

Drug Abuse Information
and Monitoring Project



California Department of
Alcohol and Drug Programs
Andrew M. Mecca, Dr. P.H., Director

STATEWIDE EPIDEMIOLOGY WORK GROUP

PROCEEDINGS

SPRING 1992

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STATEWIDE EPIDEMIOLOGY WORK GROUP

PROCEEDINGS

SPRING 1992

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ELEVENTH BIENNIAL SEWG PROCEEDINGS

PREFACE

Background and History

The concept of a statewide epidemiology work group (SEWG) was based on the success of the Community Epidemiology Work Group (CEWG), a nationwide network established in 1976 by the National Institute on Drug Abuse (NIDA). The CEWG meetings bring together representatives from twenty major metropolitan cities and twelve foreign countries twice a year to assess current international and national patterns and trends in drug abuse, share research methodologies, data collection and assessment techniques, and discuss various research issues.

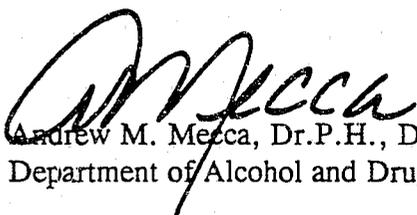
In February of 1987, the California Department of Alcohol and Drug Programs (ADP) and NIDA cooperated in the establishment of SEWG. The first California meeting was sponsored jointly by NIDA and ADP. Subsequent meetings have been sponsored solely by ADP and hosted by the UCLA Drug Abuse Information and Monitoring Project (DAIMP). This meeting represents the beginning of the fourth continuous year of this project. California's SEWG meetings occur biannually in the spring and fall.

Spring 1992 Proceedings

The proceedings of the April 1992 California SEWG meeting include an update on local and statewide drug abuse trends as well as recent information concerning the National Institute of Justice's Drug Use Forecasting Project (DUF), the Bureau of Narcotics Enforcement's (BNE) drug/lab seizure activity report, a report on the profile of the inmate substance abuser from the California Department of Corrections, a report on the epidemiology of drug use in the Netherlands, the impact of drug use on mothers who are under the supervision of child protective services, and updates on drug use and HIV.

These proceedings are produced by DAIMP staff and are distributed to all interested agencies, programs and individuals.

I wish to thank all SEWG members who contribute their time in providing status reports to this useful network. Their participation in the SEWG and their efforts in monitoring drug abuse trends play in integral part in addressing the drug problems of our communities.


Andrew M. Mecca, Dr.P.H., Director,
Department of Alcohol and Drug Programs

ELEVENTH STATEWIDE EPIDEMIOLOGY WORK GROUP MEETING

April 30-May 1, 1992
Sacramento, California

WELCOME

SEWG MISSION

Douglas Anglin
UCLA Drug Abuse Research Center

Our eleventh meeting starts a second generation of the California Statewide Epidemiology Work Group (SEWG). In 1987 NIDA helped establish in several states an information-sharing mechanism similar to the national Community Epidemiology Work Group, which brings representatives from a number of U.S. cities together to talk about developing trends and patterns of drug use in those respective areas. At the state level, the intent is the same: to bring together a community of researchers, practitioners, and policymakers with epidemiological interests to identify and monitor drug use trends, perhaps anticipate them, and provide information useful in addressing drug use problems. With support from the Department of Alcohol and Drug Programs, California has been successful in maintaining biannual meetings and published proceedings. This meeting is the first to expand SEWG coverage to include alcohol epidemiology, and I welcome our new members in this field.

COMMUNITY BASED EPIDEMIOLOGY

Susan Nisenbaum
California Department of Alcohol and Drug Programs

Many of you are aware of the importance of epidemiological information to all levels of government both at the federal and the state level. But, consider the community level--it is difficult to take something called a community, an entity with complex economic and social structures, and try to demographically associate it with drug abuse. A community means many things to different people, and, even within a community, there are subgroups consisting of minorities, special interest groups, and so on. When you want to find what a community looks like in terms of the epidemiology of drug use, you have to use all the available indicators: drug treatment admissions, emergency room data, deaths, paramedic data, all of the things that are pieces of the jigsaw puzzle that you try to assemble to get a sense of the incidence, prevalence, and patterns of drug use in the community. Ideally, using that data, you develop prevention, treatment, and enforcement strategies that feed back into the community, the efficacy of which is observed in the indicators. The goals of prevention, enforcement, and treatment efforts are, at the highest level, the same; but the data each needs and the strategies each use are quite different; thus each effort will pick up a different picture of the community because it is looking at different indicators. So the more you understand those points of view and cross-interpret data, the more solidly you can provide a package to policymakers that will improve the efficiency of the whole network of interventions.

I. DRUG USE TRENDS

NIDA COMMUNITY EPIDEMIOLOGY WORK GROUP

John Newmeyer
Haight-Ashbury Free Clinic

I will briefly summarize information presented at the December, 1991, NIDA Community Epidemiology Work Group (CEWG) meeting. A full executive summary is provided as Appendix C. There are two widely available yearly updates of the national drug use trends: the National Household Survey (NHS) and the High School Seniors Survey (HSSS). The reports presented at the NIDA CEWG meetings usually do not use these two indicators. The CEWG reports use the Drug Abuse Warning Network (DAWN) data and other local indicators, including crime statistics, arrest statistics, treatment admissions, and hepatitis B surveys to provide a local interpretation of trends in particular metropolitan areas. Most of the CEWG reports present contradictory indications as compared to the NHS and the HSSS with regard to certain drug patterns, especially cocaine. While the NHS and the HSSS have shown a downward trend, CEWG reports have shown that the cocaine problem has become more serious in most of the CEWG cities. The reason is that two different populations are being sampled; the NHS and HSSS are concerned with the general population of the Nation as a whole, and the results have indicated that the number of

users of cocaine has gone steadily down since 1985. During that same period, CEWG reports have documented a large increase in the severe-level use of cocaine, and that there are hundreds of thousands of individuals who are dependent users. These "addicts" have become an increasingly large proportion of the remaining users, most of whom are casual users and whose numbers do appear to be steadily declining. Although indicators of drug use in general are pointing downward, the most recent indicators of the spring quarter of 1991 showed a slight flare-up in many of the cities. In this respect, we can see that severe-level cocaine use in some parts of the country remain out of control.

In most of the country, effective prevention efforts and effective treatment efforts were directed to cocaine problems in the outer cities, the suburbs, and the rural areas. But the cocaine epidemic was neglected in the inner city; almost like fire trucks that were unable to reach the fire because they did not have the resources, agencies lacked the strength to fight this raging fire in the inner city. Appropriate, inexpensive kinds of care and treatment for cocaine abuse in the inner city must be developed and made available. However, estimates of the number of people who recently stopped using cocaine greatly exceed the number who have been in treatment for cocaine. Even if you assume that all those treatments had been successful, this did not explain the estimate of the number of people who stopped using cocaine. Thus, some dependent users cease use without formal treatment.

For heroin, a rise in use was observed at the tail end of the 1980s and the very beginning of the 1990s, followed by a decline in most cities, and then a recent flare-up in a mixed pattern. The downward trend was not seen in all the cities; usually at least 1 or 2 of the 19 cities can be exceptions to the pattern followed by the majority. During the past six months, an increase in intranasal use of heroin in at least five reporting cities was noted, as well as in Newark and New York. The San Francisco data could not confirm that the local population was supplanting injection with insufflation as a route of use of heroin. This trend, if it is sustained, may have developed because of fear of HIV disease. Insufflation is up in Boston, Chicago, Honolulu, Newark, and New York. Four of those five cities are cities where the HIV incidence or prevalence rate has ranged above 15-20 percent, and HIV concern among heroin users might explain the rise in intranasal use.

Methamphetamine has been, for many years, a phenomenon of cities which either bordered the Pacific Ocean or Mexico: Dallas, Houston, Phoenix, San Diego, San Francisco, Los Angeles, Seattle, Honolulu, and Portland. Unlike San Diego and San Francisco, cities in the rest of the country do not report very low rates of methamphetamine use. In general, there has been a downward trend in methamphetamine use.

In contrast to the aforementioned downward trends of drug use, there has been a flare-up in the use of the hallucinogens in a number of cities, where either LSD or MDMA has been reported as a drug of new popularity among young people. In San Francisco, this particular phenomenon is an offshoot of the "rave" phenomenon. "Raves" are ad hoc dance clubs or disco palaces where up-to-date music is played at a venue which nobody knows about until the actual day of the event. The revelry commences at about 1:00 a.m., with hundreds or thousands of young people dancing wildly and many using hallucinogens. Ecstasy houses or "X" houses are also popular for the specific purpose of taking Ecstasy (MDMA), which is experiencing increased popularity among young people. MDMA does not have the same built-in burnout characteristic that cocaine and methamphetamine do, nor is there likely to be the same law enforcement effort to prevent use of these substances since so many users are middle-class kids, as opposed to the inner city users whose involvement with substance use may lead to criminal activities.

In terms of HIV disease, a surprisingly low rate of new contagion has occurred over the past five years. Of course, we have seen a steady increase in the proportion of AIDS cases that are reported by injection drug users (IDUs). This trend was to be expected because IDU infection with HIV occurred somewhat later than that of gay men, and the increase in the proportion of the AIDS cases among IDUs is consistent with a spread of HIV that might have occurred among them in the early to middle 1980s. In most cities, there has not been much seroconversion to HIV-positive status among IDUs in the last four to five years. In most cities, the data are consistent with seroconversion among IDUs of 2 percent or less per year. Some cities, however, do document a strong seroconversion to HIV: Chicago, Miami, and close inspection of Oakland and Contra Costa and Alameda Counties would reveal seroconversion rates on the order of 3 percent or more. Something has happened in the IDU communities to obviate or avoid the phenomena typical in New York City, Newark, and a few other eastern cities that brought the HIV infection levels in IDUs up to 40 percent, 50 percent, or 60 percent. We are simply not seeing rates of this

magnitude in any cities outside of the East Coast, with the possible exception of Detroit, Chicago, and San Francisco, which are the only cities outside the eastern seaboard that have exceeded a 10 percent HIV-positive rate among IDUs.

STATEWIDE TRENDS

DRUG AND CLANDESTINE LAB SEIZURES

Robert Peters
Bureau of Narcotic Enforcement

California's crackdown-on-cocaine program has resulted in significantly increased cocaine seizures by our regional offices. Heroin seizures remain fairly stable. There has been some change on the methamphetamine scene (Appendix D). There are two types of methamphetamine labs in California. The majority of them are small and unorganized, but we have identified an increasing number of Mexican citizens, especially in Northern California, becoming involved in larger-scale methamphetamine manufacturing and distribution. This development is something new. Historically, the white motorcycle gangs were most likely to have trafficked and used methamphetamines.

Marijuana continues to be our big problem in California. When the Border Patrol, Customs, or DEA seize large amounts of marijuana coming across the border at San Ysidro, the drug is not destined for distribution in California. It is all destined for the U.S. East Coast. In California, we seized approximately 14 percent more marijuana plants in 1992 than we did in 1991, which is due to increasing numbers of smaller gardens. Again, this trend is also different from before.

FEDERAL ENFORCEMENT DATA

William Davis
Drug Enforcement Administration

My primary responsibility as a diversion investigator is to investigate pharmacists, drug companies, drug manufacturers, distributors, and researchers to look for any misuse of controlled substances. Part of the investigation process involves a signature program that tracks the price and purity of illicit drugs available on the streets. This information is based upon three different sources: informants, undercover operators, and undercover agents who buy drugs, which are then analyzed in our labs. We also rely on information from other law enforcement agencies. Any information supplied through Western States Information Network, comprised of five western states, regarding the purity, availability, and price of controlled substances is used. This information may come from one purchase in the entire year or from one individual, but that single datum becomes the standard, because that is the only information available. Thus, price and purity information may be highly variable.

For example, in San Francisco during 1990-91, the purity of heroin went from 25 percent to 65 percent and from \$1,500 to \$3,000 for an ounce. At the same time, in Sacramento, the purity went up to 60 percent, and the price was approximately \$4,400 an ounce. In the San Jose area, which had acquired quite a large amount of Mexican black tar heroin, the purity was from 9 percent to 40 percent--about half of what you could get in San Francisco, and the price was \$2,500 an ounce. Fresno, which is less than a 200-mile drive from San Francisco, had a price of \$6,000 an ounce, with a purity of somewhere between 50 percent and 60 percent. Currently, the price is roughly around \$2,000 an ounce. So, within a relatively small area of Northern California, there is a great deal of difference in the pricing of heroin. Generally, however, heroin is still traditionally an inner city problem, with the trafficking and use of the drug found mainly in the lower socioeconomic areas.

Marijuana production and trafficking in Northern California are well-documented and well known. California-produced marijuana is considered to be among the highest quality of the national varieties. We have found an increasing number of indoor gardens, which is a very lucrative business that does not require a lot of time or money to begin. Many people are growing marijuana, and they are not part of the well-organized groups operating in Northern California's Emerald Triangle. One way that we are able to discover indoor growers is by using the Fluor System, an infrared photo-imaging apparatus that helps us detect hot spots in apartments and homes from an airplane or helicopter.

Sacramento has become the methamphetamine capital of the United States, based upon statistics indicating that we have the largest number of labs of any place in the country, documented through state as well as federal sources. Historically, in the 1970s and 1980s, the methamphetamine labs were primarily something that the motorcycle gangs controlled. In Northern California, it is now an independent enterprise, with methamphetamine even produced in mobile labs consisting of a van or some type of large truck. In the San Joaquin Delta, there was a houseboat that was configured to make methamphetamine and it was one of the largest labs uncovered. It is difficult to detect mobile and transient operations. One of the things that has helped in controlling methamphetamine manufacture in California is the fact that California has stringent laws concerning the precursor chemicals needed. In this regard, DEA, through the federal system, has been slightly behind California; in 1988, we came up with chemical diversion and trafficking legislation, and now there are seven listed precursor chemicals that are recognized and regulated.

The top four drugs mentioned by metropolitan hospitals and medical examiners are cocaine, heroin, PCP, and what we call the speed, or methamphetamine, family. The fifth substance is diazepam (Valium), followed by marijuana as far as the number of mentions. In terms of the licit pharmaceuticals, diazepam is followed by codeine by itself, and then codeine with acetaminophen-type products. (Appendix E contains a report from the Drug Enforcement Administration)

REGIONAL REPORTS

LOS ANGELES REPORT

Kiku Annon
UCLA Drug Abuse Information Monitoring Project

The data shows that cocaine is the leading cause of drug-related deaths (percentage of total mentions), followed by alcohol used in combination with other drugs. According to the Drug Use Forecasting (DUF) data, cocaine remains the drug of choice in Los Angeles; alcohol-in-combination is, however, the leading cause of emergency room admissions, followed by cocaine (Appendix F).

CAL-DADS data reveals that methadone treatment admission programs peaked during the second and third quarters of 1991, and sharply declined between the third and fourth quarters of 1991. The percentage of total mentions continued to go down slightly during the last quarter of 1991 (from 80.1 percent to 77.4 percent). Methadone is still number one in treatment admission programs, followed by cocaine.

DUF data indicates that cocaine shows the highest percentage of usage (urine positive results), followed by marijuana. Heroin use decreased slightly for females during the first quarter of 1991 and remained stable for males; amphetamine and PCP trends remain steady.

SAN DIEGO REPORT

Michael Ann Haight
Department of Health Services, San Diego

These data (Appendix G) represent the County of San Diego, a county of some 2.5 million people, 65 percent of whom are white, 20 percent are Hispanic, 8 percent are Asian, 6 percent are African-American, and about 0.6 percent Native American. The database for the treatment clients is an admission-based data file, which means that there may be duplicated clients. From the period 1986 to 1991, there was a 156 percent increase in clients in treatment, from 1,338 in 1986 to 3,428 in 1991. The largest increase, in terms of drugs represented, was in reporting heroin as a primary drug of abuse. It grew by 286 percent, from 274 clients in 1986 to 1,057 in 1991. However, methamphetamine has in most years, except for 1989, been the primary drug bringing people to treatment, increasing 97 percent over this period, from 583 admissions in 1986 to 1,148 in 1991, although the figure for the latter was a decrease from 1,208 in 1990. Cocaine-related admissions have also grown, from 268 in absolute numbers in 1986 to 784 in 1991, accounting for a 192 percent increase. Marijuana also showed a 47 percent growth over the entire period.

Regarding the client who came to treatment because of cocaine over this time period, the mean age grew from 27.8 to 30.3 years. The percentage of males started out in 1987 as slightly higher than females and then switched toward a higher percentage of females (about 60 percent) for the next three years; there is currently an almost equal distribution of males and females. In terms of race, cocaine users in treatment from 1987 to 1991 went from 38.5 percent White to 26.8 percent and from 52.6 percent African American to 62.1 percent. Hispanics stayed relatively stable and Native Americans have increased some, but they are still a very small percentage of the treatment population.

Over the past five years, cocaine admissions increasingly became a population familiar with treatment; from 36.2 percent in 1987, we had 63.9 percent in 1991 who had had some prior treatment. For the past three years, this treatment-experienced population has had increasing amounts of interaction with the criminal justice system, from 19 percent who reported three or more arrests in 1989 to 47 percent in 1991.

The heroin user population has aged, from a mean of 31.5 years in 1987 to 34.6 years by 1991. The predominant gender has been male, except in 1988 when there were equal numbers of males and females. Males accounted for 54 percent in 1991. In 1987 whites accounted for 47.5 percent, growing to 51 percent in 1991. Hispanic representation is relatively stable, and there is slightly more African-American representation in the past four years. When asked about prior drug treatment, 87 percent in 1991 said that they had had prior drug treatment. Asked about prior arrests in 1991, 72 percent said that they had been arrested three or more times. The route of administration over this time period has been injection for 99 percent.

The population seeking treatment for methamphetamine is again an aging population, increasing from 25.6 years in 1987 to 28.5 years in 1991. Females accounted for most admissions until 1991, when males accounted for slightly more. Amphetamine is primarily a drug used by whites in San Diego. In 1991, 78 percent of admissions were whites and 12 percent were Hispanics. Nearly two-thirds (62 percent) say they have had prior drug treatment. For prior arrests, 59 percent had three more in 1991, up from 23 percent in 1989. Smoking as a route of administration has grown over this time period to 11 percent in 1991.

People who enter treatment for marijuana use are younger than other treatment clients, and have become younger over time, from a mean age of 26.2 years in 1987 to 23.2 years by 1991. This decline in age can be attributed to programs targeting juveniles or adolescents. Most clients have been male, 63 percent in 1991. In 1991, 64 percent were white as compared to 79 percent in 1987. Perhaps because of their youth, 54 percent had no prior treatment experience. Quite a few of these clients have also had interaction with the criminal justice system; 44 percent had been arrested three or more times in 1991.

In the past, San Diego has been described as the methamphetamine capital of the world, not only because San Diego was the site of the most lab seizures, but also because in two national data sets, the Drug Abuse Warning Network and the DUF study, San Diego has regularly shown the largest amphetamine user population. San Francisco is higher in number of deaths but has fewer number of ER mentions. In the DUF study, San Diego always has more arrestees testing positive for methamphetamine than any other testing site. The role methamphetamine plays in combination with other drugs and drug-related deaths decreased markedly in 1990 and 1991, so it is not showing up with nearly the frequency it did in drug-related and drug-induced deaths. The ER mentions peaked in 1988. The methamphetamine lab seizures also showed a real decrease after the peak in 1987. Because so many indicators are showing a decrease, San Diego probably no longer deserves its reputation as the methamphetamine capital of the world.

YOLO COUNTY REPORT

David Stobel
Health Services Agency

Yolo County has a population of approximately 145,000; about two-thirds White, 3 percent African-American, 20 percent Hispanic, and 9 percent Asian/Pacific Islander. I work for the County Department of Alcohol and Drug Programs where I coordinate the master plan in addition to a variety of other activities. The one real solid data source we have on drug use in the county is an adolescent survey that has been conducted since 1986. (Appendix H) We use the University of Michigan/NIDA 12th Grade survey or a variant of that instrument and its field

procedures. Our survey has examined prevalence of use of alcohol and drugs by teenagers since 1986 in Grades 8, 10, and 12 in all the public schools in Yolo County. What we found is a reflection of the National Household Survey and High School Senior Survey: there seems to be a downward trend in the prevalence of both drug and alcohol use among teenagers, although it seems to be less pronounced for alcohol than it is for the illicit drugs.

An additional data source is treatment admission records (CAL-DADS). The primary drug used among our treatment population was heroin, followed by amphetamine, cocaine, and marijuana. In a county our size, which has only three sites that report to CAL-DADS, there is a real potential for skewing the data. The major site reporting had a long history of providing heroin detoxification services. As a result, I focused on the other two programs, which provide services to a variety of people. One of them is an outpatient drug-free program, the other is an inpatient social model program. Focusing on these programs revealed amphetamine to be the drug of choice among admissions. Seeking to corroborate this, I went to our local drug enforcement task force to see which drugs were being seized, which was methamphetamine. Of course, these data could have been skewed by a few major busts, but one of the members of the task force said, "No, it's because speed is the drug of choice here in Yolo County."

SAN FRANCISCO REPORT

John Newmeyer
Haight-Ashbury Free Clinic

In San Francisco, we speak of three prominent drugs--cocaine, heroin, and methamphetamine, which are all in a declining mode. The abuse indicators are generally downward, particularly for heroin, where all of the indicators are down and consistently so since the beginning of 1990. Medical examiner reports for heroin, for example, are off by approximately 50 percent between the beginning of 1989 and the beginning of 1991. Emergency room counts for heroin are down by about 25 percent or 30 percent between the second half of 1989 and the first half of 1991. In the heroin user population entering treatment, the median age is high, in the mid-30s, which indicates a declining number of new users. Everything about the heroin statistics points to a definite downward trend.

The data are strong, but not quite as overwhelming, when we speak of cocaine and methamphetamine. For cocaine, medical examiner data are down by a quarter. Emergency room counts are down by a fifth, roughly between the beginning of 1990 and the beginning of 1991. The cocaine statistic that is most interesting is the count of babies at San Francisco General Hospital who were diagnosed as being cocaine exposed. The figure there dropped by about one-third between 1990 and 1991, a trend also reflected in Highland Hospital in Alameda County when a drop on the order of 40 percent occurred between 1989 and 1990. Complete data are unavailable for 1991, but they also point to a further decline. Cocaine use by pregnant women definitely seems to be generally down.

Methamphetamine use is paralleling cocaine use, even though the user population is very different. Cocaine users are predominantly African-American, 40 percent female, and a median age of about 30 to 32 years. Methamphetamine users are overwhelmingly White and male. The median age for treatment admissions is about 30 or 32 years and, of these predominantly White men, a substantial number are gay, but there is a substantial white, working-class user population for methamphetamine. In contrast to San Diego, San Francisco has a larger injector population. Sixty to seventy percent of those who use methamphetamine at severe levels are injecting. Of course, these are indicator data, and there could be a well-hidden population (for example, a middle-class heroin-using or cocaine-using population) that never becomes part of our indicator data.

The fourth category of commonly used substances is that of hallucinogens--LSD and especially methylenedioxymethamphetamine (MDMA). These drugs are used by a younger cohort than the 30 and early 40 year olds who predominantly use cocaine, heroin, and methamphetamine. Hallucinogens have a tremendous potential of immediate popularity and appeal. They also have a way of not showing up in our abuse statistics or our traditional indicator data, because people can use them and have fewer problems than those who use cocaine, heroin, or methamphetamine, especially in the later stages of use of those hard drugs.

Dr. David Smith, the founder of the Haight-Ashbury Free Clinic, noted the first great methamphetamine epidemic of San Francisco at the end of the 1960s. Dr. Smith has since acquired a 12-step-based perspective toward addiction and recovery, and he has some very cogent advice regarding cocaine and methamphetamine treatment.

The first is the observation of the tremendous importance of "bottoming out" for people who are entering recovery, and that status can be a kind of a built-in cure for cocaine or methamphetamine use. People bottom out, but only after the complete annihilation of resources, the burning of all bridges, the destruction of their relationships, bank accounts, their employability, of much of their physical and mental health, and so on. Dr. Smith introduced the idea of an epidemic which burns itself out naturally. But he also pointed us in the direction of early intervention for cocaine and methamphetamine use. The Haight-Ashbury Clinic has totally transformed itself in the last five years; where we once provided individual counseling as the keystone of our therapy with the stimulant user, we now have groups, groups, groups. They are not just 12-step groups but other kinds of groups as well, with a particular emphasis on cultural sensitivity--women's groups, gay groups, lesbian groups, African-American groups, Latino/Latina groups, Asian-American, and even groups for ex-prisoners. Because of the cultural sensitivity possible within groups, we seem to be on the right track for providing the support necessary for recovery from cocaine or methamphetamine use.

II. SPECIAL TOPICS

DRUG USE AND IMPACT ON MOTHERS UNDER SUPERVISION OF CHILD PROTECTIVE SERVICES

Mary Ann Lewis
UCLA School of Nursing

We are conducting a five-year study funded by the National Institute of Mental Health assessing the impact of AIDS on high-risk infants. We defined high-risk infants as infants with a positive drug toxicology screen at birth. All of the data are obtained from the records of the Los Angeles County Department of Children's Services, which is the agency that implements the mandates of the Juvenile Court of Los Angeles County. The Department of Children's Services is the largest agency of its kind in the world.

The data presented describe demographic characteristics of the drug-using mothers whose infants are in the experimental group. We have categorized the mothers according to the number of their children who are under the court's jurisdiction. The "Less-than-50 percent" category contains those mothers who have fewer than 50 percent of all of their children under the court's jurisdiction. The "More than 50 percent" mothers are those who have more than 50 percent of their children under court jurisdiction. The category of "One child" represents a mother who has only one child and that child is under the court's jurisdiction. All of the infants were placed under the court's jurisdiction before the infants left the hospital, because they had a positive drug screen and the mother or other family was deemed unfit to care for that infant.

There is a difference in ethnic composition among three groups: African-American mothers are the largest proportion of mothers overall, but, in the Less-than-50 percent group, the highest percentage was the Latino mothers at 28 percent. Most of these mothers (70 percent) grew up primarily in Los Angeles County, and 38 percent of these mothers were raised only by their mothers. Those mothers who have only one child were more likely to have been raised by their mother only. Nearly 70 percent were never married. The Less-than-50 percent group had a larger volume of relationships that resulted in formal spousal contracts. Homelessness is higher in the Less-than-50 percent group and is significant at the .05 level.

More of those mothers who have more than 50 percent of their children in the court's jurisdiction are on AFDC. The group that had fewer than 50 percent of their children in custody begin to emerge as a subgroup; they are more likely to have been involved in criminal activities, more likely to have more sexual partners, and also more likely to be involved in prostitution. About 33 percent of this group have been in a drug rehabilitation program. Mothers who have fewer than 50 percent of their children under the court's jurisdiction do not have as many premature babies as do the other two groups of mothers.

The last information we looked at is the birth intervals between children for these mothers. The number of months between births decreases and is significant for all except the third and fourth and the fourth and fifth. The mothers who continue to have more babies are having them quicker and faster.

One of the long-term goals of this study is to try to predict which of those mothers who have only one child will later fall into which of the two groups. And, because we are following the babies from birth to two years, looking

at the number of caretakers they have, how many foster places they change over that two-year period, and how many other children those mothers give birth to, we hope to be able to do some logistic regressions to try to predict this eventuality.

III. CORRECTIONS BASED EPIDEMIOLOGY OF DRUG ABUSERS

DRUG USE FORECASTING: SAN DIEGO

Susan Pennell
San Diego Association of Governments

The Drug Use Forecasting (DUF) program is jointly sponsored by the Bureau of Justice Assistance and the National Institute of Justice. DUF conducts quarterly drug testing of arrestees booked into local detention facilities to provide information about the nature and scope of drug use among offenders, to detect drug epidemics, to be used as a measure to allocate drug enforcement resources and determine treatment and prevention needs, and to measure the impact of efforts to reduce drug use and crime. Each quarter, a sample of arrestees booked into jails and, in some cases, juvenile hall are asked to participate in anonymous, confidential interviews and asked to provide a voluntary urine specimen. The National Justice Institute suggests that the sample consist of approximately 250 men, 100 females, and 100 juveniles. Currently, there are 24 sites in the country that are part of the Drug Use Forecasting program.

San Diego has been a DUF site since 1987. In San Diego, DUF only tests male felons because they are most commonly booked into our jails; due to jail crowding, we have very few misdemeanants booked. Testing of females, however, includes both felons and misdemeanants. Consistent with the drug trends that have been talked about today, our DUF data have also shown a drop in drug use over time for both men and women arrestees, declining from over 80 percent positive for any illicit drug among male and female arrestees in 1989 to 73 percent for men and 72 percent for women in 1991. For the second quarter of 1992, however, both men and women increased drug positive rates: men were 78 percent positive, women 77 percent positive for any drug. Excluding marijuana, there is a general decline in adults testing positive at booking. Cocaine remains the primary or most frequently used drug among DUF arrestees. (Appendix I) In January 1992, 46 percent of all male DUF arrestees were positive for cocaine, which was fairly consistent with the rest of the country. According to emergency room data in San Diego, the drug most commonly used in combination with cocaine is amphetamine, as opposed to heroin or marijuana, which are typically used in other places.

In 1988 over half of the juveniles interviewed were positive for some drug. At the end of 1991, this rate was 34 percent. In San Diego, and probably in California, the youths who come to juvenile hall are usually the really serious offenders. Many youth are arrested who never see juvenile hall, making DUF juveniles a very select group of juvenile offenders. Less than five percent of these are drug offenders; most are there for auto theft, murder, weapons, robbery, and many gang-related offenses.

DRUG USE FORECASTING: SAN JOSE

Trudy Killian
Bureau of Drug Abuse Services

San Jose became a DUF reporting site in 1989. The only significant trend is that cocaine use among adult males is increasing. Usage of other drugs appears to be declining. For juveniles, however, PCP use is increasing somewhat, and there may be a seasonal trend in PCP use among adult females. In January of 1990, there was a PCP rate of about 22 percent, which declined to 14 percent in February and 10 percent in March, but then increased again by February of 1991.

In Santa Clara County, DUF data have been used to support increases in law enforcement efforts and in treatment efforts. DUF data were instrumental in supporting the need for drug treatment in our jail system. In the 4,000-bed jail system in Santa Clara County, there are now several drug and alcohol education programs. We have over 185 treatment and intensive intervention beds in our county jail system as well as several outpatient programs for offenders. The county also provides aftercare services and a jail therapeutic community program with a 90-day aftercare program.

OFFICE OF CRIMINAL JUSTICE PLANNING REPORT

Glenn Johnson
Office of Criminal Justice Planning

The Office of Criminal Justice Planning (OCJP) received \$44 million in a federal block grant in 1992. (Appendix J) About \$28 million of that is passed through to local programs, and \$16 million is retained at the state level to run some state programs and administer the project. We fund a marijuana suppression program in seven counties for \$2.6 million. The DEA is cooperating with the California Highway Patrol and some sheriff departments on Operation Pipeline, which is a very effective operation in detecting large quantities of drugs along the Interstate 5 corridor.

Although OCJP funds have been targeted specifically for suppression and enforcement efforts, we received authorization through legislation to fund four treatment projects exclusively for juvenile offenders. We are now in the final grant award negotiation with Orange, Riverside, Los Angeles, and Humboldt counties. They will be running a 24-month program to focus on both inpatient and outpatient follow-up on juvenile offenders, so we will be able to provide some data on the success of those projects in a couple of years.

OCJP is funding a narcotics information system in Los Angeles for about \$2.9 million that will assist L.A. County's 46 police departments in coordinating investigations. All law enforcement agencies in California will eventually have access to this super system that will contain intelligence information from all contributing agencies. Initially called the Los Angeles County Clearinghouse, it has taken on the name Statewide Integrated Narcotics System (SINS) and now is a coordinated effort between all 57 police departments in Los Angeles, the Sheriff's Department, and the Southwest Border Task Force.

The federal government has required that, of the \$44 million received in 1992, 5 percent be held back to assist in the improvement of California's criminal history record system. By statute, law enforcement agencies are supposed to send arrest information to Sacramento. Court clerks who have disposition or conviction information on defendants are supposed to send it to the repository. The Department of Justice (DOJ) again is the repository for California investigation intelligence information, and it is trying to discern the percentage of referrals of arrestee information and conviction information to the state depository.

OCJP has been working with all 58 counties in the Master Plan process. Initially, ADP set up a six-phase process where counties could enroll and submit their Master Plans within four-month increments over a period of a year and a half. We are currently funding every county at a minimum of \$150,000; the balance is distributed according to the crime index rate so the range is from \$150,000 in Alpine County to almost \$7 million for L.A. County.

DEPARTMENT OF CORRECTIONS REPORT

Dave Winett
California Department of Corrections

Perhaps the most extensive research and evaluation study underway in the California Department of Corrections (CDC) is the Amity Rightturn Program at the R.J. Donovan Correctional Facility in San Diego. The CDC effort is looking at a comparison group and a study group to determine if there are any differences among these two groups in terms of institution behavior and subsequent release behavior. Also, this population is being studied through a NIDA-funded research project to Narcotic and Drug Research Incorporated (NDRI) using random assignment from waiting lists into the program and looking at the impact of the program, not only in the prison but also on the host custody component. This component is a continued treatment of involved offenders from one environment--institutions--through to the next, which is the community. We have completed a process study of the first year of operation at San Diego (Appendix K).

Another important study is the Bay Area Services Network (BASN), where the CDC is using residents of Delancey Street to try to get prison inmates interested in going into drug abuse treatment programs in the community. The Bay Area Services Network involves six Bay Area counties--San Francisco, Alameda, Santa Clara, San Mateo, Marin, and Contra Costa. In each of those counties, there are funded slots, both residential and outpatient, plus the involvement of Delancey Street residents, whom we regard as community services coordinators who maintain an ongoing contact with the institution parolees. Some people are also beginning to enter the program from existing

parole caseloads. Those coming out of the institution comprise a comparison group that is observed as we set up the program. Volunteers who met the criteria entered the program from the institutions, but because of the slow startup in getting the slots available for the program in the counties, we were not able to provide referrals for these people, so they were never formally included in the Bay Area Services Network. There were probably a couple hundred of these people who will serve as an excellent comparison to the parolees who did become involved in the project in the same geographic area. The number of people in this program is approaching 1,500. We hope to work with each parolee for six months.

Other area services networks are being established. People incarcerated for short terms in San Diego are coming out of R.J. Donovan and receiving treatment in San Diego County using 15 or so providers for both residential and outpatient services. The newest CDC program, funded for \$500,000, involves men and women from the Northern California prison entering Phoenix House, which is a 50-bed treatment facility located in Turlock, California. This is a fairly large program placed in a small town. Because of concerns expressed by the chief of police, there was a real effort to ensure the adequate conditions of the program. The city council and the business community, along with Phoenix House, have all worked together with CDC parole people to accomplish this.

Ninety percent of the women who are admitted to state prison are being admitted for the first time. Seventy percent of men were in prison for the first time. Because of the high rate of recidivism among women and men, we must reach the first-time prisoners who are drug users before release and parole. So any kind of approach dealing with the drug-involved offender should focus on making his or her first time in prison their last time in prison.

IV. SPECIAL TOPICS

STATE OR FEDERAL BLOCK GRANTS AND THE MASTER PLAN

Marlou Smith
and Susan Nisenbaum
California Department of Alcohol and Drug Programs

In managing affairs within the Department and our external relationships, we focus on systematic assessments of processes in the organization. If we perceive a problem, we gather data and create a plan for change. From that plan, we implement actions that we think will work. After some time, we check back, run the data again against the pertinent criteria, and get the results from that change, which leads to another decision about whether to continue on with the plan or to do something else.

Needs assessments develop our goals and objectives. To achieve various goals and objectives, the State operates a service delivery network in partnership with the counties. The counties arrange for the services at the local level. Resulting outcomes yield data that enable assessment by which to plan a change. We have many pieces of information, but we are not adept at describing how to assemble them all; we need to improve our communication and the process of having outcomes inform the needs assessment.

In the past year, we have tried to look at the products of our needs assessment, which must rely in large part on indicators, what data people in the field have available to them. The process we use is a workshop group with the county administrators and members of their planning staff. We weighed the criteria for evaluating the utility of these databases for planning, ranking each on such criteria as reliability, validity, timeliness, and user friendliness, so that we now have a concept of the various criteria by which different groups judge a database. We use this ranking to answer the questions posed by the federal agencies regarding which data will be used now and in future years. The indicators used by the federal agencies include population, number of IVDUs, number of women, prevalence of drug-related criminal activity, and incidence of communicable diseases transmitted through injection drug use. We feel, however, that this set is not adequate as needs assessment-type indicators, particularly for alcohol.

Ultimately, we are trying to implement a planning process at the local level that would meet state planning needs, primarily in terms of providing information. The goal is to devise a simple, integrated planning process that would accomplish the Master Plan goals. Our success very much depends on the specific data that we can get at the local

level. We created a standard decision-making model that allows for non-uniform decisions. It uses a uniform set of data available to counties and the State, and the data provide a uniform method for establishing county goals and objectives. This standardized method describes services quantitatively for the planning process, and has an evaluation component to assess any need for change.

EPIDEMIOLOGY IN THE SERVICE OF MASTER PLANNING,
NEEDS ASSESSMENT, AND RESOURCE ALLOCATION

Douglas Anglin
UCLA Drug Abuse Research Center

Setting policy goals and creating strategies to achieve those goals occur at the top of a vertically structured process that deals with the issues of substance use. Regulation strategies approach the problem from the supply side; for alcohol, consumption can be regulated through taxes, limitations on times and places of sale, and other market-oriented measures. Absent the effects of formalized supply control, as is the case in illicit substances, there are deterrent consequences administered by the criminal justice system. Prevention measures attempt to reduce the demand for substances, but when prevention fails and people continue to use, there is the remedial action of treatment.

This SEWG group, and most needs assessors, master planners, and epidemiologists are concerned with what occurs in the community. Various definitions of community result from different perspectives; when considering geographic communities from the state level, this usually refers to a county because that is how things are done in California. Communities are also defined culturally by groupings such as African-Americans or Asian immigrants. Further distinctions of this entity pertain to special populations: the disabled, the homeless, migrant workers, and so on. Any one geographic community is made up of a multiplicity of these other communities. From the epidemiological point of view, we only know a community indirectly through what we call indicators, or measures, and sometimes those indicators, when obtained by ethnographic methods, for example, are very qualitative. The researcher goes into one of these communities, observes, perhaps interacts, to build an accumulation of qualitative knowledge. Or research may look at other kinds of indicators that emerge from the community. The morbidity and mortality indicators are one source: deaths, treatment utilization, hospitals, insurance claims, and so on. We look at prevalence, at social consequences, and at crime statistics. After assembling the many scattered indicators that capture different aspects of the substance abuse problem, we must integrate, analyze, and interpret those data. Otherwise, if we concentrate on just one special kind of indicator, we get only one point of view. Somebody else looks at another set of indicators and gets another point of view, and quite often people in different groups choose the indicators that best support their policy viewpoint.

But public attitudes can also have an effect on policy, no matter how much information may counter commonly held notions. Extremist advocacy may be directed from various viewpoints. Prevention people may say, "Forget this year's crop of drug addicts, they are goners--let them shoot themselves in the drug wars, let them die from overdose; but let's work on the next generation. Prevention is where it's at. The distribution of money should focus here." On the other hand, treatment people say, "You're abandoning damaged individuals, treatment is where the money should go." Then, of course, the enforcement people say, "Whatever resources we need to quell this epidemic should be put into enforcement." Such views must be countered by providing information that suggests the utility of each approach.

An act of the California State Legislature required ADP to fund the Needs Assessment/Resource Utilization Project. It focuses on special populations in the community, with particular emphasis on ethnic populations: African-Americans, Hispanics, and others, though there are also some concerns with the disabled, the homeless, and so on. This is a very difficult project to do, because there are clearly not enough resources to serve all those who need services, so we developed a not uncommon concept of "equitable underfunding," where everyone is underfunded. But *are* they fairly or equitably underfunded? That is, is each community of drug users getting their fair share of the reduced pie? The controlling factor is less concerned with absolute numbers than with ratios. That is, what is the ratio of need for services of African-Americans to Whites in the community and what is the appropriate ratio of prevention and treatment dollars? Are those ratios equal? That has become a problematic determination because of both numerator and denominator problems. Ideally, we need to know the number of Whites using and their need, and the number of African-Americans using and their need.

Resource distribution is fraught with error, partly because the indicator systems for drugs are compromised to a greater extent than those for alcohol. Treatment utilization data exist, which are fairly good, but prevention data is rare. Merging all the data to create ratios to determine "equitable underfunding" is also problematic, because we must work with four counties in a comparable process; we are limited by the best data in the worst county, putting limits on the data in the other counties in order to achieve comparability.

Some of our data comes from key informant surveys, so it is not surprising that some of the public attitudes in the special groups are interfering with an empirically driven process. Because everybody is underfunded, members of each community see the gap between what the needs are to be met and the services that are available. Everyone comes away from their personal experience believing that their community needs more services, and they are absolutely right. However, they lack the broad view of how seriously all the other groups are underfunded and they need to think about the relative difference. They need to understand that services are all underfunded. Then they can worry about being more or less underfunded than others.

EPIDEMIOLOGY IN THE SERVICE OF MASTER PLANNING NEEDS
ASSESSMENT AND RESOURCE ALLOCATION

David Gray
Evaluation, Management and Training, Inc.

