

# Meth amphetamine

ITS HISTORY, PHARMACOLOGY, AND TREATMENT

RALPH WEISHEIT, PH.D. | WILLIAM L. WHITE, M.A.



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and

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**Hazelden®**

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*To my parents, Lenus and Sarah Weisheit,  
who have stood by me these many years.  
They have not only given their unwavering support,  
but have been models  
of good parents and good people.*

—RAW

*This book is also dedicated to the individuals  
and families who offer living testimony  
that long-term recovery from methamphetamine dependence  
is a reality and to the professionals and recovering peers  
that help make this possible.*

—WW

The authors would like to thank the Coalition Against Methamphetamine Abuse (CAMA) in Edgar and Clark counties in Illinois for generously facilitating the research in which we were able to see and hear firsthand the many ways that the effects of methamphetamine ripple through a community. We also had the opportunity to see CAMA in action and found their dedication and focus inspiring. CAMA provides a model for how citizens can come together to effectively respond to the problem of drug use in their community.

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## PREFACE

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In the 1990s, methamphetamine gained national attention, although it was hardly a new drug. It had been associated with a host of social problems in Hawaii and the Far West for many years. One sign of methamphetamine's popularity is the hundreds of slang terms for it, including *Barney dope*, *blizzard*, *candy*, *chalk*, *crank*, *crystal*, *glass*, *go*, *go fast*, *hillbilly crack*, *ice*, *juice*, *Nazi dope*, *powder*, *rock*, *shit*, *sparkle*, *spin*, *Teena*, *Tina*, *tweak*, *white*, *yaaba*, *zoom*. There are nearly four hundred nicknames for methamphetamine and more than thirty nicknames for methamphetamine users.<sup>1</sup>

Methamphetamine is a global problem and in some parts of the world it is the leading drug problem. Throughout this book we include references to its use and manufacture in other countries, but the primary focus is on its use, production, and social consequences in the United States. This is done for several reasons. First, the problem is large, and by concentrating on one country, we were able to study the problem in depth. Second, while research continues to expand worldwide, much of the published work thus far has been conducted in the United States. Other countries, most notably Thailand, have generated a substantial body of research on methamphetamine (much of it is referenced in this book), but the volume of work done there still pales when compared with the amount done in the United States.

This book provides a comprehensive overview of what is known about methamphetamine, from its origins to contemporary ideas about treatment. Chapter 1 introduces the reader to methamphetamine. It describes how the drug has been portrayed in the media and gives a brief overview of the methamphetamine problem in the United States. Overall patterns of use—as well as variations by region, race, and gender—are described, setting the stage for the chapters that follow.

Chapter 2 provides a context for understanding the current methamphetamine problem by tracing its history and patterns of use over time. Since it was first synthesized in 1887, methamphetamine has been used



both as a medicine and as a recreational drug, and there has been a range of consequences.

Chapter 3 uncovers the myths and realities of methamphetamine's impact on the mind and body. Where there are gaps in knowledge—and there are many—inferences about methamphetamine can be drawn from studies of other stimulant drugs. Methamphetamine can be benign and beneficial for some people while a curse and destructive force for others.

The social effects of meth are addressed in chapter 4. Methamphetamine affects not only the mind and body, but society as well. This chapter shows the impact of methamphetamine on families, work, and the social lives of users, including its connection to violence. The chapter notes how the drug has played a role in the gay community, particularly in clubs and bars.

Chapter 5 takes the reader on a journey through the meth-cooking world. Methamphetamine is smuggled into the country, but it is also a domestic industry, with producers ranging from mom-and-pop operations to super labs that generate hundreds of pounds of the drug. This chapter considers issues surrounding the production of methamphetamine, including environmental contamination, fires, and the exposure of public safety officers to toxic materials.

Chapter 6 examines meth in rural communities. It presents a case study of two rural counties in which methamphetamine has been a particularly troublesome problem. The impact of methamphetamine on a variety of community groups is considered, as is the effort of community members to respond to the problem.

Finally, Chapter 7 covers what is known about treatment and recovery support resources for methamphetamine dependence. Treating methamphetamine dependence has proven possible but challenging. This chapter also considers how the problem and responses to it might evolve over time.

Throughout the book we have tried to look beyond raw emotions to uncover the “facts”—to the extent that ultimate truth about such issues can ever be known. Our purpose is not only to educate the reader but also to encourage rational discourse about a subject that causes such angst at the individual, community, and societal levels.

## CHAPTER 1

# Does Methamphetamine Matter?

The headlines and anecdotal stories about methamphetamine are sometimes horrific. Such terms as *scourge* and *epidemic* are often used when describing the methamphetamine problem in the United States. The media, including sources that offer a moderating voice on other issues, have done their share to fuel the perception that methamphetamine is not simply a problem, but a problem of crisis proportions. For example:

- **Frontline**, a PBS documentary series not ordinarily given to exaggeration, addressed the issue with a documentary titled “The Meth Epidemic.”

Woman loved meth more than her son, prosecution says at trial

—During a drug-induced sleep the woman rolled over on her three-month-old son suffocating him.<sup>1</sup>

Schoolgirls questioned in sex-for-drugs case

—Schoolgirls as young as twelve trade sex for methamphetamine.<sup>2</sup>

A drug scourge creates its own form of orphan

—The foster care system in Oklahoma is overwhelmed by the number of children removed from homes where their parents were using or making methamphetamine.<sup>3</sup>

### Breast milk cited in meth fatality

—A California woman is convicted in the death of her three-month-old son after he ingests methamphetamine-tainted breast milk.<sup>4</sup>

### Man who killed 5 is sentenced to death

—The first person sentenced to death in Iowa in forty years was convicted of killing five people to protect his methamphetamine operation.<sup>6</sup>

### Meth fallout: “I felt my face just melting”

—Burn units in Tennessee struggle to handle cases arising from explosions and fires from methamphetamine labs.<sup>6</sup>

- The National Association of Counties issued a series of reports under the general heading “The Meth Epidemic in America.” Citing one of those reports, National Public Radio ran a story titled “Meth Epidemic Fueling Family Breakups.”
- A *Newsweek* cover headline read “The Meth Epidemic: Inside America’s New Drug Crisis,” and the story inside was titled “Meth: America’s Most Dangerous Drug.”
- Even the U.S. Congress has been drawn to the use of the word *epidemic*. Legislation to restrict access to ephedrine, a chemical precursor, or ingredient, used in the production of methamphetamine, was titled “Combat Methamphetamine Epidemic Act of 2005.”
- A Google search for the phrase “methamphetamine epidemic”

finds about thirty thousand results, and a search for both words appearing separately on a Web page brings nearly 188,000 results (as of Oct. 7, 2008).

