Missouri
Youth Risk Behavior Survey
1995 - 2003
Risk Behaviors

The YRBS monitors specific behaviors among high school students that contribute to the leading causes of morbidity and mortality. These behaviors fall into six categories:

1. behaviors that result in unintentional and intentional injuries
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. physical activity
6. dietary behaviors

Missouri Department of Elementary and Secondary Education: Youth Risk Behavior Survey, 1995 - 2003
Sample Description

The YRBS is administered in the spring of odd-numbered years. In 2003, 1,551 students in 24 Missouri public high schools participated. The school response rate was 80 percent, and the student response rate was 84 percent. The weighted demographic characteristics of the sample are as follows:

Male 50.9%  9th grade 28.0%  African American 15.7%
Female 49.1% 10th grade 25.8%  Hispanic/Latino 0.8%
           11th grade 23.8%       White 80.9%
           12th grade 22.4%     All other races 1.1%
                               Multiple races 1.4%

Missouri Department of Elementary and Secondary Education:
Youth Risk Behavior Survey, 1995 - 2003
Important Findings

Important findings of the 2003 Missouri Youth Risk Behavior Survey include:

- 15 percent of students drove when they had been drinking in the 30 days before the survey
- 31 percent of students engaged in binge drinking in the 30 days before the survey
- 14 percent of students smoked on at least 20 of the 30 days before the survey
- 22 percent of students used marijuana in the 30 days before the survey
- 52 percent of students ever had sexual intercourse
- 38 percent of students were sexually active

Missouri Department of Elementary and Secondary Education:
Youth Risk Behavior Survey, 1995 - 2003
Unintentional and Intentional Injuries
Figure 1. Death rates in motor vehicle crashes per 100,000 15-to 19-year-olds—Missouri\textsuperscript{1} and United States\textsuperscript{2}, 1994 - 2002

\begin{figure}[h]
\centering
\includegraphics[width=\textwidth]{figure1}
\caption{Death rates in motor vehicle crashes per 100,000 15-to 19-year-olds—Missouri\textsuperscript{1} and United States\textsuperscript{2}, 1994 - 2002}
\end{figure}

\textbf{NA—Not Available}

\textsuperscript{1} Missouri Department of Health and Senior Services, Bureau of Health Data Analysis

\textsuperscript{2} CDC, National Center for Injury Prevention and Control
Figure 2. Percentage of high school students who never or rarely wore a seat belt when riding in a car driven by someone else—Missouri and United States, 1995 - 2003

*Statistically significant change since 1995

Missouri Department of Elementary and Secondary Education: Youth Risk Behavior Survey, 1995 - 2003
Figure 3. Percentage of high school students who rode one or more times in a vehicle driven by someone who had been drinking alcohol during the 30 days preceding the survey—Missouri and United States, 1995 - 2003

*Statistically significant change since 1995

Missouri Department of Elementary and Secondary Education:
Youth Risk Behavior Survey, 1995 - 2003
Figure 4. Percentage of high school students who drove a vehicle one or more times when they had been drinking alcohol during the 30 days preceding the survey—Missouri and United States, 1995 - 2003

*Statistically significant change since 1995

Missouri Department of Elementary and Secondary Education:
Youth Risk Behavior Survey, 1995 - 2003
Figure 5. Percentage of high school students who carried a gun on one or more of the 30 days preceding the survey—Missouri and United States, 1995 - 2003

Missouri Department of Elementary and Secondary Education:
Youth Risk Behavior Survey, 1995 - 2003
Figure 6. Percentage of high school students who carried a weapon such as a gun, knife, or club on school property on one or more of the 30 days preceding the survey—Missouri and United States, 1995 - 2003

*Statistically significant change since 1995

Missouri Department of Elementary and Secondary Education:
Youth Risk Behavior Survey, 1995 - 2003
Figure 7. Percentage of high school students who attempted suicide one or more times during the 12 months preceding the survey, by gender—Missouri, 1995 - 2003

Missouri Department of Elementary and Secondary Education: Youth Risk Behavior Survey, 1995 - 2003
Figure 8. Suicide rates per 100,000 15-to 19-year-olds, by gender—Missouri, 1994 - 2002

Missouri Department of Health and Senior Services, Bureau of Health Data Analysis
Tobacco Use
Figure 9. Percentage of high school students who used any tobacco during the 30 days preceding the survey—Missouri and United States, 1995 - 2003