Our model, as all other good models, looks at policy and strategy in the formal service system and then it looks at its relationship with the community. We need to understand the limits of what an epidemiological group can accomplish and compare that with the task of the Master Plan, because they have different goals. The epidemiologists and sociologists set out to understand the world. The goal, however, is to change the world, and we need to bear in mind that we are not just collecting information. This process uses this model to get better decision making back into the community which can change the character of life on the planet; my task is to make that happen within the county. The Master Plan process is divided into four systems--health, social services, criminal justice, and education--and each of these major formal institutions is trying to penetrate into the community in order to interrupt certain adverse behaviors associated with drug and alcohol abuse. But we do not fully penetrate into the community; there are many people who remain unserved. As cutbacks occur, these forays into the community are shrinking--fewer resources, fewer people. One of our problems is to try to collect better information so that our capacity to understand does not shrink with the resources.

We falsely assume that services only occur within the formal system and that as the system is withdrawn, services are no longer provided in the community. A huge invisible service system is operating in the community, which has always been there and probably always remain. In Del Paso Heights, for example, a missionary Baptist church housed nine young men, all ex-members, who were detoxed from crack cocaine. They pray, study the Bible, and they are in an environment that will not let them use crack. Sometimes the invisible service system provides some incredible services. Because we can never get objective statistical data from this side, we are resigned to using qualitative measures to understand what goes on in the informal system. Substantial literature describes cultural differences in help-seeking behavior; women will generally seek formal help much more than men. Also, Hispanic communities rarely seek mental health services, but they will seek physical health services. The African-American culture has its own attitudes toward certain kinds of help seeking; opiate addicts do not seek methadone maintenance, they seek other forms of treatment. So you have in the community certain culturally determined ways of accessing the formal system, and sometimes the informal system is used more by some groups than by other groups. (Appendix L)

In the model that prevailed in the 1950s, if you had a problem, you called the police, the police came, and the police did something about the problem. Whatever the need in the community, there was somebody in the formal system who could go out and take care of it. Assumptions based on this prior model may be informing the current system of decision making and data collection, but this prevailing notion may be fading because of a reduction of resources, because of increasing problems in the community, and because of an increasing sense of community empowerment. Many counties are operating this way at the Master Plan level; they want the community to provide input into the formal system. One example is community-oriented policing as an effort to engage people who have never been a part of the system. Lack of communication and cultural attitudes are huge barriers to

treatment entry. People who have been traditionally excluded from decision making are somewhat reluctant to participate in the formal system, so the informal system is another element that must be considered in the Master Plan.

Another model is the community empowerment model. At Evaluation, Management and Training, Inc. (EMT), we are evaluating a number of the OSAP Community Partnerships and, in this case, there is a transfer of technology and an effort to transfer our capacity to interrupt behaviors that are associated with the adverse effects of drug and alcohol abuse. The technology of detoxification, rehabilitation, and habilitation is really the principal means of recovery for many of the people, and the formal system cannot provide that. Since many of those people probably would not enter the system even if they could do so, there is an effort to train community-based people to do the kinds of things that professionals usually do. Non-professional but extremely intelligent, informed, and skilled people can accomplish remarkable things out in the community. Even law enforcement activities are being assumed by the community; in Sacramento County, the police have not been able to interrupt the drug trafficking, so citizens groups and neighborhood groups are taking the owners of the property to small claims court, using the justice system to try to do what the police will not do. They find out who owns the property where crack is being distributed, they inform them that the property is being used illegally and is a disturbance, and then take the land owner to small claims court, seeking a \$5,000 claim against the landlord. They do not need lawyers, and they do not have to wait six years to get a court date. Win or lose, they are going to get the landlord to evict those people or ultimately the property can be seized. The community is becoming empowered.

A fourth model similar to this is based on community autonomy. Many people refuse to accept funding from the county. They will not participate in the Master Plan process, and they want to operate independently from formal efforts by the system to interrupt their local drug and alcohol abuse problems. Each of the aforementioned models has significant impacts on the Master Plan, and it is important as a master planner to recognize competing systems. In some respects, we are working on two Master Plans, one of which describes the formal system, which uses data to identify and make rational decisions. But there is also a Master Plan that must recognize the invisible system. Maybe these community-level "providers" are never going to communicate with the formal system, but they can communicate among themselves a little better. Perhaps we can help them adapt technology out of the formal system in order to accomplish much of what the system can no longer provide. People in different parts of the community have very different priorities, and it is important from a master planning point of view to understand that, to remember that the formal system is only a piece of the puzzle. We may never get the information that we want from the informal system, but we still have to make decisions and these people still have to be included in the process.

IMPROVING DATA SYSTEMS FOR MONITORING DRUG USE

Patricia Ebener
The Rand Corporation

A new RAND research project is now underway and may be useful to feed into the master planning efforts throughout California. The study is about improving data systems and has just been funded by the Office of National Drug Control Policy. (Appendix M) RAND's Drug Policy Research Center has investigated the availability of various data systems for policy analysis, and we have done some exploratory analysis with the major federal data systems, DAWN, and the National Household Survey on Drug Abuse. The results from 17 different federal agencies that collect data about drug abuse and its consequences show a fragmented collection of indicators: we have a vast array of data out there. Some are collected by the different fields: by enforcement, by the treatment community, by the health community, by the labor department, and by the transportation department. There is little coordination of data collection at the federal level. In addition to fragmentation is lack of timeliness. Indicators of drug use and of the consequences that arise from use of drugs often lag behind the phenomena because of the slowed processing of data.

The result, when you put all these things together, is that you may have apparently inconsistent findings, with an inexplicable downward trend in one indicator system and an upward trend in another one. A more integrated, systematic approach would more consistently describe the situation, an approach that has not been done in the past for the existing systems. ONCDP has begun to address these problem by looking at these multiple indicator systems produced by different agencies and trying to make more sense of them. ONCDP has asked RAND to

examine the data systems in existence, the kinds of analysis that are being done, and the policy relevance of drug abuse indicator systems, and to recommend steps for improvement. Our approach fits in with DUF's model of developing new methods of data collection or, alternately, modifying existing ones. We will also look at the analysis and interpretation issues to assess what level of integration is likely.

This eight-month exploratory study for the federal government extends from May to December 1992. We hope it will be the first phase of some continuing methodological work in the drug field. Because the sponsor is the federal government, our scope is limited to the federal needs for data. But federal systems are used, to the extent that they are indicative or helpful, in small-scale indicator systems, and we want to make sure that we keep the ONCDP aware of this fact so that local policy analysis or state policy analysis might be served by these systems.

A primary concern in rethinking data systems at the federal level is coordination. In reality, coordination will not arise from starting a new system of data collection; federal law enforcement agencies are not going to give up their data systems and the health-oriented community is not going to give up its data systems. The first step requires some kind of a rational understanding of the issues of the prevalence of drug abuse, treatment, how supply suppression affects phenomena in the community, how demand reduction affects phenomena in the community, and then how these realities affect policymaking. ONCDP and the individual federal agencies have not been able to do much integration among themselves, so RAND will be attempting to do just that. The next step is to map the data requirements to what the various needs, policy, and other issues are for the data.

Baseline data, or indicator data, describe the basic status of use and consequences of use in the various communities, however you define them. But these indicators are also used to assess the effects of different policy actions in the community. They then serve as evaluation databases. But with increased federal interest in assessment, evaluation, and accountability, you need more comprehensive data and you need to better interpret these indicators to determine how to use them to evaluate outcomes and trends.

One approach to obtaining more comprehensive data is to look at currently untapped indicators. We think that there are some existing indicator systems that might be as good as, or better than, some of the present ones. Some of the consequences of substance abuse are revealed, for example, by studying what goes on in emergency rooms. Departments of children's services and departments of social services may be other sources of indicators that might be useful. These all contain some limited drug use data. We also have the national health interview study, the national maternal/infant health study, and the national hospital discharge survey. We are even going to review some of the public opinion data that have been assembled and compare them with various drug use prevalence estimates to see whether or not attitudinal data could be used as indicator information.

Problems with existing systems are well recognized, but all of their consequences are not; with long-term stable underreporting, for example, trend information will not suffer greatly, but erratic levels of underreporting may give inconsistent data from one period to the next, and serious problems ensue. The actual process of data collection in the field is another issue. To improve drug indicators, we could look at data collection in other public health surveillance systems, like the morbidity and mortality weekly system and the CDC contagious disease monitoring systems, and see how they collect and disseminate data. We want to make sure the dissemination of data for use is part of the recommendation we make.

We think a cost-effective operational approach is to determine how to build flexibility into the current drug use data systems. DUF is a recent system and has some interesting models that might be adapted to some of the other systems. It was built with a set of core questions and core methodologies and the idea that other studies could be attached to the basic data collection process. For example, each site could do special studies, which is not possible with some of the other nationally funded studies like the National Household Survey on Drug Abuse. We expect that some worthy pilot testing will emerge from this study, perhaps leading to testing the feasibility of some of the modifications.

DRUG ABUSE INDICATOR DATA

Hillary Saner
RAND Corporation

The primary goal of the RAND study is to develop a more concurrent analysis of the overall picture of the existing drug abuse data systems in terms of operational issues, obstacles to integration, and methodologies. Current analyses of these data tend to be incomplete and fragmented, making interpretation difficult. We think that the data will have greater potential utility if they are pooled and integrated in intelligent ways that will provide a more comprehensive understanding of the various drug phenomena.

(Appendix M)

Our first task is to look at different drugs, different population groups of users, and geographic areas. Basically, we have multiple sources of information at the national level. We all know that the data sets have different problems--reliability, validity, timeliness, etc.--but we are hoping that better techniques of integrating data will increase their reliability and increase data reliability and utility.

Several important issues require attention: data sets are pertinent to different populations and to selected populations; definitions and procedures for reporting will vary across different localities; different definitions of what certain variables mean may change. Across regions and over time, we will have to take account of the different sampling designs and use intelligent analysis to determine the effects of these different aspects. DUF data, local data, and DAWN data are different sorts of units of analysis that we may have to accommodate. Time periods and the comparisons of effects in time periods will be another issue. In terms of the different lags represented in different systems, for example, treatment admissions data will show a longer lag in providing use information than do data from arrestees.

There are some potentially exciting ideas in different fields that will likely have applicability to drug data: in criminology, education, and, of course, in epidemiology. We hope to incorporate some of these ideas into our work. In linking the databases, our goal is to extract and to integrate the information to provide a more complete picture. Part of that effort will be to describe some of the potential integrative matches that we can find, to identify the mismatches, and to document the key information from each data set. Certain data sets can measure certain events particularly well, but might vary with time. Some of the variables in different data sets might have different problems or they might not be measured in the same way, or they might be measured similarly but might change over time.

Our ultimate goal is to reconcile the inconsistencies and to disaggregate the data in sensible ways to ask if there are subgroups where the information from different data sets converge or conflict in certain kinds of ways. At each step, we will need to carefully document the assumptions that are made, both in the data collection process and in our analyses of it. We will need to make appropriate decisions about the choice of the level of analysis and to document those.

EPIDEMIOLOGY OF DRUG USE IN AMSTERDAM AND DRUG POLICY IN THE NETHERLANDS

Martin Grapendaal
RAND Visiting Fellow

We have a very large alcohol problem in the Netherlands, and the alcohol problem is much, much larger than the other drug problems. The following information, however, pertains only to illicit drugs. In the Netherlands during 1990, there were 46 overdoses of heroin, 13 of which were Dutch Amsterdam residents and the rest were foreigners not used to the high level of heroin purity available in Amsterdam. There is a seasonal cycle; during the summer months, about two-fifths of the drug-using population come from abroad, mainly from Germany, and when fall approaches, most gradually leave the country. (Appendix O)

As far as marijuana is concerned, a large quantity is grown in the Netherlands, and we have become a marijuana exporting country. People are growing their own plants on their balconies. Another hallucinogen, ecstasy (MDMA), is put on the "List One," that is, one of the drugs with unacceptable risks.

We take a different policy approach from the United States as far as the user is concerned. Policy on trafficking and manufacturing compares very much to almost all the other countries, but perhaps with less concern for marijuana. Selling hashish is licensed, but the price and purity are not really regulated. The only thing that is regulated is the number of coffee shops, which are sites of semi-licit drug sales, allowed in any one area. When one coffee shop is reported to be selling larger quantities than allowed, there will be a raid on that coffee shop resulting in closure for a month. If a second infringement of this rule occurs, then they are out of business. The Dutch government planned to tax the revenues from cannabis sales, but opponents took this plan to the European court for review and it was overruled.

V. AIDS AND DRUG ABUSE

EPIDEMIOLOGY OF AIDS IN CALIFORNIA

John Newmeyer
Haight-Ashbury Free Clinic

The HIV epidemic among drug injectors nationally is gradually losing steam. Dark predictions of the late 1980s have not come to pass. We have the prevention tools to win the prevention battle in the injection drug use (IDU) communities. The HIV incidence rates of cities west of the Mississippi are close to where they were in 1987. San Francisco is the only city, with the possible exception of cities in Alameda (Oakland) and Contra Costa counties, that has an HIV rate substantially above 10 percent, and many cities east of the Mississippi also have this pattern. (Appendix P) Chicago, Detroit, and Oakland are the only cities that unfortunately seem to have had a fairly rapid increase in HIV among IDUs. All the others have held steady, which indicates that something has changed or local conditions were originally different from the pattern that prevailed in New York City, Newark, Boston, Bridgeport, and the other East Coast cities where we did see the contagion leaping up to 60 percent from 1980 to 1988. The change could be explained by the extreme frailty of the virus in microliter or nanoliter quantities in a needle or syringe, that injectors just got a little bit more careful, maybe unconsciously, about the way they used and shared needles, plus the bleaching and the exchange of needles. It all combines, perhaps inadvertently, into a successful prevention effort. Conversely, on the treatment side, providers of services are overwhelmed by the power of the virus once it gets established in an individual. Medical requirements become substantial. For example, 85 percent of those who had the virus 12 years ago in a small sample of gay men have progressed to at least some symptoms of, if not full-blown, AIDS.

Another pessimistic theme is that, in general, we overestimate the size of injection drug user populations; there seems to be a systematic tendency in some agencies and among some experts to be two or three times as high as other experts in judging the number of IDUs in a community, a state, or the country. In one sense, the AIDS epidemic is like a tide going out that slowly reveals the nature of certain hidden populations: gay men or injection drug users. That metaphor describes the back-calculation method of prevalence estimation by looking at the progression of infected gays and IDUs to AIDS. We apply what we know about the rate of progression to the disease and the infection rates of the gay or IV population to combine with the observed progression to AIDS and then back-calculate to estimate the size of the IDU or the gay populations. By this method, the number of IDUs have come in smaller, at the low end of the expert estimates, which may be a piece of good news--the IDU population was smaller than we thought. According to the lower range of NIDA back-calculation estimates, there may be about one million IDUs and an infection rate of about 25 percent nationwide.

A study on young IDUs in San Francisco found that only 1 out of 110 youths (under 25) have had a history of HIV infection. That 1 percent rate compares with the 10 percent or 11 percent rate that prevails among older IDUs, which may reflect an all-important generational shift. We have to hope that the generational shift will prevail across all risk populations, so that the older populations with high infection rates will be supplanted by the new generation that has a zero or one percent infection rate and that the epidemic will desist.

In the absence of HIV infection, the background mortality rate of IDUs during the period of their injection career is probably around one percent per year. An HIV infection rate among IDUs of ten percent adds one percent more who will die due to HIV. Those are small numbers in terms of the overall population, but they still translate into hundreds and hundreds of infected people who are progressing to symptoms. For men, who are the majority of IDUs, the impact on their female sexual partners and their babies and on the programs treating them is very real,

even overwhelming. Although San Francisco is the hardest hit of California cities, with a high proportion of the population infected with HIV, this was mostly male IDUs. Possibly 30 percent of female IDUs are infected, and the birth rate is lower among IDUs than among other women of the same age and social class. San Francisco still has very few children who are HIV infected. One alarming event is that Alameda County now has two and one-half times the rate of babies becoming infected as San Francisco County, which adds to the evidence that East Bay counties are becoming as hard hit or harder hit than San Francisco.

To date we have been poorly served by the producers of condoms, which lack innovation. Condoms are typically seen as impacting negatively upon the pleasure of sexual experience. A poll of condom users would find at least three demands coming from consumers. The first is that the package should be easy to open with one hand in the dark. The second way in which condoms are poorly designed is that once it is out of the package, there is a chance that the fellow will put it on in the wrong direction. The third problem is the unpleasant aroma of most condoms. A new innovation is the female condom, for female partners or males who play the receptive role. Product testing has included very positive results among heterosexual men and women and homosexual men.

HIV INFECTED DRUG USERS IN SACRAMENTO

Neil Flynn
UC Berkeley

There has been an increased rate of HIV among drug users who continue to inject street drugs but a lower rate among those heroin users who have entered methadone treatment. Amphetamine users do not seem to be entering treatment, at least in our clinic population in Sacramento. Although we often focus on HIV, there are other viruses to be concerned about. Most of our treatment admission clients are tested for several infectious diseases. Among Sacramento drug treatment clients, 12 percent have HTLV I and II antibodies. HTLV is a retrovirus, similar in structure to HIV, that can produce leukemia and a neurologic disorder called spastic copuresis, where the lower part of the spinal cord becomes damaged and the individual becomes paralyzed in the lower part of the body. Only two percent of our addicts had HIV. The same ratio is true in Oakland. Oakland found around 25 percent to 40 percent infection rate for HTLV I and II, much higher than its HIV rate. We do know that HTLV is sexually transmitted and is transmitted to female partners, but at a low rate. And it appears that most disease from HTLV infection occurs in infants infected at the time of birth from their mothers. We will look at the national history of HTLV I and II infection to clarify the disease picture. We also have hepatitis B and C; 75 percent to 80 percent of our clients in drug treatment have had hepatitis B, and 5 percent are carriers of the virus and can transmit it sexually. Hepatitis C infection was well over 50 percent, half of whom were carriers, so 25 percent of injection drug users in Sacramento are carriers of hepatitis C, which is transmissible through sexual or body contact.

Regarding infants infected with HIV, we may be able to intervene to reduce that rate of transmission. There are some in vitro studies, laboratory studies, and early studies in humans that show that production of the HIV virus is reduced by AZT. The amount of virus in the blood of the mother could be reduced by treating a mother during pregnancy and just prior to delivery--and reducing the quality of the virus in the bloodstream could thereby reduce the exposure of the infant to the virus. The current 20 percent or 30 percent transmission rate could decline to a 5 percent or 10 percent transmission rate with suppressive therapy. The mother, who may be an injection drug user, may be extremely poor and thus not have access to AZT treatment. This likelihood raises the question of whether drug treatment programs and other medical provider programs will have any incentive to provide care to HIV-infected drug users, particularly women. In Sacramento, we have made a great effort to accept HIV-infected drug users. They are given preference in our clinics by being put at the top of the waiting list for admission and for HIV care, particularly if they are women. We want to get them in treatment and let them see that medical care is accessible.

We estimate that there are between 5,000 and 10,000 injection drug users in Sacramento County. We have been doing research with the drug treatment programs and HIV now for about five years. Our first grant was from the University of California AIDS Task Force; subsequently we received a NIDA grant to look at HIV among our drug users. HIV in California has not spread with anywhere near the speed that we feared it might when we started this work in 1985. We have fewer shooting galleries than New York City. Another factor is the geographic area, where there are geographically distinct pockets of users that are not overlapping. More separate groups means less sharing among them, so one group may get infected but it is not likely that other groups will become infected

because of the geographic distance. Another possibility pertains to the type of syringe available to IDUs in a locality. The tuberculum type of syringe has a dead space in the top of the needle, as well as at the bottom of the syringe and the dead space is about ten times as large as in an insulin syringe. That space makes for a tenfold difference in the amount of blood the next person who uses that syringe is exposed to. Our needle exchange programs have emphasized using the insulin-type syringe rather than the tuberculum type.

We studied almost 3,000 injection drug users over the past 5 or 6 years. Our sample is now about 1,500 individuals, about half men, half women, predominantly White and in drug treatment. There are far fewer African-Americans in drug treatment, and Hispanics run about the same as their level in the general population. We can conclude that African-Americans are underrepresented in Sacramento treatment programs. The average age of our users is mid-30s. We have an 80 percent use of heroin as the drug of choice, fewer use cocaine as an injectable drug. Three to four percent of our cocaine-user sample were IDUs. Amphetamine and methamphetamine are used by injection for about 15 percent of the total sample, which we believe to be underrepresentative of the community. We believe that the majority of methamphetamine users do not enter drug treatment. Our best methods, and methadone itself, attract the heroin users rather than the stimulant users. (See Appendix Q)

The use of condoms in this population is very low. Of our total sample of 1,500, a third had anal intercourse with regularity--anal intercourse is probably 3 times as likely to transmit the virus as is vaginal intercourse because there is more trauma during intercourse and the anal mucosa is probably more receptive to the virus than is vaginal mucosa. So the one third, both male and female, who engage in anal intercourse are at the same risk as gay men for transmission of HIV. Seventy-one percent never used condoms for vaginal sex, and condoms were not used for 91 percent of the time for anal sex.

We selected those who were primary opiate abusers, defined as those who named an opiate as their injection drug of choice and reported never injecting cocaine. We identified 420 of the sample of 1,500 who met these criteria. Stimulant abusers were defined as those who named a stimulant, either methamphetamine or cocaine, as their drug of choice and were not opiate dependent at the time that they entered drug treatment. They were also negative for opiates on urine screens and did not experience opiate withdrawal. We were able to find only 117 who met the criteria of primary stimulant abusers. Stimulant abusers seem to enter drug treatment less readily than do opiate abusers. If we were using a street sample from Sacramento, we would have much higher numbers of stimulant abusers. Fifty-six percent of the stimulant users had never been in drug treatment before, whereas only a quarter of the heroin abusers had never been in treatment. So these stimulant users do not access treatment as much. The number of prior drug treatment admissions was nearly double for the opiate abusers as compared to the stimulant users, but both the arrest records of both groups were high, suggesting that jail and prison are an excellent way to access to all types of drug users.

The following materials were not discussed during the SEWG agenda but are included in the proceedings for reference.

Appendix R, submitted by Ardyce Smith (ADP), contains information on the minority trends for arrests and CAL-DADs hospital discharges and deaths.

Appendix S, submitted by Elaine Duxbury, California Department of Youth Authority, is a report on the youth authority treatment needs assessment.

Appendix T reports on the drug positive rates for criminal justice and methadone clients as submitted by Julie Whitney and Scott Thompson at Pharm Chem Laboratories.

APPENDIX A

ELEVENTH STATEWIDE EPIDEMIOLOGY WORK GROUP MEETING

April 30 - May 1, 1992
Beverly Garland Hotel
1780 Tribute Road
Sacramento, CA 95815
(916) 929-7900

THURSDAY, APRIL 30, 1992

Registration/Continental Breakfast

Welcome

Douglas Anglin - Drug Abuse Information & Monitoring Project
Susan Nisenbaum - California Department of Alcohol and Drug Programs

Self Introductions/General Announcements

I. Drug Abuse Trends

Nationwide - NIDA CEWG Report

John Newmeyer - Haight-Ashbury Clinic
Michael Haight (Discussant) - San Diego Dept. of Health Services

BREAK

Statewide

Robert Peters - Bureau of Narcotics Enforcement
William Davis - Drug Enforcement Administration

Regional Reports

Kiku Annon - Los Angeles County
Michael Haight - San Diego County
David Stobel - Yolo County
John Newmeyer - San Francisco

LUNCH

II. Special Topics

Drug Use and Impact on Mothers Under Child Protective Services Supervision
Mary Ann Lewis - UCLA School of Nursing

BREAK

III. Corrections Based Epidemiology of Drug Abusers

PANEL: DUF Reports

Susan Pennell - San Diego
Kiku Annon - Los Angeles
Trudy Killian - San Jose
Integration and Discussion
Panel Members and Audience

Office of Criminal Justice Planning Report
Glenn Johnson - OCJP
California Department of Corrections
Dave Winett - Department of Corrections
Integration and Discussion
Panel Members and Audience

Reception

FRIDAY, MAY 1, 1992

Registration/Continental Breakfast

Opening Remarks/Administrative Announcements

IV. SPECIAL TOPICS

State/Federal Block Grants & the Master Plan

Susan Nisenbaum - ADP

Marlou Smith - ADP

PANEL: EPIDEMIOLOGY IN THE SERVICE OF MASTER PLANNING, NEEDS
ASSESSMENT, & RESOURCE ALLOCATION

Douglas Anglin - UCLA

David Gray - Evaluation, Management & Training, Inc.

Ardyce Smith - ADP

Patricia Ebener, Hillary Saner - RAND

Integration and discussion

Panel members & audience

BREAK

Trends in Analysis of Drug Positive Urines

Julie Whitney - PhamChem Labs

Epidemiology of Drug Abuse in Amsterdam and Drug Policy in the Netherlands

Martin Grapendaal - Netherlands, Ministry of Justice Department

LUNCH (Hosted by DAIMP)

V. AIDS & DRUG ABUSE

PANEL: EPIDEMIOLOGY OF AIDS IN CALIFORNIA

John Newmeyer - Haight-Ashbury Free Clinic

Neil Flynn - UC Berkeley

Integration and Discussion

Panel Members & Audience

Imipramine in the Treatment of Cocaine Addicts

John Newmeyer - Haight-Ashbury Clinic

CLOSING

APPENDIX B

DRUG ABUSE INFORMATION AND
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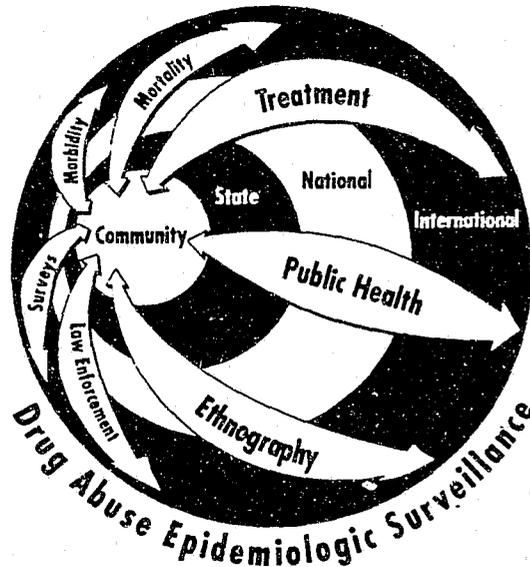
Sharon Winter

Jane Witbradt

National Institute on Drug Abuse

EPIDEMIOLOGIC TRENDS IN DRUG ABUSE

PROCEEDINGS
COMMUNITY EPIDEMIOLOGY WORK GROUP
DECEMBER 1991



U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES
Public Health Service
Alcohol, Drug Abuse, and Mental Health Administration

COMMUNITY EPIDEMIOLOGY WORK GROUP

INTRODUCTION

The 31st meeting of the Community Epidemiology Work Group (CEWG) was held on December 10-13, 1991, in Miami, Florida. During this meeting, the 20 CEWG representatives reported on current drug trends and patterns in their cities. The following proceedings are based on these reports.

DATA SOURCES

To assess drug abuse patterns and trends, data from a variety of health and other drug abuse indicator sources are used:

- **Drug-related deaths** reported by (1) medical examiner (ME) offices to the National Institute on Drug Abuse (NIDA) Drug Abuse Warning Network (DAWN), (2) local coroner/ME offices, and (3) State public health agencies
- **Drug-related emergency room (ER) episodes** reported to DAWN
- **Primary substance of abuse** reported by clients at admission to treatment programs
- **Arrestee urinalysis results** based on data collected by the Drug Use Forecasting (DUF) System of the National Institute of Justice and by local criminal justice agencies
- **Seizure, price, purity, prescription/distribution, and arrest data** obtained from the Drug Enforcement Administration (DEA) and from State and local law enforcement agencies
- **Other city-specific data** gathered from ethnographic research, surveys, criminal justice and correctional sources, public health sources, and other sources unique to local areas

A NOTE TO THE READER

In order to standardize data for comparison between local areas, the following techniques are employed:

- Unless otherwise specified, ER data in the highlights and executive summary cover the four quarters ended March 1991 in comparison with the four quarters ended March 1990.
- Unless otherwise specified, ER data are based on NIDA's July 1991 DAWN data file. These data reflect preliminary weighted estimates of the number of mentions based on a new sample of hospital ERs. **PLEASE DO NOT COMPARE DAWN DATA IN THESE PROCEEDINGS TO DAWN DATA IN PROCEEDINGS DATED PRIOR TO JUNE 1991.** Earlier proceedings used DAWN data based on a different sample of hospital ERs.
- All percentages for treatment program admissions are calculated based on nonalcohol admissions.

Local comparisons are limited, especially for the following indicators:

- **Deaths**—Definitions associated with drug deaths vary. Common reporting terms include "drug-related," "drug-induced," "drug-involved," and "drug detections"—these terms have different meanings in various areas of the country.
- **Treatment admissions**—Many variables affect treatment admission numbers, including program emphasis, slot capacity, data collection methods, and reporting periods.
- **Arrest/seizure data**—The number of arrests/seizures and quantity of drugs confiscated often reflect enforcement policy rather than levels of abuse.

Furthermore, local areas vary in their reporting periods. Many indicators reflect fiscal periods which may differ between local areas. In addition, the timeliness of data varies, particularly for death and treatment indicators.

Some indicator data are unavailable in certain cities. Therefore, the symbol "N/R" in treatment and supply tables refers to data not reported.

HIGHLIGHTS

The following highlights are from the 31st meeting of the CEWG, held in Miami, Florida (see exhibit 1).

COCAINE

- Cocaine-related deaths increased in 10 of the 14 areas where death data were available.
 - Cocaine ER mentions declined in every CEWG city, except for St. Louis, between the two four-quarter periods ending March 1990 and March 1991 (see exhibit 2).
 - In the first 1991 quarter, ER mentions increased in all but 6 of the 19 CEWG cities on the DAWN network.
 - Cocaine continues to rank highest in nonalcohol ER illicit drug mentions in every CEWG city, except for San Francisco.
 - Cocaine is the foremost primary drug of abuse among nonalcohol drugs in 11 out of 18 reporting areas; the proportion of primary cocaine clients is up in 10 areas.
 - Smoking is up and injection and insufflation (i.e., intranasal use) is down in several areas.
 - Price is level or down in most areas, except in Philadelphia, while purity is up in Boston and St. Louis and down in Seattle.
 - New York crack dealers are reportedly switching to heroin sales; the city remains one of top cocaine retail and wholesale markets.
 - Law enforcement agencies refute speculation that trafficking has shifted from southern Florida to U.S.-Mexican border.
 - Cocaine is transported into Pacific Northwest via maritime transshipment and along the Interstate-5 corridor via land and air.
-

HEROIN

- Heroin-related deaths declined in six areas, increased in four, and are level in two.
 - Heroin ER mentions increased in Newark, Philadelphia, and San Diego; they were level or declined in the remaining 16 DAWN reporting cities.
 - Heroin ranks first in nonalcohol ER illicit drug mentions in San Francisco; it ranks relatively low in Atlanta, Dallas, Denver, Miami, Minneapolis, and St. Louis.
 - Heroin is the foremost drug of abuse in Los Angeles, Newark, New York, and San Francisco. The proportion of heroin admissions is down in four areas and up in two.
 - Insufflation is up in Boston, Chicago, Honolulu, Newark, and New York.
 - Prices are down or level in most areas, while purity is up or level.
 - Supplies are scarce in Atlanta and New Orleans and up in Boston.
 - In Chicago, brown heroin and black tar supplies are down; white heroin and "karachi" supplies are up. Black tar is available in Denver and Minneapolis/St. Paul, where brown and white heroin supplies are down.
 - New York remains the most significant heroin importation and distribution center; it has an increased number of independent dealers, increased competitiveness, and more aggressive marketing strategies.
 - Southeast Asian heroin is shipped through Seattle en route to the east coast. The Arizona and Denver heroin supplies are primarily from Mexico.
 - Colombian organizations are reportedly beginning to distribute heroin in the United States.
-

OTHER OPIATES

- Propoxyphene is the pharmaceutical most frequently abused by Chicago narcotic addicts.
- The percentage of codeine-related heroin/morphine toxicology reports is down sharply in Philadelphia.
- Availability of "hits" (codeine and glutethimide) is down in Newark and Philadelphia.
- Michigan ranks second per capita nationally in codeine prescription/ distribution.
- Oxycodone (Percodan, Percocet) remains Michigan's second most frequent Schedule II prescription.
- Hydromorphone (Dilaudid) trafficking has increased in Minneapolis/St. Paul, Phoenix (according to police sources), and San Francisco (according to street outreach workers).
- Hydromorphone is more available in Atlanta than heroin; it is the leading heroin substitute in New Orleans.
- Fentanyl, cut with chocolate, is sold as tar heroin in Denver.
- Opium is smoked in Southeast Asian communities in Minneapolis/St. Paul.
- Customs agents have seized numerous international mail packages of raw opium destined for Seattle.

MARIJUANA

- Marijuana ranks second among nonalcohol drug ER mentions in Atlanta, Dallas, Miami, and New Orleans.
- Marijuana ER mentions declined in all but four cities—Miami, Newark, New Orleans, and Phoenix; the sharpest drops occurred in Atlanta, Detroit, and Philadelphia.
- Marijuana accounts for at least one-third of nonalcohol primary treatment admissions in Colorado and Honolulu.
- Prices are up in Atlanta, Miami, San Diego, and Philadelphia; they are level in Denver and Washington, D.C.
- Supply is down in Hawaii and Newark and limited in Minneapolis/St. Paul, Chicago, Detroit, St. Louis, and Washington, D.C.
- Miami supplies have shifted from Latin American sources to higher potency, domestic varieties; similarly, New Orleans supplies have shifted from imported to domestic marijuana.
- Sales unit size has decreased in Miami and Philadelphia but increased in New York.
- Sophisticated cultivation techniques in Hawaii and Seattle have yielded faster plant growth and higher THC content.
- Extensive eradication efforts are reported in Detroit, Hawaii, St. Louis, and Texas.

STIMULANTS

- Methamphetamine-related deaths are down in San Diego, Colorado, Seattle, and San Francisco, while amphetamine-related deaths are up in Los Angeles.

Highlights

- In Hawaii, deaths related to "ice"—d-methamphetamine hydrochloride that is smoked—are down; but 26 percent of drug-related homicides involved ice use or dealing by either the victims or the suspects.
- Stimulant ER mentions rank low in Atlanta, Miami, Boston, and the central region; while they declined across the western region, they still rank fourth in San Diego and San Francisco.
- Stimulants are the greatest illicit drug problem for San Diego clients; they rank third in Honolulu. Admissions are up in New Orleans, San Francisco, and Los Angeles, level in Colorado, and down in San Diego and Hawaii.
- In Chicago, pseudopharmaceuticals (containing caffeine, ephedrine, or phenylpropanolamine) follow only alcohol and marijuana in drugs of choice among white youth.
- In Michigan, methylphenidate (Ritalin) remains the top Schedule II prescription drug.
- California, Texas, and Washington State rank first, second, and third in number of clandestine drug labs. Three lab seizures in Michigan involved "cat," an ephedrine-based drug encountered for the first time by State authorities.

ANTIDEPRESSANTS, BARBITURATES, AND SEDATIVES/HYPNOTICS

- Sedative-related overdose deaths—nearly half of which involve diazepam—are down in Seattle; in San Francisco, diazepam-related deaths continue at around 20 per half-year.
- Diazepam ranks third among nonalcohol drug ER mentions in Philadelphia, fourth in New York, and sixth in Boston.
- In San Francisco, diazepam ER mentions have increased slightly, while admissions have decreased.
- Diazepam is the most mentioned psychoactive prescription drug in New York; it is the most readily available and frequently used pharmaceutical depressant in Chicago.
- In Minneapolis/St. Paul, tricyclic antidepressants toxicity has caused 16 reported suicides; fluoxetine (Prozac) ranks among the five most frequently mentioned drugs in ER mentions.
- In Chicago, depressants are often taken in combination with other drugs to alter and mediate drug effects.

HALLUCINOGENS

- PCP deaths have stabilized in Los Angeles.
- PCP ER mentions are down sharply in Washington, D.C., Los Angeles, and San Francisco, and more moderately in Miami, New York, and Boston; they are slightly up in New Orleans and Chicago.
- PCP ranks fourth among nonalcohol drug ER mentions in Chicago and Los Angeles. Admissions are down in Los Angeles and Colorado and slightly up in San Diego.
- PCP arrests and confiscations are up in Boston.
- Hotline calls for PCP are down sharply in Washington, D.C.
- Increased LSD use by adolescents is reported in Chicago, Miami, New Orleans, Seattle, Phoenix, and Minneapolis/St. Paul.
- LSD availability is up in suburban Chicago, Phoenix, and Denver.

