



# Pregnant Women and Substance Abuse in Nevada 2012

A SAPTA Report

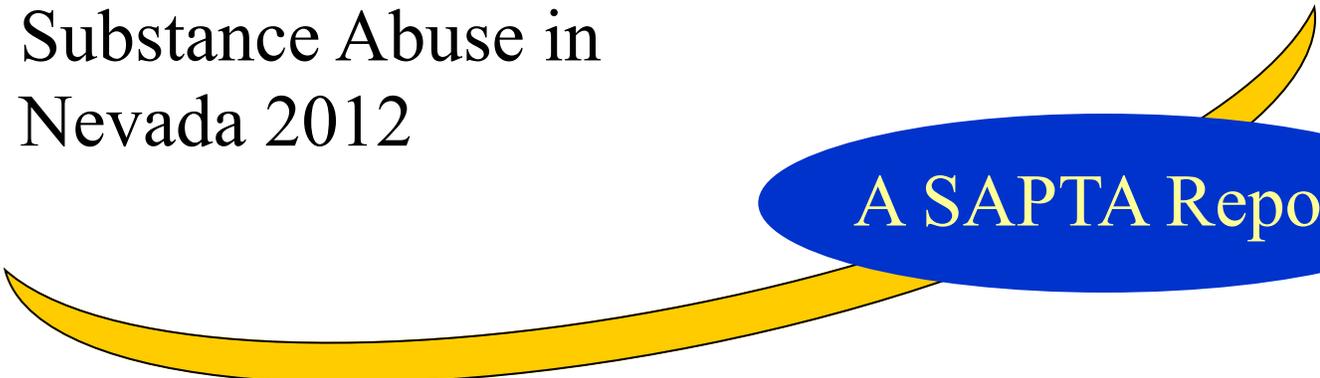
Nevada Division of Mental Health and  
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Department of Health and Human Services

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November 2012



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Substance Abuse in  
Nevada 2012



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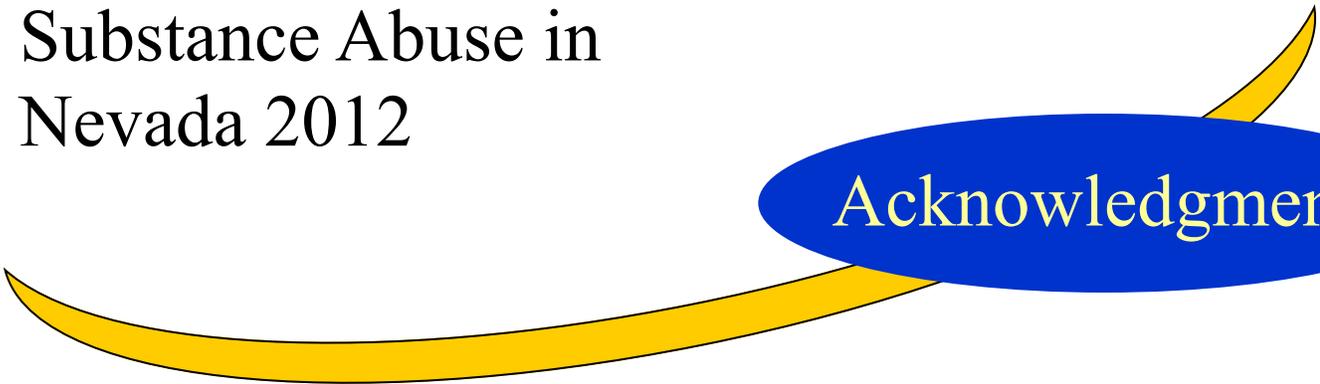
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# Pregnant Women and Substance Abuse in Nevada 2012



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# Pregnant Women and Substance Abuse in Nevada 2012

## Data Sources

### NVSS

National Vital Statistics System. The National Vital Statistics System is the oldest and most successful example of inter-governmental data sharing in Public Health and the shared relationships, standards, and procedures form the mechanism by which National Center for Health Statistics collects and disseminates the Nation's official vital statistics. These data include information on vital events – births, deaths, marriages, divorces, and fetal deaths.

### NHIPPS

The Nevada Health Information Provider Performance System is a database that stores treatment records of clients of SAPTA funded treatment programs in Nevada.

### NSDUH

The National Survey on Drug Use and Health is the primary source of information on the prevalence, patterns, and consequences of alcohol, tobacco, and illegal drug use and abuse in the general U.S. civilian non institutionalized population, age 12 and older. The survey is done every other year and includes information on age, gender, pregnancy status, race/ethnicity, education/employment, geographic area, frequency of use, and association with alcohol, tobacco, and illegal drug use.

### NV Office of Vital Statistics

Vital records include information on births, deaths, causes of death, marriages, paternity, and other population based data.

### 4Ps Plus Screening Tool

The 4Ps Plus is a screening tool used to assess drug, alcohol and tobacco use in pregnant women. It includes a brief intervention for those who screen positive and specific interventions for mental health and substance abuse if the woman is still using at the second prenatal visit. (NTI Upstream, Chicago, Ill.)

### TEDS

The Treatment Episode Data Set includes information on the demographic and substance abuse characteristics of admissions to treatment aged 12 and older for abuse of alcohol and/or drugs in facilities that report to individual State administrative data systems.

# Pregnant Women and Substance Abuse in Nevada 2012

## Introduction

### Executive Summary

Substance abuse during pregnancy has long been recognized as dangerous to both mother and child and in recent years, has become a major public health concern. The monetary cost to the health care system, of caring for infants born to drug abusing mothers and the long term cost to society of caring for them across their life spans, is working to catalyze efforts to identify pregnant women at risk for substance abuse. The purpose of this report is to examine the population of women in Nevada who abuse substances during pregnancy to determine who they are and what services they need.

Data on pregnant women who abuse substances and are in treatment in Nevada is available from the Nevada Health Information Provider Performance System (NHIPPS). The system includes demographic data, treatment information, substances of abuse, referral sources, employment, and relationship status information. Using this data, it is possible to establish a profile of women who abuse drugs and alcohol during pregnancy.

Some characteristics of pregnant women who received treatment for substance abuse in SAPTA funded programs in 2012 are:

- They are younger by four years (median age is 26) than non-pregnant women in treatment.
- A larger percentage of pregnant women have never been married.
- A larger percentage of the pregnant women are divorced (25.5% compared to 9.3%).
- Methamphetamine is the drug of choice for 66% of the women who are pregnant, while alcohol and methamphetamine are used by 31% of non-pregnant women respectively.

There are several treatment programs in Nevada that serve women only and provide dedicated services to women and their children. All of the treatment programs in the State accept pregnant women clients.

On November 29, 2012, the Pew Research Center reported that “the U.S. birth rate had dipped in 2011 to the lowest ever recorded, led by a plunge in births to immigrant women since the onset of the Great Recession. The overall U.S. birth rate, which is the annual number of births per 1,000 women in the prime childbearing ages of 15 to 44, declined 8% from 2007 to 2010. The birth rate for U.S. born women decreased 6% during these years, but the birth rate for foreign-born women plunged 14% - more than it had declined over the entire 1990-2007 period. The birth rate for Mexican immigrant women fell even more, by 23%.”

This report includes information on drug addicted infants born in Nevada in 2010. Data on the numbers of affected infants born was collected from the Office of Vital Statistics and demonstrates the extent and the cost of this issue. Data included in this section does not include information on infants born in non-hospital settings in Nevada.

Since 2010, several clinics for low income clients have screened pregnant patients for substance abuse using a screening tool called the 4Ps Plus. The screen identifies women who are pregnant and currently using drugs, alcohol, or cigarettes. Women who have a positive screen are invited to participate in a brief intervention at that office visit. If they are still using substances at the second pre-natal visit, they are offered a substance abuse or mental health intervention. The screening program is succeeding in helping pregnant women stop using for the duration of their terms.

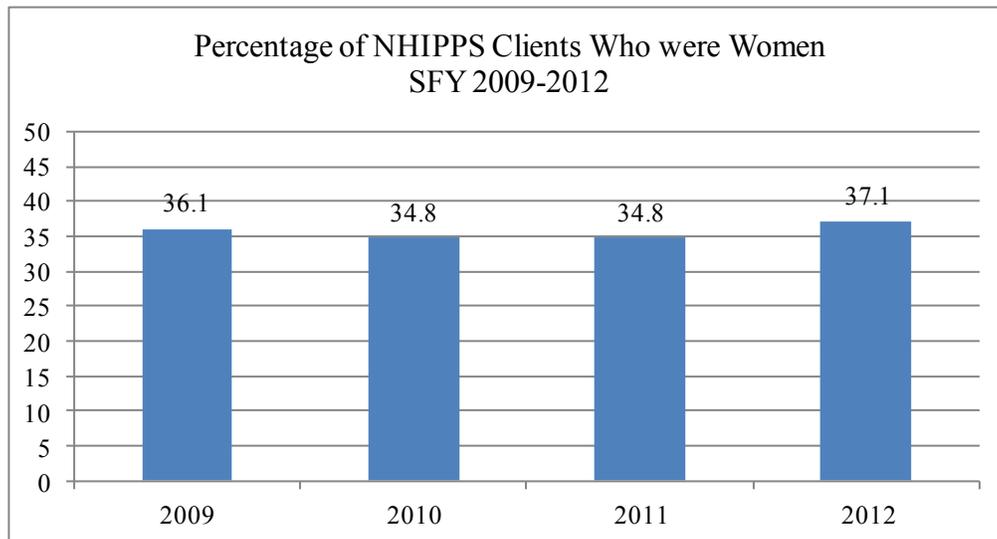
Pregnant women who abuse drugs and alcohol are a very small sub-set of the people who seek and receive substance abuse treatment in Nevada. This group of women is different in many ways from women who are not pregnant and seek substance abuse treatment. Defining this group of women is useful to policy makers in determining how to address their needs. Subject to the limitations expressed, this report will now look at the population of women in Nevada who abuse substances during pregnancy and its monetary costs where possible.

