

## Substance Use and Risky Sexual Activity

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In recent years, researchers have begun to explore the intersection of alcohol or drug use and sexual “risk behaviors” – activities that put people at increased risk for STDs, unintended pregnancy, and sexual violence. Risky sexual activities include using condoms inconsistently, having multiple sexual partners over one’s lifetime, or having intercourse with a casual partner. Studies conducted to date indicate that drinking and illicit drug use often occur in association with risky sexual activity. Still, a *direct link* between substance use and these sexual behaviors can be difficult to document.

Public health experts hope that creating a greater awareness of the potential relationship between substance use and risky sexual activity can influence individuals who rely on drinking or drugs to help reduce inhibitions, increase sociability, or enhance sexual arousal. Some people may drink or use drugs to gain courage, relieve pressure, or justify behavior they might otherwise feel is uncomfortable or unwise – without considering the potential consequences. In addition, determining *how* the use of alcohol or other substances influence sexual risk-taking can help to inform efforts by health care providers, educators, social workers, and policymakers to create effective programs for substance abuse prevention and treatment, STD and HIV prevention, and sexual health education.

This issue update examines the current available data concerning drinking, drug use, and risky sexual activity – including the degree to which these behaviors may be related. It also outlines the ways in which these behaviors can lead to potentially harmful health consequences.

### Sex, Drinking, and Drug Use: How Common?

A national survey of Americans aged 18 to 59 found that 90 percent of men and 86 percent of women had sex in the year prior to the survey.<sup>1</sup> More than 80 percent of adults have ever used alcohol and more than half have had a drink in the past month.<sup>2</sup> Illicit drug use is less common, particularly among adults aged 35 and older. About half of adults aged 18-35 say they have ever tried an illicit drug, as have about a third of those 35 and older.<sup>2</sup>

Fifty-two percent of boys and 48 percent of girls in 9<sup>th</sup>-12<sup>th</sup> grades report having ever had sex and 36 percent of high school students say they have had sex recently.<sup>3</sup> Seventy-nine percent of high school students say they have tried alcohol and more than half of all high school students in 1997 reported having used at least one illicit drug and a quarter reported frequent drug use.<sup>4,5</sup>

### Researching the Links: Substance Use and Risky Sexual Activity

#### *Drinking and Sex*

Increased alcohol use seems to be associated with an increased likelihood of sexual activity. When men aged 18 to 30 were asked to report their episode of heaviest drinking in the last year, 35 percent said that they had sex after consuming five to eight drinks and 45 percent had sex after consuming eight or more drinks, compared with 17 percent of those who had one or two drinks. Among women aged 18 to 30, 39 percent had sex while consuming five to eight drinks and 57 percent had sex when consuming eight or more drinks, compared with 14 percent of women who had one or two drinks.<sup>6</sup>

There is some evidence that heavy alcohol use<sup>7</sup> is associated with having multiple sex partners, which is a primary risk factor for transmission of STDs, including HIV. Seven percent of adults who report never drinking or drinking less than once a month say that they have had two or more sex partners in the last year, compared with fifteen percent of those who say they drink monthly, and 24 percent of those who drink weekly.<sup>8</sup>

Among adults aged 18 to 30, binge drinkers<sup>9</sup> are twice as likely as those who do not binge drink to have had two or more sex partners in the previous year. (That is, seven percent of those who never binge drink compared with 40 percent of those who report monthly binge drinking.)<sup>8</sup> This is true even after controlling for other factors – including age, sex, marital status, and drug use – that can affect a person’s likelihood of having multiple sex partners.<sup>2,8</sup> Heavy drinkers<sup>7</sup> are five times as likely as non-heavy drinkers to have at least ten sex partners in a year.

#### *Drugs and Sex*

About two million adults – one man in 100 and one woman in 200 – admit to using drugs before having sex in the past year.<sup>4,10</sup> Illicit drug users are also more likely than non-users to have multiple sex partners. One study found that 52 percent of those who used marijuana in the previous year had two or more sex partners during the same period, compared with sixteen percent of those who had not smoked pot.<sup>6</sup> There is even more extensive research documenting the relationship between the use of crack or injection drugs and an increased number of sexual partners.<sup>4,11</sup> And, people who are receiving treatment for alcohol and drug use or who use multiple drugs are more likely than others to engage in risky sexual activity. A study of alcoholics found that those who also have drug problems are more likely than those who do not to have multiple sex partners.<sup>4,12</sup>