EXHIBIT 1
HIGHLIGHTS
*CEWG CITY HIGHLIGHTS OF KEY ABUSED DRUGS
DECEMBER 1991

| CITY | COCAINE | HEROIN | MARIJUANA | OTHER DRUGS OF NOTE |
|--------------------------|--|---|--|--|
| Atlanta | ERs down 20%; 80% of TXs ('91); \$28K-\$35K/kg (stable); smoking up | Deaths up; ERs up 2%; 10% of TXs; \$100/gm Asian; supply scarce | ERs down 41%; 0 TXs; \$1.8K-\$2.2K/lb sinsemilla, \$950-\$1.1K/lb domestic (up) | Hydromorphone more available than heroin |
| Boston | ERs down 17%; 55% of TXs (7/90-6/91); \$20K-\$28K/kg; large-quantity prices down; purity up; smoking up | ERs down 13%; 39% of TXs (7/90-6/91); \$10-\$15/bag Southeast Asian (down); supply and quality up; intranasal up | ERs down 10%; 2% of TXs (7/90-6/91); \$1.5K-\$2K/lb | Diazepam ERs stable |
| Chicago | ERs down 18%; 50% of TXs (FY91); \$1K-\$1.5K/oz | ERs up 2%; 14% of TXs (FY 91); \$800-\$900/oz brown; \$25-\$40/bag black tar; \$6.5K-\$7K/oz white; intranasal use up | ERs down 10%; 14% of TXs ('91) | PCP ERs up 11% (#4 rank); LSD availability up; depressants/stimulants often combined; hydromorphone and pentazocine abuse down, codeine abuse stable |
| Dallas ¹ | ERs down 25%; 51% of TXs (9/90-10/91); \$14K-\$24K/kg (down); most clients smoke | 115 deaths (1990; stable); ERs down 15%; 22% of TXs (9/90-10/91); \$3K-\$7K/oz | ERs down 37%; 15% of TXs (9/90-10/91); large seizures | Amphetamines 8% of TXs (FY91), prices up |
| Denver ¹ | Deaths up (9/million, '91); ERs down 44%; 31% of TXs (1/91-6/91); \$30K/kg (stable); 70 85% pure; smoking up; snorting, injecting down | Deaths up (9/million, '91); ERs down 4%; 18% of TXs (1/91-6/91); black tar \$300-\$500/gm; availability stable, transported from Mexico | ERs down 37%; 36% of TXs (1/91-6/91) (stable); sinsemilla \$1.5K-\$2K/lb (stable) | TXs for primary inhalant abusers up (1/91-6/91); resurgence of LSD |
| Detroit | Deaths and homicides down (60-70% of 62 narcotic deaths, 1991); ERs down 33%; 37% of TXs (FY91) | ERs down 13%; 16% of TXs (FY91); white Southeast Asian \$10-\$15/bag; purity up | ERs down 43%; 3% of TXs (FY91); large seizures | Frequent RXs for codeine and oxycodone; large diazepam seizure |
| Honolulu | 2 deaths (1/91-6/91); 24% of TXs (1/91-6/91); injecting sharply up; \$175/gm | 6 deaths (1/91-6/91); 7% of TXs (1/91-6/91) (up); injecting down, smoking, snorting up; \$600/gm | 46% of TXs (1/91-6/91); effective eradication efforts; low quality; \$400-\$800/oz | 3 "ice"-related deaths (1/91-6/91); 26% of drug-related homicides involve ice; ice clients 16% of TXs (1/91-6/91) (down) |
| Los Angeles | Deaths slightly up (1/91-3/91); ERs down 42%; 17% of TXs (1/91-3/91); \$650-\$1.2K/oz (stable) | Deaths down (49 in 1/91-3/91); ERs down 45%; 74% of TXs (1/91-3/91) (down); black tar \$2.7K-\$4K/oz; Mexican brown \$150-\$250/gm | ERs down 28%; 3% of TXs (1/91-3/91) | PCP down in deaths, ERs (41%), and TXs; methamphetamine ERs down 3%, TXs up; powder/crystal methamphetamine \$700-\$1K/oz |
| Miami | Deaths up (154 in 1Q91); ERs down 3%; 76% of TXs (10/90-9/91); \$14K-\$20K/kg (stable); purity high (stable) | Deaths up (7 heroin-induced in 1/91-9/91); ERs down 13%; 4% of TXs (10/90-9/91) | ERs up 57%; 14% of TXs (10/90-9/91); \$800-\$5K/lb (up) domestic sinsemilla | 8 codeine deaths ('90); adolescent LSD use up |
| Minneapolis/ St. Paul | Deaths up (22 in 1/91-10/91); ERs down 40%; 33% of TXs (1/91-6/91); \$30K/kg | 11 deaths (1/91-10/91); ERs down 36%; 4% of TXs (1/91-6/91) | ERs down 15%; 8% of TXs (1/91-6/91); \$2K/lb | LSD activity up; 6 inhalant deaths ('90); opium smoking/distribution in Southeast Asian communities |

| | | | | |
|----------------------------|---|---|---|---|
| Newark | Deaths down (376, 10 months 1991); ERs down 15%; 22% of TXs (1/91-6/91); \$60/gm; smoking up, injecting and intranasal down; users freebase HCl | Deaths stable (270 in 1/91-10/91); ERs up 11%; 64% of TXs (1/91-6/91); \$100-\$150/.25gm Southeast Asian; intranasal up | ERs up 7%; 3% of TXs (1/91-6/91); \$10/bag seed-less, high resin; supply down | "Hits" availability down, price stabilized |
| New Orleans | Homicides down; ERs down 5%; 37% of TXs (FY91); \$22K-\$32K/kg | ERs down 16%; 6% of TXs (1/91-3/91); \$25/bag (stable) | ERs up 50%; 7% of TXs (1/91-3/91) | LSD TXs and prices up; amphetamine 4% of TXs (up); MDMA supply down, prices up; hydromorphone used as heroin substitute |
| New York | Deaths up (240 in 1Q91, provisional); ERs down 6%; 43% of TXs (1/91-6/91); \$22K-\$29K/kg (down); cocaine-exposed babies down; smoking up, injecting and intranasal down | Deaths down (530 in '90); ERs down 20%; 45% of TXs (1/91-6/91); \$5-\$13/bag Southeast Asian; intranasal up, injecting down; more independent dealers/competitiveness | ERs down 24%; 6% of TXs (1/91-6/91); \$10-\$20/bag potent "chocolate thai" | Diazepam ERs down 20%; ketamine use reported |
| Philadelphia | Deaths up (149 in 1Q91); ERs down 29%; 78% of TXs (1/91-6/91); \$20K-\$30K/kg; gram price up; smoking up | Deaths up (75 in 1/91-6/91); ERs up 5%; 13% of TXs (1/91-6/91) | ERs down 42%; 4% of TXs (1/91-6/91); \$700/ 1/4 lb Mexican (up) | Codeine deaths down (1/91-6/91); methamphetamine ERs down; diazepam ERs stable (rank #4) |
| Phoenix² | Deaths up (14 in 1/91-6/91); ERs down 31%; 40% of TXs (7/91-9/91); cocaine \$18K-\$25K/kg (stable); 90% pure (stable) | Deaths down (12 in 1/91-6/91); ERs down 26%; 18% of TXs (7/91-9/91); black tar \$20/dosage unit; 50% purity | ERs up 41%; 10% of TXs (7/91-9/91); \$800-\$1.2K/lb | Violence connected with methamphetamine manufacture/sale; LSD available, high use by students; illegal steroid use/dealing up |
| St. Louis | 39 deaths (including 22 ODs—up) (8/91-12/91); ERs up 4%; \$70-\$100/gm (stable); high purity and availability | 12 deaths (7/91-12/91); ERs down 3%; black tar \$250/gm (down), purity up | ERs down 24%; large seizures | Alprazolam ERs stable |
| San Diego | Deaths up (8 directly related, 11 involved other drugs, 1/91-8/91); ERs down 12%; 22% of TXs (1/91-6/91); 79% smoke | 22 heroin-only OD deaths, 30 OD heroin + other drugs (1/91-8/91); ERs up 8%; 33% of TXs (1/91-6/91); 99% inject | ERs down 9%; 6% of TXs (1/91-6/91) (up); 47% of clients are 20 or younger | Methamphetamine deaths, ERs, and TXs down; hallucinogen TXs up among adolescents |
| San Francisco | Deaths down (120 projected in 1991); ERs down 22%; 13% of TXs (1990); fewer cocaine-exposed babies | Deaths down (50% 1989-1991); ERs down 6%; 60% of TXs | ERs down 21%; 3% of TXs | Diazepam ERs up; methamphetamine and PCP ERs down |
| Seattle | Deaths up (21 in 1/91-9/91); ERs down 69%; 42% of TXs (1/91-9/91); youth-gang crack distribution; \$20K-\$32K/kg (down); 50-90% pure; crack \$15-\$40/2 gm, purity down to 50-70% | Deaths down (32 in 10/90-9/91); ERs down 55%; 26% of TXs; Mexican black tar down \$1K-\$4K/oz, 40-70% pure | ERs down 16%; 19% of TXs; superior quality and high THC content in locally grown sinsemilla; \$5K-\$6.5K/kg, \$150-\$250/oz | LSD activity up among adolescent white males; amitriptyline involved in 1/3 of antidepressant OD deaths |
| Washington, D.C. | Deaths down (102 in 1990); ERs down 32%; \$28K-\$37K/kg; price and purity stable | Deaths down (102 in '90); speedball deaths down (41 in '90); ERs down 12%; \$90-\$110/gm; price and purity stable | ERs down 33%; \$250-\$350/1/4 lb (stable); supply limited | PCP indicators down |

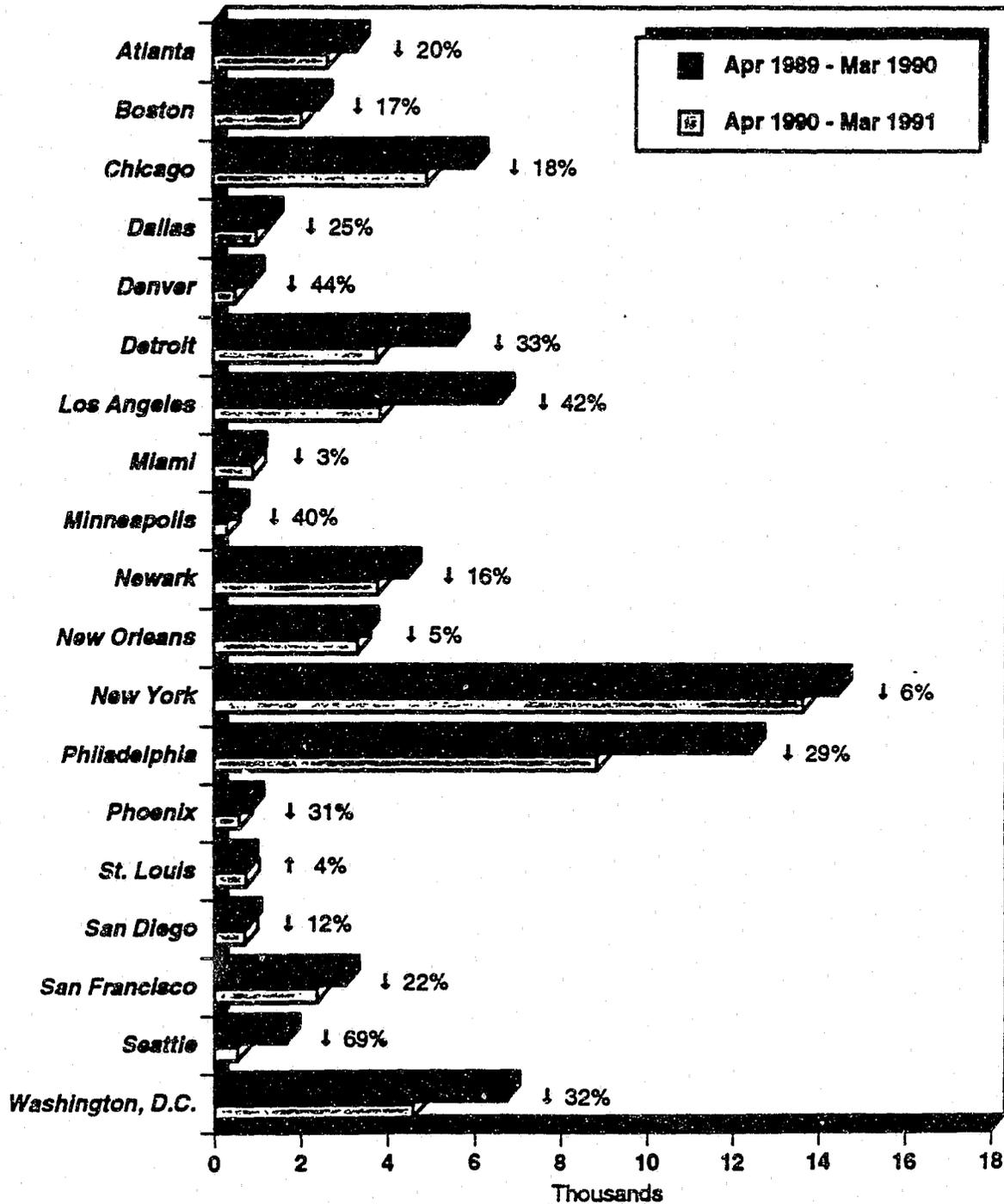
* ER data reflect DAWN estimates of emergency room mentions of each drug, comparing the four quarters ending March 1991 to the four quarters ending March 1990.

¹ ER data are citywide; all other data are statewide.

² Department of Corrections treatment data

ERs = emergency room mentions
TXs = nonalcohol treatment admissions

HIGHLIGHTS
 COCAINE ER MENTIONS IN 19 CEWG CITIES:
 COMPARISON OF TWO LATEST FOUR-QUARTER PERIODS



SOURCE: National Institute on Drug Abuse, Drug Abuse Warning Network, July 1991 data file

EXECUTIVE SUMMARY

COCAINE

1. Eastern Region

After declining for several years, cocaine-involved deaths in New York have increased from 1990 (825 for the year) to the first quarter of 1991 (240, provisional data). In Philadelphia, too, cocaine-positive toxicology reports increased 14.6 percent between the second half of 1990 and the first half of 1991 (to 149); however, the percentage based on total deaths remained relatively constant (58.4 percent in 1991). Similarly, in Miami, cocaine-related deaths in the first half of 1991 (totaling 154) increased 47 percent over the previous semiannual reporting period (homicide accounted for 44 percent of these deaths); however, the 20 cocaine-induced deaths in 1990 were the fewest recorded since 1982.

By contrast, Washington, D.C., ME cocaine mentions dropped 53 percent between 1989 and 1990 (to 102)—from 57 percent of all 1989 drug deaths to 45 percent in 1990. In Newark, as well, the rate of cocaine-positive toxicology reports, which had increased from 1985 to 1988, has been declining (376 in first 10 months of 1991). No cocaine death data were presented for Atlanta or Boston.

While New York decedents in 1990 were preponderantly males, the proportion of females is increasing (to 28 percent in 1990). In Miami, males accounted for 71 percent of cocaine-induced deaths in 1991. In Philadelphia, the percentages of cocaine-positive toxicologies have been increasing among both African-American and white males (to 73.5 percent and 35.9 percent, respectively, in first half 1991). African-Americans remain the modal group (41 percent) among New York cocaine decedents. Among Miami decedents (cocaine-induced), 34 percent were Hispanics, 34 percent were African-Americans, and 32 percent were whites; these decedents included 3 Colombian "body packers." More than 70 percent of New York decedents are 30 or older. The mean age of Miami decedents is 47.9.

Alcohol mixed with cocaine is increasingly listed in Philadelphia toxicology reports.

In Miami, 16 infants died of maternal cocaine exposure (first quarter 1991)—level with 1990; 62 percent of these infants were African-Americans, compared to 81 percent in 1990. In New York, the number of births to women using cocaine—after years of increasing—declined 23 percent between 1989 and 1990.

Over the past two four-quarter periods, DAWN cocaine ER mentions have declined in all seven cities (despite increases in the most recent quarter in five cities: Boston, Miami, Newark, New

Executive Summary: Cocaine

York, and Philadelphia) (table 1). The drops range from about 3 percent in Miami to 32 percent in Washington, D.C. Cocaine ranked first among all ER mentions in four of the cities during the latest reporting quarter; it followed alcohol-in-combination in the three remaining cities.

Table 1. Cocaine ER mentions in the Eastern Region:
Preliminary estimates, April 1989 - March 1991

| City | April 89 - March 90 | April 90 - March 91 | Change (%) | Rank (#) |
|------------------|---------------------|---------------------|------------|----------|
| Atlanta | 3,289 | 2,617 | -20 | 2* |
| Boston | 2,424 | 2,017 | -17 | 2* |
| Miami | 925 | 897 | -3 | 1 |
| Newark | 4,469 | 3,776 | -15 | 2* |
| New York | 14,432 | 13,623 | -6 | 1 |
| Philadelphia | 12,425 | 8,828 | -29 | 1 |
| Washington, D.C. | 6,743 | 4,585 | -32 | 1 |

* Follows alcohol-in-combination

Injection remains the most frequently reported form of ingestion reported by Newark emergency rooms because of combined cocaine/heroin use in the form of "speedballs."

Males consistently comprise approximately 65.4 percent of Philadelphia ER mentions. In Atlanta, cocaine ER mentions are twice as common among men than women.

The declines in Atlanta cocaine ER mentions are reflected among both whites and African-Americans. African-Americans account for 61 percent of Miami cocaine ER mentions and an average of 63 percent of Philadelphia mentions.

Most Miami cocaine ER patients (60 percent) were aged 30 and over, continuing a 3-year trend in the aging of cocaine ER patients. Similarly, in Atlanta and Washington, D.C., the number of cocaine ER patients aged over 30 has been increasing.

Cocaine is the foremost primary drug of abuse among nonalcohol treatment admissions in four cities: Atlanta, Philadelphia, Miami, and Boston. In the first three of those cities, the drug accounts for more than three-quarters of admissions. In Newark and New York, it ranks second behind heroin (table 2). The proportion in Boston has risen dramatically in recent years. In New York, too, the proportion is up; however, the number of primary cocaine admissions in 1991 is somewhat lower than in 1990. The percentage in Philadelphia is also slightly up from the previous semiannual period; however, the number of primary cocaine admissions reflects no clear trend. Conversely, the Miami percentage has been fairly level for the past 3 years, while the number has been steadily increasing for the past 6 years.

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Table 2. Percentage of nonalcohol treatment admissions for primary cocaine abuse in the Eastern Region

| City | Admissions (%) | Rank (#) | Dates Reported |
|------------------|----------------|----------|----------------|
| Atlanta | 80 | 1 | 1991 |
| Boston | 55 | 1 | 7/90-6/91 |
| Miami | 76 | 1 | 10/90-9/91 |
| Newark | 22 | 2* | 1/91-6/91 |
| New York | 43 | 2* | 1/91-6/91 |
| Philadelphia | 78 | 1 | 1/91-6/91 |
| Washington, D.C. | N/R | N/R | N/R |

* Follows heroin

Smoking has been reported as the primary route of ingestion by an increasing percentage of cocaine clients in Philadelphia (85 percent), New York (76 percent), Boston (64 percent), Newark (48 percent), and Atlanta. Concomitantly, injection use has declined in New York and Newark (6 percent) and is stable in Atlanta. Intranasal use has declined in New York and Newark (46 percent)—this report is the first in which smoking surpassed sniffing among Newark cocaine admissions.

In Newark, route of administration is related to demographics: women are more likely to smoke, rather than snort or inject, cocaine; most African-American admissions prefer smoking, while whites and Hispanics prefer sniffing; and those aged 22-30 are more likely to smoke the drug than are those either younger or older.

Women have steadily increased in proportion among New York primary cocaine admissions (42 percent of cases). They account for 43 percent of Newark admissions. In Philadelphia, the majority of women entering treatment do so as a result of cocaine abuse. In Atlanta, an increasing number of women in their mid-twenties, with children, are entering treatment. The majority of New York cocaine admissions are aged 26-35; those aged 25 and younger are a declining proportion.

The proportion of African-Americans among cocaine admissions has increased in Philadelphia (to over 87 percent), Boston (67 percent), and New York (66 percent); it has remained stable in Newark (75 percent). In Boston, the proportion who are homeless almost doubled between FY 1988 and FY 1991 (from 8 to 14 percent).

Cocaine-positive arrestee urinalyses have been declining for both male and female arrestees in New York (to 67 percent for each, first quarter 1990) and Philadelphia (to 65 and 63 percent, respectively, in 1990). In Washington, D.C., after peaking in 1988, the percent of cocaine-positive arrestees, both adult and juvenile, declined and then leveled off (to 51 and 11 percent,

respectively, in the first 10 months of 1991). In Miami, cocaine was detected in 62 percent of male arrestees (third quarter 1991).

New York cocaine arrests have been decreasing since peaking in 1989; most cocaine arrests (about 82 percent) involve crack. In Miami, too, cocaine-related charges are expected to decrease 10 percent between 1990 and the projected 1991 total. Similarly, in Washington, D.C., following an FY-1989 peak, juvenile arrests for cocaine in FY 1991 are at their lowest point since FY 1987; most such arrests (89 percent) are for sales/distribution. In Boston, cocaine arrests increased from 1988 to 1989, decreased in 1990, and appear to be somewhat up again in the first three quarters of 1991. About two-thirds of Newark drug possession arrests involve cocaine. In Philadelphia, a special police operation targeting both buyers and sellers has resulted in numerous arrests and vehicle confiscations; neighborhood groups and police officials have established a working relationship leading to significant numbers of raids and seizures (over 72 pounds of cocaine hydrochloride and 27 pounds of crack in the first half of 1991).

Cocaine is widely available throughout the region. Table 3 presents cocaine and crack price and purity information. Wholesale prices have declined in New York after temporarily increasing due to decreased availability during summer 1990. Wholesale prices have also decreased in Boston, although street-level prices are stable; purity in Boston has increased since the previous 6-month period. In Philadelphia, however, the hydrochloride (HCl) gram price is higher than 1 year ago; purity has not diminished since then. Miami wholesale and retail prices have been relatively stable over the past 3 years; purity has remained consistently high. Likewise, Atlanta prices have not changed significantly since 1989, and Washington, D.C., price and purity levels have not changed much over the past year. Most Newark cocaine seizures are hydrochloride (HCl), and most users continue to freebase their own HCl directly before use; the HCl is most commonly sold in small-quantity units (quarter-gram or smaller glass vials). Similarly, crack in New York is now sold in smaller amounts at lower prices possibly due to reduced demand.

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Table 3. Cocaine/crack prices and purity in the Eastern Region

| City | Cocaine | | Crack |
|------------------|----------------|---|---|
| | Purity (%) | Price/Unit | Price/Unit |
| Atlanta | N/R | \$100/gm \$1K-\$1.8K/oz \$28K-\$35K/kg | \$3-\$20/rock |
| Boston (Police) | 70-80 | \$100/gm \$800-\$1.2K/oz \$21K/kg (down) | N/R |
| Boston (DEA) | 50-80 80-95 | \$900-\$1.2K/oz \$20K-\$28K/kg | N/R |
| Miami | High | \$50-\$80/gm \$800-\$1.2K/oz \$14K-\$20K/kg | (96% purity) |
| Newark | 40 | \$60/gm | \$3/5mg |
| New York | N/R | \$22K-\$29K/kg | \$2-\$3/"jammie" or "critter" \$5/vial |
| Philadelphia | Stable | \$100/gm \$20K-\$30K/kg | \$5/.33 gm vial |
| Washington, D.C. | 15-40 70-90 | \$90-\$110/gm \$28K-\$37K/kg | N/R |

Boston cocaine dealers are mainly Colombians and Dominicans. Anecdotal information in New York suggests two developments: some crack dealers appear to be switching to heroin sales; and crack and heroin dealing are no longer exclusively concentrated in the same locations. The DEA continues to regard New York as one of the Nation's top cocaine retail and wholesale markets. Law enforcement agencies have refuted the speculation that cocaine trafficking has shifted from southern Florida to the U.S.-Mexican border.

2. Central Region

In Detroit, narcotic deaths in 1991 continued to decline from 1989 and 1990 totals, but after recording very low figures during the first quarter of 1991, the numbers have increased slightly. Of the 62 narcotic deaths reported this year, 60-70 percent involved cocaine. Homicide rates also declined from 1989 and 1990 totals, and drugs were involved in 60 percent of the homicides.

In contrast, cocaine-related deaths have increased in Minneapolis/St. Paul since 1990 (22 in the first 10 months of 1991). Maternal use of cocaine during pregnancy contributed to the death of 5 newborns (included in the 22 deaths), all African-American.

In New Orleans, the homicide rate during the first half of 1991 decreased compared to the first half of 1990, from 263 to 170. Of these homicides, 75 (44 percent) were drug related. During

Executive Summary: Cocaine

that period, 9 suicides were reported: 5 were drug related, and of those, 3 were attributed to cocaine.

During the second half of 1991, 74 drug-related deaths were reported in St. Louis: 39 involved cocaine. While in the past most cocaine-related deaths were homicides, in 1991, 22 of the 39 deaths involved overdoses. This shift is attributed to cocaine being plentiful, less expensive, and of good quality.

Preliminary estimates indicate that cocaine ER mentions declined in all cities in the region, except for St. Louis (table 4). The declines ranged from almost 6 percent in New Orleans to 40 percent in Minneapolis. Cocaine ranked first among drug ER mentions in New Orleans and Chicago; it ranked second, following alcohol-in-combination in Dallas, Detroit, and St. Louis.

**Table 4. Cocaine ER mentions in the Central Region:
Preliminary estimates, April 1989 - March 1991**

| City | April 89 - March 90 | April 90 - March 91 | Change (%) | Rank (#) |
|-------------|---------------------|---------------------|------------|----------------|
| Chicago | 6,005 | 4,914 | -18 | 1 |
| Dallas | 1,305 | 983 | -25 | 2 ^a |
| Detroit | 5,566 | 3,752 | -33 | 2 ^a |
| Minneapolis | 504 | 302 | -40 | 4 ^b |
| New Orleans | 3,501 | 3,310 | -5 | 1 |
| St. Louis | 697 | 725 | +4 | 2 ^a |

^a Follows alcohol-in-combination

^b Follows alcohol-in-combination, acetaminophen, and ibuprofen

Across the region, cocaine continues to rank first in treatment admissions (table 5). Admission percentages increased in Chicago, New Orleans, and Texas. In Texas, the percentage reached an all-time high in the third quarter of 1991.

**Table 5. Percentage of nonalcohol treatment admissions
for primary cocaine abuse in the Central Region**

| Area | Admissions (%) | Rank (#) | Dates reported |
|----------------------|----------------|----------|----------------|
| Chicago | 50 | 1 | FY 1991 |
| Detroit | 37 | 1 | FY 1991 |
| Minneapolis/St. Paul | 33 | 1 | 1/91-6/91 |
| New Orleans | 37 | 1 | FY 1991 |
| St. Louis | N/R | N/R | N/R |
| Texas | 51 | 1 | 9/90-10/91 |

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In Chicago crack cocaine use is widespread. Crack use has increased among injecting drug users (IDUs), who fear transmission of human immunodeficiency virus (HIV), and among individuals in their late teens and early twenties who previously were not cocaine users. Among the cocaine admissions in Minneapolis/St. Paul, 18 percent cite crack as the primary substance problem. In Detroit, 75 percent of the cocaine admissions are for crack. In Texas, smoking is the primary route of administration among 65 percent of cocaine clients.

In Texas, the average cocaine client is almost 30 years old and has been using cocaine for 6 years. Among the clients, 58 percent are African-Americans, 27 percent are employed, 70 percent live with their families, and 7 percent are homeless. In Detroit, crack users continue to be mostly females, African-Americans, single/never married, unemployed, and aged 21-44. In New Orleans, African-Americans represent 59 percent of the cocaine admissions. In St. Louis, most admissions are males and African-Americans.

While the rate of cocaine use by male arrestees appears stable in St. Louis, use by female arrestees has decreased. In Minneapolis/St. Paul, the percentage of cocaine-positive arrestees increased from 4 percent in 1990 to 10.6 percent in 1991.

Table 6 presents cocaine price and purity information in the region. In Detroit, some sources report a sharp increase in wholesale prices, but recent information suggests some decrease at multiple-kilogram levels. In St. Louis prices are stable, and purity and availability are at all-time highs. By contrast, as table 6 indicates, cocaine and crack prices in Texas have declined from 1990.

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Table 6. Cocaine/crack prices and purity in the Central Region

| Area | Cocaine | | Crack |
|-----------------------|---------|---|-------------------------------------|
| | Purity | Price/Unit | Price/Unit |
| Chicago | N/R | \$5/nickel bag \$10/dime bag \$20/.25 gm \$35/.5 gm \$40-\$50/1/32 oz \$65-\$100/1/16 oz \$140-\$185/1/8 oz \$260-\$300/1/4 oz \$550-\$600/1/2 oz \$1K-\$1.5K/oz | \$20K-\$40K/kg |
| Detroit | N/R | N/R | N/R |
| Minneapolis/ St. Paul | N/R | \$100/gm \$1.2K-\$1.4K/oz \$30K/kg | N/R |
| New Orleans | N/R | \$100-\$125/gm \$800-\$1.4K/oz \$22K-\$32K/kg | \$15-\$25/.25 gm |
| St. Louis | 74 | \$70-\$100/gm | \$1,860/oz \$65/gm \$25/.25gm |
| Texas | N/R | \$600-\$1.3K/oz \$14K-\$24K/kg | \$25-\$50/.25gm |

3. Western Region

Following a period of decline, cocaine-related deaths appear to be increasing in Colorado, Los Angeles, Seattle, Phoenix, and San Diego. In Colorado, after a steady decline from a 1988 peak (15 per million population) to a 1990 low (4.2 per million), cocaine death mentions have increased in the first half of 1991 (9 per million projected for the year). Similarly, in Los Angeles, cocaine mentions in drug-related deaths had been declining (from 332 first half 1989 to 191 in second half 1990) but have increased slightly in first quarter 1991. In Seattle, too, the proportion of drug overdose deaths involving cocaine rose in 1991 through the third quarter (one-third of 63 cases) after steadily declining from 1988 (39 percent) through 1990 (24 percent). In Phoenix, after declining from 1988 to 1990 (35 to 19), cocaine-related deaths in 1991 are projected to increase (14 in first half). And in San Diego, cocaine-induced deaths appear to be up (12 projected for 1991 versus 10 in 1990).

By contrast, San Francisco and Hawaii report declines: in San Francisco, while cocaine ME mentions increased 4 percent (from 138 to 143) between 1989 and 1990, half-year data indicate a nearly 25-percent decline for early 1991 versus early 1990; in Hawaii, cocaine-related ME cases declined from 10 in the last half of 1990 to 2 in the first half of 1991.

Speedball deaths in Seattle have steadily declined since 1988 (totaling 8 through third quarter 1991).

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In San Diego, whites accounted for 37 percent of 1991 cocaine overdose deaths, African-Americans for 47 percent, and Hispanics for 16 percent; the majority were among males (63 percent) and among those aged 20-39 (72 percent). In Seattle, 68 percent of cocaine-related fatalities were white, the mean age increased from 33 in 1988 to 39.7 in 1991 (through third quarter), and 72 percent since 1988 have involved injection. Among San Francisco decedents, 49 percent were white and 36 percent were African-American, 80 percent were male, and 78 percent were aged 30 or more.

Overall, cocaine ER mentions have declined in each reporting city—despite increases in the most recent quarter in every city except San Diego. However, cocaine remains the leading nonalcohol drug ER mention, except in San Francisco, where it trails heroin.

**Table 7. Cocaine ER mentions in the West:
Preliminary estimates, April 1989 - March 1991**

| City | April 89 - March 90 | April 90 - March 91 | Change (%) | Rank (#) |
|---------------|---------------------|---------------------|------------|----------------|
| Denver | 868 | 486 | -44 | 2* |
| Los Angeles | 6,615 | 3,850 | -42 | 2* |
| Phoenix | 835 | 573 | -31 | 2* |
| San Diego | 775 | 683 | -12 | 2* |
| San Francisco | 3,018 | 2,354 | -22 | 2 ^b |
| Seattle | *1,659 | *521 | -69 | 2* |

*Data are incomplete due to delays and inconsistencies in reporting by a major participating medical center

* Follows alcohol-in-combination
^b Follows heroin/morphine

According to the Hawaii Emergency Room Episode project, cocaine was mentioned in 33 percent (25) of 75 ER drug-related episodes in a 1-month period in 1991.

Among San Francisco patients involved in cocaine ER mentions during the last three quarters, 31 percent were white and 46 percent were African-American, 66 percent were males, and 65 percent were aged over 30.

Cocaine ranks first among nonalcohol treatment admissions for primary cocaine abuse in Phoenix and Seattle; in the other cities, it ranks either second or third in relation to heroin, marijuana, or amphetamines (table 8). The proportion of cocaine admissions has increased in Los Angeles, San Diego, Hawaii, and Colorado (where it is still well below the 1988 peak). In San Francisco, the 1990 count is 40 percent above that for 1989, possibly due to increased treatment slots. The number of cocaine admissions in Los Angeles has fluctuated between 1,500 and 1,700 per quarter since 1989.

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Table 8. Percentage and rank by nonalcohol treatment admissions for primary cocaine abuse in the West

| Area | Admissions (%) | Rank (#) | Dates Reported |
|----------------------|----------------|----------------|----------------|
| Colorado | 31 | 2 ^a | 1/91-6/91 |
| Honolulu | 24 | 2 ^a | 1/91-6/91 |
| Los Angeles | 17 | 2 ^b | 1/91-3/91 |
| Phoenix ^c | 40 | 1 | 7/91-9/91 |
| San Diego | 22 | 3 ^c | 1/91-6/91 |
| San Francisco | 13 | 2 ^b | 1990 |
| Seattle | 42 | 1 | 1/91-9/91 |

^a Department of Corrections data

- ^a Follows marijuana
- ^b Follows heroin
- ^c Follows methamphetamine and heroin

Smoking was reported as the usual route of ingestion by 79 percent of San Diego cocaine admissions. In Colorado, the proportion of cocaine smokers has increased substantially since 1985 (to 45.6 percent in 1991); concomitantly, inhalation, and injection use have declined. The injection route of administration is up in Hawaii, from 16 percent of cocaine users in 1990 to 35 percent in 1991.

Among Colorado cocaine treatment clients, the proportion of new users (those admitted within 3 years of first use) continues to decline; the average age has been increasing steadily for 7 years (to 30.5); the proportion of females has been stable (at about one-third of the cocaine treatment population); and the proportion of minorities has been increasing since 1984 (to 30.5 and 16.5 percent for African-Americans and Hispanics, respectively). In San Diego, African-Americans continue to be overrepresented in this population (67 percent of admissions).

The number of cocaine-exposed babies born in San Francisco has declined from 1990 to 1991.

San Francisco cocaine-trafficking arrests appear up, possibly due to increased efforts. Among adult Hawaiian parolees, drug testing has indicated increased cocaine use. Following a brief downturn in Los Angeles, positive DUF cocaine tests are back up for both females (62 percent, first quarter 1991) and males. Female arrestees consistently test positive for cocaine more often than males in both Los Angeles and Denver. The proportions who test positive in Denver have been erratic for both male and female arrestees (24 and 36 percent, respectively, in May 1991). In San Diego, the proportions have been stable for both males (45 percent for the past 11 quarters) and females (hovering around 40 percent).

Table 9 contains price and purity information for the region. The Denver cocaine prices are slightly down, and availability is high. The Seattle bulk cocaine prices have dropped, as have

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crack purity levels. Cocaine remains readily available in Phoenix, with crack the most common form at the street level. Crack still dominates the San Francisco street scene, where it is widely available.

Table 9. Cocaine prices and purity in the West

| Area | Cocaine | | Crack |
|-----------------|--|--|--|
| | Purity (%) | Price/Unit | Price/Unit |
| Denver (Police) | 60-85 | \$50-\$100/gm \$300/1/4 oz \$20K-\$25K/kg | (70-85% purity): \$20/rock \$150/gm \$200/1/8 oz \$350/1/4 oz \$30K/kg |
| Denver (DEA) | 20-90 | \$75-\$100/gm \$800-\$1.5K/oz \$10K-\$15K/lb \$16K-\$25K/kg | \$74-\$100/gm \$1K-\$2K/oz |
| Honolulu | N/R | \$30-\$60/.25 gm \$175/gm \$300/ 1/8 oz | N/R |
| Los Angeles | N/R | \$650-\$1.2K/oz | N/R |
| Phoenix | 90 | \$18K-\$25K/kg | \$20-\$40/100-300 mg rock |
| San Diego | N/R | N/R | N/R |
| San Francisco | N/R | N/R | N/R |
| Seattle | 20-60 20-70 30-80 40-80 50-85 50-90 | \$60-\$100/gm \$100-\$150/1/16 oz \$150-\$300/1/8 oz \$1K-\$1.6K/oz \$10K-\$18K/lb \$20K-\$32K/kg | \$15-\$40/.2 gm \$40-460/.4 gm (50-70% purity) |

African-Americans do most street-level dealing in San Francisco. Hispanic organizations continue to orchestrate most of Seattle's cocaine trafficking, and out-of-State and indigenous youth gangs are heavily involved in crack distribution. Colorado cocaine traffickers are primarily middle-class whites, African-Americans, and Hispanics (and in Denver, they include mostly Colombians, Panamanians, and Mexican nationals). The Denver crack market has become dispersed, but not reduced: it has moved from crack houses to street corners and bars, from organized gangs to numerous independent operators.

Cocaine seizures have escalated in Seattle. Cocaine is transported into the Pacific Northwest via maritime transshipment and along the Interstate-5 corridor via land and air. The majority of Colorado cocaine originates in Florida, California, and South America. Border towns in Arizona are reportedly used as cocaine stash houses.

HEROIN

1. Eastern Region

Heroin-related deaths have been declining in New York (750 in 1988, 711 in 1989, and 530 in 1990) and in Washington, D.C. (102 in 1990—a 45-percent decrease from 1989). Additionally, deaths attributed to heroin/ cocaine combinations have declined in Washington, D.C. (from 90 in 1989 to 41 in 1990). In Newark, heroin-positive toxicology reports have remained fairly constant since 1985 (270 in the first 10 months of 1991). By contrast, heroin/morphine-related deaths increased in Philadelphia (75 in first half of 1991—up 53.1 percent from the previous semiannual period) and in Atlanta. Similarly, the seven heroin-induced deaths Miami in the first three quarters of 1991 are up from one in 1990 and none during previous years. No death data were presented for Boston.

In New York, most decedents are male (77 percent), but the proportion of females is increasing; Hispanics represent the modal group (38 percent); and most decedents are aged 30 or older. In Miami, most decedents are white males with a mean age of 38 and histories of sedative abuse.

Heroin ER mentions declined in four of the cities. They have increased in three: Atlanta, where numbers are relatively low; Newark; and Philadelphia, where comparable data are available for only two quarters of each reporting period (table 10). These increases are largely due to increases in the latest quarter. In New York, despite an increase in mentions in the latest quarter, the four-quarter figure represents a decline in mentions.

Table 10. Heroin ER mentions in the Eastern Region:
Preliminary estimates, April 1989 - March 1991

| City | April 89 - March 90 | April 90 - March 91 | Change (%) | Rank (#) |
|------------------|---------------------|---------------------|------------|----------------|
| Atlanta | 77 | 94 | +2 | Low |
| Boston | 1,076 | 940 | -13 | 3 ^a |
| Miami | 61 | 53 | -13 | Low |
| Newark | 1,970 | 2,182 | +11 | 3 ^a |
| New York | 5,319 | 4,236 | -20 | 3 ^b |
| Philadelphia | 1,549 | 1,625 | +5 | 3 ^b |
| Washington, D.C. | 1,537 | 1,350 | -12 | 3 ^b |

^a Does not include first and second quarters 1989 and 1990 because the 1989 estimates for those quarters do not meet standard of precision.

^a Follows alcohol-in-combination and cocaine

^b Follows cocaine and alcohol-in-combination

Heroin ranked first among nonalcohol treatment admissions in Newark and New York (table 11).

Executive Summary: Heroin

The number of primary heroin admissions has declined in Newark (21 percent from last year), New York (19 percent when comparing the first halves of 1990 and 1991), Philadelphia (14 percent from the previous semiannual period), and Miami (35 percent since the last reporting period). The decline in Newark may be a result of fewer treatment resources. In Boston, by contrast, the percentage of heroin admissions has been increasing since FY 1988.

Table 11. Percentage of nonalcohol treatment admissions for primary heroin abuse in the Eastern Region

| City | Admissions (%) | Rank (#) | Dates Reported |
|------------------|----------------|----------|----------------|
| Atlanta | 10 | N/R | N/R |
| Boston | 39 | 2* | 7/90-6/91 |
| Miami | 4 | 3* | 10/90-9/91 |
| Newark | 64 | 1 | 1/91-6/91 |
| New York | 45 | 1 | 1/91-6/91 |
| Philadelphia | 13 | 2* | 1/91-6/91 |
| Washington, D.C. | N/R | N/R | N/R |

- * Follows cocaine
- * Follows cocaine and marijuana

Intranasal administration continues to increase among New York heroin admissions (38 percent in first half 1991); concomitantly, injection use has declined (59 percent in 1990). In Newark, too, intranasal use has been increasing—equaling injection use in client reports for the first time. Similarly, in Boston, intranasal use has been increasing (to 19 percent), suggesting that a purer form of the drug is now available; however, injection remains the preferred route for most heroin clients (79 percent).

Average age of heroin clients is 33 in Boston, 33 in Newark (representing a decline over the past three reporting periods), and approximately 34 in New York. Newark clients who report sniffing are younger (31 years) than those who report injection use (35 years).

While New York primary heroin admissions are mostly males, the proportion of females is increasing. This proportion has also been increasing in Newark (to approximately 36-42 percent). Boston heroin clients were 35 percent females.

Among New York heroin admissions, Hispanics remain the modal ethnic category (39 percent), followed by African-Americans (32 percent); the proportion of whites, however, is increasing (to 26 percent). Philadelphia heroin admissions reflect a more even racial/ethnic distribution than do cocaine admissions: African-Americans comprise nearly 46 percent, whites nearly 41 percent. In Newark, three-quarters of heroin admissions are African-American, and one-fifth are Hispanic. In Boston, 27 percent are African-American.

New York DUF opiate findings for arrestees have been oscillating: the latest available results

Executive Summary: Heroin

show a 16-percent positive rate among males (fourth quarter 1990). In Philadelphia, opiate-positive results have declined for both male and female arrestees (to 8 and 11 percent, respectively, in 1990). In Washington, D.C., 12 percent of adult arrestees tested positive for heroin in the first 10 months of 1991—level with the 1990 figure.

Since peaking in 1989, heroin arrests in New York—like cocaine arrests—have been declining. In Boston, too, opiate arrests have been declining since 1989—both in number and as a percentage of drug arrests. Similarly, opiate criminal cases in Miami, which represent only 1 percent of all drug cases, have decreased in the first three 1991 quarters; street seizures, however, are sharply up. Heroin arrests have also decreased in Atlanta. By contrast, Newark arrests for heroin possession have climbed to ten times more than they had been several years ago (23 percent of possession arrests).

Table 12 presents price and purity information for the region. In New York, where heroin is available at all supply levels, the bag price depends on both quantity and quality; price fluctuations across the city may reflect the increased number of independent dealers, increased competitiveness, and more aggressive marketing strategies. Heroin availability and quality have increased in Boston, while prices have dropped since 6 months ago; consequently, some dealers have reportedly switched from cocaine to heroin. In Washington, D.C., heroin price and purity levels have stabilized in 1991 following a 1990 price drop and purity increase. Heroin is reportedly scarce in Atlanta, where prices at the distribution level have increased, but street prices have remained stable. There are no reports of black tar in Philadelphia. Newark heroin users persist in falsely believing that Southeast Asian heroin, or "p-dope," is really a synthetic drug.

Table 12. Heroin prices and purity in the Eastern Region

| City | Type | Purity (%) | Price/Unit |
|------------------|-------------------|------------|-------------------------------------|
| Atlanta | Mexican black tar | 17 | \$240/gm |
| | Asian (Nigerian) | 30 | \$100/gm |
| | N/R | N/R | \$7.5K-\$12K/oz \$120K-\$180K/kg |
| Boston | Southeast Asian | 50-70 | \$10-\$15/bag |
| Miami | N/R | N/R | N/R |
| Newark | Southeast Asian | High | \$15/25-35 mg \$100-\$150/.25 gm |
| | Southeast Asian | 2-5 | \$15/70-90 mg |
| New York | Southeast Asian | N/R | \$5-\$13/bag |
| | | 37 | \$120K-\$200K/kg |
| Philadelphia | N/R | N/R | N/R |
| Washington, D.C. | N/R | 10-20 | \$20-\$30/.25 gm |
| | | 10-20 | \$90-\$110/gm |
| | | 70-90 | \$140K-\$180K/kg |

In an attempt to separate themselves from the violence of the crack scene, injection heroin and

Executive Summary: Heroin

cocaine users in New York have set up several makeshift "shacks" as outdoor shooting galleries. New York remains the Nation's most significant heroin importation and distribution center, according to the DEA. The DEA reports that Colombian organizations have begun distributing heroin in the United States: they derive this heroin both from trading cocaine for heroin in Asia and Europe and from cultivating poppies in Colombia. Police are finding increasing quantities of heroin at roadstops around Boston. Heroin submissions are stable in Washington, D.C.

2. Central Region

Narcotic deaths in Detroit had been steadily declining for several years; after bottoming out in early 1991, the number began to increase (62 deaths in September 1991, some involving heroin). Opiate-related deaths in Minneapolis/St. Paul totaled 11 from January through October 1991, compared to 15 in all of 1990. In Texas, 115 heroin/morphine-related deaths were reported in 1990, compared to 114 in 1989. From July through December 1991, 11 heroin-related deaths were reported in St. Louis, an increase from the 3 reported during the previous 6 months.

