24th Annual NJ AAP School Health Conference
Drugs in the School: Illicit vs Licit?

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Disclosures

• I have no disclosures or financial interests to disclose.

Objectives

• Discuss the epidemiology of current drugs of abuse.
• Discuss the trends in the most common drugs of abuse.
• Discuss several emerging and dangerous drugs that are hitting the market.
• Identify national, state and local substance use resources for health care practitioners.

THE GOOD NEWS/ AOD USE IN YOUTH - 2015

• Cigarette and alcohol use among 8th, 10th and 12th graders, are at the lowest point since 1975.
• Five-year trends show significant decreases in alcohol use among nearly all grades and across all prevalence periods.
• Binge use of alcohol declined among 8th, 10th and 12 graders over the past year.
• In 2012, there was an increase in perceived risk of smoking among 8th, 10th and 12th graders.

THE BAD NEWS/ AOD USE IN YOUTH - 2015

• Alcohol & other drugs are readily available.
• One out of 2 seniors has tried an illicit drug; 7 out of 10 have used alcohol at some time.
• Students as young as those in grades 3 and 4 have used alcohol and tobacco; many even younger have been exposed to illicit drugs by peers, older siblings and parents.
• Five-year trends show significant increases in marijuana use, which now exceeds tobacco use.
• After marijuana, prescription OTC medications account for most of the illicit drug use by teens.

Epidemiology
Drug use remains highest among 12th graders. Almost fifty percent of seniors have tried an illicit drug, and one in four are current users.

By the time they are seniors, one out of five youth are current marijuana users and 1 in 17 use every day.

Prescription and OTC Drugs

Although illicit drug use by teens is declining, now there is a new threat, the family medicine cabinet.
Cocaine use is less prevalent, but almost 1 in 20 seniors have used cocaine during their lifetime.

Heroin use among students is low, but any use among students is a cause for great concern.

Alcohol is a serious problem among youth – almost 20 percent of high school seniors and over 10 percent of 10th graders are heavy, binge drinkers.

Alcohol use is a serious problem. The number of adolescents who report having been drunk is of great concern.
Despite significant declines, still around one out of every twenty high school seniors are daily smokers.

Cigarettes Percent Reporting Use

- Daily
- 5th Day
- Lifetime

Source: Monitoring the Future Study, 2014

Illicit Drugs Declining in Use

- Inhalants
- Powder/Crack Cocaine
- Vicodin
- Adderall (*12 graders*)
- Sedatives (barbiturates)
- Tranquilizers
- Cough and Cold Medications
- Synthetic Marijuana

Trends in Drug Use and Health Impacts

Drugs Holding Steady in 2014

- Illicit drugs other than marijuana
- LSD and other Hallucinogens
- Salvia
- Heroin
- Oxycontin
- Amphetamines and Ritalin
- Club Drugs (Rohypnol, GHB, Ketamine)
- Provigil

ADDICTION IS A DEVELOPMENTAL DISEASE that starts in adolescence and childhood

Tobacco, Alcohol and Cannabis dependence per DSM IV

Age at Illness, Alcohol and cannabis dependence

NSDUH, 2013, DHMH

Figure 2.2 Past Month Use of Selected Illicit Drugs among Persons Aged 12 or Older: 2002-2013

* Difference remains for cigarette use and the 2011 estimate is statistically significant at the .05 level.
Increases over Time in the Potency of Tetrahydrocannabinol (THC) in Marijuana and the Number of Emergency Department Visits Involving Marijuana, Cocaine, or Heroin.

Percentage of those ages 12 to 17 who reported aggressive behavior in past 6 months, by number of days marijuana was used in the past year

Percent of those ages 12 to 17 who reported delinquent behavior in past 6 months, by number of days marijuana was used in the past year

Adverse Effects of Short-Term Use and Long-Term or Heavy Use of Marijuana.

