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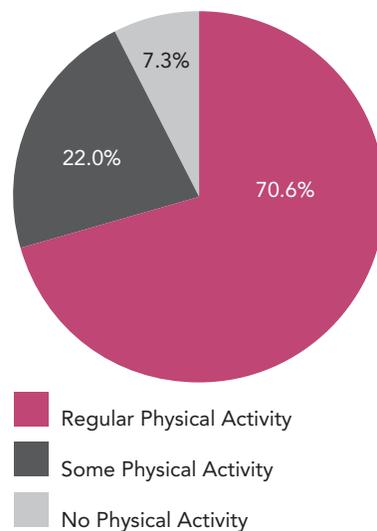
## California Adolescents Increasingly Inactive

Susan H. Babey, Allison L. Diamant, E. Richard Brown and Theresa Hastert

The number of adolescents who are physically inactive is increasing in California. In 2003, 240,000 California adolescents reported that they get no physical activity, up from 158,000 in 2001. The proportion of adolescents who are inactive also rose significantly, from 5.2% in 2001 to 7.3% in 2003.<sup>1</sup>

### Exhibit 1

**Percent of Adolescents Engaging in Regular, Some and No Physical Activity, Ages 12-17, California, 2003**



Note: Numbers may not add to 100% due to rounding.  
Source: 2003 California Health Interview Survey

Altogether, nearly one million California adolescents either get no physical activity or get less than recommended levels of physical activity. In 2003, only 70.6% of adolescents reported participating in recommended levels of regular physical activity (Exhibit 1).<sup>2</sup>

Regular physical activity and a healthful diet are both important components in the fight against obesity and chronic health conditions. Physical inactivity contributes to obesity and to complications and death from chronic conditions such as Type 2 diabetes, coronary heart disease, hypertension, colon cancer and osteoporosis. It is also associated with decreased mental alertness, lower academic achievement, higher levels of stress, higher rates of disability, depression and diminished quality of life. Despite the well-documented benefits of regular physical activity, many California teens—particularly teenage girls, Latino, Asian, and African-American teens, teens from low-income families, teens with no access to safe parks or open spaces, and teens whose schools do not require physical education—do not get regular physical activity or get no activity at all.<sup>3</sup>

Based on data from the 2003 California Health Interview Survey (CHIS 2003), this policy brief examines the extent to which adolescents in the state are getting adequate levels of physical activity and how some policy-relevant factors affect these rates. It also describes how this profile has changed since 2001, based on data from CHIS 2001.

THE CALIFORNIA ENDOWMENT

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## Exhibit 2

### Percent of Adolescents Engaging in No Physical Activity by Gender and Year, Ages 12-17, California



Note: Estimates using CHIS 2001 data employ a new weighting methodology that allows for comparisons with CHIS 2003 data. As a result, the CHIS 2001 estimates may differ from previously published estimates. For more information see [www.chis.ucla.edu](http://www.chis.ucla.edu).

Source: 2001-R and 2003 California Health Interview Survey

### Girls, Latinos, Asians, African Americans Less Active

Teenage girls are less active than boys. Nearly three quarters of boys (74.6%) participate in regular physical activity compared with only two thirds of girls (66.5%), and girls have a higher prevalence of inactivity than boys (9.2% vs. 5.5%). Inactivity among teenage

girls has nearly doubled to 9.2% in 2003 from 2001 when 5% of girls got no physical activity, however rates among boys have remained about the same (Exhibit 2).

Latino (68.1%), Asian (62.3%), and African-American teens (62.7%) report lower rates of regular physical activity than white teens (76.4%; Exhibit 3). In addition, the proportion of Latino (9.5%) and African-American teens (12.3%) getting no physical activity is two to three times higher than white teens (4.1%). The proportion of teens meeting recommendations for regular physical activity tended to decrease slightly from 2001 to 2003, however the decrease is significant only for African-American teens. The explanation for this decrease in rates among African-American teens is unclear. In 2001, 66.2% of Asians, 69.2% of Latinos, 74.2% of African Americans and 76.6% of whites reported regular physical activity.