NA—Not Available

Missouri Department of Elementary and Secondary Education:
Youth Risk Behavior Survey, 1995 - 2003
Figure 10. Percentage of high school students who smoked cigarettes on one or more of the 30 days preceding the survey—Missouri and United States, 1995 - 2003

*Statistically significant change since 1995

Missouri Department of Elementary and Secondary Education:
Youth Risk Behavior Survey, 1995 - 2003
Figure 11. Percentage of high school students who smoked cigarettes on 20 or more of the 30 days preceding the survey—Missouri and United States, 1995 – 2003

Missouri Department of Elementary and Secondary Education: Youth Risk Behavior Survey, 1995 - 2003
Figure 12. Percentage of male high school students who used chewing tobacco or snuff on one or more of the 30 days preceding the survey—Missouri and United States, 1995 - 2003

*Statistically significant change since 1995

Missouri Department of Elementary and Secondary Education: Youth Risk Behavior Survey, 1995 - 2003
Alcohol and Other Drug Use
Figure 13. Percentage of high school students who had at least one drink of alcohol on one or more of the 30 days preceding the survey—Missouri and United States, 1995 - 2003

Missouri Department of Elementary and Secondary Education: Youth Risk Behavior Survey, 1995 - 2003
Figure 14. Percentage of high school students who had five or more drinks of alcohol in a row, that is, within a couple of hours, on one or more of the 30 days preceding the survey—Missouri and United States, 1995 - 2003

*Statistically significant change since 1995

Missouri Department of Elementary and Secondary Education:
Youth Risk Behavior Survey, 1995 - 2003
Figure 15. Percentage of high school students who used marijuana one or more times during the 30 days preceding the survey—Missouri and United States, 1995 – 2003

Missouri Department of Elementary and Secondary Education:
Youth Risk Behavior Survey, 1995 - 2003
Figure 16. Percentage of high school students who ever had used methamphetamines—Missouri and United States, 1995 - 2003

<table>
<thead>
<tr>
<th>Year</th>
<th>Missouri</th>
<th>US</th>
</tr>
</thead>
<tbody>
<tr>
<td>1995</td>
<td>NA</td>
<td>NA</td>
</tr>
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<td>1997</td>
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<td>1999</td>
<td>8</td>
<td>9</td>
</tr>
<tr>
<td>2001</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>2003</td>
<td>6</td>
<td>8</td>
</tr>
</tbody>
</table>

NA—Not Available

Missouri Department of Elementary and Secondary Education:
Youth Risk Behavior Survey, 1995 - 2003
**Figure 17.** Percentage of students who tried cigarettes, alcohol, and marijuana for the first time before age 13—Missouri, 1995 - 2003

*Statistically significant change since 1995

Missouri Department of Elementary and Secondary Education:
Youth Risk Behavior Survey, 1995 - 2003
Sexual Behavior
Figure 18. Percentage of high school students who ever had sexual intercourse—Missouri and United States, 1995 - 2003

Missouri Department of Elementary and Secondary Education:
Youth Risk Behavior Survey, 1995 - 2003
Figure 19. Percentage of high school students who ever had sexual intercourse, by race/ethnicity—Missouri, 1995 - 2003

*Statistically significant change since 1995

Missouri Department of Elementary and Secondary Education:
Youth Risk Behavior Survey, 1995 - 2003
Figure 20. Percentage of high school students who ever had sexual intercourse, by grade—Missouri, 1995 - 2003

Missouri Department of Elementary and Secondary Education: Youth Risk Behavior Survey, 1995 - 2003
Figure 21. Percentage of high school students who had sexual intercourse during the three months preceding the survey—Missouri and United States, 1995 - 2003

Missouri Department of Elementary and Secondary Education: Youth Risk Behavior Survey, 1995 - 2003
Figure 22. Percentage of high school students† who had sexual intercourse, but not during the three months preceding the survey—Missouri and United States, 1995 - 2003

†Of those who ever had sexual intercourse; NA—Not Available

Missouri Department of Elementary and Secondary Education:
Youth Risk Behavior Survey, 1995 - 2003
Figure 23. Percentage of high school students who had sexual intercourse for the first time before age 13, by gender—Missouri, 1995 - 2003

