

The Health and Well-Being of Minnesota's Adolescents of Color and American Indians:

A Data Book

May, 2012



Minnesota Department of Health
Division of Health Policy
Center for Health Statistics

Commissioner's Office
625 Robert St. N., P.O. Box 64975
St. Paul, MN 55164-0975
(651) 201-4989
www.health.state.mn.us



FOR MORE INFORMATION, CONTACT:

Center for Health Statistics
Division of Health Policy
Minnesota Department of Health
P.O. Box 64882
St. Paul, MN 55164-0882

Phone: (651) 201-3504
Fax: (651) 201-5179
TTY: (651) 201-5797
E-mail: HealthStats@state.mn.us

If you require this document in another format, such as large print, Braille or cassette tape, call 651-201-3504.

Printed on recycled paper.

TABLE OF CONTENTS

| CHAPTER | | PAGE |
|---|---|------|
| | List of Tables | iii |
| | List of Figures | iv |
| | Executive Summary | viii |
| Section I – Setting the Stage | | |
| 1 | Introduction | 2 |
| | Organization of This Report | 2 |
| | Data Sources | 3 |
| | Minnesota Student Survey | 3 |
| 2 | The Adolescent Population | 6 |
| 3 | Economic Well-Being and Education | 8 |
| | Income and Poverty | 8 |
| | School Lunch Program | 10 |
| | Education | 11 |
| Section II – Health Status | | |
| 4 | Mortality | 14 |
| 5 | Mental and Emotional Health | 16 |
| | Emotional Distress | 16 |
| | Self-Harm, Suicidal Thoughts and Suicide Attempts | 18 |
| | Chronic Mental and Emotional Health Problems | 20 |
| 6 | Chronic Physical Health Conditions | 22 |
| | Asthma | 23 |
| 7 | Being Overweight or Obese | 24 |
| Section III – Health-Related Behaviors | | |
| 8 | Physical Activity and Healthy Eating | 27 |
| | Physical Activity | 27 |
| | Sedentary Leisure Activities | 30 |
| | Fruits and Vegetables | 31 |
| | Beverages | 32 |
| 9 | Being Hurt by Violence and Engaging in Violence | 36 |
| | Physical and Sexual Abuse | 36 |
| | Date Violence | 38 |
| | Hitting Another Person | 39 |
| | Bringing Weapons to School | 40 |
| | Feeling Too Unsafe to Go to School | 41 |

| | | |
|----|--|----|
| 10 | Tobacco, Alcohol and Drug Use | 43 |
| | Tobacco Use | 43 |
| | Alcohol Use and Binge Drinking..... | 45 |
| | Marijuana Use | 47 |
| 11 | Substance Use by Family Members..... | 49 |
| 12 | Sexual Activity and Health | 52 |
| | Births to Teen Mothers | 52 |
| | Sexual Activity..... | 54 |
| | Self-reported Pregnancy | 56 |
| | Protecting Against Pregnancy and Sexually Transmitted Diseases | 57 |
| 13 | Safety Behavior..... | 60 |
| | Seat Belts | 60 |
| | Driving After Using Alcohol or Drugs | 62 |

Section IV – Protective Factors

| | | |
|----|--|----|
| 14 | Protective Factors – Family and Friend Relationships | 64 |
| | Connection to Parents | 64 |
| | Caring by Other Adults and Friends | 66 |
| 15 | Protective Factors – School and School Environment | 67 |
| | Liking School..... | 67 |
| | Skipping School | 68 |
| | Aspirations for Higher Education | 69 |
| | Perceptions of Teachers | 70 |
| | School Mobility..... | 71 |
| 16 | Protective Factors – Organized Activities | 72 |
| | Athletic Activities | 72 |
| | Arts Activities | 73 |
| | Religious Activities | 74 |
| | Service Learning..... | 74 |
| | Academic Help Programs | 75 |
| | Volunteer Work..... | 75 |

Section V – Health-Related Disparities

| | | |
|----|---|----|
| 17 | Overview of Health-Related Disparities | 77 |
| | Calculating and Using Disparity Ratios | 77 |
| | Economic/Educational Disadvantage, Health Conditions and Health Risk Factors | 78 |
| | Protective Factors and Positive Behaviors..... | 81 |
| | Conclusion | 83 |

List of Tables

| TABLE | PAGE | TABLE | PAGE |
|-------|--|-------|--|
| 1 | Percent of students who marked more than one racial/ethnic group, 2010..... 4 | 8 | Percent of 9th grade students reporting suicidal thoughts, suicide attempts, and physical harm to self during the last year, 2010 (highest rate in bold)..... 19 |
| 2 | Number of students in each racial/ethnic group participating in 2010 Minnesota Student Survey (inclusive definition). 5 | 9 | Percent of 9th grade students who feel that different people care about them “very much” or “quite a bit”, 2010 (lowest rate in bold).....66 |
| 3 | U.S. Census counts of adolescent population (aged 10-19) by race/ethnicity, Minnesota, 2000-2010. 6 | 10 | Disparity Ratios for Economic and Educational Disadvantage, Health Risks, and Health Conditions, for Racial/Ethnic Groups (largest disparities in bold).79 |
| 4 | Minnesota public school students: Primary language spoken at home (top five non-English languages)..... 7 | 11 | Disparity Ratios for Positive Behaviors and Protective Factors, for Racial/Ethnic Groups (largest disparities in bold).....82 |
| 5 | Graduation Status of Minnesota Students Four Years after Entering 9th Grade, 2008-2009. 12 | | |
| 6 | Leading causes of death for Minnesota youth 12-19 years of age between 2005 and 2009, by racial/ ethnic group. 15 | | |
| 7 | Percent of 9th grade students reporting high levels of emotional distress during the last 30 days, 2010 (highest rate in bold)..... 18 | | |

List of Figures

| FIGURE | PAGE | FIGURE | PAGE |
|--------|---|--------|---|
| 1 | Trends in public school K-12 enrollment of students of color (all ages), Minnesota, 1990-2010 7 | 11 | Percent of students with a mental or emotional health problem that has lasted at least 12 months, 2010.....21 |
| 2 | Per capita income by race and ethnic group, Minnesota, 2007-2009... 9 | 12 | Percent of students with a physical health condition or problem that has lasted at least 12 months, 2010.....22 |
| 3 | Federal poverty rate (percent of persons living below poverty level) for adolescents aged 12 to 17 years old, Minnesota, 2007-2009..... 9 | 13 | Percent of students who have ever been told by a doctor or nurse that they have asthma, 201023 |
| 4 | Percentage of K-12 students receiving free or reduced-price lunch, Minnesota, 2007 10 | 14 | Percent of students who are overweight or obese according to self-reported height and weight, 201025 |
| 5 | Deaths per 100,000 for Minnesota youth 12-19 years of age: 2005-2009..... 14 | 15 | Percent of 9th graders who are overweight or obese according to self-reported height and weight, by gender, 2010 25 |
| 6 | Percent who feel nervous, worried or upset “all of the time” or “most of the time” during the last 30 days, 2010 17 | 16 | Percent of students who were physically active for a combined total of at least 30 minutes on five or more of the last seven days, 2010.....27 |
| 7 | Percent of 9th graders who feel nervous, worried or upset “all of the time” or “most of the time” during the last 30 days, by gender, 2010 17 | 17 | Percent of 9th graders who were physically active for a combined total of at least 30 minutes on five or more of the last seven days, by gender, 201028 |
| 8 | Percent who thought about killing themselves during the last year, 2010 18 | 18 | Percent of 9th graders who were physically active for a combined total of at least 30 minutes on five or more of the last seven days, by year, 1998-2010.....28 |
| 9 | Percent of 9th graders who thought about killing themselves during the last year, by gender, 2010 19 | | |
| 10 | Percent of 9th graders who thought about killing themselves during the last year, by year, 1998-2010.....20 | | |

| FIGURE | PAGE | FIGURE | PAGE | | |
|--------|--|--------|------|--|----|
| 19 | Percent of students who engaged in strenuous activity for at least 20 minutes on three or more days in last week, 2010 | 29 | 31 | Percent who were ever hit, hurt or threatened or forced to do something sexual by someone they were going out with, 2010 | 38 |
| 20 | Percent who spend 6 or more hours in a typical week watching TV, DVDs or videos, 2010 | 30 | 32 | Percent who hit or beat up another person at least once in the last year, 2010 | 39 |
| 21 | Percent who spend 6 or more hours in a typical week talking on the phone or texting, 2010. | 31 | 33 | Percent of 9th graders who hit or beat up another person at least once in the last year, by gender, 2010 | 39 |
| 22 | Percent of students who ate five or more servings of fruit, fruit juice or vegetables on the previous day, 2010. | 31 | 34 | Percent of 9th graders who hit or beat up another person at least once in the last year, by year, 1995-2010. | 40 |
| 23 | Percent who drank one or more glasses of milk yesterday, 2010 | 32 | 35 | Percent who carried a weapon on school property one or more days during the last 30 days, 2010 | 41 |
| 24 | Percent who drank one or more glasses of 100% fruit juice yesterday, 2010. | 33 | 36 | Percent of 9th graders who carried a weapon on school property one or more days during the last 30 days, by year, 1995-2010. | 42 |
| 25 | Percent who drank one or more glasses of pop or soda yesterday, 2010. | 33 | 37 | Percent who missed one or more days of school during the last 30 days because they felt unsafe at school or on their way to or from school, 2010 | 42 |
| 26 | Percent of 9th graders who drank one or more glasses of pop or soda yesterday, by gender, 2010 | 34 | 38 | Percent who smoked cigarettes during the last 30 days. | 44 |
| 27 | Percent of 9th graders who drank one or more glasses of pop or soda yesterday, by year, 2001-2010. | 35 | 39 | Percent who smoked cigars, cigarillos or little cigars during the last 30 days, 2010 | 44 |
| 28 | Percent who have ever been hit hard or often by an adult in the household, 2010. | 37 | 40 | Percent of 9th graders who smoked cigarettes during the last 30 days, by year, 2001-2010. | 45 |
| 29 | Percent who have experienced unwanted sexual touching or abuse, 2010 | 37 | 41 | Percent who drank alcohol during the last 30 days, 2010 | 46 |
| 30 | Percent of 9th graders who have experienced unwanted sexual touching or abuse, by gender, 2010 | 38 | | | |

| FIGURE | PAGE | FIGURE | PAGE |
|--------|--|--------|---|
| 42 | Percent who engaged in binge drinking during the past 2 weeks, 2010.....46 | 53 | Percent of 9th graders who have had sexual intercourse one or more times in their lifetime, by year, 1995- 201056 |
| 43 | Percent of 9th graders who engaged in binge drinking during the past 2 weeks, by year, 1995-2010.....47 | 54 | Percent of females who report that they have been pregnant one or more times in their lifetime, 2010.....57 |
| 44 | Percent who smoked marijuana during the last 30 days, 201048 | 55 | Percent of sexually-active youth who have talked with every partner about sexually transmitted diseases, 201058 |
| 45 | Percent of 9th graders who smoked marijuana during the last 30 days, by year 1998-2010.....48 | 56 | Percent of sexually-active youth who have talked with every partner about preventing pregnancy, 2010.....58 |
| 46 | Percent who report that alcohol use by a family member has repeatedly caused problems, 201049 | 57 | Percent of sexually-active youth who report that they or their partner “always” use a condom during sexual intercourse, 201059 |
| 47 | Percent who report that drug use by a family member has repeatedly caused problems, 201050 | 58 | Percent of sexually-active youth who used a condom during most recent sexual intercourse, 201059 |
| 48 | Percent of 9th graders who report that drug use by a family member has repeatedly caused problems, by year, 1995-2010.....51 | 59 | Percent who “always” wear a seat belt when riding in a car, 201061 |
| 49 | Birth rate per 1,000 females aged 15-19, by racial/ethnic group, Minnesota, 2009.....53 | 60 | Percent of 9th graders who “always” wear a seat belt when riding in a car, by year, 1998-201061 |
| 50 | Birth rate per 1,000 females aged 15-19, by racial/ethnic group, Minnesota, 1990-200954 | 61 | Percent of 12th grade students who drove a vehicle after using alcohol or other drugs in past 12 months, 201062 |
| 51 | Percent who have had sexual intercourse one or more times in their lifetime, 201055 | 62 | Percent who feel that their parents care about them “very much”, 201065 |
| 52 | Percent of 9th graders who have had sexual intercourse one or more times in their lifetime, by gender, 2010.....55 | | |

| FIGURE | PAGE | FIGURE | PAGE |
|--------|--|--------|--|
| 63 | Percent who feel that they can talk to their mother about problems “most” or “some” of the time, 201065 | 74 | Percent who participate on club or community sports teams one or more times per week, 201073 |
| 64 | Percent who feel that they can talk to their father about problems “most” or “some” of the time, 201066 | 75 | Percent who participate in arts activities (band, choir, dance, drama, private lessons) one or more times per week, 201073 |
| 65 | Percent who like going to school “very much” or “quite a bit”, 201067 | 76 | Percent who participate in religious activities one or more times per week, 201074 |
| 66 | Percent of 9th graders who like going to school “very much” or “quite a bit”, by gender, 2010.....68 | 77 | Percent who participate in service learning projects one or more times per week, 2010.....74 |
| 67 | Percent who skipped full days of school one or more times in the last 30 days, 201068 | 78 | Percent who participate in academic help programs one or more times per week, 2010.....75 |
| 68 | Percent of 9th graders who skipped full days of school one or more times in the last 30 days, by year, 1995-201069 | 79 | Percent who spend one or more hours in a typical week doing volunteer work, 2010.....75 |
| 69 | Percent who plan to go to college or graduate school, 201069 | | |
| 70 | Percent who report that “all” or “most” of their teachers show respect for students, 2010.....70 | | |
| 71 | Percent who report that “all” or “most” of their teachers are interested in them as a person, 201070 | | |
| 72 | Percent who have changed schools at least once since the beginning of the school year, 201071 | | |
| 73 | Percent who participate on school sports teams one or more times per week, 201072 | | |

EXECUTIVE SUMMARY



The Health and Well-Being of Minnesota's Adolescents of Color and American Indians:

A Data Book

The purpose of this report is to promote broader understanding of the health and well-being of adolescents from the African American, American Indian, Asian, and Hispanic communities. These communities now account for over one-fourth of all public school students in the state. Minnesota cannot thrive without their contributions as future leaders, innovators, workers, business owners, and parents. The health and well-being of adolescents influences how well they grow, learn and thrive as teens and become healthy and productive citizens as adults.

This report presents data on social conditions affecting health, health status, health behaviors, protective factors, and an overall summary of health disparities. The primary source of data is the Minnesota Student Survey, supplemented by data from the Minnesota Departments of Health and Education and the U.S. census.

Social Conditions Affecting Health

Socioeconomic factors such as poverty and lack of educational progress are strongly associated with many aspects of health and well-being.

- Poverty rates for adolescents are three to five times higher in the African American (39.8%), American Indian (32.5%), Asian (27.3%), and Hispanic communities (26.0%) than in the White community (7.9%).
- Failure to graduate from high school in four years is two to three times higher in communities of color compared to the White community. (Chapter 3)

Health Status

Indicators of mental, emotional and physical health status show wide differences among racial/ethnic groups in Minnesota.

- The mortality rate for American Indian youth 12-19 years old is more than twice as high as any other racial/ethnic group. African American youth have the second highest mortality rate. (Chapter 4)
- African American, American Indian, Asian and Hispanic students are much more likely than White students to report frequent emotional distress, including sadness, nervousness, high stress, and hopelessness. These groups all report higher rates of suicidal thoughts than White students. (Chapter 5)
- African American and American Indian students report the highest rates of chronic physical health problems in general and asthma in particular. Asian students report the lowest rates. (Chapter 6)

- Nearly one-third of African American, American Indian and Hispanic 9th and 12th grade students are overweight or obese, according to their self-reported height and weight. (Chapter 7)

Health-Related Behaviors

A wide variety of behaviors can have immediate and/or long-term impacts on health and vary widely among adolescents from different racial/ethnic groups.

- Students of color in general are somewhat less likely than White students to participate in moderate and strenuous physical activity. (Chapter 8)
- African American, American Indian, Asian and Hispanic students are more likely than White students to have experienced physical or sexual abuse. African American, American Indian and Hispanic students are more likely than other racial/ethnic groups to report hitting or beating up another person, carrying a weapon on school property, being the victim of physical or sexual date violence, and missing school because they feel unsafe. (Chapter 9)
- Asian students report the lowest rates of tobacco, alcohol and marijuana use of any racial/ethnic group. (Chapter 10) Asian students are also less likely than other groups to report that alcohol use by a family member has caused repeated problems for the family. (Chapter 11)
- The teen birth rates for African American, American Indian and Hispanic teens aged 15-19 are four to six times higher than the teen birth rate for White teens. Among 12th graders Asian students are the least likely of all racial/ethnic groups to report being sexually active. (Chapter 12)

- The percent of 6th and 9th grade students who always wear a seat belt is highest among White students and lowest among Hispanic students. (Chapter 13)

Protective Factors

Protective factors are events or experiences in an adolescent's life that reduce the likelihood of health risks and negative outcomes. Key protective factors explored in this study are: (1) connections with family, friends and community; (2) connections with school; and (3) participation in organized activities.

- Students from all racial/ethnic groups feel that their parents and other relatives care about them. But students of color are much less likely than White students to feel that teachers and school personnel, religious leaders, and other adults in the community care about them. (Chapter 14)
- African American, Asian and Hispanic students are somewhat more likely than White students to say that they like going to school. Large majorities of students from all racial/ethnic groups hope to go to college. However, students from all communities of color are more likely than White students to report skipping school and to report that they have changed schools during the school year. (Chapter 15)
- Students in the African American, American Indian, Asian and Hispanic communities are much less likely than White students to participate in school sports, community or club sports, organized arts activities and lessons, and organized religious activities, but are more likely than White students to participate in service learning projects and academic help programs. (Chapter 16)

Trends

Since the 1990's, students from all racial/ethnic groups have experienced substantial declines in: smoking cigarettes, engaging in binge drinking, engaging in sexual activity, hitting or beating up another person, carrying a weapon on school property, drinking pop or soda, and riding in a car without wearing a seat belt.

Health-Related Disparities

In general, this study shows that the sharpest disparities for most of the measures of health status and health risk behaviors are found in the African American, American Indian, and Hispanic communities (chapters 4-13). White or Asian students have the lowest rates for most of the health status and health risk behavior factors. (Chapter 17)

Conclusion

This study provides fresh information about wide differences in the health and well-being of adolescents from the major racial/ethnic groups in Minnesota, and suggests where those differences are most severe. Results from this study and similar efforts can help to establish priorities, develop policies and programs, and evaluate progress in improving health and reducing health disparities among racial/ethnic groups.

This study also yields some general strategic considerations. Economic and educational differences among racial/ethnic groups are very deep and must be addressed if we are to achieve lasting improvements in adolescent health. The decline in some key health risk behaviors among adolescents of all racial/ethnic groups since the 1990's shows that progress can be made and gives us hope that disparities can be minimized.

Section I – Setting the Stage



Section Table of Contents

| | |
|--|----|
| CHAPTER 1: Introduction | 2 |
| Organization of This Report | 2 |
| Data Sources | 3 |
| Minnesota Student Survey | 3 |
| CHAPTER 2: The Adolescent Population | 6 |
| CHAPTER 3: Economic Well-Being and Education | 8 |
| Income and Poverty | 8 |
| School Lunch Program | 10 |
| Education | 11 |

Chapter 1.

Introduction

The purpose of this report is to promote greater understanding of the health and well-being of adolescents from the African American, American Indian, Asian, and Hispanic communities in Minnesota.¹ Results from this study and similar efforts can be used to establish priorities, develop policies and programs, and evaluate progress in the improvement of health conditions among all racial/ethnic groups.

The number of young people from communities of color has more than doubled since 1990, and currently one-fourth of public school students in Minnesota are students of color or American Indian students.² These young people will help shape Minnesota's future as leaders, innovators, workers, business owners, and parents. Our state can only be successful in securing that future and advancing the health and well-being of all adolescents if we pay close attention to the thoughts, feelings, experiences and behaviors of Minnesota's young people of color.

Organization of This Report

While this report works best as a comprehensive picture of adolescent health, each chapter is designed to stand alone and can be used as a source of data on a single topic.

Section I provides important background information for the report. We look at adolescent population trends in Minnesota (chapter 2) and key social conditions that can affect health (chapter 3).

Section II establishes the health status of young people from different racial/ethnic groups. It begins with information on mortality rates and causes of death (chapter 4), followed by a discussion of mental and emotional health (chapter 5), a brief discussion of chronic physical health conditions (chapter 6), and finally data on overweight or obese youth (chapter 7).

¹ The Center for Health Statistics has produced many reports on the health of racial/ethnic populations in Minnesota, most notably the Populations of Color Health Status Report. These are available on the web at <http://www.health.state.mn.us/divs/chs/raceethn/index.htm>.

² Minnesota Department of Education's annual enrollment files are available on the web at <http://education.state.mn.us/MDEAnalytics/Data.jsp>. See Figure 1 later in this report.

Section III examines a wide variety of behaviors that affect health in the short term or long term. In order, these include physical activity and healthy eating (chapter 8), violence and being the victim of violence (chapter 9), tobacco, alcohol and drug use (chapter 10), substance use by other family members (chapter 11), sexual activity (chapter 12), and safety-related behaviors (chapter 13).

Section IV examines protective factors that are thought to lead to positive health outcomes or reduce the likelihood of poor health and risky health behaviors. We begin with information on an adolescent's relationships with family and friends (chapter 14), and then move on to school and the school environment (chapter 15), and organized activities that typically take place outside the traditional classroom (chapter 16).

Finally, Section V pulls all this information together into an overall picture of health disparities among racial/ethnic groups (chapter 17).

Data Sources

Most of the data for this report come from the Minnesota Student Survey. Additional information about health outcomes was provided by the Vital Statistics program of the Minnesota Department of Health (MDH), which maintains data on mortality rates, causes of death, and births to teen mothers. Poverty, income and graduation statistics were obtained from the U.S. Census Bureau and the Minnesota Department of Education.

Minnesota Student Survey

The Minnesota Student Survey (MSS) has been conducted every three years since 1989 and is a joint effort of the Minnesota Departments of Education, Health, Human Services and Public Safety. Nearly 90 percent of public school districts in Minnesota participate, and all 6th, 9th and 12th grade public school students in those districts are invited to take the anonymous survey. The survey includes questions about physical activity, nutrition, violence and safety, general health, tobacco/alcohol/drug use, connections with school and family, and other topics. The high school version of the survey also asks about gambling, sexual activity, and the use of many kinds of illegal drugs. In 2010, 79 percent of all 6th graders, 75 percent of all 9th graders, and 59 percent of all 12th graders enrolled in regular public schools in Minnesota took the survey. The MSS is also conducted in alternative schools and juvenile correctional facilities, but those results are reported separately and are not included in this report.³

³ A variety of tables and reports based on the MSS are available on the MDH web site at <http://www.health.state.mn.us/divs/chs/mss>. These include: statewide tables of survey results for regular public schools, alternative schools, and juvenile correctional facilities; statewide tables for major racial-ethnic groups; county and regional tables; a comprehensive report on trends titled Minnesota Student Survey: 1992-2010 Trends; and many special reports.

Beginning in 1995, students were given the option of marking more than one racial/ethnic group in answering the question about race/ethnicity. The question reads as follows:

How do you describe yourself?

(If more than one describes you, mark all that apply)

- American Indian
- Black, African or African American
- Mexican American or Chicano/Chicana
- Puerto Rican or other Latin American
- Asian American or Pacific Islander
(including Cambodian, Hmong, Korean, Laotian, Vietnamese)
- White
- I don't know

(To shorten the labels, in this report we use "African American" to refer to students who checked the 2nd response above, "Hispanic" for students who checked either the 3rd or 4th response, and "Asian" for those who checked the 5th response.)

Many students do in fact choose to indicate more than one group. Table 1 shows the percent of students who marked more than one racial/ethnic group on the 2010 MSS. Two-thirds of students who checked American Indian also checked one or more additional racial/ethnic groups; the most typical combination was American Indian and White. Similarly, nearly one-third of those who checked African American or Hispanic, and one-sixth of those who checked Asian also marked one or more additional groups. Only about 7 percent of White students indicated that they were also of some other race or ethnicity. While the new race/ethnicity question

TABLE 1. Percent of students who marked more than one racial/ethnic group, 2010.

| Of all students who marked the following groups | Percent marking more than one racial/ethnic group | | | |
|---|---|---------|----------|-------|
| | Grade 6 | Grade 9 | Grade 12 | Total |
| African American | 30.0% | 36.1% | 27.4% | 31.7% |
| American Indian | 65.9% | 73.6% | 71.4% | 69.7% |
| Asian | 16.2% | 18.2% | 15.1% | 16.7% |
| Hispanic | 28.4% | 31.6% | 32.3% | 30.4% |
| White | 8.2% | 8.0% | 5.5% | 7.3% |

Source: Minnesota Student Survey, 2010

introduced in 1995 allows students to acknowledge their full racial/ethnic heritage, it also raises the difficult question of how to report results for students who mark two or more racial/ethnic groups.

In this report we use an “inclusive” definition of racial/ethnic groups when reporting MSS results. With this method, all students who checked African American are counted and tabulated with the African American data, even if they also checked one or more other groups. The same is done for American Indian, Asian, Hispanic, and White students. The drawback of this method is the overlap that is created because some students are counted two or more times. The strength of this method is that it doesn’t leave out or discard anyone from the groups that they checked. Combining all students who checked two or more groups into a “multiracial” category is an unsatisfactory solution that would pull these students out of all the specific groups they indicated. Using the inclusive definition, the number of cases upon which the 2010 MSS results are based in this report is shown in Table 2.

TABLE 2. Number of students in each racial/ethnic group participating in 2010 Minnesota Student Survey (inclusive definition).

| African American | | | | |
|------------------|-------|-------|-------|-------|
| American Indian | 2,901 | 2,387 | 1,152 | 6,440 |
| Asian | | | | |
| Hispanic | 3,353 | 3,137 | 1,677 | 8,167 |
| White | | | | |

Source: Minnesota Student Survey, 2010

The MSS does not ask about immigration status or about specific ethnic or nationality groups such as Hmong, Chinese, or Somali. Thus, the African American group includes students from Somalia, Ethiopia and other African countries as well as U.S.-born African Americans. We recognize that there may be health differences between these subgroups within the broader African American population.

Chapter 2.

The Adolescent Population

4 Minnesota Department of Education's enrollment files for 1990-1991 and 2010-2011, available on the web at <http://education.state.mn.us/MDEAnalytics/Data.jsp>.

* In the 2000 and 2010 U.S. Census, each person can be classified as belonging to one race or to more than one race. In this table, "Black/African American alone" indicates teens who were recorded as Black or African American and no other race. "White alone" includes those recorded as "White" and no other race. All who were recorded as more than one race are counted in the "Two or more races" category.

** Many adolescents of American Indian heritage are found in the "Two or More Races" category. The "American Indian alone" category underestimates the number of youth of American Indian heritage.

*** The Census asks one question about race and another about Hispanic ethnicity. Race and ethnicity are treated as different concepts. A person who checked "Hispanic" may also be counted in one of the race groups above, or they may have checked "Other" race.

Minnesota's population of youth aged 10-19 years old was about 720,000 in 2010, a decrease of 3.9 percent since 2000. The population would have fallen even farther were it not for strong growth in many communities of color. The number of White youth fell by 83,000 between 2000 and 2010. The number of youth recorded as being of two or more races doubled in just ten years, and the number of Hispanic and African American youth increased by 79 percent and 42 percent respectively. The Asian youth population increased more slowly by 17 percent. (Table 3) The State Demographer's Office projects continued growth for these populations of color through 2030.⁴

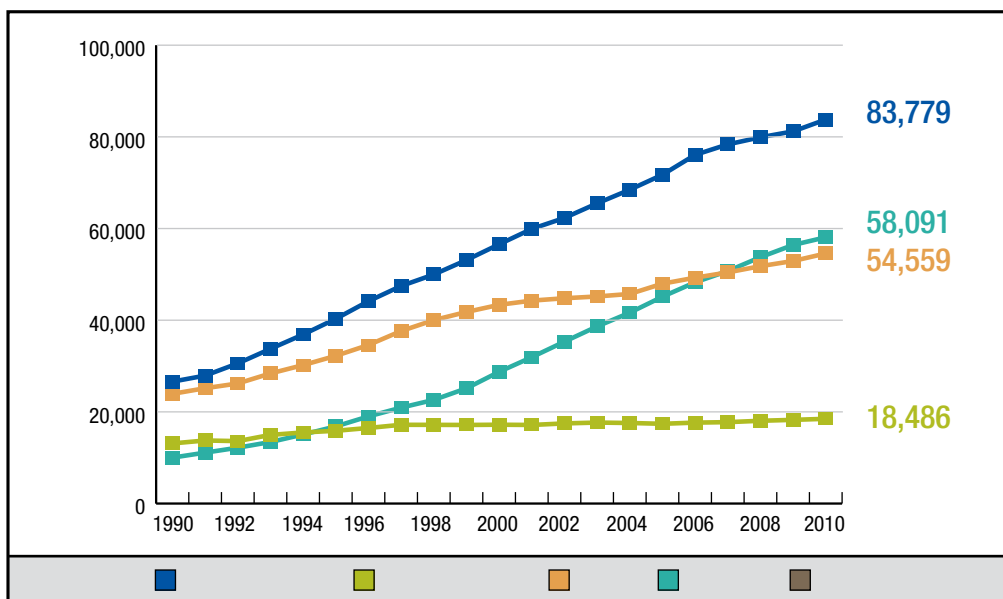
TABLE 3. U.S. Census counts of adolescent population (aged 10-19) by race/ethnicity, Minnesota, 2000-2010.

| | U.S. Census Actual Counts | | Percent Change |
|-------------------------------|---------------------------|---------|----------------|
| | 2000 | 2010 | 2000-2010 |
| Total Population Aged 10-19 | 749,357 | 720,171 | -3.9% |
| Race* | | | |
| Black/African American alone | 34,747 | 49,453 | 42.3% |
| American Indian alone** | 11,975 | 10,954 | -8.5% |
| Asian/Pacific Islanders alone | 32,079 | 37,601 | 17.2% |
| White alone | 655,735 | 572,823 | -12.6% |
| Two or more races | 14,821 | 30,343 | 104.7% |
| Ethnicity*** | | | |
| Hispanic (any race) | 26,292 | 46,941 | 78.5% |

Source: U.S. Census 2000 and 2010.

