Mississippi’s 2001 Youth Risk Behavior Survey

Summary Of Findings
2001 Mississippi Youth Risk Behavior Survey

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Foreword

The Mississippi YRBS is the only instrument for measuring and monitoring health risk behaviors among adolescents in the state. These behaviors, many of which are preventable, contribute to the leading causes of morbidity and mortality among youth. Furthermore, many adult health risk behaviors, particularly those relating to unhealthy dietary and activity behavior and tobacco and alcohol use, are established during youth.

In the spring of 2001, staff at the Mississippi Department of Health notified 38 public high schools throughout the state that their schools were selected randomly to participate in an extremely important survey of student behaviors and perceptions in a variety of health and safety areas. Thanks to the cooperation of all involved, it was possible to obtain, as in previous years, an overall survey response rate greater than 60%, allowing weighted estimates to be developed. This is important because the survey results can be regarded as representative of all public high school students in the state. As a result, educators, legislators, policy makers, community service planners, and parents will have information that can lead to solutions to the challenges facing many youth in our state.

The purpose of the survey is to take a “snapshot” of the health and well-being of Mississippi adolescents. The information presented in this report represents an analysis of current data and a trend analysis for 1993-2001 of the student behaviors and perceptions. By understanding the barriers to learning, as well as the factors that can strengthen youth, we can develop strategies that will ensure their academic, vocational, social, and emotional success.

We must welcome the challenge to ensure that every adolescent is healthy, safe, and succeeds to his or her fullest potential. Together we can do so much. It starts with our shared responsibility to act.

Brian W. Amy, MD, MHA, MPH
State Health Officer
Acknowledgments

This survey was made possible through the support and effort of many individuals who believe that obtaining this information is important to the health and well-being of Mississippi youth. Sincere appreciation is extended to the administrators, faculty, and most importantly, the students of the participating schools who made possible the exceptional response rate that contributed directly to the quality of the resulting report.

Special thanks goes to the Mississippi Department of Education for providing the public school enrollment database, CDC and the staff of WESTAT, Inc. for developing the survey instrument and analyzing the data, the Mississippi State Department of Health, Office of Health Promotion and Office of Epidemiology for conducting the survey, further analyzing the data, and developing this report.
Methodology

The Youth Risk Behavior Survey (YRBS) was developed by the Centers for Disease Control and Prevention (CDC) in collaboration with representatives from 71 state and local departments of education and 19 other federal agencies to monitor priority health-risk behaviors that contribute to the leading causes of death, disease and social problems among youth and adults. These behaviors fall into six categories:

1. Behaviors that result in unintentional injuries and violence;
2. Tobacco use;
3. Alcohol and other drug use;
4. Sexual behaviors that result in HIV infection, other sexually transmitted diseases, and unintended pregnancies;
5. Dietary behaviors;
6. Physical activity.

The Mississippi Youth Risk Behavior Survey (YRBS) measures the incidence and prevalence of behaviors that contribute to the leading causes of mortality and morbidity among youth. The YRBS is part of a larger effort to help communities promote the “resiliency” of young people by reducing high risk behaviors and increasing health behaviors. The YRBS provides accurate information about Mississippi students that enables us to:

1. monitor trends in their health and risk behaviors
2. compare Mississippi students with a national sample of students
3. plan, evaluate, and improve community programs which prevent health problems and promote healthy behaviors

The Youth Risk Behavior Survey (YRBS) was completed by 1,806 students in 28 public high schools in Mississippi during the spring of 2001 (all regular public high schools containing grades 9-12 were included in the sample frame). The school response rate was 74%, the student response rate was 89%, and the overall response rate was 66%. The results are representative of all students in grades 9-12. The weighted demographic characteristics of the sample are as follows:

<table>
<thead>
<tr>
<th>Gender</th>
<th>Grade</th>
<th>Race</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female</td>
<td>9th</td>
<td>African American</td>
<td>49.1%</td>
</tr>
<tr>
<td>Male</td>
<td>9th</td>
<td>Hispanic/Latino</td>
<td>0.5%</td>
</tr>
<tr>
<td></td>
<td>10th</td>
<td>White</td>
<td>49.3%</td>
</tr>
<tr>
<td></td>
<td>11th</td>
<td>All other races</td>
<td>0.7%</td>
</tr>
<tr>
<td></td>
<td>12th</td>
<td>Multiple races</td>
<td>0.46%</td>
</tr>
</tbody>
</table>

