

2003 Michigan Youth Risk Behavior Survey

Summary



August 2004



Michigan State Board of Education

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In the News



Michigan Youth Are Taking Fewer Risks

LANSING - A new report from the national Centers for Disease Control and Prevention (CDC) shows that the number of Michigan teens engaged in risky behaviors and unhealthy habits dropped slightly since 2001, but much work remains to be done to get teens to quit smoking.

The survey showed that statistics for Michigan teens dropped in behaviors such as smoking, drinking, carrying weapons at school, having physical fights, and riding with drivers who had been drinking.

The Michigan Youth Risk Behavior Survey (YRBS) is part of a nationwide surveying effort led by the CDC to monitor students' health risks and behaviors. The Michigan YRBS is a collaborative effort between the Michigan Department of Education and the Department of Community Health.

"While it is important to note we are seeing a slight improvement in these numbers, it cannot go without saying that Michigan needs to focus more on the health and safety of our young people," Governor Jennifer Granholm said. "In particular, the fact that 61 percent of Michigan teens have tried smoking is a disturbing statistic, especially with new research showing younger people get hooked on nicotine quicker than adults do. The Departments of Education and Community Health will collaborate on the best ways to reach out to teens and address the need for healthier behaviors that go beyond our present efforts."

State Superintendent of Public Instruction Tom Watkins pointed out that Michigan is the only state in the country with a state-developed model curriculum in health education for elementary, middle, and high school students that addresses smoking, alcohol use, violence, HIV, nutrition, and physical activity.

The *Michigan Model for Comprehensive School Health Education* addresses these vital health issues in successive grades, and provides students with essential knowledge and prevention skills to avoid risky behaviors and improve health. More than 90 percent of Michigan school districts use the *Michigan Model for Comprehensive Health Education*, reaching over one million students and their families.

"We know the positive links between health and academic achievement," said Watkins. "The survey results point to the importance of continued support for health education programs so that future generations of students will have the essential tools to stay healthy for life and succeed in school."

Dr. Kimberlydawn Wisdom, Michigan's Surgeon General, said that every day in the United States more than 2,000 children under the age of 18 become daily smokers. Among high school seniors, more than 73 percent of daily smokers are likely to remain daily smokers five to six years later.

"The research we have clearly illustrates that we need to make more rapid progress toward promoting tobacco cessation programs among our children," Wisdom said. "Michigan has been presented with a unique opportunity to improve the health of hundreds of thousands of Michigan citizens. Higher cigarette taxes proposed by Governor Granholm in her 2004-05 state budget will mean that 60,000 adults will stop and 94,000 children will never start smoking. From a health perspective, this decision is an important first step toward helping citizens - and especially children - significantly reduce their dependency on tobacco and ultimately create a healthier Michigan."

Michigan Department of Education Press Release, March 19, 2004

The Youth Risk Behavior Survey: Michigan 2003

The Youth Risk Behavior Survey (YRBS) is conducted every other year in Michigan and assesses a broad range of health practices among a cross section of the state's high school students. Michigan is one of only a handful of states with high enough response rates on four consecutive YRBS survey administrations (1997, 1999, 2001 and 2003) to have scientific trend data. The 2003 results have indicated a number of significant improvements in risk behaviors since 1997. Nevertheless, many secondary students in Michigan continue to act in ways that compromise their health and well-being.

What Is the Youth Risk Behavior Survey?

The Centers for Disease Control and Prevention (CDC) developed the Youth Risk Behavior Survey (YRBS) to track the extent of health-risk behaviors among the nation's youth. These behaviors, that contribute to the leading causes of injury and death among youth and adults, are often established during adolescence. The national version of the survey, launched in 1990, has been implemented every other year since 1991. A majority of the states and several large cities also conduct a YRBS, based on the national survey.

Who Were the Student Respondents?

The 2003 survey was administered to students in a representative sample of schools that included grades 9-12, and data were weighted so that survey results can be generalized to all Michigan high school students. Through a scientific sampling process, school buildings and students were selected, and the survey was administered during spring of 2003. Of the randomly selected sample, 41 public high schools (84%) participated and 3,452 students (84%) completed the survey. Survey procedures were designed to protect the privacy of students by allowing for anonymous and voluntary participation. Parents were notified in advance and given the option to review the survey and exclude their children.

Survey respondents reflect the demographics of all Michigan students in grades 9-12. Half of the respondents were male (51%) and half were female (49%). The largest number of students was in ninth grade, with each successive class decreasing in size. Ninth graders represented 29 percent of the sample; tenth graders, 26 percent; eleventh graders, 24 percent; and twelfth graders, 21 percent. White students made up 78 percent of the respondents; black students, 16 percent; Hispanic or Latino students, 2 percent; students of all other races, 3 percent; and students of multiple races, 2 percent.¹

What Questions Were Asked?

The 2003 Michigan survey included 99 questions covering the behaviors related to the leading causes of mortality and morbidity among both youth and adults. The CDC has grouped the behaviors into six general health risk areas:

1. Unintentional injury and violence;
2. Tobacco use;
3. Alcohol and other drug use;
4. Sexual behaviors that contribute to unintended pregnancy or disease;
5. Dietary behaviors; and
6. Physical inactivity.

Michigan added 15 questions to the 86-item national survey and removed two national questions. Most of the additional questions were first added in 1999 and address the illegal use of specific drugs. New questions added to the Michigan survey in 2003 assessed soda consumption, asthma, diabetes, and gambling.

The CDC removed two questions and added one new question to the 2003 national survey, which is used as the basis for the 2003 Michigan survey. While new questions cannot be analyzed for trends this year, they do provide valuable information and may be analyzed for trends in future years.

