

MICHIGAN ALCOHOL SURVEILLANCE BRIEF



MICHIGAN DEPARTMENT OF COMMUNITY HEALTH

Volume 1, Issue 2

November 2010

A NEWSLETTER FROM THE MDCH ALCOHOL EPIDEMIOLOGY PROGRAM

Sexual Behavior & the Impact of Drinking in MI Youth

Scientific evidence states that among youth, drinking is strongly related to the decision making process of having sex and to indiscriminate forms of risky sex (e.g., having multiple or casual sex partners), but is inconsistently and often negatively related to protective behaviors (e.g., condom use).¹

Research on adolescent risk behaviors documents the co-occurrence of alcohol use, sexual risk taking, and other problem behaviors. Youth who drink, for example, are more likely to report multiple sexual partners and inconsistent condom use.² Early drinking also predicts later risk taking. Studies of early adolescents through young adults have demonstrated a connection between early patterns of use (e.g., binge drinking) and subsequent sexual risks also reported links between early drinking and problem behaviors, including pregnancy and parenthood by 12th grade. Early drinking may shape subsequent decision making through multiple pathways, for example, by affecting judgment, school performance, peer selection, and exposure to environments that reward risk taking. Although other substances (e.g., marijuana, cocaine) have been associated with sexual risk taking, drinking may be especially relevant for younger adolescents, who are more likely to be using alcohol than other drugs.²

Data from the 2009 Michigan's Youth Risk Behavior Survey (MiYRBS) can be used to examine the prevalence of risky sexual behavior in Michigan's teenagers that drink alcohol. Among MiYRBS respondents, the overall proportion of non-drinkers was 63.0%, while 37.0% of respondents reported being current drinkers and 23.2% reported binge drinking. Overall, high school males and females had similar prevalence of current (36.0% of males and 37.0% of females) & binge (23.8% of males and 22.4% of females) drinking.

Risky sexual behavior is reported at a greater frequency among male and female drinkers than non-drinkers. Patterns of sexual behavior in

References: 1. Cooper ML. Alcohol use and risky sexual behavior among college students and youth: evaluating the evidence. *J Stud Alcohol Suppl.* 2002 Mar;(14):101-17. 2. Stueve A, O'Donnell LN. Early Alcohol Initiation and Subsequent Sexual and Alcohol Risk Behaviors Among Urban Youths. *American Journal of Public Health.* May 2005, Vol 95 (5): 887-893.

Alcohol Use Definitions

"Non-drinkers" reported not drinking any alcohol in the past 30 days. "Current drinkers" reported having at least one drink of alcohol in the past 30 days. "Binge drinking" was defined as having five or more drinks of alcohol in a row on at least 1 day during the past 30 days.

Michigan youth appear to support previous studies' findings and do not vary considerably by gender. The table below illustrates the overall trend in increasing risky sexual behavior by drinking category. While not statistically significant, binge drinkers were more likely to report engaging in risky sexual behavior compared to current drinkers. The difference between both binge and current drinkers and non-drinkers was in most instances significant. Non-drinkers tend to report higher percentages of protective factors, such as using a condom or birth control before a participant's last sexual experience.

Among males, these estimates indicate that binge and current drinkers were more likely to have had sex, been physically forced to have sex, to have their first sexual partner be three or more years older and to have ever caused a pregnancy than male non-drinkers. As seen in Figure 1, males that consumed alcohol in the last month also reported higher prevalence estimates of having sex with four or more partners in their lifetime, having sex before 13 years old, having sex in the past three months and to have used alcohol or drugs before their last sexual act as compared to male non-drinkers. Male non-drinkers were more likely to report using a condom before their last sexual encounter and having a conversation about sex with their parents at higher frequencies than male binge and current drinkers. Females that consumed alcohol had similar patterns of sexual behavior as male drinkers. Current and binge drinkers almost always had higher frequencies of the variables measured, compared to non-drinkers. Female binge and current drinkers were more likely to have had

Prevalence of Sexual Behavior by Alcohol Consumption among 9th-12th grade students- 2009 MiYRBS

