

Monitoring the Risk of Binge Drinking in Childbearing-age Women

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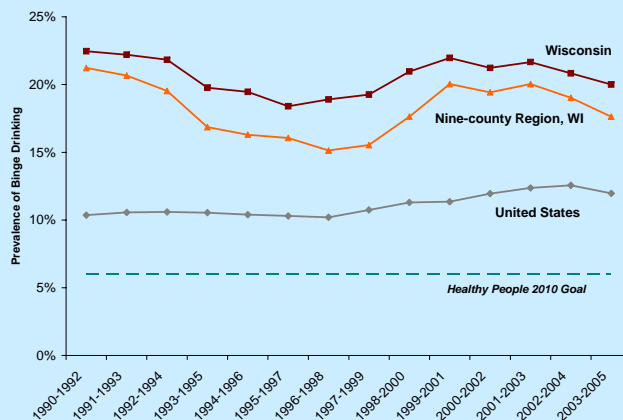
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Introduction

- Wisconsin continues to have the highest prevalence of binge drinking* in the country.
- Fetal exposure to alcohol can have numerous consequences, including a range of conditions collectively termed as fetal alcohol spectrum disorders (FASD):
 - include physical, mental, behavioral, and learning disabilities, which are often permanent
 - entirely preventable if alcohol consumption during pregnancy is avoided
- Substantial prenatal alcohol exposure can occur before a woman is aware of being pregnant
 - ⇒ Monitor alcohol consumption in childbearing-age women to determine subgroups at greatest risk (alcohol use and low levels of contraception)
- Wisconsin FASD Prevention and Intervention Project[§]
 - Initiated in September, 2004
 - Targets a nine-county region in Southeastern Wisconsin[†], determined to be at high risk for FASD by the state surveillance system

*Binge drinking is defined as the consumption of 5 or more drinks on a single occasion within the past 30 days
[§]Joint partnership between the State of Wisconsin Division of Health and Family Services and the University of Wisconsin School of Medicine and Public Health
[†]Dane, Jefferson, Washington, Waukesha, Walworth, Ozaukee, Milwaukee, Racine, and Kenosha counties

Binge Drinking Trends among 18-44 year-old Women in Wisconsin compared to the United States, 1990-2005



Adjusted* Odds Ratios for Frequent/Binge Drinking, 2000, 2002, 2004 (and 2005 for Wisconsin)

	Odds Ratio (95% Confidence Interval)		
	Nine-county region, WI (N = 1,574)	Wisconsin (N = 3,118)	United States (N = 50,580)
Age (years)			
18-20	0.89 (0.43-1.85)	0.88 (0.55-1.41)	1.13 (0.99-1.29)
21-29	1.64 (1.12-2.41)	1.47 (1.13-1.90)	1.45 (1.35-1.56)
30-39	1.22 (0.86-1.72)	1.24 (0.99-1.56)	1.00 (0.93-1.06)
40-44	1.0 (Reference)	1.0 (Reference)	1.0 (Reference)
Education Level			
0-11 years	1.07 (0.60-1.89)	1.07 (0.71-1.60)	0.75 (0.67-0.84)
High school graduate	1.41 (1.00-1.98)	1.39 (1.10-1.74)	0.97 (0.91-1.04)
Some college	1.41 (1.03-1.93)	1.39 (1.12-1.73)	1.02 (0.96-1.08)
College graduate	1.0 (Reference)	1.0 (Reference)	1.0 (Reference)
Race/Ethnicity			
White, non-Hispanic	1.0 (Reference)	1.0 (Reference)	1.0 (Reference)
Black, non-Hispanic	0.44 (0.31-0.63)	0.37 (0.27-0.51)	0.37 (0.34-0.41)
Hispanic	0.59 (0.29-1.21)	0.57 (0.32-1.01)	0.50 (0.45-0.55)
Other, non-Hispanic	0.84 (0.47-1.50)	0.82 (0.53-1.27)	0.61 (0.55-0.68)
Marital Status			
Married	1.0 (Reference)	1.0 (Reference)	1.0 (Reference)
Divorced/Separated	2.39 (1.63-3.51)	2.73 (2.12-3.51)	2.00 (1.85-2.15)
Never married	1.62 (1.17-2.26)	2.23 (1.74-2.82)	2.55 (2.39-2.72)
Other	2.22 (1.37-3.61)	2.46 (1.74-3.48)	2.28 (2.07-2.50)
Contraception Use			
Yes**	1.41 (1.03-1.94)	1.26 (1.02-1.56)	1.16 (1.10-1.23)
No	1.0 (Reference)	1.0 (Reference)	1.0 (Reference)

*Model adjusted for all variables included in the table

**Does not include rhythm and withdrawal methods of contraception

Methods

- Data: Behavioral Risk Factor Surveillance Survey (BRFSS)
 - 1990 to 2005 Wisconsin and National data on binge drinking among women aged 18-44
- Estimated the risk of frequent/binge drinking using logistic regression
 - Women of childbearing potential: sexually active women aged 18-44 who have not had a hysterectomy
 - Controlling for age, education level, race/ethnicity, marital status, and use of contraception
 - Alcohol consumption and contraception data from 2000, 2002, 2004 (and 2005 for Wisconsin)
 - Frequent/binge drinking is defined as ≥7 drinks per week or ≥5 drinks on an occasion within the past 30 days

Results

Trends in Binge Drinking

- Prevalence in Wisconsin significantly higher than in the U.S. and slightly higher than in the Nine-county region between 1990 and 2005
 - Recent decreasing trend in Wisconsin and the Nine-county region

Estimated Risk of Frequent/Binge Drinking

- In all locations, married women and African-American women had the lowest risk of frequent/binge drinking, and 20-29 year-olds had the highest risk
- Women who reported using contraception had a higher risk of frequent/binge drinking compared to those not using contraception in all locations
- Women with high school or some college education had a 40% greater risk of frequent/binge drinking compared to college-educated women in Wisconsin and the nine counties, but not in the U.S.

Discussion

Conclusions

- Childbearing-age women in Wisconsin and the Nine-county region had significantly higher levels of binge drinking than in the U.S.
- Women aged 21-29 years were most likely to engage in frequent/binge drinking, after controlling for contraception.
- Women at risk due to frequent/binge drinking were at lower risk of pregnancy (and having a child with FASD) due to higher rates of contraceptive use.

Limitations

- Women without land-line home telephones are excluded from the BRFSS sample, and data is self-reported (possible underreporting of risky behaviors, i.e. binge drinking and inconsistent use of contraception)