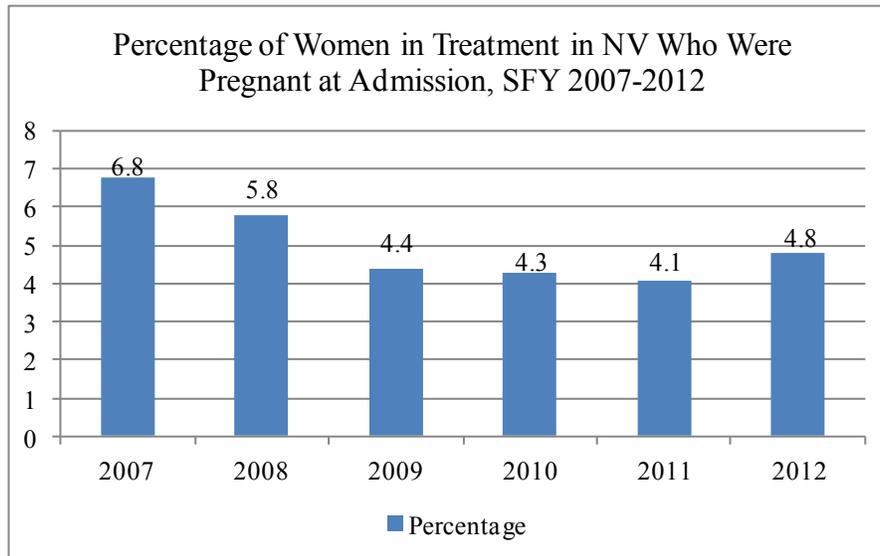
# Pregnant Women and Substance Abuse in Nevada 2012

## Section I

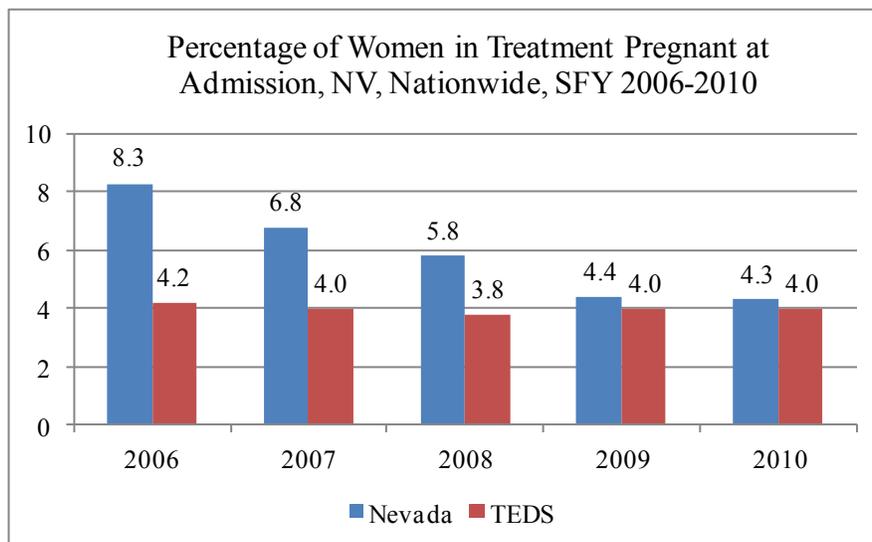
### Treatment Data for Pregnant Women

Since 2009, thirty-five percent of clients admitted to SAPTA funded treatment programs have been women.





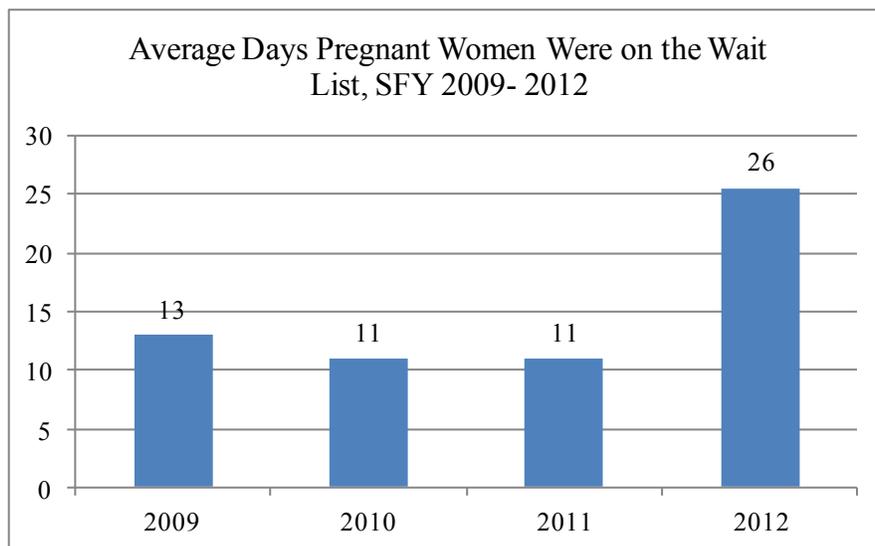
The percentage of pregnant clients admitted to Nevada funded treatment programs has decreased since 2007 when it was 6.8%. The percentage has leveled off at about 4% since 2009 with a slight increase in 2012. (Data from NHIPPS).



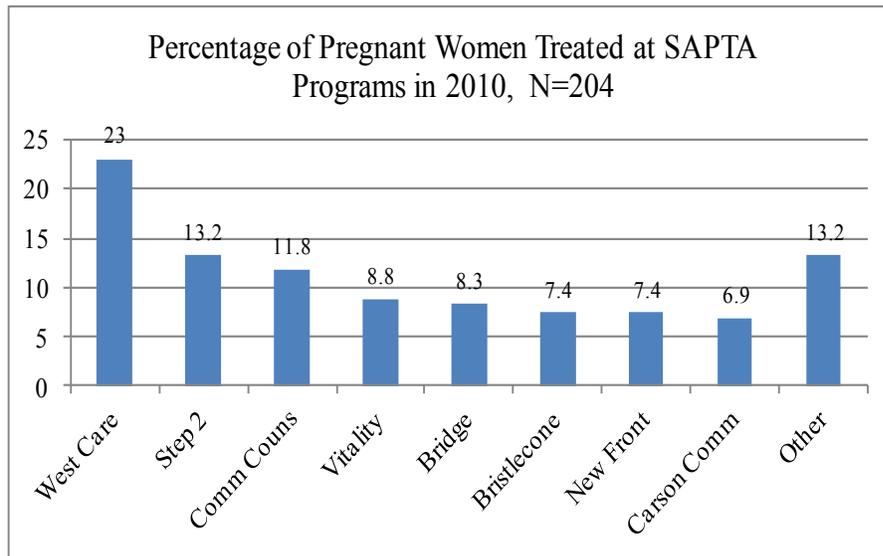
Nationwide, the percentage of clients who were pregnant at admission has been steady at about 4% since 2006. The percentage of pregnant women in treatment programs in Nevada is now very close to that of the U.S which has consistently been about 4%. Nevada admission of pregnant clients was higher than the national percentage but since 2009 the Nevada percentage has been about the same as the national percentage. (Data from Treatment Episode Date Set, Department of Health and Human Services).

NHIPPS Wait List

Wait List data is collected on all NHIPPS clients. The numbers of pregnant women on the treatment wait list has decreased since 2009. In 2009, there were 19 pregnant women on the wait list and in 2011 there were five pregnant women on the wait list. Pregnant women are considered to be a priority population by the treatment programs in Nevada.

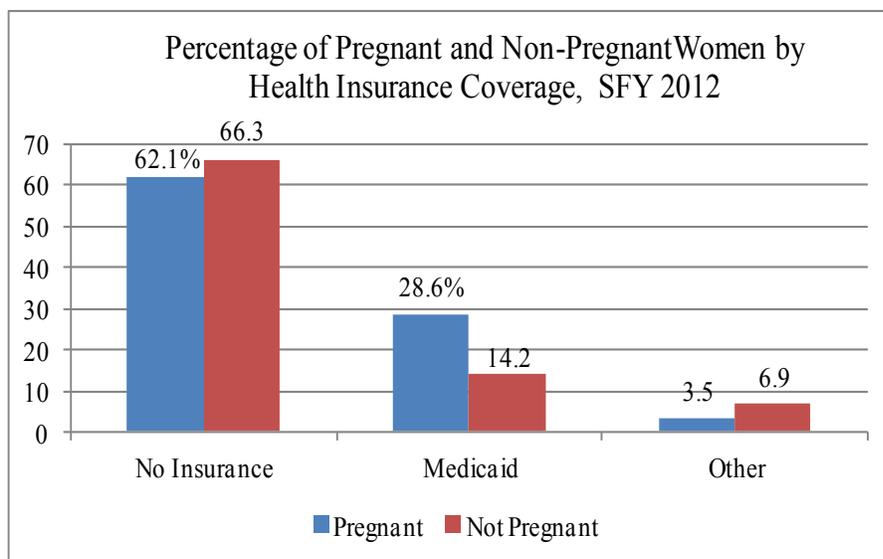


The average number of days that those pregnant women represented in the graph above were on the wait list was about the same between 2009 and 2011. In 2012, there were two women on the wait list but both of them came in for treatment and then disappeared. The program tried repeatedly to contact them and neither woman responded in a timely way.



The chart above shows that the West Care and Step 2 treatment programs care for about 36% of the pregnant women in Nevada who seek substance abuse treatment. These programs offer special services to women who need substance abuse treatment and their families. West Care and Step 2 offer treatment services through many locations in Reno and Las Vegas. The other treatment programs statewide admit pregnant women, also, and refer them to West Care and Step 2 when necessary. (Data from NHIPPS)

Health Insurance Coverage



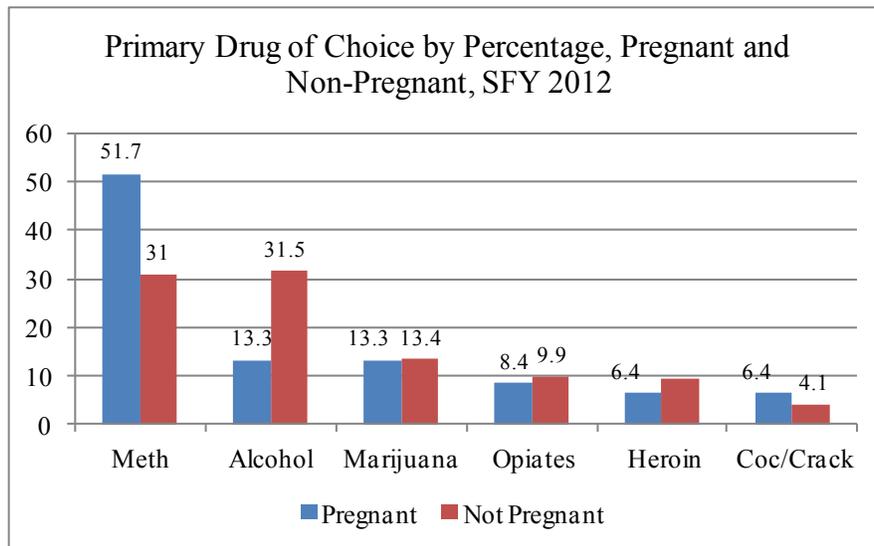
The majority of pregnant women who are in treatment for substance abuse either have no health insurance or are covered by Medicaid. The differences between the percentages of pregnant and non-pregnant women who don't have health insurance or are on Medicaid is statistically significant. (Data from NHIPPS)

