

SHAPE Briefing

Physical activity and exercise among Hennepin County children



1998
2002
2006

Number 8

Trends and insights from SHAPE, the Survey of the Health of All the Population and the Environment

Highlights

- Among children aged 6 to 17, boys were significantly more likely than girls to have been physically active for at least an hour, on five or more days in the past week (62.7 percent of boys compared to 53.2 percent of girls).
- Residents of Minneapolis were significantly more likely than those in suburban Hennepin County to report that their adolescents (grades 7 to 12) engaged in no sports activities during a typical school week (37.0 percent compared to 25.7 percent).
- Among adolescents in Grades 7 to 12, nearly 50 percent watch TV, play video games, or use the computer for recreational purposes for two or more hours per day on school days.

Upcoming Issues

- ◆ Chronic conditions among adults
- ◆ Health care access
- ◆ Family connectedness and health

Introduction

This briefing provides key findings on physical activity and exercise among children in Hennepin County. Where possible, it also provides comparisons to state- and national-level data and examines whether there are statistically significant differences for various subgroups within the population. **SHAPE 2006** is the third in a series of surveys collecting information on the health of Hennepin County residents and factors that affect their health. More than 10,000 households in Hennepin County participated in **SHAPE 2006**, providing information on more than 8,000 adults and 4,000 children. An overview of the questionnaire and the data collection strategy for the **SHAPE 2006 - Child Survey** is available in *SHAPE Briefing, Number 3*.

A growing concern: Children's level of physical activity

The **SHAPE 2006 - Child Survey** asked adults to report on several aspects of their child's level of physical activity and exercise. Certain indicators were selected for inclusion in the survey because they are the subject of national health guidelines such as *Healthy People 2010*, they are commonly asked by other national health surveys, for example, the National Survey of Children's Health (NSCH), and/or because there are potential public health prevention and intervention strategies associated with these measures. Overall percentages for Hennepin County children for various indicators of physical activity and exercise are presented in Figure 1.

Figure 1. Various measures of physical activity among Hennepin County children, 2006

SHAPE 2006 - Child Survey	
Physically active	58.0 % of children aged 6 to 17 were active for at least 60 minutes on 5 or more days last week
Sports activities	71.1 % of adolescents in grades 7 to 12 engage in sports activities during a typical school week
Watches TV or plays video and computer games	36.2 % of children aged 6 to 17 watched TV or played video/ computer games for <i>two or more</i> hours on school days
Walks, bikes or skates to school	28.7 % of children in grades 1 to 6 <i>always or often</i> walk, ride a bicycle or skate to school (weather permitting)

Physical activity: Gender is a significant factor

Several items in the *SHAPE 2006 - Child Survey* were used to measure the current level of physical activity among Hennepin County children. These included the number of days per week a child is physically active for at least 60 minutes (for children aged 6 to 17), and whether or not adolescents are engaged in any sports activities during a typical school week (for those in grades 7 to 12).

The results indicate that among children aged 6 to 17 only 6.8 percent were not physically active for at least an hour on any of the past seven days. However, the number of days of physical activity differs significantly by gender.¹ Boys were significantly more likely than girls to have been physically active for at least one hour on five or more days in the past week (62.7 percent of boys compared to 53.2 percent of girls).²

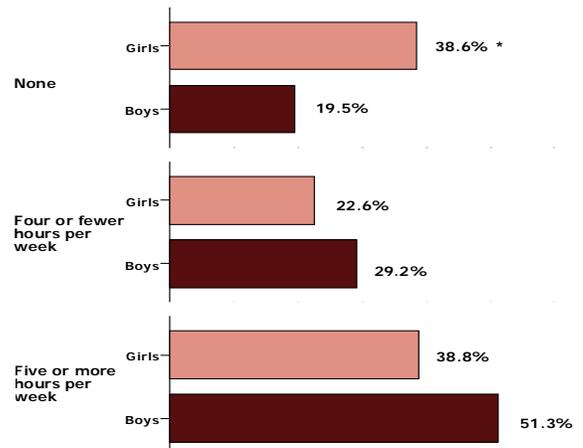
As presented in Figure 2, among adolescents in grades 7 to 12, girls were two times more likely than boys to *not* engage in any sports activities during a typical school week; 38.6 percent of adolescent girls compared to 19.5 percent of adolescent boys do not spend any time engaged in sports activities during a typical school week.