Sexual Behavior	Non-Drinkers		Current Drinkers				Binge Drinkers			
	Male	Female	Male	Female	Male	Female	Male	Female		
	%	(95% CI)	%	(95% CI)	%	(95% CI)	%	(95% CI)	%	(95% CI)
Sex (ever)	30.0	(25.1-35.0)	27.7	(23.0-32.5)	72.2	(67.6-76.7)	66.6	(61.0-72.2)	79.8	(75.7-83.8)
Been Pregnant/Caused Pregnancy	1.9	(0.6-3.2)	3.3	(1.4-5.2)	9.0	(5.7-12.3)	7.0	(4.1-9.9)	10.9	(7.9-14.0)
Physically Forced to Have Sex	3.6	(2.3-4.9)	8.9	(6.0-11.8)	11.5	(7.4-15.6)	17.6	(14.7-20.5)	13.7	(9.3-18.2)
1st Sexual Partner ≥ 3 Years Older	2.9	(2.0-3.8)	7.8	(5.1-10.5)	8.9	(6.3-11.4)	16.4	(13.5-19.3)	10.9	(7.2-14.6)
Sex with ≥ 4 Partners	7.1	(2.8-11.4)	4.8	(1.8-7.7)	29.7	(23.7-35.6)	22.1	(18.8-25.4)	33.2	(26.0-40.4)
Sex Before 13 Years Old	3.9	(1.9-5.9)	2.4	(1.0-3.8)	10.4	(7.4-13.3)	4.4	(1.9-6.9)	11.6	(7.8-15.4)
Sex in Last 3 Months	18.7	(15.0-22.4)	20.8	(16.9-24.6)	54.3	(48.9-59.7)	56.1	(49.9-62.4)	61.4	(55.7-67.0)
Alcohol/Drug Use Before Last Sex	10.6	(6.2-14.9)	5.8	(1.2-10.4)	41.4	(33.8-49.1)	31.3	(25.4-37.1)	46.0	(37.3-54.8)
Used Condom Last Sex	68.2	(60.6-75.9)	57.7	(48.5-66.8)	67.2	(60.6-73.8)	51.2	(46.0-56.4)	65.7	(59.1-72.3)
Used Birth Control Last Sex	25.0	(15.4-34.7)	19.4	(13.6-25.2)	22.6	(16.4-28.7)	23.1	(17.5-28.7)	23.4	(16.2-30.6)
Sex Talk with Parents	69.6	(65.5-73.7)	74.8	(70.6-79.1)	66.1	(62.6-69.6)	73.1	(68.6-77.7)	61.4	(57.1-65.7)

All bolded values indicate a significant difference of $p < 0.05$ (χ^2 test) compared to non-drinkers.

Sexual Behavior in Current & Binge Drinking MI Youth (Cont.)

sex, to have had their first sexual partner be three or more years older and to have ever been physically forced to have sex than female non-drinkers, as evidenced in Figure 2. Female drinkers also reported higher frequencies of having four or more sexual partners, having sex in the last three months and having used alcohol or drugs before their last sexual experience (Figure 2).

Non-drinkers had higher prevalence estimates of condom use during their last sexual encounter and ever having a conversation about sex with their parents compared to current and binge drinkers. A greater percentage of males reported a condom was used than females, while birth control use varied by the alcohol categories and by gender, illustrated in Figures 3 and 4.

Results from the 2009 MiYRBS indicate that alcohol consumption and sexual behavior in Michigan's youth are a real cause for concern. Data demonstrate that both male and female binge and current drinkers are more likely to engage in risky sexual activity compared to non-drinkers. Having multiple sexual partners, using alcohol and/or drugs before sexual activity and teen pregnancy are all issues that require immediate attention in Michigan teenagers. Non-drinkers were more likely to report protective behavior than binge and current drinkers. The impact of alcohol consumption on decision making related to sexual behavior needs to be addressed in Michigan youth because these teenagers are at a critical period when their behavior can develop into lifelong habits. Possible strategies to address this issue could include having discussions about alcohol use in sexual education at school and in conversations at home.