## **Alcohol, Drugs, and Condom Use**

Results from research about how drinking might influence condom use have been contradictory.<sup>4</sup> An analysis of thirty studies on the interplay between alcohol use and failure to use condoms found that ten showed an association between the two behaviors, fifteen demonstrated no such association, and five had mixed results.<sup>4</sup> At the same time, studies of “high-risk” groups – such as users of crack cocaine<sup>4</sup> and injection drug users<sup>4</sup> – have tended to more consistently suggest links between illicit drug use and reduced use of condoms.<sup>4</sup>

As researchers gather more data, they may be able to refine their understanding of the relationship between substance abuse and condom use. It is possible that drinking or drug use by themselves, for instance, may not sufficiently explain inconsistent condom use. However, studying people who use multiple substances over the course of their lifetimes – or who use of multiple substances within a given time period – may yield more useful information. One recent analysis of data about young adults aged 18 to 30 found that the more different substances a person had ever used, the less likely he or she is to have used a condom at last sex.<sup>13</sup> Similarly, people who use multiple substances – such as alcoholics who also use drugs – do appear to be less likely to use condoms.<sup>4,12</sup>

## **Unintended Consequences**

### **Sexually Transmitted Diseases (STDs)**

Approximately fifteen million new cases of sexually transmitted diseases (STDs) occur annually in the United States.<sup>14</sup> By age 24, one in three sexually active people will have contracted an STD – and many may not realize when they become infected.<sup>14</sup> Of the 900,000 people currently living with HIV in the U.S., up to a third remain unaware of their HIV status.<sup>15</sup> STDs and substance use are associated in several ways.

To the extent that alcohol and drug users are more likely than others to have sex with multiple partners, their risk of being exposed to STDs – and thus becoming infected – increases. For HIV, in particular, the current profile of someone considered at “high risk” for infection involves multiple and simultaneous risk-taking behaviors, including having multiple sex partners as well as using illicit drugs and trading sex for drugs or money.<sup>16</sup>

In addition to the potential for increased STD *exposure*, substance use may make a person *biologically* more susceptible to infection. Alcohol, for instance, can have a substantial impact on the immune system of a heavy drinker, interfering with the body’s mechanisms for destroying viruses. This process, in turn, enhances a person’s vulnerability to HIV infection or the development of AIDS-related illnesses.<sup>4</sup> Drug use can indirectly result in other types of physical vulnerability. For example, it has been theorized that because drugs like crack cocaine, amphetamines, and nitrates can delay ejaculation, they may be associated with longer or particularly

vigorous sexual activity – thus increasing the potential for physical trauma during sex that makes it easier to transmit HIV.<sup>4</sup> The spread of other blood-borne and sexually transmitted infections, such as hepatitis, have previously been associated with both decreased immunity and genital trauma.

### **STDs Among Risk Takers**

There is significant research on STDs among alcoholics and crack cocaine users. Rates of STDs are high in geographic areas where rates of substance use are high.<sup>17</sup> STD prevalence rates in these communities range from 30 to 87 percent, compared with about 1.6 percent of all adults.<sup>4</sup> Adults who report having gotten drunk in the last year are almost twice as likely as those who did not to have ever had an STD.<sup>18</sup> Problem drinkers<sup>19</sup> are three times more likely than nondrinkers to have ever contracted an STD.<sup>18</sup> Heterosexual men and women who abuse alcohol (and not injection drugs) are six and twenty times more likely, respectively, to be HIV positive than individuals in the general population.<sup>20</sup> Alcohol use has also been found to be associated with risky sexual behaviors in vulnerable populations, including the mentally ill, runaway youth, and the HIV-negative female partners of men with HIV.<sup>17</sup>

Adults who use illicit drugs have almost three times the risk of nonusers of contracting an STD.<sup>18</sup> Non-injection drug use, particularly of crack cocaine, has proven to be a significant risk factor for HIV and other STDs, with drug-for-sex exchanges and unprotected sex with multiple partners among crack users accounting for the rapid spread of HIV through drug and sex networks.<sup>18</sup> Use of multiple substances – such as having alcohol and drug problems at the same time – is also associated with a higher likelihood of having had an STD and being HIV positive.<sup>4,12</sup>

### **Injection Drugs and HIV/AIDS**

Because of the AIDS epidemic, researchers have extensively studied the connections between injection drug abuse and HIV transmission. Sharing drug needles is known to be a primary route of HIV transmission. Drug use also contributes to the spread of HIV to people who have sex with a drug user and to children born to HIV-infected mothers who acquired the infection from sharing needles or having sex with an infected drug user.