The number of students of color enrolled in Minnesota’s public schools has risen steadily in the past two decades. Hispanic student enrollment is now five times larger than it was in 1990, and is now surpassed only by African American students among populations of color. African American enrollment has tripled, in part due to the arrival of thousands of immigrants and refugees from Somalia, Ethiopia and other African countries. Asian/Pacific Islander enrollment has more than doubled. (Figure 1) In the 2010-11 school year, students from communities of color and the American Indian community accounted for one quarter (25.7%) of all public school students, up from about 10 percent in 1990-91.⁵

FIGURE 1. Trends in public school K-12 enrollment of students of color (all ages), Minnesota, 1990-2010.



Source: Minnesota Department of Education

⁵ Minnesota Department of Education’s enrollment files for 1990-1991 and 2010-2011, available on the web at <http://education.state.mn.us/MDEAnalytics/Data.jsp>.

The families of many students of color came to this country as immigrants or refugees. For over 99,000 public school students in Minnesota (12.1% of the total student population), the primary language spoken at home is not English. Spanish, Hmong and Somali are the most common non-English languages spoken. (Table 4) The majority of Hispanic and Asian students, and nearly 20 percent of the African American students, come from homes where English is not the primary language spoken.

TABLE 4. Minnesota public school students: Primary language spoken at home (top five non-English languages).

| NUMBER OF STUDENTS | |
|--------------------|--------|
| Spanish | 36,950 |
| Hmong | 21,470 |
| Somali | 11,171 |
| Vietnamese | 3,723 |
| Russian | 2,595 |

Source: Minnesota Department of Education, 2009-2010 school year

Chapter 3.

Economic Well-Being and Education

⁶ A good summary of recent research can be found in Robert Wood Johnson Foundation. How Social Factors Shape Health: Income, Wealth and Health. Published as part of the Issue Brief Series titled Exploring the Social Determinants of Health, April 2011. The Issue Brief Series can be found online at <http://www.rwjf.org/vulnerablepopulations/product.jsp?id=72455>.

⁷ ClearWay Minnesota and Minnesota Department of Health. Tobacco Use in Minnesota: 2010 Update. February 2011. Available on the web at <http://www.mnadulttobaccosurvey.org>.

⁸ Blue Cross and Blue Shield of Minnesota Foundation and Amherst H. Wilder Foundation. The Unequal Distribution of Health in the Twin Cities. October 2010.

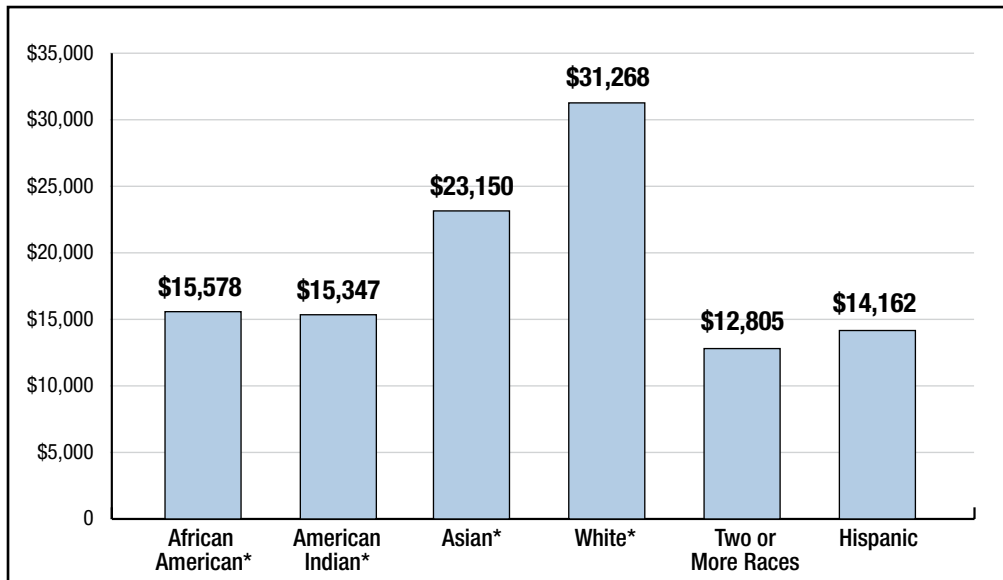
Income and Poverty

Young people growing up in low-income families face a greater likelihood of premature death, chronic disease, and disability than their more affluent peers. Growing up in poverty often is accompanied by a range of social conditions that affect health, including reduced access to health care, living in substandard housing and in unsafe neighborhoods, inability to afford nutritious foods, and chronic stress.⁶ Low-income individuals are also more likely to engage in certain health risk behaviors, such as smoking.⁷ Low incomes and persistent poverty contribute greatly to the health disparities that affect communities of color and American Indians.⁸

Per capita income is defined as annual household income divided by the number of persons in the household. Figure 2 shows that communities of color have much less income per household member than the White community. In Minnesota, per capita income in African American, American Indian, Multiple Race, and Hispanic households is about half or less than half that of White households. (Figure 2)

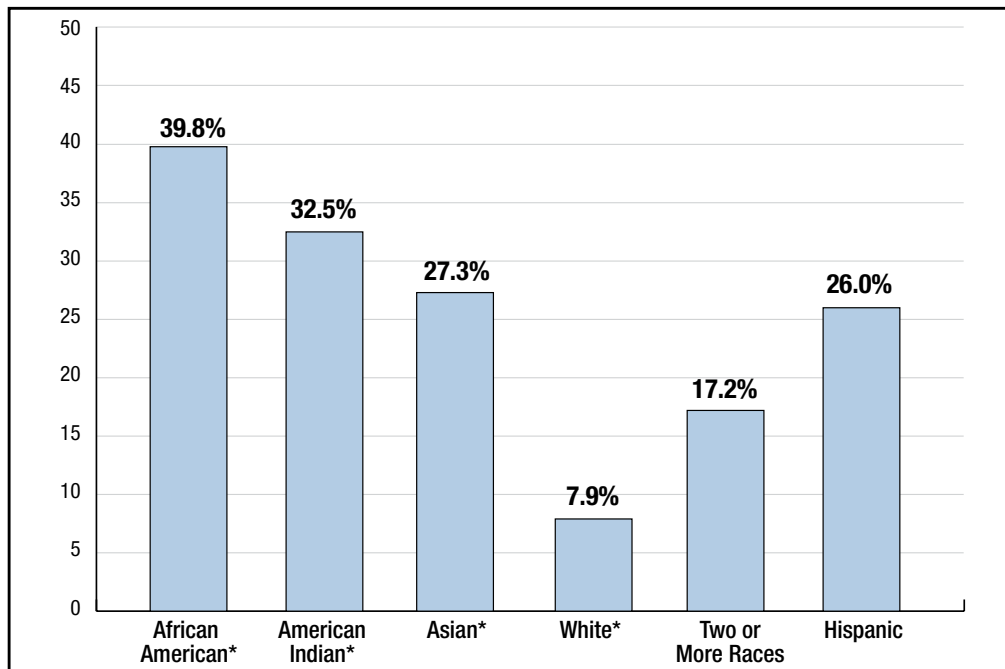
The federal poverty level is the most commonly reported and available measure of poverty. In Minnesota, 39.8 percent of African American adolescents aged 12 to 17 live in households with incomes below the poverty level. African American adolescents are five times more likely to be living in poverty compared to White adolescents, and American Indian, Asian and Hispanic adolescents are three to four times more likely to be living in poverty than White youth. (Figure 3) In 2009, a family of four would be defined as living below the poverty level if their total household income from all sources was \$22,050 or less for the year.

FIGURE 2. Per capita income by race and ethnic group, Minnesota, 2007-2009.



*Includes only persons who were recorded under one race.
Source: American Community Survey, 2007-2009

FIGURE 3. Federal poverty rate (percent of persons living below poverty level) for adolescents aged 12 to 17 years old, Minnesota, 2007-2009.

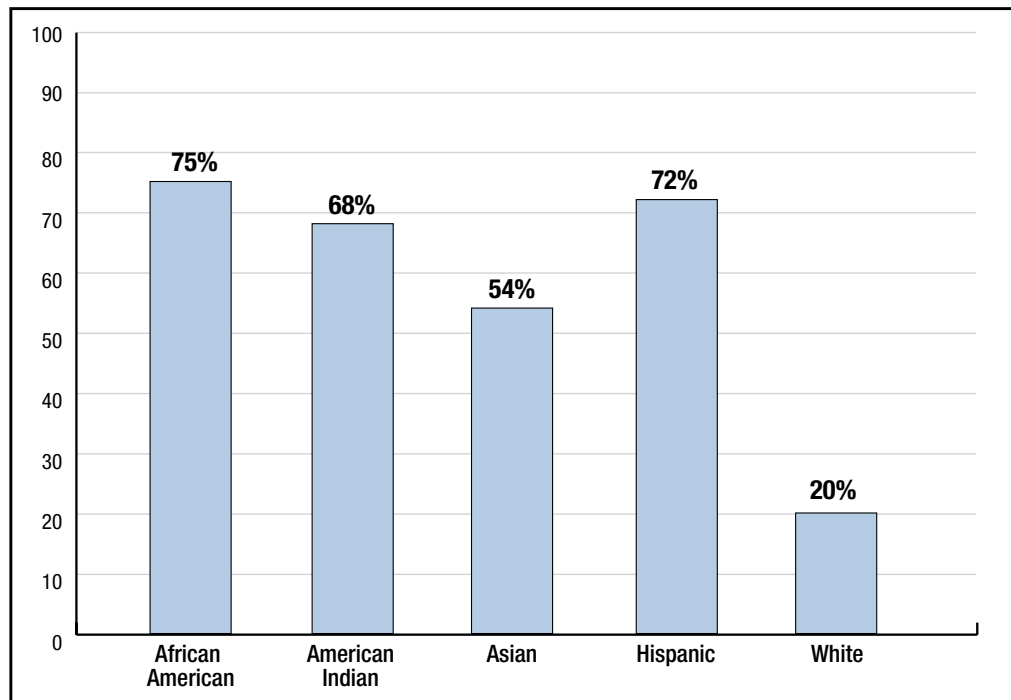


*Includes only persons who were recorded under one race.
Source: American Community Survey, 2007-2009

School Lunch Program

Eligibility for the Federal School Lunch Program provides another indicator of low-income. The school lunch program provides lunches at no cost for students with household incomes below 130 percent of the poverty level and at a reduced price for students between 130 percent and 185 percent of the poverty level. (A family of four with household income of \$40,793 in 2009 would be at 185% of the poverty level.) In Minnesota's K-12 public schools, well over one-third of students (36.7%) received free or reduced-price lunch in the 2010-2011 school year. Over two-thirds of African American, American Indian, and Hispanic students have household incomes low enough for them to be eligible for free or reduced-price lunches, compared to just 20 percent of White students. (Figure 4)

FIGURE 4. Percentage of K-12 students receiving free or reduced-price lunch, Minnesota, 2007.



Source: Minnesota Department of Education, 2007, as presented in Minnesota Minority Education Partnership, State of Students of Color and American Indian Students, 2009.

Education

The extent and quality of one's education has a powerful effect on present and future health outcomes. The impact of education can be direct, as when greater knowledge and skills enable one to make good health and lifestyle decisions and better navigate the intricacies of the health care system. The impact can be indirect, as when education shapes one's occupational and income prospects and therefore one's ability to obtain good health insurance, to live in safe neighborhoods, to purchase fresh foods, and to enjoy meaningful work. Within the school setting, lack of success in school and growing alienation from school can feed into unhealthy risk behaviors. Health issues, in turn, can affect educational success. Health problems and learning disabilities acquired through preterm or low-weight births, fetal alcohol exposure, lead poisoning, poor nutrition, lack of dental care and other conditions can make school more difficult.

Far too many students from American Indian communities and communities of color are not doing well in school, according to standardized tests. The pattern begins early. In the Kindergarten Readiness Study, conducted by the Minnesota Department of Education, minority youngsters (and low-income youngsters in general) are more likely to be judged "not ready" for kindergarten than their White and/or more affluent peers. The Readiness Study assesses a sample of incoming kindergarten students in the areas of physical development, the arts, personal and social development, language and literacy, and mathematical thinking.⁹ On the Minnesota Comprehensive Assessment (MCA) reading tests, a large gap in the percentage of students who are "proficient" in reading can be found in the earliest tests (3rd grade), and the gap remains large into middle and high school.¹⁰

Disparities in educational achievement during the early and middle school years eventually show up in lower rates of on-time graduation among students of color. Because of student mobility in and out of school districts, it can be difficult to calculate reliable graduation rates. Minnesota is moving to a system in which graduation within four years of entering 9th grade is the standard measure of graduation on-time. All students, including new English Language Learners and Special Education students are included in these calculations. As Table 5 shows, fewer than half of the African American, American Indian and Hispanic students who enter the 9th grade in Minnesota are known to graduate within four years. Many students are counted as having dropped out or as continuing to go to school beyond the four-year period. The graduation status of some students is simply unknown. (Table 5)

9 Minnesota Department of Education, Minnesota School Readiness Study – 2009 Technical Report.

10 Minnesota Minority Education Partnership, State of Students of Color and American Indian Students, 2009.

TABLE 5. Graduation Status of Minnesota Students Four Years after Entering 9th Grade, 2008-2009.

| | Non-Hispanic Black | American Indian | Asian | Hispanic | Non-Hispanic White |
|----------------------|--------------------|-----------------|--------|----------|--------------------|
| Graduated | 44.0% | 41.3% | 68.0% | 45.2% | 82.4% |
| Dropped Out | 10.9% | 19.3% | 5.7% | 16.9% | 3.7% |
| Continuing in School | 33.1% | 26.9% | 17.4% | 24.6% | 9.9% |
| Unknown | 12.1% | 12.6% | 8.9% | 13.3% | 4.1% |
| TOTAL | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% |

Source: Minnesota Department of Education

Another sign of educational difficulties is disproportionate enrollment in alternative schools. Many students of color move out of regular public schools and into alternative schools or area learning centers. These schools or programs attract students who for whatever reason have not been doing well in regular schools. Over 11,000 high school students are enrolled in alternative schools and area learning centers.¹¹ Students of color make up 44 percent of those enrolled in alternative schools compared to 22 percent of those enrolled in regular high schools.

11 Minnesota Department of Education enrollment figures for school classification numbers 41, 42, and 43, 2010-2011 school year.

Section II – Health Status



Section Table of Contents

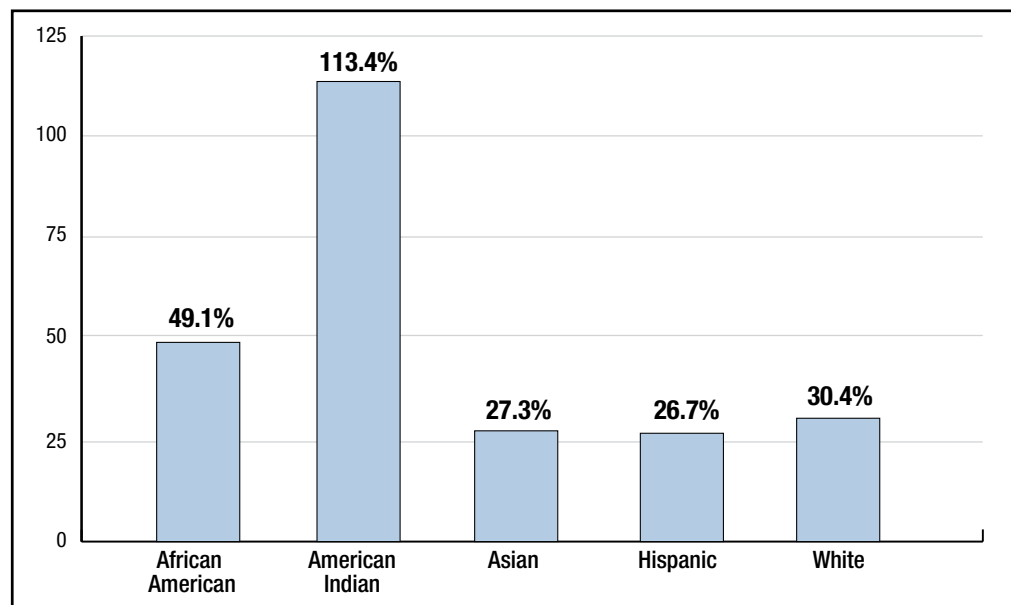
| | |
|--|----|
| CHAPTER 4: Mortality | 14 |
| CHAPTER 5: Mental and Emotional Health | 16 |
| Emotional Distress | 16 |
| Self-Harm, Suicidal Thoughts and Suicide Attempts | 18 |
| Chronic Mental and Emotional Health Problems | 20 |
| CHAPTER 6: Chronic Physical Health Conditions | 22 |
| Asthma | 23 |
| CHAPTER 7: Being Overweight or Obese..... | 24 |

Chapter 4.

Mortality

During the five-year period between 2005 and 2009, 981 Minnesota teens aged 12-19 died. American Indian youth had by far the highest mortality rate, at 113 deaths per 100,000 population per year over the five-year period. African American youth had the next highest mortality rate, at 49 per 100,000. The mortality rates for Asian, Hispanic, and White youth were similar to one another at 30 deaths per 100,000 or below. (Figure 5)

FIGURE 5. Deaths per 100,000 for Minnesota youth 12-19 years of age: 2005-2009.



Source: Minnesota Center for Health Statistics

The three leading causes of death for all Minnesota youth aged 12-19 are unintentional injuries (primarily motor vehicle accidents), suicide, and homicide. For American Indian, Asian, Hispanic, and White youth 12-19 years of age, unintentional injuries was indeed the leading cause of death between 2005 and 2009. Unintentional injuries accounted for between 27 and 48 percent of all deaths among youth aged 12-19 in these racial-ethnic groups.

However, the leading cause of death among African American youth was homicide, accounting for over one-third of all deaths. The actual number of youth homicides in the African/African American community was higher than in any other racial/ethnic group, including the far more populous White community. Homicide also accounted for a much larger share of the number of deaths in the American Indian, Asian, and Hispanic communities when compared to the White community. (Table 6)

TABLE 6. Leading causes of death for Minnesota youth 12-19 years of age between 2005 and 2009, by racial/ ethnic group.

| | African American | | American Indian | | Asian | | Hispanic | | White | |
|------------------------|------------------|------|-----------------|------|-------|------|----------|------|-------|------|
| | N | % | N | % | N | % | N | % | N | % |
| Unintentional Injuries | 13 | 14% | 22 | 38% | 10 | 27% | 11 | 31% | 369 | 48% |
| Suicide | 12 | 13% | 9 | 16% | 8 | 22% | 7 | 19% | 165 | 22% |
| Homicide | 34 | 35% | 16 | 28% | 8 | 22% | 6 | 17% | 23 | 3% |
| Cancer* | 9 | 9% | 2 | 3% | 3 | 8% | 1 | 3% | 63 | 8% |
| All Other | 28 | 29% | 9 | 16% | 8 | 22% | 11 | 31% | 146 | 19% |
| TOTAL | 96 | 100% | 58 | 100% | 37 | 100% | 36 | 100% | 766 | 100% |

*Cancer was among the top four leading causes of death for all groups except Hispanics. Among Hispanic youth, there were 2 deaths due to heart disease, 2 due to chronic lower respiratory disease, and 1 due to diabetes.

Source: Minnesota Center for Health Statistics Vital Records

Chapter 5.

Mental and Emotional Health

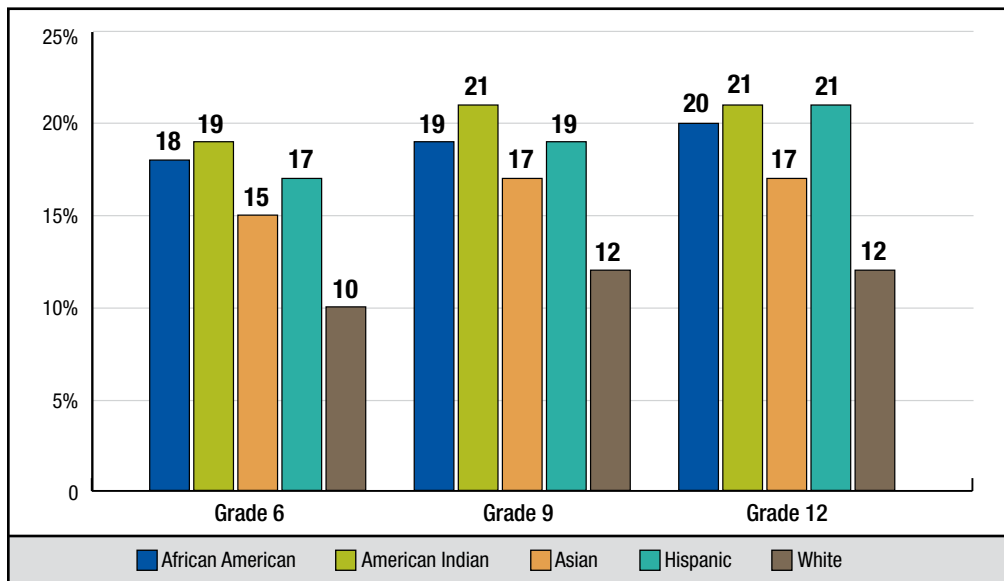
The World Health Organization defines mental health as a “state of well-being in which the individual realizes his or her own abilities, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution to his or her community.” Mental or emotional health problems can affect an adolescent’s ability to develop and learn and to make sound decisions about behavior. Mental or emotional health problems can also lead to immediate physical dangers, through “cutting” and other forms of self-harm and through suicide attempts.

The Minnesota Student Survey asks questions about: (1) emotional health and distress, (2) self-harm, suicidal thoughts, and suicide attempts, and (3) chronic mental or emotional health problems. As discussed in the previous chapter, suicide is the second leading cause of death among adolescents.

Emotional Distress

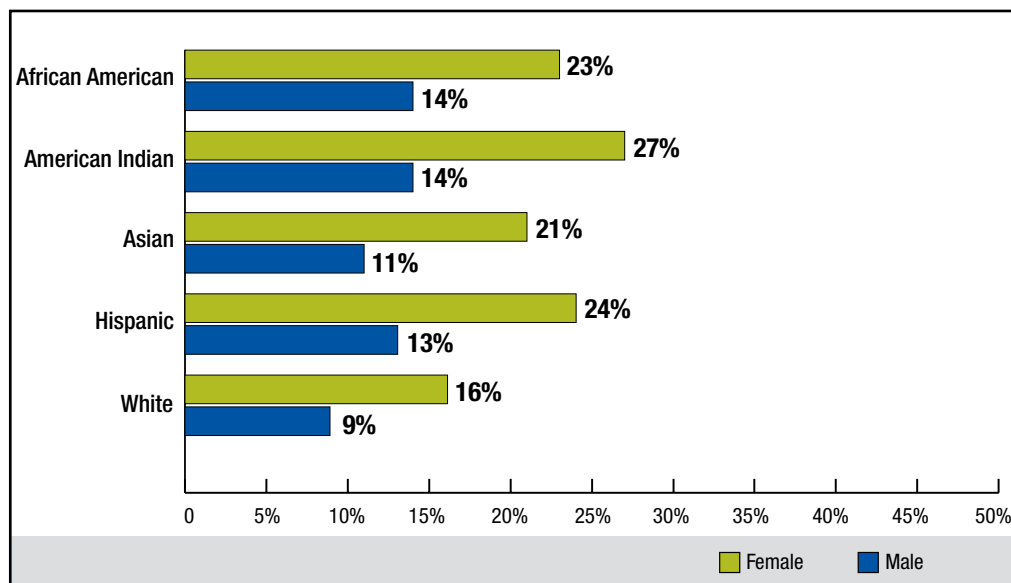
African American, American Indian, Asian and Hispanic students are more likely to report experiencing various kinds of emotional distress than White students. Figure 6 shows the results for those who report feeling nervous, worried or upset “most of the time” or “all of the time” during the last 30 days. For example, 21 percent of American Indian and Hispanic 12th graders report that they frequently feel nervous, worried or upset, compared to 12 percent of White students. (Figure 6) In each racial/ethnic group, 9th grade females are twice as likely as 9th grade males to report that they often feel nervous, worried or upset. (Figure 7)

FIGURE 6. Percent who feel nervous, worried or upset “all of the time” or “most of the time” during the last 30 days, 2010.



Source: Minnesota Student Survey, 2010

FIGURE 7. Percent of 9th graders who feel nervous, worried or upset “all of the time” or “most of the time” during the last 30 days, by gender, 2010.



Source: Minnesota Student Survey, 2010

These findings are repeated for all four of the indicators of emotional stress – nervousness, sadness, stress, and hopelessness – that have appeared in the MSS since the early 1990’s. As shown in Table 7, for each indicator, students of color report higher levels of emotional distress than White students. Within each group, females report greater emotional distress than males (not shown in table).

TABLE 7. Percent of 9th grade students reporting high levels of emotional distress during the last 30 days, 2010 (highest rate in bold).

| | African American | American Indian | Asian | Hispanic | White |
|--|------------------|-----------------|-------|----------|-------|
| Percent who feel nervous, worried or upset all or most of the time | 19% | 21% | 17% | 19% | 12% |
| Percent who feel sad all or most of the time | 19% | 22% | 17% | 19% | 12% |
| Percent who feel under heavy stress | 15% | 20% | 13% | 15% | 12% |
| Percent who feel very discouraged or hopeless | 19% | 23% | 19% | 21% | 12% |

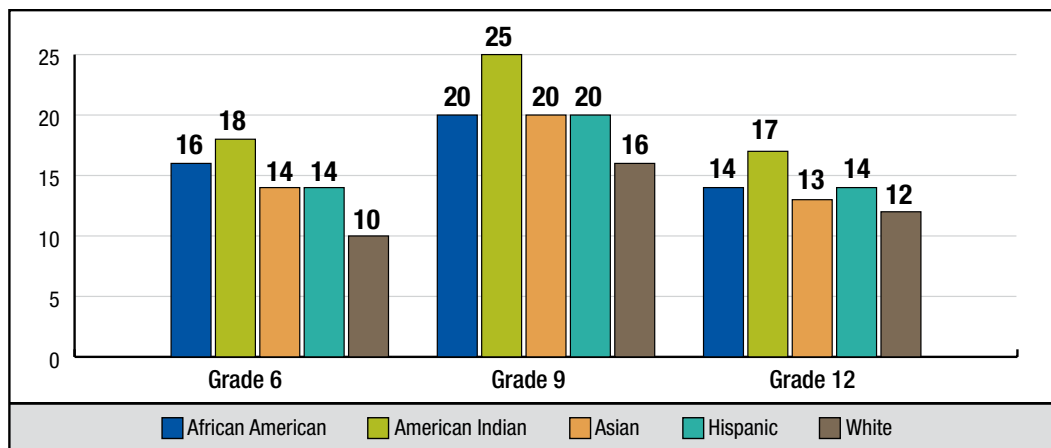
Source: Minnesota Student Survey, 2010

Self-Harm, Suicidal Thoughts and Suicide Attempts

The percentage of students who report that they thought about killing themselves in the past year is most pronounced among 9th graders, ranging from 16 percent of White students to 25 percent of American Indian students. For all three grades, American Indian students are the most likely to have thought of killing themselves. (Figure 8)

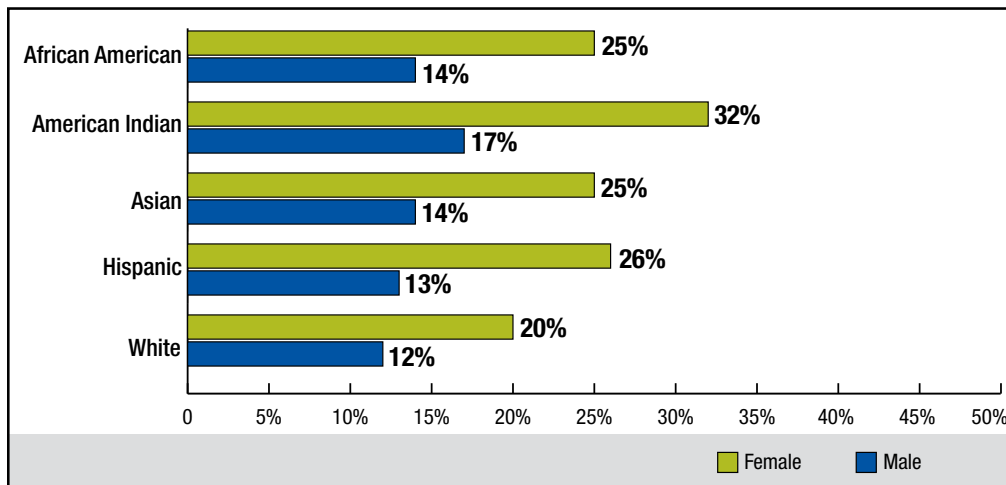
Within each racial/ethnic group, females are nearly twice as likely as males to have thought about killing themselves. One-third of American Indian 9th grade females (32%) thought about killing themselves in the past year. (Figure 9)

FIGURE 8. Percent who thought about killing themselves during the last year, 2010.



Source: Minnesota Student Survey, 2010

FIGURE 9. Percent of 9th graders who thought about killing themselves during the last year, by gender, 2010.