Heroin ER mentions decreased across the region, except in Chicago, where they increased slightly. The decreases ranged from more than 3 percent in St. Louis to nearly 36 percent in Minneapolis (table 13). Heroin continues to rank behind cocaine among nonalcohol ER mentions in Chicago and Detroit; it ranks relatively low in the other cities.

Table 13. Heroin ER mentions in the Central Region:
Preliminary estimates, April 1989 - March 1991

| City | April 89 - March 90 | April 90 - March 91 | Change (%) | Rank (#) |
|-------------|---------------------|---------------------|------------|----------------|
| Chicago | 2,053 | 2,097 | +2 | 3 ^b |
| Dallas | 328 | 279 | -15 | Low |
| Detroit | 1,759 | 1,529 | -13 | 3 ^a |
| Minneapolis | 118 | 76 | -36 | Low |
| New Orleans | 303 | 255 | -16 | 4 ^c |
| St. Louis | 118 | 114 | -3 | Low |

^a Follows alcohol-in-combination and cocaine

^b Follows cocaine and alcohol-in-combination

^c Follows cocaine, alcohol-in-combination, and marijuana/hashish

In general, heroin treatment admissions have remained stable across the area (table 14). In Detroit and Texas, heroin ranked second, following cocaine, in the percentage of nonalcohol admissions. In Chicago, Minneapolis/St. Paul, and New Orleans, it ranked third, following cocaine and marijuana. The Detroit percentages for 1990 and 1991 are sharply up from 1988 and 1989 figures—partially due to additional Federal treatment funding, expansion of methadone programs, and efforts to reduce waiting lists.

Executive Summary: Heroin

Table 14. Percentage of nonalcohol treatment admissions for primary heroin abuse in the Central Region

| Area | Admissions (%) | Rank (#) | Dates reported |
|----------------------|----------------|----------------|----------------|
| Chicago | 14 | 3 ^b | FY 1991 |
| Detroit | 16 | 2 ^a | FY 1991 |
| Minneapolis/St. Paul | 4 | 3 ^b | 1/91-6/91 |
| New Orleans | 6 | 3 ^b | 1/91-3/91 |
| St. Louis | N/R | N/R | N/R |
| Texas | 22 | 2 ^a | 9/90-10/91 |

- ^a Follows cocaine
- ^b Follows cocaine and marijuana

Among the Detroit admissions, 52 percent reported injection use, while 31 percent reported intranasal use or inhalation. Thirty percent of Illinois admissions for opiate dependence reflect intranasal use as a primary route of administration.

The typical Texas heroin client is 35 years old and has been using for 14 years; of these clients, 48 percent are Hispanic, 24 percent are employed, 75 percent live with their families, and 5 percent are homeless. In New Orleans, among the 163 heroin clients, 47 percent were white males, 23 percent were black males, 8 percent were black females, and 22 percent were white females. In Detroit, the majority of heroin clients are in the 30-44 age group, and the number of female clients has increased.

Table 15 presents price and purity information for the region. Purity has been increasing since 1988 in Detroit, which is changing from a user site to a supplier site for surrounding areas. Although heroin availability is limited in the New Orleans area, it is reportedly found in and around large project areas; prices remain stable. In Chicago, brown heroin street prices are stable following an increase; users seem to be shifting from poor-quality brown to more potent varieties; black tar heroin, referred to as "brown crystal" or "chicle," has declined in availability; white heroin is reported to be increasingly available and of high quality, making it much stronger and more addictive; and "karachi," a potent variety intended for intranasal use, has increased in availability and use. Some IDUs, however, report injecting karachi after dissolving it with lemon juice. While karachi accounts for an increase in heroin snorting, white and brown heroin are also increasingly snorted by cocaine users seeking to moderate the stimulant effects of cocaine. If this trend continues, a pool of new opiate users could develop in Chicago.

Texas heroin seizures are down since 1990, but prices are slightly higher. In Minneapolis/St. Paul, black tar has resumed its stronghold as the predominant type of available heroin; brown and white powder are once again extremely rare; and injection remains the preferred route of administration. In St. Louis, heroin purity is increasing, while prices have dropped—a

Executive Summary: Heroin

combination of concern to city officials. While Kansas City has a supply of Southeast Asian heroin that is about 24 percent pure, such heroin is rarely found in St. Louis.

Table 15. Heroin prices and purity in the Central Region

| City | Type | Purity (%) | Price/Unit |
|--------------------------|-----------------------------|-----------------------------|---|
| Chicago | Brown | 1.2-22 (9.8 average)(up) | \$10-\$25/bag \$800-\$900/oz |
| | Black tar | | \$25-\$40/bag |
| | White | | \$10-\$20/bag \$250-\$275/gm \$6.5K-\$7K/oz |
| Detroit | White/Southeast Asia | 6.5-46.7 (21.7 average) | \$10-\$15/bag \$60/10-bag bundle |
| Minneapolis/ St. Paul | Black tar | 23-58 (40.5 average) | \$50/.10gm \$500/gm |
| New Orleans | N/R | N/R | \$25/bag \$350/bundle |
| St. Louis | Black tar | 9.8(up) | \$250/gm(down) |
| | Mexican black tar/brown tar | | \$10/capsule |
| Texas | N/R | N/R | \$150-\$300/gm \$3K-\$7K/oz |

3. Western Region

Heroin-related deaths have increased in Colorado, San Diego, and Hawaii; they have decreased in Los Angeles, San Francisco, Phoenix, and Seattle.

Following a period of decline, opiate death mentions in Colorado are expected to increase between 1990 (5.5 per 1 million population) and 1991 (9 per 1 million projected). In San Diego, heroin continues to account for the most single-cause overdose deaths, with such deaths expected to increase from 1990 (26 cases) to 1991 (33 projected). Finally, in Hawaii, heroin-related deaths increased from three in second half 1990 to six in first half 1991.

By contrast, heroin mentions in Los Angeles drug deaths decreased from 1989 (500) to 1990 (409); they declined further during first quarter 1991 (49 mentions). San Francisco ME data also indicate a sharp decline in heroin mentions between early 1989 (106) and early 1991 (46 projected). In Phoenix, too, morphine-related deaths are expected to decline as much as 50 percent between 1990 and 1991 (12 cases in first half 1991). Similarly, in Seattle, following a sharp increase in the previous reporting period, heroin-related deaths decreased 50 percent between the four-quarter periods ending September 1990 and September 1991; however, heroin has been the most identified drug in that city's ME reports since early 1989.

Executive Summary: Heroin

Nearly two-thirds of Seattle heroin victims were white males. The number of decedents aged 40 or older has increased from 5 in 1987 to 18 each in 1988, 1990, and 1991; in 1991, the mean age was 42. In San Diego, males accounted for 75 percent of all heroin deaths; 67 percent were white, and 21 percent Hispanic.

Heroin ER mentions have decreased in all reporting western areas, except San Diego, where they increased slightly. San Francisco remains the only western city where heroin ranks first among ER mentions (table 16). Heroin (combined with cocaine) was reported in 3 of the 75 ER episodes in the 1-month Hawaiian study sample.

**Table 16. Heroin ER mentions in the West:
Preliminary estimates, April 1989 - March 1991**

| City | April 89 - March 90 | April 90 - March 91 | Change (%) | Rank (#) |
|---------------|------------------------|------------------------|------------|----------------|
| Denver | 195 | 117 | -4 | Low |
| Los Angeles | 3,548 | 1,961 | -45 | 3 ^a |
| Phoenix | 446 | 330 | -26 | 5 ^b |
| San Diego | 675 | 728 | +8 | 3 ^a |
| San Francisco | 3,969 | 3,730 | -6 | 1 |
| Seattle | *1,021 | *460 | -55 | 3 ^a |

**Data are incomplete due to delays and inconsistencies in reporting by a major participating medical center.*

- ^a Follows alcohol-in-combination and cocaine
- ^b Follows alcohol-in-combination, cocaine, acetaminophen, and aspirin

Heroin remains the most reported primary drug of abuse among nonalcohol treatment admissions in Los Angeles and San Francisco (table 17). The Colorado proportion is down following a sharp increase in 1990. Los Angeles heroin admissions have decreased, both in number and percentage, over the last two quarters (totaling over 7,000 in first quarter 1991). While the number of San Francisco heroin admissions is up (possibly due to increased treatment slots), the percentage of total admissions is lower than in 1988. The Honolulu percentage is up (from 4 percent).

Executive Summary: Heroin

Table 17. Percentage and rank of nonalcohol treatment admissions for primary heroin abuse in the West

| Area | Admissions (%) | Rank | Dates Reported |
|---------------|----------------|----------------|----------------|
| Colorado | 18 | 3 ^a | 1/91-6/91 |
| Honolulu | 7 | 4 ^b | 1/91-6/91 |
| Los Angeles | 74 | 1 | 1/91-3/91 |
| Phoenix | 18 | N/R | 7/91-9/91 |
| San Diego | 33 | 2 ^c | 1/91-6/91 |
| San Francisco | 60 | 1 | 1990 |
| Seattle | 28 | 2 ^d | 1/91-9/91 |

- ^a Follows marijuana and cocaine
- ^b Follows marijuana, cocaine, and ice
- ^c Follows methamphetamine
- ^d Follows cocaine

In 1990, 100 percent of Hawaiian heroin addicts reported injection use; in 1991, 22 percent report smoking or inhaling the drug. By contrast, virtually all (99 percent) of San Diego heroin clients continue to inject the drug. Similarly, 93 percent of a recent sample of San Franciscan primary heroin abusers reported injection as their preferred route. Of the more than 10,000 clients seeking treatment in Arizona State-funded programs, more than 50 percent reported injecting drug use.

The proportion of new users entering treatment in Colorado has declined overall since 1986. In San Francisco, only 6.9 percent of all heroin admissions reported recent initial use—the lowest proportion in 13 years—suggesting that any increase in user prevalence results from past users resuming usage, rather than new users being created.

Among San Diego heroin admissions, 52 percent are white, 40 percent Hispanic, and 7 percent African-American; 55 percent are male; and 51 percent are over age 34. In Colorado, whites, Hispanics, and African-Americans comprise 46.2, 41.7, and 10 percent of heroin clients, respectively; females comprise 37.3 percent of the population (slightly up); and average age has leveled off (to 36.5) following years of increases.

Heroin-related arrests in Seattle are projected to increase in 1991 from 1990 figures. Heroin-positive results among San Diego arrestees have been ranging from 15 to 25 percent for males and from 13 to 28 percent for females. Among Los Angeles arrestees, results have been steady for males (ranging from 9 to 15 percent) and increasing gradually for females (from 16 to 21 percent) until recently, when they dropped back to 15 percent (first quarter 1991).

In Denver, black tar remains available, but brown heroin and "china white" supplies appear diminished. Seattle street prices of Mexican black tar have declined (table 18).

Executive Summary: Heroin/Other Opiates

Table 18. Heroin prices and purity in the West

| Area | Type | Purity | Price/Unit |
|--------------------|----------------------|--------|--|
| Denver (DEA) | Mexican brown | N/R | \$65-\$100/.5 gm \$100-\$120/gm \$3K-\$3.5K/oz |
| | Mexican black tar | 25-75 | \$3.7K-\$10K/oz |
| Denver (Police) | Black tar | 14-70 | \$300/gm \$2K/1/4 oz \$150K/kg |
| Honolulu | N/R | N/R | \$600/gm \$1.8K/"8-ball" |
| Los Angeles | Black tar | N/R | \$2.7K-\$4K/oz |
| | Mexican brown powder | N/R | \$150-\$250/gm |
| Phoenix | Mexican black tar | 50 | \$20/paper dosage unit \$350/gm \$3.5K-\$4K/oz |
| San Diego | N/R | N/R | N/R |
| San Francisco | Mexican | 9 | \$2.56/pure mg |
| Seattle | Mexican black tar | 10-20 | \$20-\$25/1/16 gm |
| | | 20-50 | \$125-\$250/gm |
| | | 40-70 | \$1K-\$4K/oz |

Hispanic organizations remain active in black tar trafficking into the Pacific Northwest, and Oriental organized crime groups based in Vancouver transport Southeast Asian heroin through Seattle en route to the east coast. Heroin appears to be imported across the Mexican border into Arizona primarily by body carriers. The Denver heroin supply also comes mostly from Mexican traffickers who smuggle it across the border; some African-American traffickers are also active in Denver, as well as Iranian and Lebanese traffickers who distribute Southwest Asian heroin into the United States.

OTHER OPIATES

1. Eastern Region

Codeine appeared in nearly 43 percent of Philadelphia heroin/morphine toxicology reports in the second half of 1990, then dropped to under 19 percent in the first half of 1991. In Miami, DAWN recorded eight codeine-related deaths in 1990 and none in first quarter 1991; methadone was involved in one cocaine-induced death; and propoxyphene-related deaths totaled four in 1990 and one in first quarter 1991.

Propoxyphene ER mentions in Miami increased from 15 to 25 between 1989 and 1990.

The price of "hits" (codeine and glutethimide) on Newark streets has stabilized at about \$20

following an increase; availability of this combination has been decreasing. In Philadelphia, the same combination, known as "sets," is similarly limited in availability; it sells for \$30-\$40, double the early 1990 price (*see section on barbiturates and sedatives/hypnotics*).

Hydromorphone (Dilaudid) is more available than heroin in Atlanta; it sells in the street for \$40-\$60 per dosage unit.

2. Central Region

Propoxyphene napsylate and combinations remain the most frequently abused oral pharmaceuticals taken by narcotic addicts in Chicago, while the abuse of hydromorphone and pentazocine continues to decrease. Codeine abuse, in both pill (Tylenol 3s and 4s) and syrup form remains stable. The pills are available for \$1-\$2 and are used primarily by heroin users to moderate withdrawal symptoms or to help "kick" a drug habit.

In Detroit, codeine and its compounds remain the most widely abused other opiates. Michigan ranks second per capita nationally in codeine prescription/distribution; among drug arrestees, 26 were codeine users. Oxycodone (Percodan, Percocet) remains the second most frequent Schedule II prescription.

Hydromorphone remains the leading heroin substitute in New Orleans, where prices continue to average \$25-\$35 per tablet. Other opiates represented 5 percent of all treatment admissions in 1991.

In Minneapolis/St. Paul, opium smoking occurs mostly in the Southeast Asian communities, and distribution is tightly contained within family networks. Street sales of hydromorphone and other prescription narcotics are reportedly brisk.

3. Western Region

In San Francisco, codeine was found in 58 decedents and methadone in an additional 15 in 1990; most of the codeine decedents were male (72 percent), white (70 percent), and aged over 30 (91 percent). Opiate overdose deaths are stable in Seattle, averaging five per quarter; most involve methadone or propoxyphene; males and females are almost equally represented among victims, and the mean age has increased to 43.6.

Codeine ER mentions in San Francisco have been stable, except for an unusual drop in the latter half of 1989.

San Francisco outreach workers report signs of hydromorphone trafficking, with usage focussed among African-Americans in their thirties. Phoenix police report increased trafficking of illegal prescription drugs, such as hydromorphone, propoxyphene, and oxycodone; each sells for approximately \$80 per dose unit.

Denver police report that fentanyl, cut with chocolate, is sold as tar heroin.

U.S. Customs agents in Oakland, California, have seized numerous international mail packages of raw opium destined for Seattle.

MARIJUANA

1. Eastern Region

Marijuana ME mentions declined significantly in Washington, D.C., between 1989 and 1990 (from 15 to 2). The drug ranks second among nonalcohol drug ER mentions in Atlanta and Miami. Marijuana ER mentions declined in every city except Miami and Newark (table 19).

Table 19. Marijuana ER mentions in the Eastern Region:
Preliminary estimates, April 1989 - March 1991

| City | April 89 - March 90 | April 90 - March 91 | Change (%) | Rank (#) |
|------------------|---------------------|---------------------|------------|----------------|
| Atlanta | 756 | 448 | -41 | 3 ^a |
| Boston | 425 | 383 | -10 | Low |
| Miami | 144 | 226 | +57 | 3 ^b |
| Newark | *364 | *389 | +7 | 4 ^c |
| New York | 1,652 | 1,256 | -24 | 4 ^d |
| Philadelphia | 1,302 | 756 | -42 | 5 ^e |
| Washington, D.C. | 1,390 | 932 | -33 | 4 ^e |

**Does not include third quarter because third quarter 1990 estimate does not meet standard of precision*

- ^a Follows alcohol-in-combination and cocaine
- ^b Follows cocaine and alcohol-in-combination
- ^c Follows alcohol-in-combination, cocaine, and heroin
- ^d Follows cocaine, alcohol-in-combination, and heroin
- ^e Follows alcohol-in-combination, cocaine, and diazepam

Miami is the only city in the region with a substantial percentage of clients reporting marijuana as the primary drug of abuse. In the remaining cities where treatment data were reported, the proportion is 6 percent or lower (table 20). The number of primary marijuana admissions has been declining since 1985 in Boston and New York. In Philadelphia, however, both the number and percentage have increased since the last semiannual reporting period.

Executive Summary: Marijuana

Table 20. Percentage of nonalcohol treatment admissions for primary marijuana abuse in the Eastern Region

| City | Admissions (%) | Rank (#) | Dates Reported |
|------------------|----------------|----------------|----------------|
| Atlanta | 0 | 0 | N/R |
| Boston | 4 | 3 ^a | 7/90-6/91 |
| Miami | 14 | 2 ^b | 10/90-9/91 |
| Newark | 3 | 3 ^c | 1/91-6/91 |
| New York | 6 | N/R | 1/91-6/91 |
| Philadelphia | 4 | 3 ^a | 1/91-6/91 |
| Washington, D.C. | N/R | N/R | N/R |

- ^a Follows cocaine and opiates
- ^b Follows cocaine
- ^c Follows heroin and cocaine

Boston marijuana clients are generally younger (average age of 26) and more likely to be male (73 percent) compared to other clients; the percentage of whites (54 percent) is decreasing, while the percentage among African-Americans (30 percent) is growing. In Philadelphia, marijuana admissions are disproportionately male (81 percent) and African-American (59 percent).

Marijuana arrests, comprising 15 percent of Boston drug arrests, have declined in that city in 1990 and 1991. Similarly, cannabis arrests in New York have been declining since 1986. In Miami, cannabis criminal cases comprise 22 percent of drug cases. In Newark, marijuana arrests constitute only a small percentage of possession arrests.

Marijuana-positive urinalyses for juveniles in Washington, D.C., have increased from 6 percent in both 1989 and 1990 to 11 percent in the first 10 months of 1991. In New York, marijuana positives have been declining for both male and female arrestees (9 percent for males, fourth quarter 1990). Among male and female arrestees in Philadelphia, 18 and 12 percent, respectively, tested positive for marijuana (1990).

Table 21 presents marijuana price and purity information for the region. Prices have doubled in Miami over the past 2 years, reflecting supply changes from Latin American sources to higher potency, domestic varieties; consequently, sales are often made in small quantities. Prices in Philadelphia have also increased over recent months, similarly resulting in marketing of smaller quantities; however, availability and price vary considerably across the city. By contrast, the New York marijuana market has tended toward larger units at higher prices. In Atlanta, prices have risen at both the distribution and street levels. Prices remain unchanged in Washington, D.C., where supply is limited. Reports in Boston vary: State police report increased availability and high quality; the DEA reports scarce supply and slightly increased prices; and the Boston police report high availability. Availability is down in Newark.

Executive Summary: Marijuana

Table 21. Marijuana prices and purity in the Eastern Region

| City | Source/Quality | Price/Unit |
|------------------|--|---|
| Atlanta | Sinsemilla/high THC Domestic/lower THC | \$1.8K-\$2.2K/lb \$950-\$1.1K/lb |
| Boston (police) | "good" | \$10-\$20/gm \$250-\$350/oz \$1.5K-\$2K/lb |
| Boston (DEA) | N/R | \$150-\$250/oz \$1.8K-\$2.2K/lb |
| Miami | Domestic/3.7% THC (commercial grade) Domestic/7.6% THC (sinsemilla) | \$5/"nickel bag" \$120-\$500/oz \$800-\$5K/lb |
| Newark | Seedless, high resin content | \$10/bag (1-2 "joints") |
| New York | "Chocolate Thai" (a new, more potent form) | \$10-\$20/bag |
| Philadelphia | Mexican | \$10/gm \$700/1/4 lb |
| Washington, D.C. | N/R | \$3-\$5/cigarette \$30/gm \$75-\$150/oz \$250-\$350/1/4 lb \$2.5K-\$3K/kg |

Marijuana submissions in Washington, D.C., have increased to their highest level since 1987.

Most marijuana enters Philadelphia via Texas.

2. Central Region

Marijuana ER mentions have declined throughout the region, except in New Orleans, where they increased nearly 50 percent. Marijuana ranks second among nonalcohol drug ER mentions in New Orleans and Dallas (table 22).

Executive Summary: Marijuana

Table 22. Marijuana ER mentions in the Central Region:
Preliminary estimates, April 1989 - March 1991

| City | April 89 - March 90 | April 90 - March 91 | Change (%) | Rank (#) |
|-------------|---------------------|---------------------|------------|----------------|
| Chicago | 1,122 | 1,009 | -10 | 5 ^a |
| Dallas | 508 | 318 | -37 | 3 ^b |
| Detroit | 913 | 518 | -43 | 5 ^c |
| Minneapolis | 181 | 153 | -15 | Low |
| New Orleans | 413 | 619 | +50 | 3 ^d |
| St. Louis | 192 | 145 | -24 | Low |

- ^a Follows cocaine, alcohol-in-combination, heroin/morphine, and PCP
- ^b Follows alcohol-in-combination and cocaine
- ^c Follows alcohol-in-combination, cocaine, heroin/morphine, and acetaminophen
- ^d Follows cocaine and alcohol-in-combination

Marijuana ranks second in nonalcohol treatment admissions in Chicago, Minneapolis/St. Paul, and New Orleans; it ranks third in Detroit and Texas (table 23). The percentage of marijuana admissions has decreased in Chicago, New Orleans, and Texas since the last reporting periods; the number of admissions in Chicago, however, has increased.

Table 23. Percentage of nonalcohol treatment admissions
for primary marijuana abuse in the Central Region

| City | Admissions (%) | Rank (#) | Dates reported |
|----------------------|----------------|----------------|----------------|
| Chicago | 14 | 2 ^a | 1991 |
| Detroit | 3 | 3 ^b | FY 1991 |
| Minneapolis/St. Paul | 8 | 2 ^a | 1/91-6/91 |
| New Orleans | 7 | 2 ^a | 1/91-3/91 |
| St. Louis | N/R | N/R | N/R |
| Texas | 15 | 3 ^b | 9/90-10/91 |

- ^a Follows cocaine
- ^b Follows cocaine and heroin

According to DUF data, marijuana is the second most likely illicit drug used by Chicago arrestees: 26 percent of all male arrestees tested positive for the drug (May 1991). In Minneapolis/St. Paul, over 16 percent of arrestees tested positive for THC metabolites (January through September 1991).

Marijuana arrests in New Orleans decreased from 544 in 1990 to 435 in 1991. In Texas, during the first half of 1991, 811 adults were arrested for marijuana sales and 9,216 adults were arrested for possession. Texas, Missouri, and Detroit authorities report large marijuana seizures.

Executive Summary: Marijuana

Historically, the New Orleans market was dominated by imported marijuana; in the first half of 1991, more marijuana is reportedly being produced domestically, and indoor, homegrown marijuana is more widespread. In Minneapolis/St. Paul, Chicago, Detroit, and St. Louis, marijuana prices are very high and demand exceeds supply (table 24).

Table 24. Marijuana prices and purity in the Central Region

| City | Source/Quality | Price/Unit |
|----------------------|--|---|
| Chicago | Top-quality sinsemilla Mid-quality "Mexican" Lower-quality Colombian "Bo" - "dirt weed" | \$3.3K-\$4K/lb \$1.45K/lb \$10/bag (2-3 joints) \$50-\$75/.25 oz \$150-\$200/oz |
| Detroit | N/R | N/R |
| Minneapolis/St. Paul | Southwest | \$180-\$300/oz \$2K/lb |
| New Orleans | Domestic | N/R |
| St. Louis | N/R | N/R |
| Texas | Imported Domestic/Higher THC content | \$25-\$30/.25 oz \$100-\$125/oz \$600-\$1.2K/lb \$1.2K-\$2K/lb |

3. Western Region

Marijuana was detected in four Hawaii ME cases in the second half of 1990 and in one case in the first half of 1991.

Marijuana ER mentions decreased in all the reporting western cities, except for Phoenix (table 25). Marijuana is mentioned in 8 of the 75 ER episodes in the 1-month Hawaiian study sample.

Table 25. Marijuana ER mentions in the West:
Preliminary estimates, April 1989 - March 1991

| City | April 89 - March 90 | April 90 - March 91 | Change (%) | Rank (#) |
|---------------|---------------------|---------------------|------------|----------------|
| Denver | 260 | 164 | -37 | 5 ^a |
| Los Angeles | 1,436 | 1,038 | -28 | 5 ^b |
| Phoenix | 99 | 140 | +41 | Low |
| San Diego | 320 | 290 | -9 | Low |
| San Francisco | 498 | 395 | -21 | Low |
| Seattle | *267 | *223 | -16 | 5 ^c |

*Data are incomplete due to delays and inconsistencies in reporting by a major participating medical center.

- ^a Follows alcohol-in-combination, cocaine, aspirin, and acetaminophen
- ^b Follows alcohol-in-combination, cocaine, heroin/morphine, and o.t.c. sleep aids
- ^c Follows alcohol-in-combination, cocaine, heroin/morphine, and acetaminophen

Executive Summary: Marijuana

Marijuana accounts for a large percentage of Honolulu and Colorado treatment admissions (table 26). In Colorado, this proportion appears stable in 1991 following a decline between 1989 and 1990. The San Diego percentage has increased slightly, possibly due to a new adolescent outpatient program.

Table 26. Percentage and rank by nonalcohol treatment admissions for primary marijuana abuse in the West

| Area | Admissions (%) | Rank (#) | Dates Reported |
|---------------|----------------|----------------|----------------|
| Colorado | 36 | 1 | 1/91-6/91 |
| Honolulu | 46 | 1 | 1/91-6/91 |
| Los Angeles | 3 | Low | 1/91-3/91 |
| Phoenix | 10 | N/R | 7/91-9/91 |
| San Diego | 6 | 4 ^a | 1/91-6/91 |
| San Francisco | 3 | 4 ^c | 1990 |
| Seattle | 19 | 3 ^b | 1/91-9/91 |

**Department of Corrections data*

- ^a Follows methamphetamine, heroin, and cocaine
- ^b Follows cocaine and heroin
- ^c Follows heroin, cocaine, and methamphetamine

The proportion of new users in treatment has been declining in Colorado. Colorado marijuana clients tend to be in their twenties (average age 25.7), males (78.6 percent), and white (63.1 percent). Among San Diego marijuana clients, 39 percent are white males, 29 percent are white females, and 12 percent are Hispanic males.

The 1991 marijuana-related arrest rate in San Francisco is about one-fourth lower than that for 1990; of these arrestees, 92 percent were males, and whites outnumbered African-Americans by more than three to one. In Phoenix, 18 percent of male arrestees and 10 percent of female arrestees tested positive for marijuana. The San Diego marijuana-positive rates for male and female arrestees have declined to 26 and 12 percent, respectively (third quarter 1991). Following a two-quarter downturn, the percentages in Denver are back up to previous levels for males (36 percent) and above previous levels for females (22 percent, May 1991). Among Los Angeles arrestees, marijuana is the only drug for which males test positive more often than females. Two percentages were reported concerning juvenile arrestees testing positive for marijuana: 20 percent for San Diego juvenile males; and 15 percent, on average, for Los Angeles arrestees aged 11-15.

Price and purity information are presented in table 27. High-quality marijuana is reportedly difficult to obtain in Hawaii. In Phoenix, freshly cut sinsemilla is readily available, and a lower quality product called "shake" was available before the harvest. Marijuana is generally cheaper

on the Mexican side of the border than on the Arizona side. Denver supply data are conflicting: the DEA reports ready availability, while the local police report decreased availability.

Table 27. Marijuana prices and purity in the West

| Area | Source/Quality | Price/Unit |
|--------------------|----------------------------------|---|
| Denver (DEA) | Regular grade | \$900-\$1.45K/lb |
| | Sinsemilla | \$1.5K-\$2K/lb |
| Denver (Police) | N/R | \$50-\$88/1/4 oz \$2K/kg |
| Honolulu | Low quality | \$400-\$800/oz |
| Los Angeles | N/R | N/R |
| Phoenix | N/R | \$150-\$200/oz \$800-\$1.2K/lb \$2.5K-\$2.6K/kg |
| | Sinsemilla | \$1.25K-\$1.6K/lb |
| San Diego | N/R | N/R |
| San Francisco | N/R | N/R |
| Seattle | Local sinsemilla (14-18% THC) | \$10-\$40/gm \$150-\$250/oz \$600-\$650/1/4 lb \$5K-\$6.5K/kg \$50-\$250/starter plant \$500-\$5K/mature plant |

Recently, 70 tons of Pakistani hashish were seized from a vessel bound from Hawaii to the mainland. A sophisticated cultivation effort was recently intercepted in Hawaii: it involved odorless, high-THC plants that could fully mature in 30 days. Similarly, in Seattle, indoor cultivation techniques have promoted faster plant growth (6-8 weeks) and higher THC content. Seattle plantations are typically owned and operated by large organizations who sell most of their crops in Oregon and California. No particular group dominates marijuana cultivation or marketing in Colorado. In Arizona, marijuana is shuttled from Tucson to Phoenix and then flown to the Northeast, where it sells at much higher prices (\$2,500-3,000 a pound).

STIMULANTS

1. Eastern Region

In Philadelphia, methamphetamine/speed ER mentions decreased 48.8 percent between 1989 and 1990. Although mentions increased in the first quarter of 1991, it is unlikely that the increase reflects an upward trend.

Amphetamine and methamphetamine ER and treatment mentions are low in Atlanta and Miami.

Typically, methamphetamine ER mentions number fewer than 10 per year in Boston. Anecdotal reports and local law enforcement agencies indicate that methamphetamine is available in Miami and throughout Florida, with clandestine labs actively producing synthetic stimulants.

In Atlanta, methamphetamine costs \$1,200 per ounce and \$60-\$120 per gram. "Ice"—d-methamphetamine hydrochloride which is smoked—is scarce in Atlanta and has still not surfaced in Boston. Reports of ice have discontinued in Florida.

In Atlanta, amphetamines were detected in about 10 percent of the urine samples tested at the Grady Memorial Hospital (GMH) emergency clinics from mid-1989 through 1990. That figure has decreased to 7 percent in the first half of 1991.

2. Central Region

Methamphetamine ER mentions remain low across the region. In Missouri, methamphetamine appears only in rural areas in both ER mentions and admissions, and the ME reported one methamphetamine-related death in 1991.

In Texas, amphetamines are the number-four illicit drug problem for treatment clients, accounting for 8 percent of nonalcohol admissions during FY 1991. In New Orleans, amphetamine admissions increased from 0 percent in 1990 to 4 percent in 1991.

In Chicago, crystal methamphetamine is the most prevalent type of stimulant and is a long standing favorite among bikers. The preferred route of administration is injection.

In Texas, the price for amphetamines has increased slightly, to about \$1,100 an ounce. Methamphetamine prices range from \$800 to \$1,400 per ounce. In New Orleans, decreased availability of MDMA (ecstasy) resulted in higher prices in 1991: \$20-\$25 per dose.

In Chicago, pseudopharmaceuticals (containing caffeine, ephedrine, and/or phenylpropanolamine) follow only alcohol and marijuana in drugs of choice among white youth. These drugs sell for \$1-\$2 per pill. The most intensive stimulant abusers are those who prefer the injection route. White IDUs on Chicago's North Side prefer phenmetrazine hydrochloride (Preludin), while African-Americans IDUs on the South Side prefer methylphenidate (Ritalin), or "west coast." Preludin sells for \$15 per pill, and methylphenidate sells for \$4-\$5 per pill. Methylphenidate (Ritalin) remains the number-one Schedule II prescription drug in Michigan.

In Michigan, three labs in the Upper Peninsula were seized. The labs were manufacturing "cat," an ephedrine-based drug called N-methylcathinone HCl by the DEA. The seizure represented the first encounter with this drug by Michigan authorities.

3. Western Region

Ice-related deaths in Hawaii have declined, from six cases in the second half of 1990 to three in the first half of 1991. In San Diego, methamphetamine involvement in deaths has decreased, with four single-drug overdose deaths and three multiple-drug deaths in the first 8 months of 1991. Only one amphetamine-related death occurred in Colorado in the first half of 1991, and no stimulant-related deaths were reported by the Seattle ME between the third quarters of 1990 and 1991. In Los Angeles, however, amphetamine-related deaths increased from 25 in 1989 to 45 in 1990. Methamphetamine ME mentions in San Francisco have averaged approximately 20 per half-year between late 1988 and early 1991, except for early 1990, when the count was almost double. In Honolulu, 26 percent of drug-related homicides involved ice use or dealing by either the victims or suspects.

Five of the seven decedents in San Diego were whites, and all were male. Similarly, San Francisco decedents were predominantly whites (89 percent), males (84 percent), and generally older (64 percent over age 30).

Methamphetamine ER mentions continue to decline throughout the region (table 28). They have dropped down to fourth in rank both in San Diego and San Francisco.

Table 28. Methamphetamine ER mentions in the West:
Preliminary estimates, April 1989 - March 1991

| City | April 89-March 90 | April 90-March 91 | Change (%) | Rank (#) |
|---------------|-------------------|-------------------|------------|----------|
| Denver | 89 | 73 | -18 | * |
| Los Angeles | 513 | 497 | -3 | * |
| Phoenix | 267 | 188 | -30 | * |
| San Diego | 927 | 715 | -23 | 4* |
| San Francisco | 1,021 | 792 | -22 | 4* |
| Seattle | **176 | **55 | -69 | * |

*Not in the top five ranked drugs

**Data are incomplete due to delays and inconsistencies in reporting by a major participating medical center.

* Follows alcohol-in-combination, cocaine, and heroin/morphine

While methamphetamine remains the foremost primary drug among San Diego admissions, the percentage has declined since 1990 (table 29). Hawaii treatment indicators show a 13-percent decline in ice admissions. Colorado admissions for primary amphetamine users have remained relatively stable since 1984. Conversely, San Francisco admissions for primary amphetamine abuse rose by 39 percent between 1989 and 1990. Los Angeles amphetamine treatment proportions remain relatively low; however, the numbers have been recently increasing (534 in 1989 versus 707 in 1990).

Table 29. Percentage and rank by nonalcohol treatment admissions for primary stimulant abuse in the West

| Area | Admissions (%) | Rank (#) | Dates Reported |
|----------------|----------------|----------------|----------------|
| Colorado | 8 | 4 ^a | 1/91-6/91 |
| Honolulu (ice) | 16 | 3 ^b | 1/91-6/91 |
| Los Angeles | 2 | 4 ^c | 1/91-3/91 |
| Phoenix | N/R | N/R | N/R |
| San Diego | 35 | 1 | 1/91-6/91 |
| San Francisco | 3 | 3 ^d | 1990 |
| Seattle | 4 | 4 ^e | 1/91-9/91 |

^a Follows marijuana, cocaine, and heroin

^b Follows marijuana and cocaine

^c Follows heroin, cocaine, and marijuana

^d Follows heroin and cocaine

^e Follows cocaine, heroin, and marijuana

Insufflation (snorting) remains the most common means of use among San Diego methamphetamine admissions (60 percent); injection is the principal route in a San Francisco sample of first-time admittees (71 percent).

In the San Francisco sample, 82 percent were males, 68 percent were white, and 68 percent were aged over 30; only 11 percent reported first use of methamphetamine later than December 1987. Among San Diego methamphetamine admissions, 38 percent were white males, and 43 percent were white females. In Colorado, 65 percent of amphetamine admissions were male, 84 percent were white, and average age was up (to 30.5 years).

Amphetamine-positive results among Los Angeles arrestees has remained constant, averaging around 6 percent. Among San Diego arrestees, however, the amphetamine-positive rate has been decreasing over the last two quarters. Ice investigations in Honolulu are down from 33 to 18 cases per month (first 7 months of 1990 and 1991).

The price of ice in Hawaii has more than doubled in a year (table 30). Methamphetamine prices remain stable in Phoenix. Widespread availability is reported for clandestinely produced high-purity crystal methamphetamine in Seattle and for methamphetamine in Colorado.

Table 30. Stimulant prices and purity in the West

| Area | Stimulant | Purity | Price/Unit |
|-----------------|-----------------------------------|----------------------------------|--|
| Denver (DEA) | Methamphetamine | 60-95 | \$80-\$125/gm \$1.2K-\$1.8K/oz |
| Denver (Police) | Methamphetamine | N/R | \$50-\$75/gm \$150-\$200/1/8 oz \$300-\$350/1/4 oz \$20K-\$27K/kg |
| Honolulu | Ice | N/R | \$21K/oz |
| Los Angeles | Powder or crystal methamphetamine | N/R | \$700-\$1K/oz |
| Phoenix | Methamphetamine | N/R | \$80-\$100/gm \$600-\$1K/oz \$10K-\$12K/lb |
| San Diego | N/R | N/R | N/R |
| San Francisco | N/R | N/R | N/R |
| Seattle | Crystal methamphetamine | 15-60 50-80 70-90 80-90 | \$20-\$60/.25 gm \$100-\$150/gm \$1K-\$1.5K/oz \$10K-\$20K/lb |

California and Washington rank first and third (Texas is second) in number of clandestine drug labs (DEA). In Colorado, biker gangs remain heavily involved in methamphetamine manufacture and distribution (DEA). In Phoenix, methamphetamine manufacture and sales are connected with heavy violence and advanced weaponry; "gourmet cooks" in that area use sophisticated techniques, such as adding food color.

Two multimillion-dollar ice seizures took place in Honolulu in fall 1991. After steadily increasing since 1983, the number of methamphetamine samples seized in Seattle dropped in 1990. Most precursor chemicals destined for Pacific Northwest methamphetamine labs are smuggled across the Canadian-Washington State land border: several significant precursor seizures have occurred at the Blaine, Washington, point of entry. Phenylacetic acid was involved in one-quarter of these seizures. In Phoenix, the ephedrine reduction method remains the most common methamphetamine production method.

BARBITURATES, ANTIDEPRESSANTS, AND SEDATIVES/HYPNOTICS

1. Eastern Region

While ER mentions within this drug category have decreased slightly from April 1990 through March 1991 in New York, Boston, and Atlanta, they remain relatively high in this region. Specifically, diazepam ranks fourth in Philadelphia (787 mentions), fifth in New York (570

mentions—the leading mentioned psychoactive prescription drug), and sixth in Boston (513 mentions).

In Atlanta, barbiturates were detected in almost 5 percent of the urine samples screened at Grady Memorial Hospital emergency clinics from July 1990 through June 1991, a decrease from the preceding year; benzodiazepines were detected in 10 percent of the screened samples, a stable number from previous periods.

The price of "hits" (codeine and glutethimide) on Newark streets is about \$20 following an increase; availability of this combination has been decreasing. In Philadelphia, the same combination, known as "sets," is similarly limited in availability; it sells for \$30-\$40, double the early 1990 price (*see section on other opiates*).

2. Central Region

From January through October 1991, 16 reported suicides in Minneapolis/St. Paul were caused by tricyclic antidepressant toxicity. Fluoxetine (Prozac), was among the top five most frequently mentioned drugs in ER mentions.

In Detroit ER and treatment data, alprazolam, diazepam, propoxyphene, mellaril, amitriptyline, and barbiturates remain the most frequently mentioned drugs in this category. These drugs are also commonly reported as secondary and tertiary drugs among treatment admissions. In addition, the ME continues to find such drugs in combination with heroin and cocaine in decedents.

In Chicago, pharmaceutical depressants, known as "beans," are frequently used with heroin, methadone, propoxyphene, and codeine cough syrup. Chronic cocaine and speed abusers often take depressants along with these stimulants or at the conclusion of "runs" to help induce sleep and to reduce cravings for more stimulants. Mixing alcohol with other depressants is also common.

Diazepam is the most readily available and frequently used pharmaceutical depressant in Chicago. A 10-milligram tablet costs \$0.75-\$2.00. In Detroit, a few months ago, customs officials seized about 450,000 diazepam tablets at the Canadian border. In St. Louis, abuse of diazepam and alprazolam is reported mostly by clients in private treatment programs; fifth-ranking alprazolam ER mentions, totaling 289 in the latest 4 quarters, are stable.

3. Western Region

Sedative-related overdose deaths in Seattle, averaging 27.5 annually from 1987 to 1990, have declined to 10 through third quarter 1991 (nearly half involving diazepam); antidepressant overdose deaths, which had increased in 1990, are back down to 13 cases through third quarter 1991 (nearly one-third involving amitriptyline). In San Francisco, diazepam ME mentions

continue to cluster around 20 per half-year.

The mean ages of Seattle decedents have remained relatively constant: approximately 42 for sedative overdoses and 40 for antidepressant overdoses. Of the diazepam decedents in San Francisco, most were male (78 percent), white (86 percent), and over 30 (90 percent).

San Francisco diazepam ER mentions have been increasing slightly over the past 2 years; however, treatment staff note a decrease in diazepam evaluations.

HALLUCINOGENS

1. Eastern Region

LSD- and PCP-related ER mentions are low throughout this region. However, Miami hotline and school counselors report increased LSD use by adolescents. It is being sold in new dose levels, less potent than the "acid" of the 1960s and 1970s, leading to more frequent use, a concern to city officials. Similarly, LSD arrests and confiscations have increased in Boston. Although LSD has gained some attention in Washington, D.C., and its surrounding areas, indicators do not suggest a rise in use. It sells in that area for \$2-\$5 per dosage unit.

