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Few California Children and Adolescents Meet Physical Activity Guidelines

Susan H. Babey, Joelle Wolstein, and Allison L. Diamant

SUMMARY: This policy brief describes physical activity among California children and adolescents. Using data from the California Health Interview Survey (CHIS), the study found that only 31 percent of children ages 5-11 and 18 percent of adolescents ages 12-17 meet the physical activity guidelines of engaging in at least one hour of physical activity every day. Neighborhood characteristics, including

safety and proximity to parks, are related to physical activity levels among youth. Also, among older children, boys are more active than girls. Additional efforts by state and local policymakers, as well as communities, are needed to promote physical activity to increase the proportion of children and adolescents achieving recommended amounts of physical activity.

“Only 31 percent of children and 18 percent of adolescents meet physical activity recommendations.”

Regular physical activity has significant benefits for youth, including positive effects on musculoskeletal development, cardiovascular health, and weight control, and it also facilitates healthy behaviors throughout their lifetimes.¹⁻⁶ Physical activity is associated with increased mental alertness and higher academic achievement, as well as lower levels of stress and depression.^{7,8} National guidelines recommend that children and adolescents engage in at least 60 minutes of physical activity each day.⁹ However, few youth meet current physical activity recommendations. Recent national data indicate that only 27 percent of high school students met this recommendation in 2013.¹⁰ In addition, there are disparities in levels of youth physical activity. Specifically, female, African-American, Latino, and low-income adolescents are less physically active than males, whites, or more affluent youth.¹¹⁻¹⁴

and adolescents. It also examines how physical activity rates vary by gender, race/ethnicity, and neighborhood factors, such as neighborhood safety and access to parks. These findings are based on data from the 2013-14 California Health Interview Survey (CHIS).

Few California Children and Adolescents Meet Physical Activity Guidelines

In 2013-14, only 31 percent of children ages 5-11 and 18 percent of adolescents ages 12-17 met the physical activity recommendations by engaging in at least one hour of physical activity each day of the week. Eight percent of children and 13 percent of adolescents did not engage in at least an hour of physical activity on any day.

The level of physical activity decreases with age among children and adolescents. The proportion meeting physical activity guidelines decreased from 38 percent among those ages 5-7 to 25 percent of those ages 8-11 and 18

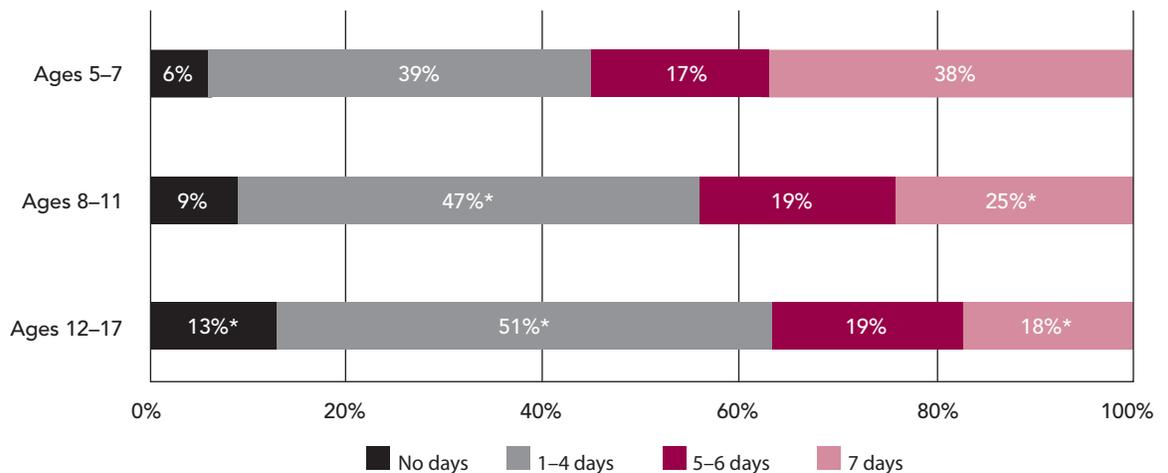
This policy brief describes the prevalence of physical activity among California children



