

# Characteristics of women who consume alcohol in pregnancy: an analysis of the All Our Babies study

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# Background





# Background





# Research Questions

- What are the **patterns of alcohol consumption** reported by women in the year before pregnancy, before pregnancy recognition, and after pregnancy recognition?
- What are the **characteristics** of women who drink before pregnancy recognition and after pregnancy recognition?



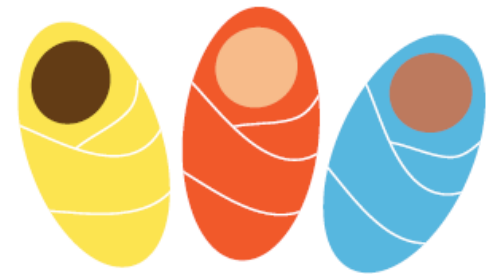
# Research Questions

- **Compared to women who abstained in the preconception period**, what are the main factors associated with alcohol consumption during pregnancy?
- **Compared to women who never drink**, what are the main factors associated with alcohol consumption during pregnancy?



# Methods

- AOB Cohort description
- (n =3388)
  
- Recruitment:
  - Posters (17%)
  - Maternity care clinics (14%)
  - Partnership with local laboratory services (69%)
  
- Data Collection:
  - Questionnaires
  - Biological Samples
  - Medical Records
  - Follow-up