There were only 8 PCP ER mentions in Miami during April 1990-March 1991 and 12 in Boston during the fourth quarter of 1990. PCP indicators for 1990-1991 also show a decline in use in New York and in Washington, D.C. In New Jersey, two or three arrests for PCP possession occur every month.

Ketamine, or "Special K," is a hallucinogen and a veterinary anesthetic being used in New York City nightclubs. The substance is probably obtained in liquid form and boiled down to powder to be sold. Nevertheless, arrests for sale and use are rare.

2. Central Region

In New Orleans, PCP-related ER mentions during the first 3 months in 1991 totaled 17, up from 10 during the same 1990 period. PCP treatment admissions increased from 0 percent in 1990 to 0.6 percent in 1991. PCP prices are \$1,000-\$1,300 per liquid pound.

PCP ranks fourth among Chicago ER mentions in the latest quarter, with an 11-percent increase between the four-quarter periods ending March 1990 and March 1991. The drug is widely available in the African-American community on the South and West Sides, and it has scattered availability among Northwest-Side Hispanics. African-American users refer to it as "water," and prices are \$110-\$125 per 1/4 ounce and \$180-\$220 per 1/2 ounce. PCP is typically smoked, and it is sold in three forms: "mint leaf," tobacco sprayed with PCP and wrapped in foil (sold in \$10-\$20 quantities); "sherm sticks," cigarettes dipped in PCP (sold for \$30 each or cut into three equal parts and sold for \$10 apiece); and "happy sticks," tobacco sprayed with PCP, rolled

with cigarette papers, and sold as joints for \$10 each. PCP in powder form, or "tic," is used primarily by Hispanic youth on the Northwest Side. It appears beige in color, is packaged in aluminum foil, and sells for \$13-\$20 per bag.

LSD availability in suburban Chicago has reportedly increased markedly in 1991. Almost 5 percent of Chicago students in 1990 reported using LSD, PCP, or MDMA ("XTC"), during the preceding year.

According to DEA data, LSD is replacing MDMA as the drug of choice for New Orleans high school, college, and night club populations. Treatment admissions increased from 0 percent in 1990 to 3 percent in 1991; prices increased from \$4 per dose in 1988 to \$5-\$10 per dose in 1991.

Minneapolis/St. Paul law enforcement sources and suburban high school officials note increased activity involving both LSD and psilocybin mushrooms. Blotter acid is the most common form of LSD, followed by pyramids.

In Detroit, LSD, particularly in the form of microdots or small paper symbols, reappears periodically in small amounts. Most LSD treatment admissions are white males, and average admission age is early twenties. LSD microdots are reportedly sold as mescaline.

3. Western Region

Declines in Los Angeles PCP mentions in drug deaths appear to have bottomed out (45 in 1990). San Francisco ME data indicate almost no PCP abuse. No hallucinogen deaths have been reported in 1991 in either Colorado (following two to three such deaths per year since 1987) or Hawaii.

PCP-related ER mentions, fourth-ranking in Los Angeles, have declined there by over 41 percent (to 1,013 in April 1990-March 1991). In San Francisco, too, these mentions have declined precipitously.

Los Angeles PCP treatment admissions have dropped steeply on an annual basis (to 104 in the last quarter); Hispanics account for a large percentage of PCP admissions. In Colorado, primary hallucinogen users comprise 1.8 percent of the treatment population--a decline from the 2.6 percent each year since 1984. San Diego treatment facilities, however, note an increase in hallucinogens among adolescents.

Los Angeles arrestees continue to show low PCP-positive rates. An ounce of liquid PCP in that city sells for \$100-\$200.

LSD use is especially high among high school students in Phoenix. Law enforcement sources report increased LSD activity in Seattle, particularly among adolescent white males;

*Executive Summary: Hallucinogens/Other Drugs/Acquired Immunodeficiency Syndrome (AIDS)
Among Injection Drug Users (IDUs)*

additionally, LSD-related crisis and informational helpline calls, most of which involve adolescents, have recently doubled.

A resurgence of LSD is also reported in Denver, where prices are \$.75-\$1.50 (wholesale) and \$3-\$5 (retail) per dosage unit (60-150 micrograms). LSD is readily available in Phoenix at \$4 per hit and \$100-\$200 per sheet. Seattle prices of "blotter acid" have dropped to \$2-\$3 per hit and \$100-\$250 per 100 blotter; purity levels are variable, but generally lower than during the 1960s. Most Phoenix LSD comes from labs in Northern California; most Seattle LSD comes from Montana and Oregon.

OTHER DRUGS

A recent roundup of alleged steroid dealers and users in Phoenix is believed to be the Nation's largest. Needle use among Phoenix steroid users may increase their risk for hepatitis and AIDS.

Inhalant abuse was involved in six deaths in Minneapolis/St. Paul in 1990 and one so far in 1991. The proportion of inhalant abusers in Colorado treatment programs increased to 2.3 percent in the first half of 1991 following declines since 1984.

ACQUIRED IMMUNODEFICIENCY SYNDROME (AIDS) AMONG INJECTION DRUG USERS (IDUs)

As of October 1991, a total of 196,034 adults and adolescents in the United States have been diagnosed with AIDS and reported to the Centers for Disease Control. Of these, about 22 percent (43,964 people) have a history of injecting drug use as the sole risk factor and are classified as heterosexual IDUs. An additional 7 percent (13,722) have a history of injecting drug use and a homosexual or bisexual lifestyle; these individuals are classified as homosexual/bisexual IDUs. African-American and Hispanic minorities are overrepresented among IDUs with AIDS.

Exhibit 1 presents the total number of AIDS cases and the proportion of heterosexual and homosexual/bisexual IDU cases by locality. Also included is the percent of increase over the cases reported in the December 1990 CEWG Proceedings.

Individual States and cities vary widely in the frequency of AIDS cases and the proportionate cases related to injecting drug use as a singular or multiple risk factor. By far, New York City has the greatest number of AIDS cases: 33,580, representing 17.1 percent of the national figure. The reporting of cases has continued to increase over the years, but the number of actually diagnosed cases has been declining over the past year. The proportion of heterosexual IDUs increased slightly to 39 percent since the last CEWG reporting period; the proportion of

Executive Summary: Acquired Immunodeficiency Syndrome (AIDS) Among Injection Drug Users (IDUs)

homosexual/bisexual IDUs has remained level at 4 percent for the last five CEWG reporting periods.

Newark, by far, continues to have the highest proportion of injection-drug-use-related cases. Of the total 2,280 adult/adolescent cases reported as of August 1991, 73 percent were IDUs. Of that number, 69 percent were heterosexual IDUs. Other States and cities reporting substantial percentages of heterosexual IDUs among AIDS cases include Massachusetts (23 percent), Miami (22.3 percent), Michigan and Washington, D.C. (22 percent each). Several localities have substantial percentages of homosexual/bisexual IDUs among AIDS cases: Arizona (20 percent), Texas and Seattle (10 percent each), Colorado (9.9 percent), and San Francisco (9.1 percent).

The impact of injecting drug use upon heterosexual HIV transmission is evidenced by the 6,027 AIDS cases identified through October 1991 in the category of heterosexual contact with an IDU—a 17-percent increase over the number reported in June 1991.

Through October 1991, a total of 3,372 pediatric cases have been identified. Pediatric cases for which the mother has a history of injecting drug use, or heterosexual contact with an IDU, total 1,395 and 581 respectively—increases of 9 percent and 7 percent, respectively, over the number reported in June 1991.

EXHIBIT 1
EXECUTIVE SUMMARY
ACQUIRED IMMUNODEFICIENCY SYNDROME (AIDS) AMONG INJECTING DRUG USERS (IDUs)
AS REPORTED BY CEWG REPRESENTATIVES
DECEMBER 1991

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| City/State | Cumulative Number of Cases (Date of Report and Area Covered) | | | Percent Increase | Percent IDU (Heterosexual) | | | | Percent IDU (Homosexual/Bisexual) | | | |
|-------------------------------|---|-------------------------------|------------------|---------------------|----------------------------|--------|--------|--------|--------------------------------------|--------|--------|--------|
| | December 1990 | | December 1991 | | Jun 90 | Dec 90 | Jun 91 | Dec 91 | Jun 90 | Dec 90 | Jun 91 | Dec 91 |
| | Atlanta, GA | 4,148 (10/90-GA) | 5,588 (10/91-GA) | | 35 | 12.9 | 13.6 | 14.5 | 15 | 6.7 | 6.7 | 6.4 |
| Boston, MA | 3,414 (10/90-MA) | 4,414 (11/91-MA) | 29 | 20 | 20 | 22 | 23 | 4 | 4 | 4 | 4 | |
| Chicago, IL | 4,504 (09/90-IL) | 5,816 (09/91-IL) | 29 | 12 | 18 | 13 | 14 | 5 | N/R | N/R | N/R | |
| Dallas, TX | 11,000 (10/90-TX) | 14,240 (11/91-TX) | 29 | 6 | 7 | 7 | 8 | 10 | 10 | 10 | 10 | |
| Denver, CO | 1,539 (10/90-CO) | 1,973 (10/91-CO) | 28 | 5.7 | 5.6 | 5.6 | 5.8 | 9.7 | 9.6 | 9.8 | 9.9 | |
| Detroit, MI | 1,941 (11/90-MI) | 2,481 (10/91-MI) | 28 | 23 | 23 | 22 | 22 | 7 | 7 | 6 | 6 | |
| Honolulu, HI | 597 (09/90-HI) | 736 (06/91-HI) | 23 | 3.8 | 4 | 5 | 15 | 9.9 | 10 | 10 | N/R | |
| Los Angeles, CA | 9,640 (8/90-L.A. Co) | 12,502 (06/91-L.A. Co) | 30 | 4.1 | 4.2 | 4.5 | 4.6 | 7.8 | 7.5 | 7.2 | 7.2 | |
| Miami, FL ¹ | 3,948 (11/90-Dade Co) | 5,885 (11/91-Dade Co) | 49 | 18.3 | 19.2 | 20.3 | 22.3 | 3.9 | 3.8 | 3.9 | 4.3 | |
| Minneapolis, MN | 798 (11/90-MN) | 1,009 (11/91-MN) | 26 | 3 | 3 | 3 | 4 | 6 | 6 | 6 | 6 | |
| Newark, NJ ¹ | 1,897 (09/90-Newark) | 2,280 (08/91-Newark) | 20 | 69 | 68.8 | 69 | 69 | 4 | 6 | 4 | 4 | |
| New Orleans, LA ¹ | 2,193 (11/90-LA) | 2,893 (11/91-LA) | 32 | 6 | 8 | 8 | 9 | 10 | 10 | 10 | 10 | |
| New York, NY ¹ | 28,205 (08/90-NYC) | 33,580 (07/91-NYC) | 19 | 37 | 38 | 38 | 39 | 4 | 4 | 4 | 4 | |
| Philadelphia, PA ¹ | 2,072 (10/90-Phila.) | 2,620 (09/91-Phila.) | 26 | 13.8 | 14.7 | 14.8 | 16 | 8.1 | 8.2 | 8.5 | 8 | |
| Phoenix, AZ | 1,255 (10/90-AZ) | 1,533 (10/91-AZ) | 22 | 7.7 | 8.3 | 8 | 9 | 11.2 | 17 | 18 | 20 | |
| St. Louis, MO | 511 (04/90-St. Louis) | 2,112 (05/91-MO) ² | N/R | 3.1 | 4.4 | N/R | 6.9 | 4.6 | 5.7 | N/R | 7.3 | |
| San Diego, CA | 2,307 (10/90 S.D. Co) | 2,947 (10/91-S.D. Co) | 28 | 4.6 | 4.6 | 5 | 5 | 7.7 | 9 | 7 | 7 | |
| San Francisco, CA | 9,445 (10/90-S.F. Co) | 11,384 (10/91-S.F. Co) | 21 | 2.5 | 2.8 | 3 | 3.2 | 10.3 | 9.8 | 9.2 | 9.1 | |
| Seattle, WA ¹ | 1,476 (09/90-King Co) | 1,813 (06/91 King Co) | 23 | 2.8 | 3 | 3 | 3 | 10.1 | 10 | 9 | 10 | |
| Washington, DC | 2,593 (11/90-DC) | 3,172 (09/91-DC) | 22 | N/R | 13 | 11 | 15 | N/R | 6.4 | 7 | 6 | |
| Total U.S. ^{1,2} | 150,065 (11/90) | 196,034 (10/91) | 31 | 21 | 19 | 22 | 22 | 7 | 6 | 7 | 7 | |

¹Adult and Adolescent cases only

²Source: HIV/AIDS Surveillance, Centers for Disease Control

³Current data are statewide and cannot be compared to previous data, which were only citywide

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CEWG December 1991

DRUG/LAB SEIZURE ACTIVITY REPORTS

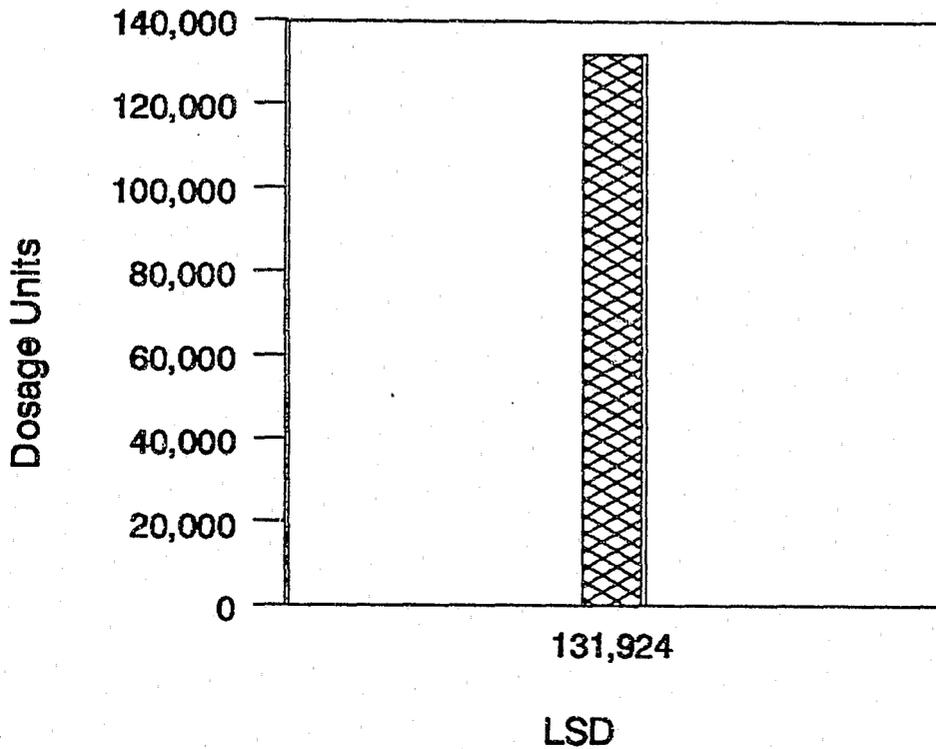
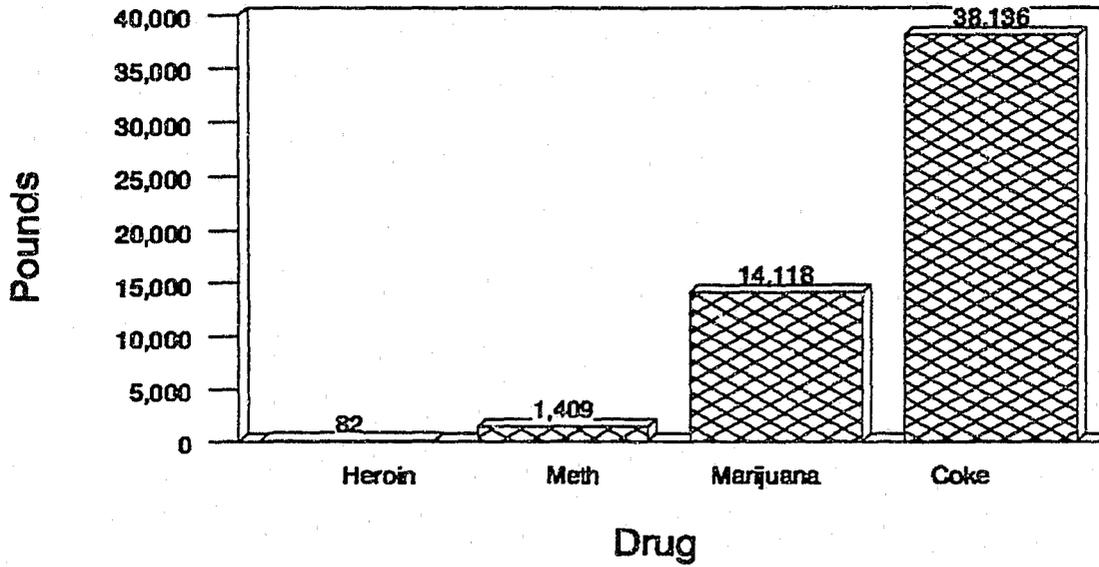
**Statewide Epidemiology Work Group Meeting
Spring Meeting - April 30 & May 1, 1991**

**California Bureau of Narcotic Enforcement
Operations Support Section
Planning and Research Unit**

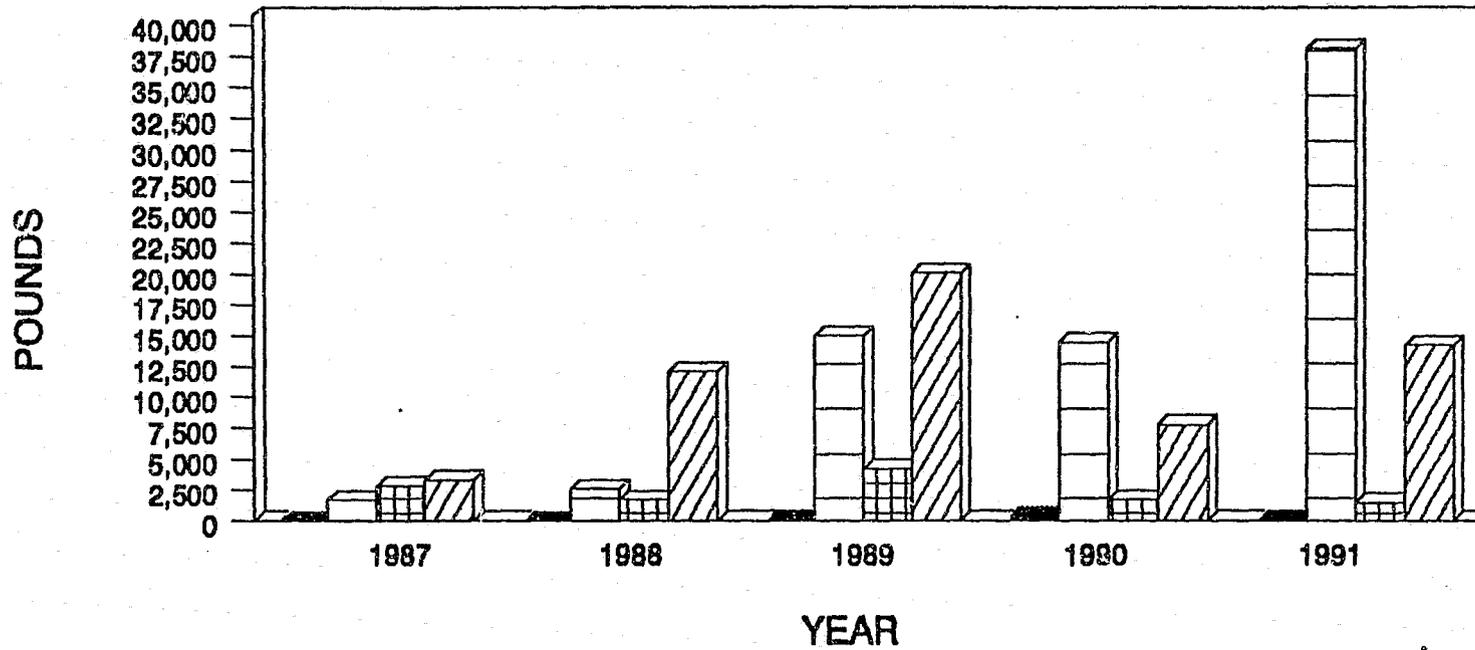
**By: Linda M. Slater
Criminal Intelligence Specialist III**

BNE Drug Seizure Activity Report

1991



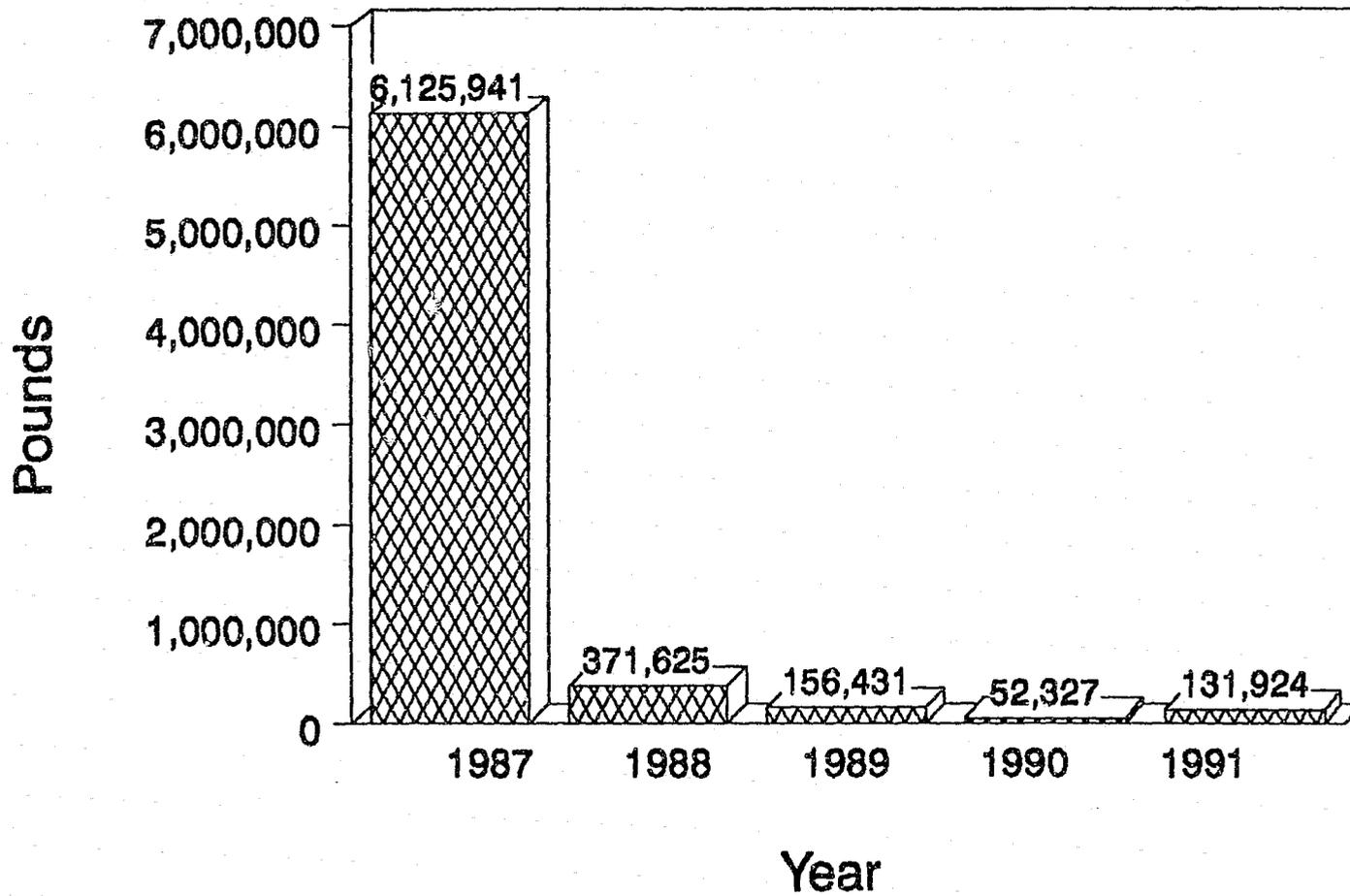
BNE DRUG SEIZURE ACTIVITY REPORT



Heroin
 Cocaine
 Meth
 Marijuana

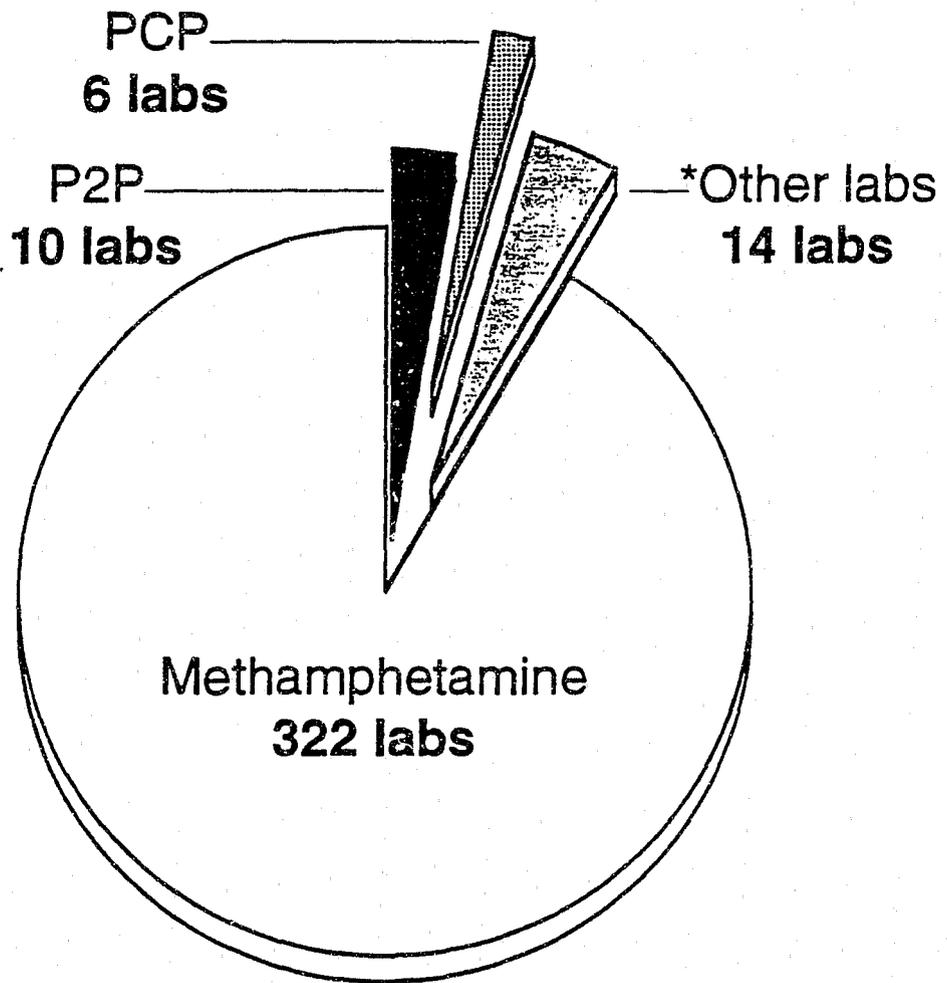
| | 1987 | 1988 | 1989 | 1990 | 1991 |
|-----------|-------|--------|--------|--------|--------|
| Heroin | 50 | 34 | 90 | 459 | 82 |
| Cocaine | 1,888 | 2,573 | 14,958 | 14,403 | 38,138 |
| Meth | 2,811 | 1,684 | 4,247 | 1,686 | 1,409 |
| Marijuana | 3,323 | 12,012 | 20,027 | 7,777 | 14,118 |

LSD SEIZURE ACTIVITY REPORT



BUREAU OF NARCOTIC ENFORCEMENT

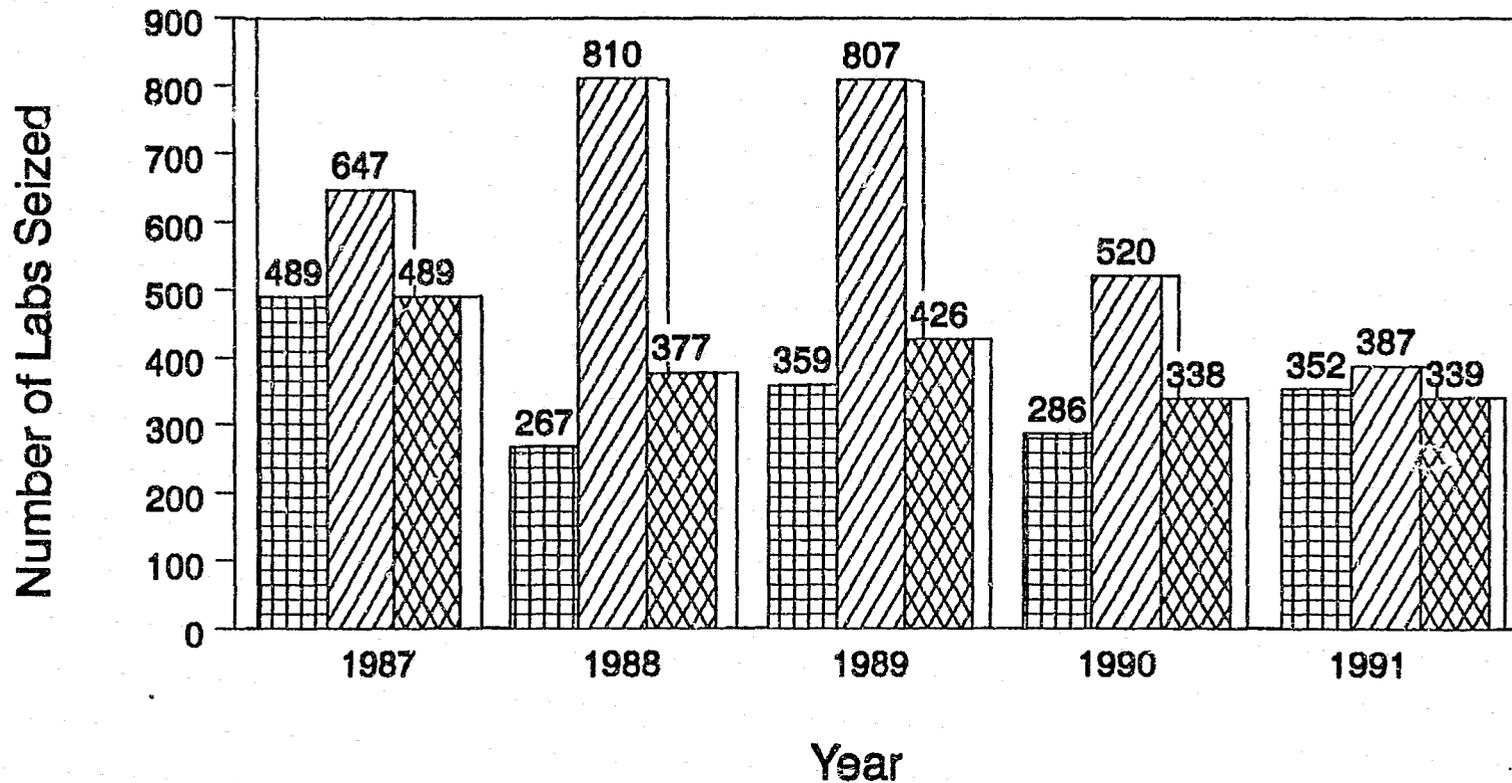
**CLANDESTINE LAB SEIZURES
BY BNE IN 1991**



*Other Labs
include:

- 1 Designer Drug
- 1 Methadone
- 1 MDA
- 1 Hydriodic Acid
- 3 Hashish
- 2 Undetermined
- 1 Fentanyl
- 1 Methaqualone
- 1 Steroid
- 1 4 Bromo/25 Dioxymethyl Phenmetrizine
- 1 Cocaine Conversion

LAB SEIZURE ACTIVITY REPORT



*BNE/LAB T.F.
 *DEA
 **WSIN

*These numbers represent agency participation in lab seizures.

**These numbers represent lab seizures reported to WSIN.

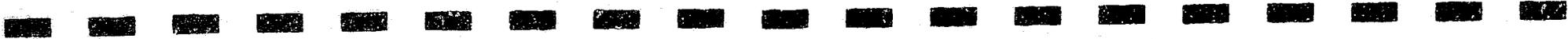
The 1991 figure is an estimate.

TREATMENT NEEDS ASSESSMENT SUMMARY MATRIX

State:

| 1. SUBSTATE PLANNING AREA | 2. Total population | 3. Total population | | 4. Number of IVDU's | | 5. Number of women | | 6. Prevalence of drug-related criminal activity | | | 7. Incidence of communicable diseases transmitted through IVDU | | | | | | | |
|---------------------------|---------------------|-------------------------------|------------------------------|-------------------------------|------------------------------|-------------------------------|------------------------------|---|--|--|--|--|--|--|--|--|--|--|
| | | A. Needing treatment services | B. That would seek treatment | A. Needing treatment services | B. That would seek treatment | A. Needing treatment services | B. That would seek treatment | Please provide subheadings | | | Please provide subheadings | | | | | | | |
| <i>58 Counties</i> | | | | | | | | | | | | | | | | | | |
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DRUG/LAB SEIZURE ACTIVITY REPORTS

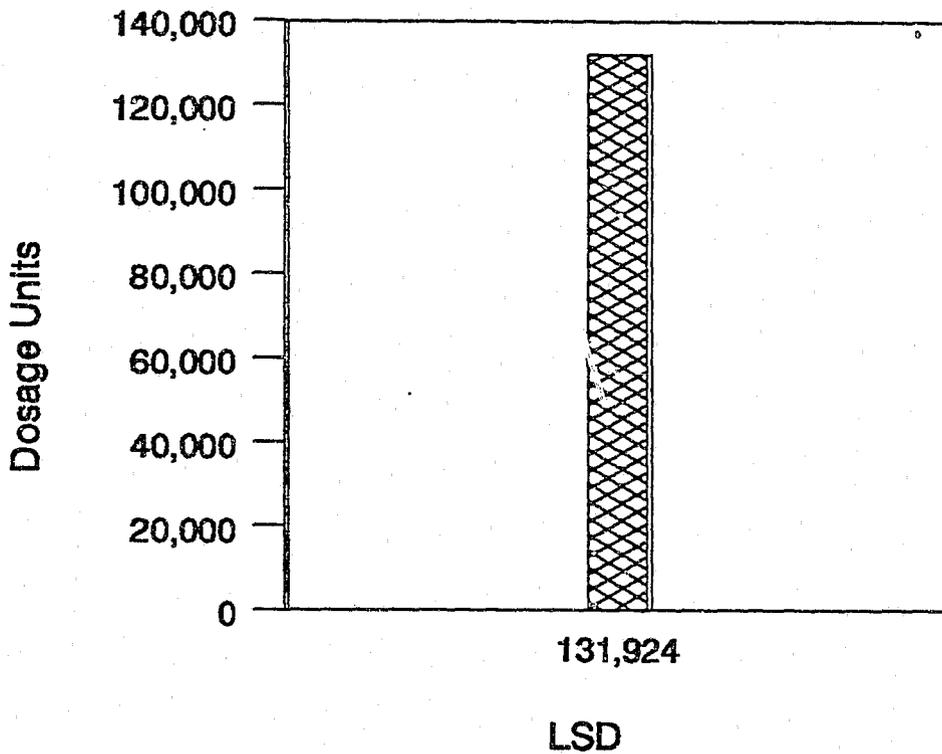
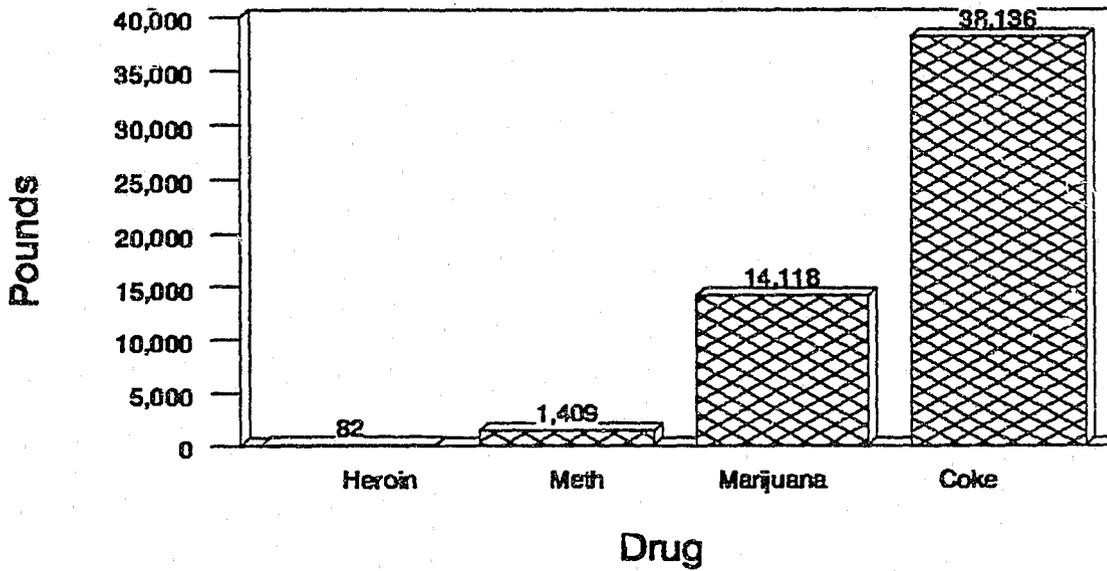
**Statewide Epidemiology Work Group Meeting
Spring Meeting - April 30 & May 1, 1991**

**California Bureau of Narcotic Enforcement
Operations Support Section
Planning and Research Unit**

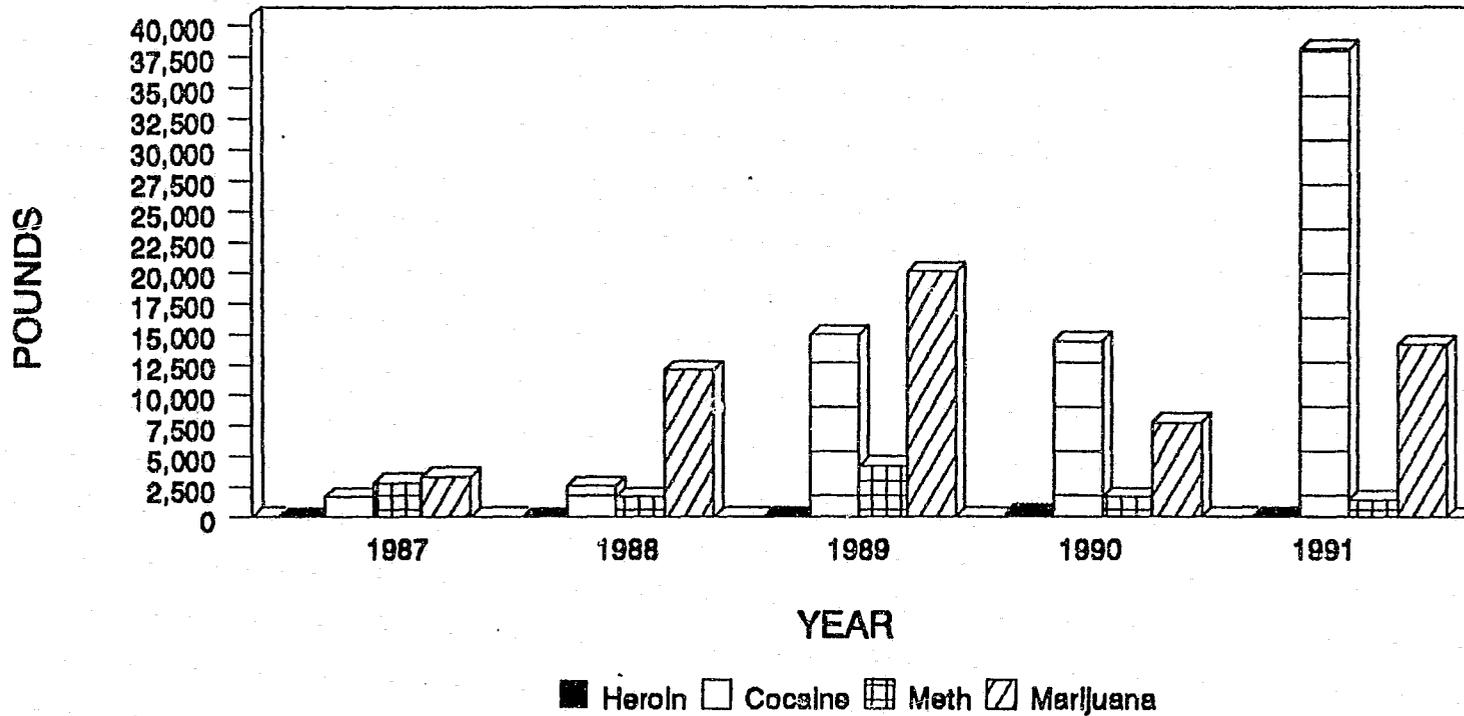
**By: Linda M. Slater
Criminal Intelligence Specialist III**

