

HOW DO WE KNOW IT'S TRUE?

Methods of Research

Social Research on Drug Use:

An Introduction 84

Lying 84

Sampling 86

Statistics 86

Rates of Drug Use: An Introduction 88

Arrestee Drug Abuse Monitoring Program
(ADAM) 89

Drug Abuse Warning Network (DAWN) 91

Monitoring the Future (MTF) 95

National Survey on Drug Use and Health
(NSDUH) 97

Summary 98

Account: Interview with a Polydrug User 100



“I’m not a statistic!” David insists. “You can’t reduce people’s lives to a table, chart, or graph!” Lisa insists. These assertions, which I’ve heard from students in my courses on drug use, are only half-right. David—and you—may not *be* a statistic, but both of you are *included* in a substantial number of statistics. For instance, during every year ending in a zero, the U.S. government conducts a nose count of the entire population of the United States. In the 2010 census, David was

counted, along with 310 million or so other people residing in the United States; he added one person to the total population. Does that mean David was a population "statistic"? Of course it does! Does that mean *all he is*, is a statistic? Of course not; he is other things as well. And to the extent that, as a number, Lisa's characteristics or answers in a survey can be put in a table, chart, or graph, she too is part of one or more "statistics." Lisa happens to be an interesting, complex human being, but she also happens to contribute to the statistics demographers use to numerically depict the population.

"We're Losing the Drug War," screams one headline. "Increases in Students' Drug Use," announces another. "Roofies—The Date Rape Drug," intones a TV report. "Meth—the New Killer Drug," claims a magazine cover story. "Tidal Wave of Drugs Roll into the Suburbs," alleges the nightly news. "Drug Arrests at Record High," asserts our daily newspaper. *How do we know* when an assertion we read or hear is true? Specifically, how do researchers gather information about drug use? And how do they draw conclusions from the evidence they've gathered?

Researchers make use of a wide range of information to determine what the drug picture looks like. Indeed, there is something of an "embarrassment of riches" here, since there are so many data sources. But not all of them are equally valid, and all are flawed in one way or another. However, when we put several data sources together, we get a clearer sense of what that picture looks like. Researchers use the term **triangulation** to refer to using two or more sources of information to focus on a single phenomenon. If these data sources agree with one another, researchers call this **multiple confirmation**. And when two or more independent pieces of evidence say the same thing, our confidence that what the evidence says is true increases.

In Chapter 2, we looked at some of the aspects of drugs and drug use in which pharmacologists and other medical and natural scientists are interested. Here, we focus on how social scientists study drug use. Sociologists and criminologists are interested, among other things, in *rates* of drug use, or how widespread it is. There are many different sources of information about how much drug use there is in the population. The systematic study of drug use entails making use of self-report surveys, as well as drug tests, arrest data, and hospital and **medical examiner (ME)** reports. In addition, the sale of legal psychoactive drugs (alcohol, tobacco, and prescription drugs) is recorded and is therefore publicly available for study. Illegal drug use poses special problems for the social researcher since it is, by its very nature, clandestine—hidden from public view. Hence, we must rely on a variety of *indirect* sources of information, including **surveys**. But before we make use of these sources, we need to know a bit about some basic principles of social research.

SOCIAL RESEARCH ON DRUG USE: AN INTRODUCTION

To repeat the title of this chapter: How do we know it's true? How can we feel confident that the conclusions we read in a study on drug use are reasonably valid, reliable, and accurate? Here are a few things we need to know about three matters in social research: lying, sampling, and statistics.

Lying

It is a half-truth that people will tell lies in surveys about their deviant, criminal, illegal, and controversial behavior. True, it is almost certain that a substantial proportion of

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Lying

It is a half-truth that people will tell lies in surveys about their deviant, criminal, illegal, and controversial behavior. True, it is almost certain that a substantial proportion of

respondents understate their drug use. When we compare what people say about their drug use in surveys with the results of drug tests, the latter figures tend to be significantly higher than the former. The discrepancy also tends to be much greater for some segments of the population than for others. But in surveys on illicit and criminal behavior, *most* respondents tell the approximate truth, to the best of their ability—if they believe that they will remain anonymous, their responses will remain confidential, and they will not get into trouble as a result of revealing incriminating information.

All of us make mistakes when we answer questions about the things we do, even if these things are legal. We forget things, we imagine, we conflate, we distort, we telescope; there are many common flaws in recalling events that make answers to questions in surveys far from perfect. And not all respondents trust researchers to protect the information they give them. Hence, there is likely to be something of a dampening effect in the answers people give to questions about illicit, illegal, deviant, and delinquent behavior. Nevertheless, the picture we get of drug use from surveys is *roughly* accurate. It is good enough to give us a *fairly* good idea of what's going on; it provides us with enough information to make generalizations and predictions.

In an *absolute* sense, there is a great deal of inaccuracy in self-report surveys. For example, if 5 percent of a sample say they used cocaine last year, chances are, if we had more accurate measures (such as urine tests), we'd find a figure that's closer to 10 percent. In a study of young adults in a "high-risk" community in Chicago (that is, in a neighborhood whose population had a high proportion of admissions to drug and alcohol treatment programs), researchers found that, in comparison with the results of drug tests based on hair samples, respondents significantly *underreported* their cocaine and heroin use (Fendrich et al., 1999). It's not clear whether and to what extent the same technique could be used on a sample consisting of tens of thousands of respondents, one that was truly representative of the American population at large. In any case, we can't assume that in an absolute sense, self-report surveys on criminal or deviant behaviors are completely accurate.

But in a *relative* sense, our figures are likely to be reasonably accurate. By a "relative" sense, I mean that respondents who said they used cocaine last year are statistically a great deal more likely to have done so than those who said they did not. In addition, surveys probably give a fairly accurate picture of drug use over time. If more respondents say they used illicit drugs in a survey conducted in 2010 than in one conducted in 2000, other things being more or less equal, I'd place my bet on an increase. And if a survey revealed a *lower* percentage saying they had used drugs in the previous year, that generalization would probably be accurate as well. The same thing could be said about differences between and among populations in geographic categories (large cities versus small towns, for instance) or demographic categories (men versus women). For example, if surveys report that a higher percentage of males say they used marijuana in the past month than females, in all likelihood, if we were to take blood or urine samples to verify this, the male edge would be confirmed. The reason this is so is that, when we compare categories in the population, years, or geographic regions, whatever errors that prevail in one usually take place in another; the distortions tend to cancel each other out. There is very little doubt that self-report surveys are fairly valid sources of data in making comparisons. Given the controversial nature of the drug researchers' questions, it's remarkable that respondents are as honest as they are.

This does not mean that more valid techniques to obtain more honest answers in self-report surveys cannot be devised. Eric Wish and his colleagues (1997) found that persons in a drug treatment program who were tested for the presence of drugs in their urine before being interviewed gave accurate answers concerning their drug use. (He refers to this as the "test first" method.) Would this work for the population at large? If we were to conduct research using this method, we would know the answer.

Sampling

In surveys, sampling is typically a bigger problem than lying. **Sampling** refers to the way that respondents in a survey are chosen. No criminologist, sociologist, or medical researcher studies *every* person in a given group, category, or universe. That would be wasteful and unnecessary—indeed, virtually impossible—not to mention silly. Instead, researchers rely on drawing samples of people who are similar in important ways to the whole group, category, or universe from which they are chosen. But the way a sample is drawn is extremely important. Researchers who conduct surveys do not pick people in a haphazard fashion. They select their samples so that everyone in the universe (the population at large) has an equal chance of appearing in the sample. That way, the sample will be a cross-section of, will look like, or will "represent" the universe. This means that the sample contains more or less the same proportion of men, women, blacks, whites, younger and older people, educated and less well-educated individuals, and so on as the entire population. Statisticians refer to a sample that does not look like or reflect the population as a whole as **biased** or **skewed**. Its respondents may be answering honestly, but not necessarily in the same way that a cross-section of the population would.

One problem with sampling the general population is that a lot of people can't be located or questioned; hence, samples that fail to include these hard-to-find segments of the population are not a true cross-section of the whole "universe," the population as a whole. This is especially problematic for studies of drug use and criminal behavior because it is precisely the difficult-to-locate segments that typically have the highest rates of illicit drug use. How do we study runaways and the homeless when they don't live at a fixed address? Most surveys don't include people who are incarcerated in a jail, prison, or mental institution, or people who are in the military. When we conduct a survey of drug use among high school students, we miss dropouts and absentees. And no matter how hard researchers try, some people refuse to take part in their survey.

Statistics

Much information is conveyed in the form of statistics. Many students find reading discussions that make use of statistics unappetizing, even boring. Talking about a course whose instructor draws on statistical formulations, students often complain, "We had to memorize a bunch of statistics!" But the fact is, no instructor wants his or her students to "memorize a bunch of statistics" simply for their own sake. Statistics should be harnessed to a larger purpose: presenting important information in a condensed and powerful way.

