AFTERNOONS R.O.C.K. IN INDIANA AND ALCOHOL, TOBACCO & OTHER DRUG USE BY INDIANA ADOLESCENTS

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EXECUTIVE SUMMARY

This monograph provides trend data of alcohol, tobacco, and other drug (ATOD) use by Indiana youth from 1991 to 2003. These data were obtained from the annual Alcohol, Tobacco and Other Drug Use by Indiana Children and Adolescents survey conducted by the Indiana Prevention Resource Center at Indiana University. Of particular interest are changes in ATOD use after the implementation of the Afternoons R.O.C.K. in Indiana programs in 1997. Specific patterns of ATOD use after inception of Afternoons R.O.C.K. in Indiana programs would provide support for their effectiveness in preventing youth ATOD use.

Two types of patterns were found among youth who participated in the program. The first pattern is that of decreasing ATOD use since the inception and implementation of the Afternoons R.O.C.K. in Indiana programs, which is presented in this monograph. The second pattern is that of a lessening in the upward trajectory of some substances (e.g., marijuana) among youth – i.e., a plateau of use. Both of these findings strongly point to the effectiveness of the Afternoons R.O.C.K. in Indiana programs.

INTRODUCTION

Background

In the mid 1990’s, Indiana witnessed an increase in youth substance abuse and substance abuse-related costs. During this same period, the number of working parents was on the rise in the United States. In fact, the percentage of children with all resident parents in the workforce increased from 59% in 1985 to 66% in 1996 (United States Department of Health and Human Services, 1997). This increasing trend of working parents translated into a greater number of youth that were unsupervised in the three hours following dismissal from school, often referred to as the “three critical hours.” It is in these after-school hours that youth are most vulnerable to engaging in negative and risky behaviors such as vandalism, sexual activity, and crime. Indeed, violent crime involving youth offenders is highest just after the close of the school day (Snyder & Sickmund, 1999). This unsupervised time also leaves youth vulnerable to experimentation with alcohol, tobacco, and other drugs (ATOD). To illustrate, a survey of Indiana students conducted by the Indiana Prevention Resource Center at Indiana University revealed that eighth graders who spent a greater amount of time unsupervised in the after-school hours also reported more use of cigarettes, alcohol, and marijuana (see Figure 1)– the gateway drugs (Bailey, Jones-McKyer, Jun, & Smith, 2003).

In response, the Indiana Division of Mental Health and Addiction (formerly the Division of Mental Health) began providing funding for Local Prevention Services Coalitions across Indiana with the goal of preventing youth substance abuse. Since 1997 these coalitions have offered after-school programs to youth called Afternoons R.O.C.K. in Indiana. These programs are designed to increase protective factors and decrease risk factors for substance abuse by providing youth with fun and engaging activities in a safe, supervised environment in the after-school hours.
Afternoons R.O.C.K. in Indiana Program

In each of the past six years, approximately 500 Afternoons R.O.C.K. in Indiana programs were offered each year, serving over 55,000 youth in total. Table 1 provides a breakdown of youth participation by year. Programs were offered in the after-school hours, a minimum of two days per week for at least six weeks totaling a minimum of forty contact hours. All youth were accepted into the program. However, youth targeted for participation were those aged 10 to 14 years of moderate risk (e.g., not known, regular users of alcohol, tobacco, or other drugs).

Table 1. Yearly Program Participant Count

<table>
<thead>
<tr>
<th></th>
<th>1998</th>
<th>1999</th>
<th>2000</th>
<th>2001</th>
<th>2002</th>
<th>2003</th>
</tr>
</thead>
<tbody>
<tr>
<td>Participants</td>
<td>8909</td>
<td>10487</td>
<td>12097</td>
<td>11787</td>
<td>12617</td>
<td>12620</td>
</tr>
</tbody>
</table>

Each program site chose two focused prevention activities that consisted of structured activities that directly address alcohol, tobacco, and other drug issues. These issues included gang prevention, violence prevention, normative education, awareness of peer and social influences, awareness of advertising pressures, and structuring leisure time to be alcohol, tobacco and other drug-free. A menu of focused prevention activities was offered to program providers so that the program could be tailored to address issues of concern at the local-level. For example, Table 2 indicates the frequency of focused prevention activity chosen for programs in 2003.
Table 2. Program Activity Frequency, 2003