- The National Geographic Channel, which usually focuses on the more mundane, ran a documentary about methamphetamine titled “The World’s Most Dangerous Drug.” With this label, methamphetamine joins the ranks of such previous designees as heroin, cocaine, LSD, and Ecstasy.<sup>7</sup>

Methamphetamine has not just been fodder for journalists or documentary filmmakers. It has also made its way into popular culture, appearing in books (*Tweak: Growing Up on Methamphetamine*; *Beautiful Boy: A Father's Journey Through His Son's Addiction*; *Almost Midnight*; *Crank*; *Glass*; *Leaving Dirty Jersey*; *Tweaked*; *The King of Methlehem*), movies (*Spun*, *The Salton Sea*), and music ("Methamphetamine" by Son Volt, "You and Your Crystal Meth" by the Drive-By Truckers, "Semi-Charmed Life" by Third Eye Blind). The AMC television network has developed a television series entitled *Breaking Bad*, which is a fictional account of a financially strapped high school chemistry teacher who teams up with a former student to make and sell methamphetamine. Methamphetamine, it seems, is everywhere.

Not everyone agrees, however, that the problem of methamphetamine rises to epidemic proportions. A lengthy report by the Sentencing Project concludes that applying a term such as *epidemic* to methamphetamine is misleading, inflammatory, and ultimately counterproductive in responding to the problem.<sup>8</sup> While acknowledging that methamphetamine use is substantial in some communities, the report says there is no evidence for a national epidemic because (1) studies of arrestees in large cities find that meth is reported in high percentages only in Western cities; (2) where meth is reported, it appears to replace cocaine rather than add to the overall number of drug users; (3) studies may show meth to be a problem in rural areas, but such areas are not representative of the entire country; and (4) overall rates of use did not increase substantially from 1999 to 2004. The implication is that the term *epidemic* should only be applied to problems that affect all parts of the country, that are on the increase, and for which there is no obvious ameliorative treatment—a high standard indeed.

In his book *No Speed Limit: The Highs and Lows of Meth*, Frank Owen painstakingly details how methamphetamine has swept across the country and the many ways in which the drug has wreaked havoc on users, their families, and their communities.<sup>9</sup> In the end, however, he concludes that reactions to the problem largely have been overblown, noting that although the devastation from methamphetamine is real, it pales compared with the devastation caused by alcohol or cocaine.

Taken from the field of medicine, the term *epidemic* refers to a large number of people who have been infected with a disease, either in a community or more broadly. Certainly there are communities in which *epidemic* would aptly describe the methamphetamine problem, and there are communities in which that epidemic would appear to have been brought under control (see chapter 6). The problem with using the term is not whether it technically applies to the methamphetamine situation. The problem is that the term is emotionally loaded and lacks precision. Ultimately, *epidemic* and *scourge* are judgment calls, having no empirical markers. There is, for example, no magic number of users above which we say there is an epidemic and below which we say there is none.

Methamphetamine is not the first drug for which problems have been exaggerated or overblown. Marijuana, cocaine, heroin, and alcohol all have been demonized as instantly addictive substances; using them would inevitably lead to the social, moral, and physical destruction of the user.<sup>10</sup> But to argue that the addictive nature and destructive consequences of methamphetamine have been overblown is not to argue that the drug is harmless.

Is methamphetamine a new problem and do such headlines and terminology accurately reflect the nature and extent of the methamphetamine problem in the United States? Is it even accurate to describe the situation as a national problem? Is the drug truly deadly to the user and is treatment possible? Such questions provided the impetus for this book. The chapters that follow will discuss many aspects of the issue—history, physiology, social effects, manufacturing, community consequences, and treatment for those who have become dependent on the drug. The intent is to separate “fact from fiction” about methamphetamine—to the extent that is possible when describing such an emotionally charged subject. This chapter lays the foundation for those that follow by describing the extent of the problem in the United States.

## Is There a Methamphetamine Epidemic?

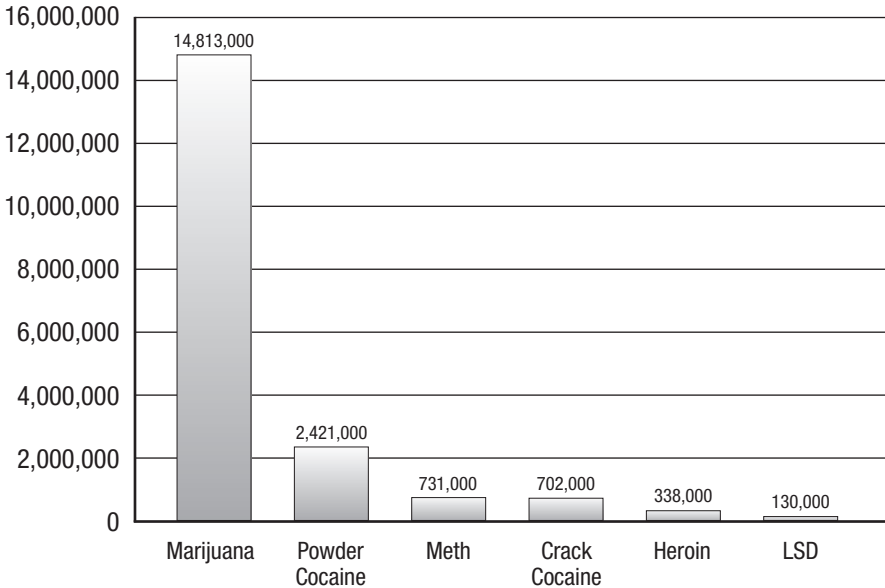
Most methamphetamine use is illegal; consequently, users, manufacturers, and distributors have strong incentives to hide their behavior. This means

