Drug Abuse in America—Rural Meth

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Executive Summary

The costs of substance abuse to states are too substantial to ignore. Considering the rise and spread of powerful and devastating drugs like methamphetamine, policy-makers must be aware of the options available. The direct and indirect costs of substance abuse to society can be substantial. A study conducted by The National Center on Addiction and Substance Abuse at Columbia University, for example, found that in 2001 substance abuse added $41 billion to education costs through consequences such as violence, special education, truancy and counseling. The rise of methamphetamine, or meth, is particularly troubling due to its rapid spread across the country and the added costs and consequences of its abuse and production.

Meth is a powerful synthetic stimulant that affects the central nervous system, causing severe addiction. The consequences of both its abuse and production–such as frequent lab explosions, increases in child abuse and neglect, possible HIV infection, water and air pollution, and stress on Medicaid and welfare–reach statewide, as do the costs of cleaning up meth labs and preventing further devastation. States ultimately pay for the strain placed on local hospitals, prisons, family and social services, schools and courts from the drug's effects.

Rural communities are especially vulnerable to the effects of meth, but they often lack the resources to address the problem. What started as a West Coast, urban problem has spread to rural areas throughout the country and is particularly problematic among rural youth.

Policy-makers throughout the country are trying to combat the methamphetamine epidemic. When devising policies and programs targeted to meth abuse, lawmakers should keep in mind that rural locales face unique challenges, such as:

- misconceptions about rural drug abuse;
- limited funds to fight drug abuse; and
- limited access to effective drug treatment programs.

State officials should also consider the many different areas that meth abuse and production affects, including:

- law enforcement and crime prevention;
- the environment;
- public health; and
- families and communities.

Policy options aimed at stopping the spread of methamphetamine include:

- preventing drug abuse and production by limiting access to ingredients used to make meth, training law enforcement to deal with meth abuse and production, raising public awareness of meth's effects and targeting youth for drug prevention programs; and
- treating meth addiction by tailoring drug treatment for rural areas, using drug courts and providing drug treatment for inmates.

Methamphetamine At A Glance

- A Schedule II narcotic under the Controlled Substances Act, meaning it has a high potential for abuse.
- Can be injected, smoked, snorted or taken orally.
- Also called "crank," "ice" and "poor man's cocaine."
- A batch costs around $100 to make and then can be sold for about $1,000 on the street.

This *TrendsAlert* provides an overview of the current aspects of methamphetamine abuse and production in the states and focuses on problems specific to rural areas. It outlines meth's social and economic effects and explores policy options to address different aspects of the problem.

1. Spread of Methamphetamine Abuse and Production in the United States

Methamphetamine has been abused on the West Coast for decades, but over the last several years it has spread across the country. In addition to meth abuse, many communities across the nation now have to deal with the social and economic consequences of meth production as well.

The National Drug Intelligence Center reports that 31 percent of all state and local law enforcement agencies consider methamphetamine their primary drug threat and 58 percent consider the availability of the drug in their communities to range from medium to high.[1] While meth was once an urban phenomenon, it is no more. Rural areas across America are dealing with its effects.

Meth Abuse in the United States

Over the last decade reports of meth abuse have spread from California to most regions of the country, particularly rural areas. In fact, the 2001 National Household Survey on Drug Abuse reports that 9.6 million Americans nationwide have tried methamphetamine at least one time.[2]

Meth abuse in urban areas

The Drug Abuse Warning Network (DAWN) provides data on drug-related emergency department visits in metropolitan areas. Methamphetamine-related

mentions of emergency department visits were largely concentrated on the West Coast in 1993 with an eastward spread beginning to show. By 2001, reports from the Midwest eastward had jumped from 358 in 1993 to 788 in 2001.[3]

The 2003 National Drug Threat Assessment reports that meth's harmful effects are showing up in the major cities where the DAWN emergency departments are concentrated, including Los Angeles, San Diego, San Francisco, Phoenix and Seattle.[4]

Meth abuse in rural areas

The rise of methamphetamine abuse and small-scale production during the 1990s has been a particular concern for rural communities nationwide. These areas have historically been viewed as immune to the "urban problem" of drug abuse. It is now evident that meth has penetrated rural America, leaving these communities scrambling to find a solution.

A growing body of evidence points to meth abuse as one reason substance abuse is higher among rural youth compared to their urban counterparts. A 2000 report found that rural and small-town youth were more likely than urban juveniles to become substance abusers and that an eighth grader in a rural town is more likely to use illicit drugs than an urban eighth grader.[5] More specifically, when compared to urban eight graders, rural eighth graders are 104 percent more likely to use amphetamines in general. They are 59 percent more likely than their counterparts in large cities and 64 percent more likely than eighth graders in small metropolitan areas to use methamphetamine specifically.[6]

Unlike some other drugs–such as cocaine, which is imported from South America–meth is a synthetic drug easily produced in the United States. Meth production is related to a host of public safety, environmental, health and social problems, which are discussed later in this report.

Meth Production in the United States

Methamphetamine is unique in the problems it creates, particularly due to the ease with which it is produced. Although the main source in the United States is Mexican drug trafficking organizations, small, clandestine meth labs have popped up by the thousands all over the country and account for more than half of labs seized by law enforcement.[7]

Methamphetamine can be produced using a variety of different methods and ingredients usually requiring a heat source. The three most popular methods of producing meth use ephedrine/pseudoephedrine in combination with other chemi-

cals.[8] The "Ephedrine/Pseudoephedrine method" adds red phosphorus and hydriodic acid and can produce pounds of meth. The "Nazi method" adds anhydrous ammonia to produce only ounces of meth but is easier to make. The "Red P" method adds red phosphorus and iodine to produce ounces of meth but doesn't require heat. Table 1.1 displays the sources of some of the common ingredients used to produce meth.

Table 1.1 **Examples of Products Used to Produce Meth**

Product	Purpose	Source
Iodine	Used to make hydriodic acid	Medical supply outlets
Pseudoephedrine (cold medicine)	Used instead of ephedrine	Retail stores
Road flares or matchbook covers	Source of red phosphorus	Retail stores
Anhydrous ammonia (fertilizer)	Used in Nazi method	Farm supply stores or stolen from tanks on farms

Source: National Drug Intelligence Center

Nationwide the number of meth lab seizures is increasing at an alarming rate. Table 1.2 displays the numbers of meth labs seized by the federal government between 1995 and 2001. Drastic increases were seen in Texas, from two in 1995 to 479 in 2001. In Indiana, the figure rose from three seizures in 1999 to 500 in 2001. In Michigan 119 labs were seized in 2001, up from only 18 the year before. The number of federal methamphetamine lab seizures nationwide rose from 327 in 1995 to more than 13,000 in 2001.[9]

The relative simplicity of production has contributed to this drastic rise in the number of meth labs. Setting up a meth lab is as simple as purchasing household items (such as Sudafed, paint thinner and table salt) and getting a recipe from the Internet.