Students completed a self-administrated anonymous, 87-item questionnaire. Survey procedures were designed to protect the privacy of students by allowing for anonymous and voluntary participation. Local parental permission procedures were followed before the survey.
How to Use the YRBS

The YRBS provides an important piece of the public health puzzle. It can help detect changes in risk behaviors over time. It can help identify differences between ages, grades, race, and gender. It can help focus primary prevention efforts on specific groups of teens and can suggest whether or not school policies and community programs are having intended effects on student behaviors.

Think of the YRBS as a tool for starting discussions, for educating the community, for planning and evaluating programs, and for comparing Mississippi students with other students nationwide.

1. Starting the Conversation: Use the YRBS to begin a conversation with young people about the personal choices they make or about the health of their community. Ask if the results accurately reflect what is happening around teenagers. What explanation can be given about the results? What ideas can be implemented to promote healthy behaviors? From a teens’ perspective, what seems to be working and what isn’t working?

2. Increasing Awareness: The YRBS provides an opportunity to break through denial and to make community members aware of the risks that young people face. It can dispel myths and correct misinformation about the “average teenager”. In addition, the YRBS can be used to accentuate the positive, and to celebrate the fact that many students are abstaining from behaviors which endanger their health and their ability to succeed.

3. Planning and Evaluating Programs: The YRBS can serve as the basis for a community needs assessment. Survey results can help identify strengths and weaknesses in the community and can suggest strategies to address those weaknesses.

Mississippi Youth Risk Behavior Trend

Injury, Violence, and Suicide

Among Mississippi youth aged 10-24 years, motor vehicle deaths account for 41% of all deaths. This figure is much higher than the national average (31%). Two likely causes contributing to this difference are (Figure 1):

- 25% of Mississippi public high school students rarely or never use a safety belt, compared to 14% nationally.
- 35% of Mississippi public high school students rode with a drinking driver during the past month, compared to 31% nationally.

However, there has been significant improvement (downward trends) in these figures in Mississippi:

- The percentage of students rarely or never using safety belts has decreased from 33% in 1993 to 25% in 2001 (SS) (Figure 2).
• The percentage of students riding during the past 30 days with a driver who had been drinking decreased from 43% in 1993 to 35% in 2001 (SS) (Figure 3).

Figure 3. Rode with a driver who had been drinking alcohol

<table>
<thead>
<tr>
<th>Year</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>1993</td>
<td>42.6</td>
</tr>
<tr>
<td>1995</td>
<td>44.6</td>
</tr>
<tr>
<td>1997</td>
<td>41.3</td>
</tr>
<tr>
<td>1999</td>
<td>39.8</td>
</tr>
<tr>
<td>2001</td>
<td>35.0</td>
</tr>
</tbody>
</table>

• The percentage of students driving during the past 30 days after drinking has decreased from 20% in 1993 to 14% in 2001 (SS) (Figure 4).

Figure 4. Drove while had been drinking alcohol

<table>
<thead>
<tr>
<th>Year</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>1993</td>
<td>19.7</td>
</tr>
<tr>
<td>1995</td>
<td>19.6</td>
</tr>
<tr>
<td>1997</td>
<td>15.1</td>
</tr>
<tr>
<td>1999</td>
<td>14.6</td>
</tr>
<tr>
<td>2001</td>
<td>13.7</td>
</tr>
</tbody>
</table>

There has been no significant overall change in the percentage of Mississippi students using a motorcycle helmet:

• The percentage of students rarely or never wearing a motorcycle helmet during the past 12 months was 56% in 1993, 44% in 1995, and 49% in 2001 (NSS) (Figure 5).