Source: Minnesota Student Survey, 2010

In addition to thinking about suicide, students of color are more likely to report that they have tried to kill themselves. American Indian students have the highest rate of attempted suicide among 9th graders. American Indian and Hispanic students are more likely than students of other racial/ethnic groups to physically harm themselves by cutting, burning, or some other means. (Table 8) The data do not indicate how serious the suicide attempt was or what action young people took when they said they tried to kill themselves, since the survey does not explore these questions. Nevertheless, reporting that one has attempted suicide is at minimum an indication of serious emotional turmoil.

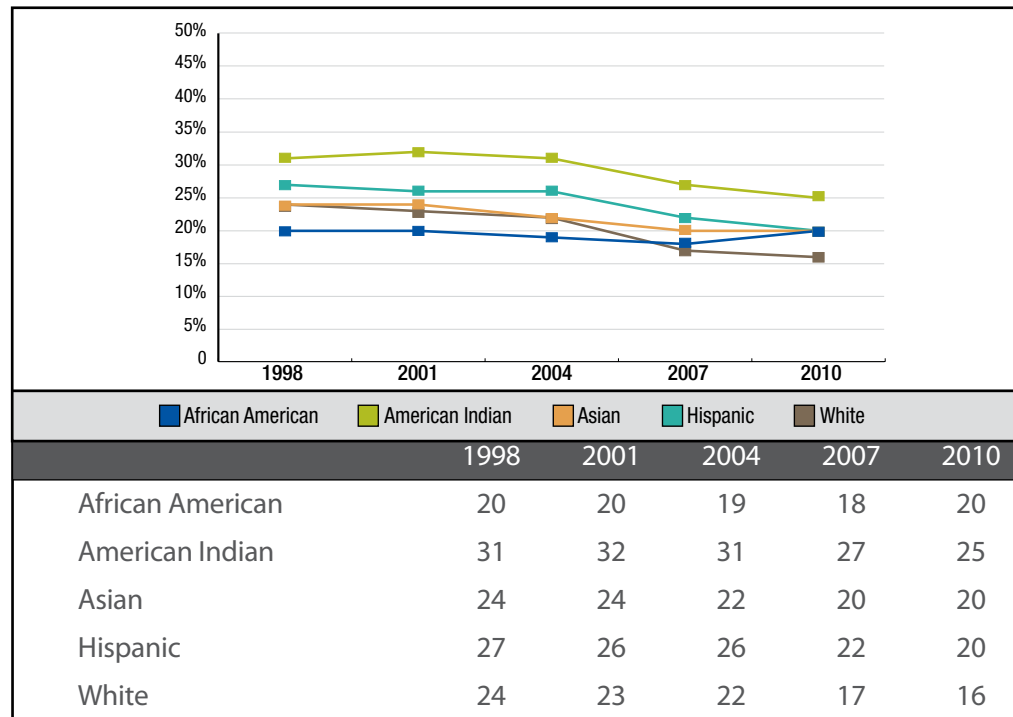
TABLE 8. Percent of 9th grade students reporting suicidal thoughts, suicide attempts, and physical harm to self during the last year, 2010 (highest rate in bold).

| | African American | American Indian | Asian | Hispanic | White |
|---|------------------|-----------------|-------|----------|-------|
| Percent who thought about killing themselves in the last year | 20% | 25% | 20% | 20% | 16% |
| Percent who tried to kill themselves in the last year | 5% | 8% | 3% | 6% | 3% |
| Percent who hurt themselves on purpose (“cutting”, burns, bruises) in the last year | 12% | 21% | 13% | 17% | 12% |

Source: Minnesota Student Survey, 2010

The percentage of 9th graders saying that they had suicidal thoughts in the last year has declined slightly for most racial/ethnic groups in recent years, with the exception of African American students. (Figure 10) Between 1998 and 2004, African American 9th graders were the least likely of any group to report suicidal thoughts, but that is no longer the case.

FIGURE 10. Percent of 9th graders who thought about killing themselves during the last year, by year, 1998-2010.

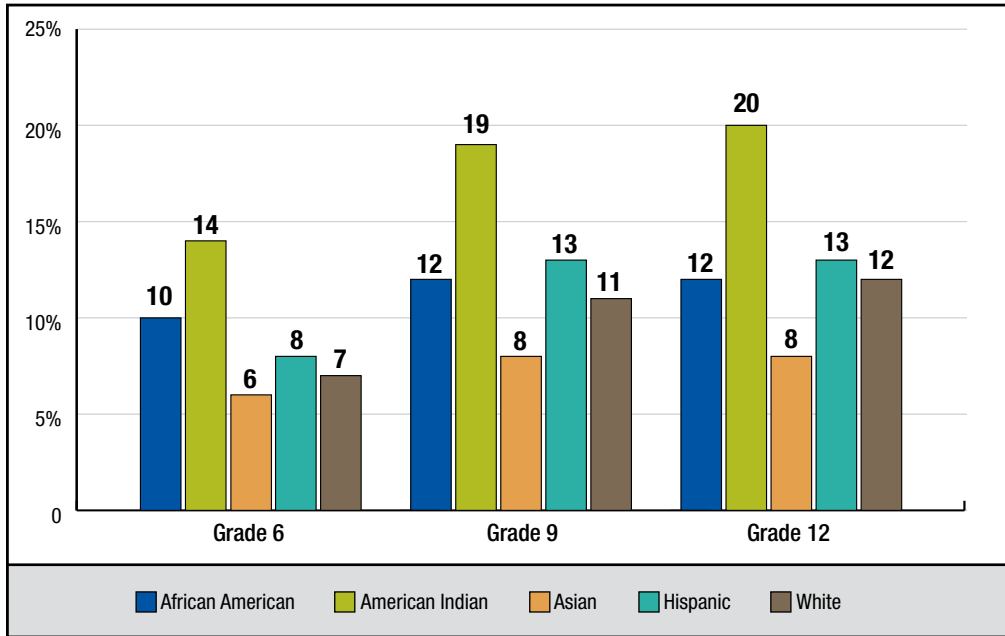


Source: Minnesota Student Survey, 1998-2010

Chronic Mental and Emotional Health Problems

Adolescents may have long-lasting mental or emotional health problems, such as depression, attention deficit disorder, and autism, that may contribute to some of the feelings and behaviors mentioned earlier in this chapter. At all three grade levels, American Indian students are the most likely and Asian students are the least likely to report having a mental or emotional health problem that has lasted at least 12 months. (Figure 11) Reports of chronic mental or emotional health problems are more common among 9th and 12th grade students than among 6th grade students. [Note that the MSS asks a general question about chronic mental and emotional health problems and does not ask about or mention specific disorders.]

FIGURE 11. Percent of students with a mental or emotional health problem that has lasted at least 12 months, 2010.



Source: Minnesota Student Survey, 2010

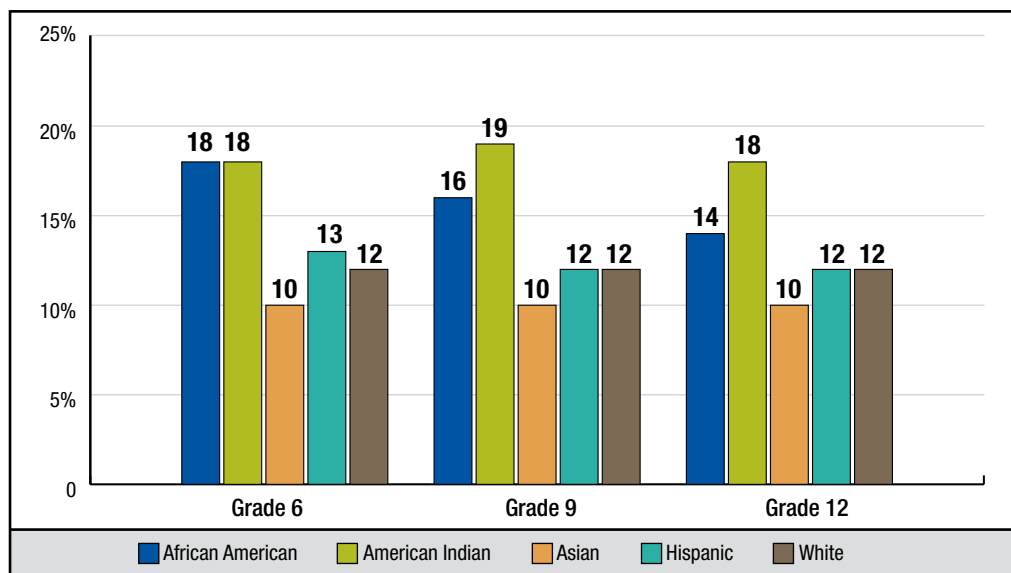
Chapter 6.

Chronic Physical Health Conditions

Chronic physical health conditions, such as cancer, diabetes and asthma, present immediate health risks to adolescents and may affect learning, growth, and overall development over the long run. The Minnesota Student Survey asks one general question about chronic physical conditions or illnesses and another question specifically about asthma.

In 6th grade, African American and American Indian students are the most likely of all groups to report a long-term physical health condition (18% each). In high school, American Indian students have the highest reported rates (19% for 9th grade and 18% for 12th grade). Within each group, the percentage reporting a long-term physical condition is similar at each grade level. (Figure 12)

FIGURE 12. Percent of students with a physical health condition or problem that has lasted at least 12 months, 2010.



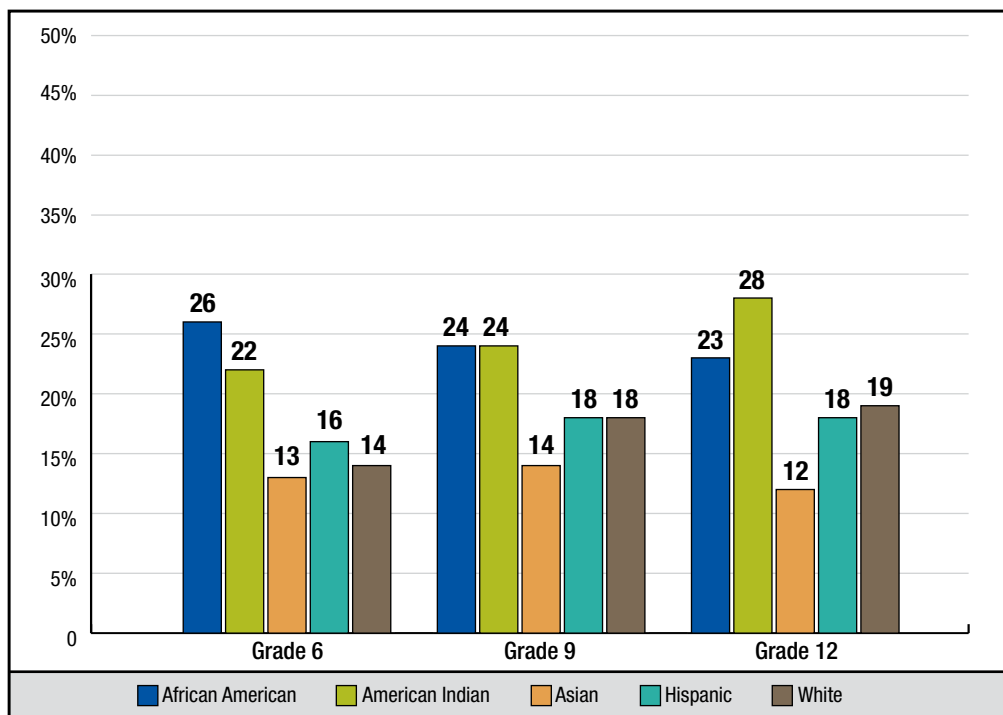
Source: Minnesota Student Survey, 2010

Asthma

Asthma is a chronic disease of the respiratory system characterized by episodes of wheezing, coughing, and difficulty breathing. Asthma can range from mild to severe. The impacts of asthma can include missing school, disrupted sleep, emergency room visits, and limits on physical activity. Schools are heavily involved in managing asthma by controlling irritants, dispensing medications, and responding to attacks.

Close to one-fourth of African American and American Indian students at all grade levels report that they have been told by a health professional sometime in their lives that they have asthma. These are the highest percentages in all three grades. The lowest rates of asthma appear to be among Asian students. (Figure 13) Because the survey only asks about any asthma in one's lifetime, it cannot provide data on current asthma.

FIGURE 13. Percent of students who have ever been told by a doctor or nurse that they have asthma, 2010.



Source: Minnesota Student Survey, 2010

Chapter 7.

Being Overweight or Obese

Being overweight or obese is one of the most important factors contributing to many serious chronic conditions, including diabetes, heart disease, stroke and depression. Childhood obesity often continues on into adulthood, setting up life-long patterns of risk to health.¹² Larger numbers of American children and adults have become overweight or obese in recent decades. Nationally, the percentage of adolescents 12-19 years of age who are considered to be obese has more than tripled since the 1960's, rising from 5 percent in 1966-1970 to 18 percent in 2007-2008.¹³

Currently, the most common measure of weight status is the body-mass index, which combines height and weight into one measure. There is debate as to whether more direct measures of body fat are superior to body-mass index, but there is little doubt that height and weight are the most convenient data available. Ideally, height and weight should be measured directly by an observer, as they were in the national studies cited above, but it is much more common to ask children and adults to report their height and weight as part of a survey. Studies have found that the average body-mass index obtained through self-reports on surveys is somewhat lower than the body mass index obtained through direct measurement, primarily because people tend to overestimate their height and underestimate their weight.¹⁴ Recognizing that self-reported BMI is an imperfect and yet important measure of population health, the MSS research team added questions on height and weight to the high school version of the survey in 2007.

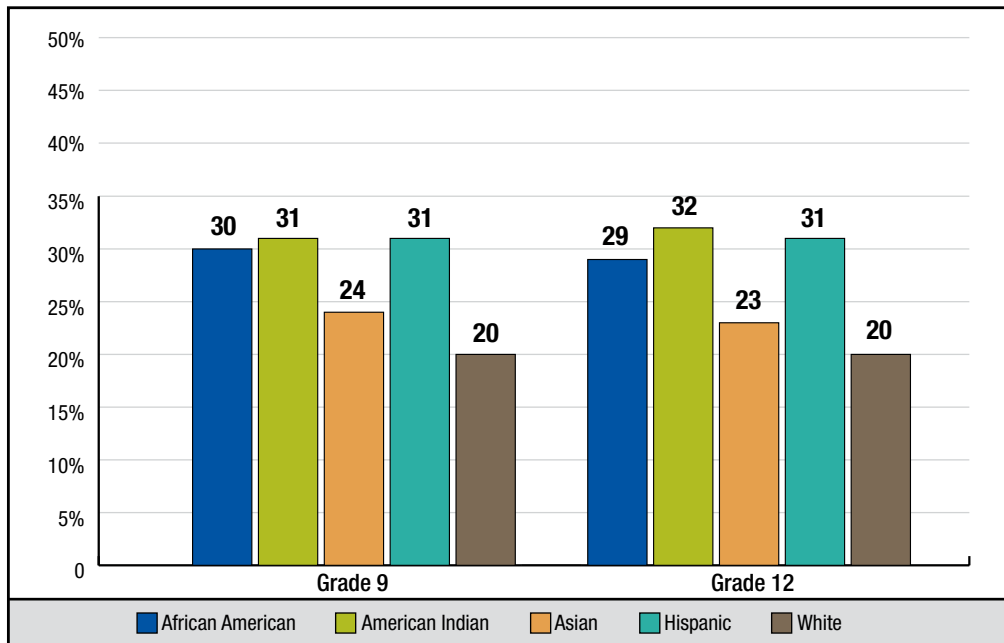
In the African American, American Indian and Hispanic communities, nearly one-third of high school students are overweight or obese based on self-reported height and weight. (Figure 14) These groups have the highest percentages of overweight or obese students in both the 9th and 12th grades. Within each community, there is very little difference in reports of overweight or obesity between 9th and 12th graders. In most groups, males are much more likely to be overweight or obese than females. (Figure 15) No trend data is available since the height and weight questions were just added to the survey in 2007.

12 More information on overweight and obesity prevention can be found on the Minnesota Department of Health web site at <http://www.health.state.mn.us/divs/hpcd/chp/cdrr/obesity/index.html>.

13 Ogden CL, Carroll MD. Prevalence of Obesity Among Children and Adolescents: United States, Trends 1963-1965 Through 2007-2008. NCHS Health E-Stat. Hyattsville, MD: National Center for Health Statistics. June 2010.

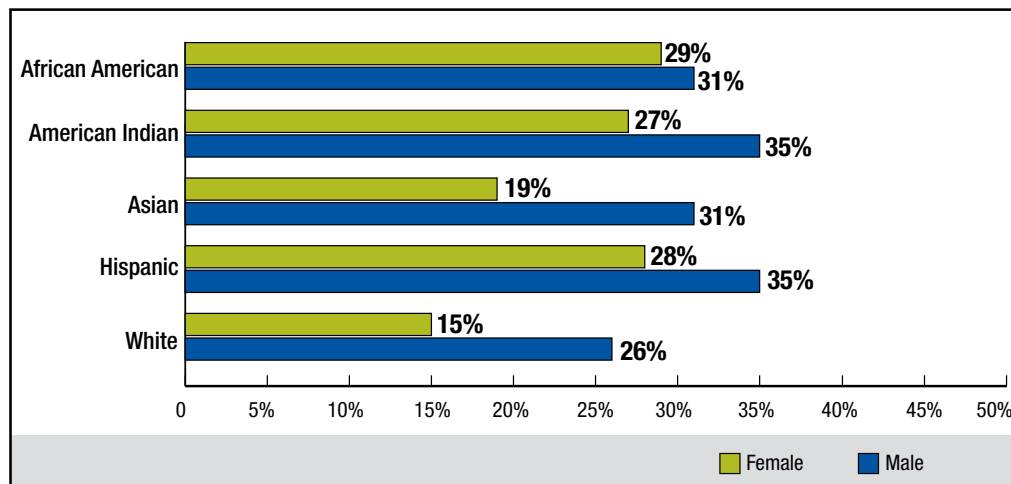
14 Himes JH, Hannan P, Wall M, Neumark-Sztainer. Factors Associated with Errors in Self-reports of Statute, Weight, and Body Mass index in Minnesota Adolescents. *Ann Epidemiol* 2005; 15:272-278.

FIGURE 14. Percent of students who are overweight or obese according to self-reported height and weight, 2010.



Source: Minnesota Student Survey, 2010

FIGURE 15. Percent of 9th graders who are overweight or obese according to self-reported height and weight, by gender, 2010.



Source: Minnesota Student Survey, 2010

Section III – Health-Related Behaviors



Section Table of Contents

| | |
|--|----|
| CHAPTER 8: Physical Activity and Healthy Eating | 27 |
| Physical Activity | 27 |
| Sedentary Leisure Activities | 30 |
| Fruits and Vegetables | 31 |
| Beverages | 32 |
| CHAPTER 9: Being Hurt by Violence and Engaging in Violence..... | 36 |
| Physical and Sexual Abuse | 36 |
| Date Violence | 38 |
| Hitting Another Person | 39 |
| Bringing Weapons to School | 40 |
| Feeling Too Unsafe to Go to School..... | 41 |
| CHAPTER 10: Tobacco, Alcohol and Drug Use | 43 |
| Tobacco Use | 43 |
| Alcohol Use and Binge Drinking | 45 |
| Marijuana Use | 47 |
| CHAPTER 11: Substance Use by Family Members | 49 |
| CHAPTER 12: Sexual Activity and Health..... | 52 |
| Births to Teen Mothers..... | 52 |
| Sexual Activity | 54 |
| Self-reported Pregnancy | 56 |
| Protecting Against Pregnancy and Sexually Transmitted Diseases..... | 57 |
| CHAPTER 13: Safety Behavior | 60 |
| Seat Belts | 60 |
| Driving After Using Alcohol or Drugs | 62 |

Chapter 8.

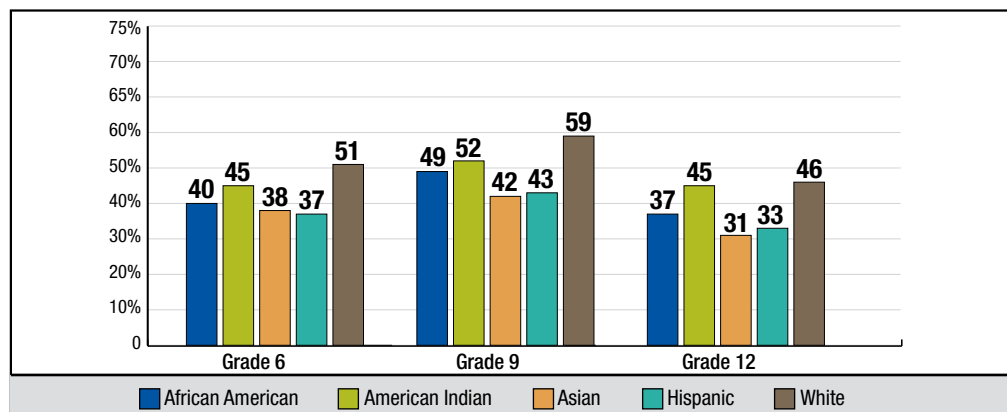
Physical Activity and Healthy Eating

Being physically active, eating healthy foods, and reducing sedentary activities prevent many diseases such as diabetes, heart disease, and some cancers, and reduce the likelihood of becoming overweight.¹⁵ Lack of physical activity and poor nutrition, taken together, are the second leading preventable cause of death in the U.S., behind tobacco use.¹⁶

Physical Activity

White students in 6th and 9th grade are the most likely to report that they had 30 minutes of physical activity¹⁷ on at least five days in the last week (51% of 6th graders and 59% of 9th graders). Asian and Hispanic students report the lowest level of activity. Frequent participation in physical activity reaches its highest level among 9th grade students, but then drops substantially among 12th grade students. (Figure 16) In all racial/ethnic groups, males are much more likely to report physical activity than females. (Figure 17)

FIGURE 16. Percent of students who were physically active for a combined total of at least 30 minutes on five or more of the last seven days, 2010.



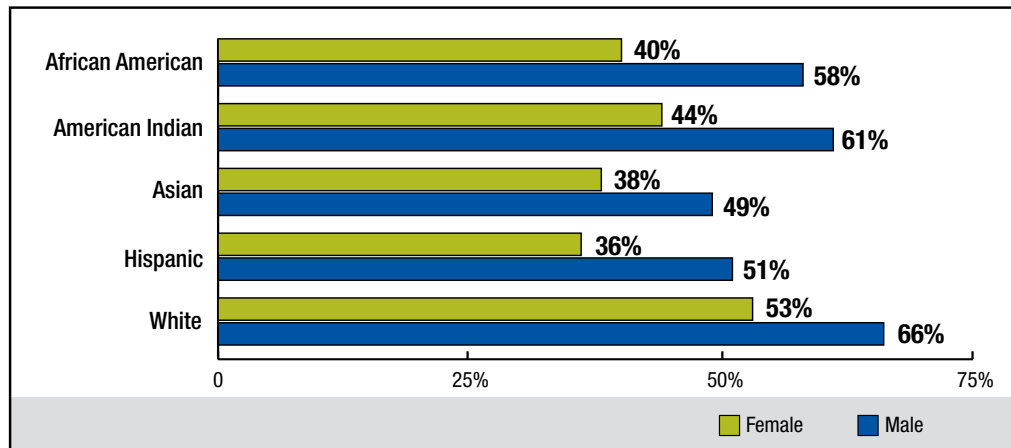
Source: Minnesota Student Survey, 2010

15 More information about state and local efforts to encourage physical activity and healthy eating can be found at <http://www.health.state.mn.us/macros/topics/prevention.html>.

16 Mokdad AH, Marks JS, Stroup DF, Gerberding JL. Actual causes of death in the United States, 2000. *Journal of the American Medical Association*. 2004; 291: 1238-45.

17 The guidelines for physical activity were recently revised and now call for 60 minutes of activity. For details, go to <http://www.health.gov/paguidelines/>.

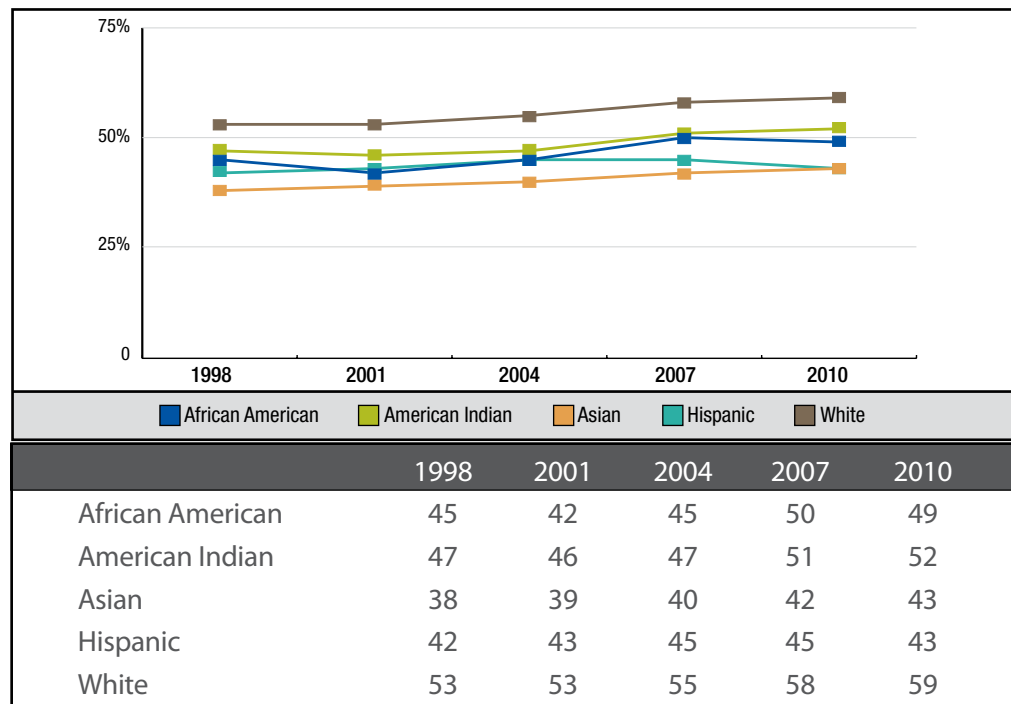
FIGURE 17. Percent of 9th graders who were physically active for a combined total of at least 30 minutes on five or more of the last seven days, by gender, 2010.



Source: Minnesota Student Survey, 2010

For most groups, participation in frequent physical activity by 9th grade students has inched upward since 1998. African American 9th graders have shown the strongest increase, rising from 42 percent in 1998 to 49 percent in 2010. (Figure 18)

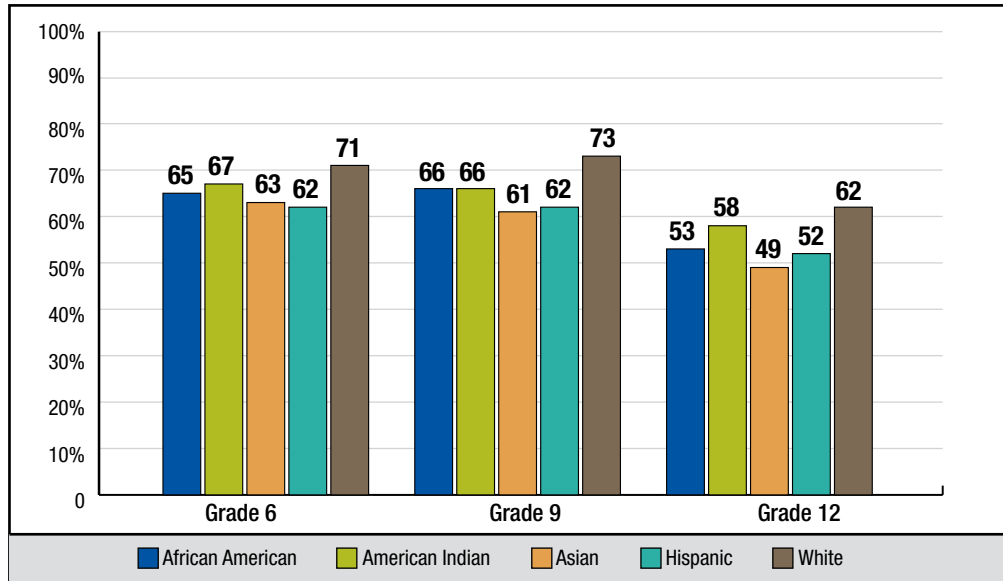
FIGURE 18. Percent of 9th graders who are physically active for a combined total of at least 30 minutes on five or more days in the last week, by year, 1998-2010.



Source: Minnesota Student Survey, 1998-2010

White students are somewhat more likely than students from other groups to report that they engage in strenuous physical activity at least three days per week. (Figure 19) Strenuous activity is defined on the survey as exercising or participating “in sports or other activities that made you sweat or breathe hard for at least 20 minutes”. Participation in strenuous activity remains about the same for 6th and 9th graders but then drops off among 12th grade students.

FIGURE 19. Percent of students who engaged in strenuous activity for at least 20 minutes on three or more days in last week, 2010.



