 2.06)	1.87 (1.02, 3.45)	1.66 (1.02, 2.70)	0.52 (0.30, 0.88)
middle school	27.5	1.37 (0.88, 2.14)	1.21 (0.81, 1.83)	1.41 (0.94, 2.11)	1.53 (1.03, 2.29)	1.34 (0.81, 2.20)	1.86 (1.17, 2.96)	0.88 (0.59, 1.31)
elementary school	52.2	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Urbanicity								
urban	28.9	1.21 (0.75, 1.95)	1.13 (0.71, 1.79)	1.50 (0.98, 2.28)	1.36 (0.93, 1.97)	1.20 (0.77, 1.89)	2.11 (1.33, 3.36)	1.18 (0.73, 1.89)
non-urban	71.1	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Poverty								
high poverty	45.3	1.38 (0.92, 2.06)	1.80 (1.24, 2.62)	1.23 (0.86, 1.75)	1.12 (0.79, 1.57)	1.44 (0.96, 2.15)	1.21 (0.83, 1.75)	1.61 (1.08, 2.38)
low poverty	54.7	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Region								
Northeast	17.0	3.72 (1.80, 7.67)	1.62 (0.86, 3.03)	1.70 (0.96, 3.02)	2.19 (1.16, 4.11)	2.24 (1.15, 4.40)	2.15 (1.08, 4.29)	1.48 (0.82, 2.69)
Midwest	30.8	1.56 (0.89, 2.74)	1.33 (0.79, 2.27)	1.93 (1.16, 3.20)	1.34 (0.87, 2.07)	1.62 (0.94, 2.79)	2.37 (1.42, 3.95)	2.77 (1.66, 4.60)
West	25.4	2.17 (1.26, 3.73)	1.82 (1.09, 3.06)	1.64 (0.96, 2.79)	1.87 (1.14, 3.07)	1.24 (0.71, 2.16)	1.33 (0.74, 2.39)	1.37 (0.79, 2.39)
South	26.7	1.00	1.00	1.00	1.00	1.00	1.00	1.00
School size								
large	49.8	1.56 (1.03, 2.38)	1.46 (0.94, 2.25)	0.69 (0.47, 1.00)	0.88 (0.60, 1.31)	1.13 (0.73, 1.74)	0.65 (0.42, 0.99)	0.88 (0.61, 1.28)
small	50.2	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Intramural sports offered								
yes	48.3	1.65 (1.09, 2.49)	1.46 (1.02, 2.09)	1.16 (0.83, 1.61)	1.64 (1.18, 2.29)	1.12 (0.75, 1.67)	1.45 (1.00, 2.11)	1.08 (0.77, 1.51)
no	51.7	1.00	1.00	1.00	1.00	1.00	1.00	1.00
# Indoor facility counts								

	Weighted percent	Children/adolescent access				Adults access				Outdoor facilities used by children/adults in community unsupervised OR (95% CI)
		Sports teams OR (95% CI)	Classes/lessons OR (95% CI)	Supervised open gym/free-play OR (95% CI)	Sports teams OR (95% CI)	Classes/lessons OR (95% CI)	Supervised open gym/free-play OR (95% CI)			
2-7	40.1	4.74 (2.64, 8.52)	3.94 (1.99, 7.81)	4.05 (2.07, 7.94)	4.47 (2.40, 8.30)	2.95 (1.30, 6.70)	6.23 (2.75, 14.10)	1.08 (0.57, 2.04)		
1	46.3	5.20 (2.87, 9.43)	2.64 (1.39, 5.04)	3.54 (1.83, 6.87)	3.18 (1.77, 5.73)	2.57 (1.19, 5.53)	5.08 (2.33, 11.08)	0.96 (0.56, 1.64)		
0	13.5	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
# Outdoor facility counts										
6-8	30.6	1.89 (1.06, 3.36)	1.82 (1.02, 3.25)	1.44 (0.90, 2.30)	1.57 (0.95, 2.59)	1.40 (0.85, 2.29)	1.21 (0.73, 2.02)	0.95 (0.54, 1.67)		
4-5	42.9	1.83 (1.03, 3.23)	1.88 (1.14, 3.11)	1.03 (0.67, 1.58)	1.42 (0.86, 2.36)	1.34 (0.82, 2.21)	1.23 (0.79, 1.93)	0.97 (0.61, 1.53)		
0-3	26.5	1.00	1.00	1.00	1.00	1.00	1.00	1.00		

^aSome models have a lower sample size due to missing data.