Meth production in urban areas

The majority of methamphetamine available in urban areas is distributed by drug cartels running the "super labs" found in California and Mexico. These super labs are capable of producing at least 20 pounds of methamphetamine at a time.[10] The primary market areas, Los Angeles, Phoenix, San Diego and San Francisco, are characterized by high levels of abuse and production as well as significant distribution of meth to the rest of the country.[11]

Table 1.2 **Federal Meth Lab Seizures 1995-2001**

State	1995	1996	1997	1998	1999	2000	2001
Total U.S.	327	879	1,362	1,387	1,918	6,922	13,092
Alabama	2	5	4	1	26	81	165
Alaska	0	1	0	0	10	19	14
Arizona	16	83	129	222	364	375	313
Arkansas	19	74	164	148	130	209	385
California	108	155	178	118	164	1,625	1,869
Colorado	13	17	26	51	85	126	229
Connecticut	0	0	0	0	0	0	0
Delaware	1	0	1	0	0	1	0
Florida	3	0	1	6	13	15	29
Georgia	3	4	10	3	21	52	51
Hawaii	0	0	3	0	2	4	3
Idaho	1	3	3	4	1	88	128
Illinois	0	5	14	45	67	112	319
Indiana	0	1	4	3	3	217	500
Iowa	4	10	22	19	16	208	560
Kansas	16	43	43	29	44	379	852
Kentucky	1	3	1	8	6	87	170
Louisiana	1	1	1	3	6	14	16
Maine	0	0	0	1	0	2	2
Maryland	0	0	0	0	1	0	2
Massachusetts	0	0	0	3	0	0	1
Michigan	3	2	4	3	7	18	119
Minnesota	10	14	14	21	20	102	144
Mississippi	0	1	0	5	9	95	216
Missouri	37	235	396	315	195	628	2,137
Montana	1	1	2	1	16	20	66
Nebraska	1	1	1	7	7	35	213
Nevada	23	37	19	15	20	244	254
New Hampshire	0	0	0	1	0	1	2
New Jersey	0	1	3	0	0	0	1
New Mexico	4	7	20	26	44	48	101
New York	0	0	0	0	1	1	8
North Carolina	0	1	7	6	14	27	87
North Dakota	0	0	2	1	4	13	33
Ohio	1	1	1	0	6	22	83
Oklahoma	8	71	106	102	200	300	584
Oregon	2	8	10	25	10	237	589
Pennsylvania	2	12	6	5	1	8	15
Rhode Island	0	0	0	0	0	0	2
South Carolina	0	0	0	0	0	5	9
Tennessee	1	1	2	0	1	7	18
Texas	2	2	22	50	60	221	479
Utah	10	12	24	31	101	341	585
South Dakota	29	63	112	91	204	203	158
Vermont	0	0	0	0	0	0	0
Virginia	0	0	2	1	8	1	5
Washington	2	1	4	8	23	708	1,487
West Virginia	0	0	0	1	4	11	14
Wisconsin	2	2	0	0	0	2	45
Wyoming	1	1	0	8	4	10	30

Source: Office of National Drug Control Policy, National Drug Control Policy Update 2003

Meth production in rural areas

Rural areas have been susceptible to methamphetamine producers and traffickers for several reasons, including:

- limited human and financial resources for law enforcement;
- wide, open spaces which make production harder to detect; and
- easy access to ingredients.

Local law enforcement in rural areas is often small and sometimes understaffed and underfunded. It is common for local police departments to employ 10 or fewer officers.[12] Also, the law enforcement personnel who are on patrol often have to cover hundreds of square miles.[13] In small towns, it is common for the community to know who is making and selling the drugs, but without sufficient human or financial resources, there is not much law enforcement can do to combat the problem.[14]

Rural, rather than urban, locales have provided a good environment for the production of meth for another reason–wide, open spaces. Making meth requires "cooking" chemicals that emit pungent odors. It is harder to mask the smell of a meth lab in an apartment in Chicago than on hundreds of acres of land in rural West Virginia.

Availability of ingredients is another reason rural America is attractive to methamphetamine manufacturers. If the fact that you can buy ingredients in most drug stores does not make production easy enough, rural settings provide access that urban environments cannot. For example, one ingredient, anhydrous ammonia, commonly used as fertilizer, is not available in stores but can easily be stolen from storage tanks on farms. Accessing these tanks is not difficult because they are often left unattended in isolated locations.

The abuse and manufacturing of methamphetamine is a pertinent issue in all communities, but especially in rural America. As data show, this powerful stimulant is increasing in popularity among all groups, but especially among rural youth. The next section focuses on issues that have contributed to the rise of meth abuse and production in rural areas.

2. Rural Conditions and Methamphetamine Abuse

The surge of methamphetamine abuse and production in rural areas is important to all states due to the obstacles that rural communities face. These include:

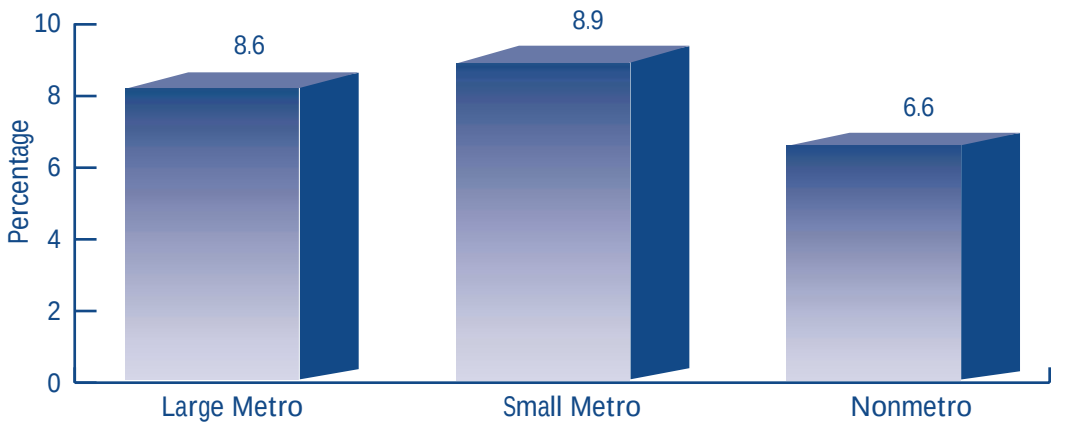
- misconceptions about rural drug abuse;
- limited funds to fight drug abuse; and
- drug treatment issues.

These barriers stand in the way of successfully stopping the spread and devastation of this drug.

Misconceptions about Rural Drug Abuse

Historically, misconceptions have prevailed that rural areas do not have the same need for drug prevention and treatment services as urban areas. However, data indicate that rural adults abuse drugs at nearly the same rate as urban adults.[15] As Figure 2.1 shows, among persons 12 and older in 2002, there were no statistically significant differences among illicit drug and alcohol dependence or abuse across county type.[16]

Figure 2.1 **Past Month Illicit Drug Abuse among Persons Aged 12 or Older, by County Type, 2002**



Source: Substance Abuse and Mental Health Services Administration, 2002 National Survey on Drug Use and Health: National Findings.