BNE Drug Seizure Activity Report

1991

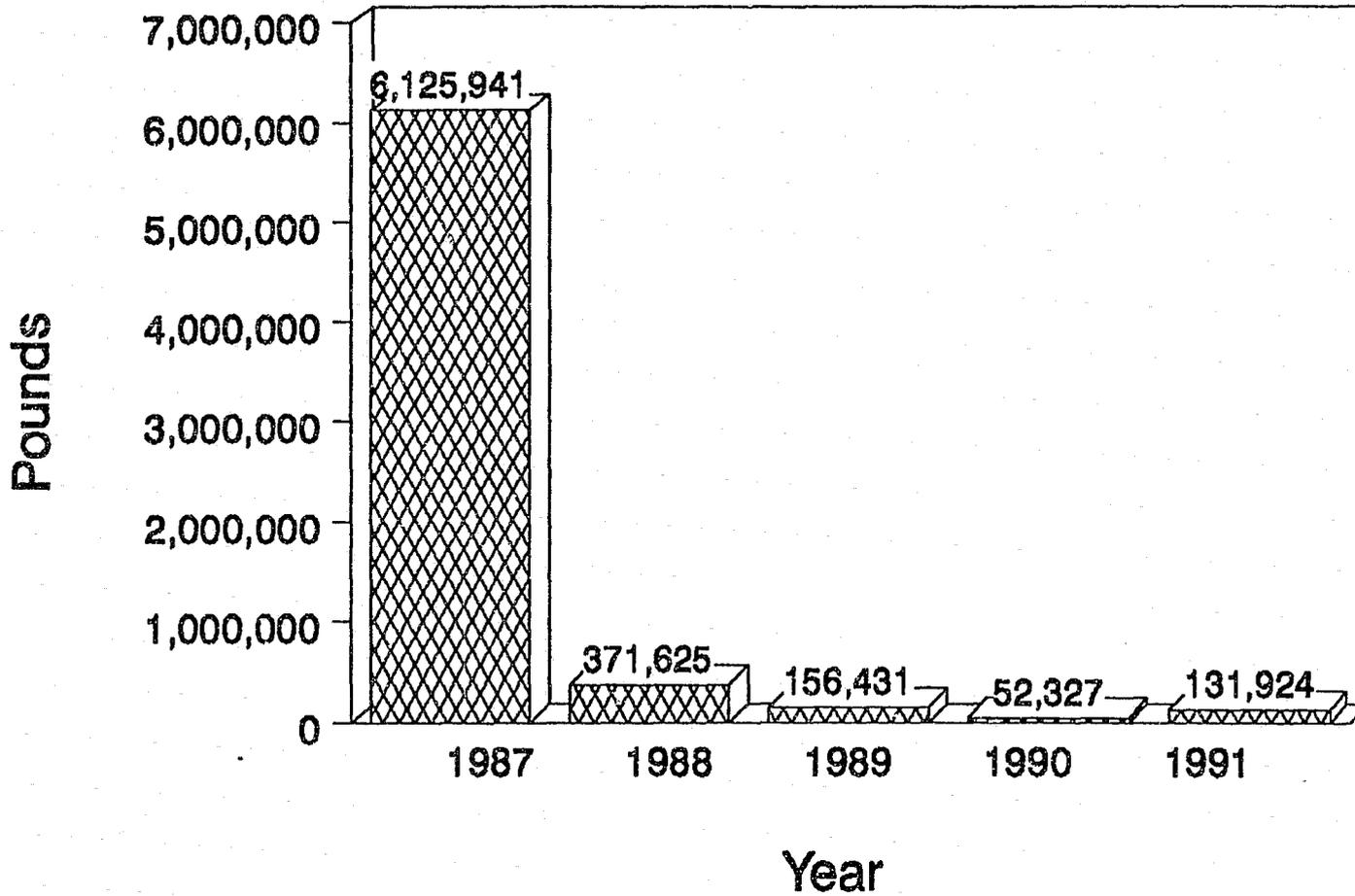


BNE DRUG SEIZURE ACTIVITY REPORT



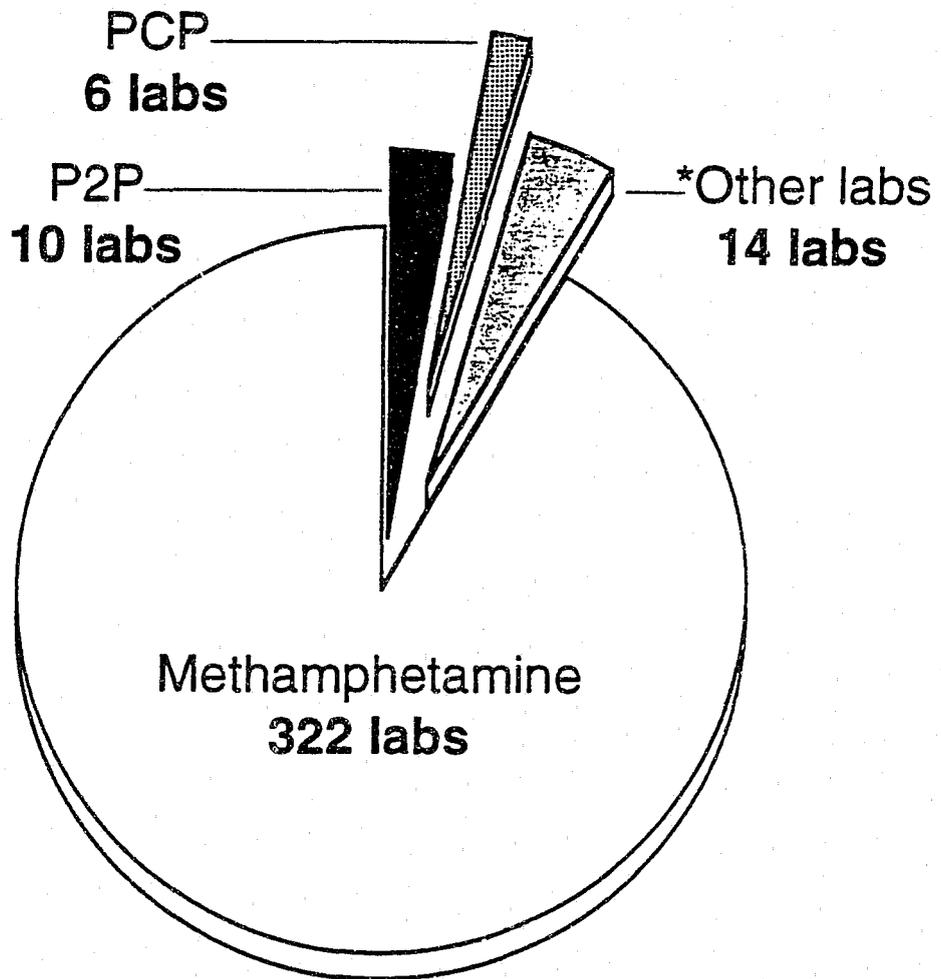
| | 1987 | 1988 | 1989 | 1990 | 1991 |
|-----------|-------|--------|--------|--------|--------|
| Heroin | 50 | 34 | 90 | 459 | 82 |
| Cocaine | 1,888 | 2,573 | 14,956 | 14,403 | 38,136 |
| Meth | 2,811 | 1,684 | 4,247 | 1,686 | 1,409 |
| Marijuana | 3,323 | 12,012 | 20,027 | 7,777 | 14,118 |

LSD SEIZURE ACTIVITY REPORT



BUREAU OF NARCOTIC ENFORCEMENT

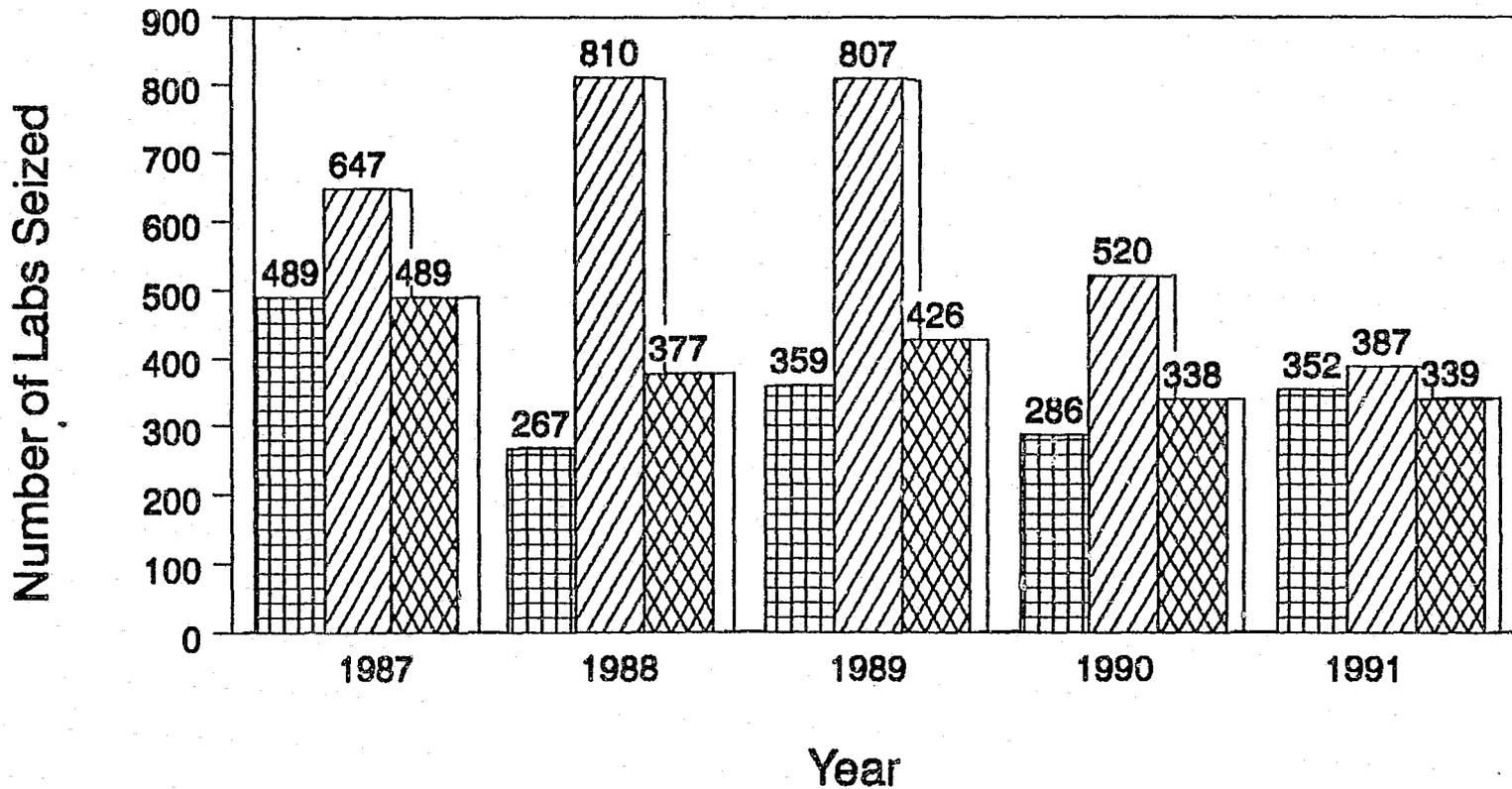
CLANDESTINE LAB SEIZURES BY BNE IN 1991



*Other Labs
include:

- 1 Designer Drug
- 1 Methadone
- 1 MDA
- 1 Hydriodic Acid
- 3 Hashish
- 2 Undetermined
- 1 Fentanyl
- 1 Methaqualone
- 1 Steroid
- 1 4 Bromo/25 Dioxymethyl Phenmetrizine
- 1 Cocaine Conversion

LAB SEIZURE ACTIVITY REPORT



*BNE/LAB T.F.
 *DEA
 **WSIN

*These numbers represent agency participation in lab seizures.

**These numbers represent lab seizures reported to WSIN.

The 1991 figure is an estimate.

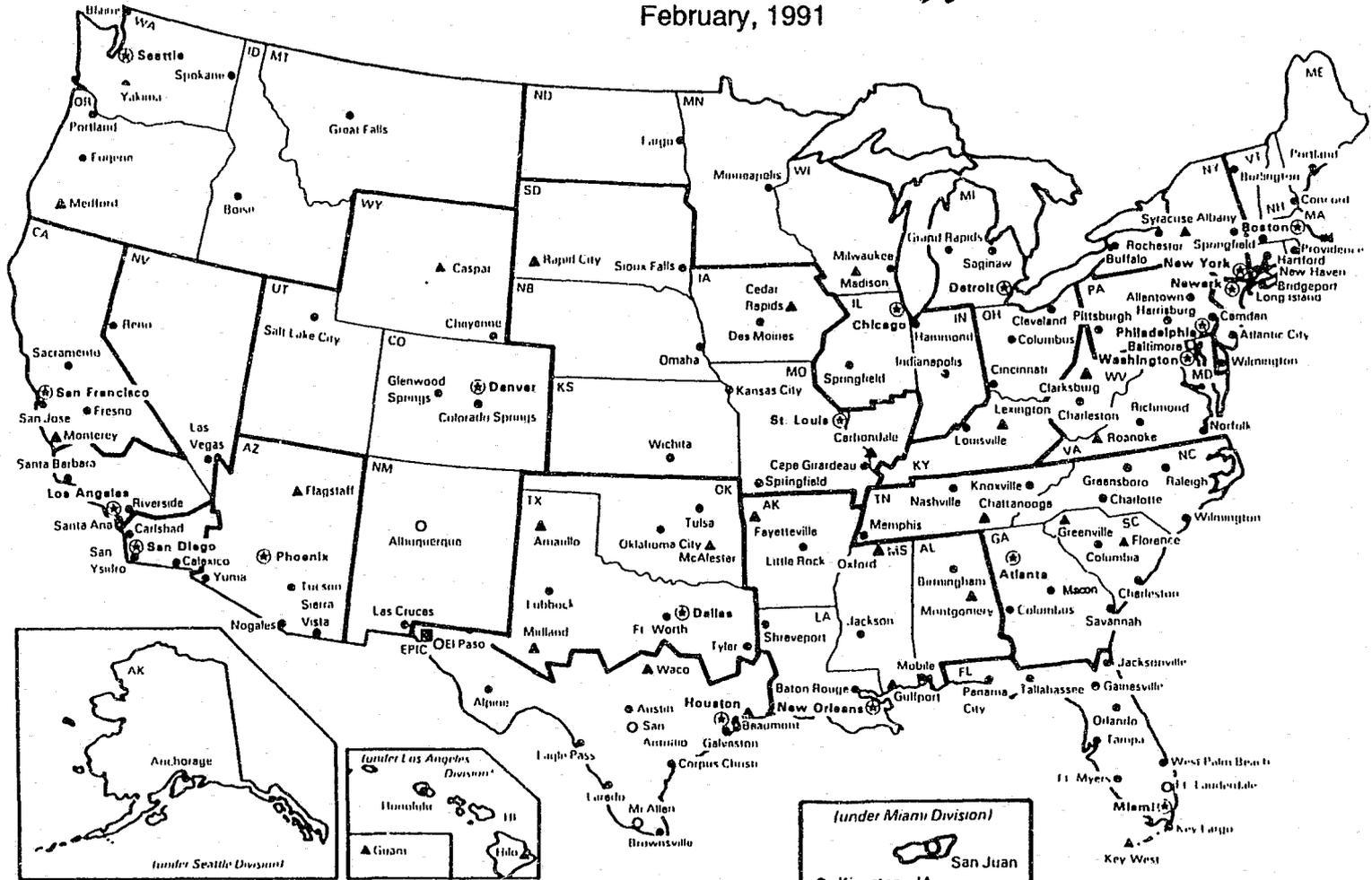
APPENDIX E

DOMESTIC RECORD SEIZURES

William Davis, DEA

DEA Domestic Offices

February, 1991



- (under Miami Division)
- Kingston, JA
 - Nassau, BI
 - Santo Domingo, DR
 - St. Thomas, VI
 - Port au-Prince, HT
 - Bridgetown, BB

- ⊙ Division Office
- District Office
- ⊠ El Paso Intelligence Center
- Resident Office
- ▲ Post of Duty

Briefing



Book

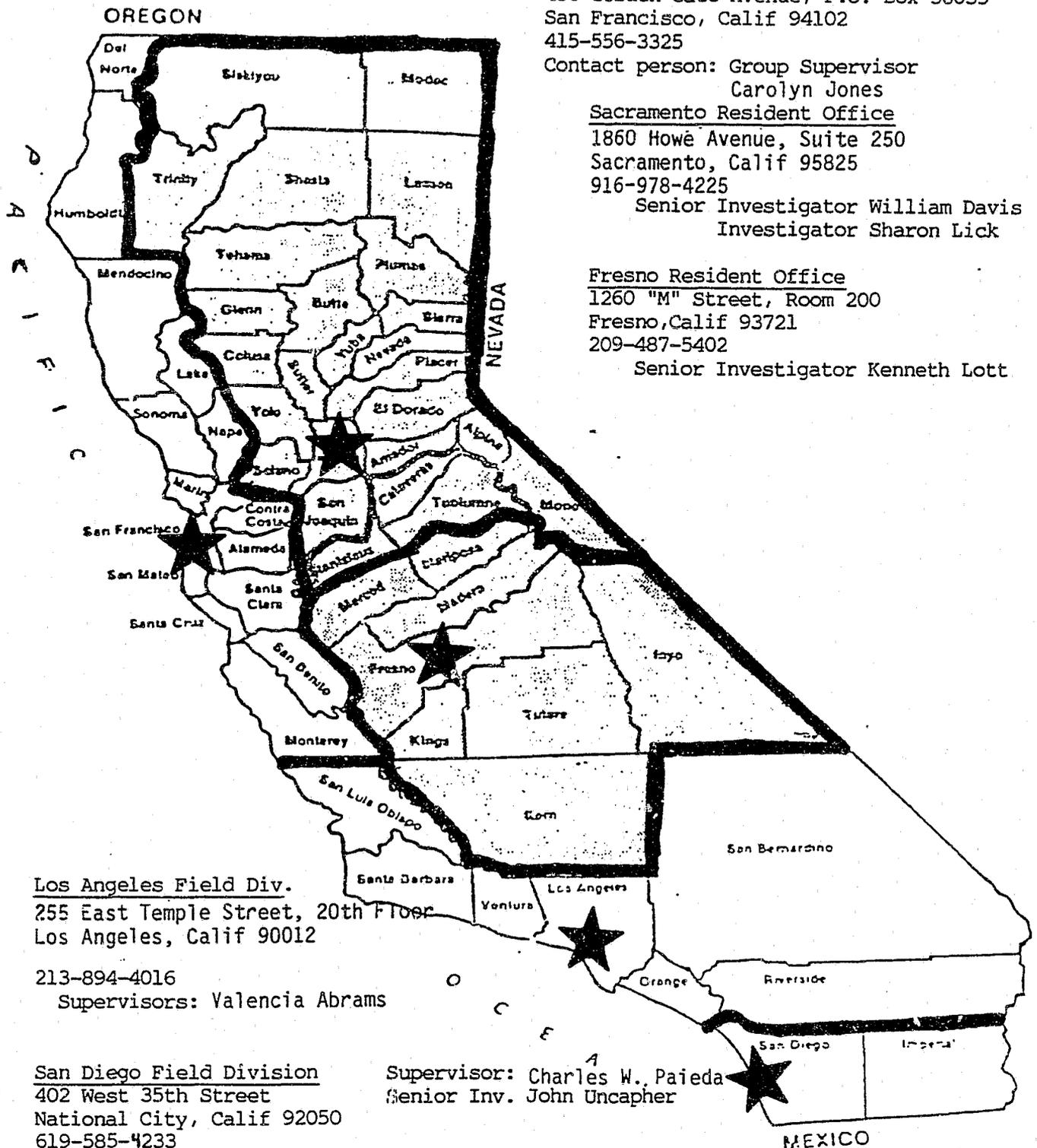
86



U.S. Department of Justice

Drug Enforcement Administration

LOCATIONS OF DIVERSION INVESTIGATORS IN CALIFORNIA



Federal Trafficking Penalties

As of November 18, 1988*

| CSA | PENALTY | | Quantity | DRUG | Quantity | PENALTY | |
|------------------|---|---|--|------------------------|---|---|--|
| | 2nd Offense | 1st Offense | | | | 1st Offense | 2nd Offense |
| I and II | Not less than 10 years. Not more than life. If death or serious injury, not less than life. Fine of not more than \$4 million individual, \$10 million other than individual. | Not less than 5 years. Not more than 40 years. If death or serious injury, not less than 20 years. Not more than life. Fine of not more than \$2 million individual, \$5 million other than individual. | 10-99 gm or 100-999 gm mixture | METHAMPHETAMINE | 100 gm or more or 1 kg ¹ or more mixture | Not less than 10 years. Not more than life. If death or serious injury, not less than 20 years. Not more than life. Fine of not more than \$4 million individual, \$10 million other than individual. | Not less than 20 years. Not more than life. If death or serious injury, not less than life. |
| | | | 100-999 gm mixture | HEROIN | 1 kg or more mixture | | |
| | | | 500-4,999 gm mixture | COCAINE | 5 kg or more mixture | | |
| | | | 5-49 gm mixture | COCAINE BASE | 50 gm or more mixture | | |
| | | | 10-99 gm or 100-999 gm mixture | PCP | 100 gm or more or 1 kg or more mixture | | |
| | | | 1-10 gm mixture | LSD | 10 gm or more mixture | | |
| | | | 40-399 gm mixture | FENTANYL | 400 gm or more mixture | | |
| 10-99 gm mixture | FENTANYL ANALOGUE | 100 gm or more mixture | | | | | |
| | Drug | Quantity | First Offense | | | Second Offense | |
| | Others ² | Any | Not more than 20 years. If death or serious injury, not less than 20 years, not more than life. Fine \$1 million individual, \$5 million not individual. | | | Not more than 30 years. If death or serious injury, life. Fine \$2 million individual, \$10 million not individual. | |
| III | All | Any | Not more than 5 years. Fine not more than \$250,000 individual, \$1 million not individual. | | | Not more than 10 years. Fine not more than \$500,000 individual, \$2 million not individual. | |
| IV | All | Any | Not more than 3 years. Fine not more than \$250,000 individual, \$1 million not individual. | | | Not more than 8 years. Fine not more than \$500,000 individual, \$2 million not individual. | |
| V | All | Any | Not more than 1 year. Fine not more than \$100,000 individual, \$250,000 not individual. | | | Not more than 2 years. Fine not more than \$200,000 individual, \$500,000 not individual. | |

*Effective 2/27/91, anabolic steroids were reclassified as Schedule III drugs and fall under the sentencing guidelines outlined above.

1. Law as originally enacted states 100 gm. Congress requested to make technical correction to 1 kg.
2. Does not include marijuana, hashish, or hash oil, which are listed on chart on page 20.

Ernstling



Boak

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Federal Trafficking Penalties - Marijuana*

As of November 18, 1988

| Quantity | Description | First Offense | Second Offense |
|---|---|---|---|
| 1,000 kg or more; or 1,000 or more plants | Marijuana Mixture containing detectable quantity ** | Not less than 10 years, not more than life. If death or serious injury, not less than 20 years, not more than life. Fine not more than \$4 million Individual, \$10 million other than Individual. | Not less than 20 years, not more than life. If death or serious injury, not less than life. Fine not more than \$8 million Individual, \$20 million other than Individual. |
| 100 kg to 1,000 kg; or 100-999 plants | Marijuana Mixture containing detectable quantity ** | Not less than 5 years, not more than 40 years. If death or serious injury, not less than 20 years, not more than life. Fine not more than \$2 million Individual, \$5 million other than Individual. | Not less than 10 years, not more than life. If death or serious injury, not less than life. Fine not more than \$4 million Individual, \$10 million other than Individual. |
| 50 to 100 kg | Marijuana | Not more than 20 years. If death or serious injury, not less than 20 years, not more than life. Fine \$1 million Individual, \$5 million other than Individual. | Not more than 30 years. If death or serious injury, life. Fine \$2 million Individual, \$10 million other than Individual. |
| 10 to 100 kg | Hashish | | |
| 1 to 100 kg | Hashish Oil | | |
| 50-99 plants | Marijuana | | |
| Less than 50 kg | Marijuana | Not more than 5 years. Fine not more than \$250,000, \$1 million other than Individual. | Not more than 10 years. Fine \$500,000 Individual, \$2 million other than Individual. |
| Less than 10 kg | Hashish | | |
| Less than 1 kg | Hash Oil | | |

*Marijuana is a Schedule I controlled substance.

**Includes hashish and hash oil

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Briefing



Book



DEA

Domestic Record Seizures

Heroin

| | | |
|---------------|-----------------------------|---|
| May 25, 1988 | Chicago, IL 227 lbs. | (Chicago Field Division.) (102.8 kgs.) |
| June 23, 1985 | Seattle, WA 216 lbs. | (Seattle Field Division) (97.9 kgs.) |
| Aug. 31, 1988 | Boston, MA 173 lbs. | (Boston Field Division) (74.8 kgs.) |
| Feb. 10, 1988 | Chicago, IL 156 lbs. | (Chicago Field Division) (70.6 kgs.) |
| Dec. 14, 1987 | JFK Airport, NY 154 lbs. | (New York Field Division) (70.1 kgs.) |

Cocaine

| | | |
|-----------------|--------------------------------|---|
| Sept. 28, 1989 | Sylmar, CA 47,377 lbs | (Los Angeles Field Division) (21,490.4 kgs.) |
| Oct. 5, 1989 | New Orleans, LA 12,210 lbs. | (New Orleans Field Division) (5,537.5 kgs.) |
| Nov. 9, 1989 | New York, NY 10,486 lbs. | (New York Field Division) (4,763 kgs.) |
| Nov 17-18, 1987 | Ft. Everglades 8,717 lbs. | (Miami Field Division) (3,953.9 kgs.) |
| May 3, 1988 | Tarpon Springs 7,282 lbs. | (Miami Field Division) " (3,303.0 kgs.) |

**Marijuana**

| | | |
|----------------|-----------------------------------|--|
| July 8, 1982 | Morehead City, NC 303,870 lbs. | (Atlanta Field Division) (137,835.4 kgs.) |
| June 22, 1982 | Fayetteville, NC 199,390 lbs. | (Atlanta Field Division) (90,443.1 kgs.) |
| March 21, 1979 | Cape May, NJ 194,228 lbs. | (Newark Field Division) (88,101.9 kgs.) |
| Sept. 20, 1983 | Castle Dale, UT 178,121 lbs. | (Denver Field Division) (80,795.7 kgs.) |
| Oct. 13, 1985 | Jacksonville, FL 165,186 lbs. | (Miami Field Division) (74,486.9 kgs.) |

Hashish

| | | |
|---------------|----------------------------------|---|
| May 24, 1988 | San Francisco, CA 75,066 lbs. | (San Francisco Field Division) (34,050.2 kgs.) |
| Nov. 3, 1983 | Cape May, NJ 29,991 lbs. | (Newark Field Division) (13,604.1 kgs.) |
| March 6, 1985 | Newark, NJ 20,278 lbs. | (Newark Field Division) (9,198.0 kgs.) |
| Jan. 7, 1981 | Norfolk, VA 6,609 lbs. | (Wash. D.C. Field Division) (2,998.0 kgs.) |
| Nov. 2, 1981 | Charleston, SC 5,099 lbs. | (Wash. D.C. Field Division) (2,312.9 kgs.) |

Methamphetamine

| | | |
|---------------|--|---------------------------------|
| Oct. 27, 1989 | Hayward, CA 88,900,900 dosage units - (seizure) | (San Francisco Field. Division) |
|---------------|--|---------------------------------|

LSD

| | | |
|---------------|---|--------------------------|
| Feb. 11, 1981 | Bellingham, WA 25,004,862 dosage units | (Seattle Field Division) |
|---------------|---|--------------------------|

PCP

| | | |
|---------------|--|------------------------------|
| Aug. 29, 1989 | Santa Monica, CA 7,866,061 dosage units | (Los Angeles Field Division) |
|---------------|--|------------------------------|



National Record Seizures*

| | | | |
|-----------|---------------|-------------------|----------------|
| Heroin | 820 lbs. | NYC (Queens) | Feb. 21, 1989 |
| Cocaine | 47,278.9 lbs. | Sylmar, CA | Sept. 29, 1989 |
| Marijuana | 225,300 lbs. | M/V Heidi, FL | Aug. 8, 1979 |
| Hashish | 75,000 lbs. | San Francisco, CA | May 24, 1988 |

International Record Seizures*

| | | | |
|---------------|----------------|--------------------|---------------|
| Heroin | 2,816 lbs. | Bangkok, Thailand | Feb. 11, 1988 |
| Cocaine | 22,000 lbs. | Tranquilandi, Col. | Mar. 10, 1984 |
| Marijuana | 4,260,000 lbs. | Mexico | Nov. 8, 1984 |
| Hashish | 27,385 lbs. | Pakistan | Nov. 1, 1973 |
| Opium | 27,940 lbs. | Iran | Feb. 10, 1972 |
| Morphine Base | 574 lbs. | Thailand | Feb. 6, 1973 |

*(Information compiled from the records of the Cocaine, Heroin and Cannabis Investigations Sections of DEA.)

EXHIBIT 1

LOS ANGELES
 DRUG-RELATED DEATHS IN LOS ANGELES COUNTY
 BY DRUG CATEGORY/TYPE
 JANUARY 1989 - MARCH 1991 BY QUARTERS
 PERCENTAGE OF TOTAL MENTIONS

| DRUG CATEGORY/TYPE | 1989 | | | | 1990 | | | | 1991 |
|---|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| | JAN-MAR | APR-JUN | JUL-SEP | OCT-DEC | JAN-MAR | APR-JUN | JUL-SEP | OCT-DEC | JAN-MAR |
| | (%) | (%) | (%) | (%) | (%) | (%) | (%) | (%) | (%) |
| Alcohol-in-combination | (17.3) | (18.4) | (17.3) | (17.1) | (15.4) | (15.2) | (14.4) | (17.7) | (14.7) |
| Amphetamine | (0.5) | (1.0) | (1.2) | (1.0) | (1.2) | (1.3) | (1.8) | (3.8) | (3.3) |
| Cocaine | (25.7) | (21.5) | (25.4) | (21.4) | (18.6) | (17.5) | (18.9) | (21.2) | (18.3) |
| Codeine | (9.0) | (12.0) | (10.4) | (11.2) | (11.2) | (9.6) | (9.0) | (7.2) | (9.7) |
| Diazepam | (0.8) | (0.5) | (1.2) | (1.7) | (0.9) | (1.6) | (2.8) | (2.6) | (3.3) |
| Heroin/Morphine | (18.6) | (19.4) | (17.2) | (18.4) | (21.1) | (20.6) | (15.7) | (13.6) | (13.6) |
| Methadone | (1.3) | (1.2) | (0.5) | (1.3) | (0.9) | (0.6) | (0.6) | (1.0) | (1.4) |
| Methamphetamine/Speed | (1.6) | (1.0) | (1.8) | (1.9) | (2.2) | (1.6) | (2.6) | (4.5) | (4.2) |
| PCP/PCP combinations | (1.8) | (2.5) | (3.0) | (2.3) | (1.8) | (1.9) | (2.8) | (1.4) | (2.8) |
| TOTAL MENTIONS | 619 | 806 | 594 | 688 | 667 | 612 | 541 | 419 | 360 |
| TOTAL EPISODES | 276 | 325 | 256 | 287 | 295 | 276 | 231 | 183 | 160 |
| AVERAGE NUMBER OF MENTIONS PER EPISODE | 2.2 | 2.5 | 2.3 | 2.4 | 2.2 | 2.2 | 2.3 | 2.3 | 2.2 |

NOTE: Mentions equal the number of drugs involved in each death.
 Episodes equal the number of persons who died as a result of drug use.

SOURCE: National Institute on Drug Abuse, Drug Abuse Warning Network, March 1991 data file

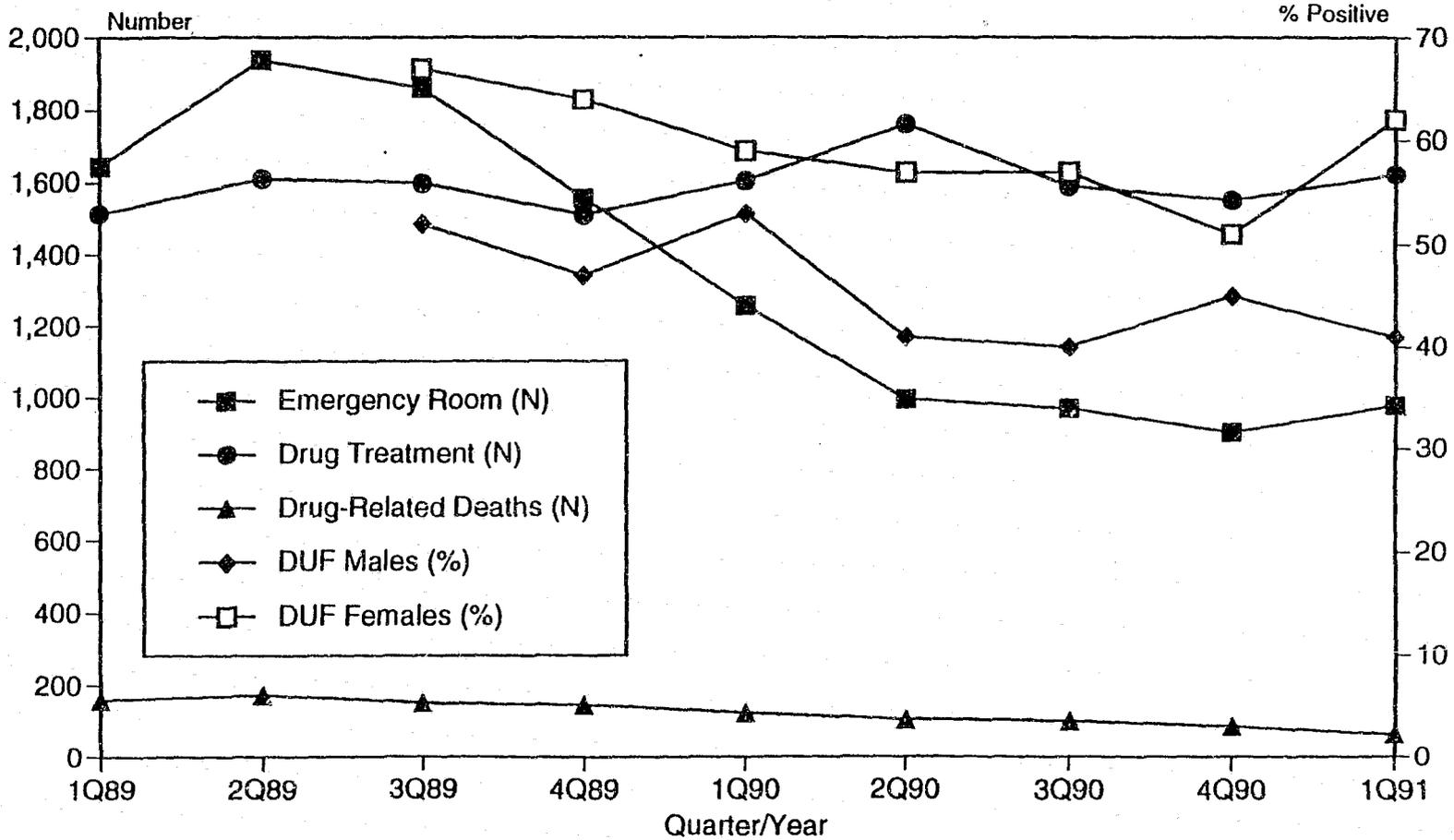
LOS ANGELES
EMERGENCY ROOM ADMISSIONS IN LOS ANGELES COUNTY
BY DRUG CATEGORY/TYPE
JANUARY 1989 - MARCH 1991 BY QUARTERS
PERCENTAGE OF TOTAL MENTIONS

| DRUG CATEGORY/TYPE | 1989 | | | | 1990 | | | | 1991 |
|---|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| | JAN-MAR | APR-JUN | JUL-SEP | OCT-DEC | JAN-MAR | APR-JUN | JUL-SEP | OCT-DEC | JAN-MAR |
| | (%) | (%) | (%) | (%) | (%) | (%) | (%) | (%) | (%) |
| Alcohol-in-combination | (14.8) | (16.5) | (16.7) | (15.9) | (17.0) | (16.6) | (16.2) | (17.0) | (17.4) |
| Cocaine | (19.6) | (18.8) | (19.7) | (16.6) | (15.3) | (12.4) | (13.0) | (13.5) | (13.9) |
| Heroin/Morphine | (12.0) | (9.7) | (9.8) | (9.0) | (9.4) | (9.0) | (6.5) | (6.3) | (4.7) |
| Marijuana/Hashish | (3.0) | (3.1) | (4.2) | (4.2) | (4.0) | (3.9) | (3.3) | (3.2) | (3.8) |
| Diazepam | (2.4) | (2.3) | (2.2) | (1.8) | (2.1) | (2.2) | (1.8) | (2.4) | (1.6) |
| Acetaminophen/Codeine | (1.2) | (0.9) | (1.3) | (1.1) | (1.4) | (1.2) | (0.9) | (1.5) | (1.2) |
| Methamphetamine/Speed | (1.5) | (1.0) | (1.4) | (1.8) | (1.3) | (1.3) | (1.6) | (1.8) | (2.2) |
| PCP/PCP combinations | (5.5) | (5.2) | (5.1) | (4.8) | (3.1) | (3.2) | (3.9) | (4.3) | (3.8) |
| All Other Drugs | (40.1) | (42.6) | (39.6) | (44.8) | (46.7) | (49.8) | (52.2) | (50.0) | (51.4) |
| TOTAL MENTIONS | 8,403 | 10,299 | 9,432 | 9,373 | 8,208 | 8,039 | 7,441 | 6,697 | 7,072 |
| TOTAL EPISODES | 5,708 | 6,850 | 5,886 | 5,522 | 4,760 | 4,663 | 4,267 | 3,900 | 4,085 |
| AVERAGE NUMBER OF MENTIONS PER EPISODE | 1.5 | 1.5 | 1.6 | 1.7 | 1.7 | 1.7 | 1.7 | 1.7 | 1.7 |

NOTE: Mentions equal the number of drugs involved for each person admitted.
Episodes equal the number of persons who were admitted to emergency rooms.

SOURCE: National Institute on Drug Abuse, Drug Abuse Warning Network, July 1991 data file

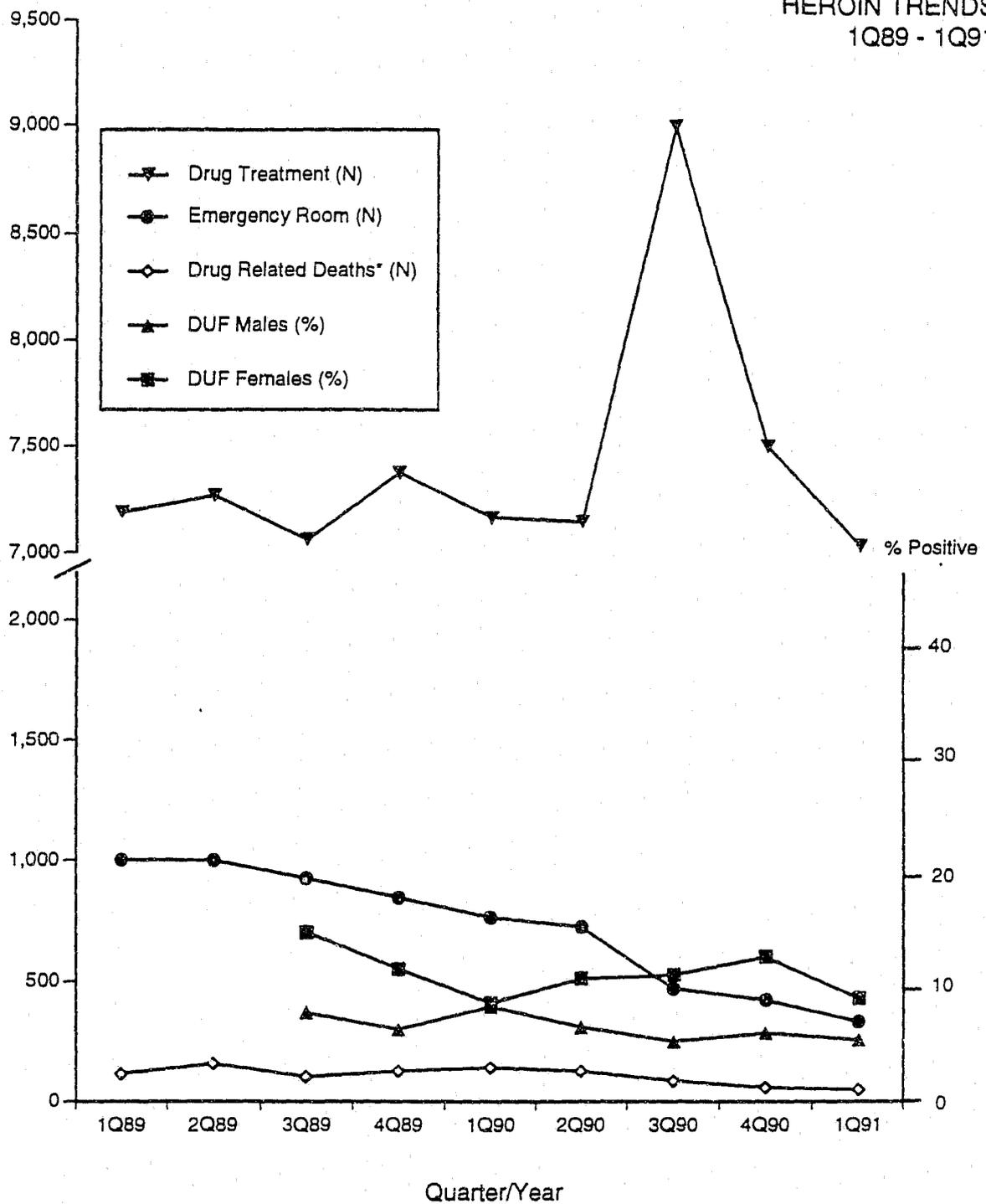
LOS ANGELES
COCAINE TRENDS
1Q89 - 1Q91



NOTE: These figures are intended to display trends over time. Emergency room, deaths, and treatment are represented as absolute numbers. Drug Use Forecasting (DUF) results are expressed as percent positive of arrestee urines tested.