Saying that more than 99 percent of all the people who have jumped off the Golden Gate Bridge in San Francisco were killed in the fall is a dramatic way of saying that that particular act is extremely dangerous. Saying that smokers are more likely to die at the age of 65 than nonsmokers are to die at 75 is a vivid means of presenting the idea that smoking cigarettes shortens life. Saying that 20-year-olds are more than 30 times more likely to have taken an illicit substance during the previous month than are persons age 65 and older is an effective way of conveying the idea that age is related to recreational drug use. Statistics can be a powerful way of hammering home many basic facts of human existence. It is true that many statistics are so complex and difficult to understand that they do not tell most people much of anything. But presenting simple, direct, clear statistical facts about basic data of our lives can be a forceful, in-your-face way of imparting information that cannot be communicated by any other means.

The researcher is interested in two different types of statistics: descriptive and inferential. **Descriptive statistics** describe what something is like in quantitative terms—that is, in the form of numbers. In descriptive statistics, the rough approximation, “more” versus “less,” is given exactitude. Descriptive statistics are the basic numerical facts of life, and they may be in the form of absolute numbers or rates and percentages.

For instance, the 2008 **National Survey on Drug Use and Health (NSDUH)** estimated that 20 million persons living in the United States (an absolute number), or 8.1 percent of the population age 12 or over (a rate or percentage), used one or more illicit drugs during the prior month. In 2008, the National Crime Victimization Survey estimated that 21.3 million Americans were victims of violent or property crimes (an absolute number), for a violent crime rate of 19.3 per 1,000 households in the population and a property crime rate of 134.7 per 1,000 (Rand, 2009, p. 1). Rates or percentages are standard measures that make possible a systematic comparison between different areas, social categories, or years. For instance, the violent and the property crime rates for 2008 represented significant and substantial declines from 1999 (41.2 and 32.0 percent, respectively).

In contrast to descriptive statistics, **inferential statistics** attempt to measure *cause-and-effect* relationships between and among two or more factors or variables. When things happen, we want to know what caused them to happen. The problem is, we don't necessarily see them happening before our eyes. From descriptive statistics, we simply see that two or more things are associated or related to one another. Rich people are more likely to vote Republican; poorer people are more likely to vote Democratic. But what *causes* these relationships? Why do they exist? Inferential statistics attempt to answer questions such as these.

For instance, we know from descriptive statistics that, generally speaking, drugs and crime are related. People who use illicit drugs are more likely to commit crimes of all kinds than are people who do not use drugs. Just as interesting, as their drug use increases, their likelihood of committing crimes increases as well. But does drug use cause criminal behavior? Or is it the reverse—does engaging in criminal behavior cause drug use? We also know that alcohol consumption is related to violent behavior: As the use of alcohol rises, so does violence. But is the consumption of alcohol causally related to violence? Or are other factors the reason the two are related? Many things are descriptively but not causally related to one another. We'll look at some of these issues in Chapter 13.

For example, the consumption of ice cream is statistically and “descriptively” related to rape: As ice cream consumption goes up, so does the incidence of rape. Using descriptive statistics alone, we’d find a strong correlation, relationship, or association between eating ice cream and committing rape. But does eating ice cream *cause* men to rape women? Is this a cause-and-effect relationship? Of course not, as inferential statistics will show us. The fact is, both ice cream consumption and the incidence of rape rise during the summer; in the United States, consistently, the months with the highest rates of reported rape are July and August—precisely the months in which ice cream consumption reaches its peak. Here, the relevant factor is the season—summer—when it’s warmest and social interaction is denser and more frequent than during the rest of the year. When we control for or “hold constant” the season, it is clear that the consumption of ice cream has no independent or causal impact whatsoever on rape.

In a like fashion, inferential statistics attempt to weed out, control, or hold constant all the other factors that are related to the ones in which we’re interested. They cast a clear, cold light on the precise cause-and-effect connection between and among them. Unlike descriptive statistics, which are usually very straightforward and easy to understand, inferential statistics are usually complex and extremely technical. But in order to answer the most important questions about how the social world is put together, researchers have to rely on them.

RATES OF DRUG USE: AN INTRODUCTION

What’s the best way to find out about rates of drug use? There is no single best way, but a using variety of research techniques will give us a more accurate and complete picture of this interesting and important phenomenon than relying on only one. Pharmacologists study the effects of drugs in the lab or in hospital clinics. Criminologists and sociologists are interested in drug use in *naturalistic* settings: on the street, in the home, among friends, on the job, in the school—anywhere people decide to alter their consciousness. Social scientists want to know who uses what, why, with what frequency, and with what consequences.

As we saw, when it comes to the “how many” question, with respect to the consumption of alcohol and tobacco, the researcher is in a fortunate position, because these are legal, taxable products. Hence, records are kept of how many bottles of beer and wine and distilled spirits, cigars, containers of pipe tobacco, pounds of chewing tobacco, and cartons of cigarettes are sold each year. The same applies to prescription drugs: A record is kept of every prescription written for each and every pharmaceutical or legendary drug. We know, within fairly narrow limits, how frequently each prescription drug is used in a legal, medical context.

Unfortunately, we don’t have the same sort of hard data for rates of illegal drug use. To give us the full illicit-drug-consumption picture, researchers utilize drug tests, surveys, and hospital and coroners’ records. The following large-scale, systematic data sources convey crucial information about drug use and abuse in the United States: the Arrestee Drug Abuse Monitoring program (ADAM), the Drug Abuse Warning Network (DAWN), the Monitoring the Future (MTF) survey, and the National Survey on Drug Use and Health (which, prior to 2002, was referred to as the National Household Survey

on Drug Abuse). They are the four mainstays of the social science drug researcher's data sources when it comes to rates. Each data source tells a slightly different story, each is flawed, yet each has strengths. Let's look at them one by one.

THE ARRESTEE DRUG ABUSE MONITORING PROGRAM (ADAM)

If you want to know about the relationship between drugs and crime, what better place to begin than with the drug use of people who have been arrested for criminal behavior? In 1987, the National Institute of Justice established the Drug Use Forecasting (DUF) program. In 1997, its name was changed to the Arrestee Drug Abuse Monitoring program (ADAM). Its current incarnation, referred to as ADAM II, is based on a sample of arrestees for violent crimes, property crimes, drug crimes, DWI, and domestic violence crimes; it is drawn in 10 counties in which some of the nation's large cities are located. The 2008 sample, all male, was made up of about 4,000 booked arrestees who agreed to supply a urine sample, about 85 percent of all arrestees who were approached. What is so useful about ADAM is that it accesses populations that would be inaccessible by means of more conventional research methods, such as the surveys conducted by the National Household Survey on Drug Abuse or MTF. This is the case because many of ADAM's samples do not live in conventional households, nor can they be located in a conventional institution, such as a school or workplace. For someone interested in the relationship between drug use and crime, ADAM is probably the best place to start (Yacoubian, 2000; Wish, 1995).

Table 4-1 presents the median percentages for arrestees testing positive for the specific drugs indicated in the metropolitan counties participating in ADAM II's program for the years 2002 and 2008. These data tell several stories.

TABLE 4-1 Adult Male Arrestees Testing Positive, Select Cities, 2002 and 2008

Primary City	Any of 10 Drugs*		More Than 1 of 10 Drugs*	
	2002	2008	2002	2008
Atlanta	72%	60%	20%	15%
Charlotte	62	69	19	17
Chicago	87	87	37	40
Denver	67	68	22	21
Indianapolis	67	64	24	21
Minneapolis	71	65	19	21
New York	83	69	29	25
Portland (OR)	69	64	26	25
Sacramento	80	78	36	29
Washington, DC	56	49	21	18
Median figure	70	66.5	23	23

*Ten drugs tested: marijuana, cocaine, opiates, amphetamines, PCP, benzodiazepines, propoxyphene, methadone, barbiturates, and oxycodone.

(Continued)

Primary City	Specific Drugs, Testing Positive			
	Marijuana	Cocaine	Opiates	Methamphetamine
Atlanta	32%	41%	2%	*
Charlotte	51	30	1	*
Chicago	49	44	29	*
Denver	42	33	4	3%
Indianapolis	46	21	5	2
Minneapolis	48	23	6	2
New York	42	30	7	*
Portland (OR)	41	21	8	15
Sacramento	47	17	4	35
Washington, DC	31	27	12	2
Median figure	44	28.5	5.5	2

Sources: ADAM, 2002, and ADAM II, 2008 Annual Report.

The first story Table 4-1 tells is that arrestees—presumably, all or almost all of whom are criminal offenders—are *extraordinarily* highly likely to use drugs. In 2008, a median of 40 percent of arrestees urine-tested positive for marijuana; the median was 30 percent for cocaine. In stark contrast, only 6 percent of the American population said that they had used at least one illicit drug once or more during the past *month*. With most tests employed, no drug (except, possibly, for marijuana) can be detected a month or more since most recent use—most are detectable only within two to three days. The chances are, if that 6 percent figure is accurate, less than 3 percent of the American population would test positive for an illegal drug, since they used recently enough to have traces in their bodies.

