


Sonoma County Methamphetamine Profile

Report to the Board of Supervisors

July 2006

SONOMA COUNTY METHAMPHETAMINE PROFILE

Executive Summary

Methamphetamine has become a common drug of abuse in many regions of the United States. Once a primarily working class drug, methamphetamine users today cross all boundaries of race, socioeconomic status, sexual orientation, gender, age, and locality. The public impacts of methamphetamine addiction include increased levels of crime and violence, child endangerment, environmental degradation, and serious negative health outcomes. The use, abuse, distribution, and consequences of methamphetamine are taking a significant toll on public resources across a wide spectrum of service systems in Sonoma County including health care, criminal justice, alcohol and other drug (AOD) treatment, social services, mental health, and prevention.

This report provides background on methamphetamine addiction and current information on the production, distribution and sale of methamphetamine in Sonoma County. It highlights the scope and impacts of methamphetamine use on the community, with specific emphasis on how methamphetamine is affecting County service systems and resources. Last, the report overviews the County's current prevention and treatment systems and discusses their use of "best practices" (i.e. documented through research to be effective) in the delivery of both prevention and treatment programs. Information in the report is organized around the following key findings:

- Methamphetamine is a highly addictive and dangerous drug.
- Methamphetamine use rates in Sonoma County exceed national rates.
- Patterns of methamphetamine use differ from other illicit drugs in some significant ways.
- Methamphetamine is readily available in Sonoma County. Most methamphetamine is imported from Mexico.
- The impact of methamphetamine use on County services and resources is significant.
- Treatment works. Sonoma County lacks sufficient treatment resources.
- Methamphetamine prevention must be comprehensive and community-wide. Prevention must include strategies to address both demand and availability.
- Better information on the local prevalence, impacts and costs of methamphetamine use is critical to future program planning.

Methamphetamine is a highly addictive and dangerous drug.

Methamphetamine, a derivative of amphetamine, is a powerfully addictive stimulant that is twice as toxic as other amphetamines and has longer lasting effects. Widely used as a recreational drug, methamphetamine has several forms that can be smoked, snorted, injected, or ingested. Methamphetamine produces a high that can last from 6 to 8 hours, followed by a state of high agitation that, in some individuals, can lead to violent behavior. Users experience highly desirable and self-reinforcing neurological and physical effects that often lead to bingeing for several days at a time. Addiction occurs quickly and can result in increasingly heavy use with devastating effects on both physical and mental health.

“Using methamphetamine is not like drinking alcohol or using marijuana. The grip is so quick. Meth addiction is very similar to nicotine addiction. A person can do long periods of habitual and social marijuana and alcohol. For methamphetamine and cigarettes, the addiction is more rapid.”

* * * *

“The rise and fall is much more dramatic with methamphetamine. The bottom is similar to other AOD bottoms, but the fall is faster.”

Focus group of Sonoma County AOD service providers

Classified as a psycho-stimulant, as are cocaine and other amphetamines, methamphetamine differs from other drugs in a few important ways: methamphetamine is man-made, rather than plant-derived, and contains toxic chemical components. In contrast to cocaine, which is quickly removed and almost completely metabolized in the body, methamphetamine has a longer duration of action with a larger percentage of the drug remaining unchanged in the body. It takes 12 hours for the body to eliminate 50% of methamphetamine in contrast to one hour for cocaine. Because methamphetamine remains in the brain longer, stimulant and toxic effects are prolonged. Methamphetamine has a high addiction potential – estimated by the National Institute on Drug Abuse at 47% at first use and rising to 60% with a second use.

Compared with some other illicit drugs, methamphetamine is relatively inexpensive. The value of methamphetamine varies according to its purity, the region in which it is sold, the source of the drug (whether it was made locally or imported), and its availability. In Sonoma County, a bag (or gram)¹ of methamphetamine costs about \$40-\$50, in contrast to \$60-\$120 for an equivalent amount of cocaine. One gram produces a two-hour “high” while day-long use may require 5-7 grams.

Methamphetamine is easily made with ingredients found in over-the-counter cold remedies (pseudoephedrine) along with other chemicals commonly found at the hardware store, including iodine, ammonia, paint thinner, and lithium from batteries. A clandestine lab can be set up in a kitchen, bathroom, or garage and detailed instructions on how to manufacture the drug – a relatively simple, but toxic and dangerous process – can be found on the Internet. A modest investment of about \$150 can yield up to \$10,000 worth of methamphetamine. Crystal methamphetamine (also called “ice,” or “glass,”), a form of methamphetamine that is becoming popular in Sonoma County, comes in clear, chunky crystals that are smoked. Users claim that it provides a more rapid “high” than the powdered form.

As a “cheap high,” methamphetamine gives the user – in the initial stages of use – energy to keep working, especially at manual jobs or work that requires long periods of wakefulness, such as truck-driving or shift-work. It is an appetite suppressant. Along with a

long euphoric high, users may become anxious, paranoid, and violent. Methamphetamine addiction requires more and larger doses as it progresses. Long-term methamphetamine abuse can result in dependence and methamphetamine psychosis. Health consequences associated with methamphetamine use include weight loss, tooth decay, cardiovascular problems, stroke, convulsions and prenatal complications. Chronic methamphetamine abuse can result in episodes of violent behavior, anxiety, paranoia, short-term memory loss, depression and brain damage. When use is stopped, abusers experience depression, anxiety, fatigue, paranoia, aggression, and an intense craving for the drug.