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Exhibit 1

Distribution of Number of Days per Week with at least 60 Minutes of Physical Activity by Age, Children and Adolescents, California, 2013-14



Source: 2013-14 California Health Interview Survey

*Significantly different from "Ages 5-7"

percent of those ages 12-17 (Exhibit 1). In addition, the proportion not reaching an hour of physical activity on any day more than doubled between the youngest and oldest age groups, from 6 percent of those ages 5-7 to 13 percent of those ages 12-17.

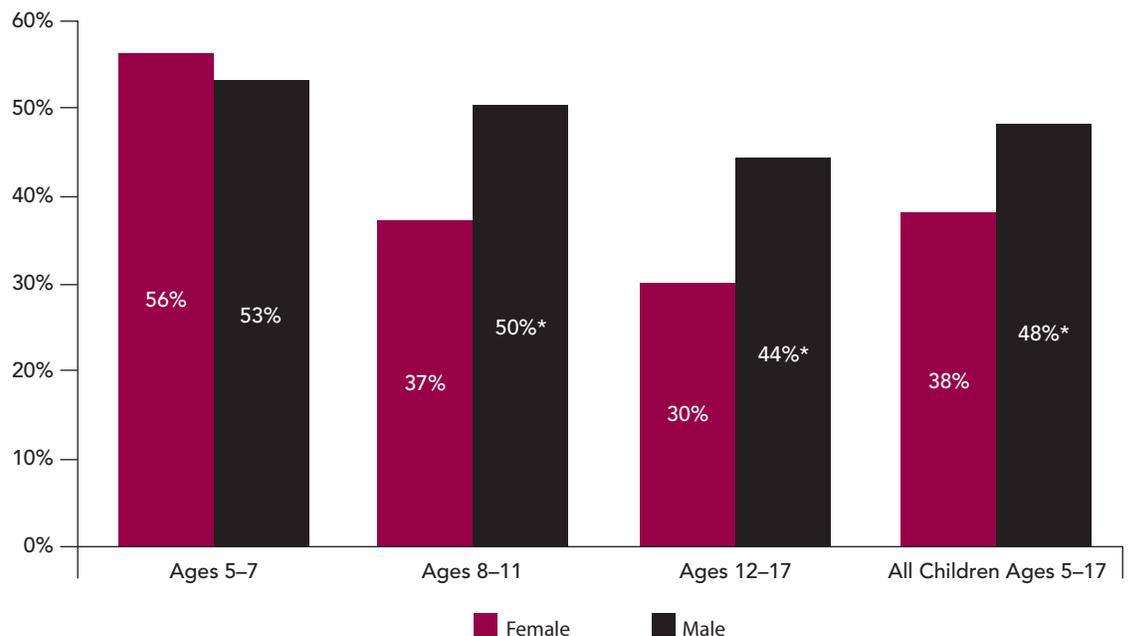
Girls Less Physically Active than Boys

A higher proportion of boys than girls are

physically active for at least an hour for five or more days per week (48 percent vs. 38 percent). However, this difference varies with age (Exhibit 2): Boys are more active than girls among children ages 8-11 (50 percent vs. 37 percent) and adolescents ages 12-17 (44 percent vs. 30 percent), but not among children ages 5-7.