More than two out of three adolescents (71.1 percent) were reported to spend at least some time engaged in sports activities during the school week, but among those who do participate in sports, the average number of hours spent per week is significantly higher for adolescent boys than girls (6.5 hours for boys compared to 4.1 hours for girls).

Location of residence plays a key role in sports activities among Hennepin County children

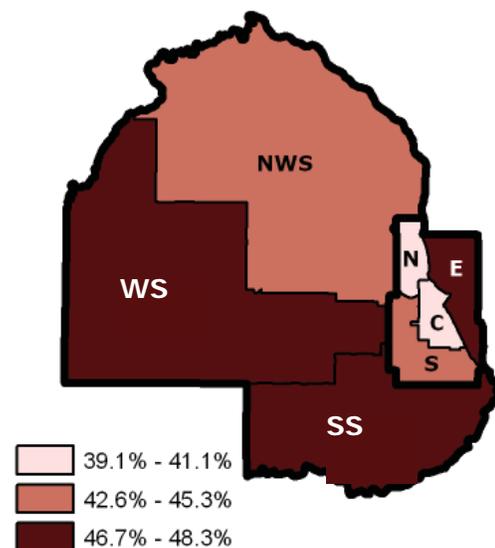
Although not displayed here, similar percentages of children in Minneapolis and suburban Hennepin County were active for at least an hour for five or more days in the past week (55.8 percent and 58.9 percent respectively). However, 10.4 percent of Minneapolis children as compared to 5.2 percent of children in suburban Hennepin County were not physically active on any of

Figure 2. Percent of adolescents in grades 7 to 12 who are engaged in sports activities during a typical school week by gender, Hennepin County, 2006



* Girls in grades 7 to 12 are significantly more likely not to participate in sports activities than boys at $p < 0.05$.
SOURCE: SHAPE 2006

Figure 3. Percentage of adolescents in grades 7 to 12 who are engaged in sports activities for five hours or more during a typical school week by geographic areas, Hennepin County 2006



Geographic Reporting Areas

Minneapolis

N	North Minneapolis
E	East Minneapolis
C	Central Minneapolis
S	South Minneapolis

Suburban Hennepin County

NWS	Northwest Suburbs
WS	West Suburbs
SS	South Suburbs

* Minneapolis North (N) rate is significantly lower than the rates for either the Suburban-South (SS) or the Suburban-West (SW) areas at $p < 0.05$.

the past seven days. Furthermore, residents of Minneapolis were also significantly more likely to report that their adolescents (students in grades 7 to 12) engaged in no sports activities on a typical school week (37.0 percent compared to 25.8 percent for suburban Hennepin County).

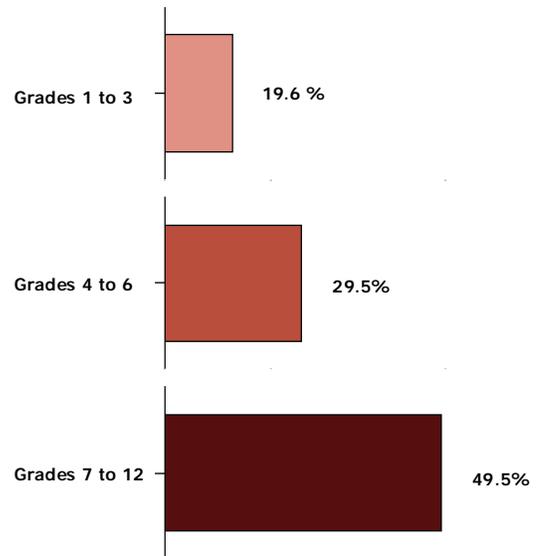
A more detailed analysis by residence is provided in the map found in Figure 3. Here the percent of adolescents who engage in sports activities for five hours or more during a typical school week are displayed for seven geographic areas. As noted in Figure 3, Minneapolis North differs significantly from two of the three suburban areas (the South Suburbs and West Suburbs areas) in terms of the percentages of adolescents who are engaged in sports activities.