# Pregnant Women and Substance Abuse in Nevada 2012

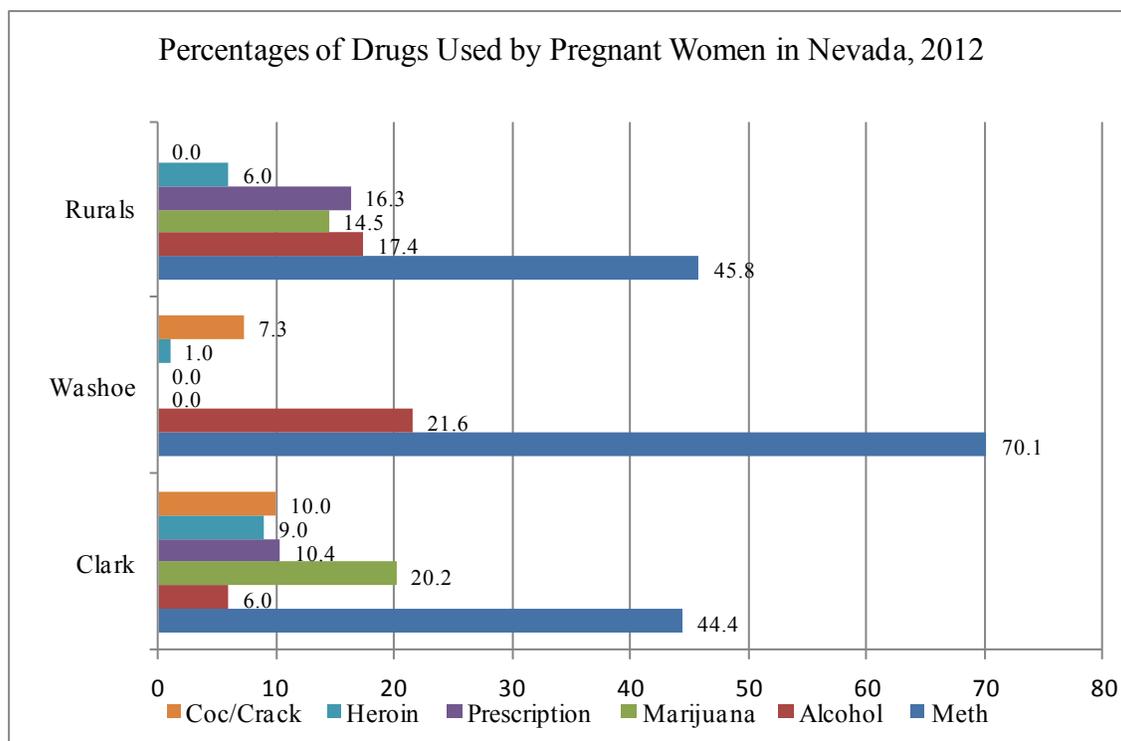
## Section II

### Pregnant Women in Substance Abuse Treatment in Nevada Compared to Non-Pregnant Women In Treatment

#### Primary Drug of Choice



The chart above shows that methamphetamine is the primary drug of choice for the majority of pregnant women admitted to treatment.



The chart shows the percentage of specific drugs used by pregnant women in different parts of Nevada. Meth is the drug used most commonly by pregnant women in treatment statewide but is used by a much higher percentage of the pregnant women in treatment in Washoe County. Alcohol is also used by a higher percentage of the pregnant women in treatment in Washoe County than the other regions of the state while heroin and prescription drugs are not used in Washoe county by pregnant women in treatment.

In the rural counties, alcohol and prescription drugs are used most commonly after meth. In Clark County, marijuana and prescription drugs are used most commonly after meth. There is much variation in the types of drugs used by pregnant women in treatment in Nevada. This information is useful to prevention programs in planning services designed for pregnant women.

Methamphetamine Use During Pregnancy Dramatically Increase Risks to Baby

Sources: Reuters, Anne Harding, *Meth Use During Pregnancy Injures Mom and Baby*, July 29, 2010

Methamphetamine abuse has become the most common reason for women to seek drug counseling or treatment while pregnant. A recent study by the Substance Abuse and Mental Health Services Administration (SAMHSA) found that not only had treatment facilities across the U.S. seen the highest number of pregnant teenage admissions in a decade, but the largest shift in the type of substance abuse being treated was caused by methamphetamine use. Pregnant teenage admissions for methamphetamine abuse had more than quadrupled from 4.3% of admissions in 1992 to 18.8% in 2007. Despite the higher percentage of pregnant meth abusers in rehabilitation, an even greater number of female meth abusers do not seek treatment. Unfortunately, some maintain their habit even after becoming pregnant.

A new study led by Dr. Ido Solt at Los Angeles' Cedars-Sinai Medical Center found that not only had methamphetamine use among pregnant women risen in recent years, but the babies born to these mothers face serious health complications compared to babies born to non-methamphetamine-using mothers. Solt and colleagues assessed the prevalence of methamphetamine use among pregnant women admitted to a single Phoenix hospital from 2000 to 2006. The researchers identified 276 cases of methamphetamine use among pregnant hospital admissions and 34,055 non-methamphetamine-related pregnancies. Methamphetamine use was determined either by patient's verbal admission to methamphetamine use or by urine screenings that tested positive for methamphetamine. Researchers noticed a gradual incline in the number of pregnant methamphetamine users throughout the years of the study: first there were 22 cases in 2001, then 43 cases in 2004, then 77 cases in 2005.

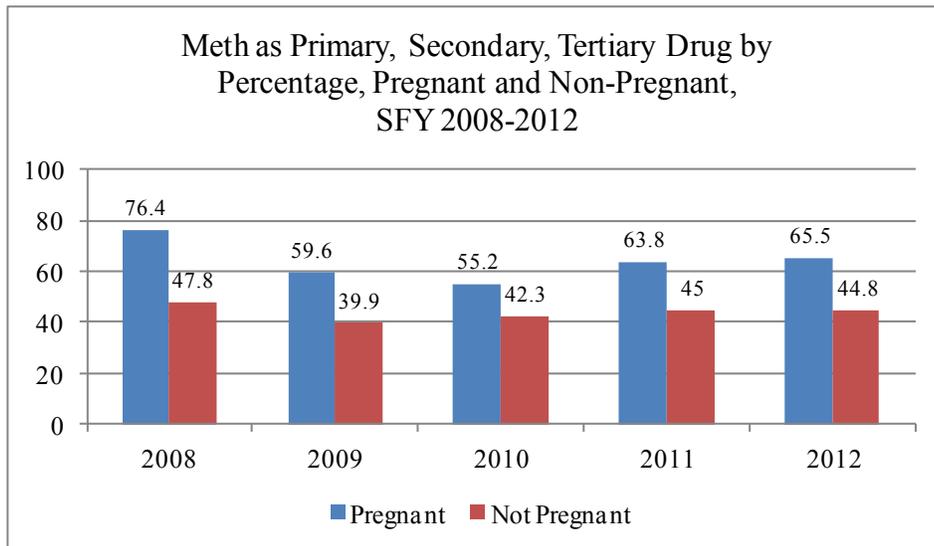
More than half of methamphetamine-abusing mothers had delivered premature births, while only 17% of the control pregnancies were preterm. Twenty-nine percent of methamphetamine-using mothers had cesarean births, whereas the control group only experienced cesarean deliveries 23% of the time. Babies born to methamphetamine abusers had low scores on a newborn health test 6% of the time, but only 1% of births from the control group had low health scores. Babies of methamphetamine-using mothers were more likely to undergo neonatal mortality compared to the control group; 4% of methamphetamine-related births died shortly after birth whereas only 1% of births from the control group experienced neonatal deaths.

Mothers who used methamphetamine during their pregnancies showed remarkable differences compared to mothers from the control group. More than two-thirds of methamphetamine-abusing mothers reported having fewer than five prenatal appointments during their pregnancy, compared to 10% of mothers from the control group. Methamphetamine-using women were more likely to experience domestic violence compared to the control group. Almost one-fourth of methamphetamine-using mothers reported domestic violence.

Furthermore, just 12% of methamphetamine-using mothers were married, but 46% of the control group's mothers were married. The majority of methamphetamine-using mothers were older, white, English-speaking, unemployed, and abused other substances. After successful delivery, 40% of methamphetamine-using mothers lost custody of their babies who were then placed in foster care, Child Protective Services, adoption, or were receiving care from another individual.

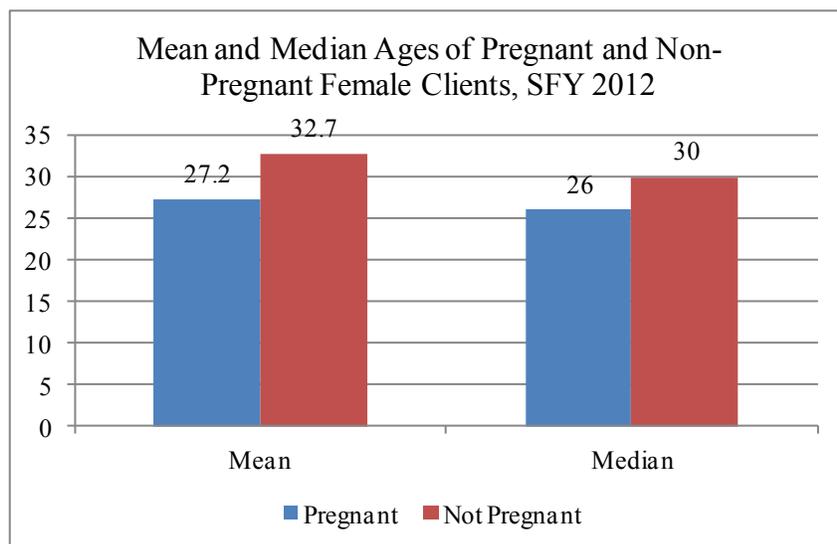
Meth Use in Pregnant and Non-Pregnant Women

The chart below shows that, in Nevada, since 2008, pregnant women are nearly 50% more likely to be meth users compared to non-pregnant women when entering treatment. The data in the chart below includes primary, secondary and tertiary drugs of choice.



The literature on pregnant women who are admitted to treatment for substance abuse indicates that this group of women differs in many ways from non-pregnant women who are admitted to treatment for substance abuse. Data from the NHIPPS system on pregnant and non-pregnant women in Nevada who were admitted to treatment in 2012 were analyzed. Results from that analysis are examined here.

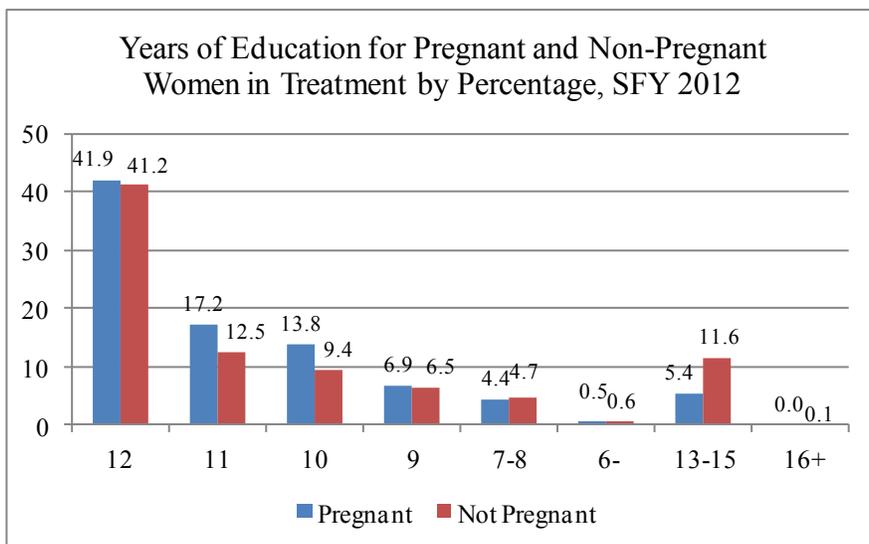
Age



The pregnant women who were admitted to treatment programs for substance abuse in Nevada in 2012 were younger than those women who were not pregnant. The difference in the ages of the groups is statistically significant at the .05 level (P).

