

# **Substance Abuse and Treatment Needs of Pregnant Women in Wisconsin**

## **Executive Summary and Implications**

Each year in Wisconsin there are about 68,000 live births, 15,000 induced abortions, 1,000 fetal and infant deaths and about 25,000 miscarriages. This results in about 109,000 known pregnancies. A wide range of problems are associated with the use of alcohol or other drugs by women during pregnancy. The potential problems include inadequate prenatal care, preterm labor, placental abruption, premature delivery, low birth weight infants, decreased fetal growth, fetal malformations, child development problems, stillbirth, neonatal mortality, sudden infant death, and other adverse pregnancy outcomes. It is not known how many of Wisconsin's births have fetal alcohol or drug effects. It is also not known how many, if any, of Wisconsin's 850 documented birth defect cases each year can be attributed to alcohol or other drug use during pregnancy.

Studies show that fetal alcohol syndrome (FAS) occurs in anywhere from .2 to 1.0 per 1,000 births. If we applied these rates to Wisconsin, there would be an estimated 14 to 68 FAS cases each year. Nonetheless, research has shown that any use of alcohol or mood-altering drugs during pregnancy increases the risk of birth and developmental defects. It's a gamble not worth taking.

Clinicians, educators, and policy makers need objective data on the prevalence of substance abuse during pregnancy to provide more effective prevention, intervention, and treatment for pregnant women and their infants. Despite the attention given to issues of substance abuse and pregnancy, little data on the prevalence of substance abuse among Wisconsin pregnant women currently exists.

About six years ago, Congress passed a law (P.L. 102-321 Sec. 1929) requiring the Department of Health and Human Services to obtain needs assessment data from states in exchange for the allocation of Block Grant funds. Wisconsin receives over \$20 million from this fund. This study was funded under a federal Substance Abuse and Mental Health Services Administration (SAMHSA) needs assessment contract (270-95-0011). The study closely followed the guidelines and protocols developed by SAMHSA and the National Technical Center at Harvard University. This report fulfills one of the goals of the needs assessment contract, which was to provide substance abuse prevalence and treatment need data to state planners and policy makers. In addition to this study, the federally funded project includes four other studies: (1) a treatment capacity study; (2) a statewide household substance abuse telephone survey; (3) a composite indicators study; and (4) an arrestee study.

To conduct the study, the State Department of Health and Family Services entered into a subcontract with the Wisconsin Survey Research Laboratory to complete in-person interviews and urine screens on a sample of Wisconsin's pregnant women (primarily adults; only 2 percent were teens) receiving prenatal services (n=493). In addition, 74 pregnant women, interviewed as part of a larger household telephone survey, were also included in the analysis since their characteristics were comparable. The combined sample interviewed was 567 pregnant women. The study was designed to accurately determine the prevalence of substance abuse and dependency and corresponding treatment needs among pregnant women.

Counties were initially selected for inclusion in the study by breaking the state into five groups of counties based upon population density. The county groupings were as follows: metropolitan (Milwaukee); large urban (like Waukesha or Brown); small urban (like Eau Claire or Wood); large rural (like Portage or Chippewa); and small rural (like Taylor or Green Lake). The other 74 pregnant women interviewed as part of the telephone survey study (representing 27 counties) were placed into county groups based upon their county of residence. This produced a probability sample of Wisconsin counties capable of representing the state's population in many respects.

During 1996-97, the bulk of the interviews were conducted at perinatal clinics volunteering to participate in the study. A total of 25 different clinics participated. While it wasn't possible to calculate an exact "response rate," about 62 percent of the pregnant women who were asked to participate (795) actually completed an interview. Urine screens were completed on 384 of the 493 women who completed interviews. Using perinatal clinics to survey pregnant women was a fairly good initial sampling design strategy since Wisconsin surveys indicate that 99 percent of pregnant women seek and receive at least some prenatal care. However, when considering our sample's data on household income, rates of arrest, education, and marital status in comparison with the known population, our sample is likely more representative of pregnant women with less serious social problems. Therefore, there is reason to believe that the sample is slightly biased and that our substance abuse estimates should be considered "low end" or slightly lower than is actually occurring in the general population. Study researchers believe that more frequent contact with clinic personnel would have improved the response rate.