Sedentary activities among school-aged children

The *SHAPE 2006 - Child Survey* provides some important insights on the prevalence of sedentary leisure activities among Hennepin County children. The findings indicate that among all children aged 6 to 17, one out of three (36.2 percent) currently watches TV, plays video games or uses a computer for recreational purposes for two or more hours per day on school days. As shown in Figure 4, the percentage of children watching TV, playing video games or using computers for recreational puposes for two or more hours on school days increases among children in the higher grade levels. Among young children in Grades 1 to 3, nearly 20 percent engage in these activities for two or more hours per day. However, in Grades 4 to 6 almost 30 percent of children engaged in these activities for two or more hours per day, and among adolescents in Grades 7 to 12, the percentage engaged in these activities approaches 50 percent.

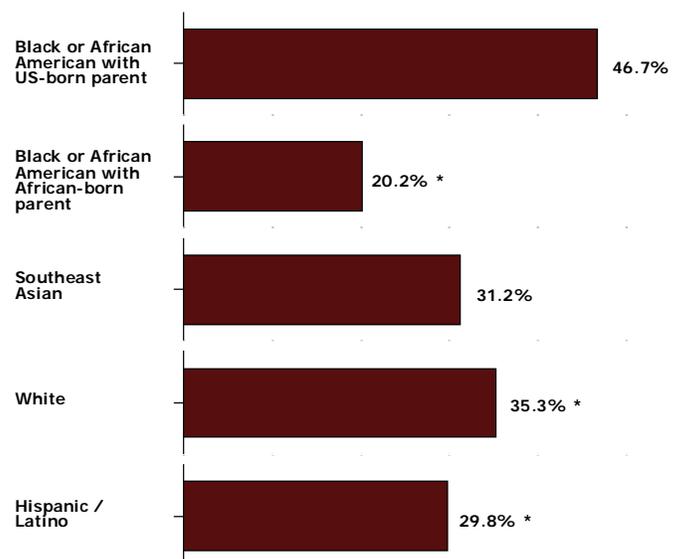
There were also some notable differences detected among diverse racial/ethnic groups in terms of the percentages of children watching TV, playing video games and using computers for recreational purposes for two or more hours on school days. As shown in Figure 5, Black or African American children with US-born parents were more likely to engage in these activities than children from other groups. Nearly half (46.7 percent) of the Black or African American children with US-born parents were reported to be engaged in these activities for two hours per day or more on school days. As noted, statistically significant differences are present among the findings for this group and three of the four other racial/ethnic groups presented in Figure 5. Additionally, although not displayed here, it was found that Black or African American children with

Figure 4. Percentage of children who spend two hours or more playing video games, watching TV or using computers recreationally on school days by grade level, Hennepin County, 2006



SOURCE: SHAPE 2006

Figure 5. Percentage of children who spend two hours of more playing video games, watching TV or using computers recreationally on school days by race/ethnicity, Hennepin County, 2006



* There is a statistically significant difference between this group and the group of Black or African American children with US-born parents at at p<0.05.
SOURCE: SHAPE 2006

African-born parents have the lowest likelihood of engaging in these kinds of sedentary leisure activities. More than one in three (35.7 percent) of the Black or African American children with African-born parents *never* spend any time watching TV, playing video games or using computers for recreational purposes on school days. Among the other groups, the percentages of children who *never* spent time engaged in these activities on school days ranged from 4 to 9 percent.