Exhibit 2

Percent with at least 60 Minutes of Physical Activity on Five or More Days per Week by Age and Gender, California, 2013-14

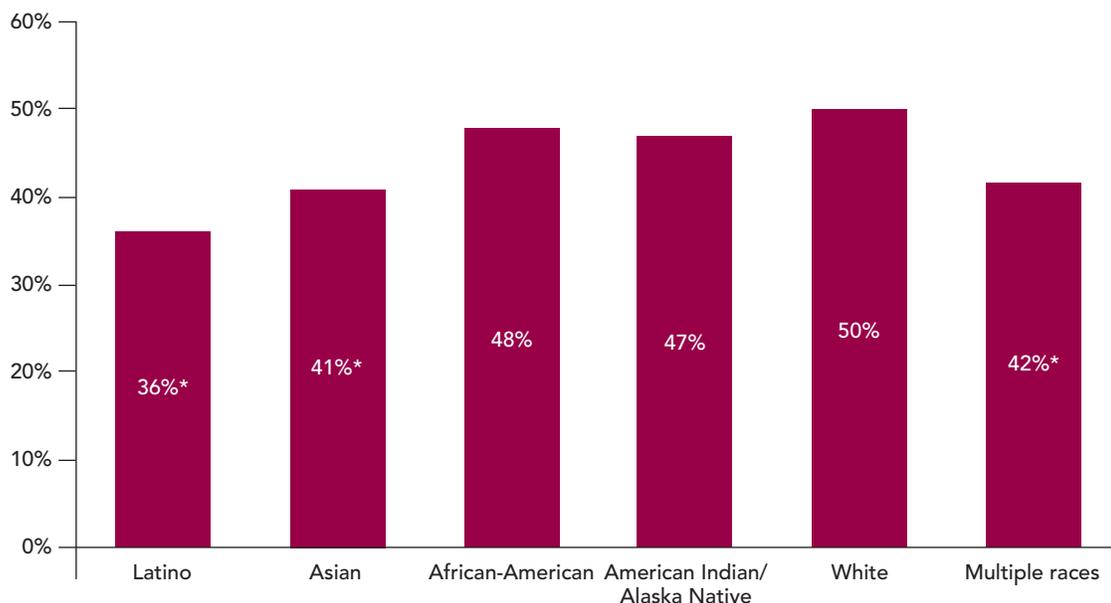


Source: 2013-14 California Health Interview Survey

*Significantly different from "Female"

Percent with at least 60 Minutes of Physical Activity on Five or More Days per Week by Race/Ethnicity, Children Ages 5-17, California, 2013-14

Exhibit 3



Source: 2013-14 California Health Interview Survey

*Significantly different from "White"

Latino, Asian, and Multiracial Youth Less Physically Active

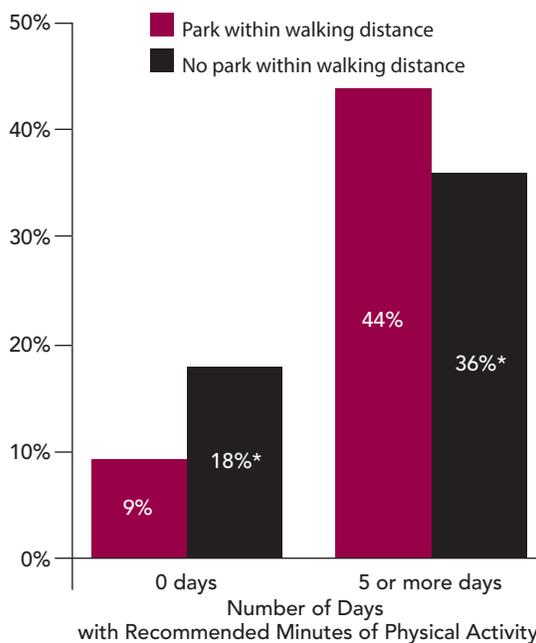
White children and adolescents are more physically active than Latinos, Asians, or multiracial youth. Half of white children and adolescents engaged in at least 60 minutes of physical activity on five or more days of the week, compared to 36 percent of Latinos and just over 40 percent of Asian or multiracial children and adolescents (Exhibit 3). Nearly half of African-American and American Indian/Alaska Native children and adolescents were physically active for at least 60 minutes on five or more days of the week.