Despite the resounding evidence to the contrary, stereotypes about rural areas being unaffected by drugs and crime affect the level of resources available to these communities. Contributing to these misconceptions is the lack of social, health and substance abuse data in these communities. Researchers and programs focusing on substance abuse have historically overlooked rural areas. On the other hand, national data are widely available for drug abuse in urban areas due to federal programs such as The Drug Abuse Warning Network. In recent years, rural areas have received more attention, but not enough to garner the support needed to help these communities effectively combat substance abuse.

Although urban and rural communities share many of the same problems relating to drugs and crime, rural areas face certain barriers to stopping the spread and devastation of meth. In rural areas it is common for "everyone to know everyone" which causes problems with regard to respecting confidentiality. This can deter drug users from seeking help. Further harm to therapeutic relationships can be caused by healthcare practitioners' inability to understand the local traditions and values, inadvertently pushing away these individuals.[17] This can exacerbate the problem of rural individuals' resistance to prevention and treatment. In rural areas, there is often a social stigma attached to the need for substance abuse treatment.[18] Many rural residents do not see treatment as a viable option because it opposes traditional views and beliefs about health problems.

Limited Funds for Fighting the War Against Drugs

Rural areas are experiencing drug and crime problems similar to urban centers. The small tax bases in these communities, however, offer fewer resources to fight these problems. The funds available to maintain public services, like health and substance abuse treatment, are increasingly unavailable due to diminishing tax bases.[19] In addition, drug-related federal funding sometimes favors urban areas.

Rural law enforcement officers are often not properly prepared to fight meth abuse and production. Rural police officers often lack basic resources, such as back-up systems and statewide computer databases. In some rural areas, there are no local law enforcement agencies. In those cases, state agencies, which may not be very familiar with these areas, are in charge of law enforcement. It is unlikely, therefore, that local agencies have money for the special resources and training needed to address methamphetamine.

This is particularly alarming due to the enormous danger associated with the manufacturing of meth that is so widespread in rural America. Technical expertise is required to safely dismantle a meth lab. Law enforcement personnel must understand the chemicals involved in order to alleviate the risk of explosion, fire and toxic fumes. Inexperience in dismantling these labs could mean serious injury or even death for rural police officers.

Another barrier to adequate funding is that federal money is largely aimed at urban centers, despite the fact that there is virtually no difference in drug dependence statistics based on community size.[20] This is partly due to rural limitations built into the Substance Abuse Services Block Grant allotment formula.[21]

A study of the block grant allotment formula found that urban populations are

overweighted despite the fact that states spend more on substance abuse and mental health services in rural areas.[22] If the formula were changed to take into account accurate population needs and cost of service measures, 22 percent of the allocation for substance abuse services would be shifted from urban states to more rural states.[23]

Drug Treatment Issues

Availability of and access to drug treatment is often an issue in rural communities. The social service and treatment resources needed to combat the meth epidemic are not consistently found in rural areas. One example is the lack of advocacy groups to help clients gain access to needed services.[24] Other issues include lack of access to specially trained staff, proximity to treatment facilities, reliance on public insurance programs and problems with Medicare and Medicaid reimbursement.

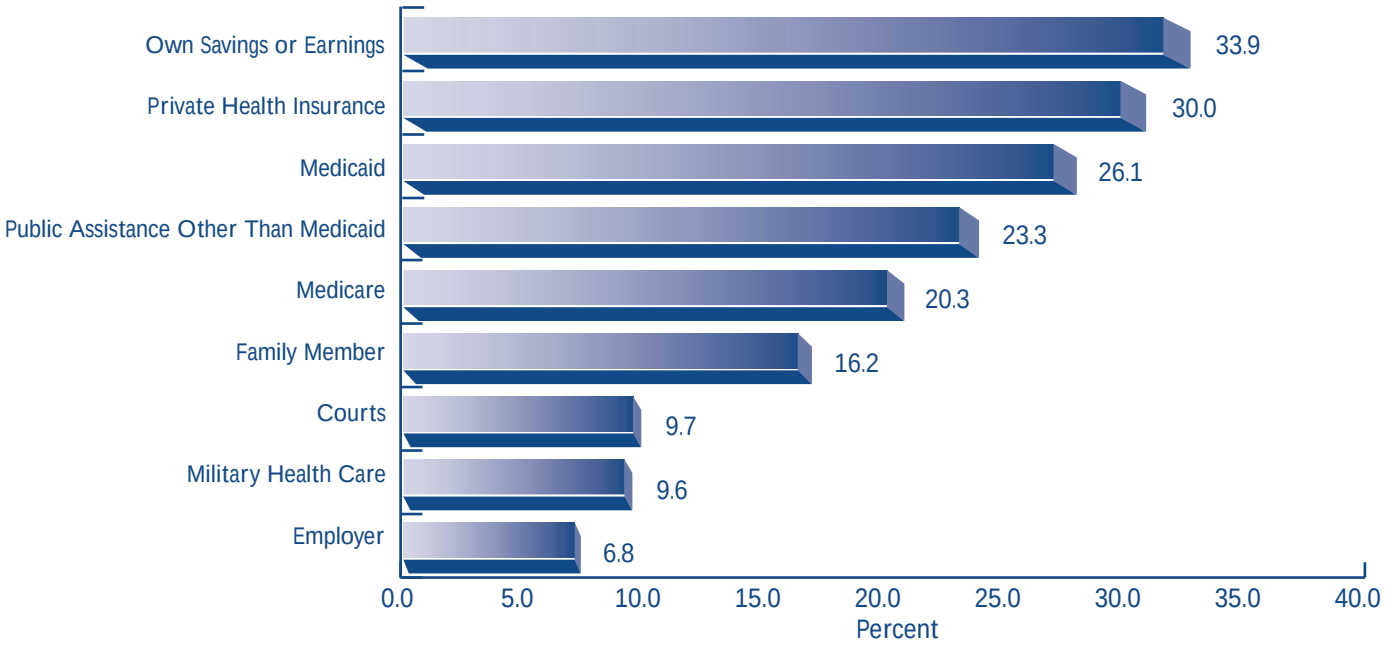
In rural areas, there are generally few or no practitioners specially trained to deal with the effects of methamphetamine abuse on the individual and his or her family.[25] The treatment staffs that do exist are less specialized because they have to provide a wide array of functions due to staff shortages.[26] It is possible to train people to use assessment tools in an attempt to identify substance abusers, but the lack of licensed professionals will cause potential recipients to fall through the cracks.[27]

In rural areas, many individuals who need and want drug treatment have to travel great distances or cannot get treatment at all due to a lack of transportation. In addition, communities located far from urban centers often have no public transportation, which limits access to treatment even if it were available locally.

The cost of treatment is a serious issue in rural communities due to the number of people without medical insurance who rely on public insurance programs.[28] As shown in Figure 2.2, approximately 34 percent of people who received illicit drug treatment in 2002 paid out-of-pocket and 30 percent used private health insurance. Considering their low incomes and heavy reliance on public insurance, rural residents are at a disadvantage when it comes to being able to afford treatment for drug abuse or dependence.