What Are the Limitations of the YRBS Findings?

These survey results may not represent all high school-aged youth because those who dropped out of school or attended alternative education programs were not included in the sample. Studies of alternative education students² and dropouts have reflected a significantly higher incidence of risk behaviors. This survey does accurately reflect the behaviors among the youth who attend public high schools in the state.

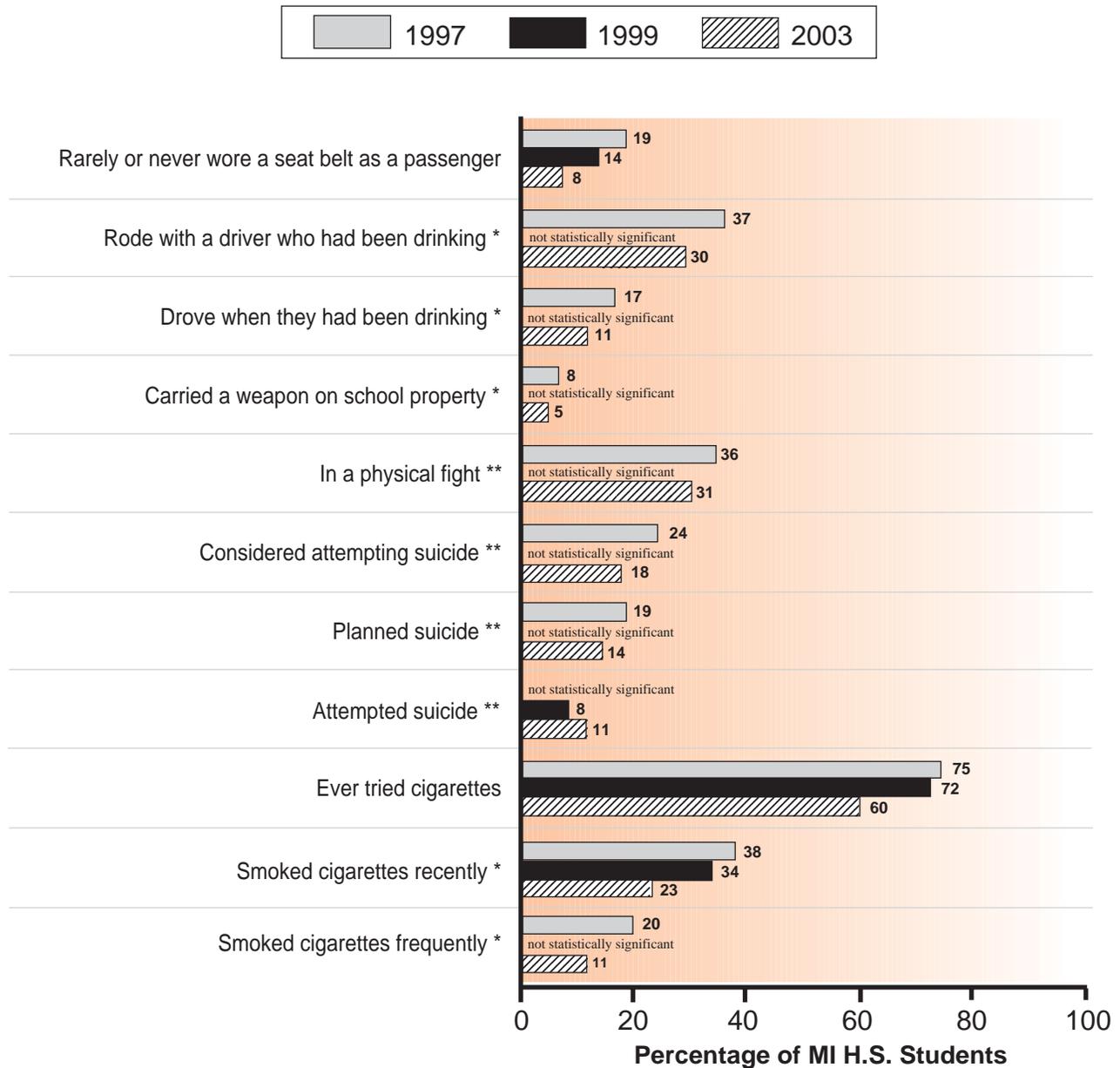
¹ To correct for any difference between the YRBS sample and the overall Michigan high school population, data were statistically weighted by the CDC. The weighted results accurately reflect the gender, grade, and race/ethnicity distribution of public high school students in Michigan. Percentages may not add up to 100 due to rounding.

² Visit online at <http://www.cdc.gov/epo/mmwr/preview/mmwrhtml/ss4807a1.htm> for more information.

What Are the Significant Changes in Behaviors?

Of the behaviors that could be compared for Michigan students between 1997, 1999, and 2003, most remained steady. However, several showed statistically significant improvement over time:

Significant Changes in Behaviors in Michigan: 1997 and 1999 Compared to 2003***



* In the previous month³

** In the previous year

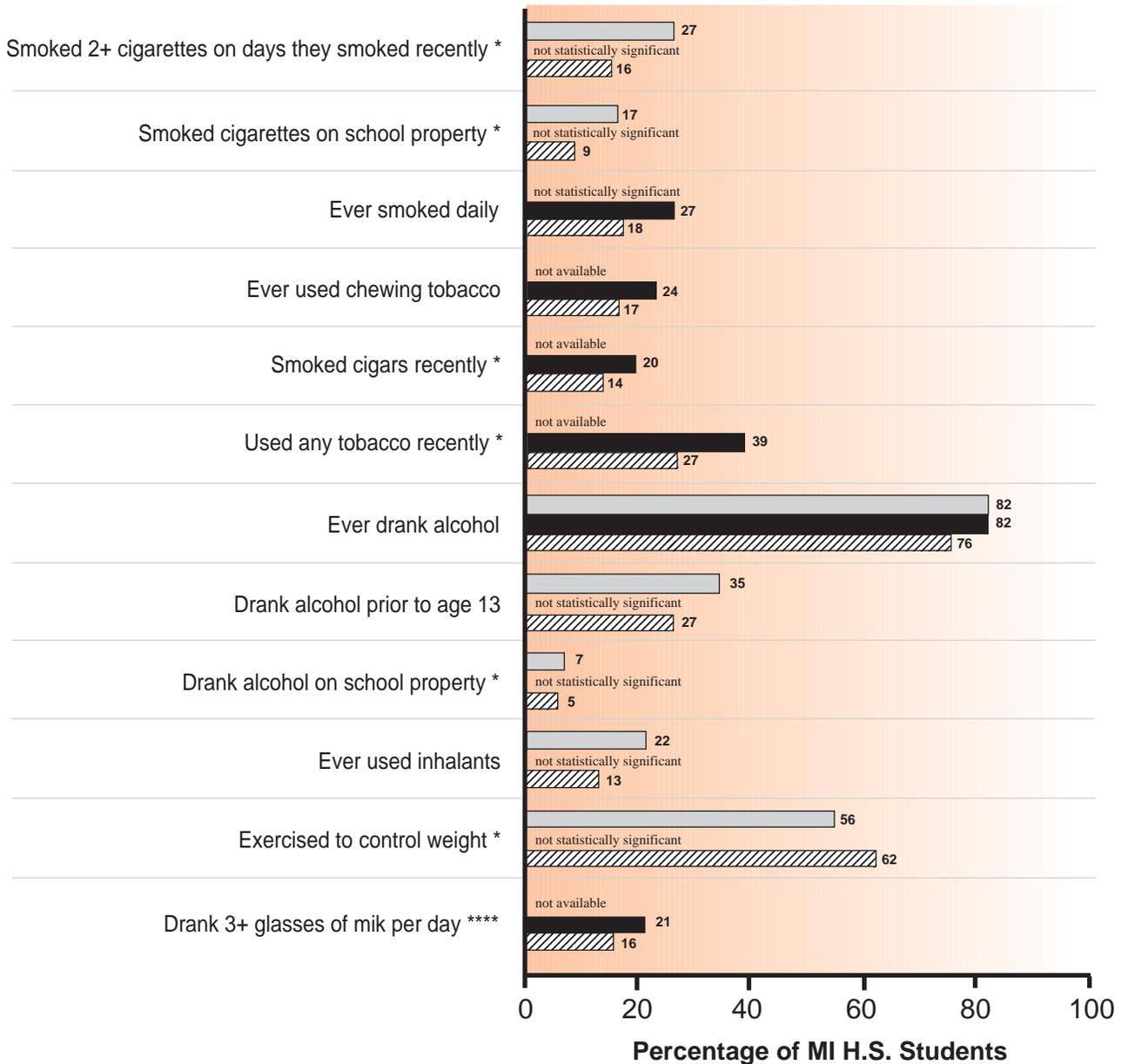
*** Results for 2001 are not shown because they are not statistically significant.

(continued)

³ Previous month means the 30 days preceding the survey.



Significant Changes in Behaviors in Michigan: 1997 and 1999 Compared to 2003 (continued)