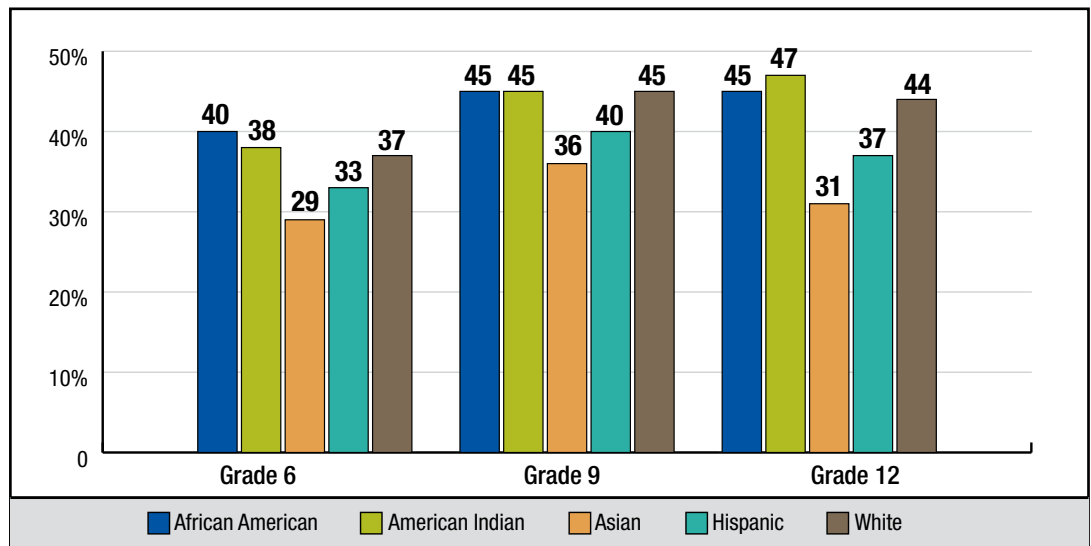
Source: Minnesota Student Survey, 2010

Sedentary Leisure Activities

The flip side of engaging in physical activity is spending lots of leisure time in front of a TV or video screen. Nearly half of 9th grade students report that they spend six or more hours per week – roughly one hour per day or more – watching TV, DVDs and videos. In all three grades, Asian and Hispanic students are less likely than others to spend six or more hours per week in this sedentary activity. (Figure 20)

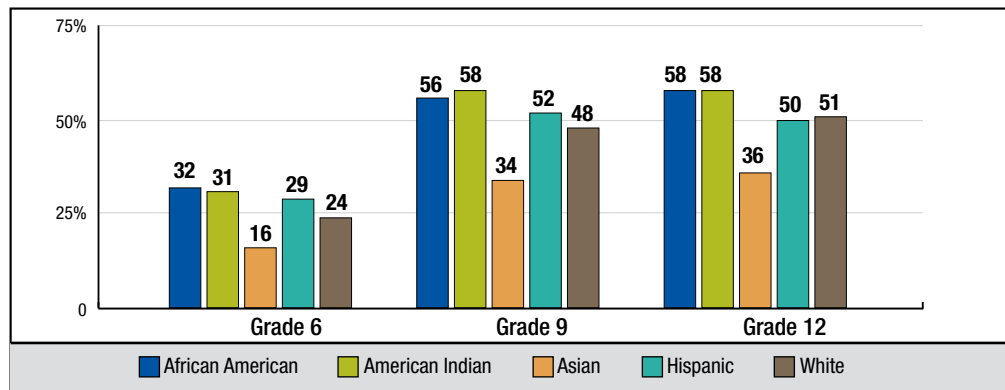
Many students also spend substantial amounts of time on the phone either talking or texting. In 9th and 12th grades, about half or more of students report spending six or more hours in the typical week talking on the phone or texting. Asian students are the lone exception. At each grade level, Asian students are much less likely than other racial/ethnic groups to spend at least six hours per week talking on the phone or texting. Only 34 percent of Asian 9th graders spend at least six hours with their phones, compared to 48 percent of White 9th graders and 58 percent of American Indian 9th graders. (Figure 21)

FIGURE 20. Percent who spend 6 or more hours in a typical week watching TV, DVDs or videos, 2010.



Source: Minnesota Student Survey, 2010

FIGURE 21. Percent who spend 6 or more hours in a typical week talking on the phone or texting, 2010.



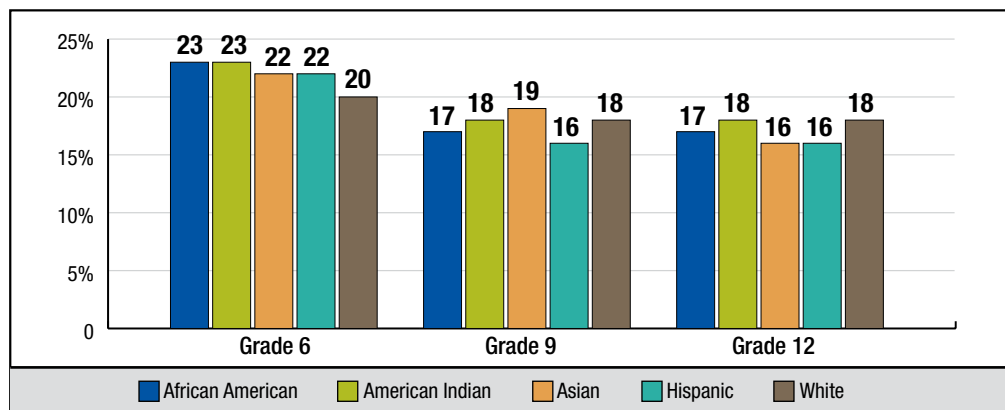
Source: Minnesota Student Survey, 2010

In addition, 23 percent of all 9th graders report spending six or more hours in the typical week playing video games, and 29 percent report spending six or more hours on e-mail and other online activities. However, there are no major differences among racial/ethnic groups for either of these indicators.

Fruits and Vegetables

Fewer than one of every five students report eating the recommended five or more servings of vegetables, fruit or fruit juice on the day before the survey. There are few differences among racial/ethnic groups. Sixth grade students in general are slightly more likely than older students to report having had five or more servings. (Figure 22)

FIGURE 22. Percent of students who ate five or more servings of fruit, fruit juice or vegetables in the previous day, 2010.



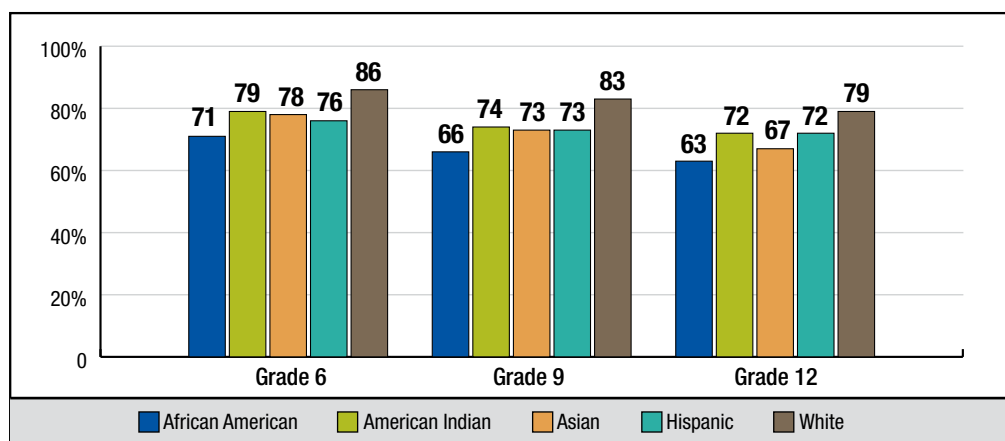
Source: Minnesota Student Survey, 2010

Beverages

Popular beverages present a range of challenges and contributions to good nutrition. Pop or soda provides high amounts of simple sugars and calories, with no nutritional benefit. Sports drinks and juice drinks also have added simple sugars. Fruit juice (100%) contains natural sugars and many important vitamins and minerals. Milk contains natural sugars (lactose) and saturated fats (except skim milk), and is rich in protein, calcium and other nutrients. Some children, however, cannot tolerate or digest the lactose in milk.

Most adolescents report having had at least one or two glasses of milk on the day before the survey, ranging from 63 percent of African American 12th graders to 86 percent of White 6th graders. In all three grade levels, White students are the most likely to drink milk, and African American students are the least likely. (Figure 23) For students in each racial/ethnic group, consumption of milk appears to decline gradually between 6th and 12th grade. African American and American Indian children are more often lactose intolerant and may avoid milk for that reason. (The survey does not ask about the consumption of milk in other forms such as yogurt and cheese.)

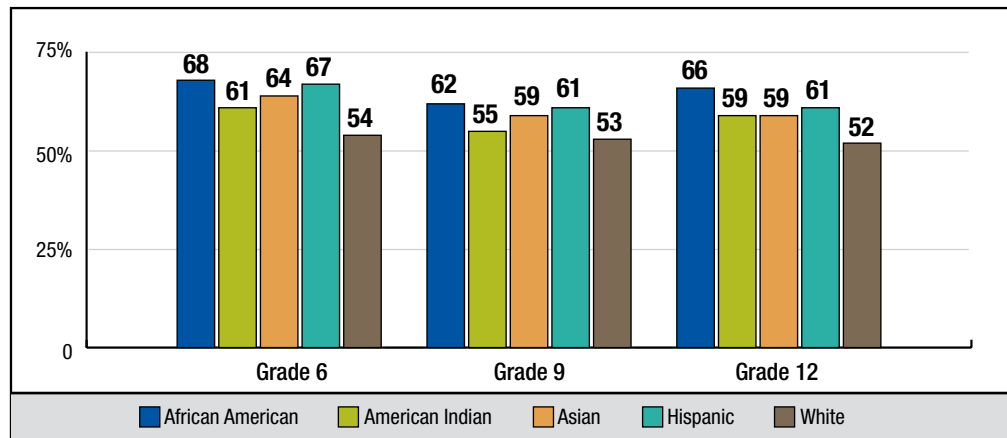
FIGURE 23. Percent who drank one or more glasses of milk yesterday, 2010.



Source: Minnesota Student Survey, 2010

Most adolescents also report having at least one glass of 100% fruit juice yesterday. In each of the three grades, African American students are slightly more likely than other students to drink fruit juice, while White students are the least likely. (Figure 24)

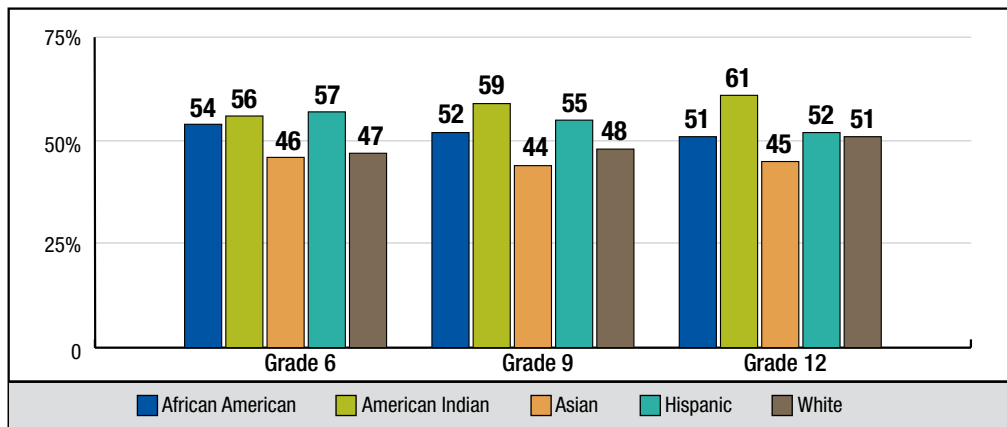
FIGURE 24. Percent who drank one or more glasses of 100% fruit juice yesterday, 2010.



Source: Minnesota Student Survey, 2010

Slightly more than half of all students report that they drank at least one glass of pop or soda during the previous day. Asian students in each grade level are less likely to report drinking pop or soda yesterday than other students. (Figure 25)

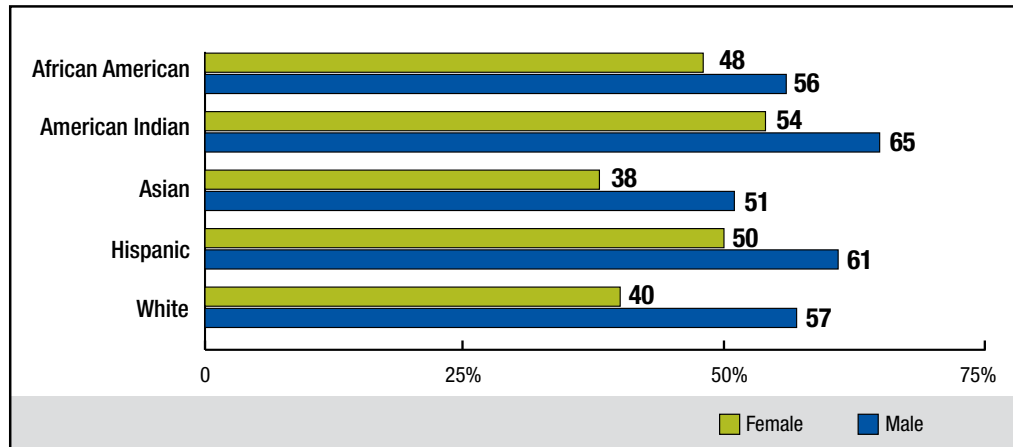
FIGURE 25. Percent who drank one or more glasses of pop or soda yesterday, 2010.



Source: Minnesota Student Survey, 2010

In each racial/ethnic group, males are more likely to drink pop or soda than females. In 2010, two-thirds (65%) of American Indian 9th grade boys reported drinking pop or soda on the previous day. (Figure 26)

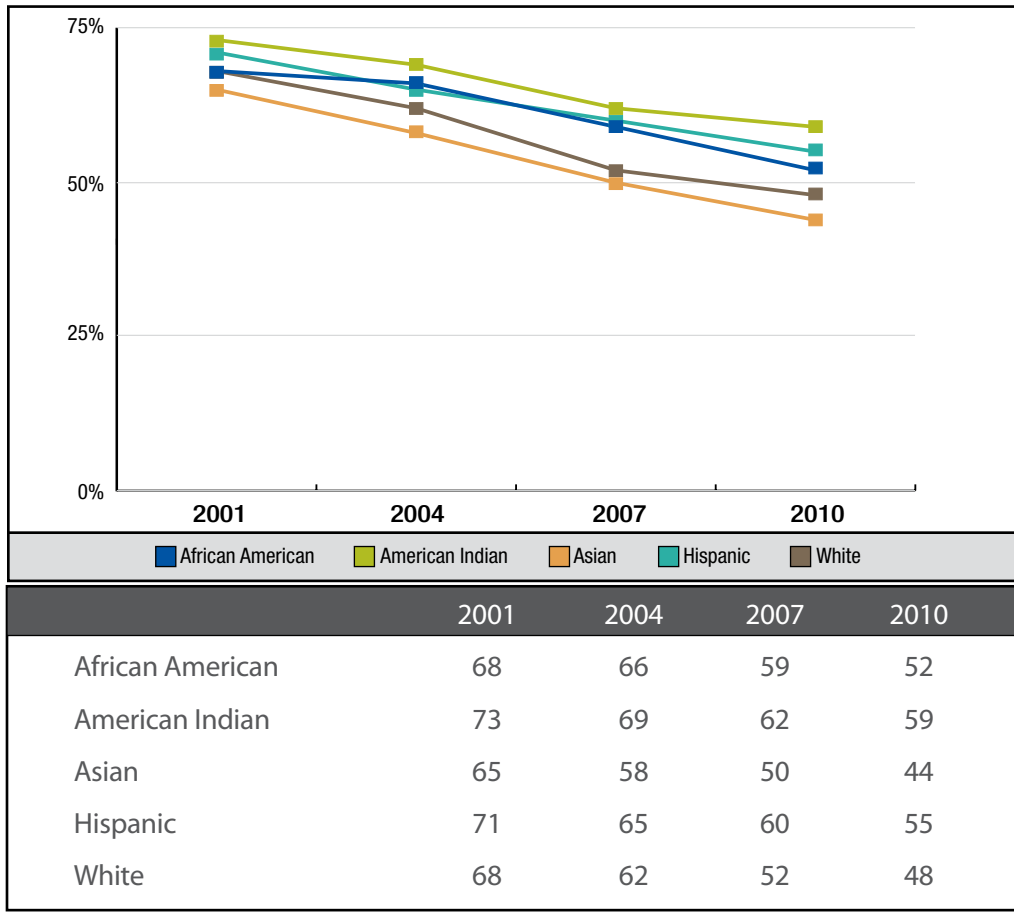
FIGURE 26. Percent of 9th graders who drank one or more glasses of pop or soda yesterday, by gender, 2010.



Source: Minnesota Student Survey, 2010

The good news is that consumption of pop and soda has declined steadily for all racial/ethnic groups since 2001. The percentage of Asian 9th graders who drank pop or soda yesterday, for example, fell from 65 percent in 2001 to 44 percent in 2010. (Figure 27)

FIGURE 27. Percent of 9th graders who drank one or more glasses of pop or soda yesterday, by year, 2001-2010.



Source: Minnesota Student Survey, 2001-2010

Chapter 9.

Being Hurt by Violence and Engaging in Violence

Adolescents are more likely to be affected by violence than adults. Nationally, adolescents 15-19 years old are twice as likely to be treated in an emergency room for injuries due to assault than are adults aged 20 and older.¹⁸ Violence often leaves mental and emotional scars as well as physical scars. In this section we explore the experience of physical or sexual abuse, we look at the extent to which youth participate in violence and carry weapons, and we look at how often young people avoid school because of fears for their safety.

Physical and Sexual Abuse

In addition to being painful, the experience of being abused can affect a young person's relationships, adjustment to school and overall development, making the process of growing up all the more difficult. Adolescents who have been physically or sexually abused are much more likely to engage in destructive behavior, such as substance use, fighting, and early sexual activity.¹⁹ There is evidence linking abuse during childhood to health risks that may emerge later, such as obesity, chronic pain and heart disease.²⁰

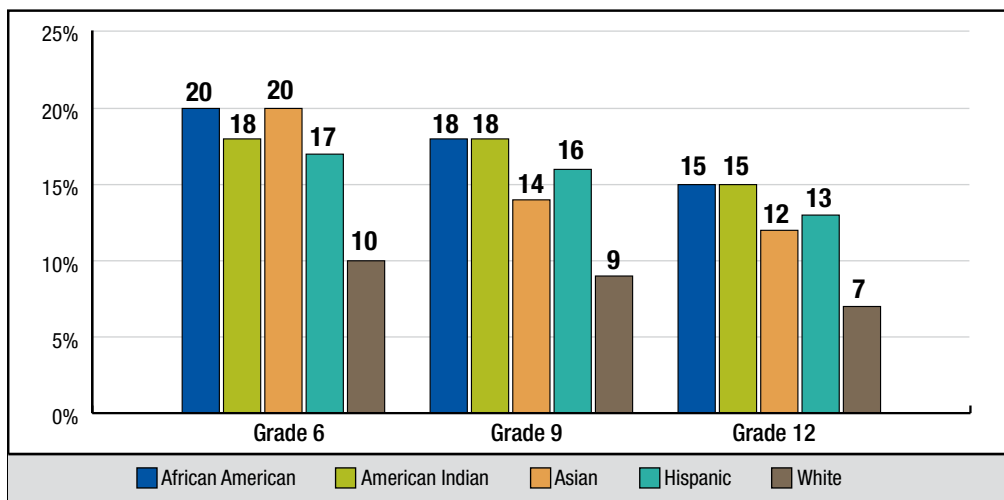
To explore physical abuse, the MSS asks the following question: "Has any adult in your household ever hit you so hard or so often that you had marks or were afraid of that person?" Students from each of the communities of color are more likely than White students to report that they had been physically hurt in this way. (Figure 28)

18 Centers for Disease Control and Prevention. Web-based Injury Statistics Query and Reporting System (WISQARS), accessed May 6, 2011. Available at www.cdc.gov/injury/wisqars/index.html.

19 These associations have been frequently demonstrated through analysis of the Minnesota Student Survey and other adolescent health studies. For example, see Saewyc EM, Magee LL, Pettingell SE. Teenage Pregnancy and Associated Risk Behaviors Among Sexually Abused Adolescents. *Perspectives on Sexual and Reproductive Health*, 2004, 36(3):98-105.

20 Felitti VJ. The Relation between adverse childhood experiences and adult health: Turning gold into lead. *The Permanente Journal*. 2002; 6, 44-47.

FIGURE 28. Percent who have ever been hit hard or often by an adult in the household, 2010.



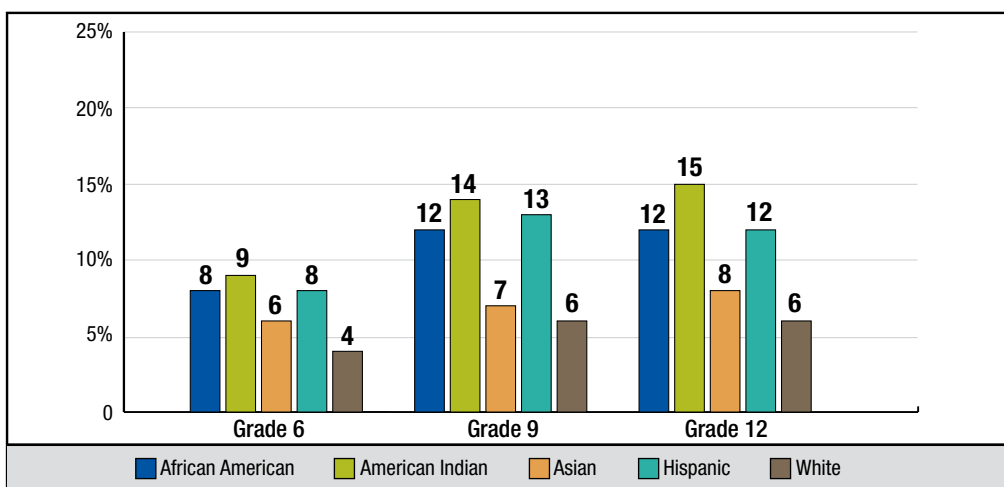
Source: Minnesota Student Survey, 2010

The MSS also asks two questions about sexual abuse or unwanted sexual touching – one question focusing on abuse by an “older or stronger” family member and the other on abuse by persons outside the family.²¹ Fifteen percent (15%) of American Indian 12th graders report that they have experienced at least one of these forms of sexual abuse. Overall, African American, American Indian and Hispanic adolescents report the highest rates of sexual abuse. (Figure 29)

In each racial/ethnic group, 9th grade females are two to three times more likely than 9th grade males to report ever experiencing sexual abuse. (Figure 30)

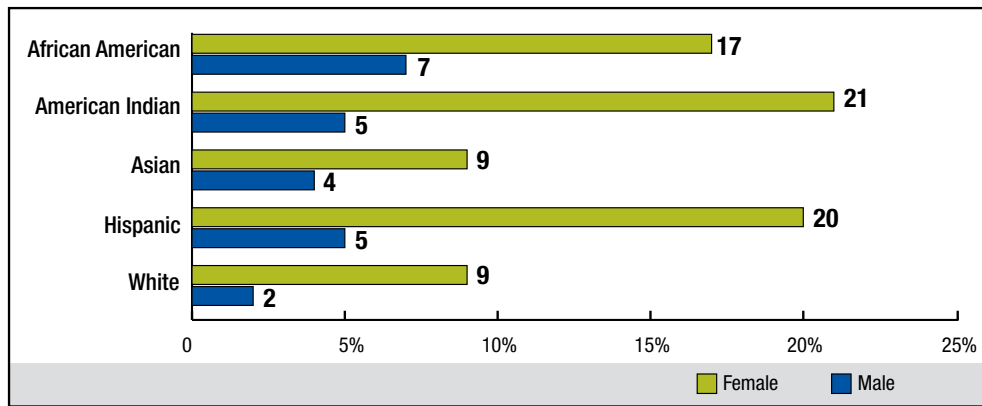
21 The wording of these questions is as follows: (1) “Has any adult or other person outside the family ever touched you sexually against your wishes or forced you to touch them sexually?” (2) “Has any older or stronger member of your family ever touched you sexually or had you touch them sexually?”

FIGURE 29. Percent who have experienced unwanted sexual touching or abuse, 2010.



Source: Minnesota Student Survey, 2010

FIGURE 30. Percent of 9th graders who have experienced unwanted sexual touching or abuse, by gender, 2010.



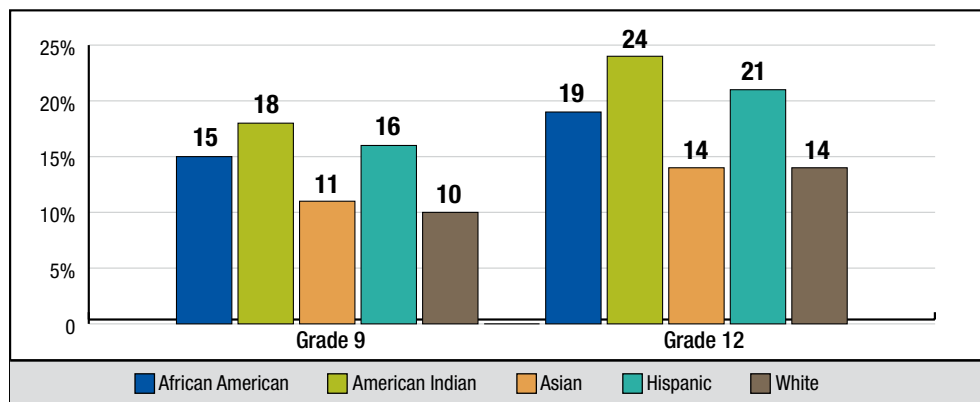
Source: Minnesota Student Survey, 2010

Date Violence

The MSS asks two questions about being the victim of date violence: (1) “Has someone you were going out with ever hit you, hurt you, threatened you or made you feel afraid?” and (2) “Has someone you were going out with ever forced you to have sex or do something sexual when you didn’t want to?” Because the response patterns for these questions are very similar, they are combined into one measure of date violence.

Overall, 10 percent of all 9th graders and 15 percent of all 12th graders report experiencing some form of date violence. The highest rates are reported by American Indian and Hispanic students. Nearly one-fourth (24%) of American Indian 12th graders report physical or sexual violence by someone they were going out with. (Figure 31)

FIGURE 31. Percent who were ever hit, hurt or threatened or forced to do something sexual by someone they were going out with, 2010.

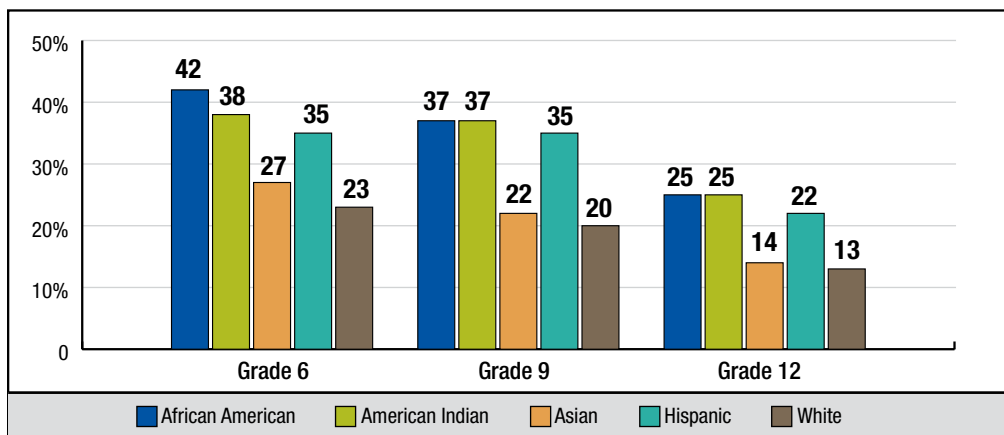


Source: Minnesota Student Survey, 2010

Hitting Another Person

Many students acknowledge that they hit or beat up another person in the last 12 months. Reports of hitting or beating up another person are more common in 6th and 9th grade than in 12th grade. In all three grades, African American, American Indian, and Hispanic students are more likely than other students to report that they had hit or beat up someone. Among 6th grade African American students, 42 percent say that they hit or beat up someone in the last year. (Figure 32)

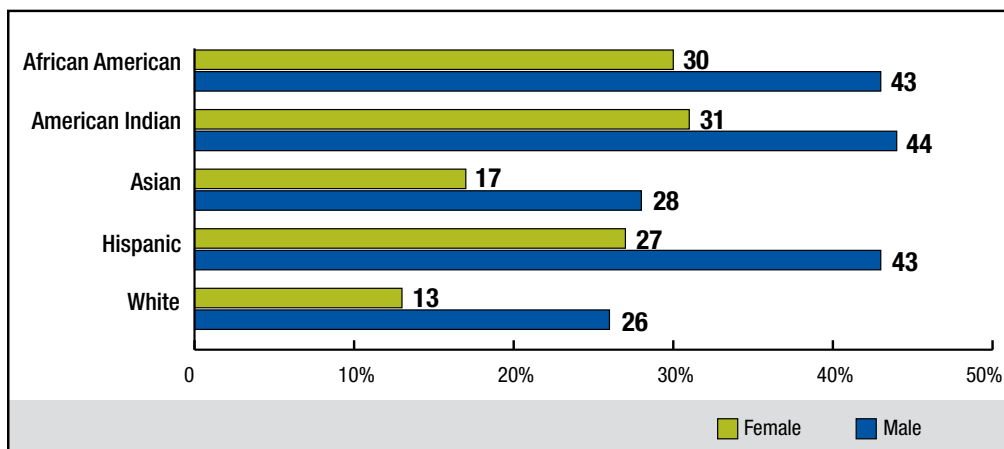
FIGURE 32. Percent who hit or beat up another person at least once in the last year, 2010.



