

# Binge Drinking by Women in the Preconception Period, California, 2010

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California Department of Public Health  
Funding provided by Title V MCH Block Grant



APHA Annual Meeting  
October 31, 2012



## Presenter Disclosure



Maria A. L. Jocson, MD, MPH

- The following personal financial relationships with commercial interests relevant to this presentation existed during the past 12 months:

No relationships to disclose



## Background



- Alcohol use during pregnancy is a leading cause of birth defects and developmental disabilities, such as:**
  - Fetal Alcohol Spectrum Disorders (FASD), including Fetal Alcohol Syndrome (FAS)
- Alcohol can harm a baby at any time during pregnancy, including early on, before women know they are pregnant**
  - Preconception period is a proxy for behaviors early in pregnancy
- No known quantity of alcohol consumption is safe**
  - As few as 7 drinks per week, or one per day, can cause damage<sup>1</sup>
  - Binge drinking (4+ drinks in one sitting) is especially harmful<sup>2</sup>
  - Higher levels of consumption increase risk of fetal damage

<sup>1</sup>Jacobson, J.L., and Jacobson, S.W. 1994. Prenatal alcohol exposure and neurobehavioral development: Where is the threshold? *Alcohol Health & Research World* 18:30-36.  
<sup>2</sup>Jacobson, J.L., and Jacobson, S.W. 1999. Drinking moderately and pregnancy: effects on child development. *Alcohol Research & Health* 23(1):25-30.



## Specific Aims



- Surveillance of FASD is limited because of:**
  - Varying criteria for diagnosing FASD
  - Lack of provider knowledge
  - Inadequate information about maternal drinking patterns
- This presentation will describe:**
  - Prevalence of binge drinking during the 3 months before pregnancy among women with a recent live birth in California
  - Characteristics of women who are more likely to binge drink, in order to inform outreach efforts to specific populations
  - Percentages and adjusted odds ratios



## Maternal and Infant Health Assessment Survey (MIHA)



- Since 1999, annual population-based survey of women with recent live birth
- Sample from birth certificates for Feb - May births, excluding:
  - Non-residents
  - Women < 15 years old
  - Multiple births > 3
- Designed to represent all women giving birth in calendar year who meet inclusion criteria
- Survey mailed in English and Spanish with telephone follow-up to non-respondents
- ~6,800 women participated in 2010, with a response rate of 69%



## Study Population



- Survey respondents who answered the following question on binge drinking before pregnancy (n=6,739)

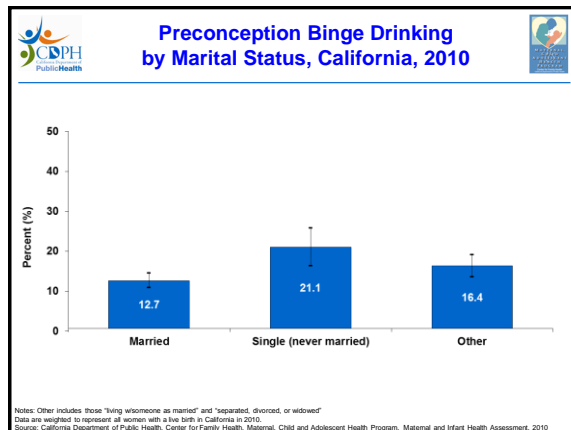
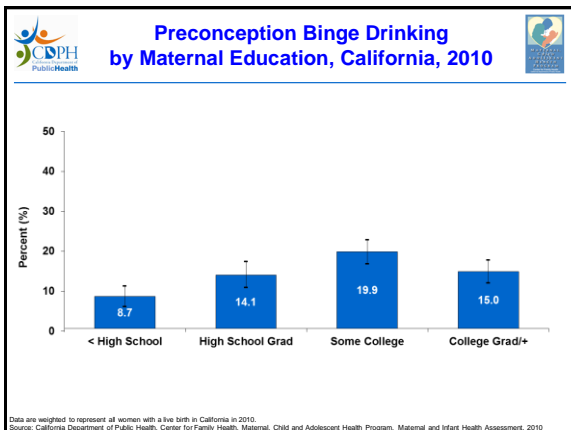
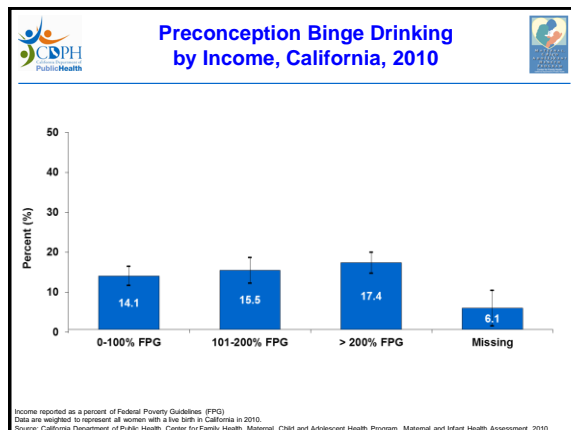
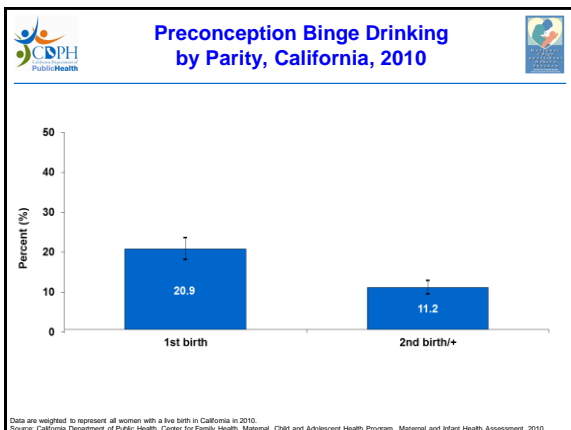
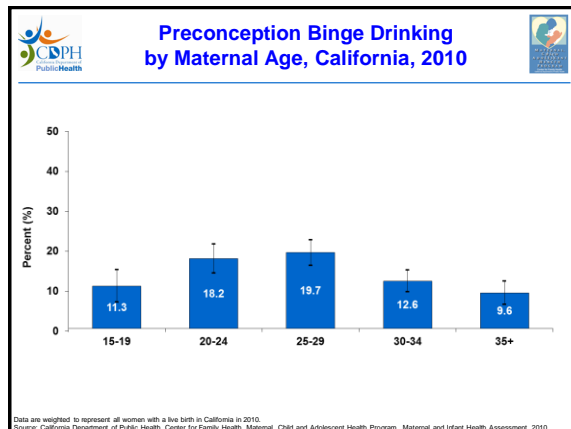
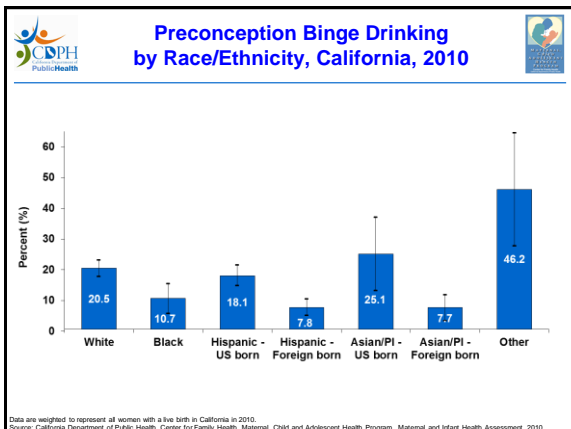
The next questions are about drinking 4 or more alcoholic drinks in one sitting. By one sitting, we mean within about 2 hours.