The Medicare and Medicaid reimbursement systems also pose a problem for rural America because these areas are often unable to match federal dollars. The high cost of treatment, due to the limited number of practitioners and smaller populations, is often passed on to clients, which creates a real deterrence to seeking

Figure 2.2 **Payment Sources among Persons Aged 12 or Older Receiving Specialty Illicit Drug Treatment, 2002**



Source: Substance Abuse and Mental Health Services Administration, 2002 National Survey on Drug Use and Health: National Findings.

help.[29] Taxpayers statewide pay the price when methamphetamine addicts seek state-funded treatment.

Both urban and rural areas are feeling the consequences of meth, although the problem is more acute in rural areas. The economic and social costs and consequences of meth abuse and production are discussed in the next section.

3. Costs and Consequences of Meth Abuse and Production

With meth's rise in popularity come problems such as increases in violent crime, child abuse and neglect, and environmental hazards. The widespread abuse and production of methamphetamine is unique in that many related consequences are not typically associated with other illicit drugs.

Meth abuse and production creates social and economic costs, including costs related to:

- law enforcement and crime prevention;
- the environment;

- public health; and
- families and communities.

It is difficult to quantify the total costs of meth to the states, but it is clear that the consequences of meth abuse and production can be expensive. These costs are important not only because the quality of life in communities nationwide is affected, but also because the money needed to pay the costs could be better spent elsewhere. Table 3.1 estimates the costs associated with drug abuse nationwide.

Table 3.1 **Estimated Direct Costs^ to Society of Drug Abuse, 1992-2000 ($ in millions)**

Year	Health care costs	Other costs	Total
1992	13,132	26,579	39,711
1993	13,095	26,406	39,501
1994	12,959	28,078	41,037
1995	12,630	30,300	42,930
1996	12,402	29,782	42,184
1997	12,821	32,383	45,204
1998	13,435	33,513	46,948
1999*	14,165	35,050	49,215
2000*	14,899	35,274	50,173

^ Direct costs include health care costs attributable to drug abuse and other costs which include the cost of goods and services lost to crime and social welfare costs.
* Figures for 1999 and 2000 are projections based on observed trends for 1992 through 1998.

Source: Office of National Drug Control Policy.The Economic Costs of Drug Abuse in the United States, 1992-1998 (September 2001), Update 2003.

Law Enforcement and Crime Prevention

Meth contributes to increased law enforcement and crime prevention costs. Dismantling meth labs, housing prisoners with drug problems and dealing with the effects of drug-related crimes are all burdens for state governments.

A huge cost related to meth manufacturing is the dismantling of labs by law enforcement. The large number of clandestine labs seized must be cleaned of hazardous material at no small expense. Cleaning up a lab must be approached in much the same way as a hazardous chemical spill.

The price tag for cleaning up a clandestine lab has been estimated to range from $3,000[30] to $8,000.[31] This includes the costs of handling and disposal of hazardous materials and the expensive training law enforcement officers have to go through to be certified to work these crime scenes. As thousands of these labs are being seized nationwide, communities are struggling to pay the costs. For example, the Montana Department of Justice reports that the 122 meth labs seized in 2002 cost state taxpayers more than $1 million.[32]

The link between substance abuse and crime is nothing new. While drug-related crimes in cities decreased by 11.2 percent between 1997 and 2002, in rural areas the opposite was true with a 10.5 percent increase in drug crimes.[33] In addition, between 1990 and 1998 small towns with fewer than 10,000 residents reported six times more drug law violations than larger cities.[34]

Methamphetamine also contributes to overflowing jails and prisons, costing taxpayers an average of $20,000 to $50,000 annually per prisoner.[35] In 2000, there

were reportedly 1.3 million adult offenders in state and federal prisons. Twenty-one percent of the state prisoners and nearly 60 percent of federal prisoners were drug offenders.[36]

Theft in rural areas is on the rise and can partly be blamed on methamphetamine. In particular, farm chemicals, especially anhydrous ammonia, are being stolen frequently and in great quantities, costing tens of thousands of dollars to replace.[37] Violent crimes, including homicide, are also associated with methamphetamine. All over the country, states are reporting increases in violence in their rural areas. More specifically, between 1990 and 1999, rural areas saw drug-related homicides triple at a time when large cities saw this rate drop by almost half.[38]

The Environment

Another consequence of the meth epidemic is the danger posed to the environment. Meth production creates toxic waste, which can lead to many environmental problems.

To produce one pound of the drug, five pounds of toxic waste are released into the environment.[39] The reality that many of the labs are in rural areas leads one to believe that this hazardous material is dumped onto farms and in water sources.[40] Meth production pollutes streams with the waste from manufacturing and creates a hazard when toxic materials are abandoned by the roadside.

One ingredient in particular is very toxic: anhydrous ammonia. Meth producers often steal the chemical by haphazardly transferring it from storage tanks into empty fire extinguishers. If this chemical is spilled or if the tank blows, deadly fumes are released. One such incident produced a cloud of toxic gas forcing the evacuation of area schools for two days.[41] This ammonia is so corrosive that it eats through the valves on the tanks where it is stored.

Public Health

Meth-related health risks include exposure to chemicals during the drug's production and problems associated with its intravenous use.

When people with no training on how to handle volatile chemicals "cook" methamphetamine, they can cause explosions that affect the surrounding community. The long-term effects of exposure to these chemicals either through direct contact or through proximity to an explosion are not fully understood at the present time.

Exposure to this waste can cause physical injury, such as chemical burns and respiratory damage. Simply breathing the fumes can cause severe impairment to

the central nervous system and even death. Fatalities and disfigurements resulting from exposure to the dangerous chemicals used to manufacture methamphetamine have been reported in various states. Table 3.2 shows the number and percentage of public health and safety personnel reporting injuries related to meth lab exposure. More than half of the police officers in the selected states reported respiratory irritations due to exposure to chemicals used to manufacture methamphetamine.

Table 3.2 **First Responders Sustaining Injuries during Meth Lab-Related Emergency Events, 1996-1999^**

	Firefighters		Police Officers		EMTs*		Hospital Personnel		Total	
Injury	No.	%	No.	%	No.	%	No.	%	No.	%
Trauma	1	12.5	0	—-	0	—-	0	—-	1	0.9
Respiratory irritation	3	37.5	49	62.0	8	47.1	0	—-	60	54.1
Eye irritation	0	—-	8	10.1	4	23.5	0	—-	12	10.8
Nausea/vomiting	0	—-	4	5.1	2	11.8	3	42.9	9	8.1
Heat stress	0	—-	1	1.3	0	—-	0	—-	1	0.9
Chemical burns	3	37.5	0	—-	0	—-	0	—-	3	2.7
Skin irritation	0	—-	0	—-	1	5.9	0	—-	1	0.9
Dizziness/central nervous system symptoms	0	—-	6	7.6	0	—-	4	57.1	10	9.0
Headache	0	—-	2	2.5	1	5.9	0	—-	3	2.7
Shortness of breath	0	—-	9	11.4	1	5.9	0	—-	10	9.0
Other	1	12.5	0	—-	0	—-	0	—-	1	0.9
Total	8	100.0	79	100.0	17	100.0	7	100.0	111	100.0

* Emergency Medical Technician

^ Based on data from Alabama, Colorado, Iowa, Minnesota, Mississippi, Missouri, New Hampshire (1996), New York, North Carolina, Oregon, Rhode Island, Texas, Washington and Wisconsin.