Figure 5. Rarely or never wore a motorcycle helmet

<table>
<thead>
<tr>
<th>Year</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>1993</td>
<td>56.0</td>
</tr>
<tr>
<td>1995</td>
<td>44.2</td>
</tr>
<tr>
<td>1997</td>
<td>48.3</td>
</tr>
<tr>
<td>1999</td>
<td>45.0</td>
</tr>
<tr>
<td>2001</td>
<td>48.5</td>
</tr>
</tbody>
</table>
There has also been significant improvement (downward trends) in these measures in Mississippi:

- The percentage of students rarely or never wearing a bicycle helmet during the past 12 months has decreased from 98% in 1993 to 95% in 2001 (SS) (Figure 6).

- The percentage of students carrying a weapon during the past 30 days has decreased from 28% in 1993 to 19% in 2001 (SS) (Figure 7).

- The percentage of students carrying a weapon on school property during the past 30 days has decreased from 14% in 1993 to 7% in 2001 (SS) (Figure 8).
• The percentage of students involved in a physical fight during the past 12 months has decreased from 39% in 1993 to 32% in 2001 (SS) (Figure 9).

• The percentage of students involved in a physical fight on school property during the past 12 months has decreased from 17% in 1993 to 12% in 2001 (SS) (Figure 10).

In 1999, among Mississippi youth aged 10-24 years, suicide accounts for 7% of all deaths. This figure is lower than the national average (12%). Six percent of Mississippi students attempted suicide during the past year, compared to 9% nationally (Figure 1), and there has been significant improvement (downward trends) in Mississippi:

• The percentage of students who have considered suicide during the past 12 months has decreased from 25% in 1993 to 15% in 2001 (SS) (Figure 11).
• The percentage of students who have actually attempted suicide during the past 12 months has decreased from 10% in 1993 to 6% in 2001 (SS) (Figure 12).
Tobacco Use

Measures of tobacco use among Mississippi students are comparable to national figures (Figure 13):

- 68% of Mississippi students have ever smoked cigarettes, compared to 64% nationally.
- 24% of Mississippi students have smoked cigarettes during the past month, compared to 28% nationally.
- 12% of Mississippi students have smoked cigarettes on 20 or more of the past 30 days, compared to 14% nationally.
- 8% of Mississippi students have used smokeless tobacco during the past month, compared to 8% nationally.
- 16% of Mississippi students have smoked cigars during the past month, compared to 15% nationally.

Figure 13. Tobacco Use, Mississippi vs. U.S, 2001
There has been significant improvement (downward trends) in several measures of tobacco use among Mississippi students:

- The percentage of students who have ever tried cigarette smoking has decreased from 76% in 1993 to 68% in 2001 (SS) (Figure 14).

- The percentage of students who smoked a whole cigarette for the first time before age 13 has decreased from 28% in 1993 to 23% in 2001 (NSS) (Figure 15).

- The percentage of students who have smoked cigarettes during the past 30 days has decreased from 35% in 1995 to 24% in 2001 (SS) (Figure 16).
• The percentage of students who have smoked cigarettes on school property during the past 30 days has decreased from 13% in 1997 to 7% in 2001 (SS) (Figure 17).

• The percentage of students who have smoked more than 10 cigarettes per day during the past 30 days has decreased from 6% in 1997 to 3% in 2001 (SS) (Figure 18).

• The percentage of students who have used any form of tobacco during the past 30 days has decreased from 39% in 1999 to 30% in 2001 (SS) (Figure 19).
The following measures of tobacco use among Mississippi students have shown no significant change:

- The percentage of students who have smoked cigarettes on 20 or more of the past 30 days was 14% in 1993 and 12% in 2001 (NSS) (Figure 20).

- The percentage of students who have smoked 2 or more cigarettes per day during the past 30 days was 20% in 1993 and 17% in 2001 (NSS) (Figure 21).