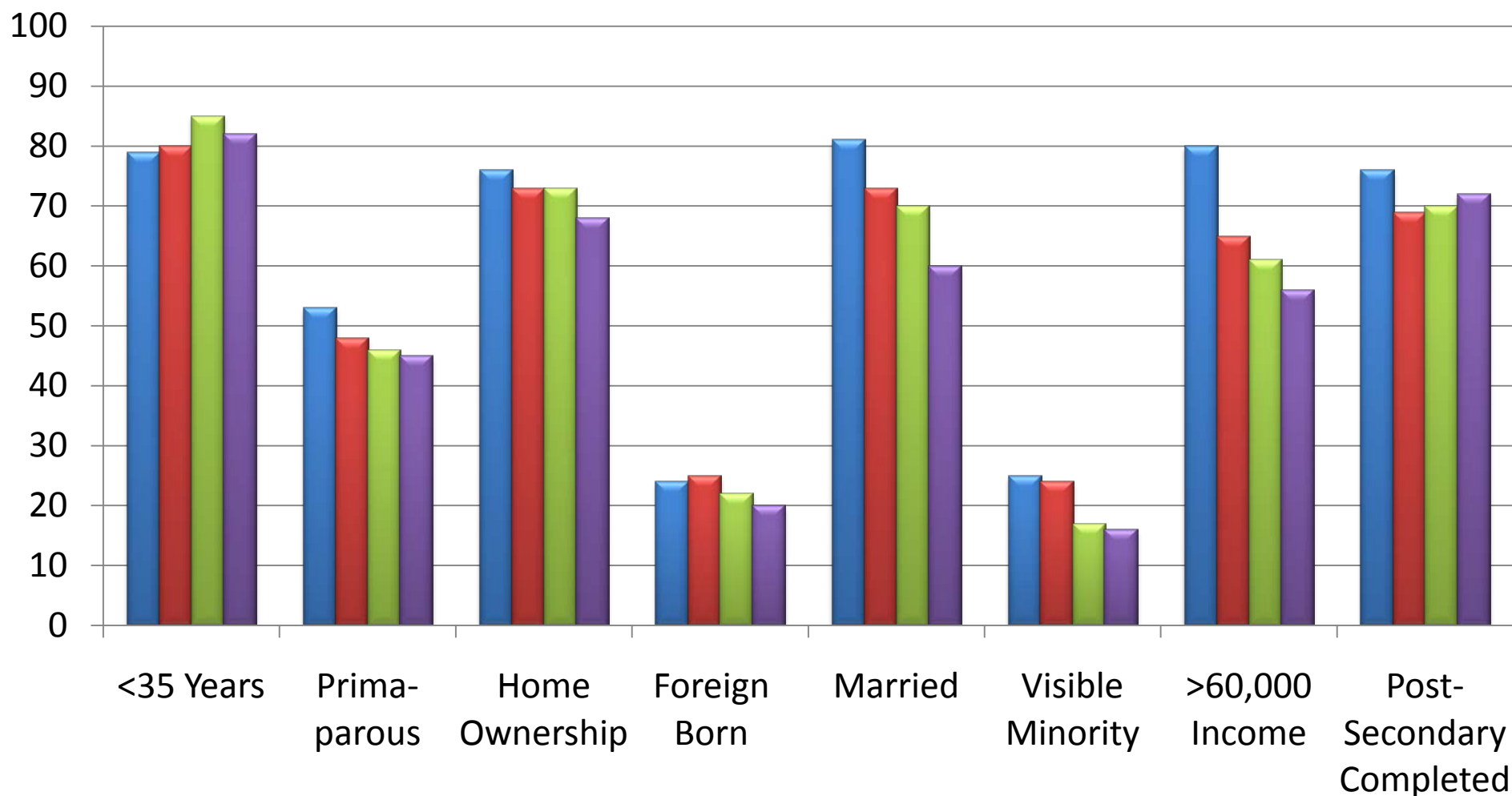


**The All Our Babies Study**



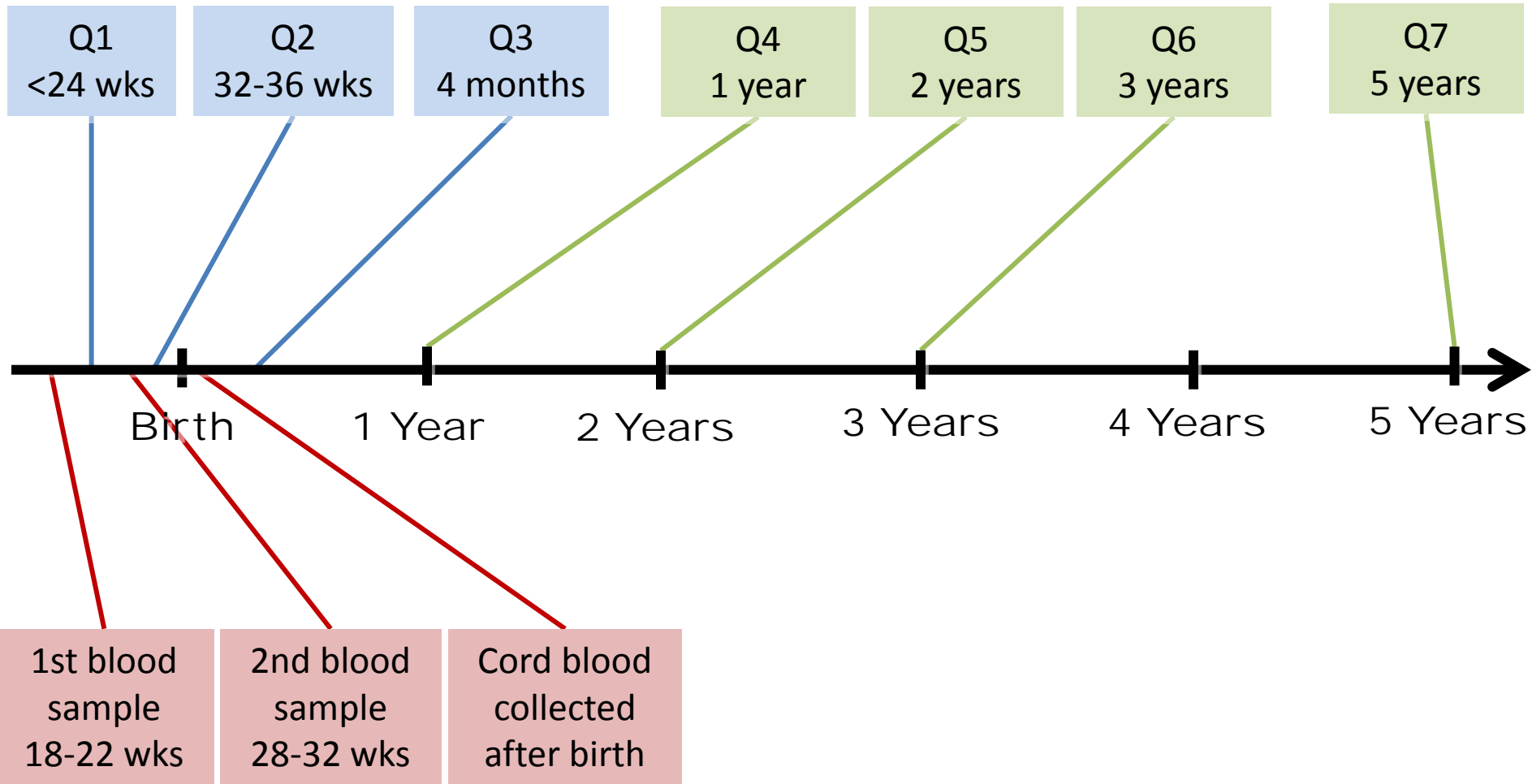
# Characteristics Summary

■ AOB ■ Calgary ■ Alberta ■ Canada





# Study Timeline







# Methods

- Alcohol Consumption: timing, amount, and frequency
  
- Characteristics
  - Demographics
  - Obstetrical and Lifestyle
  - Psychosocial: Before Pregnancy
  - Psychosocial: Pregnancy



# Characteristics

Demographics	Obstetrical & Lifestyle	Psychosocial (before pregnancy)	Psychosocial (pregnancy)
Age	Pregnancy intention	Hx of abuse	Prenatal depression
Marital status	Pre-pregnancy BMI	Hx of mental health problems	Prenatal anxiety
SES (education, income)	Parity	Hx of substance abuse	Prenatal social support
Migrant status	Smoking before pregnancy		
Ethnicity			



# Analysis

## ➤ Analysis:

- Descriptive statistics and chi square analysis
- Multivariable logistic regression models with two reference groups
  - abstained in preconception period
  - never drink



# Alcohol Consumption

**Before  
recognition:**

<b>&lt;1 drink at 1-7 days/week</b>	<b>Low</b>
<b>1 drink at 1-7 days/week OR</b>	<b>Moderate</b>
<b>2 drinks at 3 or less days/week</b>	
<b>2 drinks at 4-7 days/week</b>	<b>High</b>
<b>3 drinks at any frequency</b>	