* In the previous month

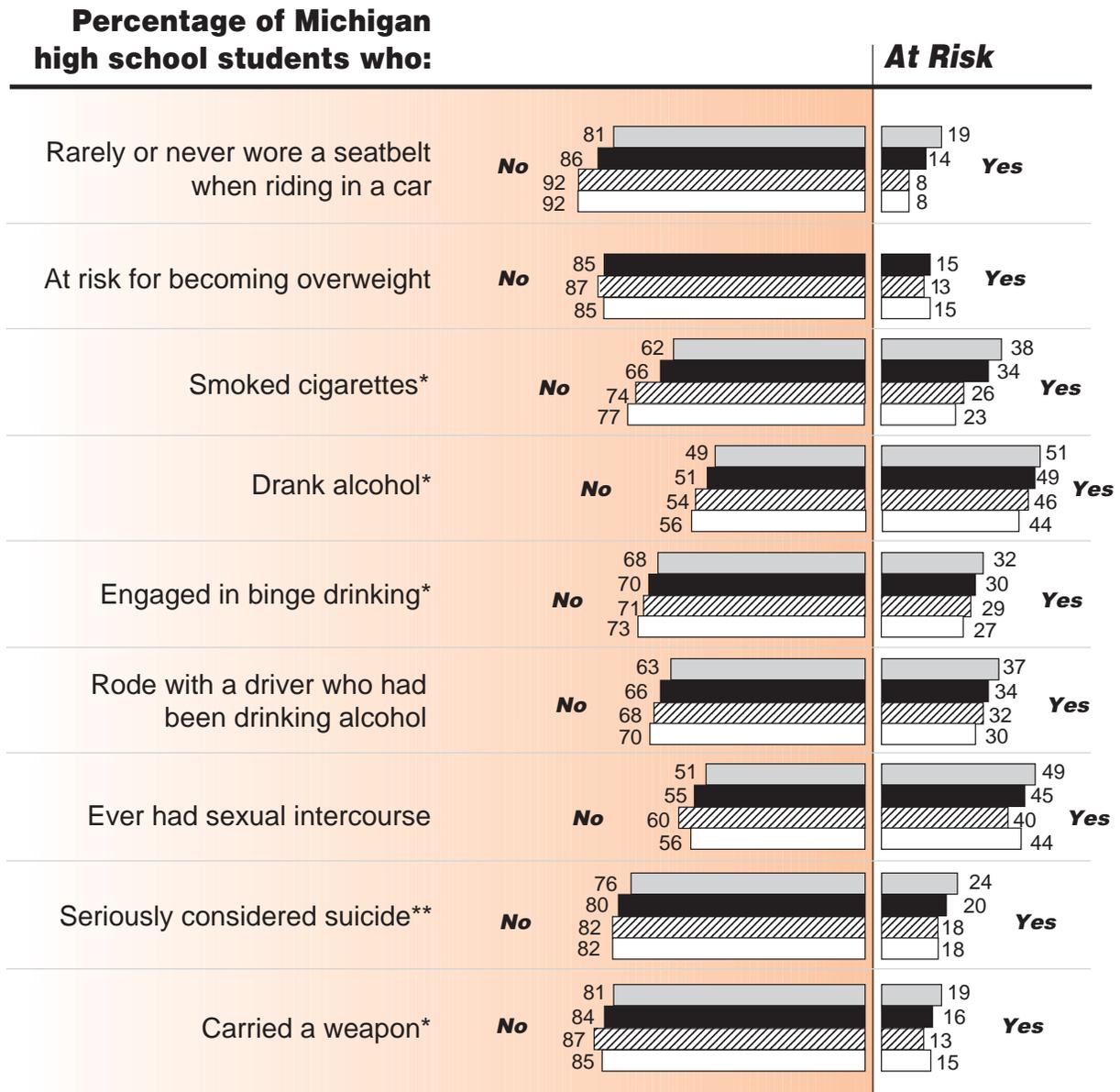
**** In the previous week

Sources: 1997, 1999 and 2003 Michigan Youth Risk Behavior Surveys



What Are the Michigan Trends?

Trends in Michigan Youth Risk Behaviors: 1997-2003



* During the previous month

** During the previous year

Sources: 1997, 1999, 2001 and 2003 Michigan Youth Risk Behavior Surveys



Overview of the Summary

The discussion of the Michigan findings is organized into the CDC's six categories of risk behaviors. Overall findings are presented for most questions. Differences among males and females, grade levels, and racial/ethnic groups are only highlighted if they are statistically "significant," that is, unlikely to have occurred by chance or error.¹ Among racial/ethnic groups, only white, black, and Hispanic students could be compared because of the overall sample size and the relatively small percentages of Michigan high school students identifying themselves as another race/ethnicity.²

Unintentional Injury and Violence

Vehicle Safety: A majority of students have worn their seatbelts when riding in a car driven by someone else. Older students were more likely to drive after drinking alcohol.

- **Seat Belt Use:** One in twelve students (8%) rarely or never wore a seat belt as a passenger in a car. This is consistent regardless of gender, grade, or race/ethnicity.
- **Bike Helmet Use:** Nine tenths of students who rode bicycles (92%) rarely or never wore a helmet in the previous year,³ regardless of gender, grade or race/ethnicity.
- **Under the Influence:** One third of students (30%) rode in a vehicle in the previous month⁴ with a driver who had been drinking alcohol. Eleven percent of students drove a vehicle during the previous month when they had been drinking. Eleventh (13%) and twelfth graders (17%) were approximately twice as likely as ninth (6%) and tenth graders (8%) to do so.

Depression and Suicide: Females were more likely than males to feel depressed, consider suicide, and attempt suicide. Younger students were more likely to attempt suicide and have been treated by a medical professional for a suicide injury.

- **Depression:** More than a third of students (30%) reported feeling so sad and hopeless almost every day for two weeks or more in a row within the previous year that they stopped doing some usual activities. Females (37%) were more likely than males (24%) to have felt depressed.

- **Suicidal Thoughts and Plans:** One in six students (18%) had seriously considered suicide in the previous year. Females (22%) were more likely than males (14%) to have considered suicide. One in seven students (14%) had made a plan to commit suicide during the previous year.
- **Suicide Attempts:** One in nine students (11%) attempted suicide in the previous year. Ninth graders (14%) are more likely to have attempted suicide than tenth (9%) or twelfth graders (7%), and females (13%) are more likely than males (8%) to have done so. Ninth graders (4%) are twice as likely as tenth graders (2%) to have been treated by a medical professional for a suicide injury.

Violence: The majority of students have not experienced violence, such as having fights resulting in injury and threats with weapons, and have not missed school due to feeling unsafe. The majority of students have not carried a gun or carried a weapon of any kind on school property. However, males were more likely to experience most forms of violence than females. Younger students and Hispanic students were more likely to be involved in fights, on and off school property, than were older students or white students. Hispanic students were more likely than white students to carry a weapon on and off school property.

¹ Differences were considered statistically significant if $p < .05$.

² Specific survey results for students identifying as American Indian / Alaska Native, Asian, Native Hawaiian / other Pacific Islander, multiple—Hispanic, or multiple—Non-Hispanic, could not be included due to small sample sizes that yield relatively imprecise results with large margins of error.

³ Previous year means the 12 months preceding the survey.

⁴ Previous month means the 30 days preceding the survey.