- The percentage of students who have used chewing tobacco or snuff during the past 30 days was 10% in 1995 and 8% in 2001 (NSS) (Figure 22).
• The percentage of students who have used chewing tobacco or snuff on school property during the past 30 days was 5% in 1995 and 6% in 2001 (NSS) (Figure 23).
**Alcohol and Other Drug Use**

Most measures of alcohol and drug use among Mississippi students are lower (better) than the national average (Figure 24):

- 42% of Mississippi students drank alcohol during the past month, compared to 47% nationally.
- 22% of Mississippi students reported episodic heavy drinking during the past month, compared to 30% nationally.
- 17% of Mississippi students used marijuana during the past month, compared to 24% nationally.
- 5% of Mississippi students have ever used cocaine, compared to 9% nationally.
- 10% of Mississippi students have ever sniffed or inhaled intoxicating substances, compared to 15% nationally.
However, there has been worsening (upward trends) in the following measures of drug use in Mississippi:

- The percentage of students who have ever used marijuana has increased from 21% in 1993 to 38% in 2001 (SS); the trend has been level since 1997 (Figure 25).

- The percentage of students who have used marijuana in the past 30 days has increased from 9% in 1993 to 17% in 2001 (SS); the trend has been level since 1997 (Figure 26).

- The percentage of students who tried marijuana for the first time before age 13 has increased from 4% in 1993 to 10% in 2001 (SS) (Figure 27).
• The percentage of students who have ever used cocaine has increased from 2% in 1993 to 5% in 2001 (NSS) (Figure 28).

• The percentage of students who have used cocaine during the past 30 days has increased from 1% in 1993 to 2% in 2001 (NSS) (Figure 29).

The following measures of drug and alcohol use among Mississippi students have shown improvement (downward trends):

• The percentage of students who have had 5 or more drinks on at least one occasion during the past 30 days has decreased from 30% in 1995 to 22% in 2001 (SS) (Figure 30).
• The percentage of students who have ever sniffed glue, breathed the contents of aerosol spray, or inhaled any paints or sprays to get high one or more times during their life has decreased from 18% in 1995 to 10% in 2001 (SS) (Figure 31).

The following measures of drug and alcohol use among Mississippi students have shown no significant change:

• The percentage of students who have ever had at least one drink of alcohol on one or more days during their life was 78% in 1993 and 76% in 2001 (NSS) (Figure 32).

• The percentage of students who had their first drink of alcohol other than a few sips before age 13 was 34% in 1993 and 32% in 2001 (NSS) (Figure 33).
• The percentage of students who have had at least one drink of alcohol on school property during the past 30 days was 6% in 1993 and 5% in 2001 (NSS) (Figure 34).

• The percentage of students who have used marijuana on school property during the past 30 days was 2% in 1993, 5% in 1997, and 3% in 2001 (NSS) (Figure 35).

• The percentage of students who have ever used methamphetamines was 6% in 1999 and 6% in 2001 (NSS) (Figure 36).
• The percentage of students who have ever used heroin was 2% in 1999 and 2% in 2001 (NSS) (Figure 37).

• The percentage of students who have ever sniffed glue, breathed the contents of aerosol spray, or inhaled any paints or sprays to get high one or more times during the past 30 days was 5% in 1999 and 3% in 2001 (NSS) (Figure 38).
Sexual Behavior

Most measures of sexual activity among Mississippi students are worse (higher) than the national average (Figure 39):

- 61% of Mississippi students have ever had sexual intercourse, compared to 46% nationally.
- 26% of Mississippi students have ever had four or more sex partners, compared to 14% nationally.
- 45% of Mississippi students have had sexual intercourse in the past three months, compared to 33% nationally.

Much of this sexual activity is unsafe (Figure 39):

- 35% of Mississippi students did not use a condom during last sexual intercourse, compared to 42% nationally.
- 87% of Mississippi students did not use birth control pills during last sexual intercourse, compared to 82% nationally.

* among students who had sexual intercourse during the past 3 months.
However, many of the measures of sexual activity among Mississippi students have shown slight improvement over time, though in most cases the trends were not statistically significant:

- The percentage of students who have ever had sexual intercourse decreased from 69% in 1993 to 61% in 2001 (NSS) (Figure 40).

- The percentage of students who had sexual intercourse for the first time before age 13 decreased from 21% in 1997 to 14% in 2001 (SS) (Figure 41).

