Drug Use, Multiple Drug Use, and Other Risk Behaviors Among High School Students

1997 North Carolina Youth Risk Behavior Survey

The biennial Youth Risk Behavior Survey (YRBS) was developed by the Centers for Disease Control to monitor the prevalence of behaviors that contribute to the leading causes of morbidity, mortality, and social problems among youth in the United States (Kann et al., 1997). This report is based on self-report data from a sample of 2,343 public high school students from across North Carolina who participated in the 1997 YRBS.

Drug Use

One of the purposes of the YRBS is to evaluate youth drug use. Several questions on the survey ask students about the use of various drugs. The table below reports the percentage of high school students who reported trying each of a variety of drugs. Overall, only 15% of high school students said they had never tried any of those drugs. Students who had tried drugs were most likely to have tried either alcohol or cigarettes. Within the 30 days prior to the survey, alcohol and cigarettes were also the most commonly used drugs.

<table>
<thead>
<tr>
<th>Drug</th>
<th>Students Who Have Ever Tried</th>
<th>Students Who Used In The Last 30 Days</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alcohol</td>
<td>76%</td>
<td>44%</td>
</tr>
<tr>
<td>Cigarettes</td>
<td>60%</td>
<td>36%</td>
</tr>
<tr>
<td>Marijuana</td>
<td>45%</td>
<td>26%</td>
</tr>
<tr>
<td>Cocaine</td>
<td>7%</td>
<td>3%</td>
</tr>
<tr>
<td>Inhalants (glue, paint or spray cans)</td>
<td>17%</td>
<td>*</td>
</tr>
<tr>
<td>Amphetamines/Speed</td>
<td>15%</td>
<td>*</td>
</tr>
<tr>
<td>Hallucinogens (LSD, PCP)</td>
<td>11%</td>
<td>*</td>
</tr>
<tr>
<td>Heroin</td>
<td>3%</td>
<td>*</td>
</tr>
<tr>
<td>None of the above</td>
<td>15%</td>
<td>*</td>
</tr>
</tbody>
</table>

* For drug use in the last 30 days, students were only asked about alcohol, cigarettes, marijuana, and cocaine.
Age at Which Students First Use Various Drugs

A common concern with drug use among children is whether certain substances might serve as “gateway drugs”, leading to the use of other substances (Ellickson, Hays, & Bell, 1992; Lindsay & Rainey, 1997; Torabi, Bailey, & Majd-Jabbari, 1993). The 1997 YRBS high school data suggest that first instances of smoking and alcohol use tend to occur at about the same time. Both smoking, alcohol use, and marijuana use, however, tend to precede the onset of cocaine use. Interestingly, high school students in report a later onset of drug use than do middle school students according to 1997 YRBS data (North Carolina Department of Public Instruction, 1999). Although this may suggest that middle school students are initiating drug use earlier than their older counterparts, it may also be due to less accurate recall among high school students (as this event may have occurred several years in the past for many high school students).

It is important to note that the data below do not show that smoking or alcohol use or marijuana use cause cocaine use; the data merely show that among students who use multiple drugs, the first incidences of smoking, alcohol use, and marijuana use tend to occur earlier in students’ lives than the first incidence of cocaine use.

Age of Onset of Drug Use

Average (median) age when a student first:
- tries alcohol: 13-14
- tries a cigarette: 13-14
- tries marijuana: 13-14
- tries cocaine: 15-16

Cigarettes and Cocaine

Among high school students who reported that they had tried both cigarettes and cocaine:
- 71% tried cigarettes first before trying cocaine
- 12% tried cocaine first before trying cigarettes

Alcohol and Cocaine

Among high school students who reported that they had tried both alcohol and cocaine:
- 71% tried alcohol first before trying marijuana
- 9% tried marijuana first before trying cigarettes

Marijuana and Cocaine

Among high school students who reported that they had tried both marijuana and cocaine:
- 60% tried marijuana first before trying cocaine
- 10% tried cocaine first before trying marijuana
Patterns of Multiple Drug Use

Research has shown that youth who abuse one drug are more likely to also abuse other drugs (Block & Goodman, 1978; Kaufman, 1976; Martin, Arria, Mezzich, & Bukstein, 1993). The YRBS also provides information which addresses this issue. The table below reports the percentage of high school students who reported using multiple drugs (alcohol, cigarettes, marijuana, cocaine) within the past 30 days. Less than half (47%) of students reported that they did not use alcohol, cigarettes, marijuana or cocaine in the past month. Over half (60%) of the students who reported having used any of those drugs, however, used more than one.

<table>
<thead>
<tr>
<th>Number Of Drugs</th>
<th>Students Who Used In The Last 30 Days</th>
</tr>
</thead>
<tbody>
<tr>
<td>None of these drugs</td>
<td>47%</td>
</tr>
<tr>
<td>1</td>
<td>21%</td>
</tr>
<tr>
<td>2</td>
<td>17%</td>
</tr>
<tr>
<td>3 or 4</td>
<td>15%</td>
</tr>
</tbody>
</table>

The following data\(^1\) provide some information on the use of multiple specific drugs.