<table>
<thead>
<tr>
<th>Activity</th>
<th>Frequency</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Awareness of Advertising Pressures</td>
<td>199</td>
<td>20</td>
</tr>
<tr>
<td>Awareness of Peer and Social Influences</td>
<td>164</td>
<td>16</td>
</tr>
<tr>
<td>Conflict Resolution</td>
<td>187</td>
<td>18</td>
</tr>
<tr>
<td>Gang Prevention</td>
<td>54</td>
<td>5</td>
</tr>
<tr>
<td>Normative Education</td>
<td>52</td>
<td>5</td>
</tr>
<tr>
<td>Refusal/Resistance Skills</td>
<td>98</td>
<td>10</td>
</tr>
<tr>
<td>Structuring Leisure Time to be ATOD Free</td>
<td>192</td>
<td>19</td>
</tr>
<tr>
<td>Violence Prevention</td>
<td>70</td>
<td>7</td>
</tr>
</tbody>
</table>

Each focused prevention activity was offered for at least one hour per day for at least five days. The remainder of the program time was filled by supportive prevention activities that indirectly addressed alcohol, tobacco, and other drug use as well as reduction of risk factors or enhancement of protective factors. As with the focused prevention activities, a menu of supportive prevention activities was offered to program providers from which at least six activities were chosen to address issues of concern and interest at the local-level. Supportive prevention activities included, but were not limited to academic skills development, cultural awareness, stress management, and job skills development.

Summer programs were offered from 1997 to 2000, which followed the same guidelines and structure as the programs offered in the after-school hours. However, summer programs were replaced by booster sessions in 2001. These sessions were offered to participants that attended at least 80% of the program in the current funding year. These sessions were comprised of focused or supportive prevention activities for a minimum duration of 150 minutes per day. Booster sessions could be offered in the after-school hours, on holidays, or in the summer, allowing more flexibility for program planning. In 2003, over 1600 youth attended at least one booster session with the average number of days attended being approximately five.

Methodology

Data were gathered via the annual Alcohol, Tobacco and Other Drug Use by Indiana Children and Adolescents survey conducted by the Indiana Prevention Resource Center at Indiana University. Participants included Indiana students in grades 6th through 12th in the spring of 1991 through 2003. The survey was administered in both public and private schools each spring (March through April). A purposive cluster sampling was used to select representative samples. The samples were representative in terms of demographic and geographic characteristics, and community size. Also, a stratified sampling by grade was adopted to assure each grade had a balanced number of students. Intact classes were used as sampling clusters and in most cases all students present on the day of administration were surveyed. While administering the survey, all students were informed that they had the right to withdraw from the survey at any time and the survey was anonymous and confidential. The number of participants for the survey and usable cases varied from year to year and the valid numbers, which were included in the data
analyses, are described in Table 3. The self-administered questionnaire consisted of questions concerning demographic characteristics, alcohol, tobacco, and other drug (ATOD) use, school safety, and after-school activities. The instrument was developed by the Indiana Prevention Resource Center based on the questionnaires used for the National Household Survey on Drug Abuse (National Institute on Drug Abuse, 1991) and for the National Institute on Drug Abuse’s “Monitoring the Future” National High School Survey (Johnston, et al., 1991, 1992, & 1993). All study protocol was approved by the Institutional Review Board at Indiana University.