the nature and extent of the problem are difficult to measure. The absence of any concrete data about the problem makes it easy to either exaggerate or diminish the impact of the drug on society. Although current knowledge is incomplete, it is possible to draw on a number of sources to get a general sense of the problem.

Those who believe the methamphetamine *epidemic* has been overblown, or who dismiss the problem outright, often turn to national indicators of use to make their point, while ignoring or minimizing regional or local variations. And, utilizing national data does lead one to view the problem as minor when compared with that of other drugs. Perhaps the most commonly used source of national data about drug use prevalence is the National Survey on Drug Use and Health (NSDUH). Conducted annually by the Substance Abuse and Mental Health Services Administration (SAMHSA) since 1996, the survey has undergone changes over the years. Methamphetamine was not specifically included in the survey until 1999, and questions about the recreational use of legally manufactured methamphetamine and about methamphetamine use via injection were not included until 2006. In 2006, the NSDUH was administered to 67,802 individuals age twelve or older representing all fifty states. The survey did not include homeless people or prison inmates, two groups that might be expected to have higher-than-average drug abuse rates. Although respondents were promised confidentiality and no identifying information was stored with the responses, the survey did ask people to self-report drug use to a federal agency—a circumstance almost certain to encourage underreporting.

Despite these limitations, the NSDUH is one of the few data sources of its kind and is routinely used as a gauge of drug use prevalence. For 2006, the NSDUH reported that an estimated 731,000 people age twelve or older in the United States were current methamphetamine users and 259,000 people were new users.<sup>11</sup> These numbers had not significantly changed since 2002. Putting these numbers in perspective, figure 1.1, created using numbers from the 2006 NSDUH, shows how the estimated number of people who used methamphetamine in the previous month compares with the number of people who used other illicit drugs in that same period.

Figure 1.1

Number of People Who Reported Using Drugs  
in the Past Month, 2006

As seen in figure 1.1, the number of current methamphetamine users was slightly greater than the number of crack cocaine users, but was more than double the number of heroin users. The numbers pale, however, compared with those for alcohol and marijuana. The 2006 NSDUH estimated that half of the U.S. population age twelve and older (125,309,000 people) had used alcohol in the previous month. If one wishes to use the term *epidemic* based purely on large national numbers, then alcohol and to a lesser extent marijuana are the drugs that best fit that characterization.

Another source of national data about the extent of methamphetamine use can be found in treatment admissions data, collected and reported by SAMSHA and known as the Treatment Episode Data Set, or TEDS.<sup>12</sup> TEDS represents data gathered from the 1.8 million people admitted to state-recognized treatment facilities throughout the United States. Admissions data have been reported annually since 1992. In 2000, TEDS included a

second series of annual data focused on reports from individuals discharged from treatment.

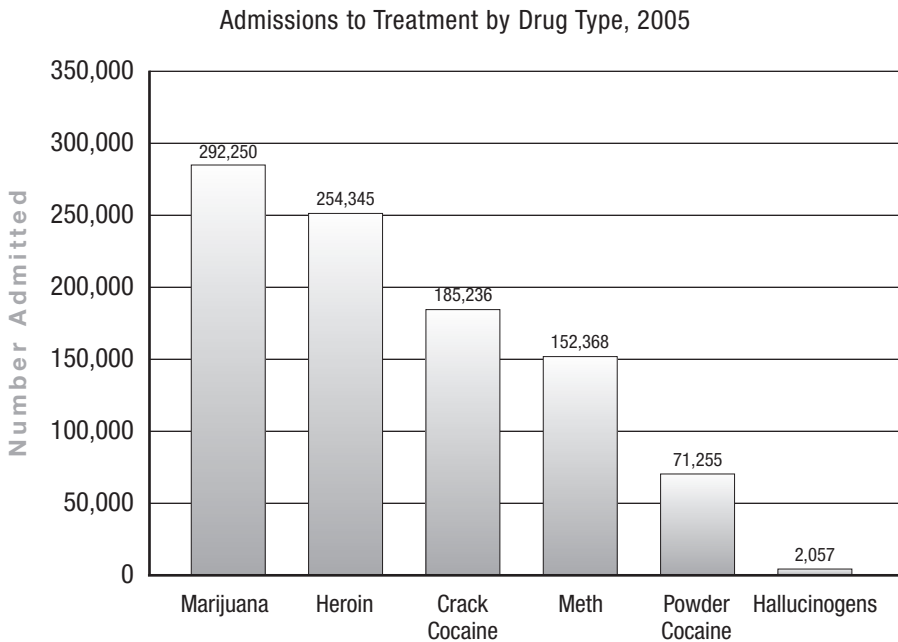
The TEDS data have their limitations. The data are drawn from treatment programs reporting to the states; however, criteria for including facilities in the count vary considerably among the states, as do the speed and thoroughness with which they report. For example, some states include only facilities receiving public funding while others include private facilities. People who receive treatment from the Department of Defense or Veterans Affairs are not included, nor are federal prison inmates, even though over half are in prison on drug-related charges. Those who enter treatment more than once in a year or who switch treatment providers will have each admission counted separately. Many drug users do not enter treatment, many are not dependent and thus do not need treatment, and many who are dependent are able to quit without entering a formal treatment program—either quitting on their own or through peer support groups. The number of drug users in any of these categories is unknown. However, if other drugs provide any indication, the number of methamphetamine users whose use is short-term, periodic, or limited far outnumbers those whose use has spun out of control. Further, treatment sites are not geographically distributed in such a way as to be equally accessible to all. As many as one in ten drug users who believe they need treatment do not access it because of transportation problems or because treatment is not convenient.<sup>13</sup> Still, despite these limitations, treatment admissions data provide another piece of the puzzle and may provide some insight into the extent to which drugs cause problems for their users or for society in general.