**Cigarettes and Other Drugs**

Compared to nonsmokers, high school students who smoke cigarettes:
- are 17 times more likely to use cocaine
- are 5 times more likely to use marijuana
- are 3 times more likely to use alcohol

**Alcohol and Other Drugs**

Compared to nondrinkers, high school students who drink alcohol:
- are 53 times more likely to use cocaine
- are 6 times more likely to use marijuana

**Marijuana and Other Drugs**

Compared to students who do not use marijuana, high school students who do use marijuana:
- are 43 times more likely to use cocaine

\(^1\) These co-occurrence data were calculated by dividing the percentage of users who used a second drug by the percentage of non-users who used that same second drug. “Use” is defined as having used a particular drug at least once within the last 30 days.
Multiple Drug Use and Other Risk Behaviors

Previous studies have shown that the use of multiple drugs is associated with other undesirable factors, such as delinquency, suicidal thoughts, and general “risk-taking” personality traits (Adlaf & Smart, 1983; Smith, Schwartz, & Martin, 1989; Wright, 1985). The following figures based on YRBS data provide a descriptive look at some potential relationships between multiple drug use (alcohol, cigarettes, marijuana and/or cocaine within the last 30 days) and the prevalence of other risk behaviors among high school students.

Vehicle Safety

Percentage of high school students who reported “never” or “rarely” wearing a helmet while riding a bike or a motorcycle:

Percentage of high school students who reported that they “never” or “rarely” wear a seatbelt in a car, percentage who had ridden in a car with a drinking driver in the past month, and percentage who reported that they had driven a car after drinking in the past month:
**Violence**

Percentage of high school students who were in a fight or were hurt in a fight in the past year:

![Graph showing the percentage of students who were in a fight or hurt in a fight](image)

**Suicidal Behavior**

Percentage of high school students who have ever considered, planned, or attempted suicide, and percentage of students who had been injured in a suicide attempt:

![Graph showing the percentage of students who have considered, planned, or attempted suicide](image)
Carrying Weapons

Percentage of high school students who reported carrying weapons in the past 30 days:

![Graph showing percentage of students carrying weapons by drug use level]

Sexual Behavior

Percentage of high school students who reported having sexual intercourse before age 14, percentage who reported having had a sexually transmitted disease, percentage who had been involved in a pregnancy, and percentage who had intercourse with more than 1 person in the past 3 months:

![Graph showing sexual behavior by drug use level]
Self-Reported Achievement and Academic Aspirations

Percentage of high school students who reported performing below the “C” level overall on their last report card, and percentage who intend on pursuing any form of post-secondary education:

<table>
<thead>
<tr>
<th>Percent of Students</th>
<th>Performing Below &quot;C&quot; Level</th>
<th>Planning on Higher Education</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-users</td>
<td>70</td>
<td>80</td>
</tr>
<tr>
<td>1 drug</td>
<td>60</td>
<td>70</td>
</tr>
<tr>
<td>2 drugs</td>
<td>50</td>
<td>60</td>
</tr>
<tr>
<td>3 or more</td>
<td>40</td>
<td>50</td>
</tr>
</tbody>
</table>

Summary

Data from the 1997 Youth Risk Behavior Survey help to shed light on the nature of drug use among North Carolina high school students. Specifically:

- For high school students who have tried drugs, initiation of drug use occurred, on average, at about 13-14 years of age.
- Approximately 53% of high school students used some drug at least once in the past month.
- Of those students who had used selected drugs in the past month, 60% reported using multiple drugs during that period.
- Multiple drug use appears to be associated with a variety of risk behaviors, including less frequent use of helmets and seatbelts, fighting, drinking and driving, riding with drinking drivers, suicidal behavior, carrying weapons, risky sexual behavior and low grades.

Schools need to be aware that a student who uses drugs may also be engaging in a variety of other behaviors that may be detrimental to her/his health and development. Therefore, comprehensive intervention approaches may be needed for these students which focus not just on drug abuse, but on a range of behaviors in order to lessen their risk of becoming involved in dangerous and even life-threatening events.

This information on drug use among high school students helps to quantify and reiterate an important point: Preventing drug use is a critical step in ensuring the health and well-being of children. The prevalence of multiple drug use among high school students, the potential associations between multiple drug use and other risk behaviors, and the lower academic achievement seen among multiple drug users further reinforce the long-standing need for risk behavior prevention and intervention efforts targeting young children and adolescents.
References


North Carolina Department of Public Instruction. (1999). Drug use, multiple drug use, and other risk behaviors among middle school students (Evaluation Brief vol. 1 issue 1). Raleigh, NC: North Carolina Department of Public Instruction.