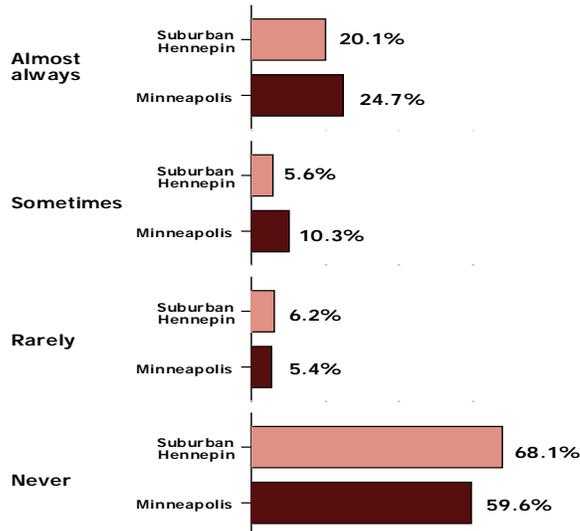
Elementary students: Few are walking, biking or skating to school

As presented in Figure 6, only about one out of five elementary school children in grades 1 to 6 (21.6 percent) walk, ride a bicycle, or skate to school *almost always*. Another 7.1 percent do so *sometimes*. Most children *never* (65.4 percent) or only *rarely* do so (6.0 percent).

However, for those who do walk, bike or skate *almost always* or *sometimes*, a significant difference by residence was detected: Minneapolis students are more likely to walk, bike or skate to school than their suburban counterparts (35.0 percent *almost always* or *sometimes* do so compared to 25.7 percent for suburban children). Yet the overall findings suggest that the majority of Hennepin County elementary school children are not getting the opportunity to acquire an additional number of minutes of physical activity during week days by walking, bicycling or skating to and from school.

A follow-up question was asked regarding children who *never* engaged in walking, riding a bicycle, or skating to school: *What is the main reason your child never walks, rides a bike, or skates to or from school when the weather permits?* The most frequent responses were: *My child lives too far from school* (41.9 percent); or *My child takes the school bus* (36.7 percent).

Figure 6. Percent engaged in walking, bicycling, or skating to/from school (weather permitting) among elementary school students in grades 1 to 6, Hennepin County, 2006



SOURCE: SHAPE 2006

Acknowledgments

The **SHAPE** project would like to thank the many individuals, community organizations, and subject-area experts who provided advice and support for the development of **SHAPE 2006**. A partial list of those who provided assistance to the **SHAPE 2006** project can be found on the **SHAPE** Web site listed below. The **SHAPE** project would especially like to thank the more than 10,000 residents of Hennepin County who generously took the time to complete the **SHAPE** survey.

For More Information

SHAPE 2006 is a collaborative project between the Hennepin County Human Services and Public Health Department and the University of Minnesota School of Public Health.

For more information on this *Briefing* or other topics related to the **SHAPE** project, or to receive this information in an alternate format, please contact SHAPE@co.hennepin.mn.us or 612-348-6150.

www.co.hennepin.mn.us
Search keyword: SHAPE2006

Notes:

- Here and throughout, statistically significant differences were identified at $p < 0.05$.
- The *Youth Risk Behavior Surveillance System* (YRBSS) 2005 used parallel language when asking about physical activity in a survey administered directly to students (as compared to **SHAPE 2006 – Child Survey** which relies on adults reporting on children). The YRBSS also found significant gender differences in the patterns of physical activity. For further comparison please see, *Morbidity and Mortality Weekly – Surveillance Summaries*, US Department of Health and Human Services Centers for Disease Control and Prevention, vol. 55, no. SS-5, (June 9, 2006).
- The state and national statistics reported here are from the 2003 National Survey of Children's Health - Public Use File (NSCH-PUF) The data were downloaded and analyzed by the SHAPE team. Some of these findings were previously reported in: *The Health and Well-being of Children: A Portrait of States and the Nation*, US Department of Health and Human Services, Health Resources & Services Administration, 2005. Minnesota statistics appear on page 71. (Available at: www.cdc.gov/nchs/slats.htm.)



Human Services and
Public Health Department