Figure 1.2<sup>14</sup> shows that marijuana and heroin accounted for most drug treatment admissions in 2005 (the most recent year that numbers are available). Methamphetamine, which was reported only one-third as often as powder cocaine in recent use (see figure 1.1), accounted for twice as many drug treatment admissions as powder cocaine. This suggests that methamphetamine use is substantially more likely to cause users the kinds of problems that lead to treatment. Heroin, which hardly registered among those reporting drug use in the past month, accounted for over one-fifth of admissions for illicit drugs. Alcohol, not shown in figure 1.2, accounted for 39.1 percent of treatment admissions, more than double the number



for marijuana, almost triple the number for heroin, and almost five times the number for methamphetamine. On the basis of treatment data it appears that methamphetamine may not be appropriately described as an epidemic, but is likely more problematic than powder cocaine.

Figure 1.2



A third source of national data targets children in secondary schools. Monitoring the Future is a project that conducts annual surveys of students in grades 8, 10, and 12.<sup>15</sup> The sample is large, including more than fifteen thousand students from each grade, and designed to be nationally representative. In grades 8 and 10 the surveys are anonymous, but in grade 12 identifying information is recorded to facilitate postgraduation follow-up. This restriction seems likely to discourage honest reporting. The data are further limited because they miss dropouts and students absent on the day of the survey, two groups that are likely to be at greater risk for drug use.

Although the annual surveys began in 1975, questions about metham-

phetamine were not included until 1999. Self-reported methamphetamine use showed a relatively consistent decline between 1999 and 2007. In 1999, for example, 8.2 percent of high school seniors reported having used methamphetamine in their lifetime, but by 2007 that rate had dropped to 3.0 percent.

Table 1.1<sup>16</sup> shows that among major drugs, only heroin was used less frequently than methamphetamine, and methamphetamine was used almost as frequently as crack cocaine. That 3 percent of high school seniors reported having used methamphetamine is by no means trivial, but it is also far removed from a national epidemic.

Table 1.1

Percent of High School Seniors Reporting Drug Use, 2006

Drug	Past Month	Past Year	Lifetime
Alcohol	44.4	66.4	72.2
Marijuana	18.8	31.7	41.8
Hallucinogens	1.7	5.4	8.4
Powder Cocaine	2.0	5.2	7.8
Crack Cocaine	0.9	1.9	3.2
Methamphetamine	0.6	1.7	3.0
Heroin	0.4	0.9	1.5

Although the survey did not ask about methamphetamine in general until 1999, in 1991 it began asking about a crystalline form of methamphetamine known as *ice*. Also included were questions about the perceived availability of ice and the perceived risk of using ice. While methamphetamine use in general declined rather steadily over time, the use of ice changed little between 1991 and 2007. By 2007 the percentage of high school seniors reporting the use of ice slightly exceeded the number reporting methamphetamine use in general (3.4 percent versus 3.0 percent lifetime use). Most seniors (about 60 percent) thought there was a great

risk in using ice even one or two times. Further, the percentage of seniors reporting that ice was very easy or somewhat easy to get held steady over time at around 27 percent.

Overall, these three sources of national data about methamphetamine—the NSDUH, treatment admission data, and the survey of high school seniors—suggest that methamphetamine is a significant problem, but one that is far short of a national epidemic. However, national data may mask important regional and local variations. There may well be local epidemics that are lost when made part of a national average. The problem with averages is they obscure important extremes. One is reminded of the tongue-in-cheek saying “My head is in an oven and my feet are in a bucket of ice, and so on average I’m comfortable.”

## Where Is Methamphetamine a Problem?

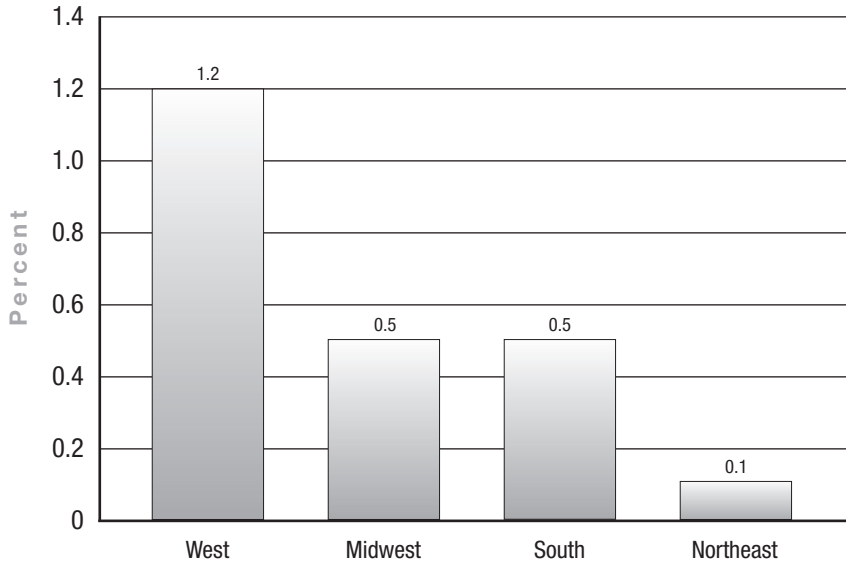
The problem of methamphetamine is not evenly distributed across the country. There are two respects in which this variation manifests itself: regional differences and rural–urban differences. Some of the same data sources used to describe the methamphetamine problem on a national scale can be used to consider geographic patterns. In addition, there are some data sources that tend to draw on urban populations and by doing so reveal regional variations.