The illicit drug use in urban areas is roughly twice as high as for the country as a whole. Thus, even if we were to double the 3 percent figure, we'd see that when we set this statistic against the fact that nearly *two-thirds* of arrestees test positive for at least one drug, the message is loud and clear: Compared with a cross-section of the population at large—most of whom are *not* criminals—criminal offenders are *extremely* likely to use psychoactive drugs, *hugely* more likely to do so than is true of nonoffenders.

The second tale that Table 4-1 tells is that the use of methamphetamine, a drug that in the late 1980s, the media claimed was “sweeping the country,” becoming the America’s number-one “drug of choice,” remains highly regionalized. Tests were much more likely to be positive for arrestees in West Coast cities such as Sacramento (35 percent) and Portland (15 percent) than in cities, such as New York, Atlanta, and Charlotte, located in states on the East Coast (less than 0.5 percent).

A third important story: Opiates (mainly heroin) are fairly rarely used. Only in Chicago (29 percent) and Washington, DC (12 percent) did more than 1 in 10 arrestees test positive for the presence of one or more opiates. Only 1 in 20 arrestees, on average, tested positive for any of the opiates.

A fourth important lesson that Table 4-1 teaches: Marijuana and cocaine are by far the premier drugs that arrestees have taken recently. In fact, marijuana seems to have

become the "drug of choice" of the nation's criminals, especially among the young (Golub and Johnson, 2001).

A fifth lesson from the ADAM II data: In a relative sense, self-reports for drug use very roughly correspond to testing positively for the presence of drugs; for the most part, a high proportion of people who use drugs admit to having done so. When the researchers asked, then tested, arrestees for the use and presence of marijuana, the same percentage (44 percent) indicated that they had taken the drug in the past 30 days as had tested positive for the drug. Drugs that were less likely to have been used—such as opiates and methamphetamine—were correspondingly low in both the self-report survey (2.5 and 0.5 percent, respectively) and the drug test (5.5 and 2 percent, respectively). The ADAM II team estimated that respondents admitted to having used a specific drug about half as frequently as tested positive for that substance.

ADAM II gives drug researchers a fairly clear picture of use among arrestees on a drug-by-drug, city-by-city, and year-by-year basis. Researchers agree that ADAM's data are unique and valuable, but they do have limitations. Most important, by definition, arrestees are offenders who get caught. Many offenders are able to escape detection; those who do may differ from arrestees in important ways, including their drug use patterns. In spite of this and other limitations, ADAM's sample of arrestees is as good as any sample is likely to be, and data from its tabulations are crucial to an understanding of the drugs-and-crime picture.

THE DRUG ABUSE WARNING NETWORK (DAWN)

Through a program funded by the **Substance Abuse and Mental Health Services Administration (SAMHSA)**, information is collected on two crucial drug abuse events: **emergency department (ED) episodes** and **ME reports**. This program is referred to as the **Drug Abuse Warning Network (DAWN)**. DAWN tabulates the number of acute medical complications that are caused by or associated with the use of certain drugs. Comparing DAWN's figures with the percentage of the population that uses these drugs gives us a rough idea of how dangerous their use is, at least within the time frame of a particular episode of use. In DAWN's 2004 ED data, for the first time, information was drawn from, and was representative of, hospitals in all 50 states and the District of Columbia. Unfortunately, its ME reports were not as complete; in 2008, 373 jurisdictions in 153 metropolitan areas and 12 states submitted detailed data. ME data covers catchment areas that encompass about a third of the American population. As its 2008 report states, ME and coroner participants in DAWN do not constitute a scientific sample "at either the metropolitan or the national level." Meanwhile, the diligent researcher must make use of such data as are available and interpret them accordingly. As a general rule, incomplete and unrepresentative data cannot be used to draw inferences about the absolute size or numbers, but they can often be used, with caution, to determine relationships between variables.

An ED episode is any nonlethal, untoward, drug-related event that results in a visit to an ED facility with 24-hour services. Such episodes include a suicide attempt, a panic reaction, a psychotic episode, a hallucination, unconsciousness, poisoning, accidental ingestion, an extreme allergic reaction, and dependence for which the patient demands treatment. (A patient who comes or is brought to the emergency room for drug

“detoxification” is the only nonacute episode that is tallied in ED figures.) In a given episode, recorded by a designated member of the ED staff, up to four different drugs may be mentioned as the cause of the untoward effect. (For patients under the age of 21, all alcohol “overdoses” are counted; for those 21 and older, alcohol is mentioned only if it was used in combination with one or more other drugs.) ED visits involve an average of 1.6 drugs. In a given year, the same patient could visit one or more EDs on two or more occasions; hence, the yearly tabulation of episodes does not indicate the number of people who experienced untoward, drug-induced ED visits during that year. And since several drugs could be mentioned as having been used in a given episode, the number of times a drug is mentioned is greater than the number of drug visits or episodes (in the case of ME reports, an “episode” is the drug-related death of the user) that took place. It should also be emphasized that drugs may be adulterated or bogus. So tabulations of ED episodes may be misleading in that they may not tell us about the inherent dangers of a particular drug, another reason DAWN figures should be read with a measure of skepticism.

ME reports are tabulations of deaths caused directly or indirectly by one or more drugs, as reported by a city or a county coroner or ME. In the case of a nonroutine death—a death that requires investigation—an autopsy is performed on the decedent. If drugs are deemed to be a factor in (are “involved in” or “related to”) the death, it is counted as an ME episode. Roughly two-thirds of all ME episodes are deemed directly drug induced (drug “overdoses”); in about one-third of cases, the drug or drugs played a contributory role. The rules MEs follow for including a case in their DAWN reports are not completely standardized. Hence, a case that is included in one jurisdiction may be excluded in another. As with ED figures, for adults, beginning in 2003, alcohol was counted only if taken in combination with one or more other drugs; for persons under the age of 21, all alcohol episodes are counted.

Keep in mind that DAWN tabulates only the **acute effects** of drugs—those that take place specifically during the immediate aftermath of an episode of use. It does not tally the untoward **chronic effects** of drugs—those that take place over the long run, after weeks, months, or years of use. (An exception to this rule, as we saw, is the users who appear at an emergency room seeking detoxification for drug dependence, which is a chronic rather than an acute effect.) If a heroin addict is hospitalized for hepatitis or a “crack whore” dies of AIDS, their deaths will not be tallied in DAWN data. And keep in mind that many factors could cause a given untoward episode, including the dose and combination of drugs taken, any impurities in the drugs, and the route of administration. Also, the methods of recording both ED and ME episodes are unstandardized, varying from one metropolitan area to another. For instance, in 2008, in three counties, MEs mentioned marijuana in ME reports, while in the others, they did not. During a recent year, in Omaha, both nicotine and caffeine were mentioned as contributing to drug-related deaths. In Baltimore, quinine was listed as playing a role in drug-related deaths; in no other city was quinine mentioned. However, the procedures for recording DAWN data are becoming more standardized over time. Still, we should take DAWN’s data with the proverbial grain of salt.

With respect to population demographics, relative to their numbers in the general population, drug overdose decedents are substantially more likely to be male (depending on the year, about 70 percent of decedents) than female, about two-thirds (67 percent)

are white, one-fourth (25 percent) are African American, and less than 1 in 10 (7 percent) are Hispanic. Perhaps the most significant demographic statistic for drug-related mortality is related to *age*. While teenagers and young adults are strikingly more likely to *use* drugs than are older adults, those in the younger age categories are vastly less likely to *die* of drug-related causes. The distribution of persons dying of a drug overdose is substantially skewed in an older direction than is true of use itself. The reason for the discrepancy is that, as the age of the user rises, the risk of dying of drug-related causes rises as well. Clearly, taking psychoactive substances recreationally poses a more serious health hazard to the middle-aged and older user than it does for younger persons. The older the person, the more frail the body, the more health issues intervene, and the more riskier behavior colludes in contributing to a user's demise.

As with the ADAM data presented in Table 4-1, the DAWN data in Tables 4-2 and 4-3 have several interesting stories to tell. (Remember—and this is an important qualification—that DAWN's ME catchment areas are *not* representative of the country as a whole, so we cannot generalize from its data with any degree of confidence; DAWN's findings are suggestive, not definitive.)

The first is that alcohol is involved in a great many untoward drug reactions; it ranks first in ED mentions and fourth in drug-related deaths. Since alcohol is used so often by such a huge percentage of the population, however, on a dose-by-dose, user-by-user basis, it is certainly a great deal *less* toxic than most of the other drugs in DAWN's tabulations.

The second story contained in Tables 4-2 and 4-3 is that marijuana ranks third in DAWN's ED data, surpassing heroin in this respect. (Marijuana appears in a tiny percentage

TABLE 4-2 National Estimates of Drug-Related Emergency Department (ED) Visits, Selected Drugs, 2008 (Drug misuse and abuse visits only)

	Percentage of Drug-Related Visits	Number of Visits	Rate per 100,000 Population	Percentage Use in the Past Month, U.S. Population
Alcohol	33	656,892	216.0	51.6
Alcohol-in- combination	26	524,050		
Cocaine	24	482,188	172.4	0.7
Marijuana	19	374,435	123.1	6.1
Heroin	10	200,666	66.0	0.1
Stimulants	5	91,939	30.2	0.4
PCP	2	37,266	12.3	0.0
MDMA	1	17,865	5.9	0.3
LSD	0.2	3,287	1.1	0.1
GHB	0.1	1,441	0.5	*
Total	*	1,999,861	657.7	*

*Less than one-tenth of 1 percent.