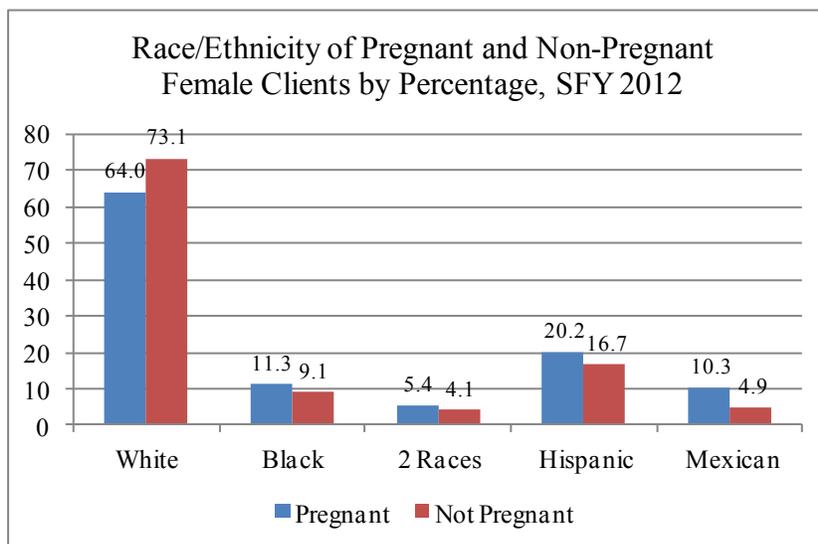
A report done in 2010 by the Iowa Consortium for Substance Abuse Research and Evaluation (S.A. Arndt), analyzed data on pregnant women admitted for treatment in Iowa between 2001 and 2009. Of the females, 3.6% were pregnant and the mean age of those women was 23, while the mean age of non-pregnant females in this group was 29. Nevada data on pregnant and non-pregnant women are very similar.

Education,  
Nevada



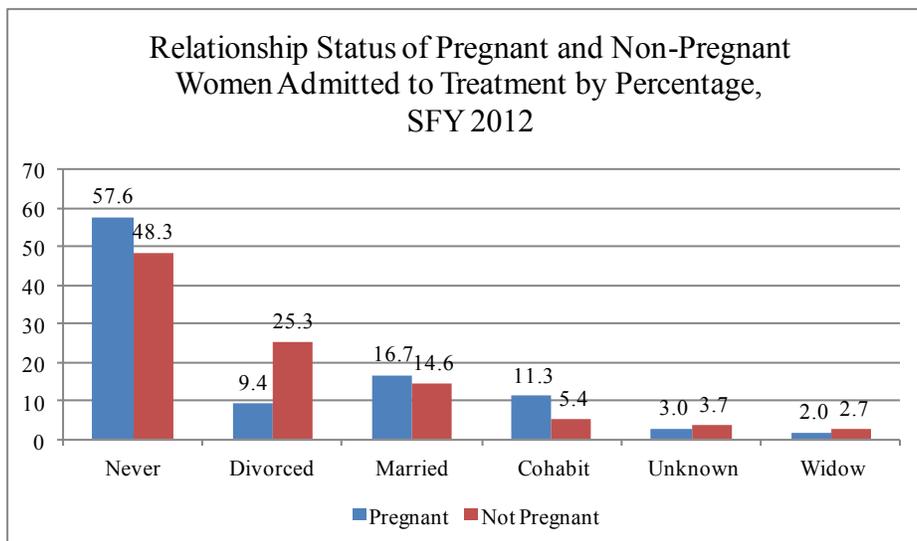
The chart above shows the percentage of women who finished the given number of grades for pregnant and non-pregnant women admitted to SAPTA funded substance abuse treatment programs in Nevada in 2012.

Race/Ethnicity,  
Nevada



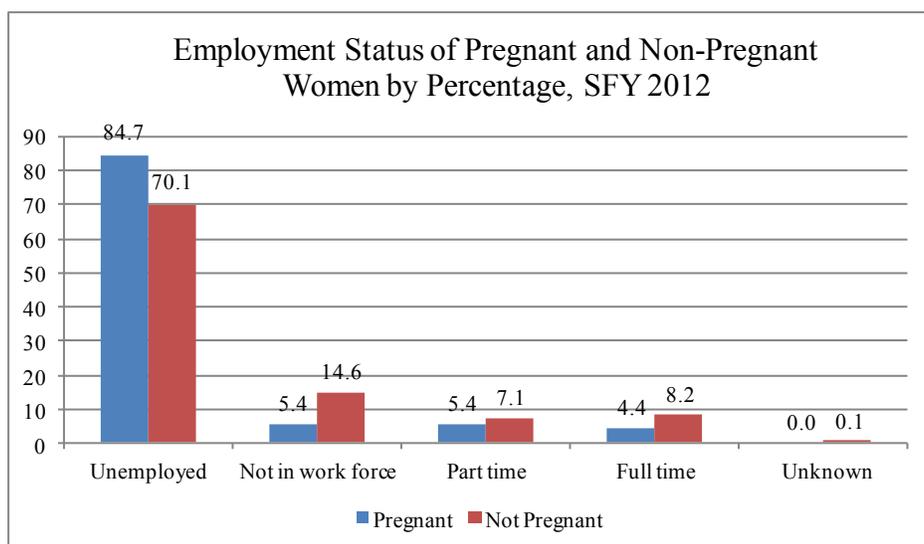
The chart above shows that a slightly higher percentage of the pregnant vs. non-pregnant women are minorities.

Relationship Status,  
Nevada



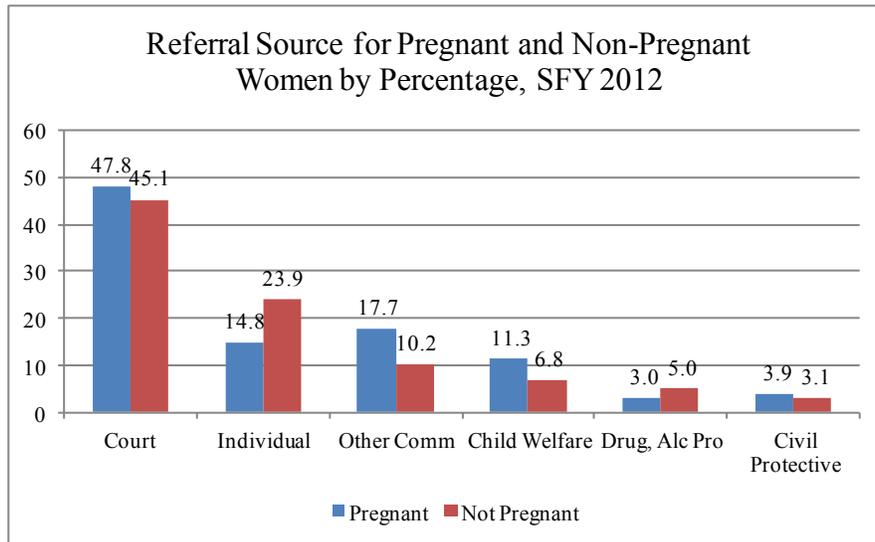
The chart shows that the relationship status of the pregnant and non-pregnant women differ in that more of the pregnant women have never been married. Almost three times as many non pregnant women have been divorced compared to the pregnant women.

Employment Status,  
Nevada



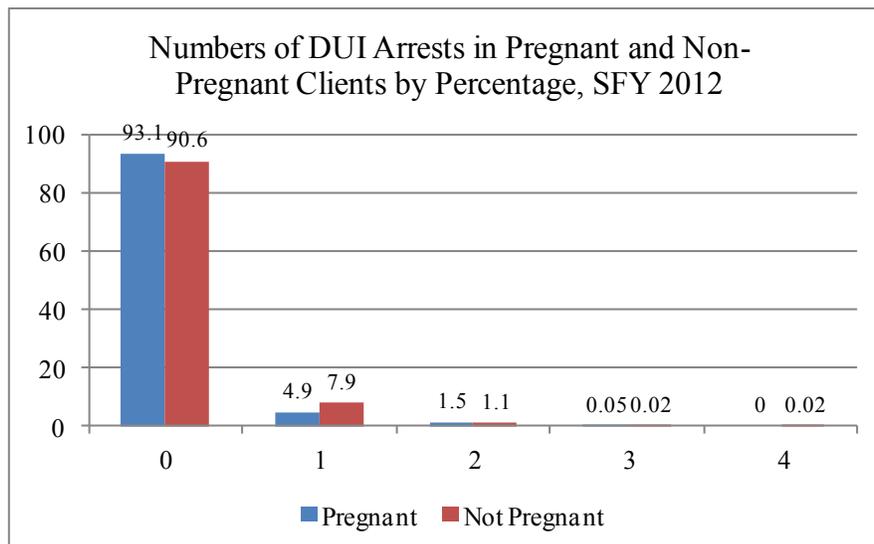
A higher percentage of pregnant women in treatment than non-pregnant women are unemployed. Neither group is engaged in the work force in significant numbers.

Referral Source,  
Nevada



The chart above show that the majority of women, both pregnant and non-pregnant, are referred to treatment by the court system or they elect to seek treatment on their own. Fewer pregnant women refer themselves to treatment than non-pregnant women.

DUI Arrests,  
Nevada



# Pregnant Women and Substance Abuse in Nevada 2012

## Section III

### Treatment Services For Pregnant Women

Substance abuse treatment programming specifically designed for women, such as provision of child care services, prenatal care services, women-only treatment, mental health services, and supplemental services and workshops addressing women-focused topics, can be beneficial in improving treatment outcomes. Improved outcomes include changes in substance use, mental health symptoms, perinatal/birth outcomes, employment, self-reported health status, and HIV risk reduction. (Information from Diaz Dixon, Step 2, Reno)

Among clients in outpatient non-methadone treatment,

- female clients were less likely than male clients to be employed full-time and more likely to be unemployed;
- Medicaid was more likely to be the primary source of payment for treatment among female clients than among male clients; and
- female clients were more likely than male clients to be admitted for drug abuse instead of alcohol abuse.

In 2011, there were 23 substance abuse treatment programs in 71 locations throughout Nevada that were certified by the State. WestCare Nevada, Inc. and Step 2, Inc. provide comprehensive treatment services to pregnant women and accommodate their children while they are in treatment. WestCare Nevada has programs in Henderson, Mt. Charleston, Pahrump, Reno, and three programs in Las Vegas. Step 2, Inc. has a program in Reno that serves women from northern Nevada. These two programs provide treatment for 36% of the pregnant women in Nevada who were admitted to treatment in SFY 2012. All of the other programs in the State provide services to pregnant women, too. When possible, pregnant women are referred to either WestCare or Step 2 because they are able to provide women-centered comprehensive programs.

The treatment goals of Step 2 and Westcare Nevada are described below:

*Goal 1: Housing stability for survivors of domestic violence*

Outputs

- Provide rental subsidies for 42 women and their families;
- Provide case management services emphasizing accessing community-based housing resources to 42 women;
- Provide financial assistance to at least 30 women targeted at helping clients access documentation which is often necessary for permanent housing, such as birth certificates, social security cards, etc.
- Provide continuing care to 42 women and their families for at least 3 months after moving into permanent housing.

Outcomes

- 70% of women and their families will remain in transitional housing for at least 9 months;
- 80% of the women who remain in transitional housing for at least 9 months will successfully access permanent housing at time of program completion.

*Goal 2: Supportive community services*

Outputs

- Provide case management services to 42 women and their families;
- Subsidize childcare for 10 children;

Outcomes

- Of those clients who remain in transitional housing for at least 9 months, 80% successfully access services through at least one ancillary supportive agency/service that was not being accessed at time of admission into transitional housing. "Successful access" shall be defined as engaging with an agency/service for the length of time deemed as necessary to benefit from the agency/service.