### Regional Differences in Methamphetamine Use

One of the most striking observations about methamphetamine use is that it began in the western region of the United States (see chapter 2), and it is in the West where methamphetamine remains the biggest problem. A 2007 report from the NSDUH rather dramatically illustrates this regional variation. Figure 1.3 shows the percentages of people who reported using methamphetamine in the previous year (2006) by region: 1.2 percent in the West, 0.5 percent in the Midwest, 0.5 percent in the South, and 0.1 percent in the Northeast.<sup>17</sup>

Drug treatment admissions data also reflect the high concentrations of methamphetamine users in the West.<sup>18</sup> The states with the highest treatment admission rates in 2005 were Oregon, Hawaii, Iowa, Washington,

Figure 1.3

Percent of People Reporting Methamphetamine Use  
in the Past Year by Region, 2006

California, South Dakota, and Utah. All are west of the Mississippi River. These states each had more than two hundred methamphetamine treatment admissions for every one hundred thousand people in the state. Conversely, the states with the lowest treatment admission rates were in the East—New Jersey, Rhode Island, New York, Massachusetts, Maryland, Connecticut, and Pennsylvania. Each of these states reported four or fewer methamphetamine treatment admissions per one hundred thousand people in the state. Drug treatment admissions data also indicate that when viewed over time methamphetamine appears to have first taken hold on the West Coast and then moved eastward (see chapter 2). Whether this trend will continue is unknown.

Another source of information about the geographic distribution of methamphetamine is the Arrestee Drug Abuse Monitoring program, also known as ADAM.<sup>19</sup> Under the ADAM program, offenders brought to city or county detention facilities were interviewed about their drug use and

asked to confirm their self-reports with a urinalysis. Interviews and drug screens were usually conducted on the day they were arrested and always within forty-eight hours of their detention. In 2003, the last year of the program, ADAM collected data from thirty-nine cities from across the United States. The information was not used against arrestees in their legal proceedings and cooperation was high, with over 90 percent agreeing to be interviewed and, of those, over 80 percent agreeing to provide a urine screen. Because the data were gathered primarily from large cities, they are not representative of the country as a whole, but they do provide insight into regional variations in methamphetamine use.

The ADAM data show that regional variations in methamphetamine use are strong. Each of the twenty cities that fell at or above the median percentage of arrestees testing positive for methamphetamine are located west of the Mississippi River. Table 1.2 shows the five cities reporting the highest percentage of arrestees testing positive for methamphetamine.<sup>20</sup> All five cities are in the Western United States. Table 1.3 shows the states with the highest percentage of arrestees testing positive for cocaine.<sup>21</sup> Except for Tucson, Arizona, the remaining four cities are all east of the Mississippi River. Of the nineteen cities above the median in the percent of arrestees testing positive for cocaine, thirteen are east of the Mississippi.

Tables 1.2 and 1.3 illustrate another interesting pattern regarding the geographic dispersion of methamphetamine. Methamphetamine and

Table 1.2

Top Five Cities with Arrestees Positive for Meth, 2003

City	% Positive for Methamphetamine	% Positive for Cocaine
Honolulu, HI	40.3	11.6
Phoenix, AZ	38.3	23.4
Sacramento, CA	37.6	21.6
San Jose, CA	36.9	12.9
San Diego, CA	36.2	10.3

Table 1.3

## Top Five Cities with Arrestees Positive for Cocaine, 2003

City	% Positive for Cocaine	% Positive for Methamphetamine
Chicago, IL	50.6	1.4
Atlanta, GA	49.8	2.0
New Orleans, LA	47.6	2.6
Miami, FL	47.1	0.4
Tucson, AZ	42.5	16.0

cocaine are both powerful stimulants, and, in those places where methamphetamine becomes popular, it is at the expense of cocaine. This pattern is also seen in the treatment admissions data<sup>22</sup> in which methamphetamine treatment admissions are heavily concentrated in the West while cocaine treatment admissions are heavily concentrated in the East. Whether the tendency of methamphetamine to displace cocaine is the result of distribution networks, user preference, or some combination of the two is difficult to determine.

### Regional Differences in the Method of Administration

Like many other drugs, methamphetamine can be taken in a variety of ways. It can be smoked, eaten, snorted, injected (into the blood, muscle, or skin), or even taken in suppository form. The method of administration influences “the timing and intensity of the ‘rush’ that accompanies the use of MA [methamphetamine]. . . . The effects are almost instantaneous when MA is smoked or injected; they occur approximately five minutes after snorting or 20 minutes after oral ingestion.”<sup>23</sup> Injecting the drug produces the shortest time from first use to abuse and from abuse to treatment. Injection also places the user at risk for HIV and for hepatitis C.

Not only are there regional variations in the extent of methamphetamine use, there are also regional and local variations in the manner in which the drug is used. For example, in San Diego methamphetamine is

most commonly smoked. In Texas injection is the preferred method of administration, while in Minnesota methamphetamine is most commonly taken by snorting.<sup>24</sup> While in many parts of the country methamphetamine is purchased in powdered form, in Hawaii it is purchased in crystal form (aka *ice*) and smoked. Why one form of use is preferred over others in any particular location is probably related to custom,<sup>25</sup> and perhaps to the way the drug was introduced into the area. For example, it has been speculated that smoking is the preferred method of administration in Hawaii because Hawaiians have a history of smoking marijuana.<sup>26</sup> In fact, ice is such a dominant form of methamphetamine in Hawaii that many users think that ice and methamphetamine are different drugs, or that methamphetamine is a form of ice, rather than ice being a form of methamphetamine.<sup>27</sup>

### Rural–Urban Differences

Public perceptions, fueled by the media, are that methamphetamine is primarily a rural problem. This perception is bolstered by the reality that methamphetamine labs in the United States are found primarily in rural areas—partly because the odors from the labs are less likely to be noticed in sparsely populated areas and partly because small methamphetamine labs use ingredients that are more readily accessible in rural areas (see chapter 5).