Note: DAWN data on drug-related ME visits drawn from 40 metropolitan areas; rates of drug-related ME visits tabulated on the basis of the entire population; use based on the entire population.

Sources: DAWN data supplied by Al Woodward, acting DAWN team leader; U.S. population use, *Results from the 2008 National Survey on Drug Use and Health*, U.S. Department of Health and Human Services, 2009.

TABLE 4-3 Drug-Related Mortality, 2008

Gender	Percent
Male	70%
Female	30
Age (rate of drug-related mortality per 100,000 population)	
Under 21	1.9%
21-34	20.2
35-54	29.8
55 and over	10.4
Drugs Mentioned in Drug-Related Deaths (top five only)	
Opiates	10,362 (41%)
Benzodiazepines	4,375 (17%)
Cocaine	4,372 (17%)
Alcohol	3,966 (16%)
Antidepressants	1,995 (8%)

Note: Percentages only for top five deaths; a given episode of use usually entails the use of more than a single drug. Single-drug deaths: 34 percent.

Source: Drug Abuse Warning Network. 2008: *Area Profiles of Drug Related Mortality*. Rockville, MD: Office of Applied Studies, Substance Abuse and Mental Health Services Administration (SAMHSA), 2010.

of DAWN's ME figures—almost always in combination with another drug—indicating that the drug is not terribly toxic.) As with alcohol, marijuana is a very frequently used drug, and hence, its appearance in DAWN's ED figures should not be surprising. On a dose-for-dose basis, it rarely causes complications, although a small minority of users do experience problematic reactions. A substantial percentage of ED patients mentioning marijuana (18 percent) do so because they are “seeking detoxification,” not usually from marijuana but from some other drug they are taking. And they seek “detoxification” largely because they have been arrested with a quantity of marijuana and have been offered a deal by the courts to enter a drug rehabilitation program in exchange for no jail or prison time. Hence, the law, not the drug, boosts marijuana's figures on DAWN's ED charts. Still, a large number of people in DAWN's dominion are precipitated into emergency rooms as a result of their frightening reactions to the effects of marijuana.

The third story that these two tables tell is overwhelmingly the main point: There are three drugs—DAWN's “Big Three”—that appear consistently in both ED and ME figures: cocaine, narcotics, and alcohol. These are the three most dangerous drugs consumed in America in the sense that they are associated with the greatest number of untoward reactions, both lethal and nonlethal. I should emphasize that the category “narcotics” (or opioids) includes heroin. However, though narcotics rank on the top shelf with regard to causing or precipitating overdose deaths, heroin is not typically the principle drug responsible. Rather, most of these deaths are caused by the broad class of opiate analgesics, those powerful painkillers that have a “heroinlike” effect. Only 16 percent of DAWN's ME narcotics figures mentioned heroin; 18 percent mentioned methadone; and two-thirds

(66 percent) fell into the program's "other" category: oxycodone (including OxyContin), hydrocodone, hydromorphone, codeine, meperidine, buprenorphine, and fentanyl.

And lastly, many drugs and drug types that have received a great deal of media attention in recent years (methamphetamine and the club drugs most notably) appear rarely or almost not at all in DAWN's ED and ME reports. The media have exaggerated their dangers, and the public has come to believe they are more harmful than they really are. Amphetamines and methamphetamine are mentioned in only 5 percent of drug-related ED episodes, far behind alcohol, cocaine, sedative/hypnotics, Valium-type benzodiazepines, and even marijuana. And they appear among the top five "drug misuse/abuse" mortalities in only a few metropolitan areas, lagging far behind not only opiates, cocaine, and alcohol, but also benzodiazepines and antidepressants. Club drugs (Ecstasy, GHB, Rohypnol, and ketamine) rank near the bottom of drugs causing or associated with ED episodes and never appear in the top five of ME mentions. (Since Rohypnol is a benzodiazepine, it is included in that category for ME reports.) The interested observer suspects that hype has as much to do with media stories on these drugs as do their potential dangers. (Again, DAWN's catchment areas are not representative of the country as a whole; meth, for instance, is often used in rural areas, and DAWN underreports rural areas.)

In spite of the drawbacks of DAWN's data, they do provide an approximate picture of the acute consequences of drug abuse in the United States—more specifically, the relative contribution each drug makes to ED episodes and ME reports, nonlethal and lethal untoward effects. By any reasonable calculation, a drug that is mentioned frequently in both the ED and ME lists can be said to be commonly abused. DAWN gives us a fairly accurate glimpse at one aspect of drug abuse. Together with other sources, as flawed as they are, DAWN's data help us to understand the entire drug picture.

MONITORING THE FUTURE (MTF)

Each year since 1975, the Institute on Survey Research at the University of Michigan has surveyed a nationally representative sample of 15,000 or so high school seniors about their use of and attitudes toward legal and illegal drugs. Beginning in 1977, adults, both college educated and noncollege educated, who had completed high school one or more years earlier were also questioned. The adult sample was divided into college students and noncollege respondents, whose answers are tabulated separately. In 1980, a specifically college sample was drawn and surveyed about drug use. In 1991, samples of eighth and tenth graders were included. In 2008, its survey of drug use among eighth, tenth, and twelfth graders drew a sample of 46,000 students in 400 secondary schools around the country. This ongoing survey is referred to as MTF survey.

The MTF's surveys are conducted in the classroom, and its questionnaires are self-administered by each respondent. For each drug, four levels of use are asked about (1) lifetime prevalence—whether the respondent has ever used the drug in question; (2) annual prevalence, or use during the prior year; (3) 30-day prevalence, or use during the prior month; and (4) daily use, or use on 20 or more of the previous 30 days. Respondents are also asked about perceived risk, their disapproval of drug use, and perceived availability of specific drugs.

Table 4-4 has some interesting things to say about the drug use of eighth, tenth, and twelfth graders. It is alcohol that attracts the greatest percentage of school-age users—and

TABLE 4-4 Annual and 30-Day Prevalence of Various Drugs, Eighth, Tenth, and Twelfth Graders, 2008

	Annual			30-Day		
	Eighth	Tenth	Twelfth	Eighth	Tenth	Twelfth
Any illicit drug other than marijuana	7%	11%	18%	4%	5%	9%
Marijuana/hashish	11	24	32	6	14	19
LSD	1	2	3	1	1	1
MDMA (Ecstasy)	2	3	4	1	1	2
Cocaine	2	3	4	1	1	2
Crack	1	1	2	1	1	1
Heroin	1	1	1	*	*	*
Amphetamines	5	6	7	2	3	3
Methamphetamine	1	2	1	1	1	1
Any illicit drug	14	27	37	8	16	22
Alcohol	32	53	66	16	29	43
Been drunk	13	30	46	5	14	28

*Less than one-half of 1 percent.

Source: Adapted from Johnston et al., 2009.

by a considerable margin. (Remember that alcohol cannot be legally purchased by anyone under the age of 21; hence, all teenagers who use it are in violation of the law.) Over 4 out of 10 (43 percent) of MTF's high school seniors drank alcohol at least once in the past month—which is only slightly lower than the average for the population as a whole. And close to a fifth (16 percent) of the sample's eighth graders (most of whom are only 13 years old!) did so. Among the illicit drugs, marijuana stands out as the most popular—again, by a considerable margin. Indeed, it is possible that half of all episodes of illegal drug use involve marijuana alone. One-fifth of MTF's seniors (19 percent) said that they had used marijuana in the past month. The drugs that the media have tended to focus on, the ones with the greatest potential for harm—crack, heroin, and methamphetamine—are for the most part exotic, marginal, and very rarely used. Between 1 and 2 percent of even the seniors used these drugs during the prior month. In fact, young people use the most dangerous drugs the least. GHB and ketamine, two widely publicized “date rape” drugs, were so rarely used at the 30-day prevalence level that their rates could not even be calculated. Alcohol remains the most common “date rape” drug and, while such behavior is a tragedy (and a crime) when it happens, it is also atypical. The MTF survey reminds us that frequency of use and media attention are two entirely different matters.

There are some limitations to the MTF survey. Two obvious limitations involve absentees and dropouts. The drug use of students who are absent the day a survey is conducted or who have dropped out by their senior year of high school (the latter, nearly 20 percent nationwide) is not studied by MTF. It is almost certain that the rate of drug use of absentees and dropouts is higher than that of students who attend regularly and graduate with their class. Hence, MTF's estimates of drug use among students in the

eighth, tenth, and (especially) twelfth grades must be regarded as an underestimation. The dropout rate is especially high by the senior year; hence, twelfth graders form a less-representative segment of the appropriate age category than is true of tenth and, especially, eighth graders. It is also not clear whether and to what extent answering questions in a school setting about an illicit activity (drug use) reflects real-world behavior. As we've seen, reason dictates that respondents are likely to understate their drug use to a certain—but unknown—degree.