Asians and Latinos are heterogeneous populations and examining these groups as a whole may mask variations among ethnic groups. In California, the prevalence of

## Exhibit 3

### Percent of Adolescents Engaging in Regular Physical Activity and No Physical Activity by Demographic Characteristics, Ages 12-17, California, 2003

	Regular Physical Activity %	Percentage Point Change from 2001	No Physical Activity %	Percentage Point Change from 2001
<b>Race/Ethnicity</b>				
White	76.4	-0.2	4.1	+1.1
Latino	68.1*	-1.1	9.5*	+1.4
Asian	62.3*	-3.9	8.3	+3.2
African American	62.7*	-11.5 <sup>†</sup>	12.3*	+5.9
<b>Federal Poverty Level</b>				
0-99%	67.5*	-2.6	9.1*	+1.5
100-199%	65.3*	-3.1	9.8*	+1.3
200-299%	68.9*	-2.6	7.5	+3.1
300% and above	75.4	-0.9	5.2	+2.5 <sup>†</sup>
<b>All Teens</b>	<b>70.6</b>	<b>-2.0</b>	<b>7.3</b>	<b>+2.1<sup>†</sup></b>

\* Significantly different from whites or those with incomes of 300% FPL and above.

<sup>†</sup> Significant change from 2001

Note: The 2003 FPL was \$12,384 for a family of two, \$14,680 for a family of three, and \$18,810 for a family of four, <http://www.census.gov/hhes/poverty/threshld/thresh03.html> (accessed November 22, 2004). The estimates for Pacific Islander and American Indian/Alaska Native adolescents were unreliable.

Source: 2001-R and 2003 California Health Interview Survey

regular physical activity among Asian teens does vary by ethnic group with rates as low as 45.8% for Vietnamese, 56.8% for Filipino and as high as 70.8% for Chinese (Exhibit 4). However, these differences are only significant between Vietnamese and Chinese teens. There was less variation among teens of different Latino ancestry, with rates ranging from 58.5% among Salvadorans to 69.9% among other Central Americans and 71% among Mexicans (Exhibit 5). None of these differences was statistically significant.

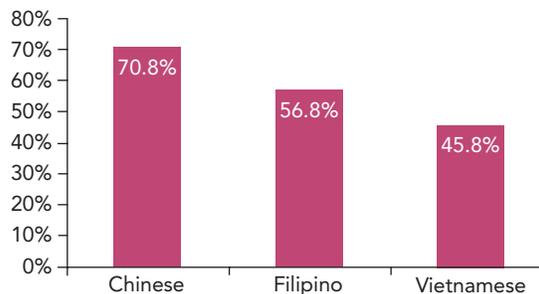
Teens from low-income families are less active than more affluent teens (Exhibit 3). The rate of physical inactivity is nearly twice as high among teens with family incomes below 200% of the federal poverty level (FPL) as among teens with family incomes at or above 300% FPL. The proportion of teens getting no physical activity tended to increase slightly from 2001, however the increase is significant only for teens with family incomes at or above 300% FPL.

### Many Lack Safe Parks and Open Spaces

A variety of factors contribute to lack of physical activity. Access to recreational facilities such as parks and activity-friendly school environments is related to greater physical activity. In California, over 825,000—or one out of every four adolescents (25.3%)—reported having no access to a safe park, playground or open space (there was no park, playground or open space within walking distance of home or the nearby space was unsafe). The percentage of adolescents getting no physical activity was higher among adolescents with no access to a safe open space (10.3%) than among those with access to a safe open space (6.4%). Furthermore, access to safe open spaces varied with race and income. Approximately 30% of teens from lower-income families report no access to a safe park or open space compared with less than 20% of teens from more affluent families (300% FPL and above). The percentage of Latino (29.3%) and African-American teens (30.2%)—many of whom live in low-income areas—with no