- The percentage of students who have had sexual intercourse with one or more people during the past 3 months decreased from 50% in 1993 to 45% in 2001 (NSS) (Figure 42).
• The percentage of students who have had sexual intercourse with four or more people during their life decreased from 28% in 1993 to 26% in 2001 (NSS) (Figure 43).

• Of students who had sexual intercourse during the past three months, the percentage of students who used a condom during last sexual intercourse increased from 56% in 1993 to 65% in 2001 (SS) (Figure 44).

• Of students who had sexual intercourse during the past three months, the percentage of students who used birth control pills during last sexual intercourse was 14% in 1999 and 13% in 2001 (NSS) (Figure 45).
• The percentage of students who have been pregnant or gotten someone pregnant one or more times decreased from 12% in 1997 to 6% in 2001 (SS) (Figure 46).

• The percentage of students who have ever been taught about AIDS or HIV infection in school increased from 75% in 1993 to 85% in 2001 (SS) (Figure 47).

One measure of sexual activity among Mississippi students was worse (has shown an upward trend):

• The percentage of students who drank alcohol or used drugs before last sexual intercourse increased from 17% in 1993 to 22% in 2001 (NSS) (Figure 48).
**Dietary Behaviors**

Mississippi students have less than optimum diets, but the figures are comparable to national figures. The frequency of overweight students in Mississippi is higher than the national average (Figure 49):

- 14% of Mississippi students are overweight, compared to 10% nationally.
- A further 15% of Mississippi students are at risk of becoming overweight, compared to 14% nationally.
- 79% of Mississippi students ate less than 5 servings of fruits and vegetables per day during the past 7 days, compared to 79% nationally.
- 87% of Mississippi students drank less than 3 glasses of milk per day during the past 7 days, compared to 84% nationally.

*Figure 49. Dietary Behaviors, Mississippi vs. U.S., 2001*

* students who were at or above 85th percentile but below 95th percentile for BMI by age and sex reference based on data from CDC growth charts, NCHS, 2000;
** students who were at or above 95th percentile for BMI by age and sex based on reference data from CDC growth charts, NCHS, 2000.*
Most measures of diet and weight among Mississippi students have shown no significant change:

- The percentage of students who were overweight (based on body mass index) was 13% in 1999 and 14% in 2001 (NSS) (Figure 50).

- A further 17% of students were at risk for becoming overweight (based on body mass index) in 1999 and 15% in 2001 (NSS) (Figure 51).

- The percentage of students who perceived themselves as being slightly or very overweight was 32% in 1993 and 26% in 2001 (NSS) (Figure 52).
• The percentage of students who were trying to lose weight during the past 30 days was 38% in 1993 and 41% in 2001 (NSS) (Figure 53)

• The percentage of students who ate less food to lose weight or to keep from gaining weight during the past 30 days was 37% in 1999 and 39% in 2001 (NSS) (Figure 54).

• The percentage of students who went without eating for 24 hours or more to lose weight or to keep from gaining weight during the past 30 days was 17% in 1999 and 15% in 2001 (NSS) (Figure 55).
• The percentage of students who vomited to lose weight or to keep from gaining weight during the past 30 days was 4% in 1995 and 5% in 2001 (NSS) (Figure 56).

• The percentage of students who drank three or more glasses of milk per day during the past seven days was 13% in 1999 and 13% in 2001 (NSS) (Figure 57).

• The percentage of students who ate 5 or more servings of fruits and vegetables per day during the past seven days was 20% in 1999 and 21% in 2001 (NSS) (Figure 58).
• The percentage of students who drank 100% fruit juices one or more times during the past seven days was 79% in 1999 and 82% in 2001 (NSS) (Figure 59).

• The percentage of students who ate fruit one or more times during the past seven days was 81% in 1999 and 80% in 2001 (NSS) (Figure 60).

• The percentage of students who ate green salad one or more times during the past seven days was 52% in 1999 and 54% in 2001 (NSS) (Figure 61).
• The percentage of students who ate potatoes one or more times during the past seven days was 68% in 1999 and 68% in 2001 (NSS) (Figure 62).

![Figure 62. Students ate potatoes one or more times](image)

• The percentage of students who ate carrots one or more times during the past seven days was 30% in 1999 and 31% in 2001 (NSS) (Figure 63).