Still, MTF's yearly survey on the use of and attitudes toward legal and illegal drugs is the best available study on student drug use. Its sample is huge and reasonably representative of its target population; its questions are standardized and permit comparison on a year-by-year, drug-by-drug, region-by-region, and social-category-by-social-category basis; and the data tabulations in MTF's publication are detailed and informative. The Institute for Social Research's survey on drug use sheds a clear light on a significant area of human behavior.

NATIONAL SURVEY ON DRUG USE AND HEALTH (NSDUH)

In 1971, the first systematic survey of drug use among a randomized sample of Americans was conducted. Sponsored by the National Commission on Marihuana and Drug Abuse, this survey gave us our first accurate look at patterns of drug consumption in the United States. Between 1975 and 1991, nine similar surveys were sponsored by the National Institute on Drug Abuse (NIDA). Since 1992, yearly surveys of drug use in the American population have been sponsored by the SAMHSA, a division of the U.S. Department of Health and Human Services. In 2002, the survey's name was changed from the National Household Survey on Drug Abuse to the NSDUH. The 2008 NSDUH survey was based on a sample of 67,500 respondents. The resultant report, released in 2009, provides, in the words of the SAMHSA, national estimates of rates of use, number of users, and other measures related to the use of illicit drugs, alcohol, cigarettes, and other forms of tobacco by the population, age 12 years and older.

As in the MTF study, the NSDUH survey asks about lifetime prevalence, yearly prevalence, 30-day prevalence, and daily prevalence for each drug. The SAMHSA's national household survey divides its sample into youths age 12–17, young adults age 18–25, and adults age 26 and older.

Table 4-5 tells basically the same story for the population at large that the MTF survey revealed for drug use among schoolchildren. Alcohol is by far the drug used by the largest percentage of the American population, followed by tobacco. And, again, marijuana is America's most popular illicit drug, likewise by a considerable margin. No other illegal drug is used by remotely as many people as is true of marijuana. In the month prior to the survey, only for cocaine does the proportion of the population who used any illicit drug other than marijuana approach even 1 percent. Ecstasy was used during the previous month by two-tenths of 1 percent, and for some drugs such as heroin, LSD, crack cocaine, methamphetamine, and PCP, prior-month use was one-tenth of 1 percent or less.

Large as its sample is, even the NSDUH is less than useful for subsamples in the population that are statistically rare. For instance, estimating heroin or crack use from NSDUH data is misleading. Not only do heroin and crack users turn up fairly infrequently

TABLE 4-5 Percentage Use of Various Drugs, Lifetime, Past Year, and Past Month, American Population, Persons Age 12 and Older, 2008

	Lifetime	Past Year	Past Month
Marijuana/hashish	41.0%	10.3%	6.1%
Cocaine	14.7	2.1	0.7
Crack	3.4	0.4	0.1
Heroin	1.5	0.2	0.1
LSD	9.4	0.3	0.1
PCP	2.7	0.0	0.0
MDMA (Ecstasy)	5.2	0.9	0.2
Methamphetamine	5.0	0.3	0.1
<i>Nonmedical Use of Pharmaceuticals</i>			
Pain relievers	14.0%	4.8%	1.9%
Tranquilizers	8.6	2.2	0.7
Stimulants	8.5	1.1	0.4
Sedatives	3.6	0.3	0.1
Total	20.8	6.1	2.5
Any illicit drug other than marijuana	30.3	8.0	3.4
Any illicit drug	47.0	14.2	8.0
Cigarettes	65.1	28.0	23.9
Alcohol	82.2	66.1	51.6

Source: SAMHSA, 2008 National Survey on Drug Use and Health, 2009; and 2008 National Survey on Drug Use and Health: Detailed Tables, 2009.

in its sample (since they make up a tiny number even in a sample of 67,500), they are also difficult to locate. Most addicts do not live at a fixed address, and so a sample based on a household survey will not be able to locate them. Many are homeless, many avoid responding to surveys, and relatives often refuse to acknowledge their existence. Hence, as with surveys on serious crime, self-report drug surveys are increasingly inadequate the more serious—and therefore, the less common—a particular form of drug use is.

In spite of its limitations, the NSDUH is probably the best survey on the consumption of psychoactive substances that has ever been conducted among the American population as a whole. And future surveys will be improved, year by year.

SUMMARY

Without a grounding in research methodology, we have no idea whether the estimates of prevalence of drug use we hear or read in the media, or the “guesstimates” of our friends, relatives and acquaintances, are accurate. Knowing how data are gathered is a first step in developing a critical perspective toward any social phenomenon. All data sources are flawed or incomplete, which means that we have to examine them more carefully and critically, rather than simply dismiss them outright.

Researchers try to put together a variety of sources of information to give them a complete picture of drug use. This is called "triangulation," a term borrowed from land surveying to refer to pinpointing an exact location, or distances to a location, by observation from two other locations. When two or more data sources agree, we call this "multiple confirmation." The drug researcher is primarily interested in "incidence" figures—the occurrence of drug use within a specific period of time, whether in the form of a rate or percentage or in the form of an absolute number. For instance, in 2008, 20 million Americans, or 8.1 percent of the population age 12 and older, said that they used one or more illegal drugs at least once during the previous month. Fortunately, as we saw, drug researchers have multiple sources of data to determine such things as incidence and prevalence of drug use, drug use in different demographic categories, drug use over time, and drug use in various geographical locales. One data source is the survey.

Lying occurs—many people consciously underestimate the extent of their consumption of psychoactive substances—but it is less of a problem than you might think. We can get a roughly (although not completely) accurate picture of drug use from the answers people give in surveys. Lying influences the absolute size of figures more than does the relative rank of categories of users. Sample size and representativeness are a more serious problem than respondent lying. For instance, with small samples, it is impossible to accurately estimate the size of rare forms of drug use. In addition, in drawing a sample, it is difficult to locate homeless people, and most surveys do not include jail and prison populations—two segments of the population most likely to use drugs. Hence, we must always be skeptical about the percentages that surveys produce for the use of various drugs.

Many statements about the incidence of drug use are made in the form of statistics, which present information in a condensed and precise fashion. It is not difficult to understand "descriptive" statistics, which describe what something is in quantitative terms, meaning in the form of numbers. "Inferential" statistics are more complicated and measure "cause-and-effect" relationships. They hold constant or control for a variety of factors to reach an explanation for why things happen. For instance, does drug use cause criminal behavior? Inferential statistics attempt to answer such analytic questions.

To answer the question of how many people use which drugs, who does so, with what frequency, and with what consequences, we rely on a variety of sources. For the legal drugs, which are taxable, we have sales records. For the illicit drugs, we have the ADAM (Arrestee Drug Abuse Monitoring) program, DAWN (Drug Abuse Warning Network), the MTF (Monitoring the Future) survey, and the National Survey on Drug Use and Health (NSDUH).

Each year, ADAM (formerly referred to as DUF—Drug Use Forecasting) gathers a sample of adult arrestees in more than 40 metropolitan counties and asks them if they would agree to be interviewed and drug tested (nearly 85 percent agree). ADAM also gathers information on much smaller samples of juveniles in a much smaller number of areas. Although ADAM's data are limited, they tell us a great deal about drug use and trends, and use in different metropolitan areas—and especially the empirical relationship between drug use and crime. For instance, we know that heroin and PCP use are relatively rare among arrestees and that methamphetamine is geographically confined to the West and Midwest.

DAWN collects data from hospitals and medical examiners/coroners around the country. Two types of data are gathered: untoward drug effects requiring emergency

department (ED) intervention, and medical examiner (ME) reports on drug “overdoses” or drug-related deaths. In ED visits often, and in ME reports usually, more than one drug is involved. Except for drug users presenting themselves for treatment, all of DAWN’s data are based on acute effects. The important news in DAWN’s data, putting ED and ME data together, is that three specific drugs appear most frequently both in ED and ME reports: alcohol (in combination with one or more other drugs), narcotics, and cocaine.

Since 1975, every year, MTF has drawn a huge sample of twelfth graders, college students, and young adults not in college, and since 1991, eighth and tenth graders, and asked respondents about their drug use and their attitudes toward drug use. More than 15,000 respondents are in each category—a total of 50,000 schoolchildren and about 35,000 post-high school respondents. The school surveys are conducted in schools; in 2008, about 400 schools participated in the study. Questions about lifetime, yearly, monthly, and daily prevalence are asked. Obviously, for the school samples, dropouts and absentees are not included, and they are segments of the population most likely to use drugs; this represents a limitation of MTF’s data. Overall, however, MTF is unquestionably the best ongoing survey conducted on drug use among schoolchildren.