Missouri Department of Elementary and Secondary Education:
Youth Risk Behavior Survey, 1995 - 2003
Figure 24. Percentage of high school students† who used a condom during last sexual intercourse—Missouri and United States, 1995 - 2003

†Of those who had sexual intercourse during the three months preceding the survey; *Statistically significant change since 1995

Missouri Department of Elementary and Secondary Education: Youth Risk Behavior Survey, 1995 - 2003
Figure 25. Percentage of high school students† who used a condom during last sexual intercourse, by grade—Missouri, 1995 – 2003

<table>
<thead>
<tr>
<th>Grade</th>
<th>1995</th>
<th>1997</th>
<th>1999</th>
<th>2001</th>
<th>2003</th>
</tr>
</thead>
<tbody>
<tr>
<td>12th grade</td>
<td>48</td>
<td>46</td>
<td>54</td>
<td>58</td>
<td>67</td>
</tr>
<tr>
<td>11th grade</td>
<td>47</td>
<td>52</td>
<td>53</td>
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<td>66</td>
</tr>
<tr>
<td>10th grade</td>
<td>56</td>
<td>67</td>
<td>68</td>
<td>62</td>
<td>63</td>
</tr>
<tr>
<td>9th grade</td>
<td>60</td>
<td>NA</td>
<td>69</td>
<td>NA</td>
<td>73</td>
</tr>
</tbody>
</table>

†Of those who had sexual intercourse during the three months preceding the survey; *Statistically significant change since 1995;
NA—Not Available

Missouri Department of Elementary and Secondary Education:
Youth Risk Behavior Survey, 1995 - 2003
Figure 26. Percentage of high school students† who used birth control pills before last sexual intercourse—Missouri and United States, 1995 - 2003

†Of those who had sexual intercourse during the three months preceding the survey

Missouri Department of Elementary and Secondary Education: Youth Risk Behavior Survey, 1995 - 2003
Figure 27. Percentage of high school students who ever had been pregnant or gotten someone pregnant—Missouri and United States, 1995 - 2003

*Statistically significant change since 1995

Missouri Department of Elementary and Secondary Education:
Youth Risk Behavior Survey, 1995 - 2003
Figure 28. Percentage of high school students who ever had been taught about AIDS or HIV infection in school—Missouri and United States, 1995 - 2003

<table>
<thead>
<tr>
<th>Year</th>
<th>Missouri</th>
<th>US</th>
</tr>
</thead>
<tbody>
<tr>
<td>1995</td>
<td>86</td>
<td>86</td>
</tr>
<tr>
<td>1997</td>
<td>89</td>
<td>92</td>
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<td>1999</td>
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<td>91</td>
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<tr>
<td>2001</td>
<td>86</td>
<td>89</td>
</tr>
<tr>
<td>2003</td>
<td>92</td>
<td>88</td>
</tr>
</tbody>
</table>

Missouri Department of Elementary and Secondary Education: Youth Risk Behavior Survey, 1995 - 2003
Physical Activity
Figure 29. Percentage of high school students who participated in vigorous physical activity† on three or more of the past seven days—Missouri and United States, 1995 - 2003

†Activities that caused them to sweat and breath hard for at least 20 minutes

Missouri Department of Elementary and Secondary Education:
Youth Risk Behavior Survey, 1995 - 2003
Figure 30. Percentage of high school students who did exercises to strengthen or tone their muscles on three or more of the past seven days—Missouri and United States, 1995 - 2003

Missouri Department of Elementary and Secondary Education: Youth Risk Behavior Survey, 1995 - 2003
Figure 31. Percentage of high school students who attended physical education class one or more days during an average school week—Missouri and United States, 1995 - 2003

Missouri Department of Elementary and Secondary Education: Youth Risk Behavior Survey, 1995 - 2003
Figure 32. Percentage of high school students who attended physical education class daily—Missouri and United States, 1995 - 2003

Missouri Department of Elementary and Secondary Education: Youth Risk Behavior Survey, 1995 - 2003
Figure 33. Percentage of female high school students who attended physical education class daily, by grade—Missouri, 1995 - 2003

