



# Alcohol Use During Pregnancy Factsheet (September 2022)

## Pregnancy Risk Assessment Monitoring System

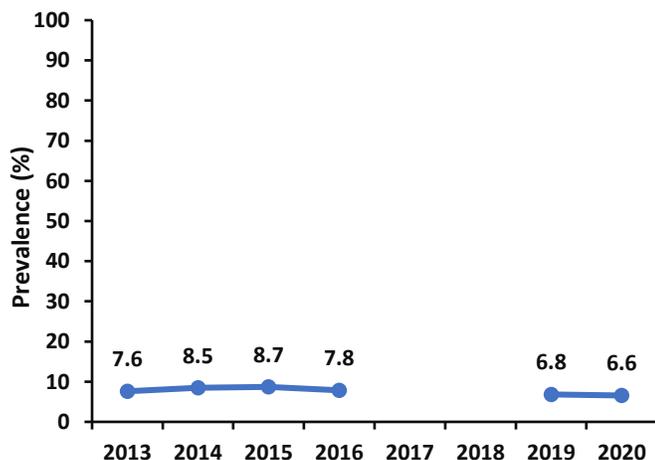
### Background

Any consumption of alcohol during any stage of pregnancy is unsafe to the developing fetus. Research shows that any amount of alcohol could pass through the mother's placenta to the fetus, potentially damaging physical and cognitive development.<sup>1</sup> Despite studies that suggest the consumption of infrequent and minimal amounts of wine is not detrimental to the fetus, the topic remains unclear and controversial.<sup>2</sup> Alcohol use during pregnancy might increase the risk of miscarriage, premature birth, birth defects, low birthweight, stillbirth, and fetal alcohol spectrum disorders. In recognition of this issue, one related objective of Healthy People 2030 is to increase abstinence from alcohol among pregnant women to 92.2% nationally.

### Trends over Time

In 2020, 6.6% of mothers in the State of Hawaii reported drinking in the last three months of pregnancy. There was no data collection in 2017 and 2018. There appears to be a decrease in the estimates of alcohol use during pregnancy from 7.6% in 2013 to 6.6% 2020, but estimates were not significantly different across the eight-year span.

Alcohol Use During Pregnancy Over Time, 2013-2020



### Data Source

Data from a total of 1,824 respondents were analyzed from the 2019-2020 Hawaii Pregnancy Risk Assessment Monitoring System (PRAMS), a population-based surveillance system for maternal behaviors before, during, and after pregnancy. The 2019-2020 aggregated data were used in this analysis as there was no Hawaii PRAMS data collection for 2017-2018. Only half a year of 2019 data was available.

### Data Highlights

- In 2019-2020 data, approximately 6.7% of mothers in Hawaii reported drinking in the last three months of pregnancy.
- Women slightly more likely to report using alcohol during the last three months of pregnancy were Japanese; those between 35 to 52 years old; those who resided in Kauai or Maui; those who had private insurance before pregnancy; those with unintended pregnancy or not sure of their pregnancy intentions; and those who smoked in the last three months of pregnancy or used marijuana/hash before pregnancy.
- Low birthweight, cesarean delivery, and postpartum depression symptoms estimates appeared to be higher in mothers who used alcohol during pregnancy. Safe sleep practice was slightly less common among mothers who used alcohol during pregnancy.

Based on 2019-2020 data, approximately 6.7% of mothers in Hawaii reported drinking in the last three months of pregnancy. Of those who reported drinking during pregnancy, 18.1% reported having four alcoholic drinks or more in a two-hour time span at least once in the last three months of pregnancy.

### Maternal Characteristics Related to Alcohol Use During Pregnancy

In Hawaii, mothers who were slightly more likely to report using alcohol during the last three months of pregnancy were Japanese; those between 35 to 52 years old; those who resided in Kauai or Maui; those who had private insurance before pregnancy; those who had unintended pregnancy or not sure about their intent; and those who smoked in the last three months of pregnancy or used marijuana/hash before pregnancy (Table 1). However, due to small samples, most of these comparisons were non-significant.

### Perinatal Risks and Outcomes Associated with Alcohol Use During Pregnancy

In Hawaii, the rate of low birthweight infants (<2500g) was slightly higher for mothers who used alcohol during pregnancy (8.4%), compared to those who did not use alcohol during pregnancy (7.0%), though the difference was non-significant (Figure 1). Those who used alcohol during pregnancy were slightly more likely to have a cesarean

delivery (32.3%), compared to those who did not use alcohol during pregnancy (28.1%).

Moreover, alcohol during pregnancy appeared to be associated with postpartum depression symptoms in mothers, with significantly higher rates for those who used alcohol to sometimes/always have postpartum depression symptoms (63.7%), compared to those who did not use alcohol (40.9%). Infant safe sleep practice (back position) was slightly less common among mothers who used alcohol during pregnancy (74.8%), compared to those who did not use alcohol during pregnancy (81.9%).