Table 3. Number of Students Participated in the Survey by Grade and Year

<table>
<thead>
<tr>
<th>Year</th>
<th>6th</th>
<th>7th</th>
<th>8th</th>
<th>9th</th>
<th>10th</th>
<th>11th</th>
<th>12th</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1991</td>
<td>2,377</td>
<td>2,737</td>
<td>3,745</td>
<td>2,308</td>
<td>2,984</td>
<td>2,573</td>
<td>2,576</td>
<td>19,300</td>
</tr>
<tr>
<td>1992</td>
<td>2,412</td>
<td>3,340</td>
<td>3,052</td>
<td>2,436</td>
<td>2,928</td>
<td>2,359</td>
<td>1,506</td>
<td>18,033</td>
</tr>
<tr>
<td>1993</td>
<td>14,128</td>
<td>8,678</td>
<td>16,396</td>
<td>9,728</td>
<td>16,737</td>
<td>7,783</td>
<td>13,071</td>
<td>86,325</td>
</tr>
<tr>
<td>1994</td>
<td>12,774</td>
<td>11,795</td>
<td>13,258</td>
<td>12,216</td>
<td>12,203</td>
<td>9,858</td>
<td>9,528</td>
<td>81,632</td>
</tr>
<tr>
<td>1995</td>
<td>9,958</td>
<td>7,753</td>
<td>12,868</td>
<td>7,437</td>
<td>11,181</td>
<td>6,280</td>
<td>8,554</td>
<td>63,531</td>
</tr>
<tr>
<td>1996</td>
<td>5,624</td>
<td>5,449</td>
<td>6,800</td>
<td>5,201</td>
<td>5,286</td>
<td>4,272</td>
<td>3,936</td>
<td>36,568</td>
</tr>
<tr>
<td>1997</td>
<td>11,998</td>
<td>8,656</td>
<td>12,893</td>
<td>9,630</td>
<td>12,048</td>
<td>8,074</td>
<td>9,272</td>
<td>72,571</td>
</tr>
<tr>
<td>1998</td>
<td>6,281</td>
<td>5,606</td>
<td>6,527</td>
<td>7,421</td>
<td>6,923</td>
<td>6,157</td>
<td>5,317</td>
<td>44,232</td>
</tr>
<tr>
<td>1999</td>
<td>12,553</td>
<td>9,971</td>
<td>15,447</td>
<td>11,166</td>
<td>13,870</td>
<td>8,896</td>
<td>9,782</td>
<td>81,685</td>
</tr>
<tr>
<td>2000</td>
<td>9,967</td>
<td>11,310</td>
<td>12,273</td>
<td>10,747</td>
<td>11,082</td>
<td>8,978</td>
<td>8,166</td>
<td>72,523</td>
</tr>
<tr>
<td>2001</td>
<td>14,298</td>
<td>14,389</td>
<td>17,360</td>
<td>11,504</td>
<td>13,099</td>
<td>9,188</td>
<td>9,793</td>
<td>89,831</td>
</tr>
<tr>
<td>2002</td>
<td>12,957</td>
<td>11,377</td>
<td>15,538</td>
<td>9,871</td>
<td>11,780</td>
<td>7,555</td>
<td>7,990</td>
<td>77,068</td>
</tr>
<tr>
<td>2003</td>
<td>23,382</td>
<td>19,681</td>
<td>26,935</td>
<td>19,487</td>
<td>21,760</td>
<td>14,597</td>
<td>15,500</td>
<td>141,342</td>
</tr>
</tbody>
</table>

Findings and Highlights of Afternoons R.O.C.K. in Indiana Program Effectiveness

Specific patterns of ATOD use after inception of Afternoons R.O.C.K. in Indiana programs would provide support for their effectiveness in preventing youth ATOD use. Intuitively, a pattern of decreasing ATOD use after 1997 as seen with reported inhalant use (see Figure 2) would suggest that programs were having a positive impact. In addition, a pattern of increasing ATOD use prior to 1997 followed by a plateau of reported use as seen with reported marijuana use (see Figure 3) would suggest that programs were circumventing the upward trend of use.
Figure 2. Monthly Inhalants Use among Indiana Students: 1991-2003

Note: ▲ indicates the year of the Afternoons R.O.C.K. in Indiana's initiation.

Figure 3. Monthly Marijuana Use among Indiana Students: 1991-2003

Note: ▲ indicates the year of the Afternoons R.O.C.K. in Indiana's initiation.
When compared with national trends of ATOD use, Indiana prevalence rates fall above the national rate for most drugs. However, *Afternoons R.O.C.K. in Indiana* programs appear to be closing the gap for some drugs. For example, Figure 4 indicates that prior to 1997 prevalence rates of marijuana, inhalants, and smokeless tobacco use among 10th graders were above the national rate and relatively unchanging. The after-school prevention program was not yet available to Indiana youth during this period. However, after 1997 Indiana youth aged 10-14 were afforded the opportunity to participate in an *Afternoons R.O.C.K. in Indiana* program once each year. After implementation of the program in 1997, prevalence of marijuana, inhalants, and smokeless tobacco use decreased. These decreases were more pronounced as opportunity for involvement in the program increased.

**Figure 4. Differences between the National and the State Monthly Prevalence Rates of Marijuana, Inhalants, and Smokeless Tobacco among Indiana 10th Graders**

![Graph showing differences between national and state prevalence rates](image)

Note: Positive numbers indicate that the state prevalence rates are higher than the national rates.