Methamphetamine use in Sonoma County exceeds national rates.

There is considerable controversy about the degree to which methamphetamine can be characterized as a “national epidemic”. While methamphetamine is taking a significant toll on public health and public resources in many communities, its use remains largely regional, reflecting the unique characteristics of local drug markets. In Sonoma County, based on treatment admission data, the number of users of stimulants significantly increased during the 1990’s, but has changed little since 2000. Incidence of methamphetamine use rose between 1992 and 1998 both statewide and locally. Since then, there have been no statistically significant changes.

The 2004 National Survey on Drug Use and Health (NSDUH) reported that 1.4 million Americans aged 12 or older (representing 0.6% of the population) had used methamphetamine in the past year, and 600,000 (representing 0.2% of the population) had used it in the past month.² (By comparison, 1.0% of this sample reported cocaine use within the past month). The rate of methamphetamine use in California is twice as high: 1.2% of Californians in the NSDUH survey reported using methamphetamine in the past 12 months, and 0.6% reported methamphetamine use in the past month. Extrapolating from the California rates, over 4,800 Sonoma County residents aged 12 or older are likely to have used methamphetamine in the past year, and about 2,400 residents³ are likely to have used methamphetamine in the last 30 days.

NSDUH survey data from 2004 also show that overall past 30-day use of methamphetamine by males and females 12 and older is fairly similar (0.3% and 0.2%, respectively). Past 30-day use is highest among 18-25 year olds (0.6%), followed by 26-34 year olds (0.4%), youth aged 12-17 (0.2%), and those 35 and older (0.1%). The study does not provide state-level demographic breakdowns. Thus, extrapolating from national rates to the county level is not feasible, given the significantly higher rates of methamphetamine use in California that were documented by the NSDUH survey.

Despite the lack of methamphetamine specific information for the general population, prevalence data is available for some groups.

Alcohol and other drug (AOD) treatment population. The Sonoma County rate of primary methamphetamine treatment admissions in 2003 (548/100,000 population aged 12 or older)⁴ was 2½ times higher than the California rate (212/100,000) and over nine times higher than the national rate (56/100,000).⁵ Sonoma County treatment data for

There is not a generalization that fits for a “methamphetamine user.” There is the businessman who uses on the weekend at one end of the spectrum and a homeless person with no teeth, nervous tics and personality changes at the other end. Each stage in the cycle of use has specific characteristics.

Focus group of Sonoma County HIV service providers

FY04-05 indicate that methamphetamine was identified as the primary drug of choice among 368 (66%) of Substance Abuse Crime Prevention Program (SACPA) clients, 313 (61%) of Treatment Accountability for a Safe Community Program (TASC) clients and 65 (71%) of Sonoma County Drug Court clients. Among the homeless population in AOD treatment in FY04-05, 34% or 686 individuals reported methamphetamine use. It should be noted that 80% of AOD treatment system admissions are criminal justice referrals. For this reason, this data cannot be used as an indicator of methamphetamine use in the general population.

High school students. Data from high school surveys are believed to under-represent substance use among the general youth population because they do not capture behaviors of youth that have dropped out of school. While methamphetamine is used much less frequently than alcohol or marijuana, 4% of Sonoma County 9th graders and 6% of 11th graders report having used methamphetamine one or more times,⁶ compared to state rates of 3% for 9th graders and 8% for 11th graders. Past 30-day use, which is considered a proxy for current use, is about twice as high among Sonoma County students (2% each for 9th and 11th graders) as it is nationally, but lower than statewide rates (3% of 9th graders and 5% of 11th graders).⁷ By comparison, 31% of Sonoma County 9th graders and 48% of 11th graders report having at least one full drink in the last 30 days, and 16% of 9th graders and 28% of 11th graders report using marijuana in the last month.⁸ The 2003 California Healthy Kids Survey found that 37% of students in “non-traditional” high schools (i.e. court and continuation schools) reported having used methamphetamine one or more times, and 24% reported using the drug four or more times. Twelve percent of non-traditional high school students reported having used methamphetamine in the past 30 days.

Patterns of methamphetamine use differ from other illicit drugs in some significant ways.

Patterns of methamphetamine use have changed over time. Once used predominantly by white working class males, and men who have sex with men, methamphetamine use now crosses all genders, ages, and socioeconomic strata. Methamphetamine is used for multiple and complex reasons. It is used as a stimulant to boost sexual performance, relieve depression and isolation, and increase energy. Adolescent females use methamphetamine to control their weight. Methamphetamine is used to alleviate emotional and/or psychological pain, heighten physical and mental performance and endurance, and stay awake to work extra shifts or get through school. Some individuals use it as a recreational drug and seem to avoid addiction.