The women interviewed had been pregnant anywhere from 1 month to 9 months and the distribution among months was fairly even. Most of the women were between the ages of 25 and 44 (69 percent), married (76 percent), white (85 percent), and high school graduates or beyond in education (90 percent). Eighty-three percent were employed and 69 percent had household incomes over \$30,000 per year.

### Population Characteristics of the Initial Sample County Groupings

	Small Rural	Large Rural	Small Urban	Large Urban	Metropolitan
Total County(ies) Population (Pop.)	16,300	67,800	80,400	542,100	959,275
Population Density of County(ies) (pop. per sq. mi.)	15	120	135	415	3,971
Percent of County(ies) Pop. Residing in Cities Over 10,000 Pop.	0%	15%	55%	67%	97%
Percent Minority Pop.	10%	3%	3%	11%	27%
Geographic Location	Northwestern	South Central	Eastern	Southern	Southeastern
Estimated No. of Pregnant Women/Year	365	1,395	1,470	11,830	23,110

During data analysis, the initial county groupings were further collapsed for increased precision of geographic projections regarding substance abuse during pregnancy as follows:

### Respondent Statistics For Final County Groupings

	Rural	Urban	Metropolitan
Population Density (pop. per sq. mi.)	130 or less	131-600	Over 600
# of Completed Interviews	114	272	181

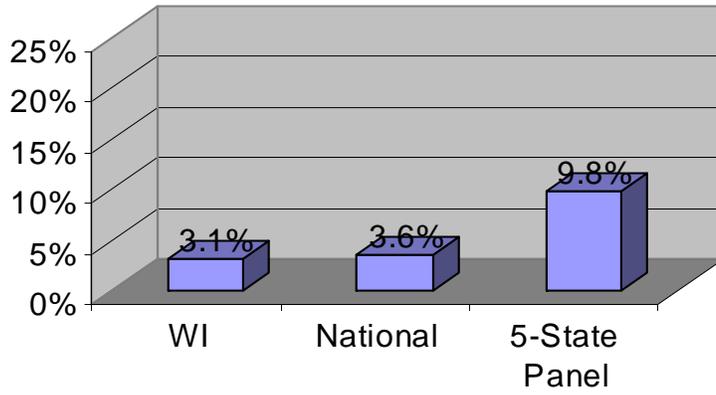
Through urinalysis (drug testing for amphetamines, barbiturates, benzodiazepines, cannabinoids, cocaine, opiates, methadone, methaqualone, propoxyphene, and phencyclidine), study researchers were able to approximate a "low-end" percentage of pregnant women who had used a mood altering drug some time prior to the interview.

A total of 12 (3.1 percent) of the 384 urine screens were positive for other drugs. One percent were positive for pain killers containing morphine or codeine. Two percent were positive for marijuana. In view of the low number of drug-positive urine tests, sample and response bias, within-state geographic breakdowns were not valid here. By comparison, national and other states' studies show higher rates (see the bar graph on the next page). About 2 percent self-reported drug use during pregnancy.

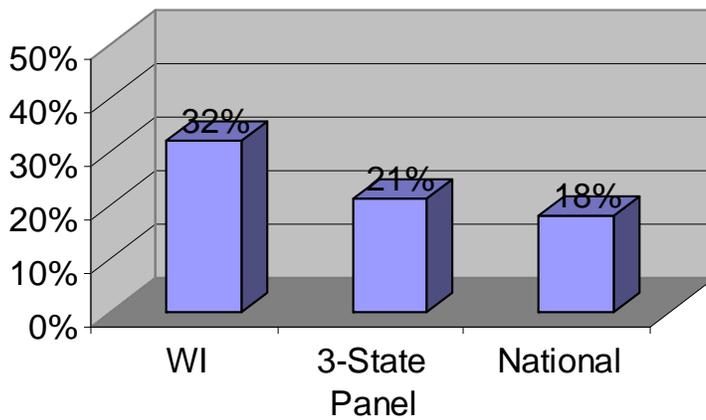
The prevalence of alcohol use during pregnancy was determined by self report during the in-person clinic interview or telephone survey. The findings here are startling. Thirty-two percent of the pregnant women admitted to using alcohol during pregnancy. This exceeds both national (18 percent) and other state study (21 percent) rates (see the alcohol use bar graph). In addition, the data point out the inaccuracy of the rate of alcohol use during pregnancy gathered from Wisconsin birth certificate records (3 percent). It should be noted that Wisconsin surveys of women age 18 to 44, in general, put alcohol use at 71 percent, so there is some effort being put forth on the part of pregnant women to discontinue alcohol use while pregnant (see the child bearing age bar graph). Cigarette smoking was reported among 29 percent of the pregnant women.