**Percent of Adolescents Engaging in Regular Physical Activity by Asian Ethnic Groups, Ages 12-17, California, 2003**

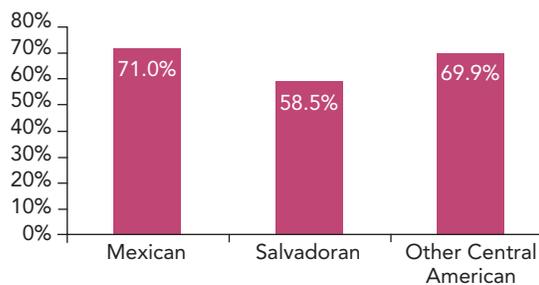
Exhibit 4



Note: The estimates for other Asian ethnic groups were unreliable.  
Source: 2003 California Health Interview Survey

**Percent of Adolescents Engaging in Regular Physical Activity by Latino Ethnic Groups, Ages 12-17, California, 2003**

Exhibit 5



Note: The estimates for other Latino ethnic groups were unreliable.  
Source: 2003 California Health Interview Survey

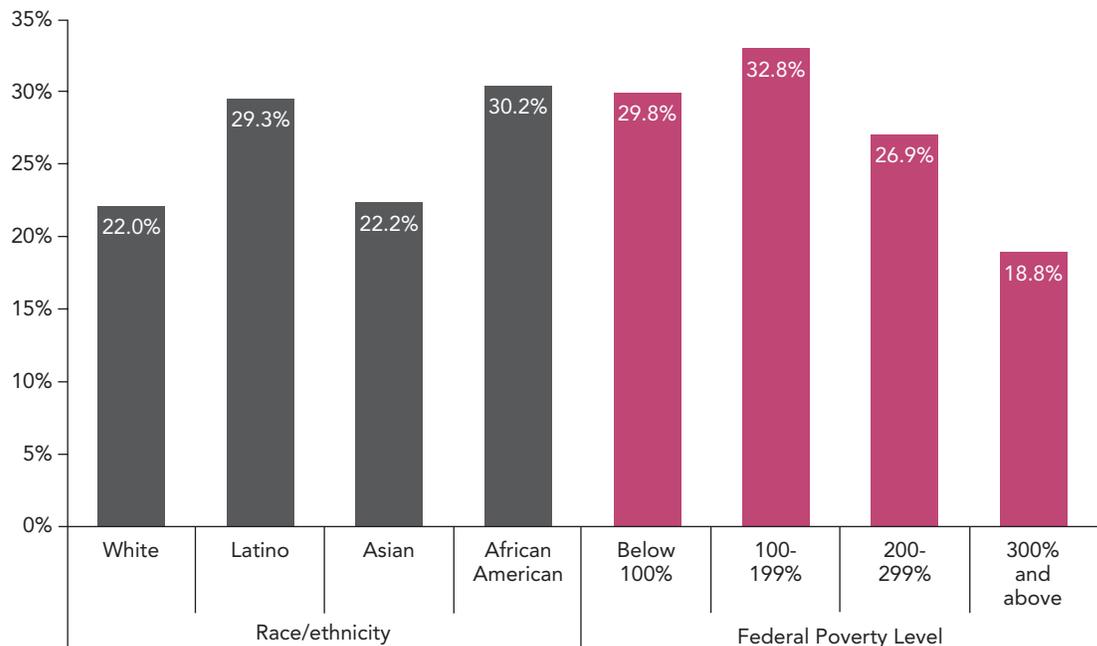
access to safe parks or open spaces is higher than white teens (22%; Exhibit 6).<sup>4</sup>

### The Importance of Physical Education

Nationally, daily participation in physical education classes has dropped significantly in recent years from 41.6% in 1991 to 28.4% in 2003. Increased emphasis on academic testing has resulted in reductions in recess and school-based physical education. California teens' physical activity is related to their schools' physical education requirements. One out of every seven teens in California (15.4%) reported that their school does not require or does not offer