<table>
<thead>
<tr>
<th>Grade</th>
<th>1995</th>
<th>1997</th>
<th>1999</th>
<th>2001</th>
<th>2003</th>
</tr>
</thead>
<tbody>
<tr>
<td>9th</td>
<td>52</td>
<td>57</td>
<td>22</td>
<td>36</td>
<td>59</td>
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<td>10th</td>
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<td>13</td>
<td>12</td>
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</tr>
<tr>
<td>12th</td>
<td>18</td>
<td>12</td>
<td>9</td>
<td>14</td>
<td>18</td>
</tr>
</tbody>
</table>

Missouri Department of Elementary and Secondary Education: Youth Risk Behavior Survey, 1995 - 2003
Figure 34. Percentage of male high school students who attended physical education class daily, by grade—Missouri, 1995 - 2003

Missouri Department of Elementary and Secondary Education:
Youth Risk Behavior Survey, 1995 - 2003
Dietary Behavior
Figure 35. Percentage of high school students who ate five or more servings of fruits and vegetables per day during the seven days preceding the survey—Missouri and United States, 1995 - 2003

Missouri Department of Elementary and Secondary Education: Youth Risk Behavior Survey, 1995 - 2003
Figure 36. Percentage of high school students who described themselves as overweight, by gender—Missouri, 1995 - 2003

<table>
<thead>
<tr>
<th>Year</th>
<th>Total</th>
<th>Female</th>
<th>Male</th>
</tr>
</thead>
<tbody>
<tr>
<td>1995</td>
<td>31</td>
<td>38</td>
<td>23</td>
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<td>1997</td>
<td>28</td>
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<td>2001</td>
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<td>38</td>
<td>26</td>
</tr>
<tr>
<td>2003</td>
<td>34</td>
<td>40</td>
<td>27</td>
</tr>
</tbody>
</table>

Missouri Department of Elementary and Secondary Education: Youth Risk Behavior Survey, 1995 - 2003
Figure 37. Percentage of high school students who were trying to lose weight, by gender—Missouri, 1995 - 2003

Missouri Department of Elementary and Secondary Education: Youth Risk Behavior Survey, 1995 - 2003
Figure 38. Percentage of high school students who were overweight, who described themselves as overweight, and who were trying to lose weight—Missouri, 1995 - 2003

<table>
<thead>
<tr>
<th>Year</th>
<th>NA</th>
<th>NA</th>
<th>9</th>
<th>13</th>
<th>12</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overweight</td>
<td>31</td>
<td>28</td>
<td>29</td>
<td>32</td>
<td>34</td>
</tr>
<tr>
<td>Trying to lose weight</td>
<td>43</td>
<td>42</td>
<td>40</td>
<td>48</td>
<td>46</td>
</tr>
</tbody>
</table>

NA—Not Available

Missouri Department of Elementary and Secondary Education: Youth Risk Behavior Survey, 1995 - 2003
Figure 39. Percentage of female high school students who exercised, took diet pills, vomited or took laxatives to lose weight or keep from gaining weight in the 30 days preceding the survey—Missouri, 1995 - 2003

Missouri Department of Elementary and Secondary Education:
Youth Risk Behavior Survey, 1995 - 2003
Figure 40. Percentage of male high school students who exercised, took diet pills, vomited or took laxatives to lose weight or keep from gaining weight in the 30 days preceding the survey—Missouri, 1995 - 2003

Missouri Department of Elementary and Secondary Education: Youth Risk Behavior Survey, 1995 - 2003

*Statistically significant change since 1995
Conclusions
The Missouri YRBS documented no statistically significant negative changes between 1995 and 2003. Statistically significant positive changes include:

- More students wore seat belts
- Fewer students rode with a drinking driver
- Fewer students drove when they had been drinking
- Fewer students carried a weapon on school property
- Fewer students were current smokers
- Fewer male students used chewing tobacco or snuff
- Fewer students tried cigarettes and alcohol before age 13
- Fewer African-American students ever had sex
- More of those students who were sexually active used condoms
- Fewer students had ever been pregnant or gotten someone pregnant
- More male students exercised to lose weight

Missouri Department of Elementary and Secondary Education:
Youth Risk Behavior Survey, 1995 - 2003
Summary

- Overall, significantly fewer of the students in Missouri’s public high schools engaged in behaviors that put their health at risk in 2003 than in 1995.

- Some of the significant improvements in risk behaviors occurred among subpopulations of students defined by gender, ethnicity, or grade.

- In 2003, Missouri students engaged in many risk behaviors more than students nationwide, but to a lesser degree than in 1995.
The End