Figure 1. Sexual Activity of Non-drinkers, Current & Binge Drinking Male Youth

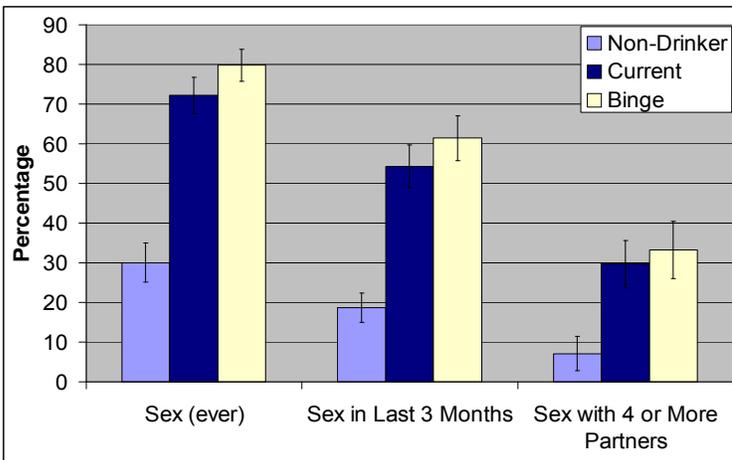


Figure 2. Sexual Activity of Non-drinkers, Current & Binge Drinking Female Youth

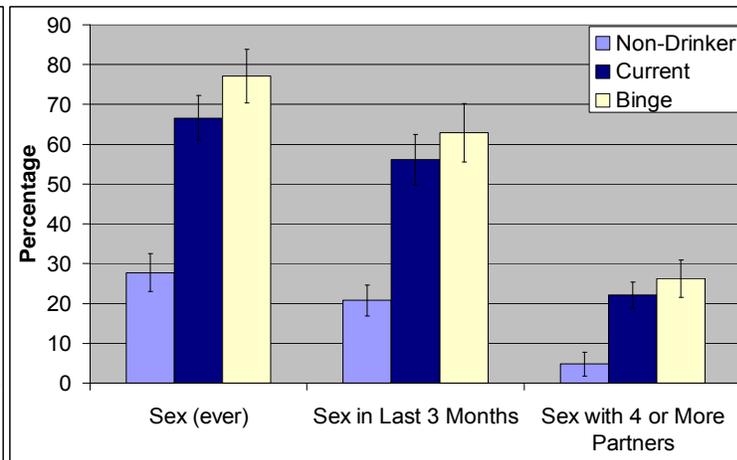


Figure 3. Condom & Birth Control Use During Last Sexual Experience & Ever Been Pregnant or Caused a Pregnancy Among Non-drinkers, Current & Binge Drinking Male Youth

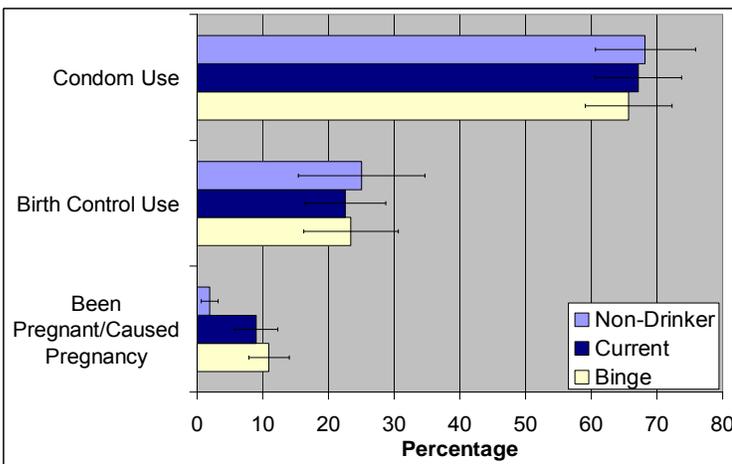
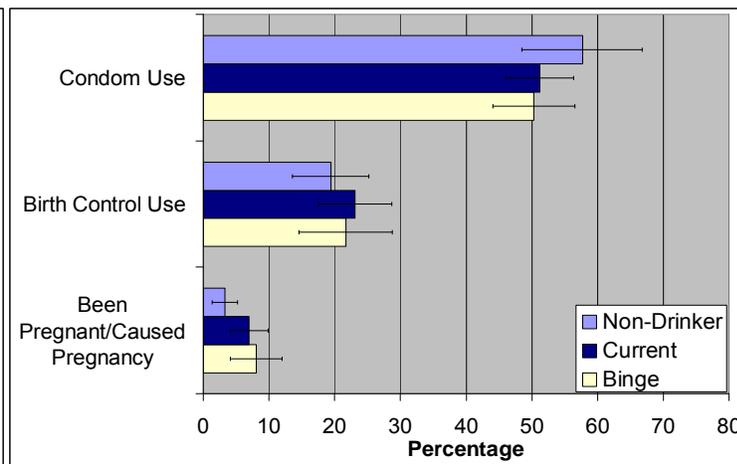


Figure 4. Condom & Birth Control Use During Last Sexual Experience & Ever Been Pregnant or Caused a Pregnancy Among Non-drinkers, Current & Binge Drinking Female Youth



The 2009 Michigan Youth Risk Behavior Survey was designed by the Centers for Disease Control and Prevention for Michigan Department of Education and MDCH as part of the national Youth Risk Behavior Surveillance System (YRBSS). The MiYRBS was completed by 3,411 12- to 18-year old students in grades 9-12 in 43 public high schools in Michigan during the spring of 2009. The overall response rate in Michigan was 69% compared to the national overall response rate of 71%. Prevalence estimates are representative of all students in grades 9-12 attending public schools in the state of Michigan. For more information on the YRBS, visit: <http://www.michigan.gov/yrbs>. For more information on the MDCH Alcohol Program, please contact: 517-335-8350