EXHIBIT 8

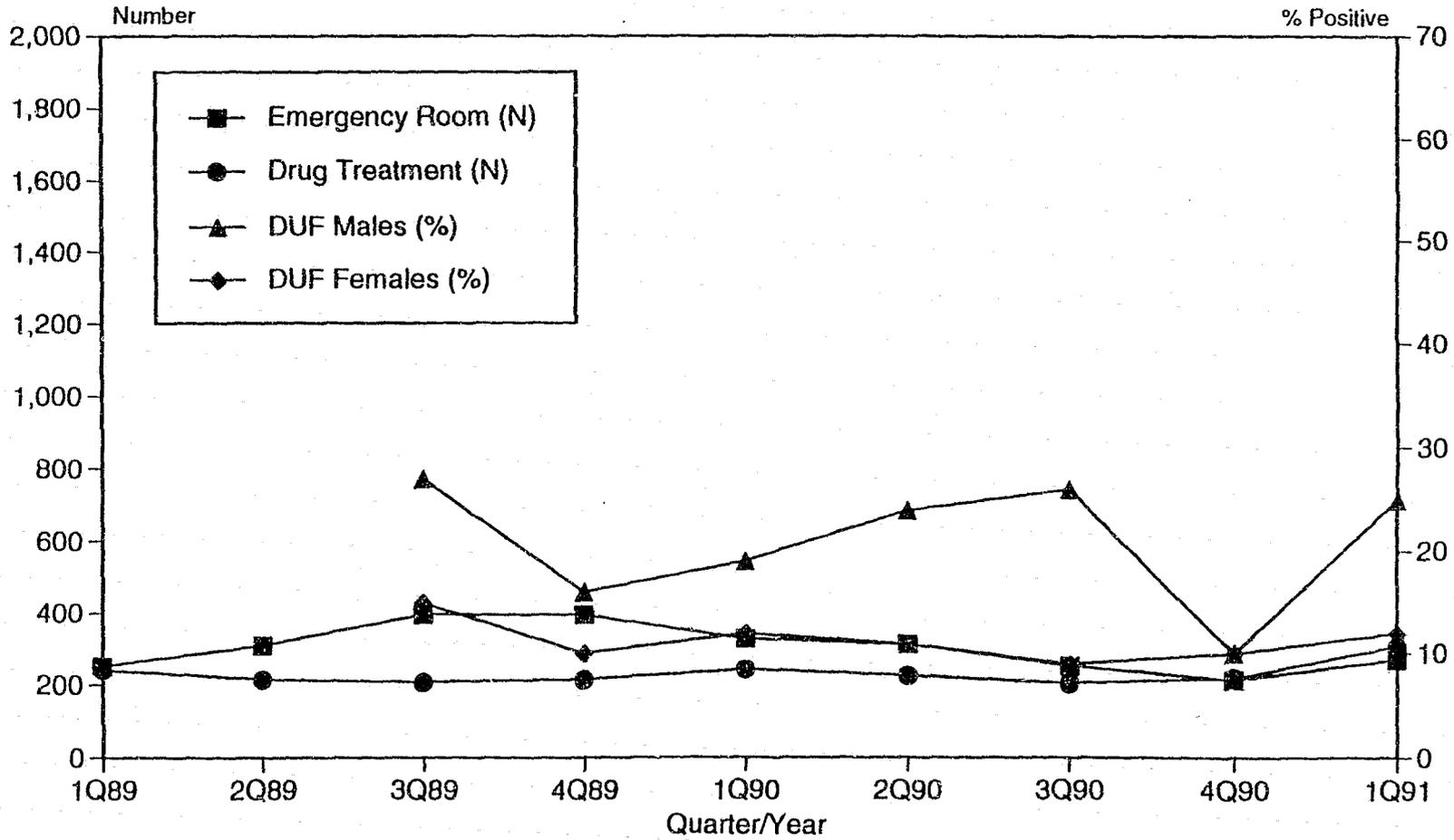
LOS ANGELES
HEROIN TRENDS
1Q89 - 1Q91



NOTE: These figures are intended to display trends over time. Emergency room, deaths, and treatment are represented as absolute numbers. Drug Use Forecasting (DUF) results are expressed as percent positive of arrestee urines tested.

EXHIBIT 9

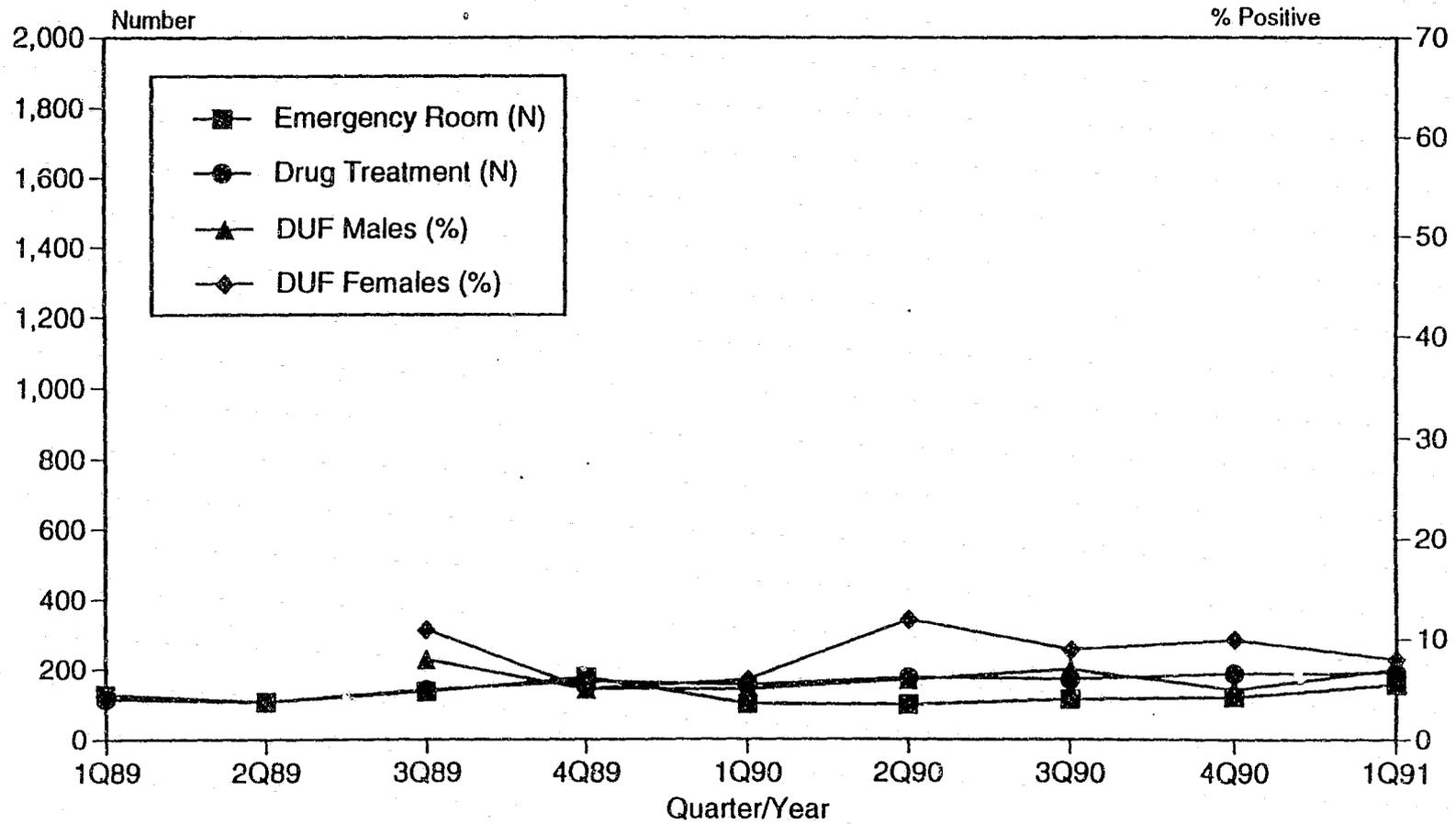
LOS ANGELES
MARIJUANA TRENDS
1Q89 - 1Q91



NOTE: These figures are intended to display trends over time. Emergency room, deaths, and treatment are represented as absolute numbers. Drug Use Forecasting (DUF) results are expressed as percent positive of arrestee urines tested.

EXHIBIT 10

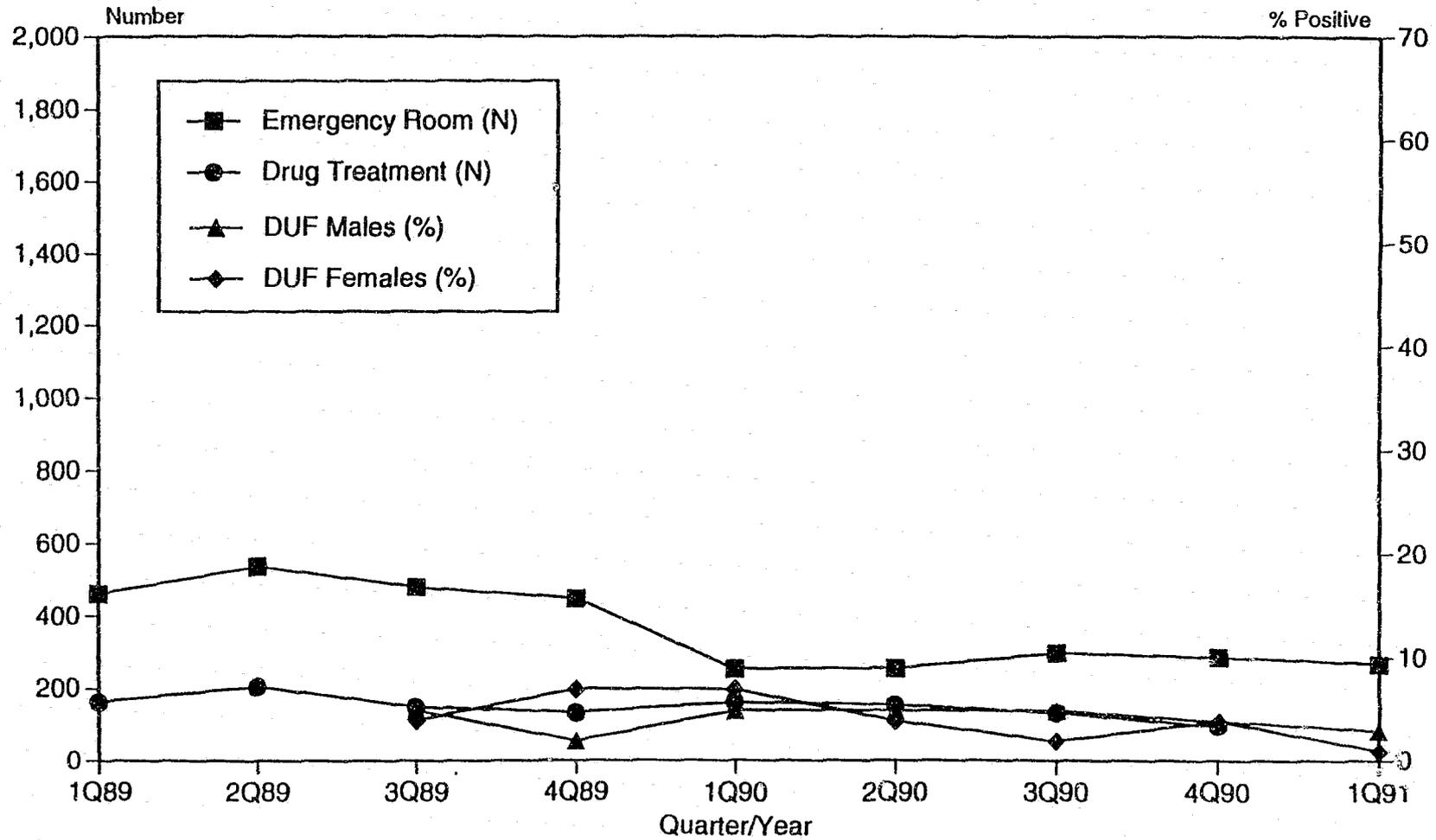
LOS ANGELES
AMPHETAMINE TRENDS
1Q89 - 1Q91



NOTE: These figures are intended to display trends over time. Emergency room, deaths, and treatment are represented as absolute numbers. Drug Use Forecasting (DUF) results are expressed as percent positive of arrestee urines tested.

EXHIBIT 11

LOS ANGELES
PCP TRENDS
1Q89 - 1Q91



NOTE: These figures are intended to display trends over time. Emergency room, deaths, and treatment are represented as absolute numbers. Drug Use Forecasting (DUF) results are expressed as percent positive of arrestee urines tested.

Exhibit 3

DRUG TREATMENT ADMISSIONS BY PRIMARY DRUG TYPE IN LOS ANGELES COUNTY

January 1990- December 1991, By Quarter

Percentage of Total Mentions

| | Jan-Mar 1990 | Apr-Jun 1990 | Jul-Sep 1990 | Oct-Dec 1990 | Jan-Mar 1991 | Apr-Jun 1991 | Jul-Sep 1991 | Oct-Dec 1991 |
|----------------------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| Total Admissions | 9734 | 9884 | 11439 | 9958 | 9551 | 10593 | 11216 | 9754 |
| Primary Drug | % |
| Heroin | 73.6 | 72.3 | 78.6 | 75.3 | 73.6 | 76.4 | 80.1 | 77.4 |
| Amphetamines | 01.6 | 01.8 | 01.5 | 01.9 | 02.0 | 01.8 | 01.5 | 01.9 |
| Cocaine | 16.5 | 17.8 | 13.9 | 15.6 | 17.0 | 16.5 | 13.8 | 15.4 |
| Marijuana/Hashish | 02.5 | 02.3 | 01.8 | 02.2 | 03.2 | 01.9 | 01.5 | 01.7 |
| Hallucinogens | 00.1 | 00.2 | 00.1 | 00.2 | 00.2 | 00.1 | 00.1 | 00.2 |
| PCP | 01.7 | 01.6 | 01.2 | 01.0 | NA | 01.2 | 01.0 | 01.0 |
| Non-Rx Methadone | 00.1 | 00.1 | 00.1 | 00.2 | 00.2 | 00.1 | 00.1 | 00.2 |
| Other Opiates & Synthetics | 00.8 | 00.8 | 00.9 | 01.2 | 00.8 | 00.8 | 01.0 | 01.2 |
| Alcohol | 00.3 | 00.6 | 00.3 | 00.4 | 00.5 | 00.5 | 00.2 | 00.3 |
| Barbituates | 00.1 | 00.2 | 00.1 | 00.1 | 00.1 | 00.2 | 00.1 | 00.1 |
| Other Sedatives | 00.1 | 00.0 | 00.0 | 00.1 | 00.0 | 00.1 | 00.0 | 00.1 |
| Inhalents | 00.0 | 00.0 | 00.0 | 00.0 | 00.1 | 00.0 | 00.0 | 00.0 |
| Over-the Counter | 00.0 | 00.0 | 00.0 | 00.0 | 00.1 | 00.0 | 00.0 | 00.0 |
| Tranquilizers | 00.1 | 00.1 | 00.2 | 00.1 | 00.2 | 00.1 | 00.2 | 00.1 |
| Other | 00.2 | 00.2 | 00.1 | 00.2 | 00.2 | 00.2 | 00.1 | 00.2 |

SOURCE: California Drug Abuse Data System (CAL-DADS) information processed by the Alcohol & Drug Program Administration, Los Angeles County Department of Health Services

100

NARCOTICS PRICE LIST

HEROIN

| | Price | Purity Level |
|--------------|-----------|--------------|
| China White | | |
| 1 Kilo | \$200,000 | 85% |

BLACK TAR

| | | |
|-------------------------------------|-------------|-------------|
| 1 Kilo | 108,000 | 12% |
| 1 LB | 50,000 | |
| 1 OZ | 2,500 | |
| "Mexican OZ. "/Pedazo (25 GR) | 3,000-3,500 | |
| 1 GR | 180 | 40% or less |

COCAINE

Hydrochloride

| | |
|--------------------------|-----------------|
| 1 Kilo (wholesale) | \$12,000-13,000 |
| 1 Kilo (retail) | 17,000 |

Rock

| | | |
|------------------------|---------|--------|
| 1 OZ | 425 | 50-70% |
| 1/2 OZ | 225-250 | |
| 20 Rock (0.2 GR) | 10-20 | |
| 40 Rock (0.4 GR) | 20-50 | |

MARIJUANA

Commerical

| | |
|---------------------|---------------|
| 1 LB | \$1,500-2,000 |
| 1 OZ | 60-80 |
| 1 GR (baggie) | 10-20 |

Sinsemilla

| | |
|------------|---------|
| 1 LB | \$4,500 |
| 1 OZ | 250 |

Information presented at the Los Angeles Countywide Criminal Justice Coordinating Committee.

Exhibit 5

**DIAGNOSED ADULT AIDS CASES IN LOS ANGELES COUNTY:
SEXUAL ORIENTATION AND INTRAVENOUS DRUG USE**

Cumulative Frequency By Quarter

| YEAR | QUARTER | IVDU ONLY | Percentage of Total | HOMO/ BISEXUAL IVDU | Percentage of Total | ALL OTHERS | Percentage of Total | TOTAL ADULT CASES |
|------|---------|-----------|---------------------|---------------------------|---------------------|------------|---------------------|-------------------|
| 1988 | 1st | 154 | 3.3 | 375 | 8.0 | 4,186 | 88.8 | 4,715 |
| | 2nd | 176 | 3.4 | 417 | 8.0 | 4,604 | 88.6 | 5,197 |
| | 3rd | 201 | 3.5 | 460 | 8.1 | 5,039 | 88.4 | 5,700 |
| | 4th | 233 | 3.8 | 501 | 8.2 | 5,353 | 87.9 | 6,087 |
| 1989 | 1st | 255 | 3.8 | 546 | 8.2 | 5,880 | 88.0 | 6,681 |
| | 2nd | 287 | 3.9 | 592 | 8.1 | 6,459 | 88.0 | 7,338 |
| | 3rd | 325 | 4.1 | 629 | 7.9 | 7,039 | 88.1 | 7,993 |
| | 4th | 349 | 4.1 | 664 | 7.8 | 7,487 | 88.1 | 8,500 |
| 1990 | 1st | 382 | 4.2 | 689 | 7.7 | 7,918 | 88.1 | 8,989 |
| | 2nd | 409 | 4.2 | 727 | 7.5 | 8,504 | 88.2 | 9,640 |
| | 3rd | 447 | 4.3 | 766 | 7.4 | 9,253 | 89.3 | 10,366 |
| | 4th | 485 | 4.4 | 793 | 7.2 | 9,727 | 88.4 | 11,005 |
| 1991 | 1st | 523 | 4.5 | 838 | 7.2 | 10,290 | 88.3 | 11,651 |
| | 2nd | 580 | 5.0 | 898 | 7.0 | 11,024 | 88.1 | 12,502 |
| | 3rd | 622 | 4.6 | 936 | 7.0 | 11,750 | 88.3 | 13,308 |
| | 4th | 668 | 4.8 | 978 | 6.9 | 12,354 | 88.2 | 14,000 |
| 1992 | 1st | 698 | 4.8 | 1,014 | 6.9 | 12,811 | 88.2 | 14,523 |

SOURCE: Los Angeles County AIDS Monthly Surveillance Updates, Los Angeles Department of Health Services.

Price, Purity, and Seizure Data

Los Angeles County 1991

Information provided by David Smith, of the DEA.

Los Angeles Sheriff's Department:

Heroin - in 1990 16 lbs was seized.
- in 1991 22 lbs were seized

Cocaine - in 1990 1602 lbs seized
- in 1991 5362 lbs seized

Marijuana - in 1990 17,708 lbs seized
- in 1991 9216 lbs seized

Drug Enforcement Agency:

2700 lbs of marijuana seized in 1991
20 lbs of cocaine seized

Cocaine prices:

kilo = \$11,000 (for bulk but of 100 kilos or more) to 17,000
purity is nearly 80% pure and DEA feels prices may go up in the next year

Heroin prices:

Southeast Asian: \$150,000 to \$200,000 per kilo
\$1,000 to \$2,000 an ounce

purity is between 86-92%

nearly all trading of SE Asian heroin is done between Asian "gangs" or organizations

Southwest Asian: \$92,000 to \$100,000 per kilo
\$40,000 per lb.

purity is between 86-90%

APPENDIX G

TRENDS FOR DRUG ABUSE IN SAN DIEGO COUNTY

Michael Ann Haight
Department of Health Services
Alcohol and Drug Services
San Diego, California

INTRODUCTION

1. Area Description

San Diego County, home to 2.5 million inhabitants, is the second largest county in California. According to 1990 census figures, the county's population is predominantly white (about 65 percent), with African-Americans comprising 6 percent, Asians 8 percent, and Hispanics 20 percent of the total population. Twenty-eight percent of the population is under 20 years of age, 20 percent are aged 20-29, 25 percent are aged 30-44, and 27 percent are over 44.

There are many small airfields and an international airport in San Diego County. With three border crossings in the county, illegal drug smuggling and illegal migration of undocumented workers are continuing concerns. Several area characteristics enhance the possibilities for cultivating, manufacturing, smuggling, and distributing illegal drugs and contribute most directly to San Diego County's drug abuse problems:

- An 80-mile relatively unprotected border with Mexico
- A 70-mile coastline
- Remote desert areas that can be used to land small planes
- An ideal climate for growing marijuana

DRUG ABUSE TRENDS

1. Systemwide trends

In 1991, 3,465 individuals were admitted to publicly funded drug abuse programs. This represents a 111 percent increase over the five-year period, the result, partially, of funding increases that expanded the capacity of the treatment system. Exhibit 1 presents selected data for the entire client population. (It should be noted that the client database is admission-based, which means that it may contain duplicated clients.) The treatment population has aged slightly

over the past five years, from a median age of 27 to a median age of 30. In terms of gender, the proportion of males and females in treatment programs has been relatively stable over the five-year period, with only minor variations around a fifty-fifty split.

The same cannot be said for minority representation, however. Over time, a larger percentage of minority clients have been admitted to treatment. In 1987, 68 percent of the treatment population were Caucasians. By 1991, that percentage had shrunk to 56 percent, with a corresponding increase in the number and percent of African Americans (a 202 percent increase) and Hispanics (a 169 percent increase). The percentage of Native Americans and Others in treatment has remained relatively stable.

Clear trends were shown in client self reports of prior drug treatment and Criminal Justice System (CJS) involvement. Over the reporting period, there were steady increases in the number reporting that they had been in treatment at least once prior to this episode. In 1990 and 1991 similar increases were seen for those referred by the CJS. The latter trend is underscored by the percent of clients who report having been arrested one or more times. While those data were not available for all years, there was a sharp increase between 1989 and 1991 in self-reports of number of arrests, from 46 percent of 1989 clients to 77 percent of 1991 clients reporting at least one arrest. This trend is partially explained by two new programs in San Diego, both of which opened in late 1989 and began seeing clients in early 1990, a program for pregnant inmates in Las Colinas Jail and a program for probationers. The addition of a program for parolees in late 1991 may very well lead to additional increases in the number of clients who report being arrested.

Another interesting trend seen for clients overall is the change in the route of administration for the primary drug in the past five years. In 1987, inhalation was the route mentioned most frequently, with 46 percent of clients citing that means. By 1991, the percentage had decreased to 28 percent, while smoking increased from 18 to 22 percent. During the same time frame, there were increases in the percentage who injected and the number who used the drug orally. Some of these increases are easily explained by referring to the populations that have been targeted. Starting in 1988 with the inception of a methadone maintenance, AIDS-education program for injection drug users (IDU's), there has been increasing emphasis placed on outreach to IDU's. The introduction of perinatal-specific funds into the system has resulted in a larger percentage of alcohol-primary clients being admitted into the perinatal system, accounting for the slight increases in an oral administration route. One last trend needs to be mentioned: the number of users entering treatment within the first three years of use. There has been a steady decline in that percentage. In 1987, 23 percent of all clients entered during their first three years but that percentage declined to 11 percent by 1991, suggesting that the treatment population is increasingly composed of long-time, hard-core users.

The change in drugs of abuse over time will be examined in some detail in the next sections.

Exhibit 2, however, shows the overall trends. Cocaine's representation in the treatment population grew slowly from 1987 to 1989, then increased sharply in 1990 and again in 1991. In 1988, when the methadone maintenance program previously mentioned was opened, there was a sharp increase in the number of heroin admissions; that number has grown slowly but steadily since then. For all years except 1988, when the number of amphetamine admissions was only slightly higher than those for heroin, amphetamine has been the primary drug of choice for most clients. (In San Diego County, methamphetamine accounts for most stimulant abuse. For that reason, methamphetamine is the term that will be used in this paper.) Marijuana at first exhibited a downward trend (from 1987 to 1988) then rose steadily from 1988 to 1991. Some of the increase in marijuana admissions in the last two years is due to the opening of a new program targeting adolescents.

2. Cocaine

In 1991, cocaine accounted for 23 percent of all treatment admissions, a 4 percent increase from 1987 figures. Exhibit 3 presents data for cocaine admissions. Over the past five years, the cocaine treatment population has grown slightly older, with an increase in median age of 3 years (from 27 to 30). Male representation in treatment has grown since 1988, when only 37 percent of clients in treatment were males. By 1991, 49 percent of all clients were male. Blacks continue to be over-represented in this population, comprising 62 percent of all 1991 admissions. Slightly over a quarter of all admissions are Caucasian; Hispanics account for 8 percent. About one third (32%) of cocaine treatment clients have not finished high school; a similar percent (30%) have attended or completed college.

Cocaine trends mirror the systemwide trends with steady increases in the number and percent of clients who admit to prior treatment and CJS involvement. In 1991, 21 percent of clients were referred by the CJS and 75 percent reported that they had been arrested at least once. Unlike the trend for all clients reported earlier, with fewer clients entering treatment within the first three years of use, there was, from 1990 to 1991, a 2 percent increase in the number of cocaine clients who reported that they entered treatment within three years of initial use.

Over the past five years, there was a striking increase in the number and percent of cocaine admissions who reported smoking as the primary route of administration. In 1991, smoking was the usual mode for 79 percent of clients. This shift reflects the growing availability and popularity of crack cocaine in San Diego County. While this is particularly true of the African American population, crack is also increasing in popularity among other populations. With a street price of \$20 for .2 grams, and the purity relatively high (between 55% and 90%), crack, which was not a big problem in San Diego during the time it was a major problem in other major cities, is definitely a drug to watch. When asked about their secondary drug use, 31 percent of all 1991 cocaine admissions reported that they also used alcohol; 22 percent reported marijuana use, and 27 percent reported no secondary drug use.

3. Heroin

In 1991, heroin treatment admissions accounted for 31 percent of all admissions. This percentage represents a 2 percent decrease from the 1990 percent. However, over the five-year period, heroin admissions increased, in absolute numbers and percent of total admissions.

Data for heroin admissions are presented in Exhibit 4. Of 1991's 1,064 heroin admissions, 78 percent were over 30. The median age for the heroin population increased from 32 in 1987 to 34 in 1991, making heroin users the oldest population in the drug treatment system. For the past four years, slightly over half of all heroin admissions were male. Since 1987, however, the percent of women in treatment for heroin increased, partially as a result of targeting pregnant and parenting opiate users. The racial composition of the heroin treatment population showed slight variations over the reporting period. In 1991, Caucasians accounted for 51 percent, African Americans for 8 percent, Hispanics for 37 percent, and Asians and others for 3 percent.

The percent of heroin clients who reported prior treatment steadily increased over the five-year period, from 68 percent in 1987 to 88 percent in 1991. There was a corresponding decrease in the percent of clients who reported entering treatment within the first three years of use, from 18 percent in 1987 to 9 percent in 1991. The increased involvement in treatment and small percent entering treatment within the first three years may indicate that hard-core heroin users now constitute the primary treatment population. Route of administration for heroin users in treatment remains unchanged over time. Virtually all of these clients (99%) inject the drug.

In 1991, heroin clients were asked about their secondary drug use. Slightly over 39 percent reported that they used cocaine and 12 percent reported using alcohol. Almost a third (31.5%) reported no secondary drug use.

4. Stimulants

Methamphetamine's representation in treatment has declined sharply, from 51 percent of 1987 admissions to 34 percent of 1991 admissions. However, numbers in treatment rose steadily from 1987 to 1990, followed by a slight decrease in 1991. In spite of the decreases, methamphetamine still accounts for most treatment admissions at this time.

Exhibit 5 presents data for methamphetamine admissions. Although methamphetamine users are younger than cocaine or heroin users, with 60 percent of all admissions younger than 30, the median age of methamphetamine admissions increased from 25 to 28 over the report period. From 1987 to 1990, there were more women in treatment than men. In 1991, however, men were slightly in the majority. While methamphetamine continues to be a drug used primarily by Caucasians, the percentage has declined slightly, from 87 percent of all 1987 admissions to 78 percent in 1991. In contrast, both African Americans and Hispanics have shown slight increases

in methamphetamine admissions, from 2 to 4 percent for African Americans and 8 to 12 percent for Hispanics over the five-year period.

When asked about educational attainment, 59 percent of 1991 meth admissions reported that they had completed high school. This percentage represents an increase from 1990, when 55 percent reported that they had at least a high school education. Unlike cocaine and heroin admissions, less than half of all methamphetamine admissions report having had prior drug treatment, although that percent has grown over time. In 1991, 11 percent of clients entered within the first three years of treatment, a continuation of the trend established over the prior three years, which showed steady declines in new users. This trend may indicate a growing treatment population of long-term, hard-core meth users.

In 1991, the methamphetamine population was referred by the criminal justice system in about the same proportions as the cocaine and heroin population (21 percent). Like those clients, the percent reporting CJS-referral has grown over the five year period, from 14 percent in 1987 to a high of 25 percent in 1990. Increasing involvement in the CJS is also demonstrated by the percent of clients who report an arrest history. By 1991, that percentage had increased to 77 percent.

Over time, there have been interesting changes in route of administration. In 1987, inhalation was the most common mode of use, with 72 percent of clients reporting that they snorted the drug. By 1991, that percentage had dropped to 58 percent, with an attendant growth in the percentage of clients who reported that they were smoking meth. The percent of smokers grew from 1 percent in 1987 to 11 percent in 1991. In San Diego, there is some anecdotal evidence that powdered meth is smoked using tinfoil and a lighter. However, there have also been reports that pipes similar to crack pipes are being used with small crystal rocks. There were also modest increases in the percent of clients who reported injecting meth, from 25 percent to 28 percent. In 1991, 29 percent of meth users reported that marijuana was their second drug of choice; 24 percent reported also using alcohol, and 27 percent reported that they had no secondary drugs.

5. Marijuana

Marijuana clients accounted for 6 percent of all 1991 admissions, an increase of 2 percent from the previous 3 years. During the years 1988 to 1990, marijuana clients were very stable at about 4 percent of all admissions, a decrease from 1987 when marijuana represented 7 percent of admissions.

Demographics for marijuana admissions can be found in Exhibit 6. Since 1988, there has been a steady increase in the number of marijuana admissions. Recent increases (1990 and 1991) can be accounted for by the addition of an outpatient program for adolescents, most of whom use

marijuana. Unlike cocaine, heroin, and methamphetamine clients, the mean age of marijuana admissions has steadily decreased over the past five years, from 26.2 in 1987 to 23.2 in 1991; 37 percent of all marijuana clients are younger than 18. The majority of marijuana admissions for the past five years were male and Caucasian although there were increases in all minority categories over time, with Hispanics showing the largest increase, from 12 to 18 percent over the reporting period.

Surprisingly, this population, too, showed increases in the percent of admissions who report prior drug treatment. The percentage was 26 percent in 1987, but grew to 46 percent by 1991. Unlike heroin and methamphetamine users, more clients report entering treatment within the first three years of use. This may be the result of intensive outreach efforts to high risk adolescents, bringing to treatment a greater number of new users. In 1991, 16 percent of clients entering treatment did so within the first three years of use. Also surprising is the large number of admissions who report being referred by the criminal justice system. The percentage has grown steadily over the reporting period, from 17 percent in 1987 to 46 percent in 1991. It is not clear why more marijuana users are referred to treatment by the criminal justice system. It may be that these clients are given more opportunity to choose treatment in lieu of jail. That is an area that warrants investigation. Another disturbing statistic is the finding that, when asked about arrest history, 75 percent of 1991 clients reported that they had been arrested at least once; 44 percent report that they've been arrested three or more times. When you consider the median age of these clients, their arrest history is troubling.

The route of administration for marijuana users was very stable with the great majority of users preferring to smoke. When asked about secondary drug use, 44 percent of primary marijuana users reported that they also used alcohol; 23 percent reported using amphetamines and 11 percent reported using cocaine. Only 11 percent said that they used nothing but marijuana, indicating that marijuana users, in 1991, were the most likely clients to be polydrug users.

6. Alcohol

In July, 1991, with the inception of the federal minimum data set, admissions to publicly funded alcohol and drug programs in San Diego County were given the same client questionnaire for the first time. In addition, San Diego County merged Alcohol Services and Drug Abuse Services into one service, Alcohol and Drug Services. In future, there will be additional information on which to compare admissions to alcohol-primary and drug-primary programs. However, the basic demographic questions were asked of participants in alcohol residential recovery services, allowing us to develop five year trends for alcohol participants. Participants in non-residential services are sampled semi-annually; these participants will be briefly discussed later.

What is immediately obvious is the stability of alcohol programs. Admissions to publicly funded

residential programs for alcohol have numbered over 4,000 per year for the past 5 fiscal years (Exhibit 7). In 1991, 4,116 individuals were admitted to detoxification and to short- and long-term residential programs. In all programs, the majority were over 30 years old, with the mean age ranging from 36.1 to 37.0, but the median age remaining stable at 35 for each year. The proportion of males and females in program also showed a high degree of stability, ranging from 80 to 83 percent male. The population was largely Caucasian, although there were decreases over time, from 79 percent in 1987 and 1988 to 73 percent for the next three years. African American representation grew slightly during the five years, from 14 to 16 percent. Alcohol users tended to be better educated than primary drug users, with over one third of participants attending or completing college each year.

The majority (70 percent or more each year) of alcohol admissions reported prior program involvement but very few reported that they were referred by the CJS. Information on arrest history was only available for 1991; 52 percent of 1991 admissions reported two or more arrests. During the entire period, no one reported entering treatment within the first three years of use. All in all, the recovery trends for alcohol admissions, is most remarkable for its stability.

Participants in Neighborhood Recovery Centers (NRCs) are sampled semi-annually through a point prevalence survey. There has been striking growth in the numbers of people coming to these social model nonresidential programs, from around 7,600 participants in 1987 to 17,459 in 1991 (Exhibit 8). Although the majority of participants for all years were male, there were substantially more females in NRCs (45 percent) than in the residential programs. In 1991, there was also slightly more minority representation in NRCs, with 9.5 percent of all participants being black, 14.5 percent Hispanic, and 5 percent Native American and Asian.

6. Other Drugs

Few other drugs play a major role in the county's indicator systems. However, it should be noted that in 1991, there was a slight increase in the number of adolescents in treatment who reported hallucinogens. While it is too soon to speculate about an overall increase, it is important to continue to pay close attention to the drugs of use reported by adolescents.

Recently, the media reported increased use of hallucinogens by adolescents, headlining the stories with the news of LSD's "comeback". These stories were followed by several account of the increase in availability of XTC. XTC, particularly, received increased attention, with one entire section of the local newspaper devoted to "rave" clubs, patterned after European and Bay area rave clubs. Purportedly, there are several such clubs in San Diego but MDMA is not demonstrably present, although revelers enjoy the music and dress of the underground clubs where drugs (including MDMA) are reported to be readily available. In addition, a recent newspaper article reported that the Drug Enforcement Administration (DEA) had seized a small amount of MDMA. It seems clear that XTC has "arrived" but there are no reports of

consequences as yet. Furthermore, program admission questionnaires do not specifically ask about XTC or MDMA, rendering it difficult to determine if an individual is coming to treatment because of MDMA. In spite of the difficulties, it is a situation to watch, particularly since the reports say this drug appeals to youth.

There have also been some reports of a comeback of PCP but thus far these reports are unsubstantiated.

CONCLUSION

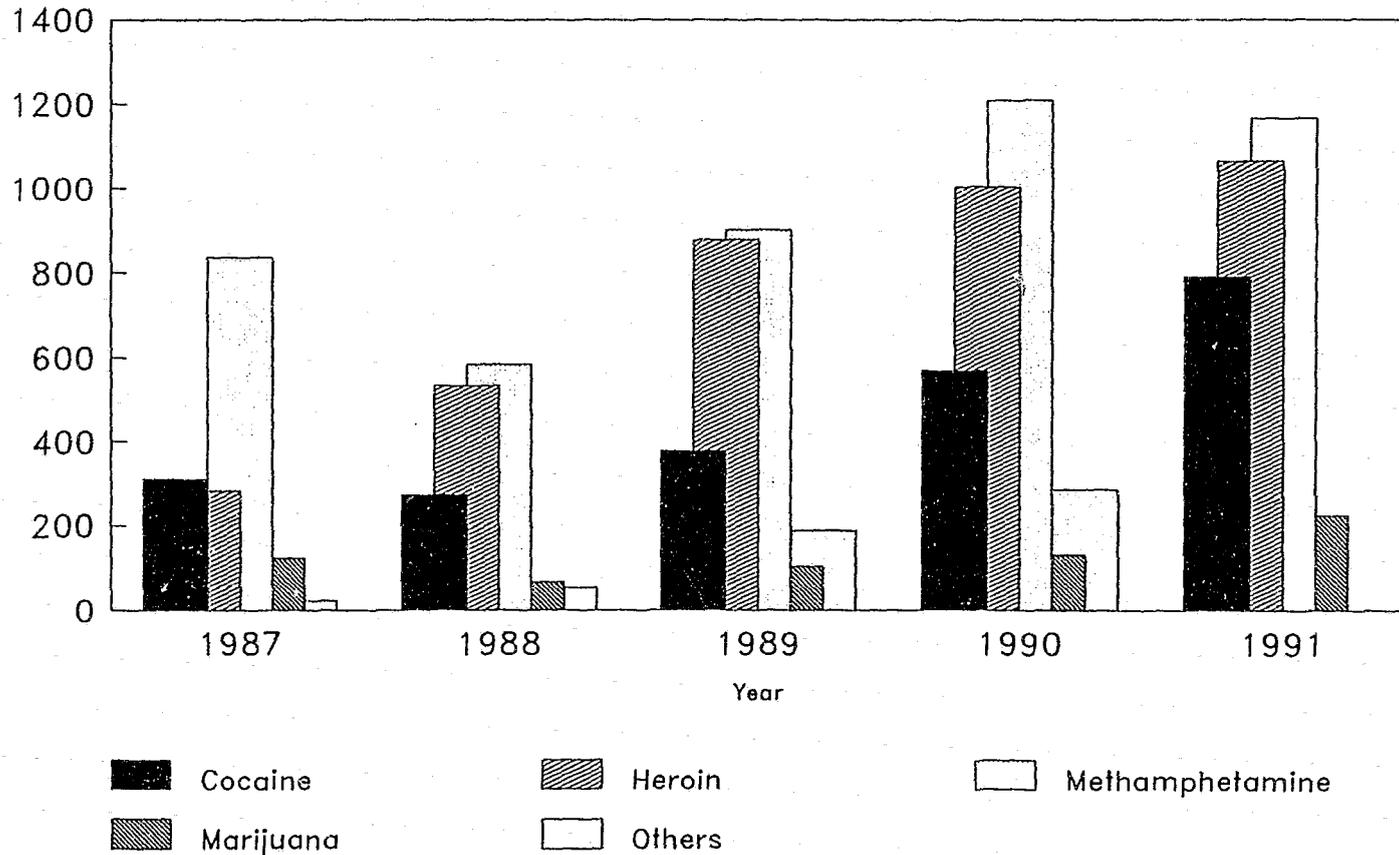
The discussion above clearly demonstrates that over the past five years there have been substantial changes in the drug program treatment population. Over time, the drug treatment population has aged except for marijuana clients, who have become younger. There has been an increase in minorities in treatment, specifically African American and Hispanic with a corresponding decrease in Caucasians. Perhaps most important, however, is the greater involvement of the treatment population, including marijuana users, in prior drug treatment and the CJS and the associated finding that a decreasing number of drug treatment clients are entering treatment within the first three years of use. Taken all together, these factors suggest an aging population of long-term, hard-core users which may have policy implications for treatment modalities. In contrast, the residential alcohol programs discussed here show a great deal of stability over time, suggesting that these programs continue to provide services to a very homogeneous population. These very differences between clients in drug treatment programs and participants in alcohol recovery programs may suggest that there is good reason to consider very carefully the wisdom of combining alcohol and drug clients within the same programs.