Although the popular press frequently emphasizes the rural nature of domestic methamphetamine *production*, the data on methamphetamine *use* are more mixed. A few studies suggest that rural–urban differences in the percentage of users are minor. For example, the National Survey on Drug Use and Health found that among respondents age twelve and over in nonmetropolitan counties in 1999, 0.8 percent reported using methamphetamine in the past year, compared with 0.5 percent of respondents from large metropolitan areas.<sup>28</sup> A study of recent arrestees in Omaha, Nebraska, and four rural Nebraska counties found few rural–urban differences, observing greater variation among the rural counties than between the urban and rural counties.

Arrestee data and national survey data obscure an important rural–urban difference in methamphetamine use. As noted in chapter 4, a sub-

stantial body of literature suggests that methamphetamine is of concern in a particular subset of the population in major urban areas, including large cities east of the Mississippi River. These urban users are males who are active in the gay club scene or who seek anonymous gay sex partners through the Internet. These individuals are unlikely to appear in studies of arrestees or to have much impact on the outcome of general population surveys. While such groups of methamphetamine users in rural communities may exist, they do not appear in any reports.

Some research presents a mixed picture of rural–urban differences in methamphetamine use. A study by the National Center on Addiction and Substance Abuse at Columbia University considered a variety of data sources and concluded that young people in rural areas were substantially more likely than young people in urban areas to have used methamphetamine in the previous year, but that rates of lifetime use were similar across community sizes.<sup>29</sup>

More common, however, is a finding of considerably more methamphetamine use in rural areas, particularly in the Midwest. Bauer reported that in Illinois 71 percent of all methamphetamine arrests were carried out by rural police units and that 71 percent of drug treatment admissions for methamphetamine were in rural counties.<sup>30</sup> Thus, the admission rate for methamphetamine treatment in rural counties was five times that for the state as a whole. As illustrated in figure 1.4, data on drug-related admissions to the Illinois Department of Corrections also reflect the extent to which methamphetamine is a rural phenomenon in the Midwest.

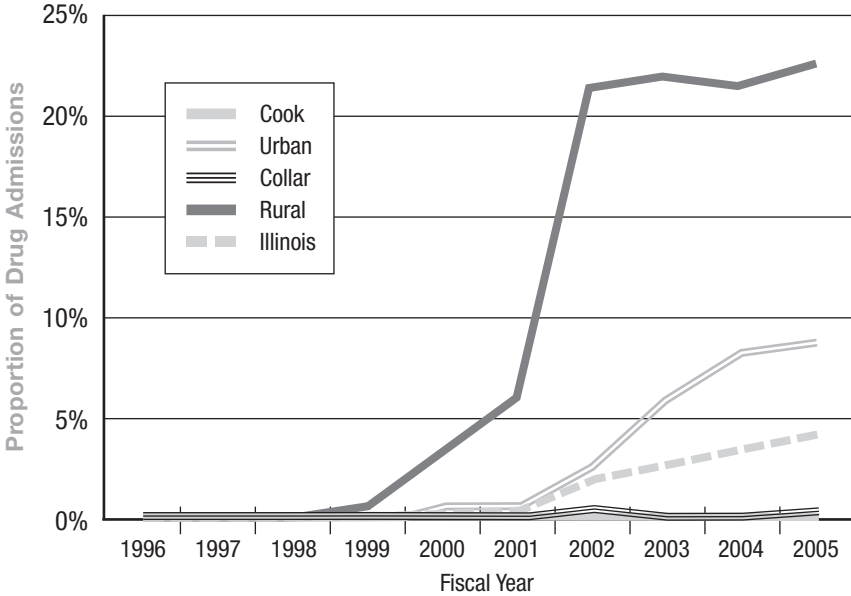
In their study of incarcerated offenders, Warner and Leukefeld found large differences between urban and rural prison inmates in their reported use of amphetamines prior to incarceration.<sup>31</sup> Among urban inmates 10.6 percent reported having used amphetamines in the thirty days prior to their arrest, compared with 23.1 percent of rural inmates and 30.0 percent of inmates from the most rural areas. Unfortunately, inmates from the most rural areas were also less than half as likely to have sought drug treatment prior to incarceration (23 percent versus 49 percent).

A study of urban and rural admissions for methamphetamine at five midwestern treatment sites found several respects in which rural users exhibited more problematic patterns of abuse. Rural methamphetamine



Figure 1.4

Methamphetamine Admissions as a Proportion of Drug Admissions in Illinois, 1996–2005



Source: Illinois Department of Corrections

users began using at a younger age, and subsequently entered treatment at a younger age. Rural methamphetamine users also reported more alcohol dependence, more frequently experienced methamphetamine-related psychosis, and an earlier onset of methamphetamine-related psychosis.<sup>32</sup> Rural methamphetamine users in this midwestern study were more likely than urban users to take the drug intravenously. This finding is consistent with national data indicating that rural methamphetamine users are almost three times more likely than those in the largest cities to use methamphetamine intravenously.<sup>33</sup>

One population, most of whose citizens live in rural areas, has been particularly hard hit by methamphetamine. Nearly three quarters (74 percent) of surveyed Indian law enforcement agencies in the United States reported methamphetamine as the drug posing the greatest threat to residents of tribal lands.<sup>34</sup> Only 3 percent of the agencies reported that methampheta-

mine was not available in their communities and most (69 percent) said there was no tribal-sponsored center or program to treat methamphetamine addicts.