In summary, trend data reveals a pattern of reported substance abuse suggesting that *Afternoons R.O.C.K. in Indiana* programs are having a positive impact on Indiana youth. Specifically, patterns of use of alcohol, amphetamines, cigarettes, inhalants, and smokeless tobacco show steady declines after 1997—the first year that *Afternoons R.O.C.K. in Indiana* programs were offered. In addition, reported use of cocaine and...
marijuana was on the rise prior to implementation of these programs. However, after 1997 reported use rates leveled and increased use was curbed. Comparison with national rates further suggested that Afternoons R.O.C.K. in Indiana programs were closing the gap between state and national rates. Taken together, the results indicated that the prevalence of ATOD use among Indiana students has declined since 1997, the year of the program’s initiation. This decline was most prevalent among 6th through 10th graders, the intervention’s primary targets.

Some selected drugs’ lifetime, annual, and monthly trend graphs are provided in appendix.
References


Appendix
Lifetime Alcohol Use among Indiana Students: 1991-2003

The graph shows the percent of students using alcohol each year from 1991 to 2003. Each line represents a different grade level, with 6th grade at the top and 12th grade at the bottom. The year 1997 indicates the initiation of the Afternoons R.O.C.K. in Indiana program.

▲ indicates the year of the Afternoons R.O.C.K. in Indiana's initiation.
Annual Alcohol Use among Indiana Students: 1991-2003

Afternoons R.O.C.K. in Indiana's initiation.
Monthly Alcohol Use among Indiana Students: 1991-2003

△ indicates the year of the Afternoons R.O.C.K. in Indiana’s initiation.
Lifetime Cigarette Use among Indiana Students: 1991-2003

Δ indicates the year of the Afternoons R.O.C.K. in Indiana’s initiation.
Annual Cigarette Use among Indiana Students: 1991-2003

![Graph showing annual cigarette use among Indiana students from 1991 to 2003. The graph includes data for 6th to 12th grade students. The year of initiation for Afternoons R.O.C.K. in Indiana is indicated by a triangle.]

▲ indicates the year of the *Afternoons R.O.C.K. in Indiana*’s initiation.

▲ indicates the year of the *Afternoons R.O.C.K. in Indiana's* initiation.
Lifetime Smokeless Tobacco Use among Indiana Students: 1991-2003

▲ indicates the year of the Afternoons R.O.C.K. in Indiana's initiation.
Annual Smokeless Tobacco Use among Indiana Students: 1991-2003

▲ indicates the year of the Afternoons R.O.C.K. in Indiana's initiation.

Afternoons R.O.C.K. in Indiana's initiation.

△ indicates the year of the *Afternoons R.O.C.K. in Indiana*’s initiation.
Lifetime Marijuana Use among Indiana Students: 1991-2003

△ indicates the year of the Afternoons R.O.C.K. in Indiana's initiation.
Annual Marijuana Use among Indiana Students: 1991-2003

The graph shows the annual percentage of students using marijuana from 1991 to 2003, categorized by grade level. The year 1993 has a distinctive marker, indicating the initiation of "Afternoons R.O.C.K. in Indiana".

▲ indicates the year of the Afternoons R.O.C.K. in Indiana’s initiation.
Lifetime Narcotics Use among Indiana Students: 1991-2003

▲ indicates the year of the Afternoons R.O.C.K. in Indiana’s initiation.
Afternoons R.O.C.K. in Indiana's initiation.

△ indicates the year of the Afternoons R.O.C.K. in Indiana's initiation.
Lifetime Inhalants Use among Indiana Students: 1991-2003

▲ indicates the year of the Afternoons R.O.C.K. in Indiana's initiation.
Annual Inhalants Use among Indiana Students: 1991-2003

▲ indicates the year of the Afternoons R.O.C.K. in Indiana's initiation.

\[ \text{Percent of students using} \]

\[ \text{indicates the year of the Afternoons R.O.C.K. in Indiana's initiation.} \]
Lifetime Amphetamines Use among Indiana Students: 1991-2003

▲ indicates the year of the Afternoons R.O.C.K. in Indiana's initiation.
Annual Amphetamines Use among Indiana Students: 1991-2003

△ indicates the year of the Afternoons R.O.C.K. in Indiana's initiation.

▲ indicates the year of the Afternoons R.O.C.K. in Indiana’s initiation.
Lifetime Tranquilizer Use among Indiana Students: 1991-2003

Afternoons R.O.C.K. in Indiana’s initiation.

▲ indicates the year of the *Afternoons R.O.C.K. in Indiana’s* initiation.
Annual Tranquilizer Use among Indiana Students: 1991-2003

% of students using tranquilizers:

- 6th
- 7th
- 8th
- 9th
- 10th
- 11th
- 12th

▲ indicates the year of the Afternoons R.O.C.K. in Indiana’s initiation.

Afternoons R.O.C.K. in Indiana’s initiation.