National household surveys on drug use were first conducted in 1971. Between 1975 and 1991, nine surveys were conducted under the auspices of the National Institute of Drug Abuse (NIDA). Since 1992, these surveys, now conducted yearly, have been sponsored by the Substance Abuse and Mental Health Administration (SAMHSA), a division of the federal Department of Health and Human Services. The sample of its National Survey on Drug Abuse and Health (NSDUH) is huge (67,500 respondents in 2008). Although extremely accurate for determining the incidence of commonly used drugs, for the rarer forms of drug use (such as heroin addiction and crack consumption), NSDUH’s findings are shakier, and they are questionable in adolescent drug use since adults are present a third of the time in adolescent interviews. But for most forms of drug use for the adult segment of the population, we can have a great deal of confidence in the findings of the national survey. NSDUH is the best survey on the drug use of the general population.

ACCOUNT: Interview with a Polydrug User

This account illustrates one of the research methods touched on in this chapter—the in-depth interview. Moreover, it illustrates the fact that, when grounded in methodology and the subject matter of a sociology course, undergraduates can gather relevant information about a given subject and informally test sociological hypotheses. For instance, does this interview say something about the relationship between rural poverty and drug use? What about the relationship between abusive

alcohol consumption and female sexual victimization? Zhanine Brooks wrote a paper on drug use for a course taught by Linda Silber, a sociology instructor at Union College in Kentucky; this interview is the result. The respondent is a 29-year-old white mother of three young children, one of whom was taken away by family court to live with the child’s grandmother. She has lived all her life in the region where the college is located; she works in a factory earning

minimum wage, resides in a trailer, and is receiving federal support. Her male companion is currently incarcerated.

Zhanine: What kinds of drugs have you used?

Ashley: I have used OxyContin, Roxycontin, I've tried heroin, I've tried meth, I've snorted cocaine, I've smoked crack, drunk [a lot of] alcohol, never really was very big on marijuana but I've smoked it. Acid, 'shrooms, Ecstasy, nerve [sedative] pills, pain pills, methadone, I've even tried inhalants.

Zhanine: OK, what kind of pain pills did you [take]?

Ashley: Oxycotin, Roxicets, Percocet, Loratabs, Lorcets—just about any kind of pain pill there is, I've done them. [These are all narcotics—analgesics. All are addicting, all can cause an overdose, and at a sufficient dose, all cause mental clouding and a “high” or intoxication.]

Zhanine: Which drug would you say you used the most?

Ashley: Cocaine, cocaine's the one—that was my drug of choice.

Zhanine: How did you get involved with cocaine?

Ashley: The first time I ever tried cocaine I was 18 years old and I went to a concert . . . with some of my friends from high school and they had, like, two-and-half grams of it, in powder form. I tried it then, but I didn't mess with it again until I was 21, and then some people [I knew] had some crack, which is powder rocked-up, it's made hard instead of soft. I was drinking and they asked me if I wanted to try it, and I tried it and never let it go 'til this past year.

Zhanine: Can you tell me what the first time was like for you? How it made you feel?

Ashley: (*Chuckles*) Yeah, the first time I did it, the first time is the only time you're gonna feel like that, 'cause I got this big rush of energy. Everything was intensified, you could hear, you know how some people say you can hear a mouse pee on cotton, you could hear everything, you feel as if you could see 10 miles away, you're just real energetic, you can't sit still, it just felt good. I felt great. When I first did it, I didn't have a worry in the world.

Zhanine: Did you do any other drugs before you were 18?

Ashley: I tried heroin when I was 16, which wasn't my fault. (*Chuckles*) My brothers had bought some in [from a major city in Ohio], and they lined out some in the back of my brother's bathroom and told me it was meth—crank—and I snorted it. And the lines was 'bout three centimeters long and 'bout a centimeter wide, and I snorted two of 'em, and that was the most, oh, God, that was crazy. I felt like I was floating. I threw my guts up, and then each time I threw up, I got higher and higher. I was on the floor rolling around, I didn't know where I was. When I was 16 I tried meth, and I stayed on it, for probably a week and hallucinated for three or four days after that, I seen every kind of animal there ever was. I was talking to people that wasn't there. Now, alcohol I always [drank], since I was 14 I liked to drink, but drug-wise, when I was a teenager, I really didn't do anything at all but drink alcohol, and then in my twenties is when I started doing the heavy drugs.

Zhanine: What was the best part about you using drugs?

Ashley: You don't care about nothing. It numbs every hurt, every issue

you've got, every worry that you've got, you're not worried 'bout nothing but getting high, that's all—you don't [care about anything]—it numbs everything.

Zhanine: What's the worst part?

Ashley: You spend all your money, you let yourself go, you let your children go, you let your home go, all your responsibilities go, every dime you get, you wanna spend it on drugs. It don't matter if you have children, if your children have diapers or not, you always depend on somebody else to get it, and you take every dime you have and spend it on drugs.

Zhanine: What would you say was the worst part for you?

Ashley: The worst part for me is that all I cared about was getting high. I lost my children, I did not—even though they was taken care of home-wise, food-wise, and cleanliness-wise—they did not have the emotional love that they needed because all I wanted to do was get high. If somebody showed up at my house, it don't matter if I was in the middle of doing something with my kids or not, if they wanted me to go and get some drugs for 'em, I'd leave them there and go get it, and then I'd put my kids in the room while I was in the other room getting high. And they didn't have stuff that they really needed that they coulda had.

Zhanine: How often did you use?

Ashley: Every day.

Zhanine: You said your kids were the worst part being taken away. Did you ever have any outside support?

Ashley: I had all kinds of outside support, but when people help you for so long, and you keep doing the same pattern and you use drugs like an addict will, people eventually get

tired, and then you lose your friends, you lose your support group, you lose all the good things in your life when you're on drugs and—you're an addict. You lose everything that's positive. You just care about your drugs. You really don't care if somebody's there to help you or not. Then you blame everybody for everything, everything bad happens to ya, it's everybody else's fault when really it's your own.

Zhanine: Did any of your family ever reach out and try to help you?

Ashley: My grandmother. My boyfriend's mother, my boyfriend's whole family, matter of fact, my family. I just used them for whatever I could. I'd lie to them, tell 'em I needed money for this bill and that bill, and I really did need the money for the bill, but as soon as I got it, I'd go and get drugs with it.

Zhanine: What did they do to try to help you?

Ashley: They tried to. I went to rehab. My boyfriend's mother sent me and her daughter to rehab. That lasted 30 days [and then I] came home, stayed clean for about two weeks, and I went right back at it [doing drugs]. And then my grandmother, her idea of helping me was completely cutting me off. Any money, seeing my daughter, not even speaking to me on the phone, just letting me hit rock bottom.

Zhanine: After rehab, how did you get back into drugs?

Ashley: I went around with the same people and the same places I knew they was gonna be at.

Zhanine: And all the friends you had that you were with then, all of them were drug users?

Ashley: Every one of 'em.

Zhanine: What are the consequences you've experienced from using drugs?

Ashley: Losing jobs, physical appearance goes down, you don't care whatchu look like, your weight—you lose weight, you don't take care of your home. You just let yourself go.

Zhanine: Have you had any good consequences from using drugs?

Ashley: Nothing good come out of using drugs at all. Nothing. Some people will say that it makes you forget. It don't make you forget, it just temporarily stalls it and then as soon as your high is gone, you got more problems than what you did before you started.

Zhanine: And how do you feel when you would come off your high?

Ashley: Oh, I was depressed, I was so depressed. It's like when I was coming down off of that, I got what I used to call a crack conscience, 'cause what I did, I smoked cocaine. You feel bad about your kids, like I would feel bad 'cause I was pregnant, I used [drugs] when I was pregnant. I felt bad like 'cause I wasn't thinking about it at the time, but I felt bad that I messed up my child, I felt bad that I put my other kid in her room and if she tried to play or be loud, I'd get upset 'cause that stuff makes you really paranoid and it's just she was making too much noise and I wanted her to sit down and be quiet or sit down and watch TV. I felt bad about not paying my bills, knowing my electric was getting ready to get cut off, knowing if I didn't pay my rent I was gonna get evicted, then I'd have to go out and hustle and steal to get money that I should already have to pay those bills. I just felt bad about everything that I was worried about

and I'd be angry about [wanting] to get high and I'd use that as an excuse, it was still gonna be there. And I knew that, but when I was high I wasn't thinking about it, but when I come down that's when reality set in that you know all these problems are still here and they're not going anywhere.

Zhanine: Have you ever been arrested for using?