Source: Minnesota Student Survey, 2010

Within each racial/ethnic group, males are more likely than females to say that they had hit or beat up someone. (Figure 33)

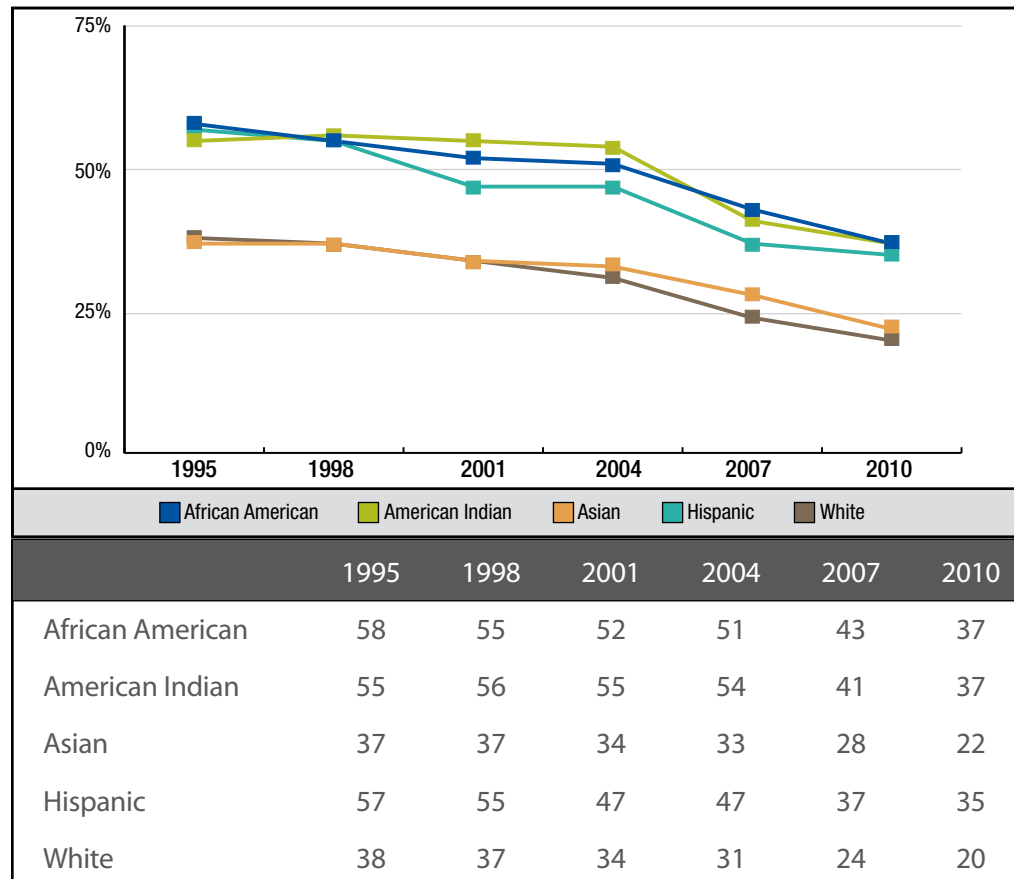
FIGURE 33. Percent of 9th graders who hit or beat up another person at least once in the last year, by gender, 2010.



Source: Minnesota Student Survey, 2010

Reports of hitting or beating up someone have fallen substantially in all racial/ethnic groups since 1998, with especially large drops occurring between 2004 and 2010. The sharpest decline occurred among Hispanic students, where the percentage of 9th grade students reporting that they hit or beat up someone fell from 55 percent in 1998 to 35 percent in 2010. (Figure 34)

FIGURE 34. Percent of 9th graders who hit or beat up another person at least once in the last year, by year, 1995-2010.

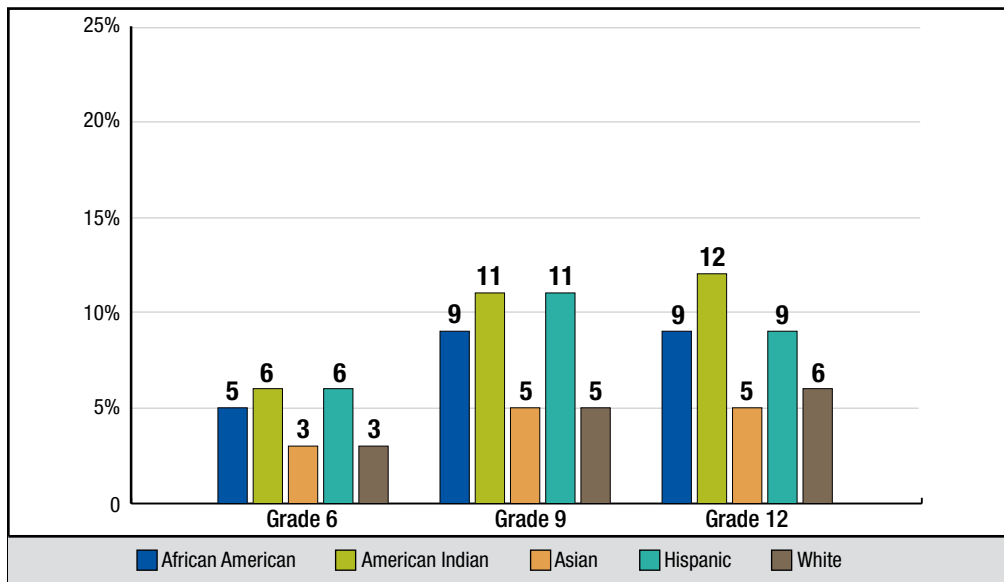


Source: Minnesota Student Survey, 1995-2010

Bringing Weapons to School

A fairly small but disturbing number of students report that they have brought a weapon, such as a gun, knife, or other weapon, onto school property on at least one day in the last 30 days. "School property" is not defined in the question, but could include a parking lot, athletic fields and other grounds, as well as the building itself. Eleven percent (11%) of American Indian and Hispanic 9th graders say that they have brought a weapon of some kind to school. (Figure 35)

FIGURE 35. Percent who carried a weapon on school property one or more days during the last 30 days, 2010.



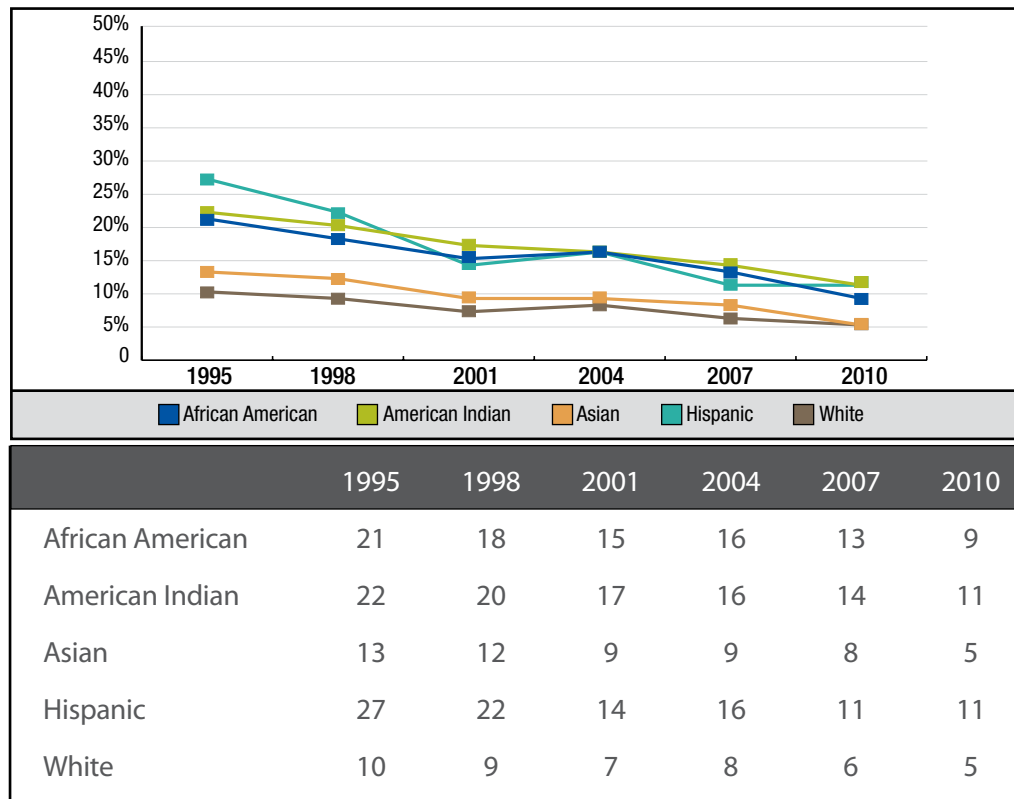
Source: Minnesota Student Survey, 2010

In each racial/ethnic group, the percentage of 9th graders who brought a weapon to school has fallen considerably since the mid-1990's. The sharpest drop was found among Hispanic students – 27 percent of Hispanic 9th graders carried a weapon to school in 1995 compared to 11 percent in 2010. (Figure 36)

Feeling Too Unsafe to Go to School

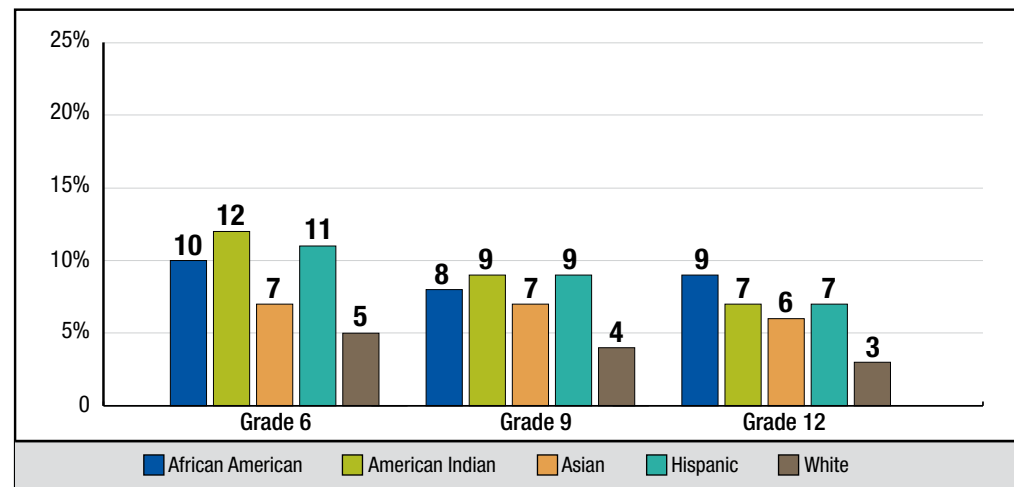
Some students believe that being at school or traveling to and from school is not safe, and a small number report that they have missed school in the last 30 days because of concerns for their safety. Students from each community of color are more likely than White students to have missed school due to concerns for their safety. (Figure 37)

FIGURE 36. Percent of 9th graders who carried a weapon on school property one or more days during the last 30 days, by year, 1995-2010.



Source: Minnesota Student Survey, 1995-2010

FIGURE 37. Percent who missed one or more days of school during the last 30 days because they felt unsafe at school or on their way to or from school, 2010.



Source: Minnesota Student Survey, 2010

Chapter 10.

Tobacco, Alcohol and Drug Use

Tobacco use is still the number one cause of death in Minnesota and in the U.S. as a whole. Most of the health effects of tobacco use emerge later in life as cancer, heart disease, stroke and chronic pulmonary disease, but even adolescent smokers experience reduced lung function and more respiratory illnesses.²² About 80 percent of adult smokers start smoking before the age of 18.²³ Many of the health effects of alcohol, on the other hand, are more immediate, including motor vehicle accidents, drowning, violence, and other events resulting from impaired judgment. The health effects of marijuana use are less well understood. Chemical use in general can change the brain patterns of users. Chemical use is also associated with many other adolescent risk behaviors, including suicidal behavior, violence, early sexual activity and pregnancy, delinquency and dropping out from school.

Tobacco Use

Very few 6th grade students report smoking any cigarettes in the last 30 days. The prevalence of smoking increases throughout adolescence, with 12th graders having the highest rates of smoking in each racial/ethnic group. For most groups, the largest increase in smoking occurs between the 6th and 9th grades, but for Whites the largest increase occurs between 9th and 12th grades.

American Indian students have the highest smoking rates, reaching 22 percent in 9th grade and 31 percent in 12th grade. African American and Asian students are the least likely to smoke in 12th grade. (Figure 38)

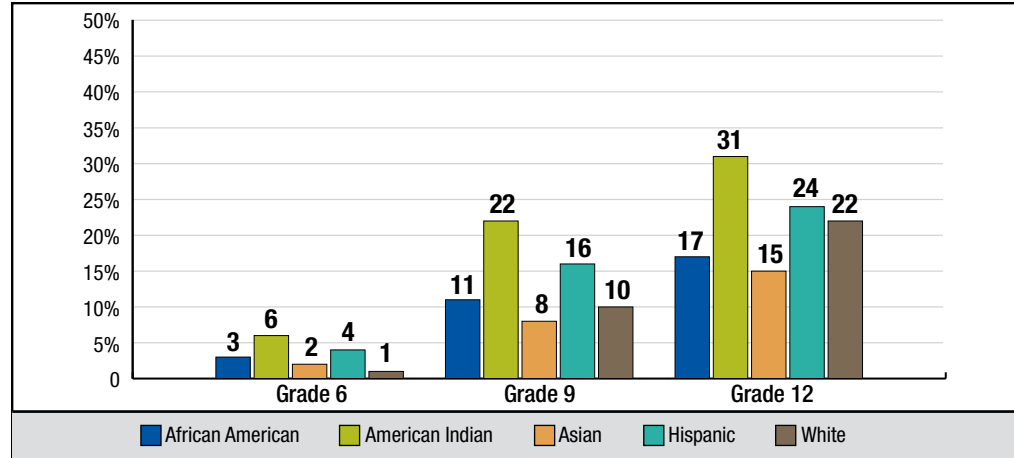
Substantial numbers of older adolescents smoke cigars, cigarillos, and little cigars. Because they are so inexpensive, there is special concern about little cigars, which have much the same health risks as cigarettes. Little cigars are almost identical to cigarettes, except that they are not taxed or regulated like cigarettes. A pack of cigarettes can cost three times as much as a pack of little cigars. About one of every six 12th grade students report that they have smoked cigars, cigaril-

22 U.S. Department of Health and Human Services. The Health Consequences of Smoking: A Report of the Surgeon General—Executive Summary. Centers for Disease Control and Prevention, 2004.

23 Additional data on tobacco use in Minnesota can be found at <http://www.mnadulttobaccosurvey.org> and <http://www.health.state.mn.us/divs/chs/tobacco/index.html>.

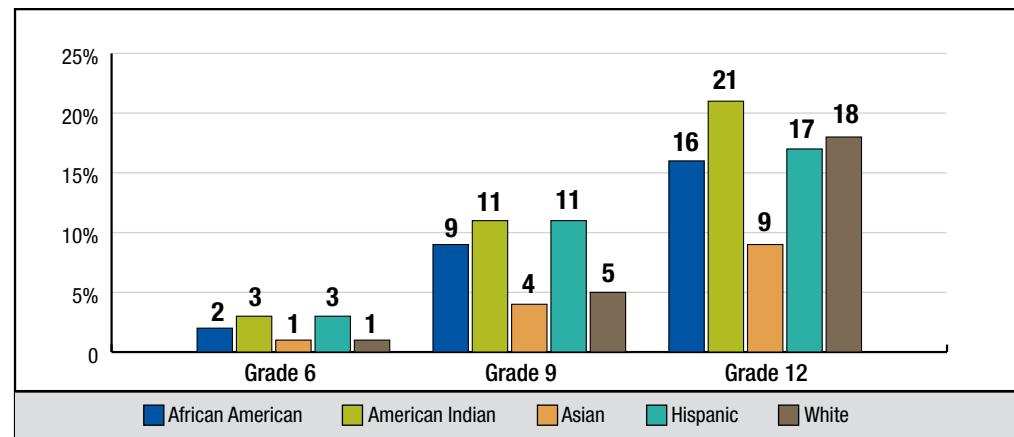
los or little cigars in the last 30 days. American Indian students are slightly more likely than others to smoke cigar products. Asian students are the least likely to smoke cigar products. (Figure 39)

FIGURE 38. Percent who smoked cigarettes during the last 30 days, 2010.



Source: Minnesota Student Survey, 2010

FIGURE 39. Percent who smoked cigars, cigarillos or little cigars during the last 30 days, 2010.

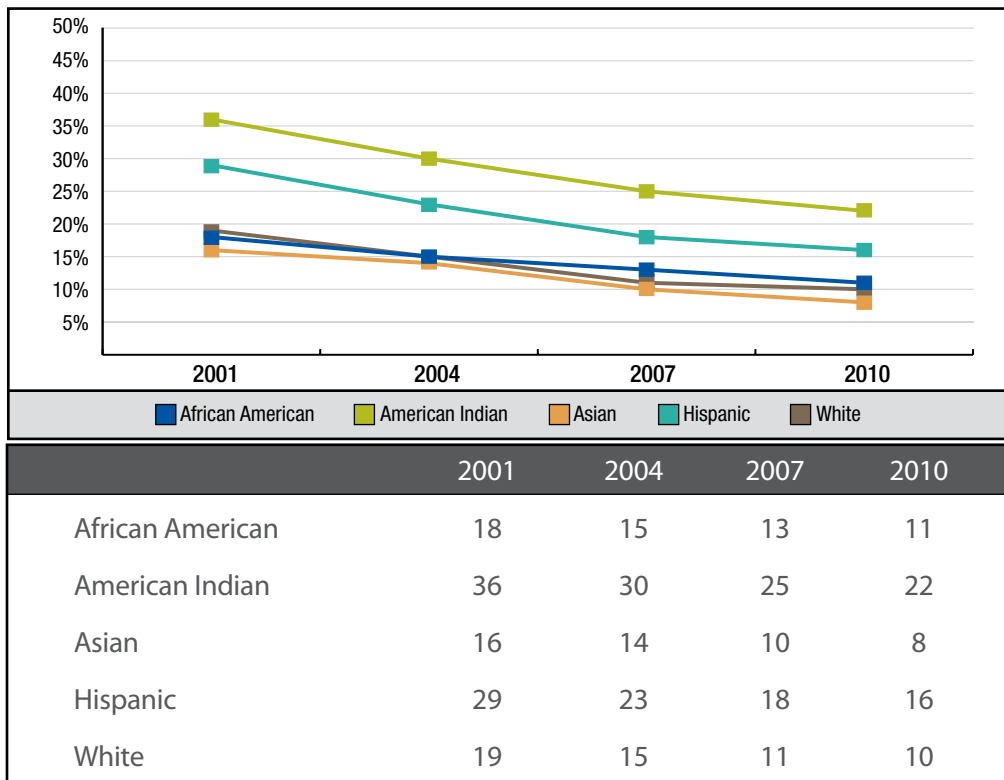


Source: Minnesota Student Survey, 2010

The prevalence of cigarette smoking has declined dramatically in all racial/ethnic groups in the past 10 years. Between 2001 and 2010, the percentage of 9th grade American Indian students who smoked cigarettes in the last 30 days fell from 36 percent to 22 percent, and the percentage of Hispanic students dropped from 29 percent to 16 percent. (Figure 40) (There is no trend data for cigar smoking yet from the MSS, but other studies indicate that there has been no decline in overall cigar smoking over the past 10 years)²⁴

24 Minnesota Department of Health. Teens and Tobacco in Minnesota, 2011 Update: Results from the Minnesota Youth Tobacco and Asthma Survey. St. Paul, Minnesota, 2011.

FIGURE 40. Percent of 9th graders who smoked cigarettes during the last 30 days, by year, 2001-2010.



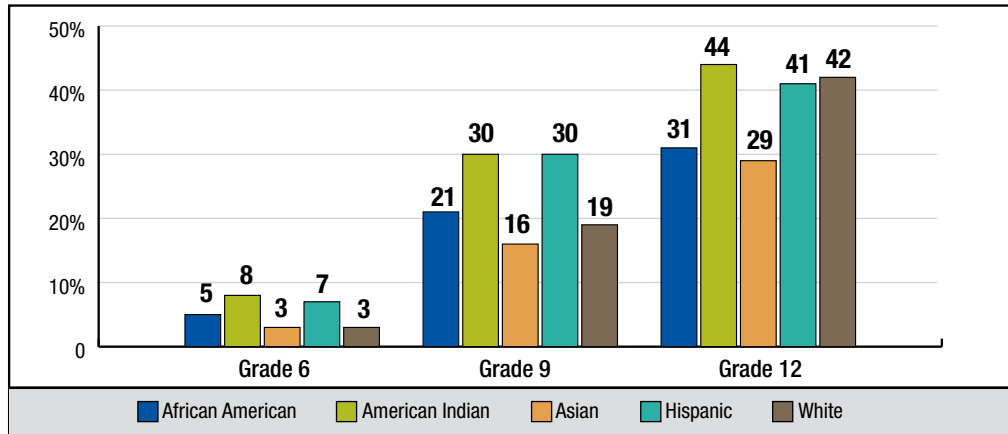
Source: Minnesota Student Survey, 2001-2010

Alcohol Use and Binge Drinking

More young people report using alcohol than smoking cigarettes. Among 12th grade students, more than 40 percent of American Indian, White and Hispanic students report drinking beer, wine, hard liquor or other alcoholic beverage in the last 30 days. (Figure 41)

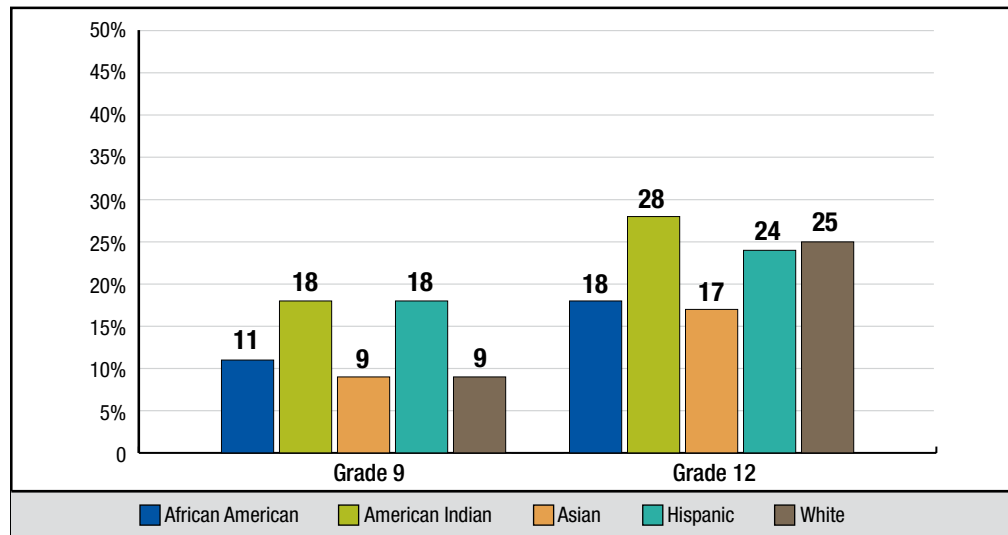
A large number of students engage in binge drinking, which is defined as having five or more alcoholic drinks in a row. About one-fourth of American Indian (28%), White (25%) and Hispanic (24%) 12th graders report engaging in binge drinking at some time during the past two weeks. African American and Asian students are the least likely to engage in binge drinking. (Figure 42)

FIGURE 41. Percent who drank alcohol during the last 30 days, 2010.



Source: Minnesota Student Survey, 2010

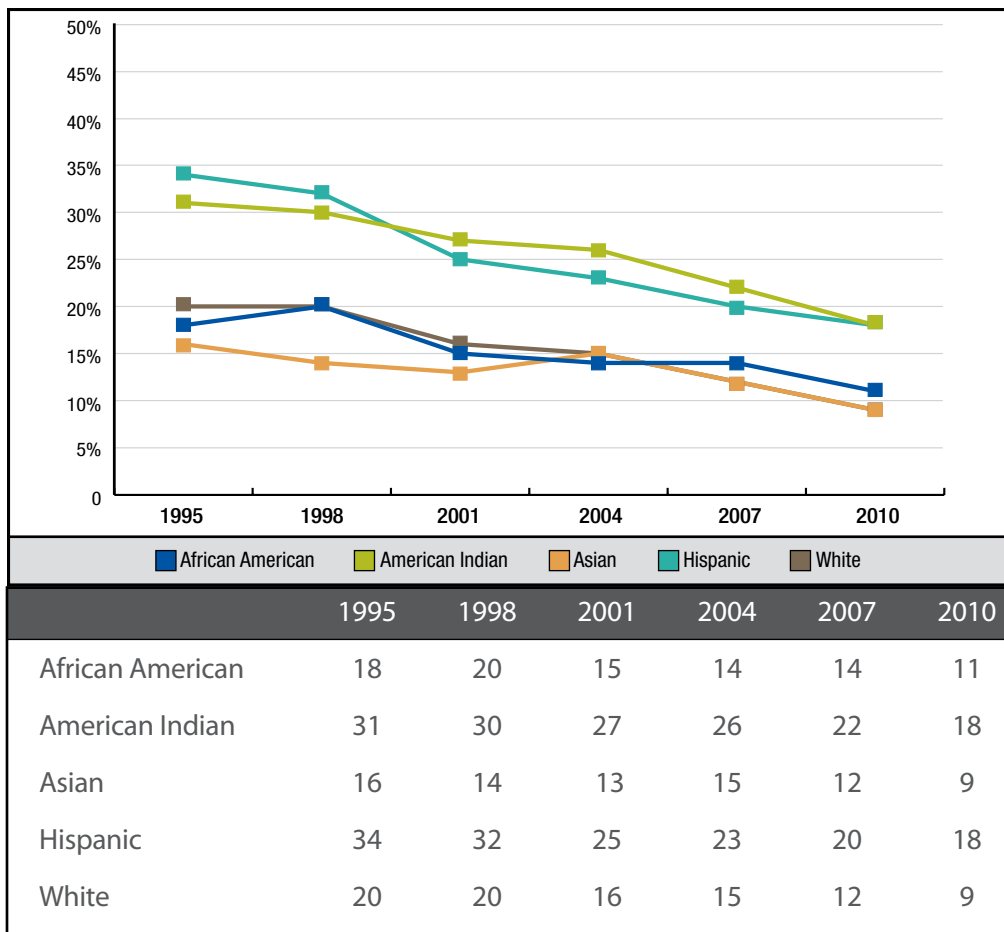
FIGURE 42. Percent who engaged in binge drinking during the past 2 weeks, 2010.



Source: Minnesota Student Survey, 2010

Among 9th grade students, binge drinking has declined since 1995 in all racial/ethnic groups. The sharpest decline has occurred among Hispanic youth. In 1995, 34 percent of Hispanic 9th graders reported binge drinking during the last two weeks, compared to 18 percent in 2010. (Figure 43)

FIGURE 43. Percent of 9th graders who engaged in binge drinking during the last 2 weeks, by year, 1995-2010.

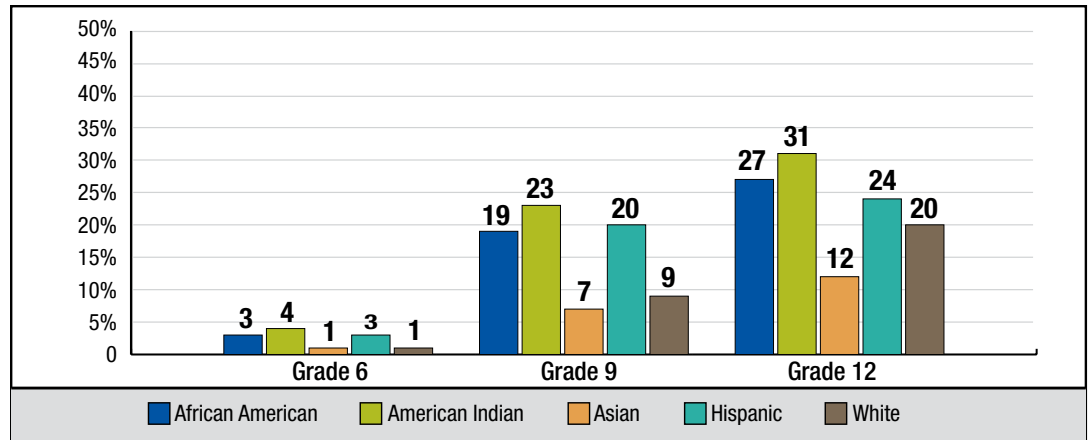


Source: Minnesota Student Survey, 1995-2010

Marijuana Use

Smoking marijuana or using hashish varies greatly by grade. For most racial/ethnic groups, the largest difference in marijuana use appears between the 6th and 9th grades, while for White youth the largest difference appears between the 9th and 12th grades. American Indian and African American youth show the highest rate of marijuana use in both 9th and 12th grade, while Asian youth are the least likely to report using marijuana at each grade level. (Figure 44)

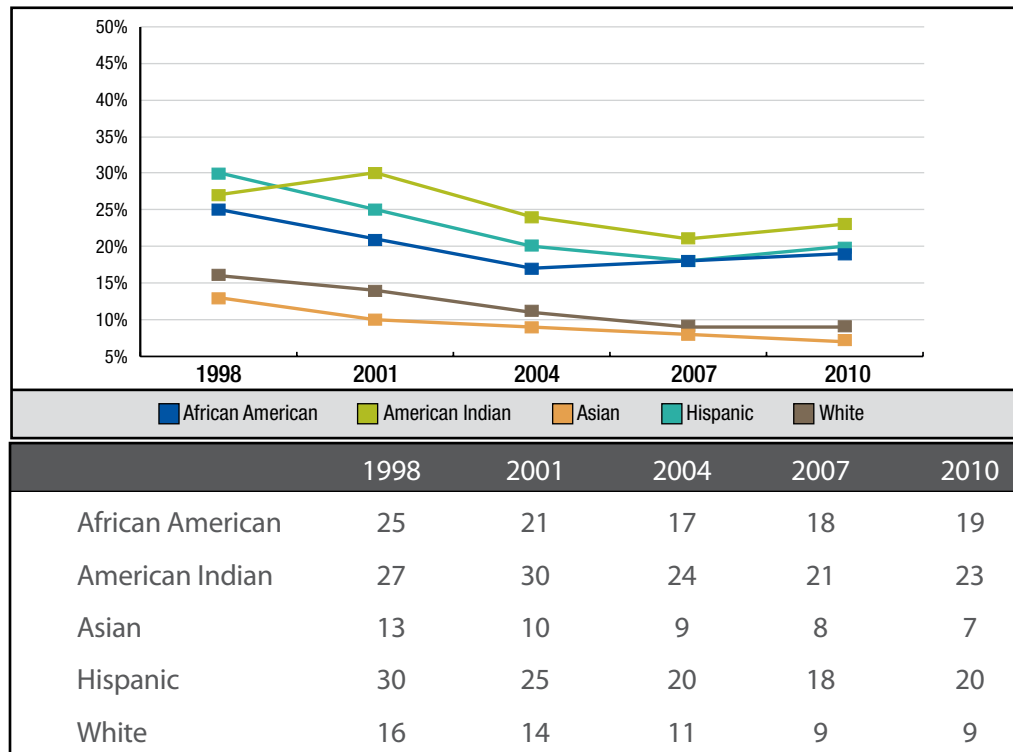
FIGURE 44. Percent who used marijuana during the last 30 days, 2010.