Physical Activity Related to Access to Parks, Neighborhood Safety, and Neighborhood Cohesion

Parks, playgrounds, and other open spaces provide important opportunities for youth to engage in physical activity and to lead more active lifestyles. In 2014, more than 7 million California children and adolescents reported having recently visited a park or playground.¹⁵ However, many Californians lack access to safe parks and other open spaces, especially in underserved communities.¹⁶

Percent with at Least 60 Minutes of Physical Activity by Park Within Walking Distance, Ages 5-17, California, 2013-14

Exhibit 4



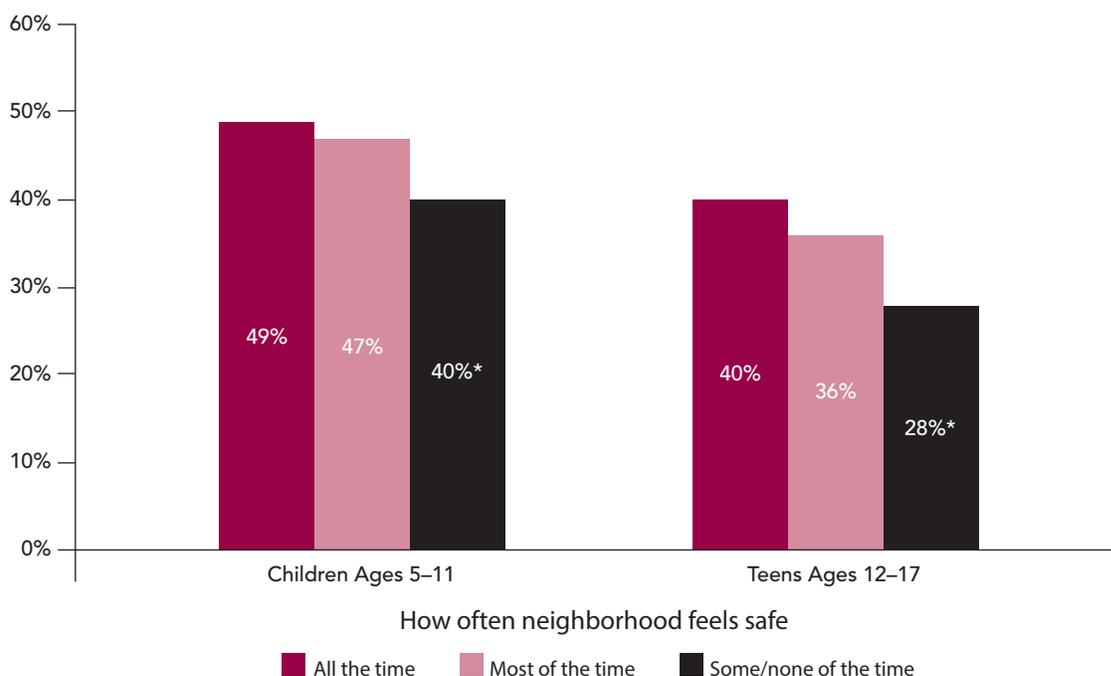
Source: 2013-14 California Health Interview Survey

*Significantly different from "Park within walking distance"

Living near a park was associated with greater levels of physical activity (Exhibit 4). Teens and children with a park in walking distance

Exhibit 5

Percent with at Least 60 Minutes of Physical Activity on Five or More Days per Week by Perceived Neighborhood Safety, Ages 5-11 and 12-17, California, 2013-14



Source: 2013-14 California Health Interview Survey

* Significantly different from "All the time"

“The extent to which people feel safe in their neighborhoods can impact the health of community residents in a number of ways, including promoting or hindering physical activity.”