“People use methamphetamine everywhere, any time, on demand ... they use it to keep working. They use it prior to work, to function. It is their cup of coffee.”

Focus group of Sonoma County AOD service providers

Unlike other illicit drugs, methamphetamine is used fairly equally by women and men. A higher percentage of females – who are generally underrepresented in treatment programs – enter treatment for methamphetamine compared with other drugs. In 2004, females accounted for 38% of all methamphetamine-using clients in Sonoma County public AOD treatment programs. Methamphetamine-abusing female teens accounted for over half (54%) of youth under the age of 18 in Sonoma County AOD treatment programs. Treatment data also indicate that methamphetamine use for both genders tends to start later in life (most commonly between 18 and 25 years) as compared with alcohol and other drug use, which often starts in the early teen years.

The racial/ethnic composition of the Sonoma County treatment population is also changing. The percentage of white clients in treatment with a primary methamphetamine addiction declined from 80.4% in 2000 to 74.1% in 2004, while the percentage of Latino methamphetamine addicts rose from 11.9% in 2000 to 19.1% in 2004. This increase is likely attributable to increased availability of culturally appropriate treatment resources.

**Methamphetamine is readily available in Sonoma County.
Most methamphetamine is imported from Mexico.**

According to local law enforcement sources, the production and distribution of methamphetamine in Sonoma County increased with the arrival of Mexican organized crime families in the early to mid-1990s. At that time, the easy availability of precursor chemicals made it feasible to manufacture methamphetamine locally. As local production increased, the price of methamphetamine dropped to about \$4,000 a pound – today, by comparison, a pound of powdered methamphetamine costs about \$7,000. In 1997, the organizations responded to the flooded market by cutting back on availability – although methamphetamine could still be purchased in quantity and Sonoma County remained an active distribution center. By the late 1990's, local production was curtailed and most methamphetamine was imported from Mexico.

Today, most of the drug available in Sonoma County is produced in Mexican “super labs” and brought across the border to Los Angeles, through San Jose or Fresno, to Santa Rosa.

Santa Rosa is a distribution “hub” for Northern California, particularly Lake and Mendocino counties. Distribution occurs through a network of established families and cartels, primarily Latino. Poly-drug distribution systems (i.e. dealers selling methamphetamine, cocaine, and heroin) are on the rise. In the past several months, undercover agents with the Sonoma County Narcotics Task Force have purchased large quantities of crystal methamphetamine, currently selling for \$8,000-\$9,000 a pound.

Local labs are producing only one to two ounces of methamphetamine at a time and currently represent only a minor fraction of the local supply. Since 2003, the Sheriff's Department has raided 14 methamphetamine labs – about 4-5 annually. These seizures occur primarily in rural parts of the county where it is easier to conceal small drug labs operating out of homes. New federal restrictions have further reduced the local availability of precursor chemicals.

Key Federal Legislation

1996 Comprehensive Methamphetamine Control Act

Broadened restrictions on listed chemicals used in meth production, increased penalties for trafficking, and expanded controls of products containing ephedrine and pseudoephedrine.

2000 Methamphetamine Anti-Proliferation Act

Strengthens sentencing guidelines, provides training, further controls distribution of chemicals used in meth production, expands prevention efforts.

2006 Patriot Act Renewal

In part, requires retailers to keep many cold medicines containing pseudoephedrine behind the counter and consumers to show ID and sign a log.

The impact of methamphetamine use on County services and resources is significant.

Hospitalization - Hospitalization where methamphetamine is the principal cause of admission is rare. From 2000-2004, there were 22 such hospital admissions in Sonoma County hospitals (about 5 annually) for a total cost of approximately \$175,000 (excluding

physician costs). Sixty percent of these cases were covered by Medi-Cal or other public payors. Methamphetamine is more commonly reported as a “secondary” or “other” diagnosis. Cases within this category more than doubled from 244 in 2000 to 522 in 2004. In 2004, methamphetamine reported as a principal (n=4) or other diagnosis (n=522) accounted for 25% of all drug related hospitalizations (excluding alcohol).

Emergency room use - During the first six months of 2005, methamphetamine was reported as a principal diagnosis in 52 Sonoma County hospital emergency room visits and as an “other” diagnosis in 265 visits.⁹ According to national data collected by the Drug Abuse Warning Network, the most common reasons for methamphetamine-related ER visits are overdose (28%), unexpected reaction (23%), wanting to detoxify (22%), and chronic effects (22%).¹⁰

Mortality – From 2001-2005, 85 methamphetamine-related deaths (methamphetamine listed as a primary cause or secondary factor) occurred in Sonoma County – about 17 per year.¹¹ The majority was white (78%), followed by Latino (16.5%), African American and American Indian (2.4% each), and Asian/Pacific Islander (1.2%). Nearly 60% of methamphetamine-related deaths occurred among those 30-39 (24.7%) and 40-49 (34.1%). Young adults 20-29 accounted for 15.3% of deaths and older adults 50-59 made up 17.6%. Six teens (7.1%) died from methamphetamine-related causes.