Source: "Public Health Consequences Among First Responders to Emergency Events Associated with Illicit Methamphetamine Laboratories—Selected States, 1996-1999" Morbidity and Mortality Weekly, 49 (17 November, 2000), 1021-4

Intravenous meth abuse is increasing, and users of this drug are especially likely to engage in behaviors that increase their chances of HIV infection and other infectious diseases.[42] Partly due to the sharing of needles, rural areas experienced an 82 percent increase in AIDS cases compared to a 59 percent increase in cities with 500,000 or more residents between 1994 and 1999.[43]

Families and Communities

When a family member abuses any drug, the entire family suffers. There are special costs associated with meth, however, including a drastic increase in child abuse and neglect cases. Children are placed in danger by being exposed to the

toxic fumes associated with meth manufacturing. The Drug Enforcement Administration (DEA) reported that in all clandestine lab seizures in 2002, more than 2,000 children were present, 26 were injured and two were killed.[44] Table 3.3 shows how these numbers have increased steadily since 2000. In addition to the social problems this creates, more than 1,000 of these children were taken into state custody, which puts a serious strain on state-funded social services.

Table 3.3 **Children Involved in Meth Lab-Related Incidents in the United States, 2000-2002**

		Number of Children					
Year	Number of Meth-Lab Related Incidents	Present	Residing In Seized Meth Labs[a]	Affected[b]	Exposed to Toxic Chemicals[c]	Taken Into Protective Custody	Injured or Killed
2002	15,353	2,077	2,023	3,167	1,373	1,026	26 injured 2 killed
2001	13,270	2,191	976	2,191	788	778	14 injured
2000	8,971	1,803	216	1,803	345	353	12 injured 3 killed

a. Children included in this group were not necessarily present at the time of seizure.
b. Includes children who were residing at the labs but not necessarily present at the time of seizure and children who were visiting the site; data for 2000 and 2001 may not show all children affected.
c. Includes children who were residing at the labs but not necessarily present at the time of seizure.
Source: El Paso Intelligence Center, U.S. Department of Justice

Substance-abusing parents not only lack the ability to effectively raise their children, their drug use also increases the chance that their children will become substance abusers themselves.[45] Many states have recognized the problem of children exposed to meth manufacturing. In Colorado, for example, a person can be charged with felony child abuse for making the drug in a home with children.

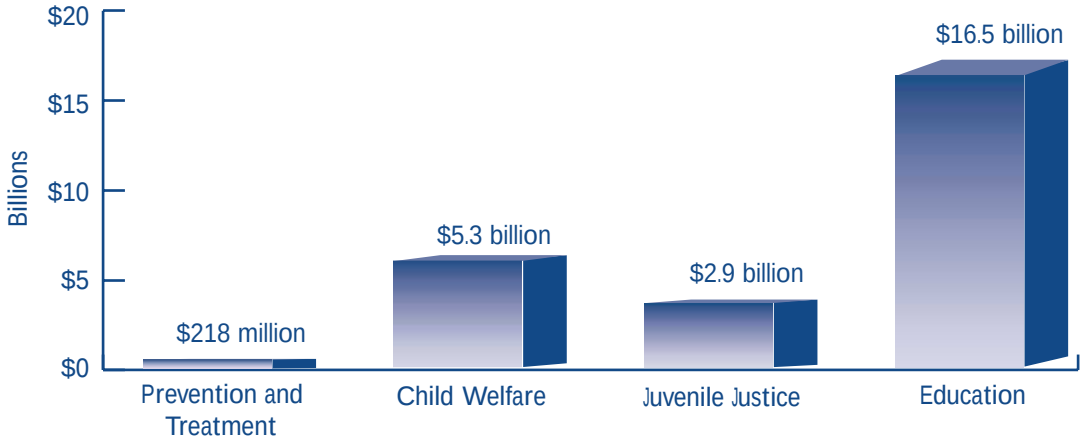
A 2001 report stated that in 1997 there were 3 million abused and neglected children nationwide, up from 1.4 million in 1986.[46] More than 70 percent of the child welfare workers surveyed for the report blamed substance abuse for this increase.[47] Some rural states have also seen an increase in foster care cases associated with meth.[48] In Iowa, a look at suspected child abuse cases in 16 counties in one day showed that one in three were due to parental association with methamphetamine.[49]

Domestic disputes related to addiction are also on the rise. Approximately 80 percent of federal domestic violence cases can be connected to illegal drugs.[50] In

addition to the physical and psychological effects domestic violence has on the abused adult, it also psychologically affects children in the home.

As Figure 3.1 illustrates, the vast majority of substance abuse spending for children in 1998 was related to the impact on the education system.[51] States also spent billions on foster care and adoption costs as well as on juvenile justice programs. In 2001, substance abuse added $41 billion to education costs through consequences such as violence, special education, truancy and counseling.[52]

Figure 3.1 **Child-Related Costs of Drug Abuse, 1998**



Source: The National Center on Addiction and Substance Abuse at Columbia University, Shoveling Up: The Impact of Substance Abuse on State Budgets, New York, New York: January 2001.

States and state-supported programs end up paying for the costs of substance abuse. More than 13 percent of the total state budgets in 1998 were used to deal with substance abuse.[53] However, the majority of that (96 cents for every dollar) was spent dealing with the aftermath of substance abuse.[54] That leaves 4 cents per dollar to fund prevention and treatment programs.

Despite this grim picture, state governments can act to alleviate problems associated with the abuse and production of methamphetamine. Because of the special circumstances in rural areas, the next section focuses on the policy and program options that are particularly useful in rural areas.

4. Policy Options

There are marked differences between rural and metropolitan areas in terms of meth abuse and production that require solutions accounting for these differences. Oftentimes policy-makers lack understanding of what makes these communities distinct, in effect applying urban resolutions that will not work in rural areas.[55] Rural America now faces problems that have historically been seen in only an urban context.

Policy Options for Dealing with Meth

Preventing Abuse and Production	Treating Addiction
▪ Limiting access to ingredients	▪ Tailoring drug treatment for rural areas
▪ Training law enforcement	▪ Treating inmates
▪ Raising public awareness	▪ Using drug courts
▪ Targeting youth	

The "super labs" concentrated in California and Mexico, which are primarily run by Mexican crime organizations, provide 80 percent of the methamphetamine on the market. Small clandestine labs are found in greater numbers across the United States, however, and they lead to the problems noted throughout this report.[56] For states to stop the spread of meth, solutions must focus on preventing small-scale drug production and drug use and on treating drug addiction. Several federal programs provide state and local governments financial resources and expertise to support strategies to stop the spread of methamphetamine and mend the damage to communities. These resources are outlined after this report.

Preventing Drug Abuse and Production

States can help prevent meth abuse and production by:

- limiting access to ingredients;
- training law enforcement officers;
- raising public awareness; and
- targeting youth for drug prevention programs.