- **Weapons:** Fifteen percent of students carried a weapon such as a gun, knife, or club during the previous month. Males (22%) were three times as likely as females (8%) to report this behavior. Fewer white students (14%) than Hispanic students (23%) carried weapons. One in twenty-five students (4%) carried a gun in the previous month. Males (7%) were seven times more likely than females (1%) and Hispanic students (11%) were three times as likely as white students (4%) to carry a gun. One in twenty students (5%) carried a weapon on school property, with males (7%) being twice as likely as females (3%) and Hispanic students (13%) three times as likely as white students (4%) to report this behavior.
- **Fights:** One third of all high school students (31%) were in a physical fight in the previous year. Of those, 12 percent occurred on school property. More males (37%) than females (24%) fought, with twice as many males (16%) as females (8%) fighting on school property. More Hispanic students (44%) than white students (28%) fought, and twice as many Hispanic (25%) and black students (20%) than white students (10%) fought on school property. Similarly, more ninth graders (36%) than eleventh graders (26%) fought, and more ninth graders (17%) than eleventh (11%) and twelfth graders (8%) fought on school property. Few students (3%) required medical treatment after being in a fight.
- **Sense of Safety:** Six percent of all students reported missing school in the previous month due to feeling unsafe. Fewer white students (4%) than black (10%) and Hispanic (11%) students had missed school for this reason, as well as more ninth graders (8%) than tenth graders (4%). One tenth of students (10%) had been threatened or injured with a weapon on school property during the previous year. More males (13%) than females (7%) and ninth graders (14%) than tenth (8%), eleventh (8%), and twelfth graders (7%) had been threatened. One third of all students (32%) had some form of personal property

stolen or damaged at school with more males (35%) than females (28%) reporting so.

- **Relationship Violence:** One in nine students (11%) reported being hit, slapped, or physically hurt by their boyfriend or girlfriend in the previous year, regardless of gender. However, more black students (16%) than white students (10%) reported this experience.

Tobacco Use

The majority of students had tried smoking cigarettes, regardless of gender, grade, or race/ethnicity. However, older students were more likely than younger students to have ever tried smoking⁵ and to have been recent smokers.⁶ Black students were the least likely among students of any race/ethnicity to smoke—ever, recently, frequently,⁷ or regularly;⁸ to use any form of tobacco⁹ recently, including cigars and smokeless tobacco.¹⁰

- **Lifetime Cigarette Use:** Three fifths of Michigan high school students (60%) had ever tried smoking cigarettes. Nearly one fifth of all students (18%) reported ever smoking cigarettes daily.¹¹ White students (59%) were less likely than Hispanic students (70%) to have ever tried smoking. However, white students (21%) were more likely than black students (8%) to have ever smoked daily. Ninth graders (53%) were less likely than eleventh (65%) and twelfth (67%) graders to have ever smoked.

⁵ Ever tried smoking means tried cigarette smoking, even one or two puffs.

⁶ Recent smoking means smoked cigarettes on one or more of the past 30 days.

⁷ Frequent smoking means smoked cigarettes on 20 or more of the past 30 days.

⁸ Regular smoking means smoked 2 or more cigarettes per day on the days they smoked.

⁹ Any form of tobacco includes cigarettes, cigars, cigarillos, little cigars, chewing tobacco, snuff, and dip.

¹⁰ Smokeless tobacco means chewing tobacco, snuff, or dip.

¹¹ Daily smoking means smoked at least one cigarette per day for 30 days.

- **Early Cigarette Use:** One fifth of students (21%) had first smoked a whole cigarette prior to age 13. Black students (16%) were less likely to smoke early than Hispanic students (26%).
- **Recent Cigarette Use:** One quarter of students (23%) reported smoking during the previous month. Black students (10%) were half as likely as white (25%) and a third as likely as Hispanic (32%) students to have recently smoked. Ninth graders (18%) were also less likely than twelfth graders (31%) to have done so. A ninth of all students (11%) smoked frequently. White (13%) and Hispanic (14%) students were four times more likely than black students (3%) to smoke frequently. One sixth (16%) of all students smoked regularly, with white (18%) and Hispanic (18%) students three times more likely than black students (5%) to do so. Only a few students (4%) smoked heavily.¹²
- **Smoking Cessation:** More than half of current smokers (58%) have tried to quit in the previous year, regardless of grade and gender.
- **Cigarette Purchases:** Seven percent of students reported purchasing their own cigarettes in the previous month. Twelfth graders (18%) were more likely than ninth (2%), tenth (3%), and eleventh (6%) graders to purchase their own. One fifth of the current smokers (18%) who were under age 18 bought their cigarettes at a store or gas station in the previous month, and males (24%) were more likely than females (14%) to be able to do so.
- **Recent Cigar Use:** One in seven students (14%) reported smoking a cigar, cigarillo, or little cigar in the previous month. Males (19%) and Hispanic students (21%) were twice as likely as females (8%) and black students (11%) to have smoked cigars recently. Twelfth graders (20%) were also twice as likely as ninth (12%) and tenth (10%) graders to smoke cigars.

¹² Heavy smoking means ten or more cigarettes per day on the days they smoked.

¹³ Binge drinking means 5 or more drinks of alcohol in a row in the previous month.

- **Smokeless Tobacco Use:** One sixth of all students (17%) had ever tried chewing tobacco, snuff, or dip, including 7 percent who used smokeless tobacco in the previous month. Males (24%) and white students (18%) were twice as likely as females (9%) and black students (9%) to have ever used. Males (10%) and white students (7%) were also more likely than females (3%) and black students (3%) to have recently used.
- **Tobacco Use on School Property:** Of Michigan high school students, 9 percent smoked and 3 percent used smokeless tobacco on school property in the previous month. White (10%) and Hispanic (17%) students were approximately four times more likely to smoke at school than black students (3%). Males (4%) and white students (3%) were three times more likely to use smokeless tobacco on school property than females (1%) and black students (1%).
- **Any Recent Tobacco Use:** One quarter of students (27%) reported using any form of tobacco in the previous month, with twice as many white (30%) and Hispanic (34%) students as black students (15%) doing so. More twelfth graders (36%) than ninth (21%) recently used any form of tobacco.