Source: Minnesota Student Survey, 2010

Marijuana use by 9th graders declined between 1998 and 2007 for all racial-ethnic groups, but then increased slightly for some groups between 2007 and 2010. The percentage of Hispanic 9th graders who used marijuana in the past 30 days fell from 30 percent in 1998 to 18 percent in 2007, then rose to 20 percent in 2010. (Figure 45)

FIGURE 45. Percent of 9th graders who used marijuana during the last 30 days, by year, 1998-2010.



Source: Minnesota Student Survey, 1998-2010

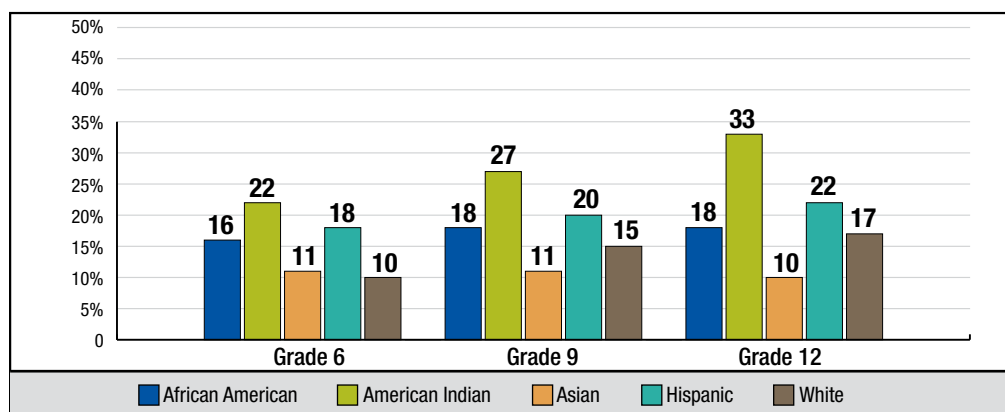
Chapter 11.

Substance Use by Family Members

The use of alcohol, marijuana and other drugs by parents or other family members can harm young people in many ways. Children growing up in such families are more likely to drink or use drugs and to engage in other risk behaviors. Adult substance use can lead to many problems or consequences that can make life more difficult for everyone in the family, including children. The MSS asks: “Has alcohol use by any family member repeatedly caused family, health, job, or legal problems?” An identical question is asked about drug use.

Alcohol use problems involving family members are reported more frequently than drug use problems. In all three grades, American Indian students are more likely than other students to report family problems due to alcohol and drug use. One-third of American Indian 12th graders (33%) report that alcohol use by a family member has caused repeated problems, and one quarter (24%) report that drug use has caused repeated problems. (Figures 46 and 47) In 9th and 12th grades, Asian students are the least likely to report that alcohol or drug use by a family member has caused problems.

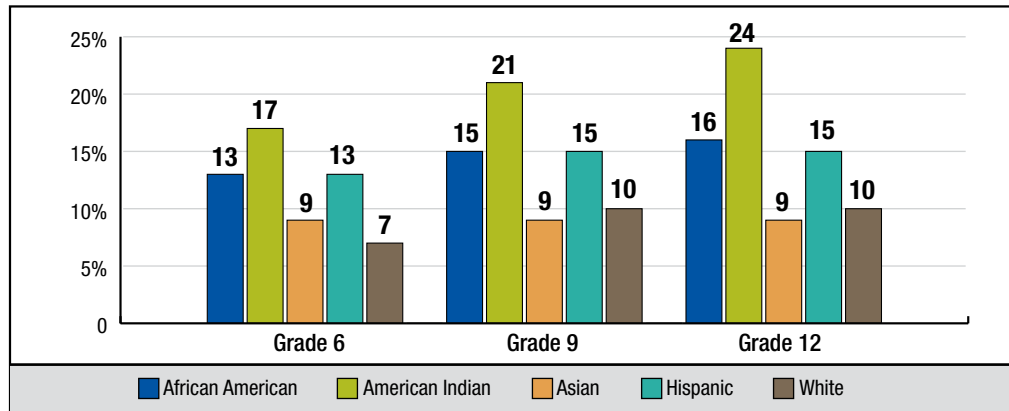
FIGURE 46. Percent who report that alcohol use by a family member has repeatedly caused problems, 2010.



Source: Minnesota Student Survey, 2010

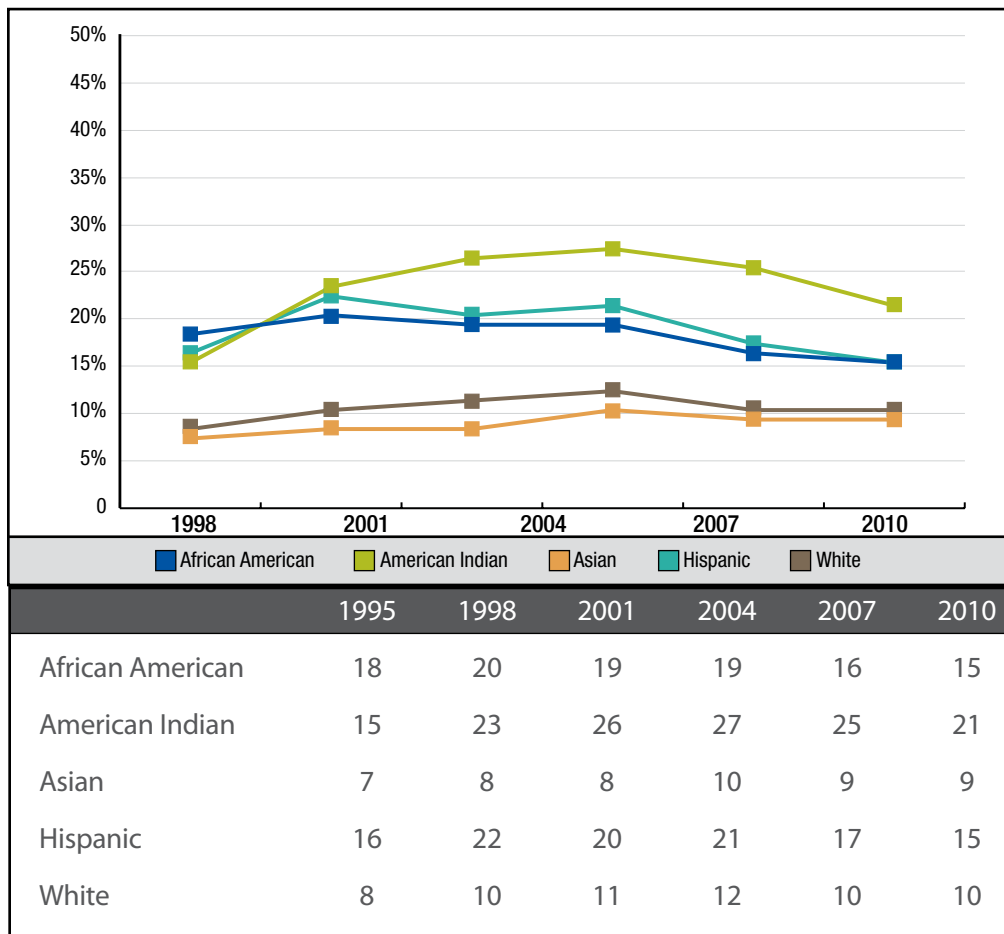
Between 2004 and 2010, reports of alcohol and drug problems by other family members decreased slightly or moderately in all racial/ethnic groups. Figure 48 shows trend results for drug use problems involving other family members. Among American Indian 9th graders, the percentage reporting that drug use by a family member has repeatedly caused problems rose from 15 percent in 1995 to 27 percent in 2004, and then dropped to 21 percent in 2010.

FIGURE 47. Percent who report that drug use by a family member has repeatedly caused problems, 2010.



Source: Minnesota Student Survey, 2010

FIGURE 48. Percent of 9th graders who report that drug use by a family member has repeatedly caused problems, by year, 1995-2010.



Source: Minnesota Student Survey, 1995-2010

Chapter 12.

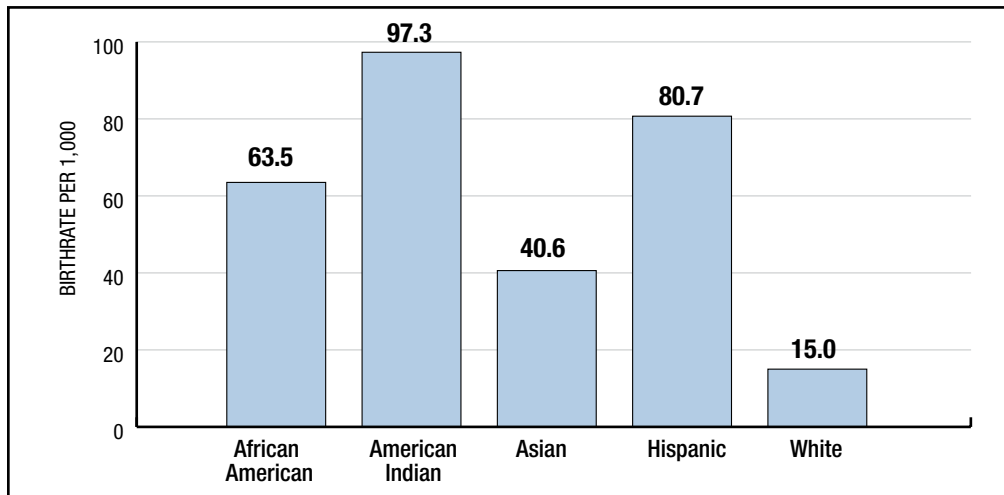
Sexual Activity and Health

Sexual health is closely tied in with adolescents' physical, mental and emotional health. Potential outcomes of sexual activity such as pregnancy and sexually transmitted diseases receive a great deal of media attention, but they are not the only outcomes. Sexual activity by adolescents has the potential to promote emotional growth, intimacy, and relationship skills. It also has the potential to increase emotional distress and exploitation. The stakes are high, and much depends on the maturity, knowledge, guidance and support that young people receive. This section touches the surface of sexual health, focusing on birth rates, sexual behavior, and protective behavior.

Births to Teen Mothers

The teen birth rate in communities of color is roughly three to six times higher than the birth rate among White teens, according to birth data for 2009. The American Indian community has the highest teen birth rate among racial/ethnic groups in Minnesota. The rate of 97.3 live births for every 1,000 American Indian teens aged 15-19 means that nearly one of every ten females in that age group gave birth in 2009. (Figure 49)

FIGURE 49. Birth rate per 1,000 females aged 15-19, by racial/ethnic group, Minnesota, 2009.

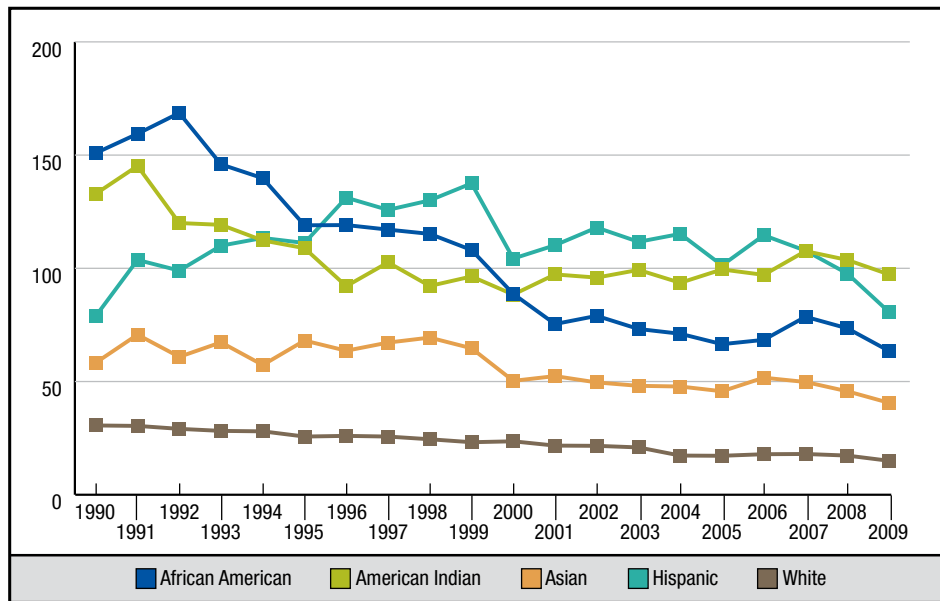


Source: Minnesota Center for Health Statistics

When considering birth rates, we must bear in mind that the accuracy of teen birth rates is only as good as the accuracy of the population count of 15-19 year-old females upon which it is based. Traditionally, we have relied on U.S. Census counts every ten years and on Census estimates for each year in between to obtain these population counts. These estimates don't always keep up with the changing demographics in Minnesota. Consequently, when considering trends, it is best to focus on long-term patterns rather than on change that might appear from one year to the next.

Over the past two decades, birth rates for mothers 15-19 years old have generally fallen. The most dramatic change has occurred in the African American community, where teen birth rates were cut in half between 1990 and 2001, from 151 to 75 births per thousand females. Since 2001, the birth rate has continued to decline slightly in this community. For American Indian teens, the birth rate declined substantially between 1991 and 1996, but has changed little since then. For Asian teens, the birth rate now is moderately lower than it was during the 1990's. The birth rate for Hispanic teens has fluctuated quite a bit, perhaps due in part to difficulties in getting an accurate count of the teen population. The Hispanic teen birth rate appears to have increased during the 1990's, but the rate has been much lower in recent years. For White teens, the birth rate declined gradually and steadily between 1990 and 2009. (Figure 50)

FIGURE 50. Birth rate per 1,000 females aged 15-19, by race/ethnic group: Minnesota, 1990-2009.



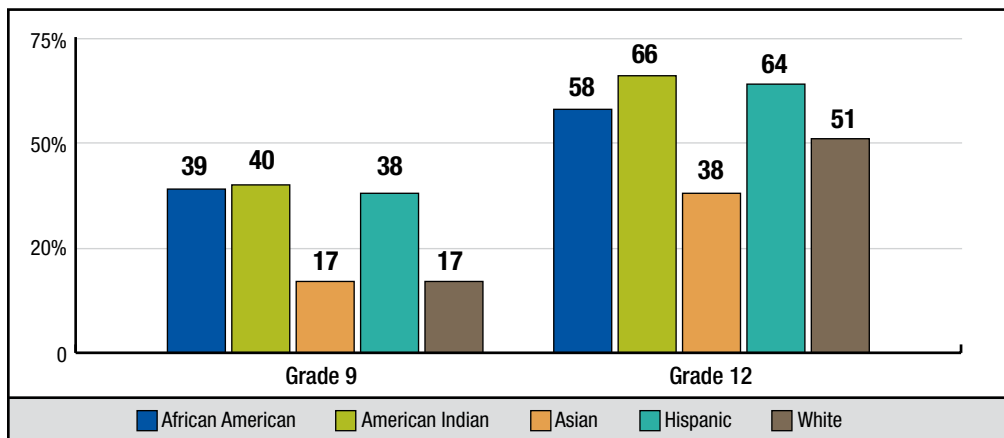
Source: Minnesota Center for Health Statistics

Sexual Activity

Many adolescents report that they are or have been sexually active, defined as having had sexual intercourse on one or more occasions. More than one-third of African American, American Indian and Hispanic students in the 9th grade report that they have had sexual intercourse. Except for Asian students, half or more of 12th graders say that they have had sexual intercourse. (Figure 51)

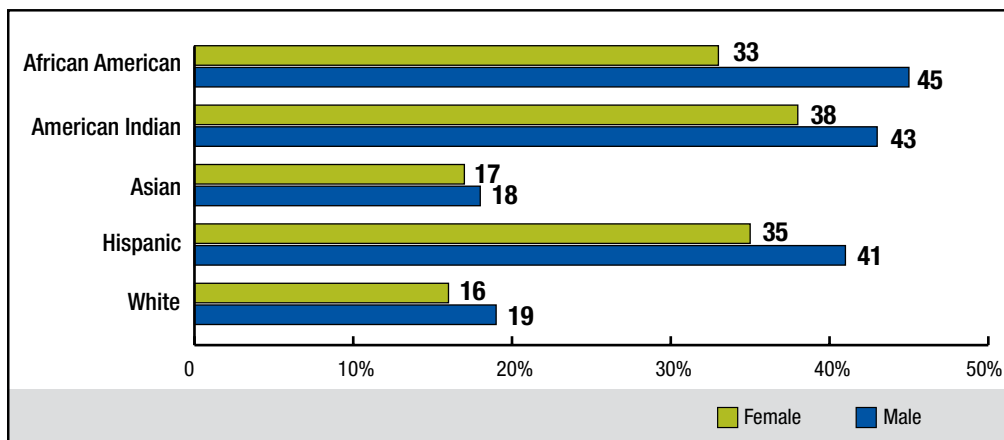
Male 9th graders are more likely to report that they have had sexual intercourse than female 9th graders. (Figure 52)

FIGURE 51. Percent who have had sexual intercourse one or more times in their lifetime, 2010.



Source: Minnesota Student Survey, 2010

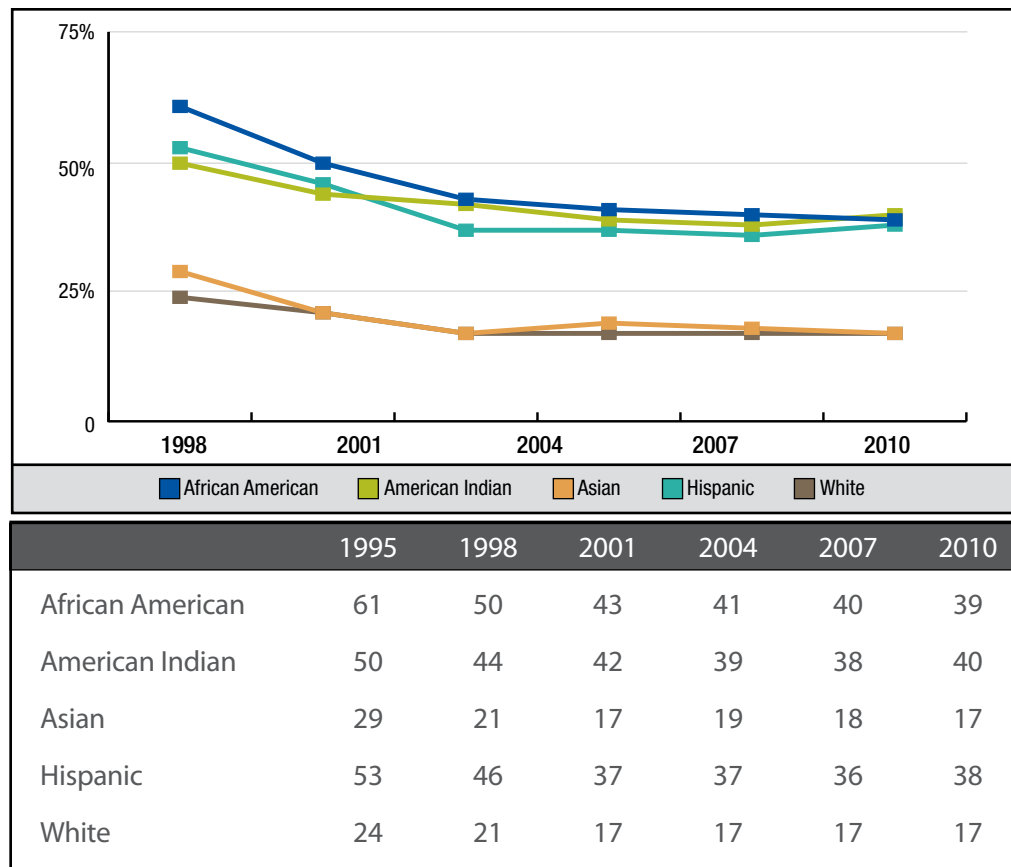
Figure 52. Percent of 9th graders who have had sexual intercourse one or more times in their lifetime, by gender, 2010.



Source: Minnesota Student Survey, 2010

Trends in sexual activity among 9th graders have some rough parallels with trends in birth rates mentioned earlier. For Asian, Hispanic and White students, the percentage who have been sexually active dropped sharply between 1995 and 2001, but then has remained basically unchanged since 2001. For example, the percentage of Hispanic 9th graders who were sexually active fell from 53 percent in 1995 to 37 percent in 2001 but then moved only to 38 percent by 2010. The period of declining sexual activity stretched out a little longer for African American and American Indian students, from 1995 to 2004, but between 2004 and 2010 there was very little change. (Figure 53)

FIGURE 53. Percent of 9th graders who have had sexual intercourse one or more times in their lifetime, by year, 1995-2010.

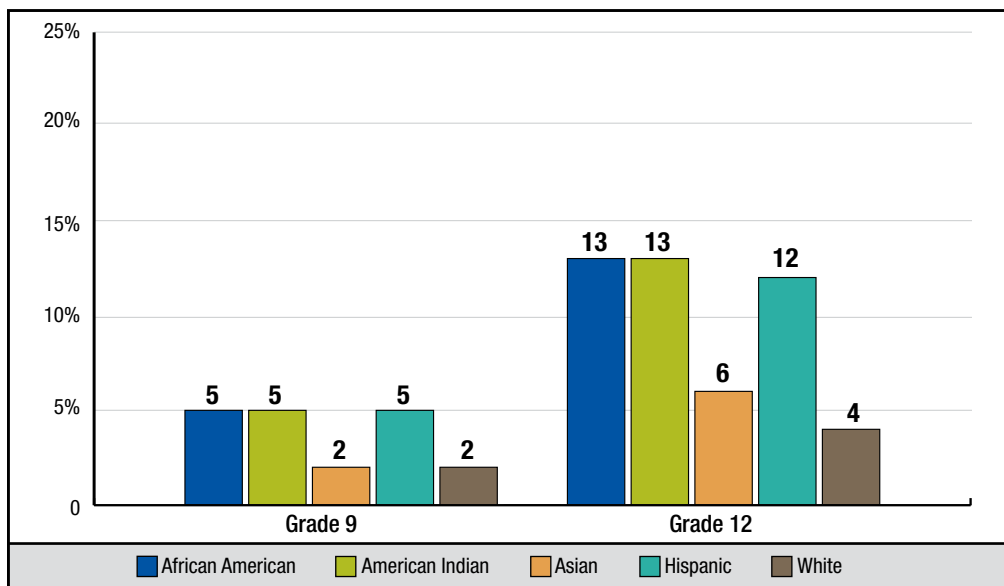


Source: Minnesota Student Survey, 1995-2010

Self-reported Pregnancy

About one of every eight 12th grade females from the African American, American Indian and Hispanic communities who took the survey report that they have been pregnant at least once in their lives. About one in twenty 9th grade students from these communities also report that they have been pregnant. (Figure 54) It is possible that some young women who were pregnant or had just given birth were not in school at the time of the survey.

FIGURE 54. Percent of females who report that they have been pregnant one or more times in their lifetime, 2010.

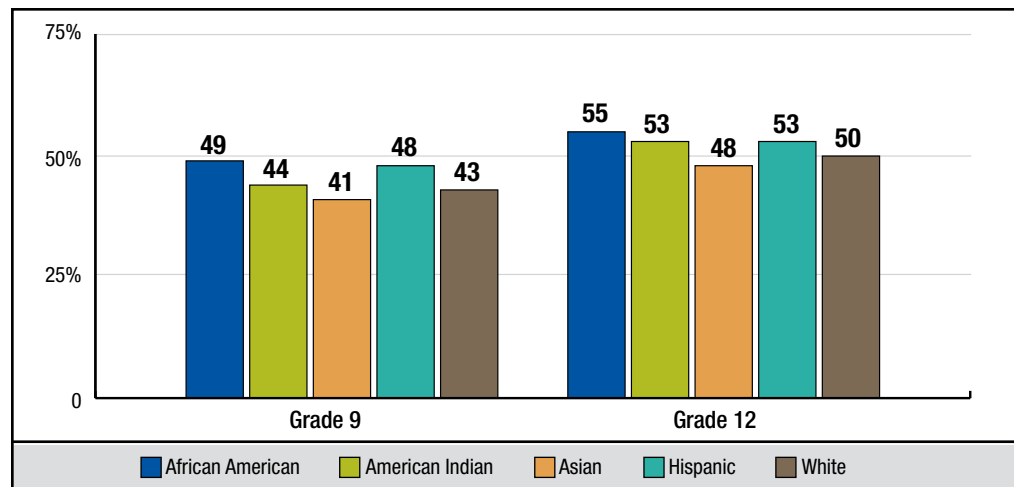


Source: Minnesota Student Survey, 2010

Protecting Against Pregnancy and Sexually Transmitted Diseases

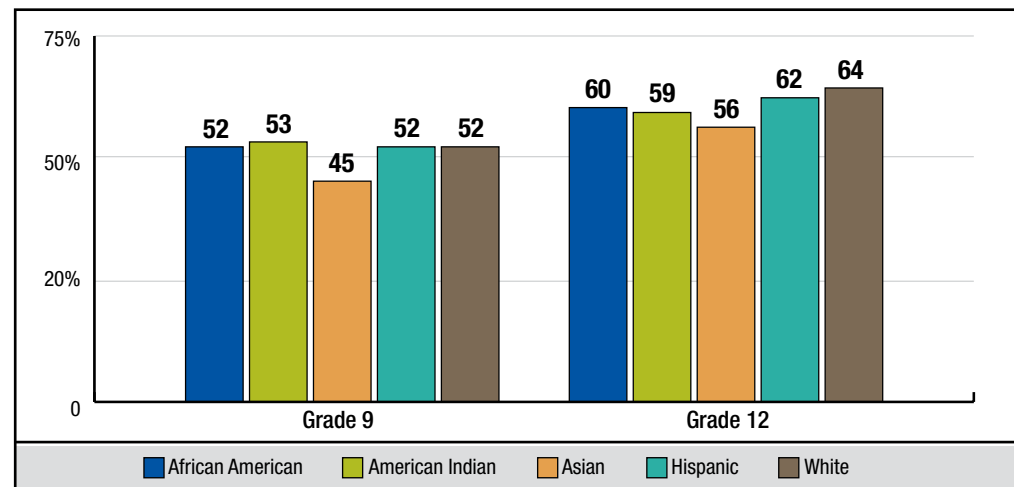
From an overall health perspective, if adolescents are going to be sexually active, it is very important for the couple to be clear about the steps they are taking to prevent sexually transmitted diseases and pregnancy. The MSS asks students how often they talk with sexual partner(s) about preventing STDs and pregnancy. In general, no more than half of sexually active 9th graders and a little more than half of sexually active 12th graders say that they have talked at least once with every partner about protecting against sexually transmitted diseases. There is not much difference in the responses of students from different racial/ethnic groups. (Figure 55) Generally, more than half of sexually active young people say that they have talked with every partner about preventing pregnancy. Again, there are few differences among racial/ethnic groups. (Figure 56) Females are somewhat more likely than males to say that they have talked to their partners about the prevention of STDs and pregnancy. (Results not shown)

FIGURE 55. Percent of sexually-active youth who have talked with every partner about sexually transmitted diseases, 2010.



Source: Minnesota Student Survey, 2010

FIGURE 56. Percent of sexually-active youth who have talked with every partner about preventing pregnancy, 2010.

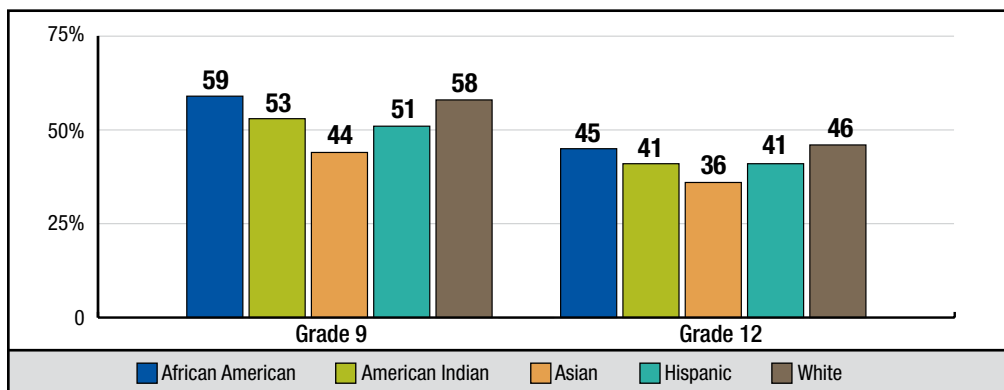


Source: Minnesota Student Survey, 2010

The MSS does not ask detailed questions about different methods of birth control or STD prevention, with one exception. Since the proper use of condoms offers protection against both unwanted pregnancy and sexually transmitted diseases, students who have been sexually active are asked how often a condom was used and specifically whether a condom was used the last time they had sexual intercourse.

Among sexually active 9th graders, African American students (59%) are the most likely to report that a condom was “always” used, while Asian students (44%) are the least likely. Fewer than half of 12th grade students in all racial/ethnic groups report that a condom was “always” used. (Figure 57) It is possible that other methods of birth control are being used besides or in addition to condoms. However, failure to use condoms leaves sexually active youth more vulnerable to sexually transmitted diseases.