## Exhibit 6

## Percent of Adolescents with No Access to Safe Parks or Open Spaces by Race/ethnicity and Income, Ages 12-17, California, 2003

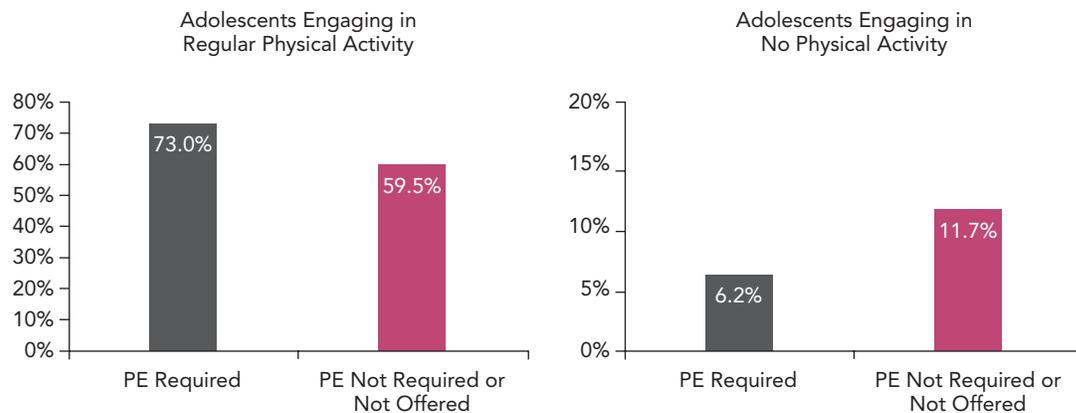


Note: The 2003 FPL was \$12,384 for a family of two, \$14,680 for a family of three, and \$18,810 for a family of four, <http://www.census.gov/bbes/poverty/threshld/thresh03.html> (accessed November 22, 2004). The estimates for Pacific Islander and American Indian/Alaska Native adolescents were unreliable.

Source: 2003 California Health Interview Survey

## Exhibit 7

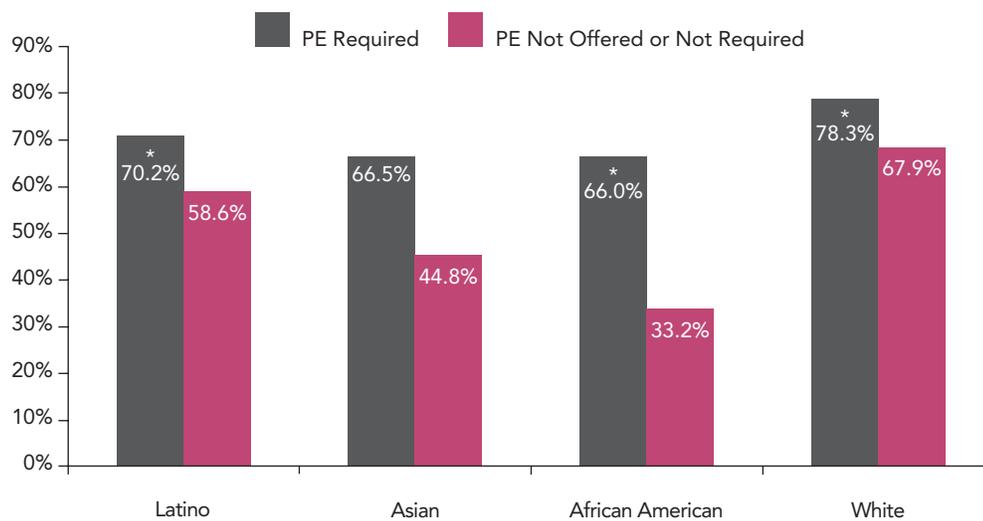
## Percent of Adolescents Engaging in Regular Physical Activity and No Physical Activity by Physical Education (PE) Requirements at School, Ages 12-17, California, 2003



Source: 2003 California Health Interview Survey

### Percent of Adolescents Engaging in Regular Physical Activity by Race/Ethnicity and Physical Education (PE) Requirements at School, Ages 12-17, California, 2003

Exhibit 8



\*Significantly different from PE not offered or not required

Note: The estimates for Pacific Islander and American Indian/Alaska Native adolescents were unreliable.