*Goal 3: Sobriety among those survivors struggling with substance use disorders*

Outputs

- Provide group and individual counseling for 30 domestic violence survivors struggling with substance use disorders;
- Provide case management services targeted at connecting 30 survivors with recovery community resources.

Outcomes

- 60% of clients will report at least 6 months of continuous sobriety at the completion of the transitional housing services.

Women also receive parenting classes, 3 months of diapers and formula, and financial and nutritional classes. These treatment programs provide prenatal vitamins and care and get clients engaged with a primary care physician in the community.

**Pregnant Women With Dependents**

The two tables below show the client served and unit counts for pregnant women and women with dependents and/or seeking reunification. These are based on progress note records, rather than admission records. (Data from NHIPPS)

Pregnant Women

<b>Measure</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>
Unduplicated Clients Served	186	168	166	189
Service Units Provided	6,831	7,341	7,378	7,233
Service Units / Client Served	36.7	43.7	44.4	38.5

Since 2009, the numbers of unduplicated pregnant women served by SAPTA funded treatment programs has decreased. However, the service units provided per client have increased.

Women With Dependent Children and/or Seeking Reunification

<b>Measure</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>
Unduplicated Clients Served	1,870	1,744	1,877	2,072
Service Units Provided	63,904	58,085	66,673	72,666
Service Units / Client Served	34.2	33.3	35.5	35.1

# Pregnant Women and Substance Abuse in Nevada 2012

## Section IV

### Declining Birth Rates in Nevada and the U.S.

The U.S. 2010 preliminary crude birth rate (CBR) was 13 births per 1,000 total population, 4% below the rate in 2008 (14.0), and the lowest rate ever recorded for the country (Table 1). The birth rate in Nevada has also decreased since 2004 from 14.6/1000 to 13.1/1000 in 2010. The 2009 general fertility rate (GFR) was 66.7 births per 1,000 women age 15-44 years, a 3% decline from the rate in 2008 (68.6) and reversing the increases from 2006 to 2008. (Data from the National Vital Statistics Report, December 21, 2010, Volume 59, Number 3)

Year	NV Births	NV Birth Rates	U.S. Birth Rates
2004	35,146	14.6	14.0
2005	37,259	14.8	14.0
2006	40,006	15.3	14.2
2007	41,175	15.1	14.3
2008	38,777	14.2	14.2
2009	36,829	13.6	13.5
2010	35,632	13.1	13.5
2011	34,613	13.1	13.5

A sharp decline in fertility rates in the United States that started in 2008 is closely linked to the souring of the economy that began about the same time, according to a new analysis of multiple economic and demographic data sources by the Pew Research Center.

Since 2007, the U.S. fertility rate—which controls for variations in the size of the female population of childbearing age—has dropped markedly from 69.6 births per thousand women ages 15-44 to 66.7 births per thousand women ages 15-44 in 2009. [Provisional data for 2010](#) indicate a further drop to 64.7 births per thousand women ages 15-44.

The Pew Research Center analysis also finds evidence of an association between economic hard times and fertility declines by race and ethnicity. Hispanics, whose employment levels and [household wealth](#) were particularly hard hit by the Great Recession, have experienced the largest fertility declines of the nation's three major racial and ethnic groups. Conversely, whites have experienced smaller economic hardships, and smaller declines in fertility. From 2008 to 2009, birth rates dropped by 5.9% among Hispanic women, while birth rates dropped 2.4% among black women and 1.6% among white women. The 2010 census indicated that 27% of the population in Nevada was Hispanic or Latino, thus the drop in birth rates in that group had a significant effect on the overall birth rate for the state.

### Declining Birth Rates in the U.S.

Babies? Not in this economy. US birth rates plummet for fourth year (By Mike Stobbe, *Associated Press* / October 4, 2011 , The Christian Science Monitor)

Birthrates have been declining for the past four years, according to a government report on Wednesday. It's a new phenomenon for a country with rising populations rates since the 1990s.

U.S. births fell for the fourth year in a row, the government reported Wednesday, with experts calling it more proof that the weak economy has continued to dampen enthusiasm for having children. The report by the Centers for Disease Control and Prevention (CDC) is a first glimpse at 2011 birth certificate data from state health departments. But the decline in 2011 was just 1 percent — not as sharp a fall-off as the 2 to 3 percent drop seen in recent years.

Most striking were steep declines in Hispanic birth rates and a new low in teen births. Hispanics have been disproportionately affected by the poor economy, experts say, and teen birth rates have been falling for 20 years. Falling births is a relatively new phenomenon in the U.S. Births had been on the rise since the late 1990s and hit an all-time high of more than 4.3 million in 2007. But fewer than 4 million births were counted last year — the lowest number since 1998.

The economy officially was in a recession from December 2007 until June 2009. But well into 2011, polls show most Americans remained gloomy, citing anemic hiring, a depressed housing market and other factors. Early data for 2012 is not yet available, and it's too soon to guess whether the birth decline will change, said the CDC's Stephanie Ventura, one of the study's authors.

Some highlights:

- The birth rate for single women fell for the third straight year, dropping by 3 percent from 2010 to 2011. The birth rate for married women rose 1 percent. In most cases, married women are older and more financially secure.
- The birth rate for Hispanic women dropped 6 percent. But it declined only 2 percent for black women, stayed the same for whites and rose a bit for Asian-American and Pacific Islanders.
- Birth rates fell again for women in their early 20s, down 5 percent from 2010 — the lowest mark for women in that age group since 1940, when comprehensive national birth records were first compiled.
- Birth rates held steady for women in their early 30s and rose for moms ages 35 and older. Experts

say that's not surprising: Older women generally have better jobs or financial security and are more sensitive to the ticking away of their biological clocks.

- Birth rates for teen moms have been falling since 1991 and hit another historic low. The number of teen births last year — about 330,000 — was the fewest in one year since 1946.
- "The continued decline in the teen birth rates is astounding," said John Santelli, a Columbia University professor of population and family health. Teenagers watch the struggles and decisions that older sisters and older girlfriends are making, and what they see influences their thinking about sex and birth control, Santelli said. Studies show that since 2007, larger percentages of sexually active teenage girls are using the pill and other effective birth control.

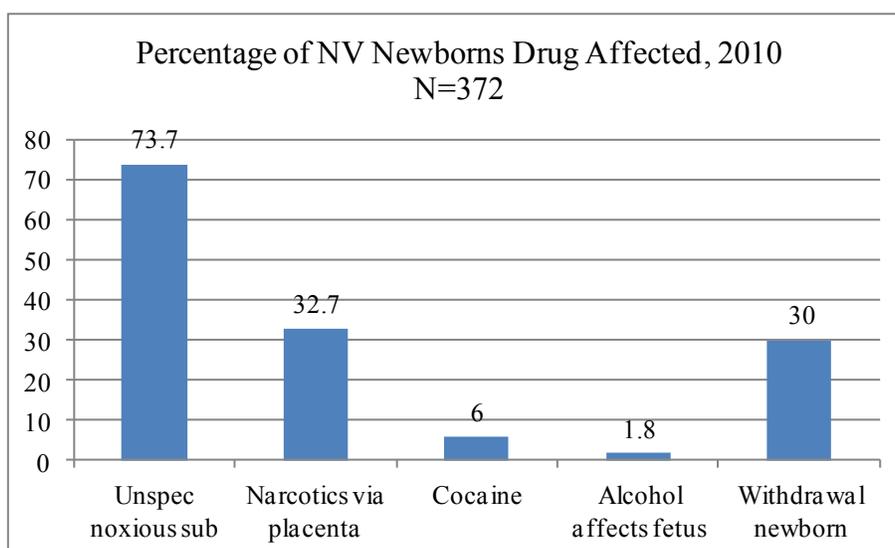
### Drug Addicted Infants in Nevada

#### Drug and Alcohol Affected Infants in Nevada, 2010

Data from the Nevada Office of Vital Statistics indicates that in 2010, there were 388 children less than one year of age\* diagnosed with one of the following conditions: ICD-9 Codes were used to identify infants born in Nevada hospitals with the following conditions:

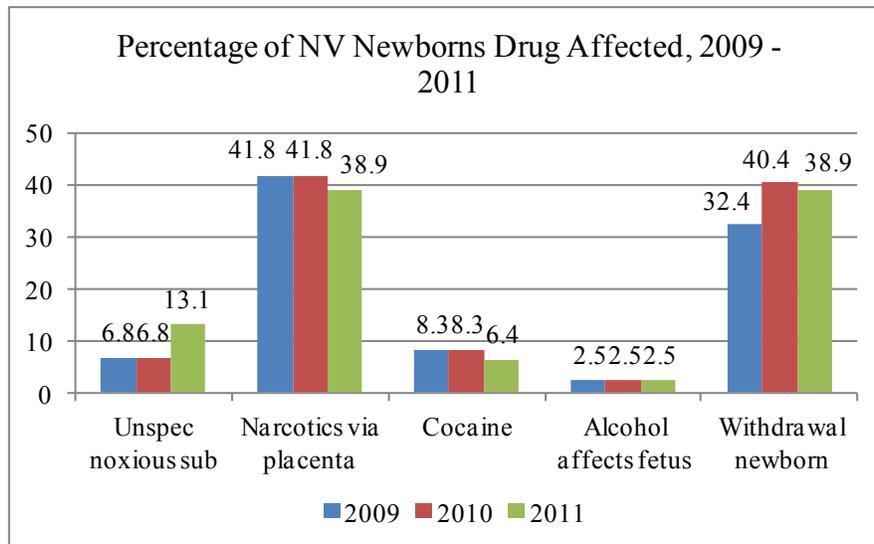
- 760.7 Unspecified noxious substance affecting fetus/newborn via placenta or breast milk
- 760.71 Alcohol affecting fetus/newborn via placenta or breast milk
- 760.72 Narcotics affecting fetus/newborn via placenta or breast milk
- 760.75 Cocaine affecting fetus/newborn via placenta or breast milk
- 779.4 Drug reactions and intoxications specific to newborn
- 779.5 Drug withdrawal syndrome in newborn

\* 372 were newborns at the facility of record, 16 were admitted elsewhere.



† These totals are for each condition and will not sum to 388. The total for 760.7 includes all those diagnosed with more specific conditions, such as 760.71. Also, some newborns had multiple conditions diagnosed.