Limiting access to ingredients

Manufacturing methamphetamine has very real and dangerous consequences for the people directly involved, their friends and family, the law enforcement personnel and responders who may come in contact with the lab as well as members of the community who may be exposed to the chemicals and toxic waste.

At least 28 states have attempted to limit the availability of ingredients. Some prohibit the purchase of large amounts of certain items and help prevent the theft of other items. In Arkansas, for example, it is a felony to possess the ingredients of

methamphetamine with the intent to manufacture, and in Illinois it is a misdemeanor to tamper with storage tanks containing anhydrous ammonia. Iowa deals with the theft of anhydrous ammonia by distributing valve locks to farmers throughout the state. Colorado has addressed the issue of supply by passing a law that punishes suppliers who knowingly sell ingredients to someone with the intent of manufacturing methamphetamine. Missouri now requires stores to keep pseudoephedrine or Sudafed, a cold remedy and common methamphetamine ingredient, behind the counter and limits the amount customers can purchase to two packages. Utah has similar laws and also requires identification for the purchase of certain items, and even a written statement as to the purpose for the purchase.

In order to limit access to ingredients, sales clerks can be trained to identify unusual purchases and report them to law enforcement. The poster in Figure 4.1, distributed by The National Drug Intelligence Center, alerts businesses about products used to manufacture methamphetamine. In Corpus Christi, Texas, and Meridian, Ohio, businesses are encouraged to restrict access to ingredients in their stores and to assist law enforcement by reporting when large amounts of ingredients are purchased.[57]

Training law enforcement officers

Special training programs for law enforcement officials are crucial to ensure the safety of officers and deter meth production. Training for local law enforcement personnel and responders, such as firefighters and emergency medical technicians, should entail how to detect clandestine labs and what steps are required to safely clean up these sites. Law enforcement officers are expected to have had some training in handling hazardous chemicals before entering a meth lab.[58] An evaluation of selected programs by the U.S. Justice Department found that training law enforcement about methamphetamine increased lab detection and lessened the incidence of onsite injury.[59]

Clandestine lab training includes courses in toxicology, safety and protection, decontamination, and air monitoring. The DEA provides and funds much of this training. After successfully completing the training, officers receive more than $2,500 in equipment along with their certification.[60]

Figure 4.1 **Example of Meth Information for Businesses**

The DEA conducts training courses for state and local law enforcement in other areas as well. In fiscal year 2001 alone, more than 64,000 state and local law enforcement personnel attended training programs offered by the DEA in areas such as leadership training, small town and rural programs, intelligence training and basic/advanced drug law enforcement.[61]

Raising public awareness

It is important to focus on training citizens in the indicators of meth production so that they can assist law enforcement by reporting these labs and ultimately protect their communities. Also, individuals who may come into contact with the toxic chemicals associated with methamphetamine, such as garbage collectors and hotel employees, should be informed of the warning signs.[62]

Getting the community involved to prevent meth production is crucial to any successful campaign, especially in rural areas. Television ads in California, for example, dramatically display the effects of methamphetamine production.[63]

A public awareness campaign can target individuals who might attempt to produce meth. Many states have strengthened the charges and sentencing requirements associated with methamphetamine; widely publicizing these laws can deter individuals from setting up meth labs. Examples of strict sentencing laws for methamphetamine include the 70-percent rule in Arkansas, which requires individuals convicted of crimes such as murder and rape to serve at least 70 percent of their sentence. This law was expanded to include people charged with possessing the ingredients of methamphetamine with the intent to manufacture the drug. Montana passed a bill in 2003 making the consequences of operating a meth lab severe. Operating a lab in the presence of a child, within 500 feet of a residence, business, church or school, or creating risk of death or injury carries a maximum penalty of 50 years in prison and/or a fine of $50,000.

Another concern related to meth labs is the danger posed to children who are present or who

Example 4.1 **Wyoming Raises Awareness about Meth**

The Governor's Substance Abuse and Violent Crime Advisory Board encouraged participation of all Wyoming citizens to address the meth problem. The board held meetings around the state and was able to gather information, assess the nature of the problem and put forth a public awareness campaign, achieving notable results. The public support garnered was effective in convincing the Legislature to allocate funds. Through collaboration and leadership, the 1998 Legislature allocated $3.2 million to Wyoming's Methamphetamine Initiative. The following year, a two-year, $5.2 million allocation was approved allowing current methamphetamine prevention and treatment programs to continue and future projects to be planned. Part of the success of Wyoming's methamphetamine initiative is the lesson learned that working together as a statewide community is important to solve problems of this magnitude.

Source: David Singh, "Wyoming's Methamphetamine Initiative: The Power of Informed Process," Practitioner Perspectives, (Bureau of Justice Assistance Clearinghouse: May 2001).

are affected by the sale and use of the drug. Making the public aware of the legal consequences of exposing children to meth could deter someone from setting up a lab in their residence. In Missouri, for example, it is a felony to set up a meth lab within 2,000 feet of a school. Colorado recently passed legislation making it a felony to expose children to a lab by expanding the definition of child abuse. Some states have made it easier to remove children from homes where methamphetamine is present.

Targeting youth for drug prevention programs

The most effective way to prevent drug abuse is by focusing on youth. Research has shown that a person who can make it to age 21 without ever using drugs is more likely to never use.[64] This is particularly important in rural areas, where risk factors are high for methamphetamine abuse among 12 to 17 year-olds. Implementing school-based drug prevention programs and helping parents deal with the topic of drug use are two strategies to prevent youth drug abuse.

Currently, only one in seven schools nationwide uses prevention programs that have components proven effective through research.[65] Typically, school-based programs are informational, providing the basics about the consequences of drug abuse.[66] These programs have been ineffective, however, because they fail to account for the influences in a child's life that may impact their likelihood to abuse drugs, like their peer group and family environment.[67]

Substance abuse programs in schools are important because they can reach so many children and their families. Research has indicated that effective programs give children accurate information about drug abuse while teaching them how to recognize and withstand social pressures to use drugs.[68] Many students also lack basic abilities that can help them stay away from drugs and alcohol. Successful programs teach children skills such as effective problem solving, basic social skills, how to improve self-esteem, and how to be assertive.[69]

To remedy past deficiencies in drug prevention programs, schools can take several actions to address substance abuse, such as training school personnel about the signs of substance abuse and what to do when a student is suspected of abusing drugs.[70] Schools can implement research-proven programs, engage parents and the community and help students develop a sense of empowerment and mutual support in order to resist peer pressure.[71]

Implementing effective school-based drug prevention programs is an important way to lessen the likelihood that children will use drugs. Another focus for youth

drug prevention is helping parents raise drug-free kids. Research has proven that several parenting strategies can reduce the prevalence of youth substance abuse. Parents who monitor what their children do and make clear rules about what is and is not permitted decrease the likelihood that that their children will use drugs.[72] Additional research has indicated that the likelihood of childhood substance abuse decreases when parents provide consistent and appropriate discipline.[73]

Communities interested in effectively reducing youth substance abuse can implement programs that teach effective parenting skills. Several programs have achieved success, especially in rural areas. One program developed in Oregon, "The Adolescent Transitions Program," trains parents of high-risk children in the areas of monitoring, limit-setting and communication, among others.[74] Another program, "Preparing for the Drug Free Years," arms parents with information and skills to improve family communication, reduce conflict, and increase their ability to teach their children how to combat peer pressure.[75]

Preventing drug abuse and production is important in order to alleviate any future destruction to our communities. The damage that is already present must be addressed through treatment.