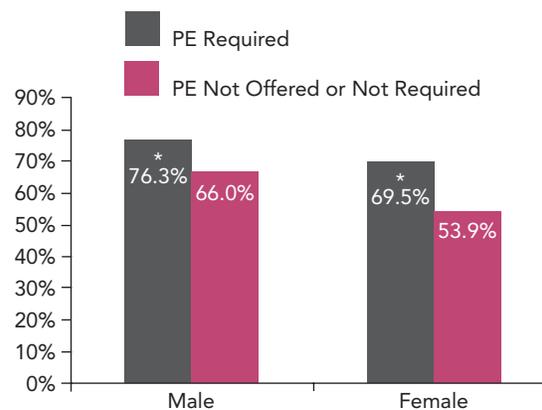
Source: 2003 California Health Interview Survey

physical education (PE). Three out of four teens (73%) whose schools require PE engaged in regular physical activity compared with approximately half of teens (59.5%) whose schools do not require or do not offer PE (Exhibit 7). In addition, the percentage of teens who get no physical activity is nearly twice as high among those whose schools do not require or do not offer PE compared with teens whose schools require PE (11.7% vs. 6.2%).<sup>5</sup>

The proportion of teens getting regular physical activity differs dramatically by race/ethnicity and school PE requirements (Exhibit 8). Among teens whose schools do not require PE, two-thirds (67.9%) of white teens engage in regular physical activity compared to less than half of Asian teens (44.8%) and one third of African-American teens (33.2%). Although there are still significant differences in the percentage getting regular activity by race/ethnicity among students whose schools require PE, the differences were considerably smaller, ranging from 66% among African Americans to 78.3% among whites.<sup>6</sup>

### Percent of Adolescents Engaging in Regular Physical Activity by Gender and Physical Education (PE) Requirements at School, Ages 12-17, California, 2003

Exhibit 9



\*Significantly different from PE not offered or not required

Source: 2003 California Health Interview Survey

PE requirements are important for regular physical activity for both boys and girls. However, requiring PE makes a bigger difference for girls than for boys, increasing girls' regular physical activity by 15.6 percentage points vs. 10.3 percentage points for boys (Exhibit 9).

### Policy Recommendations

Despite the well-documented benefits of regular physical activity, many California teens do not get regular physical activity or get no activity at all. Efforts to increase physical activity among adolescents should focus on assuring increased opportunities at school and more safe opportunities out of school.

#### Physical Education

Teens attending schools that require PE are more likely to engage in regular physical activity and less likely to be inactive.

Therefore:

- State and local governments should ensure that regular participation in PE is provided and required in all California public schools from K-12, and that regulatory enforcement of requirements is supported.
- Schools, with the support of state and local governments, should improve physical education curricula to provide activities that engage all adolescents in at least moderate intensity physical activity during the majority of each class period, regardless of skill and fitness levels. This should include activities that emphasize skills needed to establish a lifetime of physical activity.
- Gender and racial/ethnic disparities need to be addressed by developing programs and activities that are inclusive of gender and cultural preferences.