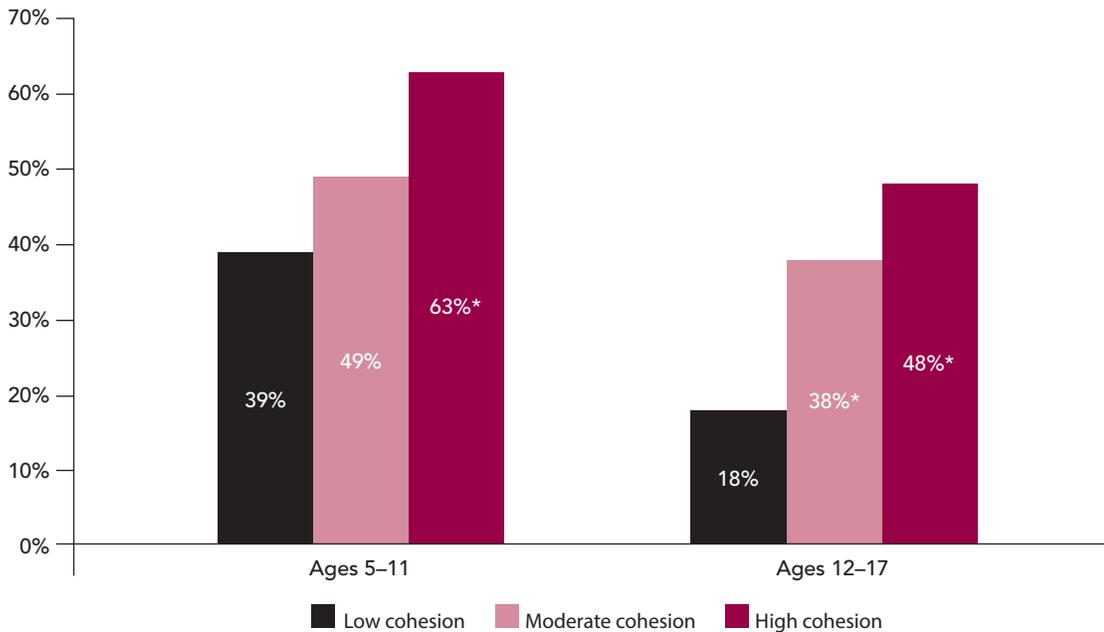
from home were more likely to meet the recommendation of at least 60 minutes of physical activity on most days of the week compared to those with no park in walking distance (44 percent vs. 36 percent). In addition, children and teens with no park in walking distance were more likely to be insufficiently active: 18 percent of those with no park in walking distance got less than 60 minutes of physical activity every day in the past week, compared to 9 percent of those within walking distance of a park.

The extent to which people feel safe in their neighborhoods can impact the health of community residents in a number of ways, including promoting or hindering physical activity. In 2014, 15 percent of children

and adolescents lived in neighborhoods that they or their parents felt were unsafe.¹⁷ These perceptions of neighborhood safety were related to physical activity (Exhibit 5). Children living in neighborhoods that their parents felt were safe all of the time were more likely to be active for at least an hour on most days of the week than those whose parents felt their neighborhood was safe only some or none of the time (49 percent and 40 percent, respectively). A similar pattern is seen among adolescents: Teens who felt their neighborhood was safe all of the time were more likely to get at least 60 minutes of activity most days of the week than those who felt their neighborhood was safe only some or none of the time (40 percent vs. 28 percent).

Percent with at Least 60 Minutes of Physical Activity on Five or More Days per Week by Neighborhood Cohesion, Ages 5-11 and 12-17, California, 2013-14

Exhibit 6



Source: 2013-14 California Health Interview Survey

*Significantly different from "Low cohesion"

Neighborhood cohesion is an indicator of connectedness and unity among neighbors. It is measured by the extent to which people trust and are willing to help others, share values, and get along with their neighbors. Statewide, 68 percent of children and adolescents live in neighborhoods with low or moderate cohesion. Children and adolescents who live in neighborhoods with high levels of cohesion are more physically active (Exhibit 6).