Injection drug use or sex with partners who inject drugs account for a larger proportion of female than male AIDS cases in the U.S. (59 percent and 31 percent of all cases, respectively, since the epidemic began). Today, more than 48,000 women in the U.S. have been diagnosed with AIDS attributed to injection drug use, and more than a third of AIDS cases in adult and adolescent women diagnosed from July 1998 through June 1999 reported injection drug use as their risk exposure.<sup>22</sup>

## **Unintended Pregnancy**

More than 3 million unintended pregnancies occur every year in the U.S., nearly half – 47 percent – among women who were not using a regular method of birth control.<sup>23</sup> While there is no explicit data linking unintended pregnancy and substance use, the two may be related to the extent that drinking or drug use is associated with a lesser likelihood of using condoms and/or a greater likelihood of having “casual” sexual encounters –intercourse taking place outside the context of an ongoing relationship, during which contraceptives of any kind are less likely to be used.<sup>24</sup>

The ability to conduct research in this area is complicated by the fact that the use of contraceptives, including condoms, is inconsistent in the general population. Of the 9.8 million women using barrier contraceptives such as the male condom, the female condom, and the diaphragm, one-third report not using their method every time they have intercourse.<sup>25</sup> And, whether a woman uses contraception – and which method she chooses – is known to change over time, influenced by a host of personal and lifestyle factors. For example, while more than one-third (37%) of teenage women using contraceptives choose condoms as their primary method, these numbers decline as women grow older and marry.<sup>26</sup>

## **Sexual Assault and Violence**

Substance use, particularly drinking alcohol, appears to play a role in a significant number of crimes of sexual violence – whether it is the victim or the perpetrator who uses. Substance use during instances of sexual violence and rape is estimated to range from 30 to 90 percent for alcohol use, and from 13 to 42 percent for the use of illicit substances.<sup>4</sup> These statistics, however, are difficult to gather and track. A study of arrested sex offenders found that 42 percent of them tested positive for drugs at the time of their arrest.<sup>4</sup>

When it comes to date rapes among college students, alcohol use by the victim, perpetrator, or both, has been implicated in 46 to 75 percent of the incidents.<sup>4</sup> Other drugs that disable a potential sexual assault victim, particularly Rohypnol and GHB, have been anecdotally implicated in date rape scenarios.<sup>4</sup> In addition to the immediate physical and emotional damage caused by sexual assault, women and girls who experience sexual violence may be unable to implement practices to protect themselves against unintended pregnancy or STDs.

## **Trading Sex for Money or Drugs**

Research examining rates of substance abuse among prostitutes finds that from 40 to 86 percent of prostitutes use drugs and that some also drink while working.<sup>4</sup> Meanwhile, 43 percent of women and 10 percent of men in alcohol treatment programs say they have traded sex for money or drugs.<sup>4</sup> Risk behaviors other than substance abuse are also implicated among people who engage in prostitution or sex trade. Studies have shown that condom use is highly inconsistent in cases of sex for drug or money exchanges: One of the many small studies of non-injecting, crack-using women who traded sex for money found that only 38 percent said that they always used a condom with their paying partners.<sup>4</sup> Prostitutes tend to have higher rates of infection with HIV and other STDs than the general population, and are more likely to report having been sexually victimized.<sup>4</sup>

## **Making the Connections: Implications for the Future**

Researchers believe that the association between substance use and risky sexual activities could stem from a host of personal factors, including a reduction in sexual inhibitions because of the actual pharmacological effect of alcohol or drugs and cognitive impairment caused by drinking or drug use. A particular individual’s personality or risk-taking tendencies may also influence which, if any, risk behaviors they engage in. And assumptions that alcohol or drugs will enhance a person’s sexual attraction, behavior, or performance can also have an impact. For example, adolescents who expect alcohol to lead them to be less inhibited sexually are more likely to participate in risky sexual behavior when they drink.<sup>27</sup>

Similarly, the social context of drinking or alcohol use may be an important factor. Social environments that support the use of alcohol and other drugs may also support the meeting of new sexual partners,<sup>28</sup> which may help to explain the relationship between recent substance use and the likelihood of having multiple partners.<sup>13</sup>

The ability of researchers to determine *how* substance abuse and sexual risk-taking are connected also has important implications for education and treatment efforts. If sexual risk-taking is caused by lessened inhibitions due to substance use, then education might warn about the impact of alcohol and drugs on one’s judgment and the potential consequences of such situations, such as the increased risk of STD and HIV transmission. On the other hand, if personality or other unique factors of individuals influence sexual-risk taking and substance use, then prevention efforts might be better focused on particular groups of people with more specific messages to help them channel potentially destructive risk-taking impulses into healthier activities.<sup>29</sup>

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