Example 4..2 **Substance Abuse Treatment in Kentucky Targets Rural Clients**

Researchers at the Center on Drug and Alcohol Research at the University of Kentucky have developed a behavioral therapy designed for rural application. This approach is the first of its kind specifically focusing on rural substance abusers. Structured Behavioral Outpatient Rural Therapy (SBORT) was developed and piloted over three years in Eastern Kentucky and specifically identifies and assists clients in overcoming rural-specific barriers to substance abuse treatment. By combining behavioral contracting with case management, rural clients are better able to complete treatment and take advantage of the resources available to them in their environment.

For more information see the following resources:

Carl Leukefeld, et al., Structured Behavioral Outpatient Rural Therapy: A Treatment Manual for Rural Substance Abuse, University Press of Kentucky, In Press.

Carl Leukefeld, et al., Behavioral Therapy for Rural Substance Abusers, University Press of Kentucky, October 2000.

Treating Drug Addiction

A long-term effect of meth abuse is damage to dopamine cells, which are a part of the brain needed for motivation.[76] This damage to the body's "natural reward system," along with the severe depression and possible brain damage characteristic of methamphetamine abuse, limits the effectiveness of standard treatment programs which often only last 30 days.[77] Research indicates that effective meth treatment programs tend to be long in duration and involve cognitive behavioral interventions which modify how the patient thinks and behaves in order to increase coping skills.[78] One methamphetamine treatment program in California involves up to one year of intensive outpatient sessions four to five times per week, or up to six months of intensive inpatient treatment.[79]

Solutions focused on treatment include:

- tailoring programs to the needs of rural areas;
- treating jail and prison inmates; and
- using drug courts.

Tailoring drug treatment for rural areas

Rural America faces barriers to treatment not seen in urban centers, where most treatment options are found. Rural communities are often located far from treatment centers and lack local practitioners trained to deal with methamphetamine's effects on the individual, his or her family and the community. In addition, meth abusers often have psychological and medical needs that may impede the process of recovery.

For these reasons, case management is an effective aspect of treatment for methamphetamine, especially in rural locations. This means that treatment providers coordinate their services with other agencies, thereby linking clients to needed services so their needs are met and they can focus on repairing the damage of drug abuse. In fact in its 2000 report, the Methamphetamine Interagency Task Force recommended that case management be included in any treatment program because meth abusers require access to other services, such as mental health, in order to succeed.[80]

Another obstacle to overcome in treating rural meth addicts is that the health staffs that come into contact with these individuals lack the training to recognize the signs of meth abuse and to apply appropriate treatment protocols.[81] One way to overcome this barrier to treatment is to train social service case workers to screen for substance abuse problems. Two states with large rural populations have addressed this need. In Kentucky assessment specialists have been placed in welfare offices. This "Targeted Assessment Project" uses these professionals to identify a client's individual needs and obstacles and to put together an action plan more apt to be followed.[82] Similarly,

Example 4.3 **Interstate Compact on Juveniles Facilitates Drug Treatment**

The 1955 Interstate Compact on Juveniles is an interstate agreement to address multi state problems involving juvenile offenders. The compact provides procedures to permit the return of runaways, absconders and escapees who are found in other states, and also a system under which juvenile offenders can be supervised in other states. More specifically, the compact permits states to transfer juvenile offenders across state lines to receive necessary services including drug treatment. This interstate agreement is especially beneficial for remote, rural communities that lack resources but are located near drug-related services in neighboring states. State legislatures are currently considering revision to this outdated agreement that would greatly enhance the states' ability to provide necessary drug treatment. For more information, go to www.csg.org (keyword: juveniles).

Example 4..4 **Idaho Treats Substance Abusing Inmates**

A program in Idaho recognizes the connection between parolees who return to prison and their use of alcohol and drugs. The Residential Substance Abuse Treatment (RSAT) program at the South Idaho Correctional Institution has successfully created more prosocial attitudes in participants, which is believed to reduce recidivism.

An evaluation of the program reported that RSAT succeeds by incorporating the most successful treatment methods, including:

- rigid screening process;
- creation of a therapeutic community;
- cognitive and behavioral treatment approach;
- 12-step program;
- involvement of participants in their own problem-solving; and
- planned aftercare.

Source: Mary K. Stohr, et al., "Residential Substance Abuse Treatment for State Prisoners: Breaking the Drug-Crime Cycle Among Parole Violators," NIJ Research for Practice, U.S. Department of Justice, Office of Justice Programs, May 2003.

North Carolina created professional positions in social services offices to screen for substance abuse.[83] These "Qualified Substance Abuse Professionals" screen for substance abuse and coordinate care with appropriate agencies.[84] Having trained professionals in these agencies decreases the likelihood that individuals will fall through the cracks.[85]

Treating jail and prison inmates

There is a well-known link between drug abuse and crime. The Bureau of Justice Statistics reported in 2000 that more than half of state inmates reported using drugs in the month before the offense.[86] Substance abuse treatment programs in jails and prisons have been proven to effectively reduce future criminal activity and later drug abuse, which saves states money in future incarceration costs.

If drug users have already been incarcerated for committing a crime, providing treatment for them can be a cost-effective measure. Treating incarcerated addicts can reduce future drug abuse by 50 to 70 percent.[87] California evaluated the outcomes of its treatment programs for prisoners and found that inmates receiving treatment were less likely to return to prison, providing taxpayers with a $7 return for every dollar invested in treatment.[88] This saves taxpayers $1.5 billion.[89]