Sixty-three percent of children and 48 percent of adolescents living in neighborhoods with high levels of cohesion got at least 60 minutes of physical activity five or more days of the week, compared to 39 percent of children and 18 percent of adolescents living in neighborhoods with low levels of cohesion.

“Children and adolescents who live in neighborhoods with high levels of cohesion are more physically active.”

“Additional efforts by state and local policymakers ... are needed to increase the proportion of children and adolescents achieving recommended amounts of physical activity.”

Conclusions and Recommendations

Only 31 percent of children ages 5-11 and 18 percent of adolescents ages 12-17 meet the physical activity guidelines by engaging in at least one hour of physical activity every day. Younger children are more active than older children. Among older children, boys are more active than girls, but there was no gender difference among young children ages 5-7. In addition, neighborhood characteristics, including proximity to parks and neighborhood safety and cohesion, are related to physical activity levels among youth. Additional efforts by state and local policymakers, as well as communities, to promote physical activity are needed to increase the proportion of children and adolescents achieving recommended amounts of physical activity. The following policy options could help promote physical activity among children and adolescents:

- ***Increase access to safe parks and other open spaces.*** Increasing the availability of and access to safe spaces for physical activity is a promising strategy for encouraging more active lifestyles. Local governments should consider undertaking projects to improve the availability and safety of parks. Policymakers should work with parks and recreation departments as well as community members to determine appropriate strategies. For example, many communities have established joint use agreements among cities, parks and recreation departments, and school districts to make school playgrounds and open spaces available to the community outside of school hours. Park administrators could also concentrate on maintenance and park aesthetics; for example, dealing with vandalism and graffiti and reducing litter may increase the use of existing parks. Increased use of parks has been shown to improve perceptions of park safety.
- ***Improve neighborhood safety.*** Neighborhood safety was related to physical activity among both adolescents and younger children. Strategies to improve perceived and actual neighborhood safety could promote physical activity. Community leaders and local governments can develop neighborhood crime prevention programs. Government agencies should provide information and support for creating and sustaining these programs. In addition, communities can employ the Crime Prevention Through Environmental Design approach, in which the physical environment is designed to promote safety and security.¹⁸
- ***Promote social cohesion in neighborhoods.*** Higher levels of neighborhood cohesion were related to more physical activity among children and teens. Community leaders and local governments can help build opportunities for the interaction and engagement of neighborhood residents. Research suggests that social cohesion is higher in walkable, mixed-use neighborhoods.¹⁹ One way to promote social cohesion may be to promote policies that increase the walkability of neighborhoods. This includes policies that encourage mixed-use development, availability of spaces for recreation, and pedestrian-oriented communities.
- ***Identify strategies that promote physical activity among girls.*** Girls become less active than boys as they get older. Research suggests that different strategies may be effective for promoting physical activity among girls and boys.¹⁴ Programs that promote physical activity among children and adolescents should strive to include physical activities that are entertaining for both girls and boys.

Data Source and Methods

All statements in this report that compare rates for one group with another group reflect statistically significant differences ($p < 0.05$) unless otherwise noted. The findings in this brief are based primarily on data from the 2013-14 California Health Interview Survey (CHIS). CHIS 2013-14 completed interviews with more than 40,000 households, which included 40,240 adults, 2,253 adolescents, and 5,512 children, drawn from every county in the state. Interviews were conducted in English, Spanish, Chinese (both Mandarin and Cantonese), Vietnamese, Korean, and Tagalog. A validated self-report question was used to assess the number of days adolescents ages 12-17 were physically active for 60 minutes or more. Parents of children ages 5-11 were asked the same question as the adolescents.