Table 1. Bivariate associations of alcohol use during pregnancy with selected maternal characteristics, Hawaii PRAMS 2019 to 2020

	Prevalence (%)	95% CI <sup>1</sup>
<b>Maternal Race</b>		
White	7.5	4.5-10.5
Native Hawaiian	6.4	3.7-9.1
Filipino	5.5	2.4-8.5
Japanese	10.7	3.4-18.1
Other/Unknown	5.3	2.2-8.3
<b>Maternal Age (years)</b>		
Under 20	NR <sup>2</sup>	NR
20-34	6.2	4.4-7.9
35-52	8.7	5.4-11.9
<b>County of Residence</b>		
Honolulu	6.1	2.5-9.8
Hawaii	6.6	2.5-10.6
Maui	9.5	4.2-14.7
Kauai	11.6	6.2-17.0
<b>Health Insurance Prior to Pregnancy</b>		
None	NR	NR
Medicaid/Quest	6.7	3.5-9.8
Military	3.7	1.0-6.4
Private Insurance	8.0	5.8-10.2
<b>Pregnancy Intendedness</b>		
Intended Pregnancy	5.8	4.1-7.5
Unintended Pregnancy	8.0	4.3-11.6
Not Sure	8.0	3.9-12.2
<b>Smoking During Pregnancy</b>		
No	6.4	4.9-7.9
Yes	13.7	1.8-25.6
<b>Used Marijuana/Hash Before Pregnancy</b>		
No	5.5	4.07-6.99
Yes	15.4	9.11-21.7

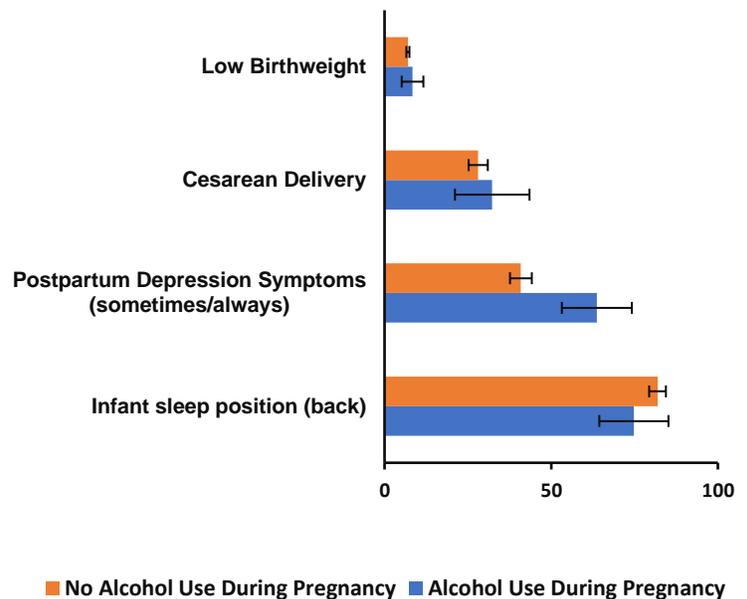
<sup>1</sup>95% CI refers to the 95% confidence interval around estimate.

<sup>2</sup>NR: Not reportable

## Discussion

There is no known safe amount of alcohol use during pregnancy. There is also no safe time for alcohol use during pregnancy. Approximately 6.7% of mothers in Hawaii reported drinking in the last three months of pregnancy. The 2019-2020 PRAMS data showed that maternal race and age, county of residence, insurance status, unintended pregnancy, smoking during pregnancy, and marijuana use during pregnancy were associated with alcohol use during pregnancy. However, since only half a year of 2019 sample was available, it was difficult to explore the association between alcohol use during pregnancy with some of the outcome variables such as preterm birth, infant not being alive at the time of birth, length of hospital stay, and abnormalities of newborn due to small samples.

Figure 1: Perinatal Risks and Outcomes by Alcohol Use During Pregnancy, Hawaii PRAMS 2019-2020



To reduce alcohol use during pregnancy in Hawaii, it is important for prenatal care providers to provide alcohol screening and counseling to all women. It is also important to advise women who are trying to get pregnant to stop drinking alcohol and to recommend birth control to women who are having sex, not planning to get pregnant, and drinking alcohol. Improving knowledge of appropriate referral services is needed to help women who cannot stop drinking on their own. Increasing awareness of the adverse outcomes of alcohol for the women and infants are crucial to help reduce the rate of alcohol use during pregnancy.

### About the PRAMS Data

The Hawaii Pregnancy Risk Assessment Monitoring System (PRAMS) is a self-reported survey of recent mothers conducted by mail with telephone follow-up. It is designed to monitor the health and experiences of women before, during, and just after pregnancy. Every year in Hawaii, about 2,400 women who deliver an infant are randomly selected to participate. **Race** is singly coded based on the mother's self-report from the birth certificate.

### Suggested Citation:

Fok, CCT, Awakuni, J, Shim, M. "Alcohol Use During Pregnancy Factsheet" Honolulu, HI: Hawaii State Department of Health, Family Health Services Division; September 2022.

### References

- Centers for Disease Control and Prevention, "Alcohol Use in Pregnancy," <http://www.cdc.gov/ncbddd/fasd/alcohol-use.html> (accessed January 25, 2022).
- Kelly YJ, Sacker A, Gray R, Kelly J, Wolke D, Head J, Quigley MA. Light drinking during pregnancy: still no increased risk for socioemotional difficulties or cognitive deficits at 5 years of age? *Journal of Epidemiology and Community Health*. 2012; 66(1): 41-48