<table>
<thead>
<tr>
<th>Effect of short-term use</th>
<th>Effect of long-term or heavy use</th>
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<tbody>
<tr>
<td>Reduced memory, making it difficult to learn and to retain information</td>
<td>Addiction to marijuana and other substances, adolescent in adolescence, and 50% of those who are daily users</td>
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<td>Reduced motor coordination, interfering with driving skills and increasing the risk of accidents</td>
<td>Mental health problems</td>
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<td>Mental judgment, increasing the risk of sexual behaviors that facilitate the transmission of sexually transmitted diseases</td>
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<td>In high doses, paranoia and psychosis</td>
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<td>Effects of long-term or heavy use</td>
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<tr>
<td>Addiction (in about 4% of users overall, 17% of those who begin use in adolescence, and 50% of those who are daily users)</td>
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<td>Mental health problems</td>
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<td>Poor educational outcomes, with increased likelihood of dropping out of school</td>
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<td>Cognitive impairment, with lower IQ among the user who use frequent users during adolescence</td>
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<td>Enriched life satisfaction and achievement (determined on the basis of subjective and objective measures) as compared with such ratings in the past or in the absence of marijuana use</td>
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<tr>
<td>Symptoms of chronic bronchitis</td>
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<tr>
<td>Increased risk of cognitive disorders (including schizophrenia) in some with a predisposition to such disorders</td>
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Level of Confidence in the Evidence for Adverse Effects of Marijuana on Health and Well-Being.

<table>
<thead>
<tr>
<th>Effect</th>
<th>Overall Level of Confidence</th>
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<tbody>
<tr>
<td>Addiction to marijuana and other substances</td>
<td>High</td>
</tr>
<tr>
<td>Abnormal brain development</td>
<td>Medium</td>
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<tr>
<td>Progression to use of other drugs</td>
<td>Medium</td>
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<tr>
<td>Schizophrenia</td>
<td>Medium</td>
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<tr>
<td>Depression or anxiety</td>
<td>Low</td>
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<tr>
<td>Dystrophic life satisfaction</td>
<td>High</td>
</tr>
<tr>
<td>Motor vehicle accidents</td>
<td>High</td>
</tr>
<tr>
<td>Symptoms of chronic bronchitis</td>
<td>High</td>
</tr>
<tr>
<td>Lung cancer</td>
<td>Low</td>
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</tbody>
</table>

*The indicated overall level of confidence in the association between marijuana use and the listed effects represents an attempt to rank the strength of the current evidence, especially with regard to heavy or long-term use and use that starts in adolescence.
Age of Drinking Onset Predicts Future Alcohol Abuse and Dependence
Grant BF, Dawson, DA. Journal of Substance Abuse, 1998

- Young people who began drinking before age 15 are four times more likely to develop alcohol dependence than those who began drinking at age 21.
- The risk of alcohol abuse was double for persons who began drinking before age 15 compared to those who began drinking at age 21.

While the rates of cigarette use is going down, rates of use of small cigars and tobacco use by hookahs (waterpipes) is increasing.

For those age 12 to 17, there is also a clear relationship between smoking cigarettes and current illicit drug use.

So what does this all mean and what should we do about it?

- Strong link between substance use and adverse health outcomes for youth
- Potential opportunities for preventive care, early recognition of problems and appropriate interventions for substance use and mental health disorders
Role of the Health Care Provider

• Health providers should educate their patients & families about the dangers of substance use and risk factors for problem use and addiction.
• Routinely screen for risky substance use and identify early affected individuals.
• Provide interventions to reduce risky use that are tailored to age and personal characteristics.
• Provide referral for assessment and diagnosis and assist with connection to treatment services.

Skill Competencies

• Recognize early manifestations of substance use disorders
• Screen patients and families effectively
• Provide prevention, motivational enhancement for behavior change, or referral, as appropriate

Core Competencies for Involvement of Health Care Providers in the Care of Children and Adolescents Affected by Substance Abuse-Level I

• Be aware of medical, psychiatric, and behavioral syndromes and symptoms
• Be aware of benefit of timely and early intervention
• Be familiar with community resources
• Include appropriate screening for AOD use
• Determine resource needs and services being provided
• Communicate appropriate concern and offer information, support and follow-up

Adger, Mcdonald, Wenger. Pediatrics, 103: (103); 1083, 1999
So what does this all mean and what should we do about it?

• There is a lot that we can do as health providers.

• Potential opportunities for preventive care, early recognition of problems and appropriate interventions for substance use and mental health disorders.

• Moving to action - Take the Nike approach
Drug Abuse is a preventable behavior. Drug Addiction is a treatable disease.

Partnership for a Drug-Free America