Although not unique to rural areas, methamphetamine appears to present particular challenges for rural communities. Even if the percentage of the population using methamphetamine were the same in rural and urban areas, the problems arising from methamphetamine use may be more substantial in rural areas where the tax base is smaller, thus limiting resources for prevention, treatment, and enforcement.<sup>35</sup> In rural communities, with tightly knit social networks, concerns about the stigma of drug use may discourage users from seeking treatment and thus risking public disclosure of their problem.<sup>36</sup> Closely knit social networks also make undercover police work more difficult and complicate the conduct of research on rural methamphetamine users.<sup>37</sup> Finally, the distances that must be traveled complicate access to treatment. All of these factors combined may mean that reported rural–urban differences in methamphetamine use may substantially understate rural–urban differences in the drug’s impact.

## Who Is the Methamphetamine User?

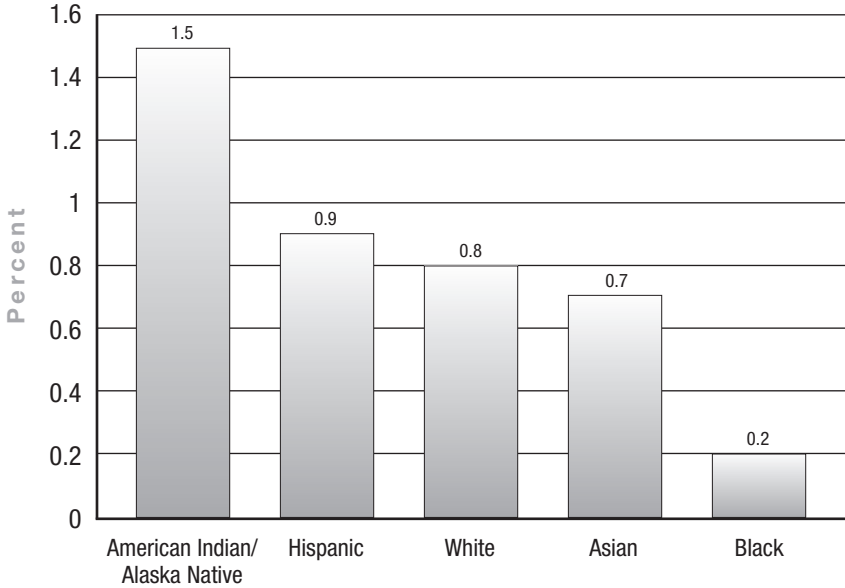
Methamphetamine has been stereotyped as a “white trash” drug that has particular appeal to women. As with any illicit drug, methamphetamine users come in all ages, races, genders, and incomes. The question is whether there is a grain of truth to the stereotype—are methamphetamine users more likely than other drug users to be white, female, and blue collar?

### Race and Methamphetamine Use

The public perception is that methamphetamine is a drug primarily used by white people, and this appears to be only partly true. As illustrated in figure 1.5, the 2005 National Survey on Drug Use and Health shows that by far the most use is reported by the category “American Indian or Alaska Native” (1.5 percent), a rate about double that for Hispanics (0.9 percent), white people (0.8 percent), or Asians (0.7 percent).<sup>38</sup> Black people were among the least likely users of methamphetamine, with a rate (0.2 percent) that was only a fraction of the rates reported by other groups.

Figure 1.5

Meth Use by Race, 2005



Monitoring the Future, the annual survey of high school seniors, reports drug use by only three racial/ethnic categories: white, black, and Hispanic. Among high school seniors in 2006, the group reporting the highest percentage of methamphetamine users was Hispanic (3.7 percent of respondents), followed by white students (2.6 percent).<sup>39</sup> By comparison, the percentage of methamphetamine users among black high school seniors was relatively small (0.4 percent).

Treatment admissions data also report methamphetamine-related admission by race. For 2006, these data show that among the three largest racial groups 11.8 percent of Hispanics admitted for treatment were admitted for methamphetamine as their primary substance of abuse, compared with 11.1 percent of white people and 1.1 percent of black people.<sup>40</sup> There are, however, other groups that are smaller in number but for whom methamphetamine is a particular problem. For example, among Asian/Pacific Islanders admitted for drug treatment, 28.6 percent were admitted for methamphetamine as their primary drug of abuse and

among American Indians, 10.4 percent were admitted for methamphetamine.

There also appear to be significant differences among Hispanic subgroups. As table 1.4 shows, Mexicans were not only the subgroup with the largest number of drug treatment admissions overall, but also among those admissions they were most likely to have methamphetamine as their primary drug of abuse.<sup>41</sup>

Table 1.4

Differences Among Subgroups of Hispanics  
Admitted for Drug Treatment, 2006

Subgroup	Number Admitted for Any Drug	Percent Admitted for Methamphetamine
Mexican	99,017	21.4
Puerto Rican	73,389	0.8
Cuban	9,291	4.0
Other	69,021	10.6

Overall, the data from several national sources suggest that while methamphetamine is relatively popular among white people, it is also a popular drug among Hispanics, American Indians, and Asian/Pacific Islanders. Perhaps the most consistent finding across various sources is the very small representation of black people among methamphetamine users and among those seeking treatment for methamphetamine abuse. Of course, these national patterns obscure regional and local variations. In Hawaii, for example, Pacific Islanders are heavily represented among methamphetamine users. In the Midwest, where minority populations are small or nonexistent in many communities, it is not surprising that white people are heavily represented among the user and treatment populations. Still, the notion that methamphetamine is “white man’s crack”<sup>42</sup> is an exaggeration.

### Gender and Methamphetamine Use

According to the 2005 NSDUH, men were twice as likely as women to report having used methamphetamine in the previous month. This is similar to the pattern for marijuana, cocaine, and inhalants.<sup>43</sup> The difference between men and women was smaller for other stimulants, pain relievers, hallucinogens, and psychotherapeutics.