Drug Affected Infants by Substances in Nevada, 2009—2011

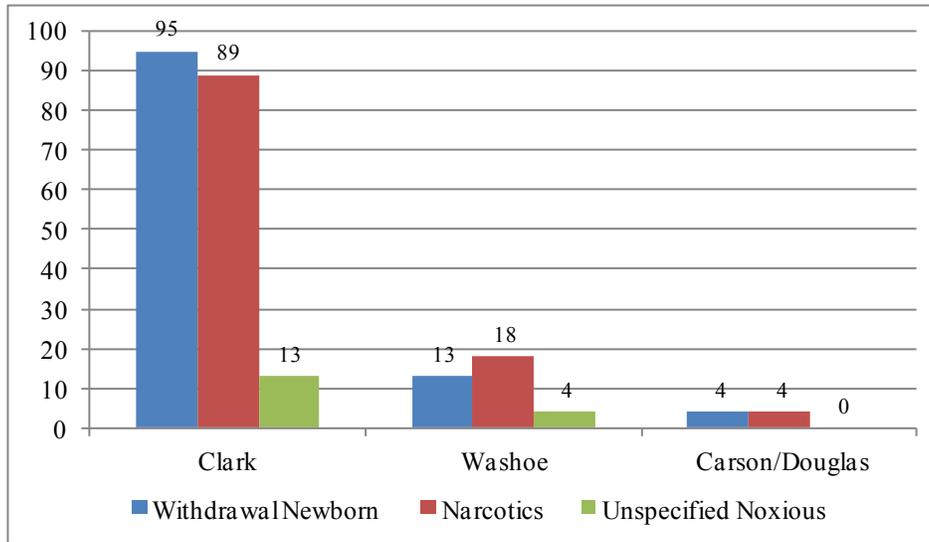


The chart above shows the percentage of drug affected infants born at Nevada hospitals with different substances in their systems. This data is from the Nevada Office of Vital Statistics.

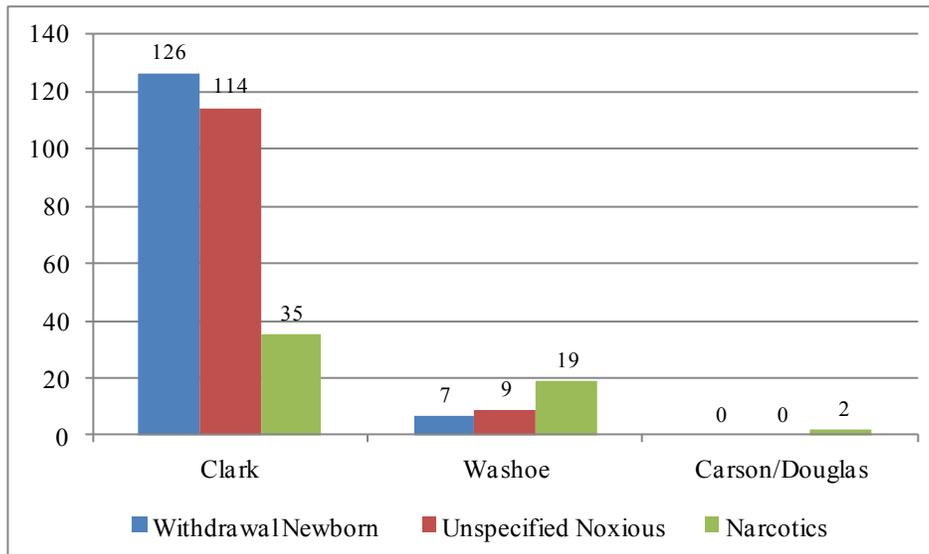
Infants who are born drug addicted require special medical care at birth and are often hospitalized for weeks or months. Below are some rough estimates from Nevada Vital Statistics regarding the costs related to caring for drug addicted infants born in 2010.

Minimum	\$1,034
Maximum	\$883,631
Mean	\$60,553.97
Standard Deviation	\$111,889

Drug Affected Infants by Region in Nevada, 2010



Drug Affected Infants by Region in Nevada, 2011



The two charts show data on drug affected infants in Nevada from the three most populous regions of the state.

## A baby is born addicted to drugs about once an hour, study says

[April 30, 2012](#) | By Karen Kaplan, Los Angeles Times/For the Booster Shots blog

Here's some depressing news to kick off your week: The proportion of pregnant women who are addicted to opiates increased nearly fivefold between 2000 and 2009. Accordingly, the proportion of babies born addicted to the drugs who experience withdrawal after birth nearly tripled during the same period.

These calculations come courtesy of researchers from the University of Michigan and the University of Pittsburgh, who reported their findings in [a study published online Monday](#) by the Journal of the American Medical Assn. After combing through hospital data compiled by the federal Agency for Healthcare Research and Quality, the team found that 3.39 out of every 1,000 babies born in an American hospital in 2009 had neonatal abstinence syndrome, up from 1.2 out of every 1,000 hospital births in 2000. That translates to 13,539 newborns in 2009 – or roughly one born per hour that year.

[Neonatal abstinence syndrome](#), or NAS, affects babies who become addicted to drugs in utero -- especially opiates -- and go through withdrawal once they are living outside the womb. Symptoms include seizures and tremors, respiratory distress, vomiting and an inability to eat without becoming sick.

Treatments haven't improved much in the past decade, and some babies require morphine or methadone to get over their addictions. The typical baby born with NAS winds up staying in the hospital for about 16 days before he or she can be discharged, according to the JAMA report.

The immediate cause for this spike in babies with NAS is an even larger spike in pregnant women addicted to prescription painkillers, heroin and other opiates. According to the federal data, 5.63 out of every 1,000 mothers who gave birth in a hospital in 2009 were addicted to opiates, up from 1.20 per 1,000 in 2000, the study found. [Experts estimate](#) that 60% to 80% of babies exposed to heroin or methadone in utero wind up addicted themselves.

The average cost of caring for a baby with NAS has risen from \$39,400 in 2000 to \$53,400 in 2009 – an increase of 35%, despite the fact that the amount of time affected infants remained in the hospital didn't change over the decade. Adjusting for inflation, the total money spent to care for babies with neonatal abstinence syndrome jumped from \$190 million to \$720 million over that period. The share of the total tab picked up by Medicaid rose from 69% in 2000 to 78% in 2009, according to the JAMA study.

### 4 P's Plus

#### Executive Summary

Dr. Ira Chasnoff and his colleagues at the Children's Research Triangle at the University of Chicago developed a screening instrument called the 4 P's Plus to identify at risk pregnant women who are using alcohol, tobacco or drugs during pregnancy. The screening instrument has been used in different populations around the U.S. The 4 P's Plus has been used in several Northern Nevada clinics since 2010 and as of January 2012, 13,108 screens have been done.

The 4 P's are:

#### Parents

- Did either of your parents ever have a problem with alcohol or drugs?

#### Partner

- Does your partner have a problem with alcohol or drugs?

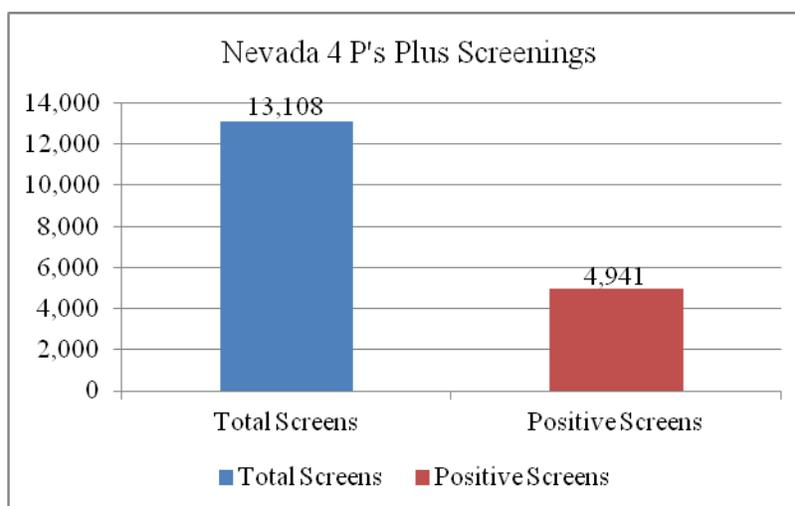
#### Past

- Have you ever drunk beer, wine, or liquor?

#### Pregnancy

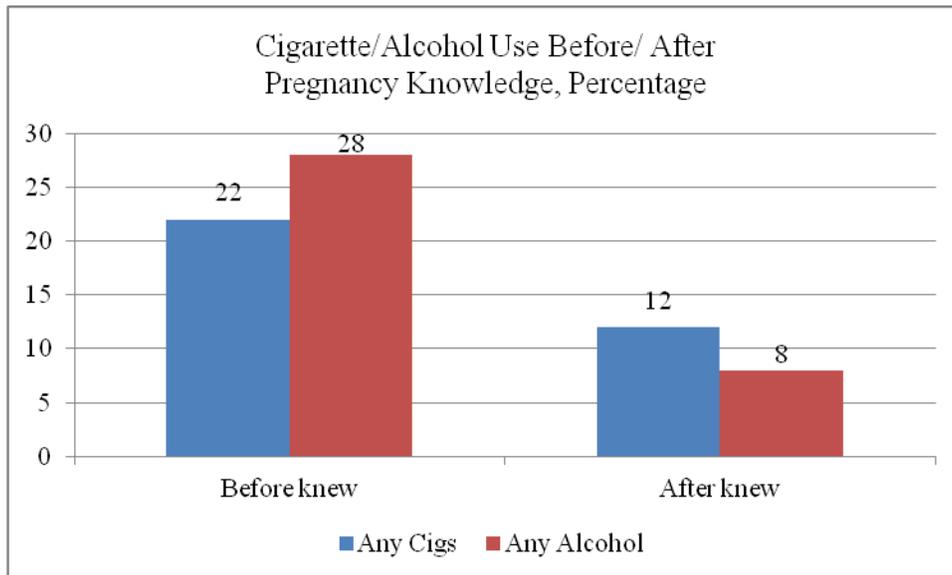
- In the month before you knew you were pregnant, how many cigarettes did you smoke?
- In the month before you knew you were pregnant, how many beers/how much wine/how much liquor did you drink?
- In the month before you knew you were pregnant, how much marijuana did you smoke?

Women who answer one of the Pregnancy and substance use questions positively are given an immediate assessment for substance abuse. The assessment is conducted in the primary prenatal care setting immediately following screening. Based on the assessment at the first prenatal visit, any woman who had evidence of any alcohol or illicit substance use during pregnancy, including the month prior to knowledge of pregnancy, was defined as a substance user. All women with a positive assessment were provided a brief intervention and education regarding substance use and its impact on pregnancy and child outcome and, if appropriate, were offered a referral to a perinatal treatment program in the community. (Perinatal Substance Use Screening in California, Chasnoff, IJ, et. al. 2008)

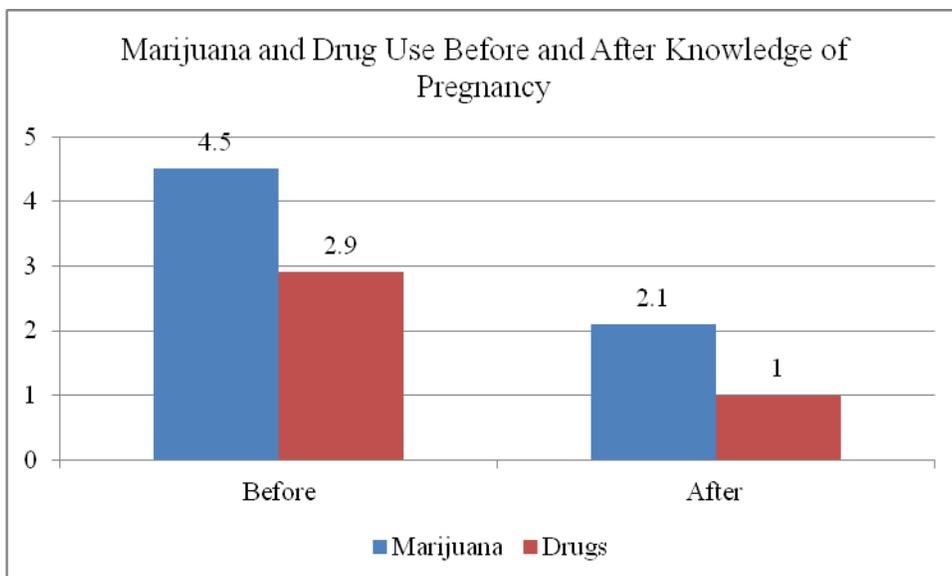


Substance Use in the Month Before Aware of Pregnancy, 4 Ps Plus

Women were asked about their use of cigarettes, alcohol and drugs before they knew they were pregnant and after they found out about their pregnancy.