Alcohol and Other Drug Use

Alcohol: White and Hispanic students were more likely to use alcohol than black students. Older students reported more lifetime and recent alcohol use and binge drinking¹³ than younger students.

- **Alcohol Use:** Three quarters of all high school students (76%) had used alcohol. Ninth graders (67%) were less likely to have used than tenth (76%), eleventh (78%), or twelfth (84%) graders, and tenth graders (76%) were less likely than twelfth graders (84%). Black students (71%) reported less use than Hispanic (83%) students.

- **Recent Alcohol Use:** Two fifths of all students (44%) had used alcohol in the previous month with ninth (37%) and tenth (42%) graders reporting less recent use than twelfth (55%) graders. Black students (33%) reported less recent use than white (46%) and Hispanic (48%) students.
- **Early Alcohol Use:** One quarter of students (27%) had their first drink of alcohol, other than a few sips, prior to age 13. More males (31%) and Hispanic students (35%) than females (22%) and white students (26%) had their first drink prior to age 13. Ninth graders (35%) reported drinking earlier than tenth (27%), eleventh (24%), and twelfth (19%) graders; tenth graders (27%) reported drinking earlier than twelfth graders (19%).
- **Binge Drinking:** A quarter of students (27%) reported having five or more drinks of alcohol in a row during the previous month. Twelfth graders (38%) were more likely than ninth (21%) or tenth (24%) graders, and white (30%) and Hispanic (34%) students were more likely than black students (13%) to report this behavior.
- **Alcohol at School:** One in twenty students (5%) reported using alcohol on school property in the previous month. Ninth graders (6%) were twice as likely as tenth graders (3%) to have done so.

Other Drugs: White and Hispanic students were more likely to have ever used inhalants,¹⁴ barbiturates, methamphetamines, and club drugs¹⁵ than black students. Males and females were equally likely to report lifetime and recent drug use behaviors.

- **Marijuana:** Nearly half of Michigan high school students (44%) had tried marijuana, and one quarter (24%) had used it in the previous month. One tenth (12%) reported first use prior to age 13, with males (15%) being more likely than females (8%) to initiate early use. Eleventh (48%) and twelfth (55%) graders were more likely than ninth graders (33%) to have ever used marijuana.

- **Inhalants:** Thirteen percent of students had reported trying an inhalant at least once, with white (15%) and Hispanic (19%) students being twice as likely as black students (6%) to do so. While 4 percent of students had reported use in the previous month, ninth graders (6%) were twice as likely as twelfth graders (3%) to have reported recent use.
- **Club Drugs:** One in nine students (11%) had tried club drugs. Twice as many white (12%) and Hispanic (16%) students as black students (5%) reported use. One in twenty students (5%) had used club drugs recently. Six times as many Hispanic (12%) as black (2%) students, and three times as many ninth (6%) as tenth (2%) grade students, reported recent use.
- **Other Drug Use:** Seventeen percent of students had ever tried barbiturates; 9 percent cocaine¹⁶; 8 percent methamphetamines; 4 percent heroin; 4 percent steroids; and 2 percent injected illegal drugs at least once during their lives. White (20%) and Hispanic (19%) students were five times as likely as black students (4%) to have ever used barbiturates. White (8%) and Hispanic (13%) students were more likely than black students (3%) to have ever used methamphetamines. Hispanic students (14%) were five times as likely as black students (3%) to have ever used cocaine. Within the previous month, 9 percent of students had used barbiturates; 4 percent cocaine; 3 percent heroin, and 3 percent steroids. White (10%) and Hispanic (14%) students were five times as likely as black students (2%) to have used barbiturates recently.
- **Illegal Drugs at School:** One third of students (31%) reported being offered, sold, or given an illegal drug on school property during the previous year. More Hispanic students (44%) as white students (31%) reported this. One in twenty (7%) had used marijuana on school property in the previous month.

¹⁴ Inhalant use was described as sniffed glue, breathed the contents of aerosol spray cans, or inhaled any paints or sprays to get high.

¹⁵ Club drugs include ecstasy, GHB, ketamine, rohypnol, nitrous oxide, or LSD.

¹⁶ Cocaine use includes any form of use such as powder, "crack," and "freebase."



Sexual Behaviors

Older students and black students were more likely to have ever had sexual intercourse, recent sexual intercourse, and multiple partners. More females had been forced to have sex and had first intercourse with someone three or more years older. Black students reported more pregnancy, early initiation of sex, and conversations with family members regarding expected sexual behavior.

- **Education at Home and School:** Two thirds of students (72%) reported having talked with parents or other adult family members about expected sexual behavior, but fewer males (68%) than females (76%), and fewer white (71%) and Hispanic (59%) than black (82%) students had these discussions. Nine-tenths of all students (89%) had reported learning about HIV infection and AIDS in school. More tenth (92%) and twelfth (90%) than ninth (83%) graders, and more white (90%) than Hispanic (81%) students learned about HIV/AIDS.
- **Abstinence:** Over half of all high school students (56%) have never had sexual intercourse. Among those who have had sexual intercourse, nearly a third (29%) were abstinent the previous three months.
- **Sexual Intercourse:** Less than half of all students (44%) have ever had sex. The percentage of students who have had sexual intercourse increases across grade levels: ninth graders (29%), tenth graders (37%), eleventh graders (52%), and twelfth graders (61%). More black (67%) and Hispanic (53%) students than white students (39%) had sexual intercourse.
- **Recent Sexual Intercourse:** Seventy-one percent of the students who had ever had sexual intercourse, and 31 percent of all students, reported having sex in the previous three months. Among all students, more 11th (36%) and 12th (50%) than 9th (17%) and 10th (25%) graders, and more black (44%)

than white (29%) students, had recent sexual intercourse.