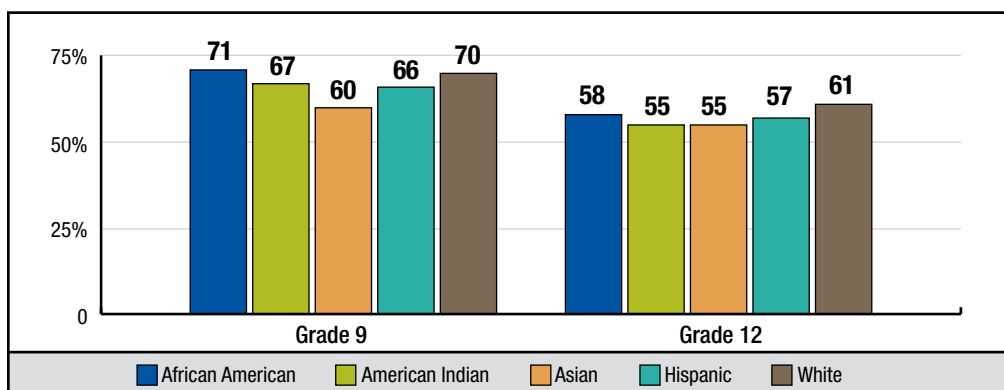
FIGURE 57. Percent of sexually-active youth who report that they or their partner “always” use a condom during sexual intercourse, 2010.



Source: Minnesota Student Survey, 2010

When asked about the most recent occasion of sexual intercourse, generally over two-thirds of sexually active 9th grade students and well over half of sexually active 12th grade students report that a condom was used the last time they had intercourse. Seventy-one percent (71%) of sexually active African American 9th graders report condom use during most recent sexual intercourse. (Figure 58)

FIGURE 58. Percent of sexually-active youth who used a condom during most recent sexual intercourse, 2010.



Source: Minnesota Student Survey, 2010

Chapter 13.

Safety Behavior

Failure to properly use seat belts and driving while intoxicated are among the critical factors that contribute to death and serious injury from motor vehicle accidents. Unintentional injury, primarily due to motor vehicle accidents, is the leading cause of death for adolescents in Minnesota.

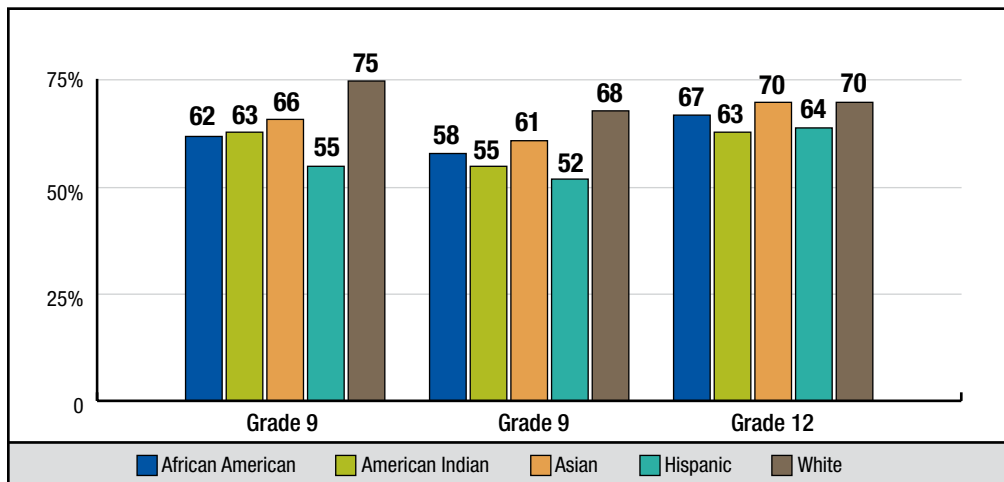
Seat Belts

The majority of students from all racial/ethnic groups report that they “always” wear a seat belt when riding in a car. Seat belt use is higher among 12th grade students than it is among 9th grade students. (Figure 59) As older teens become drivers, it is possible that driver education and knowledge of the law may encourage greater seat belt use among older teens.

In 6th and 9th grades, White students are more likely than other racial/ethnic groups to report always wearing a seat belt. But in 12th grade, differences among racial/ethnic groups become much smaller, ranging from 63 percent of American Indian students to 70 percent of Asian and White students who always wear a seatbelt. (Figure 59)

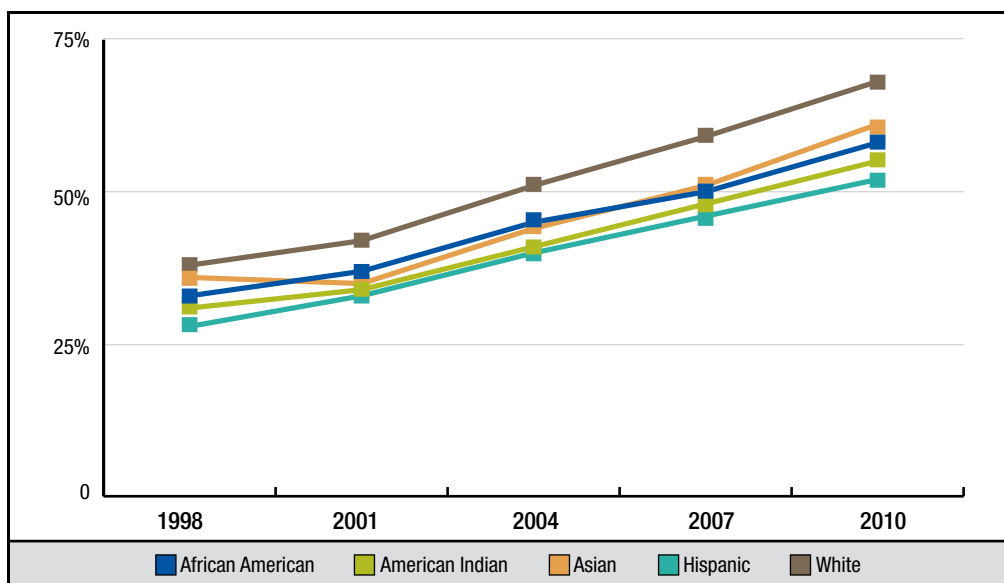
Seat belt use has increased dramatically among all racial/ethnic groups between 1998 and 2010. Among 9th grade students, for example, the percentage always wearing a seat belt increased from 28 to 52 percent for Hispanic students and from 38 to 68 percent for White students. (Figure 60)

FIGURE 59: Percent who “always” wear a seat belt when riding in a car, 2010.



Source: Minnesota Student Survey, 2010

FIGURE 60: Percent of 9th graders who “always” wear a seat belt when riding in a car, by year, 1998-2010.



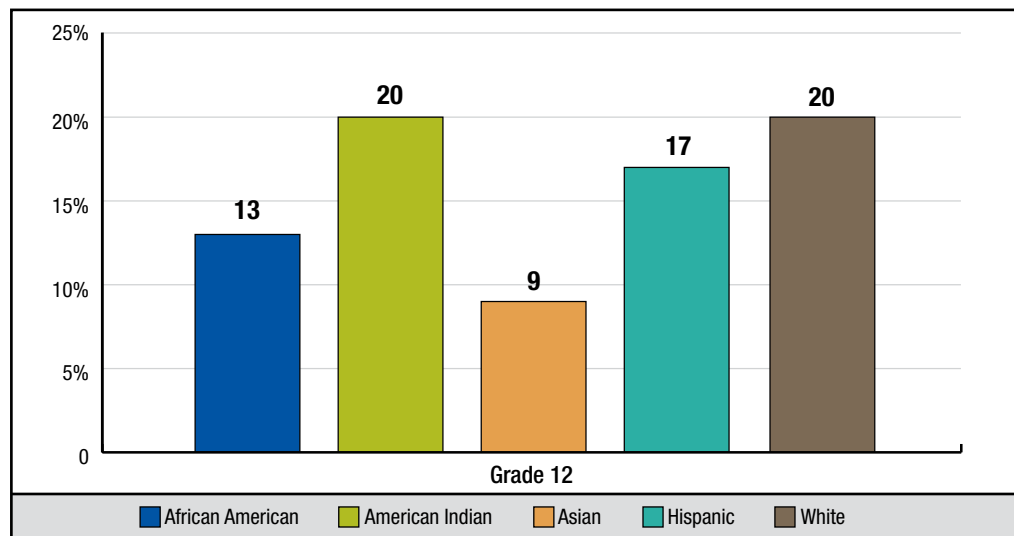
| | 1998 | 2001 | 2004 | 2007 | 2010 |
|------------------|------|------|------|------|------|
| African American | 33 | 37 | 45 | 50 | 58 |
| American Indian | 31 | 34 | 41 | 48 | 55 |
| Asian | 36 | 35 | 44 | 51 | 61 |
| Hispanic | 28 | 33 | 40 | 46 | 52 |
| White | 38 | 42 | 51 | 59 | 68 |

Source: Minnesota Student Survey, 1998-2010

Driving After Using Alcohol or Drugs

One in five American Indian (20%) and White (20%) 12th grade students reported that they drove a vehicle after using alcohol or other drugs at least once in the previous year. Hispanic students were close behind at 17 percent. The lowest rate was reported by Asian students – 9 percent reported driving a vehicle after using alcohol or other drugs. (Figure 61) The data is limited to 12th grade students because many 9th grade students are not yet able to drive. The pattern of results for driving after drinking or using drugs is similar to the results for alcohol use and binge drinking. (Chapter 10, Figures 41-42)

FIGURE 61. Percent of 12th grade students who drove a vehicle after using alcohol or other drugs in past 12 months, 2010.



Source: Minnesota Student Survey, 2010

Section IV – Protective Factors



Section Table of Contents

| | |
|---|----|
| CHAPTER 14 Family and Friend Relationships..... | 64 |
| Connection to Parents | 64 |
| Caring by Other Adults and Friends | 66 |
| CHAPTER 15 School and School Environment..... | 67 |
| Liking School..... | 67 |
| Skipping School | 68 |
| Aspirations for Higher Education | 69 |
| Perceptions of Teachers | 70 |
| School Mobility..... | 71 |
| CHAPTER 16 Organized Activities | 72 |
| Athletic Activities | 72 |
| Arts Activities | 73 |
| Religious Activities | 74 |
| Service Learning..... | 74 |
| Academic Help Programs | 75 |
| Volunteer Work..... | 75 |

Chapter 14.

Family and Friend Relationships

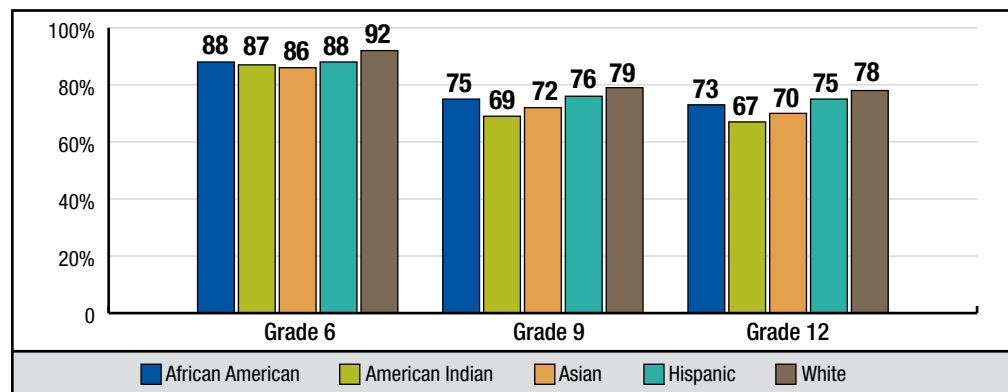
Protective factors in an adolescent's life have been described as "events or experiences that reduce the likelihood of negative outcomes and increase the likelihood of positive outcomes."²⁵ The MSS has for many years asked about three broad kinds of protective factors: (1) strong connections to family, friends and community; (2) strong connections to school; and (3) participation in organized activities outside of academic school work. The next three Chapters examine these protective factors.

25 Debra Bernat and Michael Resnick. "Healthy Youth Development: Science and Strategies". *Journal of Public Health Management and Practice*, 2006, November (Supplement): S10-S16.

Connections to Parents

About nine out of ten adolescents feel that their parents care about them very much. Younger students (6th grade) are considerably more likely than older students to feel their parents care about them very much. In 6th grade, there are virtually no differences among students of different racial/ethnic groups. The perception that parents care about them very much is lower among 9th and 12th grade students, and modest differences among racial/ethnic groups are seen in these grades. In 9th and 12th grades, White, Hispanic and African American students are the most likely to feel that their parents care very much about them. (Figure 62)

FIGURE 62. Percent who feel that their parents care about them “very much”, 2010.

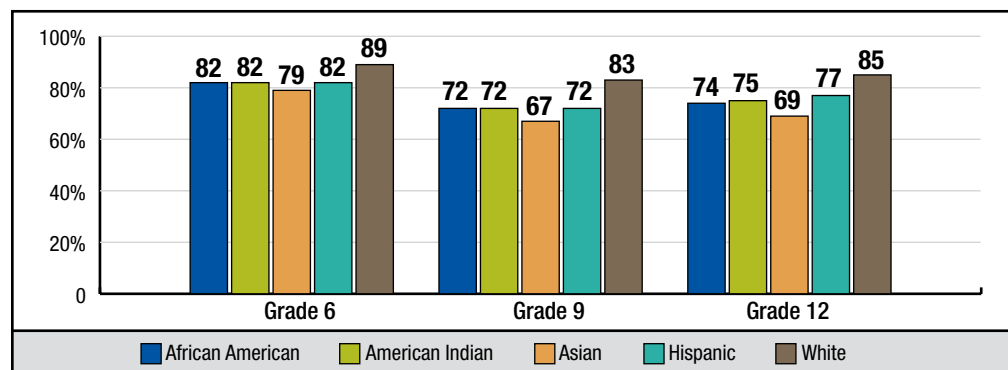


Source: Minnesota Student Survey, 2010

Being able to communicate with one’s parents is an essential characteristic of a vital relationship. Most students feel that they can talk to their mothers about problems they are having most of the time or some of the time, with modest differences among racial/ethnic groups. At each grade level, White youth are the most likely to feel they could communicate with their mothers and Asian youth are the least likely. (Figure 63)

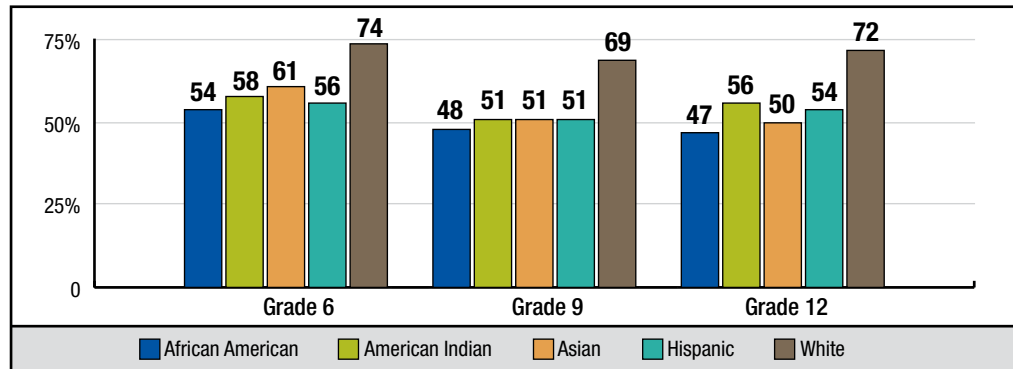
On the whole, students are less likely to feel that they can communicate with their fathers than their mothers, and the differences among racial/ethnic groups are much sharper. White youth are the most likely to feel that they can communicate with their fathers. (Figure 64) Part of the difference between White youth and African American or American Indian youth is due to the fact that some of these young people of color are not living with their fathers. (These adolescents often choose the question response that states “My father is not around.”) It’s hard to communicate when that person is not consistently involved in your life.

FIGURE 63. Percent who feel that they can talk to their mother about problems “most” or “some” of the time, 2010.



Source: Minnesota Student Survey, 2010

FIGURE 64. Percent who feel that they can talk to their father about problems “most” or “some” of the time, 2010.



Source: Minnesota Student Survey, 2010

Caring by Other Adults and Friends

In addition to parents, the survey asks students if they feel that other adults care about them. Three-fourths or more of 9th grade students in each racial/ethnic group feel that adult relatives, besides their parents, care about them “very much” or “quite a bit.” About half or less of students of color feel that religious or spiritual leaders care about them “very much” or “quite a bit.” Roughly 40 percent of students of color feel that teachers, coaches and other staff at school care about them. White students are somewhat more likely than students of color to report that different kinds of adults care about them. (Table 9)

More than two-thirds of students of color feel that their friends care about them “very much” or “quite a bit.” White students are the most likely of any group to feel that their friends care about them. (Table 9)

TABLE 9. Percent of 9th grade students who feel that different people care about them “very much” or “quite a bit”, 2010 (lowest rate in bold).

| How much do you feel.... | African American | American Indian | Asian | Hispanic | White |
|--|------------------|-----------------|-------|----------|-------|
| ...other adult relatives care about you? | 82% | 80% | 76% | 81% | 87% |
| ...teachers/other adults at school care about you? | 41% | 36% | 41% | 40% | 46% |
| ...religious or spiritual leaders care about you? | 51% | 43% | 45% | 45% | 57% |
| ...other adults in your community care about you? | 36% | 32% | 33% | 35% | 44% |
| ...friends care about you? | 71% | 71% | 69% | 70% | 78% |

Source: Minnesota Student Survey, 2010

Chapter 15.

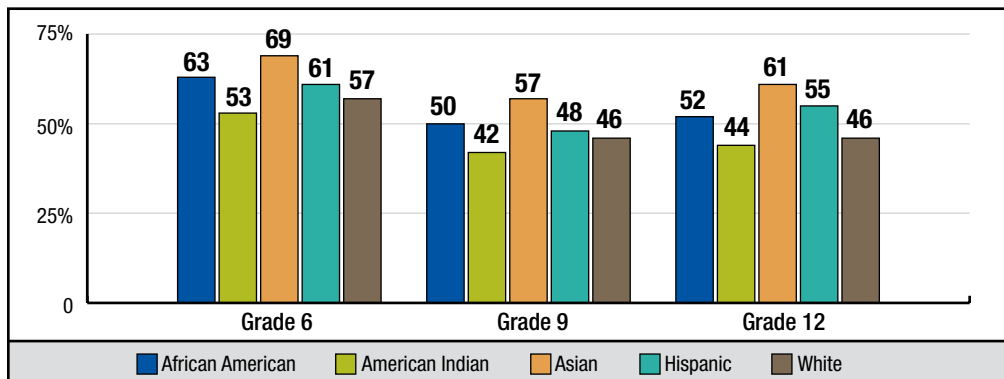
School and School Environment

Positive feelings about education and going to school can contribute to success in school and in turn are reinforced by success in school. A strong and positive connection to school is considered a protective factor that contributes to the reduced likelihood of participating in unhealthy risk behaviors such as smoking, drinking, drug use, early sexual activity, violence, gambling and delinquent behavior.

Liking School

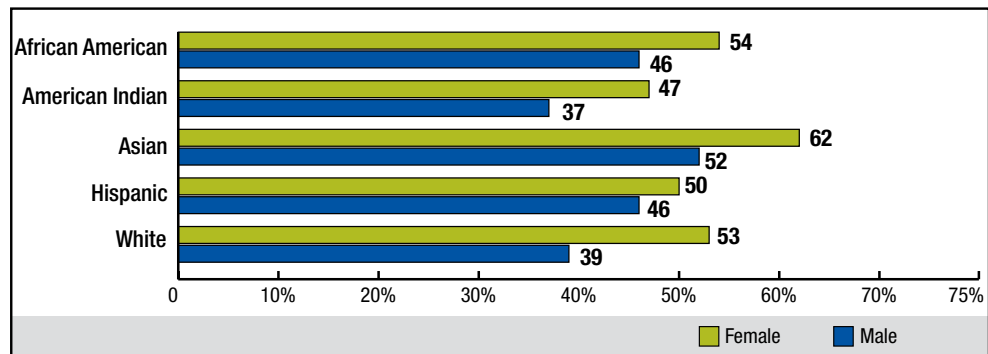
In all three grades, Asian, African American and Hispanic students are more likely than students from other groups to report that they like going to school “very much” or “quite a bit.” Sixty-nine percent (69%) of 6th grade Asian students, 57 percent of 9th grade Asian students, and 61 percent of 12th grade Asian students report liking school. In all racial/ethnic groups, the percentage of students liking school is lower in 9th grade than in 6th grade. (Figure 65) In each racial/ethnic group, females are more likely than males to say they like going to school. (Figure 66)

FIGURE 65. Percent who like going to school “very much” or “quite a bit”, 2010.



Source: Minnesota Student Survey, 2010

FIGURE 66. Percent of 9th graders who like going to school “very much” or “quite a bit”, by gender, 2010.

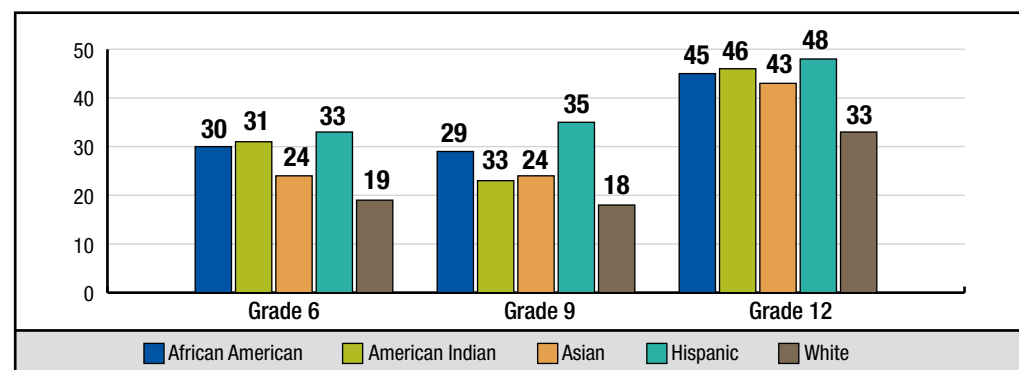


Source: Minnesota Student Survey, 2010

Skipping School

An alarming number of students report skipping or cutting full days of school in the previous 30 days. Skipping school is most commonly reported by 12th grade students. In 12th grade, one-third of White students and close to one-half of students from each community of color report that they skipped at least one day of school in the last 30 days. Even in the 6th and 9th grades, somewhere between one-fourth and one-third of students of color skipped school, including 24 percent of 9th grade Asian students and 35 percent of 9th grade Hispanic students. (Figure 67)

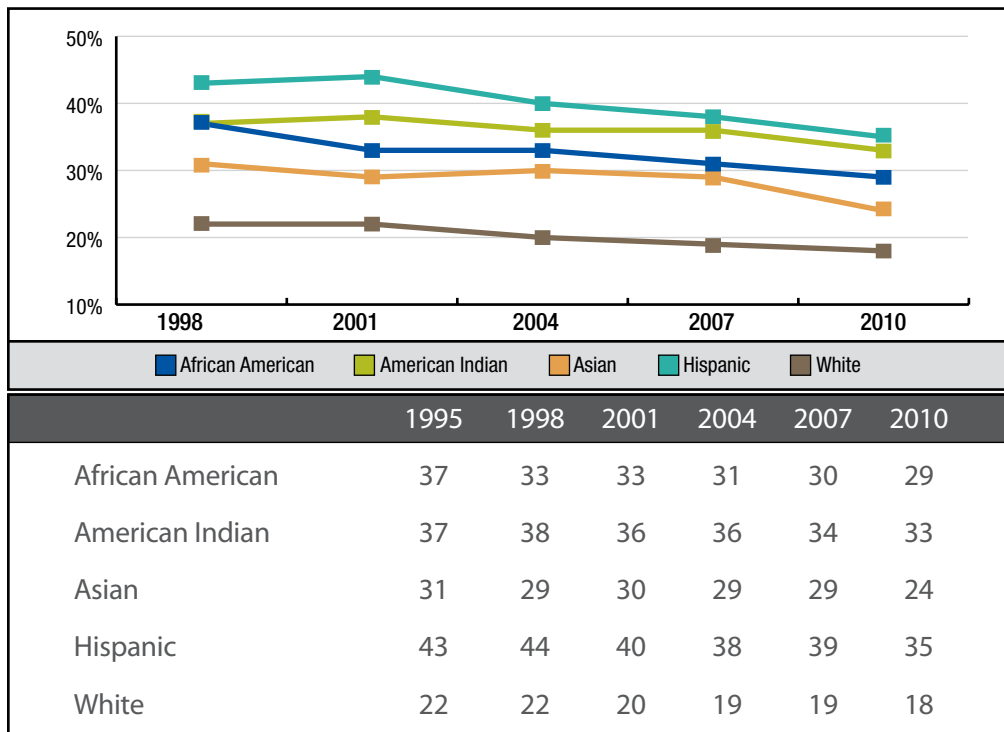
FIGURE 67. Percent who skipped full days of school one or more times in the last 30 days, 2010.



Source: Minnesota Student Survey, 2010

In each racial/ethnic group there has been a gradual decline in skipping school since 1995. The largest decreases have occurred in the African American and Hispanic communities. For example, 37 percent African American 9th graders reported skipping school in 1995, compared to 29 percent in 2010. (Figure 68)

FIGURE 68. Percent of 9th graders who skipped full days of school one or more times in the last 30 days, by year, 1995-2010.

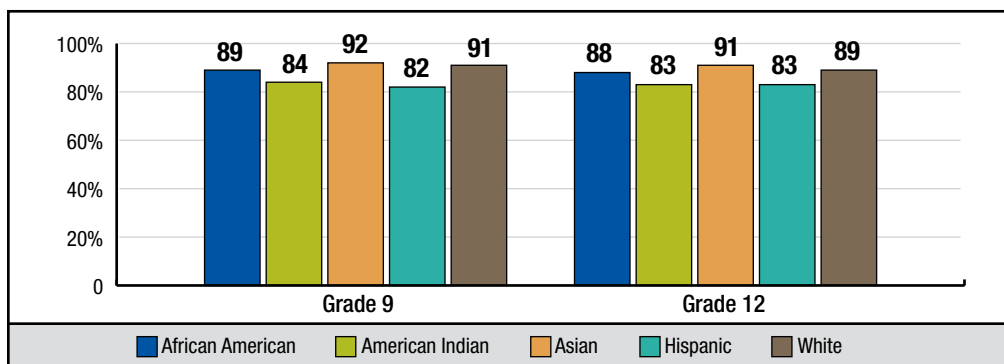


Source: Minnesota Student Survey, 1995-2010

Aspirations for Higher Education

Across all racial/ethnic groups, the great majority of students (close to 90 percent) say they plan to go to college. Aspirations for higher education appear to be very similar from one racial/ethnic group to another. (Figure 69) The unfortunate reality is that many of the students who hope to go to college will receive little or no education beyond high school.²⁶

FIGURE 69. Percent who plan to go to college or graduate school, 2010.



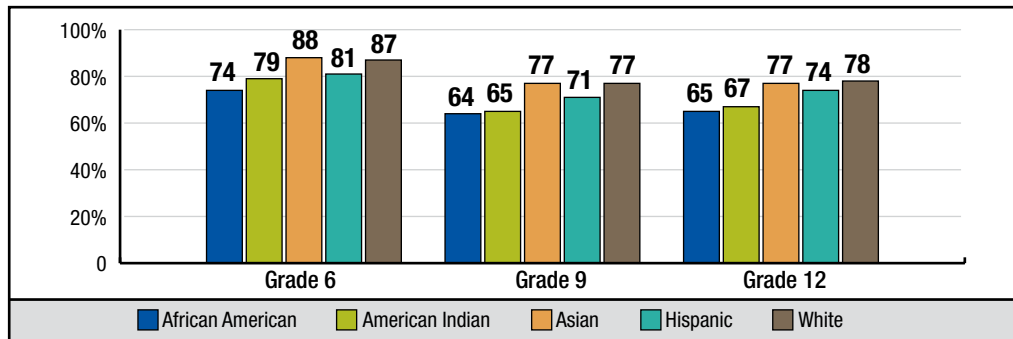
Source: Minnesota Student Survey, 2010

²⁶ About half of Minnesota students of color who graduate from high school enter a Minnesota two-year or four-year college during the fall following their graduation, and an unknown percentage enter a college outside Minnesota. But high school graduates are just one part of the picture. As we saw in Chapter 3, large numbers of students of color do not make it to high school graduation on time and will find it very difficult to take the next step of attending college. Statistics on college participation rates of high school graduates are available on the web site of the Minnesota Office of Higher Education at <http://www.ohe.state.mn.us>.

Perceptions of Teachers

The majority of students feel that “most” or “all” of their teachers show respect for students, but there are differences among racial/ethnic groups. In all three grade levels, African American students are the least likely to feel that their teachers show respect for students, while Asian and White students are the most likely to feel their teachers show respect. (Figure 70)

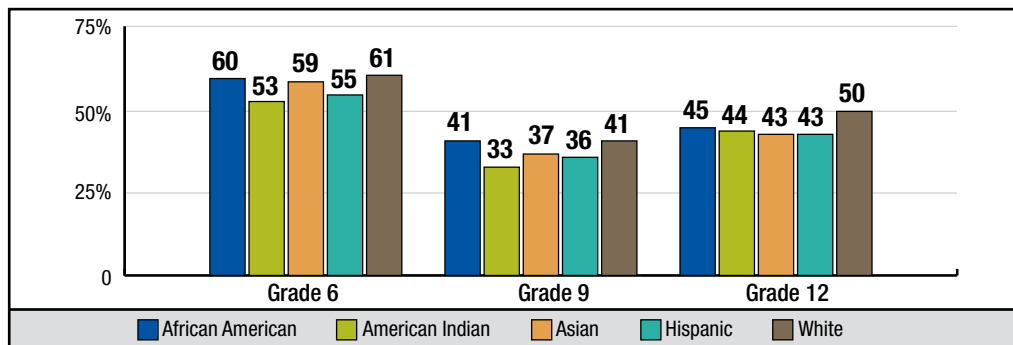
FIGURE 70. Percent who report that “all” or “most” of their teachers show respect for students, 2010.