Ashley: I've been arrested (*chuckles*) probably I'd say about 15 times for AI's and PI's, which is alcohol intoxication and public intoxication. I've never been arrested for using cocaine or selling cocaine. I got arrested last year in April for trafficking a controlled substance, unspecified in the first. And they didn't have enough to indict me on that 'cause they didn't find any drugs on me, any money, anything like that, or on any of the people I was in the car with. They had arrested a guy about an hour before us. We had this man in the car with us that we was giving a ride, it was his friend, and they arrested him 'cause they caught him with 40 Oxy eighties [80-milligram tablets], and he told 'em that we was the ones that had all the pills and was bringing 'em [to the area]. I knew to an extent what was going on, but when the dude got in the car with us, he was ready to go home, he didn't want to be where he was, he didn't have any drugs when he was in the car with us, but that other guy's statement telling them [the police] that we was the ones doing it, they set up this big thing to get us back. The dude called us wanting to speak to his friend, he's like, man, if you ready to go back, he was like, come on, let's go, I'm ready to go

home, I'm tired of being here. So we turned around, we was already in [one county], we had gotten out of [another county]. We turned around to take the guy back to his friend, and we pulled into an Arby's. The DEA and the county sheriff and state troopers surrounded us and put guns in our faces. That's why they arrested us for the trafficking, even though they didn't have anything on us. And then they had to let us go 'cause they didn't have enough evidence. Then they indicted us on complicity to trafficking 'cause they said that we willingly knew that one of those individuals was selling OxyContin, but we didn't say anything about it. Even though we didn't see anything or touch anything, we had a roundabout idea of what was going on, so I had to plead. I'll go back on June the tenth, 2010. I gotta go back to court, but they charged me with a class D felony of complicity to trafficking OxyContin in the second, and I have to do 18 months of drug court. But I've already been in family drug court before this, because I tested positive for cocaine after I had my daughter and she tested positive for it also.

Zhanine: And did they take your kids away?

Ashley: They came and got [her on] January [the] twelfth, they took both of them outta the household and placed them in temporary care with their grandmother.

Zhanine: And how did that make you feel?

Ashley: Oh it broke [me], it destroyed me, it broke me down. 'Cause I stayed high, from the time they took 'em to February the fourth. I used that as an excuse to not care, to just give up. Then my boyfriend went to jail and I was sitting there by myself with

nobody, nothing. My kids gone, getting ready to lose my home, getting ready to lose everything that I had worked so hard to get. It was all gone because of cocaine and it all happen in matter of a week, I lost everything.

Zhanine: And your boyfriend, was he a drug user too?

Ashley: We used together, yep.

Zhanine: Are you still on drugs?

Ashley: No I'm not on drugs anymore, I've been off of drugs since February the twenty-fourth of 2010.

Zhanine: How long had you been on them?

Ashley: I was on them from the time I was—all through my twenties. My whole twenties I was on drugs. Well, from 21 to 29, and alcohol was from 14 to 29.

Zhanine: Can you describe what drug court has been like for you?

Ashley: Drug court—at first I hated it. I was pissed because I had to get up, I gotta get up every morning. They assign you a number. You have to call in every morning to see if they gonna drug screen you and if you do, you gotta go down there and pee at least 30 milliliters into a cup. And you hafta do AA or NA meetings twice a week, you have to go to comprehensive care center and you have to have individual meetings and group meetings with them once a week, you have to meet with your drug court worker, every—well, I have to [go] every Thursday, you have to do that once a week. You have to maintain a job. I mean, it's just all kinds of stuff you gotta do and you gotta do it on their time. I mean, they keep you so busy you don't have time to sit down and really breathe.

Zhanine: Has the drug court been going good for you?

Ashley: It's been going great. I've relapsed twice on alcohol and I spent a total of four days in jail over that. The first time, I just didn't care, I didn't think alcohol would show up 'cause they don't test you for alcohol, but if they do lab it, it'll come back if it's been within three to five days after drinking, and I thought I was gonna get by with it, and I didn't. But I admitted when I was in court in front of the judge, she asked me when was the last time you used, so I told her, [and] so I got two days. And then the next time, I was going through a lot of stress with people and family members, and just [about] everybody took over my household, nobody's helping me pay bills. I'd be at work and everybody in the area where I lived was in and out, in and out, stuff was coming up missing, my house was staying filthy, didn't know who was in there, didn't know what was going on in there, and I just used that as an excuse and downed two-fifths of vodka and ended up doing cocaine and don't even remember it, and I didn't even have to drug screen that day, but I went in and asked to speak to my counselor and told her what I had done. But drug court, it's worked for me, it really has, 'cause if it wasn't for drug court, I'd find every excuse possible to still stay strong in my addiction.

Zhanine: And what about the people you hang out with now?

Ashley: I've had to almost completely change everybody I hang out with. I really don't hang out with anybody except my boyfriend's mother and my two children [who are still under my care], that's about it, and my oldest child; she's 9, [she's with] her

grandmother. I can't go places that I used to go because it triggers me [to use drugs]. I still talk to the people that I hung around when I was in my addiction, I still talk to them, I'm still around them, but as far as hanging with them, I don't. I can't.

Zhanine: Can you tell me how you've changed since you started drug court?

Ashley: Since I've been in drug court I've got a job and I seem to be keeping it, I'm with my children every day, I work every day, I love my job, I keep my house clean, I'm starting to gain some of my weight back. I don't have the desire to do drugs anymore; I don't have the desire to drink. Even my whole attitude, like, everything that I was so used to and even how I acted, how I talk, have changed because when I was in my addiction it was chaos in my life constantly, I always had to have some reason to fight, some reason to argue, some reason to justify something I had done that I knew was wrong. I didn't care about anything but getting high, only thing I cared about when I was on coke is staring out the window to see if the police was coming in the driveway or if I was going to get drugs for somebody, was I getting ready to get busted for it or how much I could rip somebody off or how much I could rob 'em for—that's all I cared about when I was in my addiction. But since I been in drug court I care more about my personal appearance, I spend my money how I'm supposed to, I spend it on my bills, on my children, on myself, on necessities. I don't hang out with anybody I used to. I found new friends and it is easier for me to be

out. It's like I have more self-respect, more confidence in myself because before I didn't. I hung out with a crowd that was worried about who could get the most drugs [for them], how you could benefit them [drug-wise]. Nobody is a true friend who's an addict, everybody's out for theirself, that's just how that is. But my whole personality has changed. I don't find some reason to always stay mad, I don't find a reason to always bitch about something, I don't find reasons to get outta work because before I had jobs, and they might last two months, and within those two months, I probably missed about 20 days just from making up excuses, going to the emergency room to get an excuse. Now, I go to work every day. I never miss unless I hafta go to court, or if I hafta go to a meeting with comp care. Pretty much I've changed everything about myself which you have to, to get better you gotta change everything.

Zhanine: When you say you would rip people off and rob 'em what do you mean?

Ashley: They come to me because they didn't know where to get the drugs and I knew the people and I could get it for them. Say they wanted \$100 worth of dope, I'd probably give them about \$50 worth of dope and keep the other \$50 worth of dope or keep some of the money.

Zhanine: And when you say dope, you mean?

Ashley: Cocaine, pills, marijuana.

Zhanine: Can you tell me how you learned who had the drugs and how you approached them?

Ashley: How I learned who they was, when you hang around certain people, they have a certain lifestyle and you always end up meeting somebody that has something 'cause the drug

dealers know who to go to, and then through time, you just meet 'em and this community it's so small, everybody knows everybody.

Zhanine: And did most of them trust you to come [back with the drugs]?

Ashley: Even if they didn't trust me 'cause I had ripped them off before, they wanted it so bad that they took a chance on coming back.

Zhanine: Do you think that you will ever relapse?

Ashley: I can't tell you I'm not gonna relapse 'cause I don't know. Only thing I can say is I don't have any intentions of relapsing. As of right now I'm OK, I'm not having any type of craving or any type of wanting to do drugs. But, you know, with an addict, somebody like myself, I don't know from day to day whether I'm gonna [relapse] because I don't know if something bad is gonna happen and that's the first thing I'm used to running to is alcohol, like if something really bad happens or I get really upset or something like if somebody was to die or I was to lose my home, I was to lose my job, that's what I've been used to, but as of right now, I don't think I have any intentions of relapsing. I have a sponsor that I talk to on a regular basis; I have a drug court worker that I can call at any time of the day, the people at the meetings you know, they give you their numbers and if you ever need somebody to talk to, there's always somebody you know who'll help you.

Zhanine: And what do you think about people in this area, like, how they get started?

Ashley: I think people in this area get started on drugs 'cause there's

absolutely nothing to do, there's not hardly any jobs, there's nothing. What's the word I'm looking for? There's nothing constructive for the teens to do. I mean there's just nothing here. There's no boys' and girls' clubs to give the youth anything to do; the only thing they know is how to hang around and watch older people and most of older people here is already on drugs, addicted to drugs, been doing drugs their whole life. . . . There's nothing here for anybody to get into besides to get into drugs.

Zhanine: Is there any advice you would give to anybody else?

Ashley: The advice that I would give somebody is if you do a drug more than one time, then you have an addictive personality, which means you could very easily be addicted to drugs. So if you haven't done it, don't do it, and if you've been doing it, you should seek help, 'cause it's just gonna get worse.

Zhanine: I wanna go back [to an earlier subject]. How did you go from snorting cocaine to smoking?

Ashley: Like I said, when I first tried [cocaine], I think I was like 18. But just being around different people that you know, that knew how to do that, people who had been doing it for awhile and you're always looking for a better high, because after that first time you get high, you're not gonna get no higher. You'll never feel that good again, you'll never feel the feeling you had when you're first high—never. It's just being around people that got experience and knew how to do it. I got to the point [where] I could cook crack, I could do anything in the world that you wanted done.

