

1996 Blind Study of Substance Abuse and Need for Treatment Among Women of Childbearing Age in Hawaii

Recent evidence shows that prenatal substance exposure can be extremely harmful, resulting in problems such as low birth weight, developmental problems and abnormalities, premature birth, and health-related disorders. Most research focuses on problems resulting from heavy, long-term use of substances such as alcohol and crack cocaine and the complications related to this use, or the causal link between tobacco use and low birth weight. However, short-term and occasional use may also cause birth complications and congenital defects and may provide indications of an unhealthy lifestyle that can have negative effects on the health and development of infants and children. All of these problems can have lasting social and economic consequences on a family and the population as a whole. The cost of care for a premature infant or a child with developmental abnormalities, and the emotional costs on a parent raising such a child, are all preventable. It is cost-beneficial to learn more about this population and prevent further problems from developing.

The Alcohol and Drug Abuse Division (ADAD) developed a study of women of childbearing age in the State of Hawaii. Women from public and private pregnancy clinics throughout the State participated in the study and were asked to provide anonymous, confidential information about their drug and alcohol use, the frequency of their use of substances, their treatment history for substances, characteristics of their use, and the frequency of their husband's or male friend's drug and alcohol use. The survey instrument also collected information on the socioeconomic characteristics of the population surveyed so that ADAD would be able to use state resources more efficiently by directing services and information to the women who demonstrate higher levels of use.

Participants in the study were asked to complete a 6-part survey instrument which asked questions about:

1. Ever use of and addiction to substances. Questions regarding the ever use of 10 substances and a question regarding the ever use of drugs with a needle. For drugs that respondents reported using, the age at first use was asked. Respondents were also asked if they had ever been dependent on or addicted to each of 10 substances, and if they were currently dependent on or addicted to: alcohol, tobacco, marijuana/hash, cocaine/crack, methamphetamine, heroin/methadone/opiates, sedatives, tranquilizers, inhalants, and hallucinogens.
2. Frequency of use of substances. Questions regarding how frequently the women had used the 10 substances identified in question 1. Options for responses were: none in the past year, about once a year, about once every 3 months, about once a month, every few weeks, about once a week, every few days, or every day.
3. Treatment history. Questions concerning past treatment for alcohol, heroin, cocaine/crack, methamphetamine and other drugs. For these drugs, respondents were asked about whether they had ever received treatment, if they could currently use treatment for any of these substances, and if they would enter treatment if it were affordable or available to them.

4. Characteristics of use. Questions related to psychiatric diagnosis criteria (DSM-III-R) for abuse and dependence on substances. These questions were asked for alcohol, tobacco, marijuana, and other drugs.
5. Frequency of use by husband or male friend. Questions about the frequency of use of the respondent's husband or female friend using the same questions and substances that the women responded to for themselves in question 2.
6. Sociodemographic information. Questions about age, highest level of education, race, health insurance, income, whether the respondent was currently trying to get pregnant.

Blind urinalysis. Surveys were precoded with a number that was also affixed to a sample of the respondent's urine specimen that was sent to a laboratory for drug testing. After each specimen had been tested for the *medical purpose* for which it was provided, the remainder of the specimen was tested for the presence of a variety of drugs.

Drug Screen Results: Results of toxicology tests for major illicit drugs indicate rates of drug use among pregnant and non-pregnant women receiving reproductive services (pregnancy tests) are similar:

Urine Test Results for Study Respondents, by Pregnancy Status and County *

	Total (n=890)	Kauai (n=81)	Maui (n=163)	Hawaii (n=265)	Honolulu (n=381)
Pregnant Women	(n=488)	(n=37)	(n=66)	(n=194)	(n=191)
Positive Test for Drugs	12.7% (n=62)	5.4% (n=2)	18.2% (n=12)	12.4% (n=24)	12.6% (n=24)
Negative Test for Drugs	87.3% (n=426)	94.6% (n=35)	81.8% (n=54)	87.6% (n=170)	87.4% (n=167)
Non-Pregnant Women	(n=402)	(n=44)	(n=97)	(n=71)	(n=190)
Positive Test for Drugs	15.7% (n=63)	13.6% (n=6)	18.6% (n=18)	28.2% (n=20)	10.0% (n=19)
Negative Test for Drugs	84.3% (n=339)	86.4% (n=38)	81.4% (n=79)	71.8% (n=51)	90.0% (n=171)

* Analysis was conducted for all women in the sample that had a known pregnancy status (missing = 83).

Ever use of substances

To determine how widely used various substances are in the clinic population, we analyzed the proportion of women in the total sample who reported ever using any of the

10 substances asked about on the survey. The information presented here shows the proportions of women reporting ever use of the five most commonly used substances in the sample.

Of the ten substances on the survey, women reported using alcohol, tobacco, marijuana, cocaine/crack, and methamphetamine in the greatest numbers. Injection drug use was lower than ever use of all drugs.

- 84.5% of the total sample reported ever using alcohol. The proportions of women who had used alcohol across counties ranged from 80.5% in Kauai County to 86.9% in Hawaii County.
- 67.2% of the total sample reported ever using tobacco. The proportions range from 76.3% in Hawaii County to 59.3% in Honolulu County.
- 54.9% of the women survey reported ever using marijuana, with the counties that had the highest reports of ever use being Maui and Hawaii Counties (61.9% and 61.5%).
- Almost 23% of the total sample reported ever using cocaine or crack. County differences ranged from 30.1% in Maui County to 16.2% in Honolulu County.
- Just over 18% of the women in the sample reported ever use of methamphetamine. Cross county differences were large, with 8.5% of the women in Kauai County and 23.9% of the women in Maui County reporting use.
- Only 2.3% of the sample reported ever injecting drugs, indicating that injection drug use may not be as critical a problem as use of other drugs among women in this sample.