Criminal Justice - Methamphetamine use is a significant contributor to crime and violence. Methamphetamine-related crimes include: drug-specific crimes such as manufacturing, distributing, or possession of methamphetamine; and crimes where methamphetamine use is associated with theft, assault, and homicide. Sonoma law enforcement officials report a direct correlation between methamphetamine use and property crimes such as mail fraud, burglary, shoplifting, and theft, including identity theft.

“Dangerous drug” arrests¹² - which include methamphetamine – accounted for 24% (1,102) of all adult felony arrests (4,569) made in Sonoma County during 2004. In the past five years, dangerous drug arrests, which have remained fairly level, have accounted for approximately 44% of adult (18+) and up to half of juvenile (<18) non-alcohol drug arrests.¹³ Since 2003, the Sonoma County Sheriff’s Office alone (whose jurisdiction includes the unincorporated parts of the county, along with Windsor and Sonoma) has made 1,624 arrests for methamphetamine possession, 253 arrests for possession for sale, and 41 arrests for sale of methamphetamine.¹⁴

From 2002 to 2004, felony dangerous drug (including methamphetamine) arrests among youth have accounted for 32% to 39% (about 24 annually) of all felony drug bookings at Juvenile Hall.¹⁵

In 2005, adult bookings into Sonoma County jail totaled 19,300. Nearly half (48%) of these were for alcohol and other drug crimes – which does not include other crime categories that are likely influenced by AOD use or abuse. Data on methamphetamine-related crimes and arrests per se are not available, however, a history of methamphetamine use prior to arrest is reported by a significant number of inmates. In April 2006, the jail medical provider conducted a random review of the medical charts of 402 inmates, and found that 60% (240 cases) had self-disclosed using methamphetamine. Methamphetamine-specific detention costs and potential cost-savings are difficult to calculate for a variety of reasons: as noted, accurate data on the number of methamphetamine-users is not captured; jail bed unit costs are not available; and, because most methamphetamine users are poly-drug users, even if their methamphetamine use were discontinued, they would be likely to enter the system for other drug use or related crime.

Probation - The Probation Department currently supervises approximately 2,800 adult offenders. Initially, most adult offenders participate in an intensive drug-testing program. Over time, probationers who demonstrate abstinence are tested less frequently. For January 1 through June 12, 2006, of 4,637 drug tests administered, 766 (16.5%) tested positive for illegal substances or alcohol. Of those, 166 (3.6%) tested positive for methamphetamine.

The Probation Department also supervises 733 minors whose jurisdictional status ranges from informal probation to wards of the Court. Methamphetamine is a problem in this population. In a recent 13-month period, 5.6% (168 out of 3,000) drug tests of juvenile probationers were positive for methamphetamine. At the Department's residential treatment program, Sierra Youth Center, four out of eleven girls currently acknowledge an addiction to methamphetamine.¹⁶

Alcohol and Other Drug (AOD) Treatment - Methamphetamine is the second most common primary drug of abuse – following alcohol – among those admitted for AOD treatment in Sonoma County. Adult treatment admissions for methamphetamine have increased by 85%, from 1,155 in 2000 to 2,132 in 2004, accounting for one-third of treatment clients over 18. About half of adult treatment admissions report methamphetamine use as a primary, secondary, or tertiary drug problem. Criminal justice referrals to treatment for methamphetamine abuse rose in Sonoma County from 62% in 2000 to 79.9% in 2004.¹⁷

"Methamphetamine is the drug that brought them down, the drug that brought them to treatment."

Focus group of Sonoma County AOD providers

While, most of the increase in this period is due to the implementation of Substance Abuse Crime Prevention Act in 2001, referrals for methamphetamine abuse climbed at a slightly higher rate than for other drugs.

The percent of young (<18) methamphetamine users referred to treatment by the justice system is also consistently higher than for youth using other drugs. In 2004, 60.9% of juvenile methamphetamine users were referred to treatment by the juvenile justice system, compared to 37.1% of other drug users. However, youth reporting methamphetamine as their primary drug problem declined from 12% of all youth treatment admissions in 2000 to 10% in 2004.

Annual costs for the public AOD treatment system are approximately \$14 million. Because most individuals in treatment are poly-drug abusers, it is difficult to determine methamphetamine-specific costs, however, based on 35-40% of treatment admissions reporting methamphetamine as the primary drug of choice, annual County-funded methamphetamine treatment costs can be estimated at about \$5 million.

Mental Health –Mental Health staff estimate that 60% of clients using County mental health outpatient programs have substance abuse problems, with a large portion reporting methamphetamine as their primary drug of choice. An estimated 10% of admissions to the Sutter Psychiatric Inpatient Unit are the direct result of a methamphetamine-induced psychosis - over 100 admissions annually. Based on a cost of approximately \$1200 per day and an average stay of 8 days, annual costs for 100 methamphetamine-related inpatient admissions are estimated at \$960,000.