The next item of importance is the percent of pregnant women in need of addictions' treatment or rehabilitation. It is important to note that these results include alcohol. This is defined as the proportion of pregnant women having sufficient recent symptoms to be classified as having an alcohol or other drug disorder (i.e dependency or abuse) and therefore in need of treatment. Findings from the self-reported drug and alcohol use of respondents revealed that, for the 567 pregnant women interviewed, 63 (or 11 percent) had a current alcohol or other drug dependency or abuse disorder. About 10 percent were alcohol disorders, and 1 percent were other drug disorders. Sample and response bias were apparent in the rural sample, which found that 12 percent of responding "rural" pregnant women had a current alcohol or other drug abuse disorder. The urban sample had a rate of 10 percent and the Milwaukee (metropolitan) sample, 9 percent. The overall 11 percent figure will be applied when computing county level estimates.

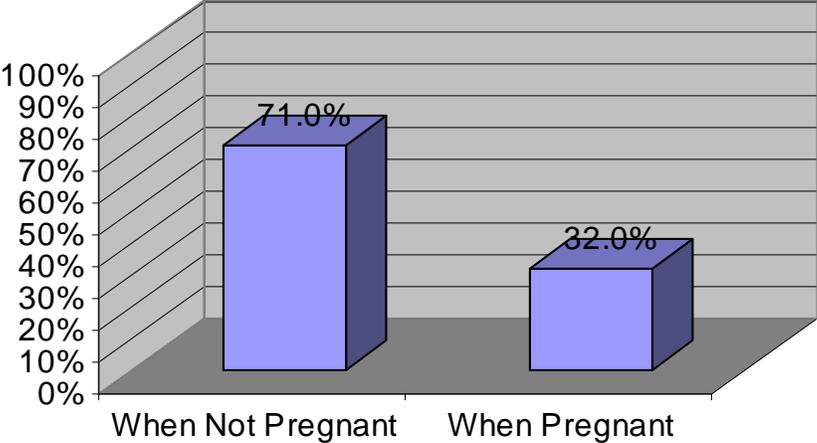
### MOOD ALTERING DRUG USE DURING PREGNANCY: Drug Screens



### ALCOHOL USE DURING PREGNANCY



# ALCOHOL USE AMONG WOMEN OF CHILD BEARING AGE



With regard to treatment experiences and needs, less than 1 percent of the sample of pregnant women were currently receiving treatment. These data clearly show the gap between the need for and availability of treatment for pregnant women.

The table of statistics on the next page presents estimates of alcohol or drug use and treatment need among Wisconsin counties. Of the estimated 67,642 pregnancies each year, one-third are at risk due to alcohol or drug use, and 11 percent of the pregnant women are in need of treatment.