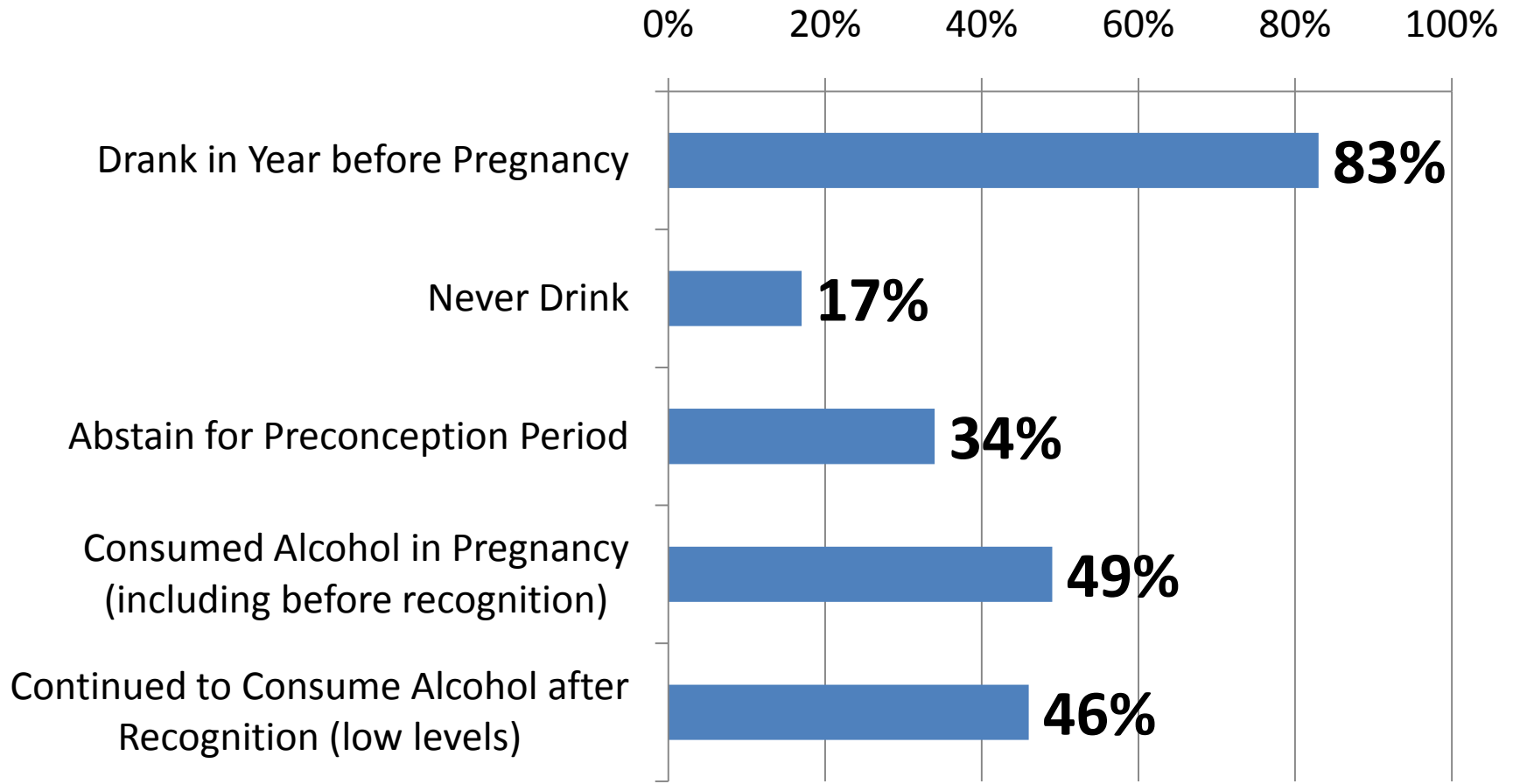
# Alcohol Consumption

**After  
recognition:**

<b>&lt;1 drink at 1-7 days/week</b>	<b>Low</b>
<b>1 drink at 1-7 days/week OR</b>	<b>Moderate/High</b>
<b>2 drinks at 3 or less days/week</b>	
<b>2 drinks at 4-7 days/week</b>	
<b>3 drinks at any frequency</b>	



# Alcohol Consumption





# Characteristics

➤ Compared demographic and psychosocial characteristics between:

**Women who stopped drinking after pregnancy recognition**

**AND**

**Women who continued to drink (at low levels) after pregnancy recognition**





# Characteristics

Characteristic	Stoppers (n=77)	Continuers (n=1168)	P-value
≥ 35 yrs	18 (23.4)	269 (23.0)	0.94
Completed postsecondary education	59 (76.6)	882 (75.5)	0.83
≥ 80,000 / year	55 (71.4)	882 (75.5)	0.42
Single marital status	1 (1.3)	78 (6.7)	0.09
Caucasian	70 (90.9)	1039 (89.0)	0.60
Foreign born	14 (18.2)	149 (12.8)	0.17
First time mother	40 (51.9)	618 (52.9)	0.87
Hx abuse	21 (27.3)	323 (27.7)	0.94
Hx mental health problems	28 (36.4)	409 (35.0)	0.81
Smoking before pregnancy	11 (14.3)	267 (22.9)	0.08
Unplanned pregnancy	11 (14.3)	247 (21.1)	0.15
Prenatal anxiety	13 (17.6)	189 (16.5)	0.81