An additional estimated 25% of admissions identify methamphetamine use or abuse as a factor contributing to their need for acute inpatient care. Approximately half of the clients in the County's Forensic Assertive Community Treatment Team program report regular use of

methamphetamine. Anecdotal reports from Sonoma County psychiatrists and other treating staff reflect an increase in the number of otherwise healthy young adults who, secondary to methamphetamine use, develop an intractable psychotic condition characterized by frequent psychiatric inpatient admissions, episodic arrests, alienation from friends and family, and a life of victimization on the streets. In the last year, three female Mental Health clients in their early 20's, fitting this profile, committed suicide.

Child Welfare – Parental and caregiver methamphetamine use has become a significant contributor to child abuse and neglect. Methamphetamine use affects the parent's ability to care appropriately for children and is associated with argumentative, assaultive, and threatening behaviors. Children living around methamphetamine labs or with a methamphetamine using caregiver may be malnourished, neglected, abused or abandoned. Children living at or visiting methamphetamine production sites (e.g., home labs) face multiple health and safety risks from exposure to toxic chemicals used in the manufacturing process. The drug is sometimes stored in baby bottles, milk cartons, or mason jars, making it easily accessible to very young children. Law enforcement officials report cases where children are used to facilitate the movement and sale of methamphetamine.

Children living with substance abuse issues often need services for many years. Anecdotal data suggest that family reunification rates are lower with methamphetamine users than with users of other drugs, and that methamphetamine users seem less interested in making the changes necessary to reunify their families. Foster parents who provide care for these children are challenged daily with physical care needs and the emotional scarring that these children bring with them. For older children, their neglect and abuse often causes behavior problems that are difficult to manage, resulting in multiple placements or placement in group homes.

The State-mandated child welfare data collection system does not currently allow the Sonoma County Human Services Department, Family, Youth and Children's Services to capture data on alcohol and other drug involvement among families in the child welfare system. However, in reviewing cases over a recent 6-month period, child welfare officials estimate about one-half of parents in the system have some significant involvement with methamphetamine. Methamphetamine-specific cost data is not readily available. However, based on a conservative assumption of 32 children (roughly 20% of the annual new custody caseload) who, absent their parents' methamphetamine use, would not otherwise enter the child welfare system, annual child welfare costs can be calculated at approximately \$810,000.

Birth Outcomes - Methamphetamine use during pregnancy may result in prenatal complications, higher rates of premature delivery, and altered neonatal behavioral patterns and may also be linked to congenital deformities.¹⁸ Sonoma County specific data are not available, however a national study found that 5% of women living in areas "known to have methamphetamine problems" used methamphetamine at some point during their pregnancies.¹⁹ Applying this finding to Sonoma County suggests that about 270 (5%) pregnant women who gave birth in 2003 may have used methamphetamine while pregnant. From 2000-2004, methamphetamine was identified as the primary drug of abuse for 247 adult women (18+) and 15 young women (<18) who were pregnant at admission to Sonoma County AOD treatment programs. Methamphetamine-using pregnant women represented 60% of all adult pregnant women and 27% of all pregnant teens in treatment during that five-year period.²⁰

Communicable Disease - Injection needle-sharing and risky sexual behaviors (multiple sexual partners, decreased use of condoms) put some methamphetamine users at high risk

for hepatitis C, HIV and other sexually transmitted disease (STDs). Studies show that methamphetamine use doubles the risk of acquiring STDs, including HIV. Methamphetamine is thought to be one of several factors contributing to an increase in syphilis cases among men having sex with men (MSM). Based on 2005 data, of the 1,055 males living with HIV disease in Sonoma County, 77% were MSM and another 12% were injection drug-using MSM.²¹ Recent data from Sonoma County Counseling and Testing Clinics indicate that nearly 20% of MSM tested for HIV report having used methamphetamine in the past two years.

Environmental Safety - Chemical waste and debris from methamphetamine production can pose a serious environmental threat. Significant levels of contamination may be found throughout residential properties where methamphetamine production has occurred. If the contamination is not remediated the public may be harmed by remaining materials and residues. Depending on the extent of contamination, adjacent buildings may be impacted. The drug can contaminate dwellings and adjacent buildings, get into paint, carpets, heating and air conditioning ducts, furniture, clothes, and other personal belongings.

Cleaning up a laboratory is expensive, dangerous, and time consuming. In 2001, clean-up costs for over 2,000 methamphetamine labs and dumpsites cost Californians nearly \$5.5 million, or an average of \$2,450 per lab.²² The Methamphetamine Contaminated Property Cleanup Act became law in January 2006. Under the law the local Health Officer is responsible for assessing the contamination risk associated with seized methamphetamine labs, monitoring remediation, and notifying the public of health risks. Prior to passage of this law, the State assumed responsibility for methamphetamine lab clean-up and associated costs in Sonoma County. This responsibility will now be by the Department of Health Services. Under the law, clean-up costs are recoverable from the property owner. While there is no local cost history for lab clean-up available, other counties report costs ranging from \$6,000 - \$10,000 per site for clean-up activities.

Treatment works.

Sonoma County lacks sufficient treatment resources.