- **Risk Reduction:** Of those who reported having sexual intercourse within the previous three months, 63 percent used a condom at last intercourse and 17 percent used birth control pills. More white students (20%) than black students (7%), and more twelfth graders (21%) than ninth graders (9%) had used birth control pills to prevent pregnancy.
- **Underage Sex:**¹⁷ One third of students (32%) reported having first sexual intercourse prior to age 16. Black students (57%) were more likely than Hispanic students (45%) and both were more likely than white (26%) students to have engaged in underage sexual intercourse.
- **Early Initiation:** One in fifteen high school students (7%) first had sexual intercourse prior to age 13. Black (21%) and Hispanic (15%) students were four times as likely as white students (4%) and males (10%) three times as likely as females (4%) to report early initiation.
- **Multiple Partners:** Approximately a tenth of students (14%) reported having had sex with four or more people in their lifetime. Black students (32%) were more likely than white (10%) and Hispanic (17%) students, and twelfth graders (21%) were more likely than ninth (8%) and tenth (10%) graders to have had multiple partners.
- **Older Partner:** One quarter of those who have had sexual intercourse (29%) reported that their first partner was three or more years older. Females (39%) were more likely than males (19%), and black students (37%) more likely than white (25%), to have had this experience.
- **Sex While Under the Influence:** One quarter of students who ever had sex during the previous three months (24%) have had sex while under the influence of alcohol or other drugs. This is consistent for all grades, races, and genders.

¹⁷ According to current Michigan law (MCL 720.520), adolescents cannot give consent to sex under the age of 16.

- **Forced Sex:** One in ten high school students (10%) had been physically forced to have sexual intercourse. This was reported by nearly twice as many females (12%) as males (7%) and more black (14%) than white (9%) students.
- **Pregnancy:** Five percent reported they had been pregnant or gotten someone pregnant. Black (11%) students reported pregnancy more often than white students (3%).

Dietary Behaviors

Females were more likely to perceive themselves as being overweight,¹⁸ but males and black students were more likely to actually be overweight or at risk for overweight.¹⁹

Females were also more likely to be trying to lose weight and use exercise, dieting, fasting, and diet pills to control weight. Males and white students are more likely to drink three glasses of milk, as well as drink at least one can of soda on a daily basis.

- **Weight - Perception Versus Reality:** One third of Michigan high school students (31%) described themselves as slightly or very overweight. Females (37%) were more likely than males (26%) to use these descriptors. Based on self-reported height and weight information, 27 percent of students are actually overweight or at risk for becoming overweight, with more males (16%) than females (9%) being overweight. More black students (21%) than white students (14%) at risk for becoming overweight.
- **Weight Loss:** Almost half of the students (46%) reported trying to lose weight. Twice as many females (63%) as males (31%) reported this behavior as did more white students (48%) than black students (40%).

- **Weight Control:** Three out of five students (62%) reported exercising within the previous month for weight control. More females (72%) and white students (63%) than males (51%) and black students (54%) used this strategy. Two in five students (41%) reported dieting, with females (56%) more than twice as likely as males (26%), and white students (43%) more likely than black students (30%) to do so.
- **Unhealthy Weight Control:** During the previous month, 13 percent of students fasted at least 24 hours to control weight; 9 percent used diet pills, powders, or liquids without a doctor's advice; and 7 percent vomited or used laxatives. Females were more likely to use fasting (17%) and diet pills (11%) than males (9% and 7% respectively). More Hispanic students (13%) than white students (6%) vomited or used laxatives.
- **Five Servings a Day:** Less than one fifth of students (18%) reported eating five or more servings of fruits and vegetables²⁰ each day during the previous week.²¹
- **Milk Consumption:** One in six students (16%) reported drinking three or more glasses of milk each day during the previous week, with more males (19%) than females (12%) and three times as many white students (18%) as black students (5%) drinking milk.
- **Soda Consumption:** Two in five students (40%) reported drinking at least one can of soda a day during the previous week, with less females (35%) than males (45%) and less black students (33%) than white (42%) and Hispanic (46%) students drinking soda daily.

¹⁸ *Overweight* is defined by the CDC as a Body Mass Index (BMI) equal to or greater than 95 percent. BMI was calculated using the height and weight questions answered by each respondent.

¹⁹ *At risk of overweight* is defined by the CDC as a Body Mass Index (BMI) equal to or greater than 85 percent and less than 95 percent.

²⁰ *Fruits and vegetables* include 100% fruit juice, fruit, green salad, potatoes (excluding French fries, fried potatoes, or potato chips), carrots, or other vegetables.

²¹ *Previous week* means the 7 days preceding the survey.

Physical Inactivity

Female and black and Hispanic students were less likely than their male and white counterparts to participate in recommended amounts of physical activity. Older students were less likely to attend physical education classes weekly or daily.

- **Moderate and Vigorous Activity:** Less than two thirds of Michigan high school students (62%) participated in the recommended amount of vigorous physical activity²² and only a quarter of students (26%) participated in the recommended amount of moderate physical activity.²³ More males (67%) than females (58%) and more white students (65%) than black (50%) and Hispanic (54%) students reported getting enough vigorous physical activity.
- **Lack of Physical Activity:** One third of all students (34%) did not get the recommended amount of moderate and vigorous physical activity in the previous week. This lack of physical activity was reported by more females (37%) than males (30%), and more black (45%) and Hispanic students (42%) than white students (31%). One tenth of students (11%) did not get any physical activity, including twice as many black students (18%) as white students (9%).
- **Physical Education:** Thirty-nine percent of students attended physical education (PE) class at least once a week. More males (48%) than females (30%) and more ninth graders (61%) than tenth (33%), eleventh (26%), or twelfth (32%) graders attended class. Only 28 percent of students attended PE class five days a week. More ninth graders (44%) than tenth (23%), eleventh (18%), or twelfth (21%) graders attended class daily. Of the students who attended PE class, six of seven (86%) reported exercising or playing sports more than 20 minutes during an average class.
- **Watching Television:**²⁴ One third of students (35%) reported watching television three or more hours on an average school day. Ninth

graders (38%) were more likely than twelfth graders (28%) and males (39%) were more likely than females (31%) to watch three or more hours of television. Hispanic (51%) and black (61%) students were more likely than white students (30%) to report this amount of television viewing.