Source: Minnesota Student Survey, 2010

Students are in general less likely to believe that their teachers are interested in them as a person than to believe that their teachers show respect for students. (Figures 70 and 71) In 6th grade, more than half of students feel that their teachers are interested in them as a person, while in 9th grade, only 33-41 percent of students in different racial/ethnic groups feel that their teachers are interested in them. In 6th and 9th grades, African American and White students are more likely than other groups to feel their teachers are interested in them as a person. (Figure 71)

FIGURE 71. Percent who report that “all” or “most” of their teachers are interested in them as a person, 2010.

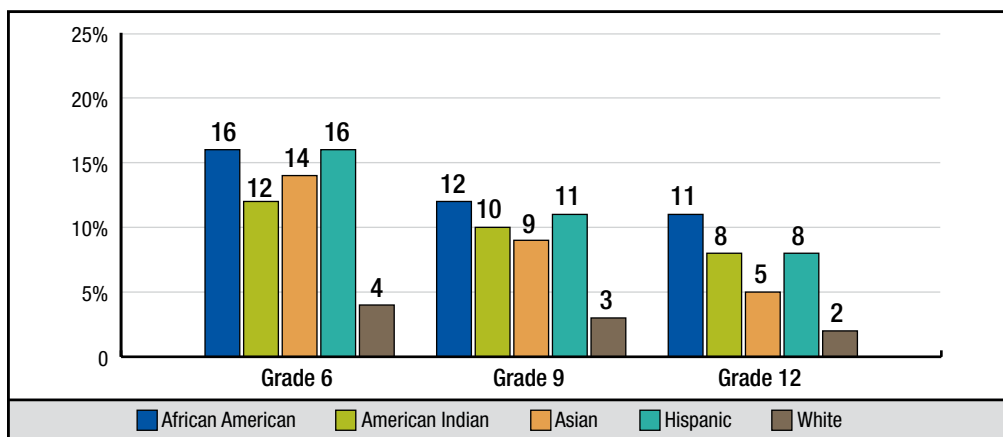


Source: Minnesota Student Survey, 2010

School Mobility

Educators believe that students need a reasonable amount of stability in their school placements in order to thrive. While some school transfers are clearly positive for individual students, frequent changes of schools can disrupt the flow of learning, weaken the parent-student-teacher bond, and make it more difficult for the child to form attachments at school. Changing schools during the current school year is most common among 6th graders. Sixteen percent (16%) of African American and Hispanic 6th graders report that they changed schools at least once since the beginning of the school year. In 6th and 9th grades, students of color are three to four times more likely than White students to have changed schools during the school year. For example, in the 9th grade, 12 percent of African American students report changing schools after the beginning of the school year compared to 3 percent of White students. (Figure 72)

FIGURE 72. Percent who have changed schools at least once since the beginning of the school year, 2010.



Source: Minnesota Student Survey, 2010

Chapter 16.

Organized Activities

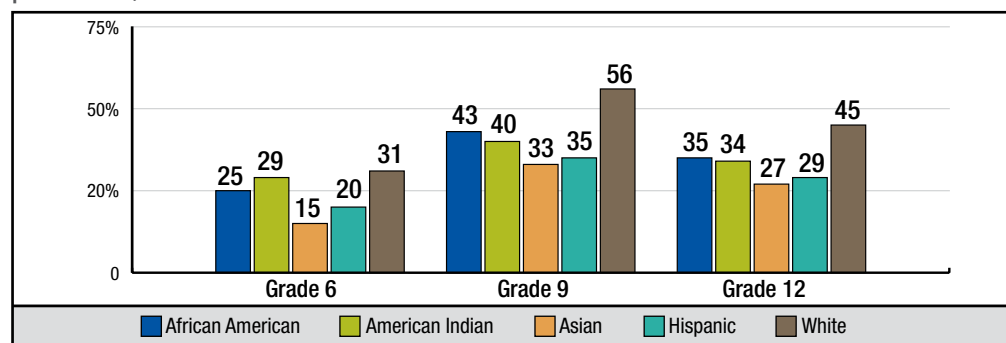
Participation in organized activities of various kinds after school and during the summer months is thought to be another of the protective factors that can reduce involvement in risk behaviors that compromise health and well-being. Furthermore, this is one of the protective factors that is relatively easy for local communities, schools and nonprofits to influence, much more so than influencing family dynamics. Parents recognize the need for more activities in which their kids can participate.²⁷

²⁷ Lochner A, Allen G, Blyth D. Exploring the Supply and Demand for Community Learning Opportunities in Minnesota. Center for Youth Development, University of Minnesota Extension, 2009. Available on the web at <http://www1.extension.umn.edu/youth/research/research-gap-study-results.html>.

Athletic Activities

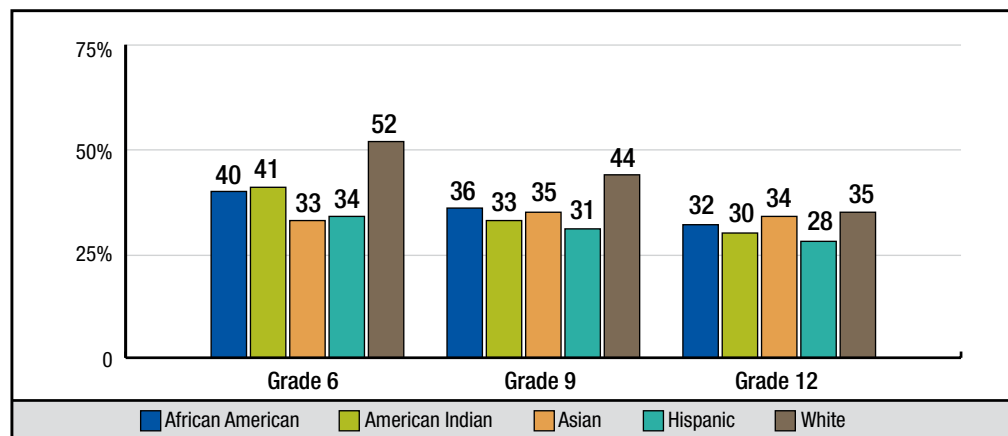
At each grade level, White students are more likely than students in all other racial/ethnic groups to participate in organized athletic activities, whether school sports or organized community sports. (Figures 73 and 74) For example, 56 percent of White 9th graders report playing on school sports teams compared to only 33 percent of Asian 9th graders. Although young people may benefit from the discipline, teamwork, mentoring and plain fun of organized sports, the MSS results show that organized sports do not reach large numbers of students of color.

FIGURE 73. Percent who participate on school sports teams one or more times per week, 2010.



Source: Minnesota Student Survey, 2010

FIGURE 74. Percent who participate on club or community sports teams one or more times per week, 2010.

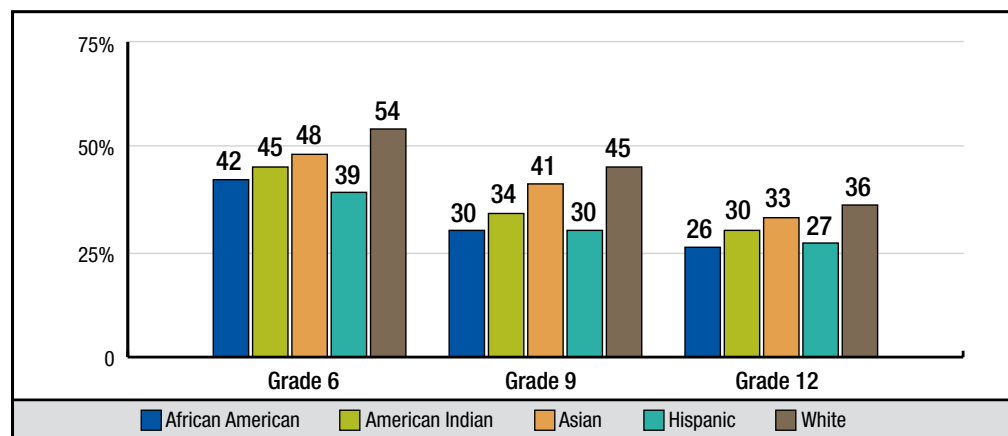


Source: Minnesota Student Survey, 2010

Arts Activities

White students are more likely than students from other racial/ethnic groups to participate in organized arts activities (such as band and choir) and individual private lessons (such piano, violin or ballet lessons). In 9th grade, for example, 45 percent of White students report participating in arts activities at least once a week compared to 30 percent of African-American and Hispanic students. Participation in arts activities is highest in 6th grade and lowest in 12th grade for all racial/ethnic groups. (Figure 75)

FIGURE 75. Percent who participate in arts activities (band, choir, dance, drama, private lessons) one or more times per week, 2010.

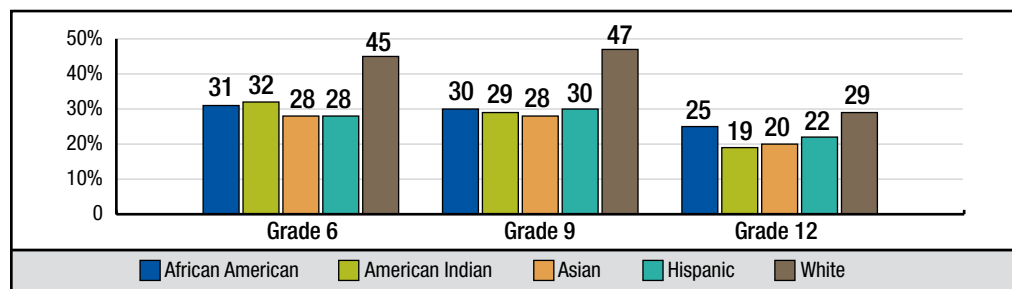


Source: Minnesota Student Survey, 2010

Religious Activities

As defined by the MSS, organized religious activities can include religious services, education programs or classes, youth groups, etc. The term is not intended to cover private prayer, study or meditation. Less than half of students report that they are involved in organized religious activities on a regular basis, defined as one or more times per week. In 6th and 9th grades, White students are much more likely than students from other racial/ethnic groups to engage in organized religious activities one or more times per week. In 12th grade, religious participation by White students is sharply lower than for younger students, and the differences among racial/ethnic groups are smaller. (Figure 76)

FIGURE 76. Percent who participate in religious activities one or more times per week, 2010.

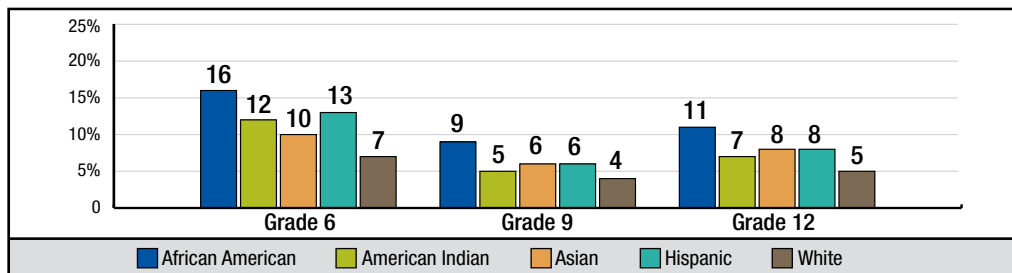


Source: Minnesota Student Survey, 2010

Service Learning

Service learning programs enable students to engage in learning while making a direct contribution to the community. Students work on service projects, and the projects have academic learning components built in. At all three grade levels, African American students are the most likely to report being involved in service learning programs. Sixteen percent (16%) of African American 6th graders report engaging in service learning one or more times per week. White students are the least likely to be involved in service learning. (Figure 77)

FIGURE 77. Percent who participate in service learning projects one or more times per week, 2010.

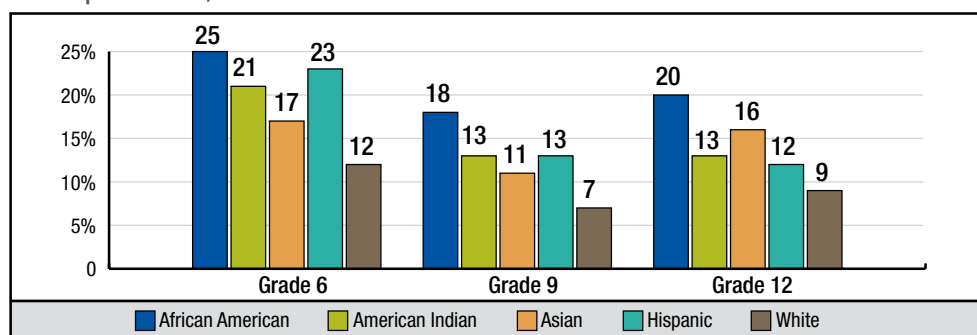


Source: Minnesota Student Survey, 2010

Academic Help Programs

A substantial number of students report that they have participated in academic help programs such as tutoring and Homework Help at least once per week. African American students are the most likely to participate in such programs, and White students are the least likely. In 6th grade, for example, 25 percent of African American students and 23 percent of Hispanic students use academic help programs, compared to 12 percent of White youth. (Figure 78)

FIGURE 78. Percent who participate in academic help programs one or more times per week, 2010.

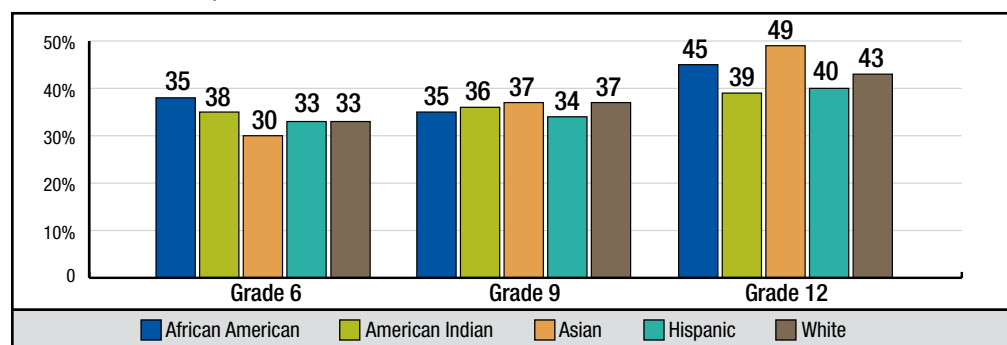


Source: Minnesota Student Survey, 2010

Volunteer Work

At least one-third of students report that they do some volunteer work during a typical week. The percentage of students doing volunteer work was higher among 12th grade students than among students in the earlier grades. Differences between racial/ethnic groups are fairly small. In 6th grade, American Indian students (38%) are the most likely to perform volunteer work, while in 12th grade Asian students (49%) are most likely to do volunteer work. (Figure 79)

FIGURE 79. Percent who spend one or more hours in a typical week doing volunteer work, 2010.



Source: Minnesota Student Survey, 2010

Section V – Health-Related Disparities



Section Table of Contents

| | |
|--|----|
| CHAPTER 17 Overview of Health-Related Disparities | 77 |
| Calculating and Using Disparity Ratios | 77 |
| Economic/Educational Disadvantage, Health Conditions and Health Risk Factors | 78 |
| Protective Factors and Positive Behaviors | 81 |
| Conclusion | 83 |

Chapter 17.

Overview of Health-Related Disparities

The data show widespread disparities in the health and well-being of adolescents from different racial/ethnic populations in Minnesota. This chapter uses the concept of disparity ratios to pull together the results from all the previous chapters of the report in one place. We calculate disparity ratios for many health indicators to identify more concisely where disparities exist and the degree of these disparities for each racial/ethnic population.²⁸

Calculating and Using Disparity Ratios

Disparity ratios are calculated by dividing the rate for a racial/ethnic population (RateA) by the best rate (RateB) for a selected health indicator to determine how much more often a particular experience occurs in a specific group compared to the best rate. For socioeconomic risk factors and health risk factors, the best rate for each indicator is the lowest rate among African Americans, American Indians, Asians, Hispanics and Whites. For example, White adolescents have the lowest poverty rate at 7.9 percent, so RateB for that socioeconomic factor is 7.9. For African American adolescents, the poverty rate is 39.8 percent, and the disparity ratio is 39.8 divided by 7.9, which equals 5.0. For positive health behaviors and protective factors, the best rate is the highest rate among all racial/ethnic groups. Asian 9th grade students have the highest rate for the protective factor of “liking school”; 57 percent of Asian 9th graders report liking school “very much” or “quite a bit”. This is the “best” rate for this indicator. For White 9th grade students, 46 percent report liking school, and the disparity ratio is 46 divided by 57, or .81.

In Minnesota, disparities are often calculated in reference to the White population, since that population is by far the largest and is the best off economically. But the White population doesn’t necessarily have the “best” rate or percentage for all indicators. For that reason, RateB is based on the best rate regardless of racial/ethnic group. This “best” rate shows what one racial/ethnic group has already been able to achieve.

28 For more information on disparity ratios, see Minnesota Department of Health, Health Disparities by Racial/Ethnic Populations in Minnesota, December 2009. The report is available on the web at <http://www.health.state.mn.us/divs/chs/raceethn/index.htm>.

Except where indicated in the tables that follow, the Minnesota Student Survey is the primary source for these analyses. To simplify, we have presented results only for 9th grade students in this chapter. Results for other grade levels can be made available on request.

When the best rate (RateB) is small, it is much more likely that the disparity ratios will be high. When the best rate is large, disparity ratios cannot climb very high. For example, if the best (lowest) rate is 50% on a survey item, the disparity ratio can never be more than 2.0, since no group can exceed 100%. This means that we should not compare disparity ratios from one indicator to another in hopes of determining which indicator shows the greatest disparities. In this analysis, we are only interested in looking within each indicator to see which groups have had less positive experiences.

Economic/Educational Disadvantage, Health Conditions and Health Risk Factors

Table 10 shows the disparity ratios for socioeconomic risk factors and health risk factors, organized by the chapters of this report in which the data are discussed. In this table, the “best” rate (represented by a dash) is always the lowest rate, and the disparity ratio will always be greater than 1.0. For example, the disparity ratio for the poverty rate is 5.0 for African Americans, which means that an African American teen is five times more likely to be living in poverty than a White teen. The key findings are:

1. Socioeconomic factors that have an impact on health, such as poverty and the failure to graduate on time, are generally two to five times more common in the African American, American Indian, Asian, and Hispanic communities than in the White community. (Table 10)
2. Health-related disparities are widespread in Minnesota. All communities experience disparities in some areas, but the highest disparity ratios for health conditions and health risk factors are generally found in the African American, American Indian and Hispanic communities. (Table 10) Most disparity ratios are higher than 1.5, which means that a condition or risk factor is at least one and a half times more likely in the affected community than in the community with the “best” rate.
3. White or Asian students have the lowest rate for nearly all of the health conditions and health risk factors. In particular, White students consistently have the lowest rates for mental and emotional health issues, and for physical and sexual abuse. Asian students consistently have the lowest rates for alcohol, tobacco and drug use. (Table 10)

TABLE 10. Disparity Ratios for Economic and Educational Disadvantage, Health Risks, and Health Conditions, for Racial/Ethnic Groups (largest disparities in bold).

| | African American | American Indian | Asian | Hispanic | White |
|--|------------------|-----------------|-------|----------|-------|
| CHAPTER 3 | | | | | |
| Poverty rate for adolescents 12-17 years old*5.0 | | 4.1 | 3.5 | 3.3 | -- |
| Receive free/reduced price school lunch** | 3.8 | 3.4 | 2.7 | 3.6 | -- |
| Did not graduate within four years after entering 9th grade** | 3.2 | 3.3 | 1.8 | 3.1 | -- |
| CHAPTER 4 | | | | | |
| Deaths per 100,000 for adolescents 12-19 years old*** | 1.8 | 4.2 | -- | -- | 1.1 |
| CHAPTER 5 | | | | | |
| Felt nervous, worried, or upset all or most of the time | 1.6 | 1.8 | 1.4 | 1.6 | -- |
| Felt sad all or most of the time | 1.6 | 1.8 | 1.4 | 1.6 | -- |
| Felt under heavy stress or pressure ("almost more than I could take") | 1.3 | 1.7 | 1.1 | 1.3 | -- |
| Felt very discouraged or hopeless | 1.6 | 1.9 | 1.6 | 1.8 | -- |
| Thought about killing yourself during the last year | 1.3 | 1.6 | 1.3 | 1.3 | -- |
| Tried to kill yourself during the last year | 1.7 | 2.7 | -- | 2.0 | -- |
| Hurt yourself on purpose (cutting, burns, etc.) during the last year | 1.0 | 1.8 | 1.1 | 1.4 | -- |
| Have mental or emotional health problem that has lasted at least 12 months | 1.5 | 2.4 | -- | 1.6 | 1.4 |
| CHAPTER 6 | | | | | |
| Have physical health condition that has lasted at least 12 months | 1.6 | 1.9 | -- | 1.2 | 1.2 |
| Have ever been told they have asthma | 1.7 | 1.7 | -- | 1.3 | 1.3 |
| CHAPTER 7 | | | | | |
| Overweight or obese | 1.5 | 1.6 | 1.2 | 1.6 | -- |
| CHAPTER 8 | | | | | |
| Had one or more glasses of pop or soda yesterday | 1.2 | 1.3 | -- | 1.3 | 1.1 |
| Spend six or more hours in typical week watching TV, DVDs or videos | 1.3 | 1.3 | -- | 1.1 | 1.3 |

| | | | | | |
|--|-----|-----|-----|-----|-----|
| Spend six or more hours in typical week talking on the phone or texting | 1.6 | 1.7 | -- | 1.5 | 1.4 |
| CHAPTER 9 | | | | | |
| Have ever been hit hard or often by an adult in the household | 2.0 | 2.0 | 1.6 | 1.8 | -- |
| Have ever experienced unwanted sexual touching or abuse | 2.0 | 2.3 | 1.2 | 2.2 | -- |
| Have ever been physically or sexually hurt or threatened by someone they were going out with | 1.5 | 1.8 | 1.1 | 1.6 | -- |
| Hit or beat up another person during last 12 months | 1.9 | 1.9 | 1.1 | 1.8 | -- |
| Carried a weapon on school property during the last 30 days | 1.8 | 2.2 | -- | 2.2 | -- |
| Missed school because felt unsafe at school or on the way to or from school | 2.0 | 2.3 | 1.8 | 2.3 | -- |
| CHAPTER 10 | | | | | |
| Smoked cigarettes in the last 30 days | 1.4 | 2.8 | -- | 2.0 | 1.3 |
| Smoked cigars, cigarillos or little cigars in the last 30 days | 2.3 | 2.8 | -- | 2.8 | 1.3 |
| Drank alcohol in the last 30 days | 1.3 | 1.9 | -- | 1.9 | 1.2 |
| Engaged in binge drinking in the last two weeks | 1.2 | 2.0 | -- | 2.0 | -- |
| Smoked marijuana in the last 30 days | 2.7 | 3.3 | -- | 2.9 | 1.3 |
| CHAPTER 11 | | | | | |
| Alcohol use by family member has repeatedly caused problems | 1.6 | 2.5 | -- | 1.8 | 1.4 |
| Drug use by family member has repeatedly caused problems | 1.7 | 2.3 | -- | 1.7 | 1.1 |
| CHAPTER 12 | | | | | |
| Teen birth rate (births per 1,000 women 15-19 years old)** | 4.2 | 6.5 | 2.7 | 5.4 | -- |
| Have had sexual intercourse one or more times in life | 2.3 | 2.4 | -- | 2.2 | -- |
| Females who have been pregnant one or more times | 2.5 | 2.5 | -- | 2.5 | -- |
| CHAPTER 13 | | | | | |
| Drove a vehicle after using alcohol or other drugs in past 12 months (12 graders only) | 1.4 | 2.2 | -- | 1.9 | 2.2 |

CHAPTER 15

| | | | | | |
|---|-----|-----|-----|-----|----|
| Skipped full day of school in the last 30 days | 1.6 | 1.8 | 1.3 | 1.9 | -- |
| Changed school one or more times since beginning of the school year | 4.0 | 3.3 | 3.0 | 3.7 | -- |

Sources: All indicators are from the Minnesota Student Survey, Grade 9, 2010, except as follows:

* American Community Survey

** Minnesota Department of Education

*** Minnesota Department of Health Vital Statistics

Protective Factors and Positive Behaviors

Table 11 provides the disparity ratios for positive behaviors and protective factors. In this table, the “best” rate is always the highest rate and is again indicated by a dash (--). The disparity ratio will always be less than 1.0. For example, we consider physical activity to be a positive behavior that can provide many health benefits, both long-term and short-term. The table tells us that the disparity ratio for general physical activity is .73 for Hispanic 9th graders. This means that Hispanic 9th graders are only about three-fourths as likely as White 9th graders to meet the guidelines for general physical activity.

Significant disparities are also found with many of the positive behaviors and protective factors. The main findings are:

1. Students from all racial-ethnic groups feel that their parents and other relatives in their family care about them. But students of color are much less likely than White students to feel that teachers and school personnel, religious leaders, and other adults in the community care about them. (Table 11)
2. African American, Asian and Hispanic students are more likely than White students to say that they like going to school, and large majorities from each racial/ethnic group report that they want to go to college. However, as seen earlier in Table 10, students from all communities of color are more likely than White students to experience the disruption of changing schools during the school year and are more likely to report skipping school. (Tables 10 and 11)
3. The greatest disparities among the positive behaviors and protective factors occur with organized activities. Students in the African American, American Indian, Asian, and Hispanic communities are much less likely than White students to participate in school sports, community or club sports, organized arts activities and lessons, and organized religious activities. (Table 11)

TABLE 11. Disparity Ratios for Positive Behaviors and Protective Factors, for Racial/Ethnic Groups (largest disparities in bold).

| | African American | American Indian | Asian | Hispanic | White |
|--|------------------|-----------------|-------|----------|-------|
| CHAPTER 8 | | | | | |
| Physically active for at least 30 minutes on five or more of last seven days | 0.83 | 0.88 | 0.71 | 0.73 | -- |
| Strenuous activity for at least 20 minutes on three or more of last seven days | 0.90 | 0.90 | 0.84 | 0.85 | -- |
| Five or more servings of fruit, fruit juice and vegetables yesterday | 0.89 | 0.95 | -- | 0.84 | 0.95 |
| One or more glasses of milk yesterday | 0.80 | 0.89 | 0.88 | 0.88 | -- |
| One or more glasses of 100% fruit juice yesterday | -- | 0.89 | 0.95 | 0.98 | 0.85 |
| CHAPTER 13 | | | | | |
| Always wear a seat belt when riding in a car | 0.85 | 0.81 | 0.90 | 0.76 | -- |
| CHAPTER 14 | | | | | |
| Feel that parents care about them "very much" | 0.95 | 0.87 | 0.91 | 0.96 | -- |
| Can talk to mother about problems most or some of the time | 0.87 | 0.87 | 0.81 | 0.87 | -- |
| Can talk to father about problems most or some of the time | 0.70 | 0.74 | 0.74 | 0.74 | -- |
| Feel that other adult relatives care about them "very much" or "quite a bit" | 0.94 | 0.92 | 0.87 | 0.93 | -- |
| Feel that teachers and adults at school care about them "very much" or "quite a bit" | 0.89 | 0.78 | 0.89 | 0.87 | -- |
| Feel that religious leaders care about them "very much" or "quite a bit" | 0.89 | 0.75 | 0.79 | 0.79 | -- |
| Feel that other adults in community care about them "very much" or "quite a bit" | 0.82 | 0.73 | 0.75 | 0.80 | -- |
| Feel that friends care about them "very much" or "quite a bit" | 0.91 | 0.91 | 0.88 | 0.90 | -- |
| CHAPTER 15 | | | | | |
| Like school "very much" or "quite a bit" | 0.88 | 0.74 | -- | 0.84 | 0.81 |
| All or most teachers show respect for students | 0.83 | 0.84 | -- | 0.92 | -- |
| All or most teachers are interested in you as a person | -- | 0.80 | 0.90 | 0.88 | -- |

CHAPTER 16

| | | | | | |
|--|------|------|------|------|------|
| Participate on school sports team one or more times per week | 0.77 | 0.71 | 0.59 | 0.63 | -- |
| Participate on club sports team one or more times per week | 0.82 | 0.75 | 0.80 | 0.70 | -- |
| Participate in arts activities one or more times per week | 0.67 | 0.76 | 0.91 | 0.67 | -- |
| Participate in religious activities one or more times per week | 0.64 | 0.62 | 0.60 | 0.64 | -- |
| Engage in service learning projects one or more times per week | -- | 0.56 | 0.67 | 0.67 | 0.44 |

Source: Minnesota Student Survey, Grade 9, 2010

Conclusions

The existence of health disparities among racial/ethnic groups in the U.S. is not a new story. Health disparities affecting populations of color have been observed in many forms ever since Native populations were decimated by new diseases brought over by European colonists. The contribution of the current study is to provide fresh information about the scope of current health-related conditions among adolescents in Minnesota and to suggest where those conditions are most severe.

Adolescents are far less likely to suffer from the chronic diseases that cause disability and death among adults, such as cancer, heart disease, diabetes, stroke, and chronic obstructive pulmonary disease. It is tempting for society to focus on the high cost of treating middle-age and older adults and become complacent about adolescent health. Such short-term thinking is mistaken. Adolescents experience economic conditions, health problems and health behaviors that can have an immediate impact on their ability to grow, learn and thrive, and to be healthy and productive citizens throughout adulthood. And adolescents of color, especially African American, American Indian, and Hispanic youth, generally experience negative health much more often than White adolescents. The costs of ignoring the health and well-being of young people are enormous.

Results from this study and similar efforts can help to establish priorities, develop policies and programs, and evaluate progress in the elimination or reduction of health disparities among racial/ethnic groups. Chapter 3 reminds us that poverty rates are three to five times higher among adolescents of color compared to White adolescents, and failure to graduate on time is two to three times higher. Economic

and educational disparities are very deep in Minnesota and must be considered in any strategy for improving health conditions for all adolescents. Another point to notice is that the substantial declines over recent years in smoking cigarettes, binge drinking, sexual activity, hitting or beating up another person, carrying a weapon on school property, and drinking pop or soda have been found among adolescents of all racial/ethnic groups. While disparities remain in these areas, these steady declines give us hope that positive gains can be made.