Evidence-Based Approaches to Drug Addiction Treatment. Numerous national, state and university studies have concluded that AOD treatment works and is cost effective.²³ These studies indicate that up to 60% of persons completing treatment maintain sobriety and are crime free for two years following treatment. These cost benefit studies also show that AOD treatment saves taxpayers between \$7.00 and \$12.00 – in health care, criminal justice and lost productivity costs - for every dollar invested in treatment.

The Substance Abuse and Mental Health Services Administration/Center for Substance Abuse Treatment (SAMHSA/CSAT) routinely evaluates drug treatment approaches and strategies to determine their effectiveness. These approaches are then recommended as “evidence-based”. CSAT documents its findings through a series of publications, the Treatment Improvement Protocol Series (TIPS) and the Technical Assistance Publications (TAPS), both of which create standards for best practices in drug addiction treatment. (See Appendix B: Treatment Protocols).

The National Institute on Drug Abuse (NIDA) has also developed and tested a number of approaches to treat stimulant (i.e. methamphetamine and other drugs in this category) abuse. These studies have shown that drug treatment for methamphetamine abuse is as effective as treatment for other types of drug abuse. The research indicates that

methamphetamine addiction can be effectively treated with the same approaches that are successful with other drugs and that specialized methamphetamine-specific programs are not necessary. However, methamphetamine addicts generally require longer treatment episodes and more intense inpatient treatment, based on cognitive deficits related to methamphetamine damage to the brain and other internal organs. It is important to note that, although a significant number of individuals entering the local treatment system report methamphetamine as their primary drug of abuse, the majority of these clients are polydrug users, so treatment programs must be configured to deal with a variety of substance use issues.

Treatment for drug abuse and addiction is delivered in many different settings,²⁴ using a variety of behavioral and pharmacological approaches, including rehabilitation, counseling, behavioral therapy, medication, case management, and other types of services. Traditional treatment approaches and programs, including outpatient drug-free treatment, and short- and long-term residential treatment programs have evolved to meet the needs and circumstances of changing and more complex client populations. For example, people with co-occurring drug abuse and mental health issues are often treated in specialized facilities. There are also gender specific programs and culturally competent programs for particular populations.

One or more of the following evidence-based approaches are typically combined in a drug treatment programs for stimulant abusers.

Relapse Prevention - is a cognitive-behavioral therapy based on the theory that the learning process plays a critical role in helping individuals learn to identify and correct problem behavior. Relapse prevention encompasses several cognitive-behavioral strategies that facilitate abstinence and provide help for people who experience relapse. Research indicates that the skills individuals learn through relapse prevention therapy are retained after the completion of treatment.

Individualized Drug Counseling - focuses directly on reducing or stopping the addict's illicit drug use and addresses related areas of impaired functioning such as employment status, illegal activity, and family/social relations. Through its emphasis on short-term behavioral goals, individualized drug counseling helps the client develop coping strategies and tools to abstain from drug use and maintain abstinence.

Motivational Enhancement Therapy - employs strategies to evoke rapid and internally motivated change in the client, rather than guiding the client stepwise through the recovery process.

Behavioral Therapy - incorporates the principle that unwanted behavior can be changed by clear demonstration of the desired behavior and consistent reward of incremental steps toward achieving it. Therapeutic activities include fulfilling specific assignments, rehearsing desired behaviors, and recording and reviewing progress, with praise and privileges given for meeting assigned goals.

The Matrix Model - A Combination of Proven Approaches

The 16-week outpatient Matrix Model combines a number of proven treatment approaches by providing a framework to engage stimulant abusers in treatment and help them achieve abstinence. Clients learn about issues critical to addiction and relapse, receive direction and support from a trained therapist, become familiar with self-help programs, and are monitored for drug use by urine testing. Written materials draw heavily on the treatment

approaches discussed above and include relapse prevention, family and group therapies, drug education, and self-help participation.

The Matrix Model has been found to be an effective, if expensive, treatment modality. However, recent research indicates that while Matrix Model clients attended more counseling sessions and gave more clean drug tests during the 16-week program, when compared to clients in more traditional treatment, no difference was found between the two groups 12 months after treatment.²⁵ Two-thirds of participants in both treatment models remained methamphetamine-free.

Combining Criminal Justice Sanctions With Drug Treatment Can Be Effective In Decreasing Drug Use And Related Crime

Research has shown that combining criminal justice sanctions with drug treatment can be effective in decreasing drug use and related crime. Individuals who are legally coerced tend to stay in treatment longer and do as well as or better than non-legally pressured individuals. Drug abusers also often come into contact with the criminal justice system earlier than they do with other health or social systems so that intervention through the criminal justice system may help to both interrupt and shorten a career of drug use.

Local AODS Treatment System

The Department of Health Services/Alcohol and Other Drug Services (AODS) Division operates treatment programs directly and administers 14 contracts with community-based treatment providers. This combination of treatment modalities is intended to create a comprehensive continuum of treatment services. This system has been developed in response to local needs and is aligned with research and scientific evaluation of treatment strategies and approaches to drug addiction treatment. Table 1 provides summary information on the current application of evidence-based practice within the local treatment system. The table below identifies the treatment modalities (i.e. short term residential, perinatal etc.) currently available in the local treatment system and identifies the evidence-based approaches utilized within each modality. Further detail may be found in Appendix A: Sonoma County Treatment System: Evidence-Based Approaches.