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Endnotes

- 1 Delva J, Johnston LD, O'Malley PM. 2007. The Epidemiology of Overweight and Related Lifestyle Behaviors: Racial/Ethnic and Socioeconomic Status Differences Among American Youth. *American Journal of Preventive Medicine* 33(4 Suppl):S178-186.
- 2 U.S. Department of Health and Human Services. 1996. *Physical Activity and Health: A Report of the Surgeon General*. Atlanta, Ga.: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion.
- 3 Bauman AE, Reis RS, Sallis JF, Wells JC, Loos RJE, Martin BW. 2012. Correlates of Physical Activity: Why Are Some People Physically Active and Others Not? *The Lancet* 380(9838):258-271.
- 4 Janssen I, Leblanc AG. 2010. Systematic Review of the Health Benefits of Physical Activity and Fitness in School-Aged Children and Youth. *International Journal of Behavioral Nutrition and Physical Activity* 7:40.
- 5 Dietz WH. 2004. Overweight in Childhood and Adolescence. *New England Journal of Medicine* 350(9):855-856.
- 6 Telama R, Yang X, Viikari J, Välimäki I, Wanne O, Raitakari O. 2005. Physical Activity from Childhood to Adulthood: A 21-Year Tracking Study. *American Journal of Preventive Medicine*. 28(3):267-273.
- 7 Centers for Disease Control and Prevention. 2010. *The Association Between School-Based Physical Activity, Including Physical Education, and Academic Performance*. Atlanta, Ga.: U.S. Department of Health and Human Services.
- 8 Rasberry CN, Lee SM, Robin L, et al. 2011. The Association Between School-Based Physical Activity, Including Physical Education, and Academic Performance: A Systematic Review of the Literature. *Preventive Medicine* 52:S10-S20.
- 9 U.S. Department of Health and Human Services. 2008. *2008 Physical Activity Guidelines for Americans*. Washington, D.C.: U.S. Department of Health and Human Services.
- 10 Kann L, Kinchen S, Shanklin SL, et al. 2014. Youth Risk Behavior Surveillance—United States, 2013. *Morbidity and Mortality Weekly Report Surveillance Summaries* 63 (Suppl 4):1-168.
- 11 Ferreira I, Van Der Horst K, Wendel-Vos W, Kremers S, Van Lenthe FJ, Brug J. 2007. Environmental Correlates of Physical Activity in Youth – A Review and Update. *Obesity Reviews* 8(2):129-154.
- 12 Sallis JF, Prochaska JJ, Taylor WC. 2000. A Review of Correlates of Physical Activity of Children and Adolescents. *Medicine and Science in Sports and Exercise* 32(5):963-975.
- 13 Lee RE, Cubbin C. 2002. Neighborhood Context and Youth Cardiovascular Health Behaviors. *American Journal of Public Health* 92(3):428-436.
- 14 Gordon-Larsen P, McMurray RG, Popkin BM. 2000. Determinants of Adolescent Physical Activity and Inactivity Patterns. *Pediatrics* 105(6):e83.
- 15 AskCHIS. 2014. *Visited a Park, Playground, or Open Space in the Last Month*. Los Angeles, Calif.: UCLA Center for Health Policy Research. Available at <http://ask.chis.ucla.edu>. Accessed May 10, 2018.
- 16 Mowen AJ. 2010. *Parks, Playgrounds, and Active Living. A Research Synthesis*. Available from: www.activelivingresearch.org.
- 17 2014 California Health Interview Survey. Los Angeles, Calif.:UCLA Center for Health Policy Research.
- 18 Jeffery CR. 1977. *Crime Prevention Through Environmental Design*. Beverly Hills, Calif.: Sage Publications.
- 19 Leyden KM. 2003. Social Capital and the Built Environment: The Importance of Walkable Neighborhoods. *American Journal of Public Health* 93(9):1546-1551.



This publication contains data from the California Health Interview Survey (CHIS), the nation's largest state health survey. Conducted by the UCLA Center for Health Policy Research, CHIS data give a detailed picture of the health and health care needs of California's large and diverse population.

CHIS is a collaboration of the UCLA Center for Health Policy Research, California Department of Public Health, California Department of Health Care Services, and the Public Health Institute.

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