ALCOHOL AND OTHER DRUG USE AND TREATMENT NEED DURING PREGNANCY  
 County Estimates: 1996

COUNTY	LIVE BIRTHS 1996	INFANT DEATHS 1996	ESTIMATED PREGNANCIES	ALCOHOL OR DRUG USE DURING PREGNANCY FACTOR	PREGNANCIES AT RISK	TREATMENT NEED FACTOR	ESTIMATED TREATMENT NEED
Adam	184	3	187	0.33	61	0.11	21
Ashland	234	0	234	0.33	77	0.11	26
Barron	503	2	505	0.33	166	0.11	56
Bayfield	149	0	149	0.33	49	0.11	16
Brown	3051	25	3076	0.33	1007	0.11	338
Buffalo	146	0	146	0.33	48	0.11	16
Burnett	147	1	148	0.33	49	0.11	16
Calumet	466	1	467	0.33	154	0.11	51
Chippewa	590	4	594	0.33	195	0.11	65
Clark	467	4	471	0.33	154	0.11	52
Columbia	616	4	620	0.33	203	0.11	68
Crawford	183	0	183	0.33	60	0.11	20
Dane	4977	28	5005	0.33	1642	0.11	551
Dodge	976	10	986	0.33	322	0.11	108
Door	260	2	262	0.33	86	0.11	29
Douglas	532	6	538	0.33	176	0.11	59
Duun	434	3	437	0.33	143	0.11	48
Eau Claire	1079	7	1086	0.33	356	0.11	119
Florence	64	1	65	0.33	21	0.11	7
Fond du Lac	1138	6	1144	0.33	376	0.11	126
Forest	94	3	97	0.33	31	0.11	11
Grant	497	4	501	0.33	164	0.11	55
Green	408	3	411	0.33	135	0.11	45
Green Lake	208	1	209	0.33	69	0.11	23
Iowa	260	2	262	0.33	86	0.11	29
Iron	76	1	77	0.33	25	0.11	8
Jackson	193	3	196	0.33	64	0.11	22
Jefferson	892	4	896	0.33	294	0.11	99
Juneau	264	1	265	0.33	87	0.11	29
Kenosha	2008	10	2018	0.33	663	0.11	222
Kewaunee	214	1	215	0.33	71	0.11	24
La Crosse	1236	5	1241	0.33	408	0.11	137
Lafayette	180	1	181	0.33	59	0.11	20
Langlade	214	1	215	0.33	71	0.11	24
Lincoln	338	4	342	0.33	112	0.11	38
Manitowoc	941	7	948	0.33	311	0.11	104
Marathon	1621	6	1627	0.33	535	0.11	179
Marinette	456	5	461	0.33	150	0.11	51
Marquette	147	2	149	0.33	49	0.11	16
Menominee	91	0	91	0.33	30	0.11	10
Milwaukee	14792	166	14958	0.33	4881	0.11	1645
Monroe	557	5	562	0.33	184	0.11	62
Oconto	374	2	376	0.33	123	0.11	41
Oneida	326	2	328	0.33	108	0.11	36
Outagamie	2101	21	2122	0.33	693	0.11	233
Ozaukee	961	6	967	0.33	317	0.11	106
Pepin	75	0	75	0.33	25	0.11	8
Pierce	373	3	376	0.33	123	0.11	41
Polk	409	4	413	0.33	135	0.11	45
Portage	797	4	801	0.33	263	0.11	88
Price	154	0	154	0.33	51	0.11	17
Racine	2592	17	2609	0.33	855	0.11	287
Richland	187	2	189	0.33	62	0.11	21
Rock	1969	11	1980	0.33	650	0.11	218
Rusk	161	3	164	0.33	53	0.11	18
St. Croix	767	5	772	0.33	253	0.11	85
Sauk	676	2	678	0.33	223	0.11	75
Sawyer	188	0	188	0.33	62	0.11	21
Shawano	458	3	461	0.33	151	0.11	51
Sheboygan	1333	7	1340	0.33	440	0.11	147
Taylor	225	2	227	0.33	74	0.11	25
Trempealeau	326	0	326	0.33	108	0.11	36
Vernon	338	2	340	0.33	112	0.11	37
Vilas	167	0	167	0.33	55	0.11	18
Walworth	1019	3	1022	0.33	336	0.11	112
Washburn	148	2	150	0.33	49	0.11	17
Washington	1456	9	1465	0.33	480	0.11	161
Waukesha	4138	22	4160	0.33	1366	0.11	458
Waupaca	617	1	618	0.33	204	0.11	68
Waushara	219	0	219	0.33	72	0.11	24
Winnebago	1756	15	1771	0.33	579	0.11	195
Wood	957	2	959	0.33	316	0.11	105
STATE TOTAL	67150	492	67642		22160		7441

Through laws recently passed and federal funding stipulations, both Wisconsin and the nation have made it clear that pregnant women are to receive first priority for treatment services. Using the results from this study and birth statistics, each year at least 22,160 pregnant women used alcohol or other drugs during pregnancy and 7,441 are in need of treatment for alcohol or other drug abuse.