General Health

- **Wellness visit:** One third of students (35%) reported not having a check-up or physical exam within the previous year. Twelve percent reported having had a check-up between 12 and 24 months ago; 6 percent, more than two years ago; and 3 percent, never. Fewer Hispanic students (52%) than white students (66%) reported having a check-up in the past year.
- **Diabetes:** One in twenty students (5%) indicated that they have been told by a doctor or nurse that they have diabetes.
- **Asthma:** One in five students (21%) reported that they have been told by a doctor or nurse that they have asthma. Of those students with asthma, 26 percent had an asthma episode in the past twelve months.
- **Gambling:** More than two thirds of students (71%) did not participate in any form of gambling. Ten percent reported betting on sporting events; 9 percent bet on card games; and 1 percent gambled on the Internet. More males (4%) than females (1%) reported betting on sporting events and card games as well as gambling on the internet during the past month.

²² *Vigorous physical activities* are defined as exercise or participation in physical activities that make the participant sweat and breathe hard. The recommended amount is at least 20 minutes of activity on three or more days a week.

²³ *Moderate physical activities* are defined as participation in physical activities that do not make the participant sweat and breathe hard. The recommended amount is at least 30 minutes of activity on five or more days a week.

²⁴ Research has shown that those who habitually watch television are less likely to be physically active.

Summary & Recommendations

The findings for the 2003 Michigan YRBS reveal positive trends in the health behaviors of our youth. Statistically significant improvements can be seen in many behaviors, such as smoking and safety. Although numerous positive changes have occurred, it was also clear that large percentages of Michigan high school students continue to engage in risky behaviors. Although the trends are positive, too many young people in the state continue to engage in risky behaviors. Overall, these practices of Michigan students are consistent with those of their national counterparts. The analysis of trends and patterns found in these behaviors can guide the use of limited resources for prevention and intervention programs. School- and community-based programs play a critical role in the promotion of healthy behaviors and alternatives for youth. Based on YRBS data and consistent with national research and guidance, the Michigan Department of Education supports effective risk behavior prevention programming as presented in the following recommendations:

1 Michigan should continue and expand age-appropriate and research-based prevention, including health education. Trends continue to move in a positive direction; this overall finding suggests that current initiatives should be reinforced and expanded. Studies indicate that students need information plus the necessary skills to make healthy choices. Risk behaviors compromise the health of students and their capacity to be successful learners.

2 Health education and prevention programs must start early and be comprehensive. Large numbers of Michigan high school students initiate risk behaviors early. Early prevention and health education programs—during preschool, elementary, and middle school years—can help prevent early experimentation. Many unhealthy behaviors, such as smoking, are difficult to change once initiated.

3 Prevention and health education should continue throughout the high school years. Often, programs stop at ninth or tenth grade, just when risky behaviors begin to escalate. Many risk behaviors, such as smoking, binge drinking, initiation of sex, and physical inactivity, are more prevalent among twelfth graders than ninth graders. Interventions are also needed for ninth graders as they transition into high school, as data indicates that they are more likely to fight, experience depression, and plan and attempt suicide than older students.

²⁵ For information about CSHP and the Michigan State Board of Education policy, visit online at <http://www.emc.cmich.edu/yrebs/2003.htm>

4 Parents and community members have critical roles in promoting healthy behaviors among children and youth. Parents and other significant adults are role models and can encourage students to practice healthy behaviors. Relatively large numbers of students do not get enough physical activity and spend their leisure time watching television. Supervised activities with caring adults during non-school hours provide healthy alternatives for students and opportunities to enhance their physical, mental, and emotional well-being.

5 Prevention efforts should focus on the specific needs of students by grade, gender, and race/ethnicity to achieve maximum impact. Research has demonstrated that effective programs are tailored to the specific needs of participants, and include content and approaches that are developmentally and culturally appropriate. Almost all of the behaviors measured on the YRBS show differences by grade, gender, and race/ethnicity that should be considered by program planners.

6 State and local health and education agencies should use available data to take action. Whenever possible, communities should use existing data, such as the Michigan YRBS, and direct scarce resources into programming. Most youth risk behaviors do not vary significantly from community to community. Therefore, schools and communities do not always need to conduct additional surveys in order to develop and implement action plans.

7 Districts and schools should establish the eight-component Coordinated School Health Program (CSHP) Councils and Teams as developed by the Centers for Disease Control and Prevention and supported by the Michigan State Board of Education.²⁵ CSHPs support prevention of the youth risk behaviors by providing the framework for new and existing programs and policies that support healthy youth and schools and promotes academic achievement. Through CSHP teams, collaborative efforts among school and community partners are developed to assure availability and coordination of school health programs based on individual community needs and values, as well as the delivery of consistent health messages to youth.

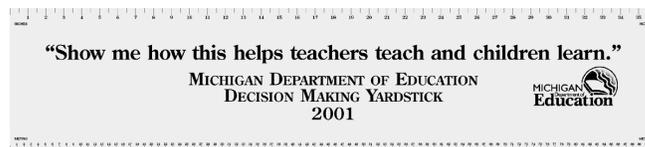
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