#### Safe Environments for Physical Activity

Teens with access to safe parks and open spaces are less likely to be inactive. Therefore, public policy and community action should focus on increasing availability of and access to safe and appealing environments for physical activity. Some areas of the state are

particularly “park poor”; this is especially true in low-income areas, and areas primarily populated by Latinos and African Americans. This helps explain why low-income adolescents in our study report less access to safe parks. Investing state and community resources in creating safe and accessible environments is important to making regular physical activity a life-long pattern for all Californians.<sup>7</sup>

### Data Source

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 2003 California Health Interview Survey (CHIS 2003), but also include data from the 2001 survey (CHIS 2001). CHIS 2003 provides the most recent information available on adolescent physical activity for the state of California. CHIS 2003 completed interviews with 4,010 adolescents ages 12-17, drawn from every county in the state, in English, Spanish, Chinese (both Mandarin and Cantonese), Vietnamese and Korean. CHIS 2001 data were re-weighted to be consistent with the weighting methodology adopted for CHIS 2003. CHIS is a collaboration of the UCLA Center for Health Policy Research, the California Department of Health Services, and the Public Health Institute. Funding for CHIS 2003 was provided by the California Department of Health Services, The California Endowment, the National Cancer Institute, the Centers for Disease Control and Prevention (CDC), the Robert Wood Johnson Foundation, the California Office of Patient Advocate, Kaiser Permanente, L.A. Care Health Plan, and the Alameda County Health Care Agency. For more information on CHIS, please visit [www.chis.ucla.edu](http://www.chis.ucla.edu).

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## Notes

- 1 Physical inactivity is defined as performing no vigorous activity (activity that made the respondent “sweat or breathe hard” for at least 20 minutes) and performing no light to moderate activity (such as walking or bicycling for at least 30 minutes) during any of the seven days preceding the survey. Estimates using CHIS 2001 data employ a new weighting methodology that allows for comparisons with CHIS 2003 data. As a result, the CHIS 2001 estimates may differ from previously published estimates. For more information, see [www.chis.ucla.edu](http://www.chis.ucla.edu).
- 2 Regular physical activity is defined as performing at least 20 minutes of vigorous activity on three or more of the last seven days, or at least 30 minutes of moderate activity on five or more of the last seven days.
- 3 See U.S. Department of Health and Human Services. *Physical activity and health: A report of the Surgeon General*. Atlanta, GA. Department of Health and Human Services, Centers for Disease Control and Prevention, 1996; and U.S. Department of Health and Human Services. *Physical activity fundamental to preventing disease*. U.S. Department of Health and Human Services, Office of the Assistant Secretary for Planning and Evaluation; 2002.
- 4 The difference between the percentage of African-American (30.2%) and white teens (22.0%) with no access to safe parks or opens spaces had a probability (p)<0.06.
- 5 For information on participation in physical education nationally see U.S. Department of Health and Human Services. *Physical activity and health: A report of the Surgeon General*. Atlanta, GA. Department of Health and Human Services, Centers for Disease Control and Prevention, 1996; and Grunbaum JA, Kann L, Kinchen S, et al. *Youth risk behavior surveillance—United States, 2003*; MMWR Surveillance Summaries May 21, 2004;53(2):1-96. California law requires public schools to provide physical education for students in elementary and middle schools and for two of the four years in high school. However, there are a number of exceptions and waivers to these regulations that may be granted.
- 6 Among teens whose schools do not require PE, the difference between the percentage of white (67.9%) and Asian teens (44.8%) who engage in regular physical activity had a probability (p)<0.06.
- 7 See Sherer PM. *Why America Needs More City Parks and Open Space*. The Trust for Public Land. Available at: [http://www.tpl.org/tier3\\_cd.cfm?content\\_item\\_id=13843&folder\\_id=175](http://www.tpl.org/tier3_cd.cfm?content_item_id=13843&folder_id=175). Accessed January 18, 2005; Wolch J, Wilson JP, Fehrenbach J. *Parks and Park Funding in Los Angeles: An Equity Mapping Analysis*. Sustainable Cities Program, GIS Research Laboratory, University of Southern California. Available at: <http://www.usc.edu/dept/geography/ESPE>. Accessed January 17, 2004; and The Trust for Public Land. *No Place to Play*. Available at: [http://www.tpl.org/tier3\\_cd.cfm?content\\_item\\_id=14565&folder\\_id=266](http://www.tpl.org/tier3_cd.cfm?content_item_id=14565&folder_id=266). Accessed April 30, 2004.



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