The scientific literature has concluded that substance use (alcohol or other drug use) at any time during pregnancy and in any amount increases the risk of birth and developmental abnormalities, miscarriage, and infant mortality. At the same time, studies (State of Washington; State of Delaware) have shown that the average medical care costs for pregnant women abusing substances and their infants are higher than their non-using counterparts. However, when treatment is provided these costs decline dramatically.

We are all responsible for preventing the risk of harm to infants. For pregnant women, this includes refraining from the ingestion of harmful substances when trying to become pregnant and during pregnancy. For pregnant women who are addicted to substances, help must be sought. For spouses, family members and close friends of the pregnant women, it means providing a supportive environment for her drug-free lifestyle.

Health care, human service, and W-2 professionals have the responsibility to intervene when their client or their client's fetus might be at risk for health problems. It was gratifying to learn that in 78 percent of pregnancies, perinatal health care professionals are asking their patients about alcohol and other drug use. Physicians need to thoroughly assess the mothers and babies to determine if they are at risk for alcohol and other drug complications during pregnancy or after. A substance use screening tool is being used by the Wisconsin Perinatal Care Coordination Project. Education about the risks of substance use during pregnancy, sound medical advice, and referral to treatment, if indicated, should be provided. Because intervention can improve functioning and adaptation of the child born to a substance abusing woman, it is recommended that pediatricians ask about problems with alcohol when taking a family history.

Employers, too, can intervene through employee assistance programs. Schools and health information agencies must ensure that their students and target groups receive regular, up-to-date information about the effects of alcohol and drugs during pregnancy.

This study demonstrated that few pregnant women in need of addictions' treatment seek and receive it. Women tend to drink at home and conceal their drinking behavior making outreach essential. Treatment providers must seek out pregnant women and provide effective treatment that pregnant women can access and trust. Treatment must be individualized.

A family-based approach that addresses depression and other psychiatric illnesses, financial issues, child care, violence, sexual abuse, child abuse, relationships, spouse/partner support, and the like is necessary. The Substance Abuse and Mental Health Services Administration's Center for Substance Abuse Treatment issued a mandate to treatment providers serving women: to engender hope and empowerment; ensure safe, secure, and supportive environments; establish trusting relationships between women clients and staff; provide advocacy in accessing all services needed; promote self responsibility, self sufficiency, and interdependence; strive for gender-specific and culturally-relevant client-driven services; eliminate labeling of women and their children in all respects; and build the linkages and networking required for effective women's programs.

Furthermore, the health insurance industry must institute policies that promote effective rehabilitation of pregnant women with substance abuse problems. The result will be substantial savings in the long term. There is a need for a sustained commitment from treatment administrators and payers to fund residential treatment centers for pregnant women and women with young children where needed.

Public policy makers have the responsibility to develop humane and effective approaches to prevention and rehabilitation that promote the health of women and minimize "punishment" and infringement on constitutional rights. District attorneys and the courts should not prosecute pregnant women when there are other means for getting them into treatment. Since the mid-1970s, there has been a dramatic increase in the number of investigations devoted to the determination of the effects of prenatal exposure to various substances. In Wisconsin, the 1991 statewide Task Force to Combat Alcohol and Other Drug Use by Pregnant Women and Mothers of Young Children sent recommendations to the state Department of Health and Social Services. They stressed policymakers' responsibility to understand and help pregnant women get services; a positive approach rather than a punitive stance; early identification and a coordinated effort among health care workers; special services that are women-specific and holistic; services for children from affected families; funding for prevention activities in communities; funding for services that would ultimately save money in the community; data collection on an ongoing basis followed by up-to-date trainings; and leadership on the part of government agencies.

Lastly, it is recommended that a series of public hearings or focus groups be held around the state to help better understand the problem. These meetings should obtain the views of pregnant women, their families, health care professionals, health insurance industry, law enforcement, district attorneys, the courts, treatment providers, school personnel, and various cultural groups.

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