Table 1. Sonoma County Treatment System: Use of Evidence-Based Approaches

	Outpatient Drug Free	Short Term Residential <30 days	Mid-Term Residential 90 days	Long Term Residential 90+ days	Adolescents	Perinatal
Relapse Prevention	X	X	X	X	X	X
Individualized Drug Counseling	X	X	X	X	X	X
Motivational Enhancement Therapy	X	X	X	X	X	X
Behavioral Therapy	X	X	X	X	X	X
Matrix Model	X (modified)*			X (modified)*		

*These programs include some, but not all, components of the matrix model

Despite the documented need for public treatment resources, the AOD treatment system in California is woefully under-funded. While local data on methamphetamine-specific unmet treatment needs are not available, a recent assessment indicated that, on any given day, approximately 412 Sonoma County residents may be seeking publicly-funded AOD

treatment that is not available. Treatment for methamphetamine addiction generally requires more long-term residential and intensive outpatient care than is readily available in both local and statewide systems. In an effort to balance very limited resources with high drug-treatment demand, the local system is forced to utilize shorter treatment episodes, potentially reducing the efficacy of treatment for some individuals, to manage the waiting list for services.

Methamphetamine prevention must be comprehensive and community-wide.

Prevention must include strategies to address both demand and availability.

Methamphetamine prevention is a relatively new field. Very few research-based studies have been conducted from which to develop tested strategies, yet numerous sources suggest that methamphetamine use is a problem that requires community-wide solutions. Methamphetamine prevention must include multiple strategies that, where possible, utilize best or promising practices based on research and evaluation findings (evidence-based).²⁶

"The most cost effective and productive way to address the harms of methamphetamine abuse is to prevent people from beginning to use the substance."

The Sentencing Project. *"The Next Big Thing? Methamphetamine in the United States."* June 2006

Prevention Principles

Based on review of current literature, recommendations for the development of effective methamphetamine prevention programs include the following:

- *Avoid Single Strategies.* Methamphetamine abuse is a complicated drug problem with wide ranging impacts that require multiple strategies.
- *Insure Collaboration/Coordination.* Involvement of many sectors of the community is needed for effective methamphetamine prevention. Multidisciplinary, coordinated strategies involving the criminal justice and health sectors are particularly critical. It is also important to involve youth, parents, educators, media, social service, community and faith-based organizations in prevention strategies.
- *Conduct Data Collection/Surveillance.* Target populations and risk factors must be identified so that prevention and education strategies can be designed to address specific needs of local communities. Multi-system data collection and monitoring should be ongoing and used to select priority prevention approaches.
- *Build Integrated Prevention and Treatment Programs.* Targeted prevention education and outreach for high-risk populations should be linked to treatment and should explore pathways to recovery other than through the criminal justice system. An integrated health care continuum should combine comprehensive substance abuse and mental health services, as needed, with sexually transmitted disease treatment for populations at highest risk for methamphetamine-related communicable disease.

Implementation of Evidence-based Strategies

Environmental and Public Policy Approaches. Environmental policy approaches, which are aimed at reducing methamphetamine availability, as opposed to education directed to individuals, have generally proven to have the greatest impact over time on

methamphetamine-related problems. For example, training for property owners and landlords on environmental design and management techniques has been shown to dramatically decrease criminal activity around apartment buildings once dominated by methamphetamine problems.

The Department of Health Services does not currently operate any methamphetamine-specific prevention programs. However, DHS does conduct environmental policy efforts to reduce tobacco use and alcohol-related problems and is currently implementing a 3-year environmental prevention program, funded by the California Department of Alcohol and Drug Programs, to reduce high-risk drinking behaviors among youth and young adults in the south county. Environmental approaches to target methamphetamine can build on this experience.

Law Enforcement. Supply-side strategies to reduce the production, distribution and sale of methamphetamine are important components of the overall prevention continuum. Community-oriented policing measures and targeted enforcement efforts can be effectively combined with other prevention efforts such as community organizing, health education, and media advocacy.

Current County-sponsored law enforcement initiatives to reduce the availability and use of methamphetamine include: community-oriented policing, school resource officers, neighborhood watch groups, and more targeted methamphetamine enforcement efforts, such as the Sheriff's Narcotics Task Force and targeted monitoring of probation clients with methamphetamine history.

Early Intervention with High-Risk Populations. Early intervention and support services are targeted to high-risk populations and sometimes include families or other support networks. Examples of early intervention services include assessment, individual or group education, skill-building, and other types of support to prevent or intervene with drug using behaviors.

The Probation Department administers currently two early intervention programs. The Juvenile Probation Camp Fund provides \$310,000 yearly for community contracts to deliver substance abuse counseling and family support to delinquent offenders. The Juvenile Justice Crime Prevention Act provides \$1.3 million yearly to fund school and gang probation officers and support innovative community programs working with high-risk children and families. During FY 06/07, Probation will initiate two new programs: a 5-day intervention program for high school students suspended from school for substance issues and a 30-day after-school program for minors involved in substance abuse. Both programs will emphasize prevention, appropriate interventions and treatment for minors involved in methamphetamine and other drug use.