Among high school seniors, the percentage of males using drugs exceeded that for females for most drugs.<sup>44</sup> Methamphetamine, however, displayed an interesting gender-related pattern. When seniors were first asked about methamphetamine use in 1999, boys were more likely than girls to report use, though by a narrow margin (5.0 percent versus 4.5 percent). The difference favoring males remained, and remained slim until 2006, when the percentage of females using methamphetamine exceeded that for males, though the difference was small (2.0 percent for males and 3.0 percent for females). In any of the years reported, the male-female differences were likely too small to be of practical importance for prevention or treatment programs.

National treatment admissions for methamphetamine also find that males outnumber females in treatment admissions, but the gap is much smaller (53.8 percent versus 46.2 percent) than that for self-reported methamphetamine use in the adult population.<sup>45</sup> The gap between men and women regarding treatment for methamphetamine is smaller than the gap for heroin, powder cocaine, marijuana, hallucinogens, or inhalants.

Taken together, these national data on methamphetamine use and on treatment suggest it is not a drug that is uniquely appealing to women. It may be true, however, that women use the drug for different reasons. Women may be more likely to use the drug for weight loss and less likely to use the drug as a sexual stimulant (see chapter 4). Further, women who use methamphetamine may be more willing to seek treatment than are men.

### Other Characteristics

Treatment admissions data provide insight into other characteristics of methamphetamine users. As table 1.5 shows, methamphetamine users entered treatment at a younger age than did the users of most other drugs,

except for marijuana.<sup>46</sup> Methamphetamine users were also less likely than heroin or crack cocaine users to enter treatment by self-referral and were more likely than the users of other drugs (except marijuana) to have entered treatment as a result of a criminal justice referral. Methamphetamine users were more likely than the users of other drugs (except marijuana) to report this was their first admission to treatment.

Table 1.5

**Characteristics of Methamphetamine and  
Other Drug Users in Treatment**

Characteristic	Meth	Heroin	Crack	Powder Cocaine	Marijuana
Average Age at Admission	31	36	38	34	24
Daily Use (%)	27.9	75.2	40.2	27.0	26.1
First Use under Age 15 (%)	16.3	9.8	8.1	11.2	55.7
Self-Referral to Treatment (%)	23.8	59.3	37.6	31.7	15.9
Criminal Justice Referral (%)	49.2	14.2	26.4	33.7	56.7
No Prior Treatment (%)	52.5	25.5	37.3	45.8	59.6
Employed Full-Time (%)*	17.2	11.9	11.5	22.6	20.5
Public Aid (%)	6.2	13.8	11.8	9.4	7.8
High School or More (%)**	61.5	62.5	64.7	66.3	56.8
Yes Pregnant (%)***	6.8	4.0	4.5	4.3	5.5
Psychiatric Problems (%)	14.2	20.5	26.7	26.2	20.0
No Health Insurance (%)	73.0	57.8	67.4	63.5	57.4

\*Among those 16 and over; \*\*Among those 18 and over; \*\*\*Females only

While meth users were more likely than heroin or crack cocaine users to be employed full-time, only 17 percent were full-time employees, though they were less likely than the users of any other drug to have public aid as their primary source of income. Methamphetamine users

were less likely than any other type of user to have health insurance. Methamphetamine users were somewhat less likely than the users of heroin, crack, or powder cocaine to have a high school diploma or more. Finally, despite the ability of extended methamphetamine use to induce psychosis (see chapter 3), methamphetamine users admitted to treatment were less likely than the users of any other major category of drug to have other psychiatric problems.

Overall, the characteristics of substance abusers admitted to treatment suggest that methamphetamine users are unique, but probably have more in common with powder cocaine and marijuana users than with those who use heroin or crack cocaine.

## CONCLUSION

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Describing the methamphetamine problem with such terms as *epidemic* and *scourge* does more to inflame than to inform. However, arguing about whether these terms accurately describe the nature and extent of the problem is, to use a biblical phrase, straining at gnats. It's simply not very helpful. The drug clearly poses significant problems for some communities and not for others and is incredibly destructive for some users but not for others. What these terms do reflect is a visceral reaction to the drug and its attendant problems. Such a reaction can make it difficult to separate truth from fiction. This chapter has begun the process of separating fact from fiction by looking at the issue in its broadest sense, including national-level indicators of methamphetamine use and treatment, regional variations in use, and characteristics of those who use the drug. By almost any measure the problems created by methamphetamine are small compared with those that arise from alcohol abuse. Beyond alcohol, methamphetamine is used by about as many people as use crack cocaine, but is more commonly found in the West and in rural areas than are either crack or powder cocaine. Both cocaine and methamphetamine are powerful stimulants and so it is not surprising that where one is popular the other is considerably less so. One of the most striking differences between methamphetamine and other illicit drugs is the relatively small percentage of meth users who are black.

*This chapter has outlined the broad patterns of methamphetamine use in modern times. The chapters that follow examine more specific dimensions of the drug and its impact on society. Chapter 2 takes us back to the beginning, detailing the origins and evolution of methamphetamine's use as a recreational drug.*



**The definitive book on the impact of methamphetamine on people, communities, and society, written by two of America's leading addiction and criminal justice experts.**

In recent years, the media have inundated us with coverage of the horrors that befall methamphetamine users, and the fires, explosions, and toxic waste created by meth labs that threaten the well-being of innocent people. In *Methamphetamine: Its History, Pharmacology, and Treatment*, the first book in Hazelden's Library of Addictive Drugs series, Ralph Weisheit and William L. White examine the nature and extent of meth use in the United States, from meth's early reputation as a "wonder drug" to the current perception that it is a "scourge" of society.

In separating fact from fiction, Weisheit and White provide context for understanding the meth problem by tracing its history and the varying patterns of use over time, then offer an in-depth look at

- the latest scientific findings on the drug's effects on individuals
- the myths and realities of the drug's impact on the mind
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**Ralph Weisheit, Ph.D.**, is a distinguished professor of criminal justice at Illinois State University where he has been teaching and conducting research for more than twenty-five years.



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