The only thing I haven't done with cocaine is shot it. I've never used a needle, ever in my life.

Zhanine: And how did you pay for all of your drugs?

Ashley: Well, when I got a welfare check, \$225 a month, that was supposed to be for my children. I spent it. I'd hold a job for maybe three to four checks, but the majority of how I supported my habit was ripping people off who came to me to get their drugs.

Zhanine: Were there any other drugs you were addicted to other than [crack]?

Ashley: Yeah. When I decided that I was sick and tired of doing the cocaine, sick of having that paranoid feeling, sick of losing everything, sick of just staring out windows, and just like I said, that paranoia will kill you, but I substituted. That's what an addict will do; you quit one thing to start another, and I started doing pills. And the last two to three months of my addiction all I was doing was OxyContin, Roxicets, any pain pill I could get. And using alcohol: I never did quit the alcohol till I got into drug court.

Zhanine: And how did the pain pills make you feel?

Ashley: Oh, pain pills gave me energy and they'd make you feel drunk as hell, you'd just be sitting there, it just feels like you're floating on a cloud. I didn't care 'bout nothing, I was just out of it. OxyContin, it will [do that], the small pain pills that I got, like Loratabs, Loracet, Percocet, stuff like that. They gave me energy, they just made me wanna clean. They also made the crack bust feel better. If you snorted a pain pill before you did crack you didn't get that paranoia feeling. For awhile I

- was doing both at the same time, I'd always snorted a pain pill before I did crack so I wouldn't be paranoid.
- Zhanine:** Has there ever been anything that has ever happened to you, bad or good, while you've been high?
- Ashley:** Nothing's ever happened good while I've been high. I guess if you consider being broke and coming up with somebody else's money and stealing it, so then when you have money, that's good, but all money's not good money. All kinds of bad things happened to me when I was high. You get to the point where you pass out, you can get so drunk or so high, and you don't know what's going on, and I'm a female, and there has been guys that's took advantage of the situation. I can't remember, you know, I couldn't even tell ya [all the things that have happened]. I know one time that I can remember, something happened to me 'cause I was drunk, I can remember bits and pieces of that. Honestly, [I can't even tell you] all of what's happened to me when I've been drunk and passed out around people I thought I could trust. It's caused me and my boyfriend to get into a lot of fights, we fought over dope all the time. 'Cause if I went to go get something for somebody and it wasn't big enough what I took from 'em, or if I didn't keep enough money, that caused us to fight, or he'd want to stay out all night getting high and leave me at home by myself, and I'd get mad cause he was out getting high and I wasn't. I mean it caused constant chaos and drama, that's what it does. Your friends, they'll stab you in the back or the people that's using with you, they'll stab you in the back any way possible. It's just constant chaos, constant misery, constant drama. You're always scared looking over your shoulder for the police [because you're scared] that you gonna get busted. It's not a fun life being paranoid all the time.
- Zhanine:** Were there ever any days that went by when you weren't able to get the drugs?
- Ashley:** I got pill-sick quite a few times, when I couldn't get any pills, I went through cold sweats, shakes, diarrhea, vomiting, not able to eat for days at a time, dehydration, couldn't get out of the bed, couldn't even move I was so sick. And I was homeless for 'bout a year of my life. When they first took the kids, or my oldest daughter, when they first took her, 'cause this done happen to me twice, when they first took her and gave her to her grandmother temporarily, I used that as an excuse, [I rationalized it to mean that I had] my freedom, I stayed high every single day, drunk, 'cause I didn't have any responsibility. And then I went to rehab for 30 days, and I got out, completed a parenting class, passed a few drug tests, and they gave her back to me. And then it was, just it started all over again, it wasn't as bad but it was still there.
- Zhanine:** How do you think your kids feel about it, do they know?
- Ashley:** I think they're too young to really know right now. But one thing that stays in my head that I'm scared to death of is when they start getting older and they go to school with other people's kids that don't like [me] 'cause of something I've done to 'em, or that I know that they're gonna pass information like that on to their own kids, and they'll hear

adults talking, and somebody's gonna go up to one of my children, and be like, oh, your mama was a crackhead, or your mama was this, your mama was that, 'cause they hear their parents say it. And I'm glad I'm trying to stop it now when [my oldest daughter is so] young so it does not affect her so she don't see me like that. I don't ever want to put her in a predicament like when she was 3 and 4, that child has seen more shit than she should have ever seen in [an ordinary] lifetime, she knows every drug addict by name. I neglected her in so many ways, but the major [way I neglected her was] emotionally.

Zhanine: Do you ever worry she might go down that road?

Ashley: Yes I do. Every day of my life I worry 'bout it. I really don't wanna raise her in [the small, poor, rural towns around here], anywhere like that, I really don't. But then again, this is home to me and I don't wanna leave, but I'm so afraid that she's gonna get in with a crowd that does it [drugs], 'cause it's everywhere. People you wouldn't even think do drugs, people in the courthouse, people in the police department; I've seen it all here, you would not believe the people that do drugs and still stand up in the community and think that they're saints and they're just so great, and everybody else that does stuff and trying to better theirself, and [there they are], these [other self-righteous people are] still doing it.

Zhanine: Is there anything you want to add to [what you've said]?

Ashley: The only thing I wanna say is that drug court has honestly saved me and I didn't think that at first, and

I still get pissed off sometimes 'cause I have to get up and go do a drug screen and then I have to leave work to go to AA meetings, NA meetings, comp care, but without drug court there's no telling where I'd be. I think I've hit rock bottom so many times I would have ended up OD'ing and dying if I hadn't got into drug court. Or I would have caught something that would have killed me, 'cause I was 'bout at the point where I didn't care how I got the money, I just wanted to get high, and I honestly think I'd be dead if I didn't get into [drug court].

Zhanine: Did you ever OD?

Ashley: No, I never OD'd. I think I got alcohol poisoning one time. And I hurt myself all the time getting drunk, falling or fighting, Every time I got drunk, I had [to have] somebody tell me what I did the night before. I've got into altercations with people for ripping 'em off.

Zhanine: What was the worst thing that happened to you [when you] ripped somebody off?

Ashley: They called the police, but the police really couldn't do nothing 'cause what are they gonna do? Oh, this person gave me some money to buy drugs, and I took it? I mean really, there really wasn't nothing they could do. The worst thing that happened to me when I was drinking alcohol is, when I passed out and some guys, not just one, this was years ago, I guess you could say they ran a train on me. I was drunk and don't even remember and couldn't stop it, knowing I would never touch any of 'em sober. That's the worst thing that has happened to me when I was drunk.

Zhanine: Did they ever get in trouble for it?

Ashley: No, 'cause I don't remember who it was. I remember who all was there and drinking, but I blacked out. That's what goes with [doing the things I was doing]. I should never have put myself in a position to get that drunk around people that would do something like that [to me].

Zhanine: How did you feel when that happened?

Ashley: Oh, I felt horrible. The next morning, when I woke up, I felt disgusted, just nasty. Just to be honest, I don't remember, I mean, I felt like something had happened but the person that was with me told me, and I'm sitting there like, you know, how could you let that shit go on and you're with me, but they was drunk, messed up too, wasn't thinking about nothing, I mean, when you're drunk, you just don't care. And it's just that everybody's telling you about it, everybody knows. You do something like that, everybody's gonna know about it, and then you gotta face all these people, everybody talking about you.

Zhanine: Does it bother you when people talk about you?

Ashley: It used to really bother me because I knew what they was saying was the truth. It doesn't bother me now because I'm not doing drugs, I have a job, I take care of my kids, I pay my own bills, I keep up my own house. I'm at a point right now I'm content and I'm happy, everything couldn't be better, I could have a car, I could have more money than what I have, and I go to church. Now that's another thing. Before,

when I was into my addiction, I never went to church. Since I've been in drug court, I don't know how to put it, it's like I had my spiritual awakening one night when I thought I was down and out and lost all hope and had nothing. That's when God came to me, and I've been in church ever since then and I love it and every time I have a problem, I don't go out and get high or drunk anymore. I just pray and it seems to work itself out.

QUESTIONS

Do you think the evidence the respondent gives answers the two questions I raised in the introduction to this account: (1) Is there a connection between rural poverty and drug abuse? and (2) Does extreme drug abuse make females more likely to be subject to sexual victimization? Do you think the respondent is typical or representative of polydrug users? What do you think causes her abuse of multiple drugs? Is the use of some drugs regionalized—common in some areas and rare in others? What does her heavy use of psychoactive substances say about the generalization that drug use is more common in urban than in rural areas? How does it compare with recreational drug use in middle-class suburbs? What do you think of her explanation that simply by being around certain social circles, she fell into a pattern of extreme drug use? Most typically, polydrug users smoke a great deal of marijuana; why do you think this one does not? Is this woman sincere in saying that her drug use is behind her? In your opinion, has her drug court program helped to get her off drugs? What's in store for her children? Will they become involved in drug abuse, or do you think they'll avoid it?