Extent of use of substances

To better understand how the use of substances may be affecting the lives of the women in the sample, it is important to look at two categories of reported use: how often one uses substances and DSM-III-R diagnosis characteristics. To determine what proportion of women in the sample may have a problem with certain substances, the sample was analyzed for the proportion of women who report using a particular substance at least once a week in the past year. (For the purposes of this analysis, women who use both drugs and alcohol but only use alcohol at least once a week are included in the category, "Alcohol Only at Least Once a Week," and women who use only drugs at least once a week are included in the category, "Drugs Only at Least Once a Week"). When broken down by women who report using alcohol only at least once a week, and both drugs and alcohol at least once a week, the data show that for the total sample:

- 7.5% or 73 of the women reported using both alcohol and drugs at least once a week in the past year. Almost 10% of these women were under age 18, while another 9.0% were between ages 18 and 24.
- 5.9% or 57 of the women reported using drugs only at least once a week. Broken down by age, women under 18 had the largest proportion of women (9.3% or 15 women) who reported using drugs only at least once a week. Caucasian women (7.9% or 21 women) made up the highest proportion reporting the use of drugs only at least once a week.

- 18.3% or 178 of the women reported using alcohol only at least once a week. Broken down by age, the largest proportion of women in any age group (29.5% or 18 women) reporting use of alcohol only at least once a week were those in the 35 and older group.

Further analysis of drug use shows that the drugs women reported using at least once a week were marijuana, cocaine or crack, methamphetamine, sedatives, tranquilizers, and hallucinogens. None of the women reported using heroin or inhalants at least once a week. If tobacco had been included in this analysis, the proportion of women who reported using a drug at least once a week would have been much higher since 63.8% of the women who reported ever using tobacco reported such use at least once a week.

Other patterns of alcohol and drug use were reported by women as follows:

For alcohol use:

- 23.8% of the women who reported using alcohol said that they had use it in larger amounts than they had intended to in the past year.
- 7.2% of the women who reported using alcohol used it for longer periods of time than they had intended to in the past year, and 4.3% reported spending a lot of time getting over its effects.
- 8.6% of the women who reported using alcohol said that they missed work or school or were unable to do their daily chores in the past year, while 4.7% of the women who used alcohol in the past year said they had faced problems with family, friends, work, school, or police because of their alcohol use.

Further analysis showed that reports of having these characteristics of alcohol use were as prevalent in the under-18 group as in the other age groups. This indicates that alcohol use, if not more prevalent, may be problematic among these young women. Further analysis found that these relationships did not differ significantly across counties.

For tobacco use:

- 29.5% of the women who reported using tobacco (n=193) said that they use larger amounts of tobacco than intended in the past year, and 28.7% of the women who used tobacco said they used tobacco for longer periods than intended in the past year.
- 29.5% of the women who reported using tobacco said that they tried, but were unable to cut down on their tobacco use.
- 9.0% of the women who reported using tobacco said that they spent a lot of time getting over its effects, while 6.1% said that they felt sick because they had cut down or stopped using tobacco.

Further analysis showed that reports of these characteristics of use were high among women in the under-18 age group. When compared to the other age groups, almost all of the characteristics were significantly higher for the under-18 group. Tobacco use among

these young women may be problematic and could have future impacts on increases in low birthweight infants.

For marijuana use:

- 13.3% of the women who reported using marijuana said that they had used larger amounts of marijuana than intended in the past year.
- 8.2% of the women who reported using marijuana said that they had missed work or school or were unable to do their daily chores in the past year because of their marijuana use.
- 8.1% of the women who reported using marijuana said they had use marijuana for longer periods of time than they had intended to in the past year.
- 7.1% of the women who reported using marijuana said that they had to use more to get the desired effect in the past year while 5.6% reported that they had used marijuana to get over hangover/withdrawal symptoms or to keep from getting sick in the past year.

Again, further analysis shows that reports of these characteristics of use for women under the age of 18 were as high or higher than the reports of use by women 18 years of age or older. All of these relationships were found to be statistically significant among the youngest group of women, indicating that use and abuse of marijuana may be a problem among these women and could have severe lifetime consequences. Most of these relationships were not found to be statistically significant across counties. Findings are reported in the following table:

Use Characteristics of Women Meeting Dependency Criteria by County

	Total (n=973)	Kauai (n=82)	Maui (n=176)	Hawaii (n=283)	Honolulu (n=432)
Alcohol Use: Women who meet dependency criteria	3.5% (n=34)	2.4% (n=2)	4.0% (n=7)	5.7% (n=16)	2.1% (n=9)
Marijuana Use: Women who meet dependency criteria	3.9% (n=38)	1.2% (n=1)	4.5% (n=8)	5.7% (n=16)	3.0% (n=13)
Tobacco Use: Women who meet dependency criteria	14.0% (n=132)	5.0% (n=4)	13.7% (n=24)	19.4% (n=55)	11.0% (n=49)
* Analysis was conducted for all women in the sample that had a known pregnancy status (missing = 83).					