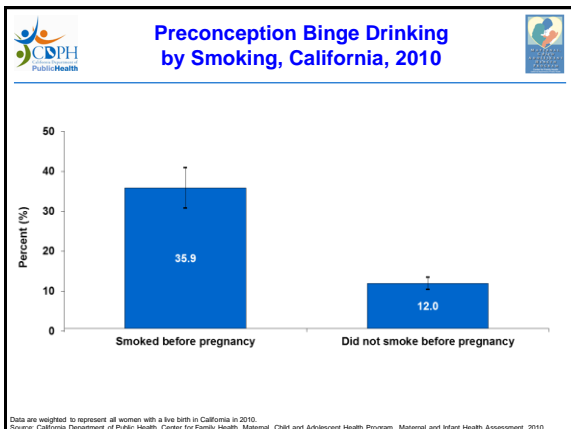
During the 3 months before you got pregnant, how many times did you drink 4 or more alcoholic drinks in one sitting?

\_\_\_ times

- I didn't drink 4 or more drinks in one sitting in the 3 months before I got pregnant

- In 2010, 15.0% (95%CI=13.5-16.5) reported binge drinking at least once during the 3 months before pregnancy





	Adjusted Odds Ratio	95% Confidence Interval	
		Lower	Upper
Age (reference = age 15-19)			
20-24	1.88	1.11	3.17
25-29	2.42	1.36	4.30
30-34	1.72	0.92	3.21
35+	1.33	0.71	2.50
Race/ethnicity (reference = White)			
Black	0.51	0.29	0.89
Hispanic, US-born	1.09	0.79	1.49
Hispanic, Foreign-born	0.63	0.40	0.99
Asian/PI, US-born	1.45	0.76	2.77
Asian/PI, Foreign-born	0.46	0.24	0.86
Other	2.66	1.21	5.81
Parity (reference = 2 <sup>nd</sup> birth/+)			
1 <sup>st</sup> birth	1.72	1.30	2.28

Data are weighted to represent all women with a live birth in California in 2010. Analysis included women with non-missing values on all variables in the model (n=6,522).  
Source: California Department of Public Health, Center for Family Health, Maternal, Child and Adolescent Health Program, Maternal and Infant Health Assessment, 2010

	Adjusted Odds Ratio	95% Confidence Interval	
		Lower	Upper
Education (reference = < High School)			
High school grad (or equivalent)	1.52	0.98	2.38
Some college	1.70	1.09	2.65
College grad or more	1.75	1.04	2.94
Income (reference = 0-100% FPG)			
101-200%	1.18	0.82	1.68
> 200%	1.49	1.03	2.17
Missing	0.46	0.26	0.81
Marital Status (reference = Married)			
Single (never married)	2.11	1.41	3.15
Other*	1.55	1.14	2.12
Smoking, before pregnancy (reference=No)			
Yes	3.38	2.47	4.61

\*Other includes those "living with someone as married" and "separated, divorced, or widowed"  
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- Age 20-29 years
  - First live birth
  - Income >200% of FPG
  - Some college education or college diploma
  - Single/never married
  - Cigarette smoking
- Blacks, Foreign-born Hispanics, and Foreign-born Asians were less likely to binge drink*

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- ### Conclusions
- In 2010, 15.0% (95%CI=13.5-16.5) of women with a recent live birth reported binge drinking at least once during the 3 months before pregnancy
  - Substance use around the time of pregnancy may be underreported to provide a more favorable response, or due to women's inability to recall behaviors
  - Clinicians/public health professionals should provide preconception health counseling on alcohol use
  - Specific prevention messages may be targeted to women who are most likely to engage in risky behaviors