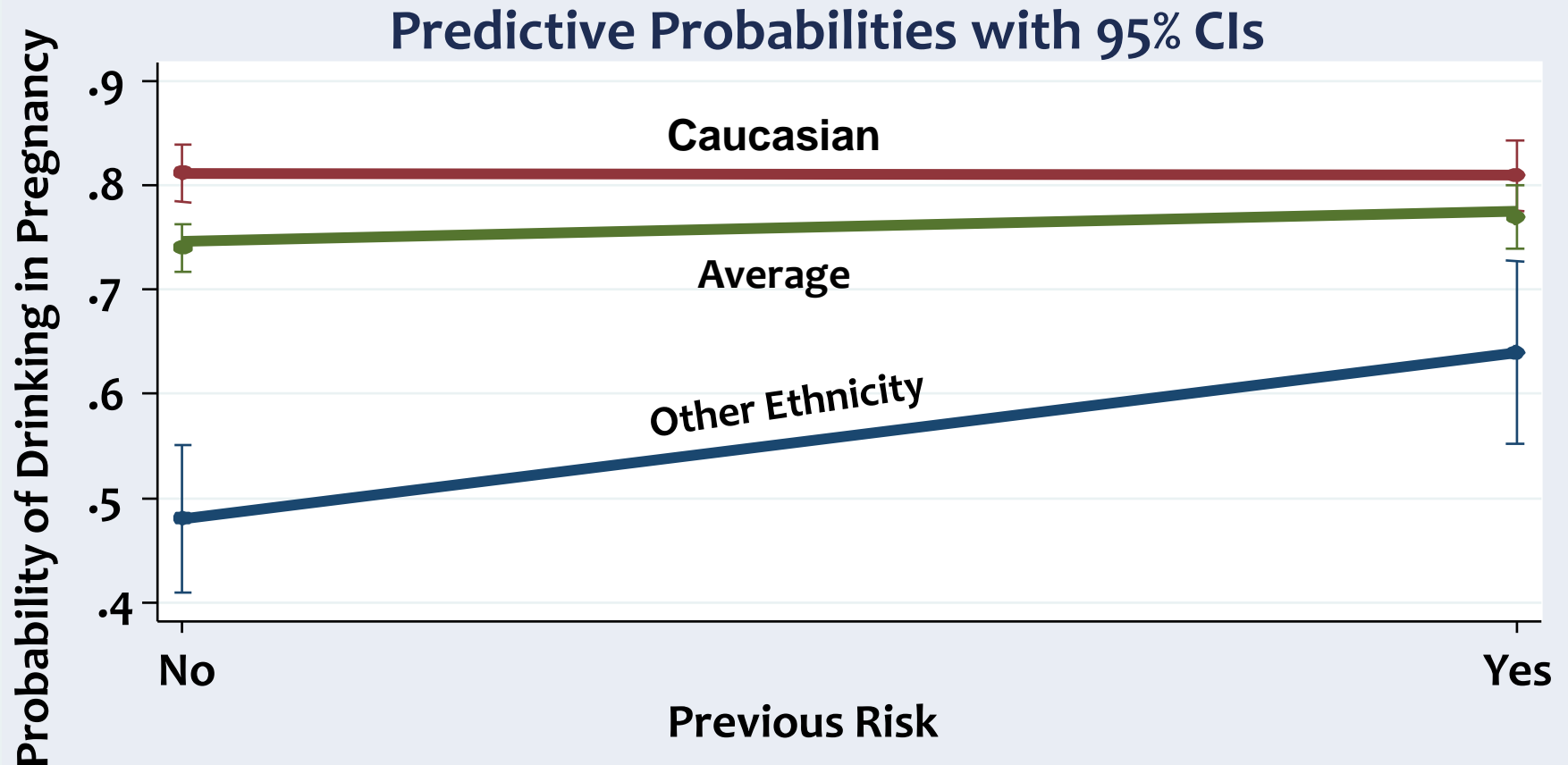


# Drinking in Pregnancy vs. Abstaining

	Preconception aOR (95% CI)	Never-drinkers aOR (95% CI)
Caucasian	1.67 (1.29, 2.18)	
Unplanned pregnancy	1.91 (1.47, 2.48)	
First time mother	1.24 (1.04, 1.49)	1.71 (1.31, 2.25)
Smoking before pregnancy	2.47 (1.88, 3.22)	7.78 (4.27, 14.2)
High income ( $\geq$ \$80,000)		2.82 (2.13, 3.73)
Single marital status		5.98 (2.17, 16.55)
Foreign born		0.44 (0.27, 0.71)
Non-Caucasian		6.35 (4.20, 9.59)
*Psychosocial risk <sup>1</sup>		

<sup>1</sup>Psychosocial risk: previous mental health problems, and/or substance abuse, and/or thoughts of suicide

# Drinking in Pregnancy vs. Never-drinkers





# Conclusions

- 83% of women drink alcohol
- 49% drink during pregnancy
- 94% of those who drink during pregnancy continue to do so at low levels



# Conclusions

- More Caucasian women drink than non-Caucasian women
- Mental health profile:
  - X not predictive for Caucasian women**
  - ✓ predictive for non-Caucasians**



# Reminder & Next Steps

**Influence of alcohol=**  
**maternal biology + fetal biology + timing + frequency**

➤ **Next steps:** follow-up at age 2.

# Who is at risk for FASD?