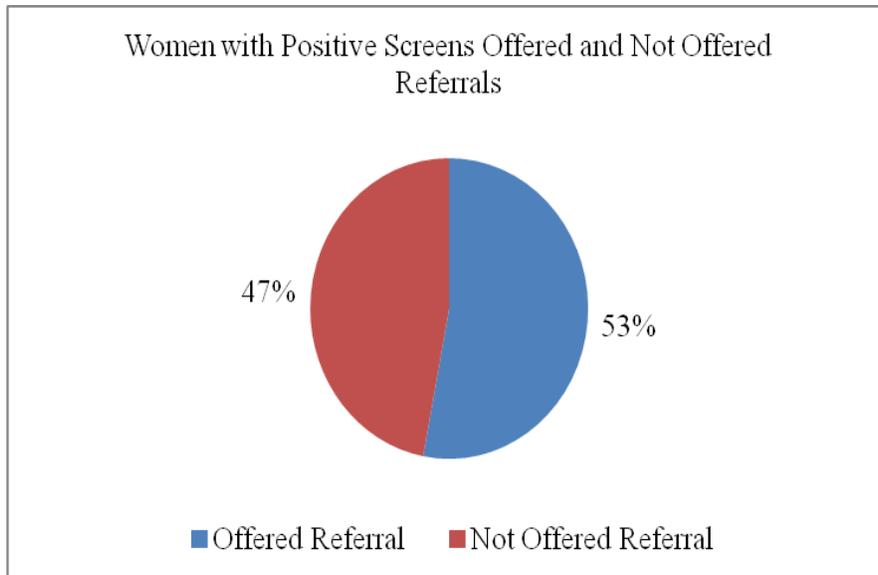
The chart shows that 10% of women who smoked before they knew of their pregnancy quit smoking when they found out they were pregnant. Twenty percent of the women who drank alcohol before knowing quit drinking when they found out they were pregnant.



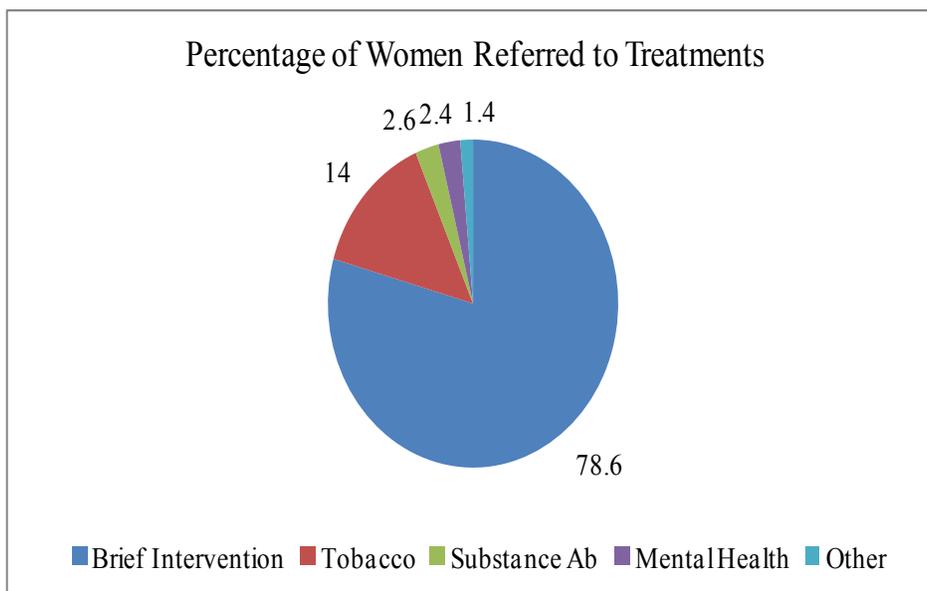
More than half of the women who were using marijuana or other drugs before learning of their pregnancy quit after finding that they were pregnant. (4 Ps Plus)

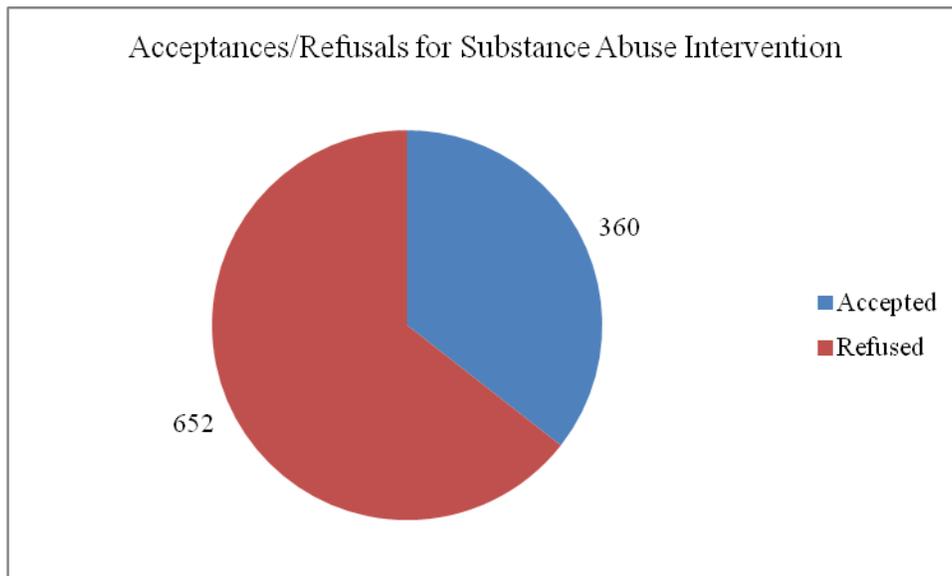
Referral Groups

Of the total 13,108 women in Nevada who were screened using the 4Ps plus, 4,941 (38%) were positive for alcohol, drug or tobacco use at their initial pre natal visit. Of the positive women, 2,636 (53%) were offered referrals to interventions and 91% (2,411) of the women who were offered referrals accepted. Forty-seven percent (2,305) of the women who had a positive screen were not offered any intervention.

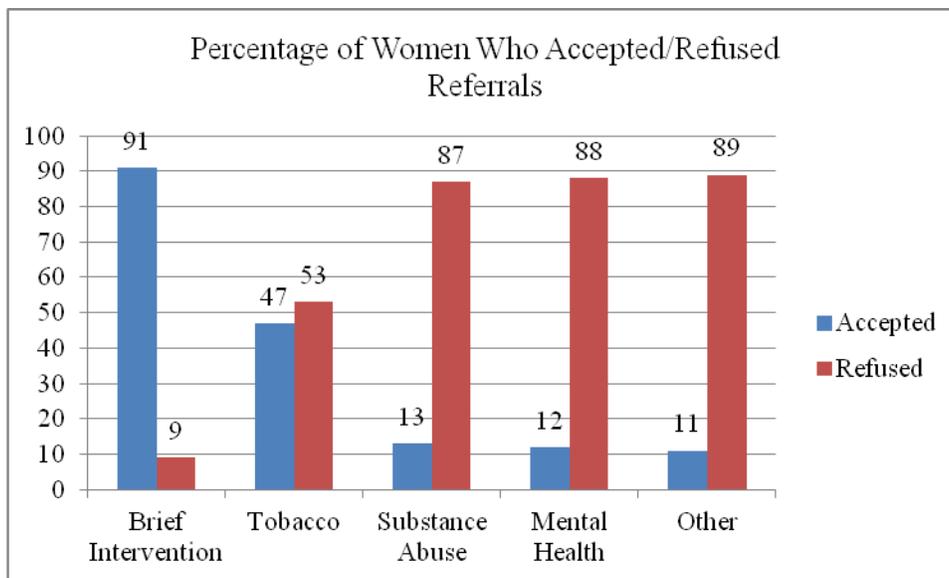


Fifty-three percent of the women who had positive screens were offered referrals. In cases in which referrals were not offered, the forms were not filled in completely, meaning that a referral may have been made and completed but not documented.



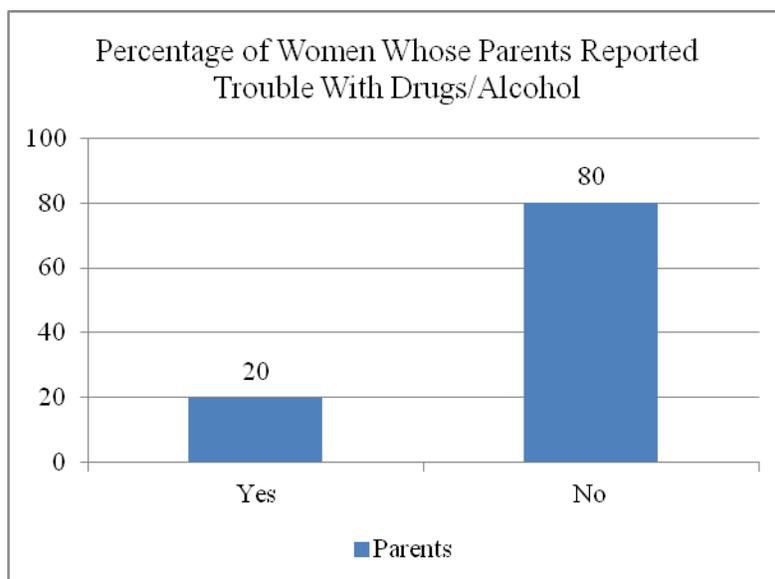


Women who were offered referrals to tobacco cessation, substance abuse treatment, mental health treatment, or referred for other treatment refused 64% of the time.



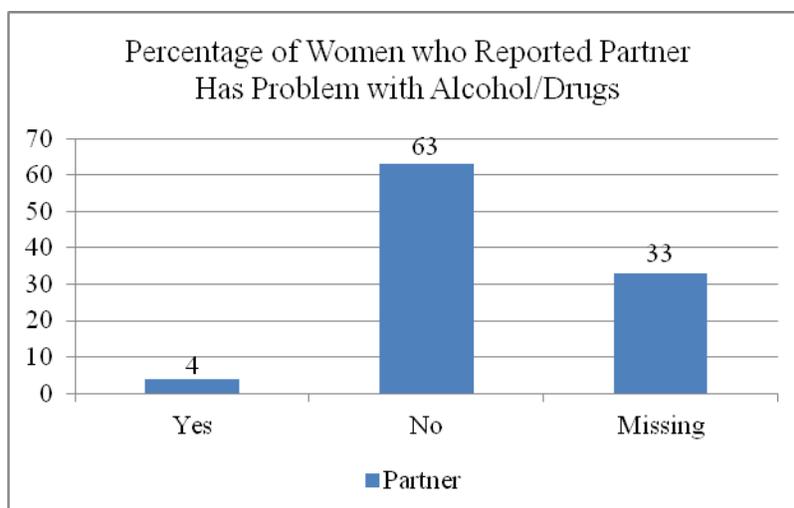
Ninety-one percent of the women who were offered referrals to the brief intervention accepted. But the majority of women (64%) who were referred to substance abuse or mental health treatment refused. This suggests that women needing treatment for substance abuse are more resistant to changing their behaviors than women who agree to a brief intervention to remind them that using substances during pregnancy is dangerous to their child.