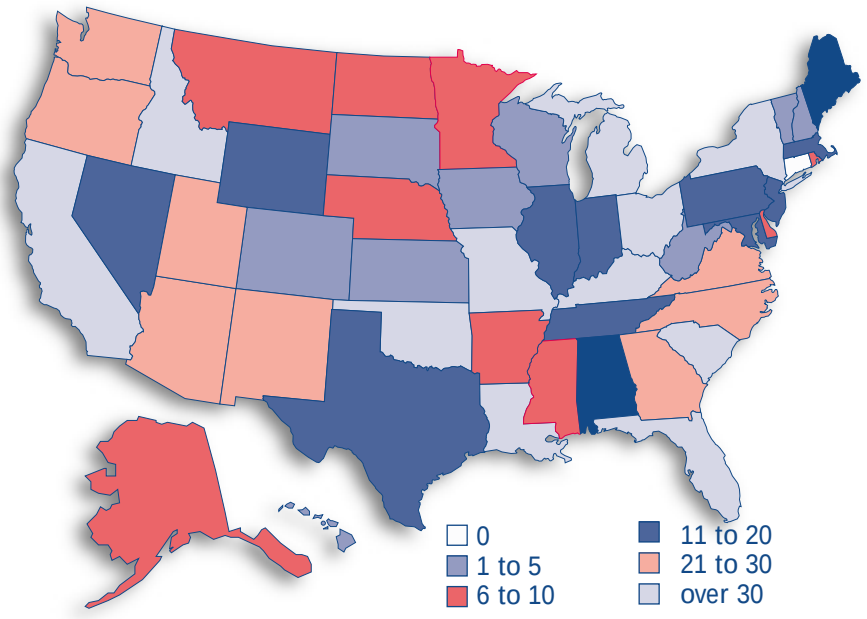
Using drug courts

Treatment can also be viewed as an alternative to incarceration and can be tailored to meet the needs of this special population. A recent trend in many states is to sentence drug offenders to treatment, particularly under the supervision of drug courts. In California, where meth abuse has been widespread for years, 50 percent of drug offenders diverted to treatment are meth addicts.[90] Treatment can be a financially sound alternative for states, given that the annual cost to detain an offender in a prison ranges from $20,000 to $50,000.[91]

Drug courts are one system by which substance abusing offenders are diverted to treatment instead of incarceration. Since the first drug court was formed in Florida in 1989, these special courts have spread to 49 states and the District of Columbia. Figure 4.2 displays the total number of active drug courts in the United States.

Currently, there are more than 1,000 active adult, juvenile and family drug courts in the United States and more than 400 in the planning process.[92] The system uses a partnership approach in which judicial oversight is used along with substance abuse treatment and often health services.[93]

Figure 4..2 **Drug Courts in the United States, 2003**



Source: "Summary of Drug Court Activity by State and County," OJP Clearinghouse and Technical Assistance Project, American University, November 2003.

Drug courts supervise the substance abuse treatment and counseling of offenders, mandating court appearances and drug tests.[94] Case management, described above, is one element of drug courts. Much of the funding for these programs comes from the U.S. Department of Justice, and in recent years grant awards for drug court planning have been targeted to rural areas. (For more information on drug courts, see TrendsAlert: Corrections Health Care at www.csg.org, keyword: corrections health care).

Although drug courts vary across jurisdictions, a Bureau of Justice Assistance report lists key components of these programs, including frequent communication between the court and the treatment provider and partnerships among the courts, treatment providers, social service agencies and other organizations to guide the drug court program.[95] This alternative to incarceration is a good choice for meth addicts because treatment is immediate with strict guidelines, which are important due to the long-term effects of abuse.[96] Family drug courts in particular can benefit families devastated by the methamphetamine addiction of a parent. These special

drug courts assist the abused and neglected children by addressing the parent's substance abuse.

Research regarding the recidivism rates of drug court participants is inconclusive at this point, but evaluations of programs suggest that graduates of drug courts are less likely to be re-arrested.[97] The majority of studies have found lower recidivism rates for those participating in a drug court program.[98]

Conclusion

Although many rural areas are geographically isolated, these communities are not alone in feeling the effects of methamphetamine abuse and production. The severe drug-related problems in many of these communities are beginning to get attention, partially due to the invasion of methamphetamine into America's heartland. More needs to be done to repair the damage caused by meth.

This report has presented strategies to disrupt the supply of methamphetamine by preventing its production and to eliminate demand for the drug through preventing use and investing in treatment. The economic and social costs of methamphetamine abuse and production are increasingly becoming a problem for the states. The social and economic returns on effectively addressing meth abuse and production are reduced state spending, reduced crime, fewer broken families, and an increase in the quality of life for all taxpayers.

Federal Resources

A major obstacle rural areas face is the lack of resources to combat meth abuse and production. The strain on local and state governments and the cost to taxpayers signify a need for a team approach to this pervasive problem. In 2002, the Midwestern Governors' Conference held a summit on meth. The governors recognized that eradicating meth requires the help of many state agencies and interstate cooperation.[99] Local officials can partner with federal law enforcement, state government and other local governments to stop the spread and devastation of this drug.

The following federal resources are available to support any state strategy to stop the spread of methamphetamine and mend the damage to communities.

- *Office of Community Oriented Policing Services (COPS)* – This program provided more than $100 million in grants between 1998 and 2002 to help stop meth abuse and production.[100] COPS encourages grant recipients to forge partnerships with other local governments and the community to create long-term solutions and provides money to train local officers to become certified to uncover meth labs and dismantle them safely. Through an evaluation of selected agencies receiving COPS funds, researchers found that the partnerships formed between police departments and other agencies successfully reduced the meth problem.[101] One example is the Salt Lake City, Utah, police department. This agency recruited more than 30 city, county and federal agencies to participate. For more information visit, http://www.cops.usdoj.gov/.
- *The Mobile Enforcement Team Program (MET)* – This program, operated by the DEA, is designed to help rural law enforcement agencies that lack personnel and resources by providing skilled agents to help put an end to drug production and trafficking in their areas. Communities that have requested the MET's services have seen successful reductions in drug-related crime and the removal of drug traffickers from the community. As of April 2002, areas receiving these services had an average of 15 percent fewer assaults, 14 percent fewer homicides and 16 percent fewer robberies. For more information visit, http://www.dea.gov/programs/met.htm.
- *The Executive Office for Weed and Seed* – This program uses partnerships with multiple agencies and the community to "weed out" drug abuse and "seed" healing by providing the community with public and private sector services focused on prevention and treatment. This program emphasizes a community approach through its four principles: aggressive law enforcement, community policing, prevention and treatment services, and neighborhood restoration and revitalization. More than 300 communities used Weed and Seed funds during fiscal year 2003.[102] Peoria, Illinois, for example, formed the Neighborhood Enhancement Action Team, combining all city agencies and the Weed and Seed coordinator into one team. As a result, issues relating to quality of life and safety are addressed swiftly, with collaboration between the city and neighborhood groups.[103] For more information visit, http://www.ojp.usdoj.gov/eows/.

Glossary

Addiction—A chronic disease, characterized by compulsive drug-seeking and drug use and changes in the brain's chemistry.

Central Nervous System—The brain and spinal cord.

Clandestine Lab—A temporary laboratory used for the illicit production of controlled substances.

Controlled Substances Act (CSA)—Title II of the Comprehensive Drug Abuse Prevention and Control Act of 1970, the CSA places all substances that are regulated under existing federal law into one of five schedules. This placement is based upon the substance's medicinal value, harmfulness, and potential for abuse or addiction. Schedule I is reserved for the most dangerous drugs that have no recognized medical use, while Schedule V is the classification used for the least dangerous drugs.

Dopamine—A brain chemical, classified as a neurotransmitter, found in regions of the brain that regulate movement, emotion, motivation, and pleasure.

Drug Abuse—The excessive use of drugs.

Recidivism—Committing new offenses after being punished for a crime.

Stimulant—A drug that enhances the activity of the brain and leads to increased heart rate, blood pressure, and respiration.

Super Lab—A large methamphetamine lab capable of producing over 10 pounds of product in a 24-hour period.

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