![Figure 63. Students ate carrots one or more times](image)

• The percentage of students who ate other vegetables one or more times during the past week was 80% in 1999 and 81% in 2001 (NSS) (Figure 64).

![Figure 64. Students ate other vegetables one or more times](image)
Only one measure of dietary behavior among Mississippi students has shown improvement (upward trend):

- The percentage of students who exercised to lose weight or to keep from gaining weight during the past 30 days increased from 43% in 1995 to 53% in 2001 (SS) (Figure 65).
Physical Activity

All measures of physical activity among Mississippi students are worse (higher) than the national average (Figure 66):

- 68% of Mississippi students were not enrolled in a physical education class, compared to 48% nationally.
- 77% of Mississippi students did not attend a physical education class daily, compared to 68% nationally.
- 80% of Mississippi students did not participate in moderate physical activity, compared to 74% nationally.
- 45% of Mississippi students did not participate in vigorous physical activity, compared to 35% nationally.
- 41% of Mississippi students did not participate in moderate or vigorous physical activity, compared to 31% nationally.

* on 3 more of the past seven days.
** on 5 more of the past seven days.
The following measures of physical activity among Mississippi students have shown improvement (upward trend):

- The percentage of students who were enrolled in physical education class one or more days during an average school week increased from 22% in 1993 to 39% in 1997 and 32% in 2001 (SS) (Figure 67).

- The percentage of students who attended physical education class daily increased from 18% in 1993 to 28% in 1997 and 23% in 2001 (NSS) (Figure 68).

- The percentage of students who exercised to strengthen or tone their muscles on 3 more days during the past seven days increased from 39% in 1993 to 47% in 2001 (SS) (Figure 69).
The following measures of physical activity among Mississippi students have shown no significant change:

- The percentage of students who participated in moderate physical activity during the past seven days was 21% in 1999 and 20% in 2001 (NSS) (Figure 70).

- The percentage of students who participated in vigorous physical activity during the past seven days was 56% in 1993 and 55% in 2001 (NSS) (Figure 71).

- The percentage of students who participated in no moderate or vigorous physical activity during the past seven days was 16% in 1999 and 16% in 2001 (NSS) (Figure 72).
• The percentage of students who watched 3 or more hours of TV per day on an average school day was 57% in 1999 and 55% in 2001 (NSS) (Figure 73).
On School Property

The following measures have shown improvement:

1. The percentage of students carrying a weapon on school property during the past 30 days has decreased from 14% in 1993 to 7% in 2001 (SS).
2. The percentage of students involved in a physical fight on school property during the past 12 months has decreased from 17% in 1993 to 12% in 2001 (SS).
3. The percentage of students who have smoked cigarettes on school property during the past 30 days has decreased from 13% in 1997 to 7% in 2001 (SS).
4. The percentage of students who were enrolled in physical education class increased from 22% in 1993 to 39% in 1997 and 32% in 2001 (SS).
5. The percentage of students who attended physical education class daily increased from 18% in 1993 to 28% in 1997 and 23% in 2001 (NSS).
6. The percentage of students who have ever been taught about AIDS or HIV infection in school increased from 75% in 1993 to 85% in 2001 (SS).

The following measures have shown no significant change:

1. The percentage of students who have had at least one drink of alcohol on school property during the past 30 days was 6% in 1993 and 5% in 2001 (NSS).
2. The percentage of students who have used marijuana on school property during the past 30 days was 2% in 1993, 5% in 1997, and 3% in 2001 (NSS).
3. The percentage of students who have used chewing tobacco or snuff on school property during the past 30 days was 5% in 1993 and 6% in 2001 (NSS).

Notes

1. All percentages are rounded to the nearest whole number.
2. Differences between prevalence estimates were considered statistically significant if the 95% confidence intervals did not overlap.
3. SS = statistically significant.
4. NSS = not statistically significant.
5. For detailed data tables, go to: http://www.msdh.state.ms.us/msdhsite/index.cfm/14,324,110,pdf/2001MSH%20Detail%20Tables%2Epdf

References