Parents



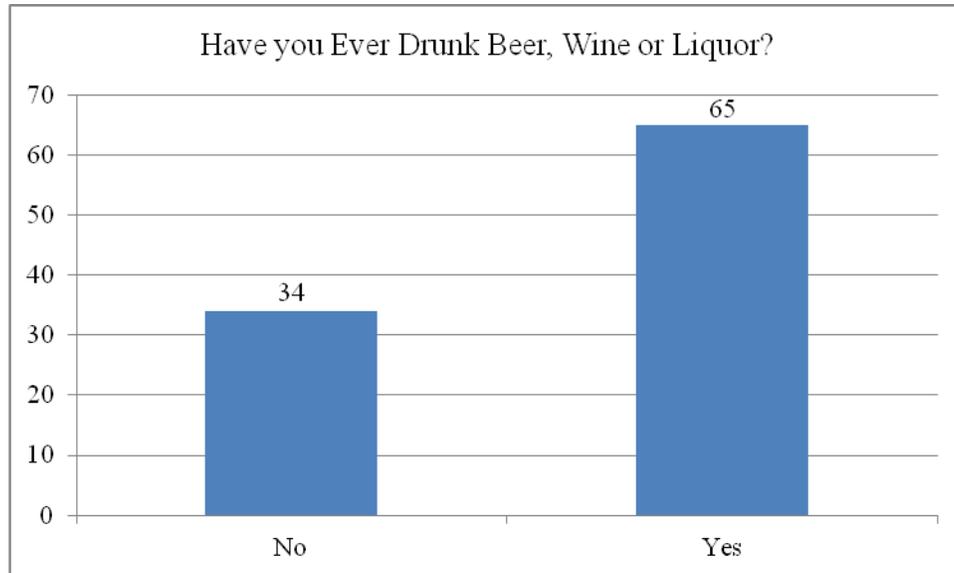
The majority (80%) of women screened reported that their parents had not had problems with drugs or alcohol. Only 33% of those women had a positive screen while 59% of those whose parents had had problems with alcohol or drugs had a positive screen. Growing up with parents who had problems with alcohol or drugs is a significant risk factor for developing those same problems.

Partner

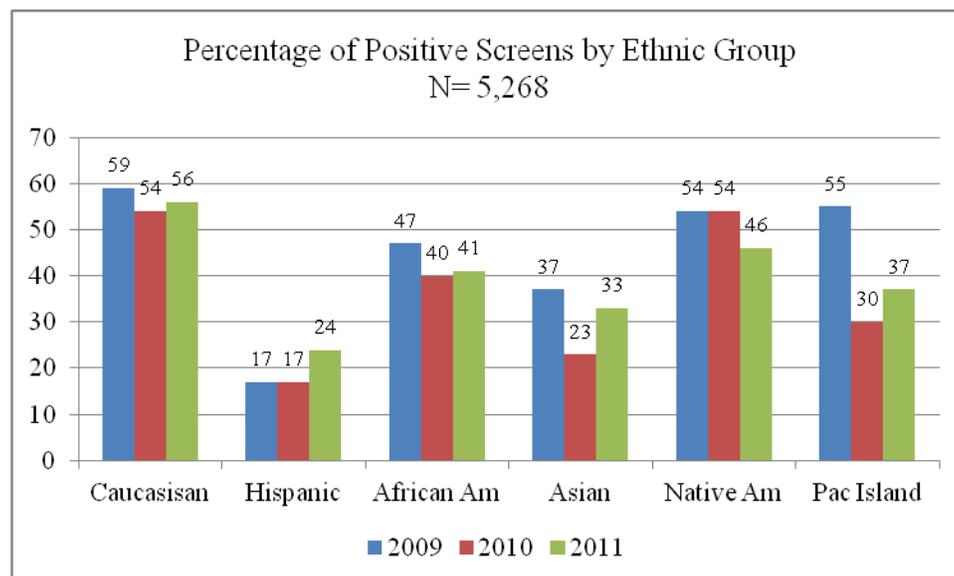


Only 4% of women screened reported having a partner who has problems with drugs or alcohol. Women whose partner had a drug or alcohol problem were more likely to have a positive screen (63%) compared to those whose partner did not have a drug or alcohol problem. This question is no longer asked for the Nevada survey.

Have you ever drunk beer, wine or liquor?

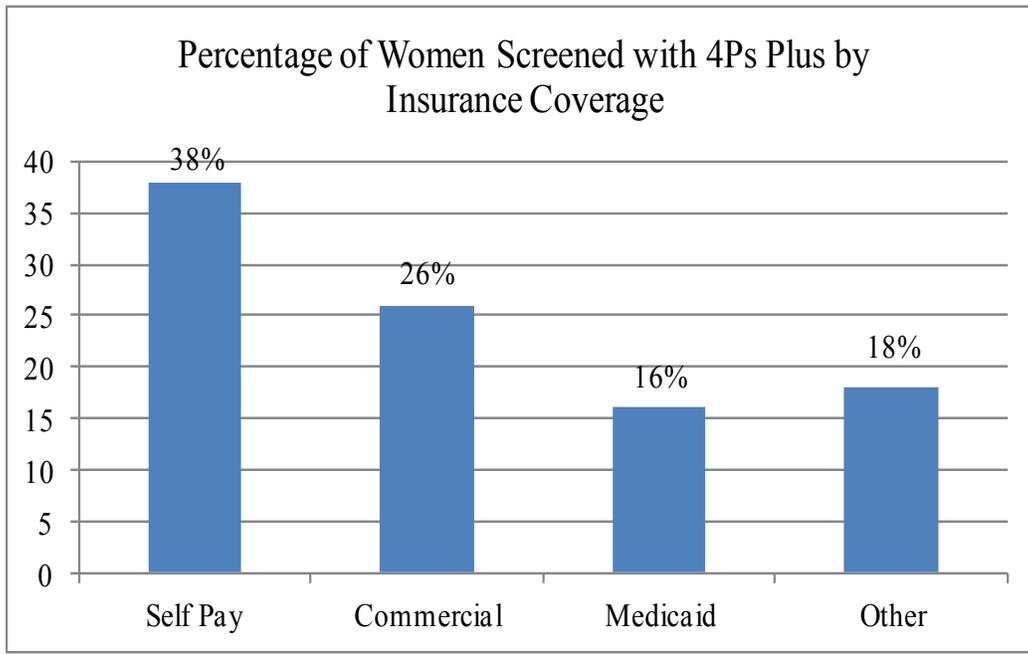


The Past P asks women if they have ever drunk beer, wine or liquor. Sixty-five percent of the Nevada women surveyed had consumed alcoholic beverages.



Caucasian women were most likely to have a positive screen, followed by Native American women, African American women, Pacific Islander women, and Asian women. Hispanic women were least likely to have a positive screen.

Health Insurance for 4Ps Plus Women



The majority of Nevada women who screened positive using the 4Ps Plus instrument were able to pay for their pre-natal treatment or had commercial insurance. Unlike the women in treatment for substance abuse, 84% of whom had no insurance or were on Medicaid.

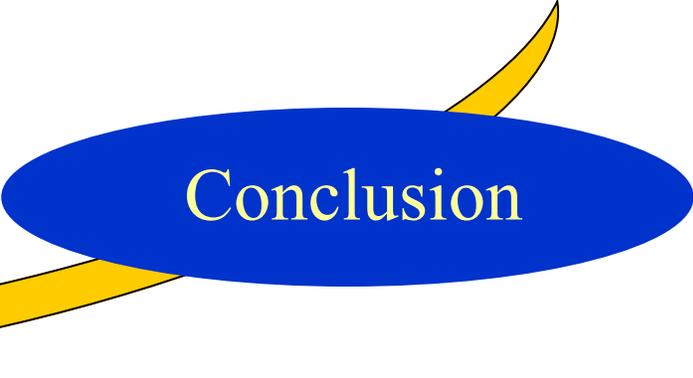
# Pregnant Women and Substance Abuse in Nevada 2012

## Data Limitations

A major limitation when considering pregnant women who abuse substances is the lack of data on this group of women who are not in treatment. What percentage of pregnant women abuse substances? There is very limited data on that group so they remain undefined and unknown.

An article published in the May 9, 2012, issue of the Journal of the American Medical Association examined the prevalence of neonatal abstinence syndrome (NAS) related to misuse of opiates in pregnant women between 2000 and 2009. The results of the study showed that there was a significant increase (between 2000 and 2009) from 1.2/1,000 births to 3.39/1,000 births in which the infants had neonatal abstinence syndrome. In 2009, newborns with NAS were more likely than all other hospital births to have low birth weight (19%), respiratory complications (31%) and be covered by Medicaid (78%). (Patrick, SW, Schumacher RE, Benneyworth BD, Krans, EE, McAllister JM and Davis MM. Neonatal abstinence syndrome and associated health care expenditures: US, 2000 to 2009.)

# Pregnant Women and Substance Abuse in Nevada 2012



## Conclusion

This needs assessment has described characteristics of pregnant women in Nevada who abuse substances and are in SAPTA-funded treatment. A greater percentage of women in this group have never been married, are not employed, are referred to treatment by the court system, are younger by 5 years and are methamphetamine (meth) users compared to their non-pregnant counterparts who are in treatment.

Information regarding services provided by Step 2, Inc., a treatment facility funded by SAPTA specifically to treat pregnant substance abusers, was gathered in a discussion with Diaz Dixon, Director of Step 2, Inc., Reno, on December 6, 2012. According to Mr. Dixon, for many reasons, these women are not dissuaded from continued substance abuse by their pregnancies. As with others who abuse drugs and alcohol, mental health is commonly a co-occurring disorder. They continue to use despite their pregnancies in order to be able to cope with their anxiety, depression, or other mental health issues.

Education about the pregnancy process and how continued substance use may affect their babies is often lacking in this group of women. Step 2, Inc. works with the Renown Pregnancy Center to provide education and pre natal care to pregnant women in treatment.

Pregnant women who are abusing substances may not seek treatment for fear of the legal repercussions that may be involved. They may fear that their baby could be taken from them by Child Protective Services or their other children may also be taken from them. Step 2 Inc. works with Nevada Legal Services to provide legal advice and counseling to pregnant women in treatment.

There is a great deal of variation in the types of drugs used by pregnant women throughout Nevada. Meth is the drug used most commonly by pregnant women in treatment statewide, but is used by a much higher percentage of the pregnant women in treatment in Washoe County. Alcohol is also used at a higher percentage by pregnant women in treatment in Washoe County than the other regions of the state. In the rural counties, alcohol and prescription drugs are used most commonly after meth. In Clark County, marijuana and prescription drugs are used most commonly after meth.

There is much variation in the types of drugs used by pregnant women in treatment in Nevada. This information is useful to coalitions and prevention programs at the community level in planning services designed for pregnant women.

# Pregnant Women and Substance Abuse in Nevada 2012



Appendices