The Department of Health Services contracts with five community-based agencies to provide early intervention services to at-risk youth and their families (\$165,000). These services include: assessment and brief therapy for youth and families; school- or community-based group education; and diversion programming that makes use of service learning and employment training opportunities. The Department also utilizes \$70,000 in Safe and Drug Free Schools and Communities funds to contract with one community-based provider to deliver parent education and support to Latino parents of at-risk adolescents through the Padres Unidos program. Padres Unidos is an intensive 16-week parent skill-building course designed to assist Latino parents of high-risk youth to prevent alcohol and other drug involvement and youth violence.

Prevention Education. Methamphetamine prevention education efforts should follow established prevention principles and be part of broader prevention education efforts that target all forms of drug use. Curricula should include factual information about the harms specifically related to methamphetamine use without resorting to counterproductive scare tactics.

The Department of Health Services utilizes approximately \$550,000 in State and Federal block grant funds for general alcohol and other drug prevention education activities through contracts with a network of community-based agencies. Contractors operate a range of programs in school, community and family settings. Many school districts in Sonoma County also deliver evidence-based alcohol and other drug prevention curriculum in the classroom, although delivery of these programs has been inconsistent over time due to academic priorities and funding constraints.

Youth Development. This evidence-based strategy focuses on helping young people to increase personal resilience and achieve their full potential as the best way to prevent them from engaging in risky behaviors. The Health Services and Probation Departments incorporate youth development principles in their current youth prevention programming.

Table 2 provides summary information on the current application of evidence-based practice within the local prevention system.

Table 2. Sonoma County Prevention System: Use of Evidence-Based Approaches

	Department of Health Services	Probation Department	School System	Criminal Justice System
Environmental and Public Policy Approaches	X			
Law Enforcement				X
Early Intervention with High-Risk Populations	X	X	X	
Prevention Education	X		X	
Youth Development	X	X	X	

Better information on the local prevalence, impacts and costs of methamphetamine use is critical to future program planning.

As noted throughout this report, data on the specific costs and impacts of methamphetamine use are relatively unavailable. While alcohol and other drug client data are routinely collected through the health, human services and criminal justice systems, methamphetamine-specific data are far less commonly captured. This is true locally and at the state and national levels. Several factors make data collection challenging:

- Methamphetamine use is under-documented. For example, because most criminal justice data is self-reported, it is likely to be under-reported by individuals seeking to conceal illegal activities.
- Methamphetamine use is often obscured by other data. In health-related data systems, when methamphetamine use contributes to morbidity or mortality, its role is often obscured by a “primary” diagnosis such as trauma or suicide.
- Data systems are not configured to collect alcohol and other drug problem data. In Human Services, for example, the constraints of the State-mandated data collection system do not allow for the capture of methamphetamine use as a contributor to specific child welfare cases.
- Data on cost impacts is difficult to estimate. Methamphetamine use is often part of a larger “problem set”. Because most methamphetamine users are polydrug users, it is difficult to quantify the potential cost benefit to County systems of reducing methamphetamine use. For example, it is not likely that reducing methamphetamine use by 20% would reduce client treatment or incarceration costs by the same amount, given the likelihood that many of these clients would enter the system for other drug use.

Increasing interest in the scope and impact of methamphetamine problems is helping to focus attention on the need for more and better data at the local, state and national levels. With appropriate resources, sound methodology and collaboration among key systems, data on methamphetamine use and its impacts can be captured, analyzed and used to develop and improve programs to prevent and treat methamphetamine problems in our community.

Appendices

- Appendix A: Sonoma County AOD Treatment Provider Program Descriptions
Appendix B: Substance Abuse and Mental Health Services Administration Treatment Improvement Protocol Series

Acknowledgements

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Endnotes

¹ A gram is roughly the size of a packet of sugar. A hit or line or dose of meth is generally about ½ gram.

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¹¹ Sonoma County Public Health Division, Department of Health Services.

¹² The felony arrest category "dangerous drugs" offenses include possession, possession for sale, sale, and the use of minors in the sale of such drug categories as barbiturates, amphetamines, methamphetamines, PCP, preludein, quaaludes, ritalin and generally manufactured or prescription drugs.

¹³ California Department of Justice, Criminal Justice Statistics Center

¹⁴ Sonoma County Sheriff's Department

¹⁵ Sonoma County Probation Department

¹⁶ Sonoma County Probation Department

¹⁷ California Department of Alcohol and Drug Programs, CADDs

¹⁸ National Institute on Drug Abuse (1998, reprinted 2002). Methamphetamine Abuse and Addiction. NIH Publication No. 02-4210. See online at:

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²⁴ The information in this section draws heavily from two sources: the Substance Abuse and Mental Health Administration (SAMHSA) TIP 33, "Treatment for Stimulant Use Disorders,"

and the National Institute on Drug Abuse (NIDA) publication "Principles of Drug Addiction Treatment."

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