EXHIBIT 1
 ADMISSIONS TO COUNTY FUNDED
 DRUG ABUSE PROGRAMS
 1987 to 1991

| CATEGORY | 1987 | 1988 | 1989 | 1990 | 1991 |
|--|--------|--------|--------|--------|--------|
| | N=1643 | N=1524 | N=2321 | N=3019 | N=3465 |
| AGE | % | % | % | % | % |
| Less than 18 | 7.1 | 5.8 | 3.7 | 3.9 | 4.2 |
| 18 - 29 | 58.6 | 49.7 | 49.4 | 47.7 | 42.5 |
| 30 - 39 | 30.4 | 36.6 | 37.4 | 37.6 | 42.4 |
| 40 - 49 | 3.4 | 6.8 | 7.1 | 9.3 | 9.8 |
| 50 + | .5 | 1.0 | 2.3 | 1.5 | 1.1 |
| Mean | 27.1 | 28.9 | 29.7 | 29.9 | 30.3 |
| Median | 27 | 28 | 29 | 29 | 30 |
| SEX | | | | | |
| Male | 53.4 | 48.2 | 49.0 | 49.3 | 51.7 |
| Female | 46.6 | 51.7 | 51.0 | 50.7 | 48.3 |
| RACE | | | | | |
| White | 68.0 | 60.5 | 60.5 | 59.6 | 56.1 |
| Black | 14.2 | 15.7 | 14.9 | 16.9 | 20.3 |
| Hispanic | 15.3 | 20.8 | 21.4 | 20.2 | 19.5 |
| Native American | 1.2 | 1.5 | 1.2 | 1.2 | 1.5 |
| Other | 1.4 | 2.0 | 1.5 | 1.7 | 2.5 |
| EDUCATION | | | | | |
| Less than 12 | 35.3 | 38.4 | 40.4 | 41.8 | 38.9 |
| 12th Grade | 42.6 | 41.9 | 40.8 | 37.9 | 39.7 |
| Some College | 19.0 | 17.3 | 16.4 | 17.4 | 18.1 |
| College Graduate | 3.0 | 2.6 | 2.4 | 2.9 | 3.4 |
| PRIOR DRUG TREATMENT | | | | | |
| Yes | 38.7 | 51.6 | 57.9 | 57.4 | 59.3 |
| No | 61.4 | 48.4 | 42.1 | 42.6 | 40.7 |
| REFERRAL SOURCE | | | | | |
| Criminal Justice System | 17.3 | 15.3 | 14.0 | 22.9 | 27.7 |
| Not CJS | 82.7 | 84.7 | 86.6 | 77.0 | 72.3 |
| PRIOR ARRESTS | | | | | |
| None | N/A | N/A | 54.2 | 26.1 | 23.3 |
| 1 - 2 | | | 25.4 | 36.4 | 33.6 |
| 3 or More | | | 20.4 | 36.5 | 43.1 |
| ROUTE OF ADMINISTRATION | | | | | |
| Oral | 4.0 | 2.5 | 2.6 | 4.5 | 6.6 |
| Smoke | 17.8 | 17.8 | 18.8 | 22.0 | 28.2 |
| Inhale | 45.5 | 34.7 | 29.1 | 28.2 | 22.5 |
| Inject | 32.3 | 44.6 | 49.4 | 45.0 | 42.2 |
| USERS ENTERING TX WITHIN FIRST 3 YEARS OF USE | 23.3 | 15.5 | 12.3 | 10.4 | 11.1 |

SOURCE: CALIFORNIA DRUG ABUSE DATA SYSTEM/CALIFORNIA ALCOHOL AND DRUG DATA SYSTEM

EXHIBIT 2
 ADMISSIONS TO DRUG ABUSE PROGRAMS
 1987-1991



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EXHIBIT 3
 COCAINE TREATMENT ADMISSIONS
 TO COUNTY FUNDED PROGRAMS
 1987 to 1991

| CATEGORY | 1987 | 1988 | 1989 | 1990 | 1991 |
|--|-------|-------|-------|-------|-------|
| | N=312 | N=274 | N=381 | N=569 | N=790 |
| AGE | % | % | % | % | % |
| Less than 18 | 2.9 | 3.0 | 2.6 | 2.8 | 1.4 |
| 18 - 29 | 62.5 | 57.5 | 61.9 | 50.3 | 46.3 |
| 30 - 39 | 31.4 | 36.2 | 31.0 | 39.4 | 43.9 |
| 40 - 49 | 3.2 | 3.4 | 3.7 | 6.5 | 7.8 |
| 50 + | 0.0 | 0.0 | 0.8 | 1.1 | 0.6 |
| Mean | 27.8 | 28.4 | 28.4 | 29.5 | 30.3 |
| Median | 27 | 28 | 28 | 29 | 30 |
| SEX | | | | | |
| Male | 51.6 | 43.9 | 37.5 | 40.2 | 49.1 |
| Female | 48.4 | 56.1 | 62.5 | 59.8 | 50.9 |
| RACE | | | | | |
| White | 38.5 | 27.9 | 25.8 | 27.5 | 26.8 |
| Black | 52.6 | 61.7 | 64.7 | 63.1 | 62.1 |
| Hispanic | 8.3 | 9.7 | 7.6 | 8.1 | 8.4 |
| Native American | 0.0 | 0.0 | 0.5 | 0.2 | 1.1 |
| Other | 0.6 | 0.7 | 1.3 | 1.2 | 1.6 |
| EDUCATION | | | | | |
| Less than 12 | 22.5 | 30.5 | 32.3 | 35.9 | 32.0 |
| 12th Grade | 45.2 | 40.1 | 45.7 | 37.4 | 37.8 |
| Some College | 26.0 | 24.5 | 18.9 | 21.3 | 24.3 |
| College Graduate | 6.4 | 4.8 | 3.1 | 5.4 | 5.8 |
| PRIOR DRUG TREATMENT | | | | | |
| Yes | 36.2 | 36.1 | 44.4 | 48.2 | 63.9 |
| No | 63.8 | 63.9 | 55.6 | 51.8 | 36.1 |
| REFERRAL SOURCE | | | | | |
| Criminal Justice | 12.8 | 12.1 | 12.3 | 24.4 | 21.1 |
| Not CJS | 87.2 | 87.9 | 87.7 | 75.6 | 78.9 |
| PRIOR ARRESTS | | | | | |
| None | NA | NA | 44.3 | 32.0 | 25.4 |
| 1 - 2 | | | 36.3 | 42.2 | 27.2 |
| 3 or More | | | 19.4 | 25.8 | 47.4 |
| ROUTE OF ADMINISTRATION | | | | | |
| Oral | 0.6 | 0.4 | 0.8 | 1.8 | 1.0 |
| Smoke | 40.4 | 56.5 | 72.7 | 72.8 | 78.6 |
| Inhale | 47.4 | 33.8 | 18.1 | 15.6 | 11.2 |
| Inject | 10.9 | 8.6 | 8.1 | 9.1 | 8.7 |
| USERS ENTERING TX WITHIN FIRST 3 YEARS OF USE | 31.1 | 27.1 | 24.4 | 15.3 | 17.1 |

SOURCE: CALIFORNIA DRUG ABUSE DATA SYSTEM/CALIFORNIA ALCOHOL AND DRUG DATA SYSTEM

EXHIBIT 4
HEROIN TREATMENT ADMISSIONS
TO COUNTY FUNDED PROGRAMS
1987 to 1991

| CATEGORY | 1987 | 1988 | 1989 | 1990 | 1991 |
|---|-------|-------|-------|--------|--------|
| | N=282 | N=532 | N=879 | N=1003 | N=1064 |
| AGE | % | % | % | % | % |
| Less than 18 | 0.7 | 0.0 | 0.6 | 0.3 | 0.3 |
| 18 - 29 | 37.7 | 30.4 | 24.1 | 27.0 | 21.7 |
| 30 - 39 | 52.5 | 54.2 | 57.3 | 51.8 | 57.1 |
| 40 - 49 | 7.4 | 13.5 | 13.4 | 17.7 | 19.2 |
| 50 + | 1.8 | 1.9 | 4.7 | 3.1 | 1.7 |
| Mean | 31.5 | 33.0 | 34.4 | 34.1 | 34.4 |
| Median | 32 | 33 | 34 | 33 | 34 |
| SEX | | | | | |
| Male | 63.4 | 50.1 | 55.4 | 54.7 | 54.3 |
| Female | 36.6 | 49.9 | 44.6 | 45.3 | 45.7 |
| RACE | | | | | |
| White | 47.5 | 52.9 | 54.8 | 51.9 | 51.0 |
| Black | 10.2 | 7.3 | 6.4 | 7.9 | 8.0 |
| Hispanic | 41.5 | 34.8 | 36.6 | 37.6 | 36.8 |
| Native American | 0.4 | 2.3 | 1.4 | 1.3 | 1.7 |
| Other | 0.4 | 2.7 | 0.8 | 1.3 | 1.6 |
| EDUCATION | | | | | |
| Less than 12 | 34.5 | 36.9 | 39.9 | 38.0 | 37.0 |
| 12th Grade | 44.4 | 44.6 | 40.1 | 40.7 | 41.5 |
| Some College | 20.1 | 17.7 | 18.2 | 18.8 | 18.2 |
| College Graduate | 1.1 | 0.8 | 1.9 | 2.5 | 3.2 |
| PRIOR DRUG TREATMENT | | | | | |
| Yes | 68.2 | 75.8 | 80.6 | 81.3 | 87.7 |
| No | 31.7 | 24.2 | 19.4 | 18.7 | 12.3 |
| REFERRAL SOURCE | | | | | |
| Criminal Justice System | 26.6 | 14.4 | 9.4 | 16.0 | 22.1 |
| Not CJS | 73.4 | 85.6 | 90.6 | 83.9 | 77.9 |
| PRIOR ARRESTS | | | | | |
| None | N/A | N/A | 25.4 | 16.5 | 9.0 |
| 1 - 2 | | | 35.9 | 34.2 | 19.2 |
| 3 or More | | | 38.6 | 47.3 | 71.8 |
| ROUTE OF ADMINISTRATION | | | | | |
| Oral | 0.0 | 0.3 | 0.2 | 0.2 | 0.2 |
| Smoke | 0.4 | 0.4 | 0.3 | 0.8 | 0.3 |
| Inhale | 0.8 | 0.4 | 0.3 | 0.9 | 0.3 |
| Inject | 98.9 | 98.9 | 99.2 | 98.1 | 99.2 |
| USERS ENTERING TX WITHIN FIRST 3 YEARS OF USE | 12.6 | 13.0 | 4.2 | 5.0 | 5.5 |

SOURCE: CALIFORNIA DRUG ABUSE DATA SYSTEM/CALIFORNIA ALCOHOL AND DRUG DATA SYSTEM

EXHIBIT 5
 AMPHETAMINE TREATMENT ADMISSIONS
 TO COUNTY FUNDED PROGRAMS
 1987 to 1991

| CATEGORY | 1987 | 1988 | 1989 | 1990 | 1991 |
|--|-------|-------|-------|--------|--------|
| | N=836 | N=584 | N=901 | N=1208 | N=1166 |
| AGE | % | % | % | % | % |
| Less than 18 | 11.2 | 10.9 | 6.7 | 6.0 | 2.9 |
| 18 - 29 | 62.9 | 60.8 | 66.9 | 61.1 | 56.8 |
| 30 - 39 | 23.8 | 25.0 | 23.4 | 27.9 | 35.1 |
| 40 - 49 | 1.9 | 3.0 | 2.7 | 4.9 | 4.2 |
| 50 + | 0.1 | 0.4 | 0.3 | 0.2 | 1.0 |
| Mean | 25.6 | 26.3 | 26.4 | 27.5 | 28.4 |
| Median | 25 | 26 | 26 | 27 | 28 |
| SEX | | | | | |
| Male | 48.9 | 46.1 | 45.9 | 49.4 | 51.5 |
| Female | 51.1 | 53.9 | 54.1 | 50.6 | 48.5 |
| RACE | | | | | |
| White | 86.7 | 84.4 | 79.6 | 81.5 | 78.5 |
| Black | 1.7 | 2.1 | 3.0 | 2.7 | 4.1 |
| Hispanic | 7.7 | 9.3 | 13.5 | 11.8 | 12.3 |
| Native American | 2.0 | 1.6 | 1.3 | 1.5 | 1.3 |
| Other | 1.9 | 2.6 | 2.5 | 2.5 | 3.7 |
| EDUCATION | | | | | |
| Less than 12 | 39.1 | 39.6 | 42.6 | 44.5 | 40.9 |
| 12th Grade | 43.4 | 42.2 | 41.0 | 38.5 | 42.2 |
| Some College | 15.4 | 15.2 | 13.9 | 15.1 | 15.4 |
| College Graduate | 2.1 | 3.0 | 2.5 | 1.8 | 1.5 |
| PRIOR DRUG TREATMENT | | | | | |
| Yes | 30.8 | 39.8 | 43.9 | 44.9 | 47.9 |
| No | 69.2 | 60.2 | 56.1 | 55.1 | 52.1 |
| REFERRAL SOURCE | | | | | |
| Criminal Justice System | 14.2 | 14.4 | 18.3 | 25.2 | 21.1 |
| Not CJS | 85.9 | 85.6 | 81.7 | 74.8 | 78.9 |
| PRIOR ARRESTS | | | | | |
| None | N/A | N/A | 46.0 | 31.3 | 23.1 |
| 1 - 2 | | | 31.1 | 35.3 | 35.8 |
| 3 or More | | | 22.9 | 33.3 | 41.2 |
| ROUTE OF ADMINISTRATION | | | | | |
| Oral | 2.1 | 2.5 | 2.9 | 3.5 | 3.2 |
| Smoke | 1.2 | 1.2 | 3.8 | 7.6 | 10.6 |
| Inhale | 71.6 | 74.3 | 66.1 | 62.1 | 58.0 |
| Inject | 24.8 | 21.9 | 27.1 | 26.6 | 27.9 |
| USERS ENTERING TX WITHIN FIRST 3 YEARS OF USE | 25.9 | 18.4 | 15.8 | 12.6 | 10.8 |

SOURCE: CALIFORNIA DRUG ABUSE DATA SYSTEM/CALIFORNIA ALCOHOL AND DRUG DATA SYSTEM

EXHIBIT 6
 MARIJUANA TREATMENT ADMISSIONS
 TO COUNTY FUNDED PROGRAMS
 1987 to 1991

| CATEGORY | 1987 | 1988 | 1989 | 1990 | 1991 |
|--|-------|------|-------|-------|-------|
| | N=124 | N=68 | N=106 | N=131 | N=226 |
| AGE | % | % | % | % | % |
| Less than 18 | 20.6 | 32.8 | 29.2 | 32.1 | 36.7 |
| 18 - 29 | 47.6 | 50.0 | 47.2 | 49.6 | 37.1 |
| 30 - 39 | 25.4 | 12.5 | 16.0 | 16.0 | 24.0 |
| 40 - 49 | 5.6 | 4.7 | 7.5 | 2.3 | 2.3 |
| 50 + | 0.8 | 0.0 | 0.0 | 0.0 | 0.0 |
| Mean | 26.2 | 23.2 | 24.4 | 23.1 | 23.2 |
| Median | 26 | 22 | 23 | 23 | 21 |
| SEX | | | | | |
| Male | 65.1 | 65.6 | 66.0 | 59.5 | 62.9 |
| Female | 34.9 | 34.4 | 34.0 | 40.5 | 37.1 |
| RACE | | | | | |
| White | 78.6 | 81.3 | 75.0 | 70.8 | 64.3 |
| Black | 7.9 | 9.4 | 10.6 | 13.1 | 12.2 |
| Hispanic | 11.9 | 9.4 | 13.5 | 12.3 | 18.1 |
| Native American | 0.0 | 0.0 | 1.0 | 2.3 | 2.3 |
| Other | 1.6 | 0.0 | 0.0 | 1.5 | 3.2 |
| EDUCATION | | | | | |
| Less than 12 | 35.0 | 56.3 | 55.7 | 61.8 | 58.0 |
| 12th Grade | 31.7 | 32.8 | 28.3 | 20.6 | 27.9 |
| Some College | 27.0 | 10.9 | 14.2 | 13.7 | 11.5 |
| College Graduate | 6.3 | 0.0 | 1.9 | 3.8 | 2.7 |
| PRIOR DRUG TREATMENT | | | | | |
| Yes | 26.2 | 40.6 | 38.7 | 38.2 | 45.7 |
| No | 73.8 | 59.4 | 61.3 | 61.8 | 54.3 |
| REFERRAL SOURCE | | | | | |
| Criminal Justice System | 16.9 | 21.1 | 23.6 | 39.0 | 38.2 |
| Not CJS | 83.1 | 78.9 | 76.4 | 61.1 | 61.8 |
| PRIOR ARRESTS | | | | | |
| None | N/A | N/A | 46.0 | 33.9 | 24.9 |
| 1 - 2 | | | 34.9 | 39.4 | 31.2 |
| 3 or More | | | 19.1 | 26.8 | 43.9 |
| ROUTE OF ADMINISTRATION | | | | | |
| Oral | 0.0 | 3.1 | 2.8 | 2.3 | 4.1 |
| Smoke | 96.0 | 95.3 | 97.2 | 97.7 | 93.2 |
| USERS ENTERING TX WITHIN FIRST 3 YEARS OF USE | 13.9 | 6.3 | 8.5 | 11.5 | 15.9 |

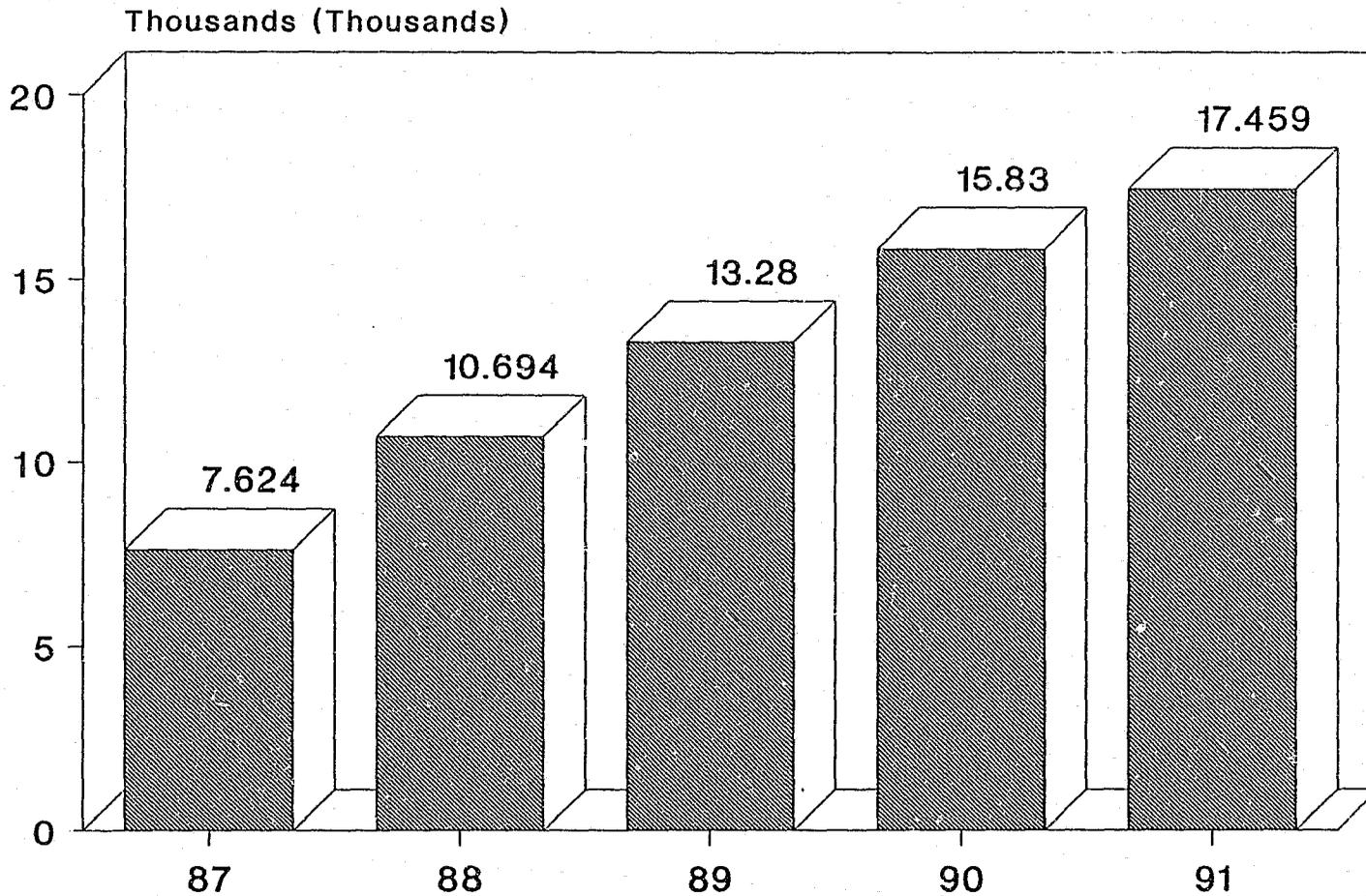
SOURCE: CALIFORNIA DRUG ABUSE DATA SYSTEM/CALIFORNIA ALCOHOL AND DRUG DATA SYSTEM

EXHIBIT 7
ALCOHOL ADMISSIONS TO COUNTY
FUNDED RESIDENTIAL PROGRAMS
1987 to 1991

| CATEGORY | 1987 | 1988 | 1989 | 1990 | 1991 |
|---|--------|--------|--------|--------|--------|
| | N=4016 | N=4158 | N=4348 | N=4350 | N=4116 |
| AGE | % | % | % | % | % |
| Less than 18 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 18 - 29 | 0.6 | 0.6 | 0.7 | 0.5 | 0.5 |
| 30 - 39 | 37.9 | 44.8 | 41.1 | 43.3 | 42.0 |
| 40 - 49 | 19.8 | 20.8 | 22.3 | 20.8 | 25.0 |
| 50 + | 13.7 | 10.0 | 12.2 | 10.1 | 8.8 |
| Mean | 36.8 | 36.2 | 37.0 | 36.1 | 36.4 |
| Median | 35 | 35 | 36 | 35 | 35 |
| SEX | | | | | |
| Male | 79.7 | 81.6 | 83.2 | 83.1 | 81.0 |
| Female | 20.3 | 18.4 | 16.8 | 16.9 | 19.0 |
| RACE | | | | | |
| White | 78.9 | 79.3 | 73.3 | 72.6 | 73.2 |
| Black | 13.6 | 10.9 | 17.5 | 15.2 | 16.1 |
| Hispanic | 5.9 | 7.5 | 6.9 | 9.3 | 6.9 |
| Native American | 1.2 | 1.4 | 1.7 | 1.7 | 1.2 |
| Other | 0.4 | 0.9 | 0.6 | 1.2 | 2.6 |
| EDUCATION | | | | | |
| Less than 12 | 19.8 | 18.8 | 21.2 | 20.4 | 21.3 |
| 12th Grade | 42.6 | 41.0 | 41.5 | 41.3 | 40.4 |
| Some College | 26.1 | 29.5 | 28.6 | 29.4 | 28.9 |
| College Graduate | 11.5 | 10.7 | 8.7 | 8.8 | 9.4 |
| PRIOR DRUG TREATMENT | | | | | |
| Yes | 70.1 | 72.0 | 71.5 | 71.8 | 70.5 |
| No | 29.9 | 28.0 | 28.5 | 28.2 | 29.5 |
| REFERRAL SOURCE | | | | | |
| Criminal Justice System | 5.0 | 2.9 | 3.2 | 3.9 | 3.4 |
| Not CJS | 95.0 | 97.1 | 96.8 | 96.1 | 96.6 |
| PRIOR ARRESTS | | | | | |
| None | N/A | N/A | N/A | N/A | 21.4 |
| 1 - 2 | | | | | 26.9 |
| 3 or More | | | | | 51.7 |
| ROUTE OF ADMINISTRATION | | | | | |
| Oral | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| USERS ENTERING PROGRAM WITHIN FIRST 3 YEARS OF USE | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

SOURCE: COUNTY MANAGEMENT INFORMATION INDICATOR SYSTEM/CALIFORNIA ALCOHOL AND DRUG DATA SYSTEM

EXHIBIT 8
Neighborhood Recovery Center Participant
1987 - 1990



APPENDIX H

High Risk Alcohol and Drug Use by Teens in Yolo County 1987-1991

David Stoebel

Yolo County Department of Alcohol and Drug Programs
Prevention Training and Resource Center

Introduction

Since 1986, this department has conducted a regular survey of alcohol and other drug use by teens in Yolo County. Previous reports about this survey have focused primarily on how many teens have used a given drug in a given time period¹. While useful, those findings have not given a clear picture of the proportion of teens who are seriously involved with drugs or alcohol and how many are only moderately involved.

In 1989, Skager and Frith² developed a way of separating teens into one of three levels of drug use based on the potential riskiness of their drug using behavior. They define three distinct sub-populations of teen drug-users:

- **Abstainers (ABS)**, those who use no alcohol or illicit drugs at all. They are a minority of all teens.
- **High Risk Users (HRU)**, also a minority of teens, but a group which engages in relatively frequent alcohol and other drug use; and
- **Conventional Users (CON)**, who comprise the majority of teens. They use alcohol occasionally to frequently and/or illicit drugs on an experimental or occasional basis.

Skager and Frith theorize that High Risk Users and Conventionals are qualitatively distinct from one another with High Risk Users comprising a special group that experiences the most severe consequences of substance use.

In this report we have adapted Skager and Frith's method to data from Yolo County and report on current trends in the number of High Risk Users in Yolo County. Secondly, we describe the larger group of Conventional Users who are moderately involved and address the relative risks faced by that second group.

Method

Data collection methods for this report have been described previously.³ The definitions of "High Risk User", "Conventional User" and "Abstainer" devised by Skager and Frith and adapted here, are summarized in Table 1. Differences between our definitions and Skager's result from the fact that Skager surveyed teens in grades 7, 9 and 11 about alcohol and other drug use within the past 6 months while we queried 8th, 10th and 12th graders about use during the past

year. Skager also specifically asked about crack cocaine use and poly-drug use while we asked only about inhalant drugs and combining crack with other forms of cocaine and did not ask questions about polydrug use.

Despite these differences between our work and Skager's, the use of risk categories still provides a valuable tool for monitoring harmful alcohol and other drug use by Yolo County teens and offers the basis for some rough comparisons between Yolo County teens and teens statewide.

| User Categories SUMMARY OF DEFINITIONS | | |
|---|---|---|
| | Skager and Frith (1990) | Yolo County |
| High Risk User (HRU) | <ul style="list-style-type: none"> •Use of cocaine in any form in past 6 months •Weekly or more frequent use of marijuana in past 6 months •Polydrug use 3 or more times in past 6 months •Use of 3 or more other drugs in past 6 months or use of any one other drug "a few times or more" and •Any alcohol use in the past six months. | <ul style="list-style-type: none"> •Use of cocaine in the past year; or, •Use of marijuana 3 or more times in the past month; or, •Use of three or more of the following in the past year: heroin, other narcotics, barbiturates, inhalants, LSD or other hallucinogens; or, •Use of any of the above drugs three or more times in the past year; and •Any alcohol use in the past year. |
| Conventional User (CON) | Not in High Risk or Abstainer group. | Not in High Risk or Abstainer group. |
| Abstainer (ABS) | No alcohol or other drug use in the past six months. | No alcohol or other drug use in the past year. |

Findings

Trends in Risk Categories 1987-91

Four year trends in percentages of HRU, CON and ABS teens in Yolo County are presented in Table 2.

| Table 2 Trends In Risk Categories | | | | |
|--|------|------|------|-------------------------|
| Percentage of Teens Who Are High Risk Users | | | | |
| | 1987 | 1989 | 1991 | % Change 1987-1991 |
| 8th Grade | 15.0 | 10.3 | 12.5 | -16.6 |
| 10th Grade | 22.8 | 23.5 | 16.4 | -28.1 |
| 12th Grade | 29.6 | 27.9 | 21.5 | -27.4 |
| Percentage of Teens Who Are Conventional Users | | | | |
| | 1987 | 1989 | 1991 | % Change - 1987-1991 |
| 8th Grade | 54.3 | 48.0 | 50.9 | -6.3 |
| 10th Grade | 60.3 | 53.0 | 59.9 | -0.7 |
| 12th Grade | 60.2 | 57.9 | 60.5 | +0.5 |
| Percentage of Teens Who Are Abstainers | | | | |
| | 1987 | 1989 | 1991 | % Change - 1987-1991 |
| 8th Grade | 31.6 | 41.6 | 38.3 | +21.2 |
| 10th Grade | 16.9 | 23.5 | 23.7 | +40.0 |
| 12th Grade | 10.1 | 14.2 | 18.0 | +78.2 |

Summary and Comment

- During the period 1987 - 1991 there has been a significant reduction in the proportion of High Risk Users.

- There has been a corresponding increase in the numbers of abstainers during the same period.
- The proportion of teens who fall into the "Conventional" category has remained relatively stable.

Characterization of Risk Categories.

To better understand the composition and behavior of each group, we have collected additional data from the 1991 survey.

Gender Distribution of Each User Group

| Table 3 Gender Distributions of User Groups | | | | | | |
|--|-----------------|---------|--------------------|---------|------------|---------|
| Percent Of Boys And Girls At Indicated Grade Level Who Are In Each User Group | | | | | | |
| | High Risk Users | | Conventional Users | | Abstainers | |
| | Males | Females | Males | Females | Males | Females |
| 8th Grade | 14.1 | 10.8 | 45.0 | 52.3 | 40.9 | 36.8 |
| 10th Grade | 15.6 | 17.1 | 63.3 | 57.1 | 21.1 | 25.8 |
| 12th Grade | 24.1 | 18.9 | 58.6 | 62.5 | 17.9 | 18.6 |

Summary and Comment

- No group appears to be predominantly male or female.
- This finding is consistent with what Skager and Frith showed statewide.

Frequent and Heavy Use by User Groups

To further describe alcohol and other drug use by the three user groups, we have characterized each category with respect to monthly drug and alcohol use and the frequency of binge drinking (Tables 4-6)

| Table 4 Monthly Drug Use By User Groups | | | |
|---|-----------------|--------------------|------------|
| (Percent of Each Group That Used an Illicit Drug in Previous 30 Days) | | | |
| | High Risk Users | Conventional Users | Abstainers |
| 8th Graders | 88.1 | 11.1 | 0.1 |
| 10th Graders | 82.0 | 12.5 | 0.8 |
| 12th Graders | 79.6 | 15.4 | 0.0 |

| Table 5 Monthly Drinking By User Groups | | | |
|---|-----------------|--------------------|------------|
| (Percent of Each Group That Used Alcohol in Previous 30 Days) | | | |
| | High Risk Users | Conventional Users | Abstainers |
| 8th Graders | 77.7 | 41.9 | 0.8 |
| 10th Graders | 88.4 | 57.3 | 0.0 |
| 12th Graders | 89.3 | 66.3 | 0.9 |

| Table 6 Binge Drinking By User Groups | | | |
|--|-----------------|--------------------|------------|
| (Percent Of Each Group That Consumed Five Or More Drinks In A Row In The Past Two Weeks) | | | |
| | High Risk Users | Conventional Users | Abstainers |
| 8th Graders | 56.9 | 19.8 | 0.3 |
| 10th Graders | 67.3 | 29.4 | 0.0 |
| 12th Graders | 58.7 | 34.3 | 1.4 |

Summary and Comment

- Abstainers who reported drug and alcohol use are a small number of teens (less than 10 individuals in each case) who apparently misread the survey instructions.
- High Risk Users are much more likely to use both alcohol and other drugs on a monthly basis than are Conventional Users.
- High Risk Users also are more likely to engage in binge drinking than are Conventional Users.
- The Conventional Users are more likely to use alcohol on a monthly basis than to use drugs on a monthly basis.
- Although Conventional Users do not use alcohol or other drugs as frequently or to as great an extent as do High Risk Users, Conventional Users' alcohol use, as indicated by the prevalence of monthly and binge drinking, is still significant and should not be ignored.
- Because there are more Conventional than High Risk Users, the total number of Conventionals who binge on a biweekly basis is greater than the number of High Risk Users who do so.

Cigarette Smoking and User Groups

There is considerable evidence of a link between cigarette smoking and illicit drug use. Numerous studies have found that cigarettes provide a "gateway" to the use of other drugs. Given that research, we felt it would be useful to determine what proportion of smokers have progressed to High Risk drug use.

Smoking is not common among Yolo County teens. In 1991, approximately 5% indicated that they "Smoke Regularly Now". Table 7 presents the relative proportions of current smokers in each of the three risk categories.

| Table 7 Level of Drug Use By Current Smokers | | | |
|---|-----------------|--------------------|------------|
| (Percent Of Current Smokers in Each Group) | | | |
| | High Risk Users | Conventional Users | Abstainers |
| 8th Graders | 62.7 | 28.8 | 6.8 |
| 10th Graders | 68.8 | 31.2 | 0.0 |
| 12th Graders | 75.3 | 23.3 | 0.0 |

Summary and Comment

- Between two-thirds and three-quarters of teens who smoke regularly now also are High Risk Users.

Recommendations

Based on these findings, we recommend that local prevention, intervention, and treatment programs:

- Continue to focus on serving High Risk youths,
- Find ways to intervene with Conventional Users, many of whom do engage in risky drinking practices
- Continue to seek ways of merging tobacco and other substance abuse services

References

1. Stoebel, D., J. Brootkowski, and C. McKendry. Use of Tobacco, Alcohol, and Illicit Drugs by Junior High and Senior High Students in Yolo County. Results for 1986, 1987, 1989, and 1991; Yolo County Department of Drug and Alcohol Programs, 1991.
2. Skager, R. and S. Frith. Identifying High Risk Substance Users in Grades 9 and 11; California Attorney General's Office, 1989.
3. Stoebel, D., and C. McKendry. Use of Tobacco, Alcohol, and Illicit Drugs by Junior and Senior High School Students in Yolo County; Yolo County Department of Alcohol and Drug Programs, 1986.

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Use of Tobacco, Alcohol and Illicit Drugs by Junior High and High School Students in Yolo County: Results for 1986, 1987, 1989 and 1991

David Stoebel
Julia Brootkowski
C. Jane McKendry

Yolo County Department of Alcohol and Drug Programs

Introduction

This report describes results from an ongoing project to measure adolescent alcohol and other drug use in Yolo County. The project is intended to provide data for evaluating current prevention programs and to assist in designing new ones.

During February 1986, 1987, 1989, and 1991, students in grades 8, 10 and 12 at all Yolo County public junior and regular senior high schools* responded to a written questionnaire under conditions that guaranteed anonymity and confidentiality of their responses.

Methods

More than 1,400 students participated in the survey each year. In 1991 1,853 students (695 8th graders, 623 10th graders, and 535 12th graders) responded to the questionnaire. Participation in the survey was voluntary and all students were informed of this fact at the time of the survey. Twenty-three students declined to participate in 1991.

The field procedures and survey instrument used in this project were modeled on those used by the University of Michigan, Institute for Social Research "Monitoring the Future" Project¹. Specific adaptations for Yolo County have been described in previous reports on the project^{2,3,4}.

* Results from students at continuation high schools are not included in this report.

Survey Instrument

The questionnaire used in this project was adapted from the "Monitoring the Future" instrument and has been described previously^{2,3,4}. In 1991 additional questions were added. These questions dealt with locations and situations where alcohol and drugs were used, where and how these substances were obtained, and high risk behavior associated with alcohol and other drug use.

Field Procedures, Sample Selection and Response Validity

Procedures for selecting participants and administering the survey in 1991 were identical to those described for previous years of the study. As in previous years, research assistants checked all answer sheets for invalid responses. This year 73 answer sheets were removed from the sample.

Findings

I. Use of Tobacco Products

Lifetime and Regular Tobacco Use

As shown in Figures 1 and 2, the lifetime prevalence of tobacco use (percentage of students who had ever used cigarettes or chewing tobacco) decreased among students in all grades. Particularly notable is the dramatic decrease in lifetime cigarette use by 12th graders, which followed substantial increases in 1987 and 1989.

There were slight increases in the number of 8th and 10th graders who

FIGURE 1
Lifetime Prevalence of Cigarette Use Among Yolo County Teens
 (Percent of teens who have ever smoked)

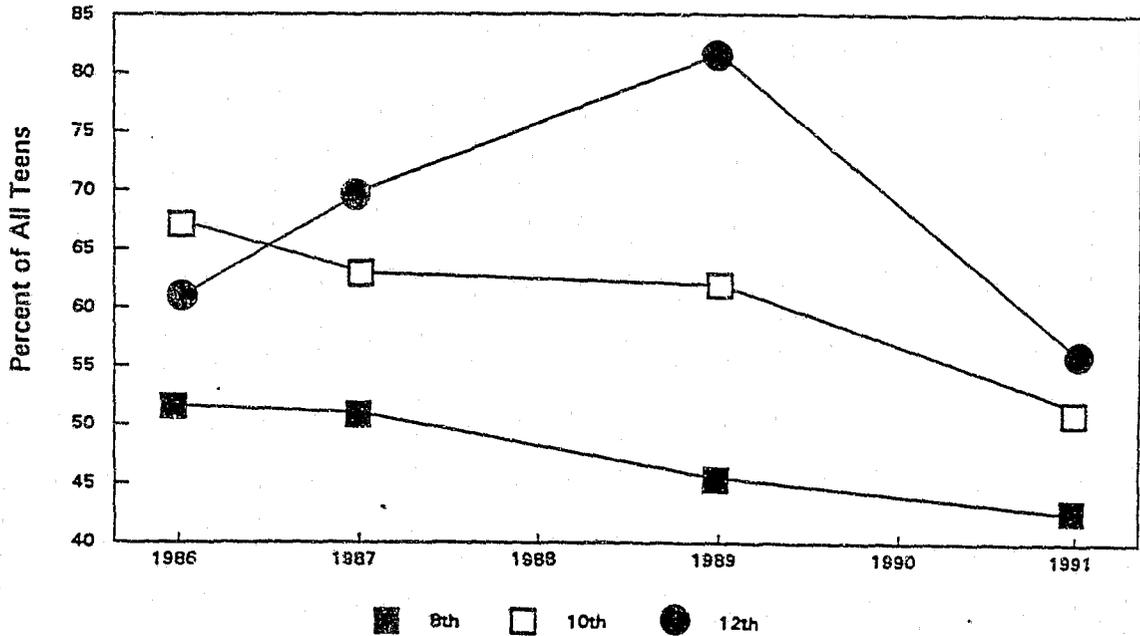


FIGURE 2
Lifetime Prevalence of Chewing Tobacco Use Among Yolo County Teens
 (Percent of all teens who have ever tried chewing tobacco)

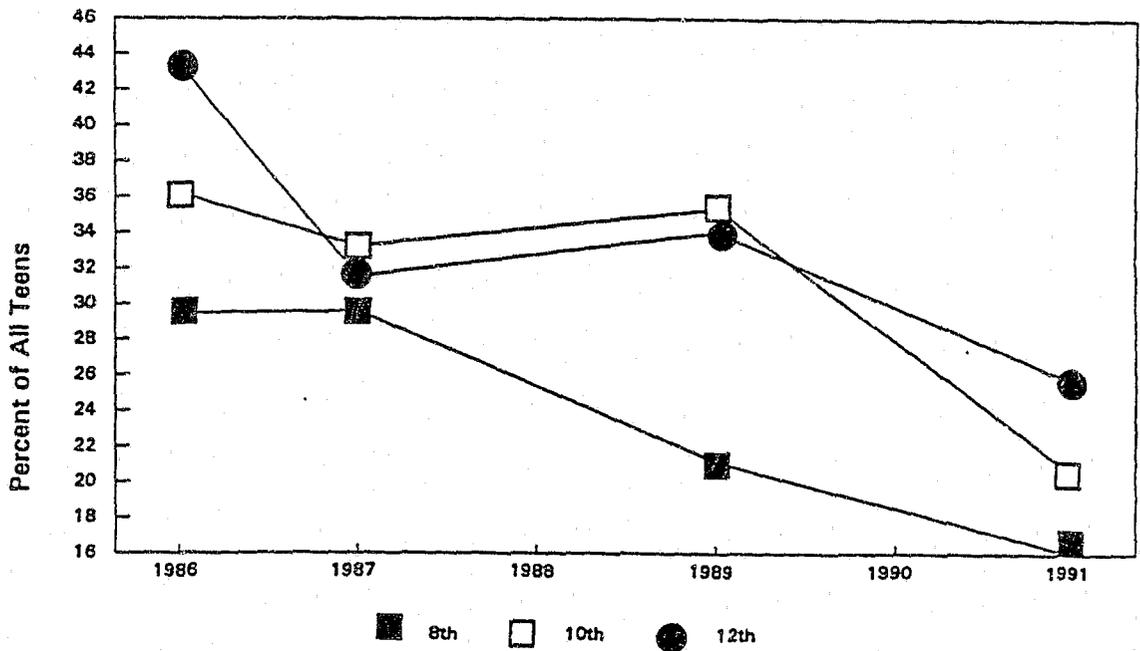


FIGURE 3
Current Use of Cigarettes by Yolo County Teens
 (Percent of all teens who smoke regularly now)

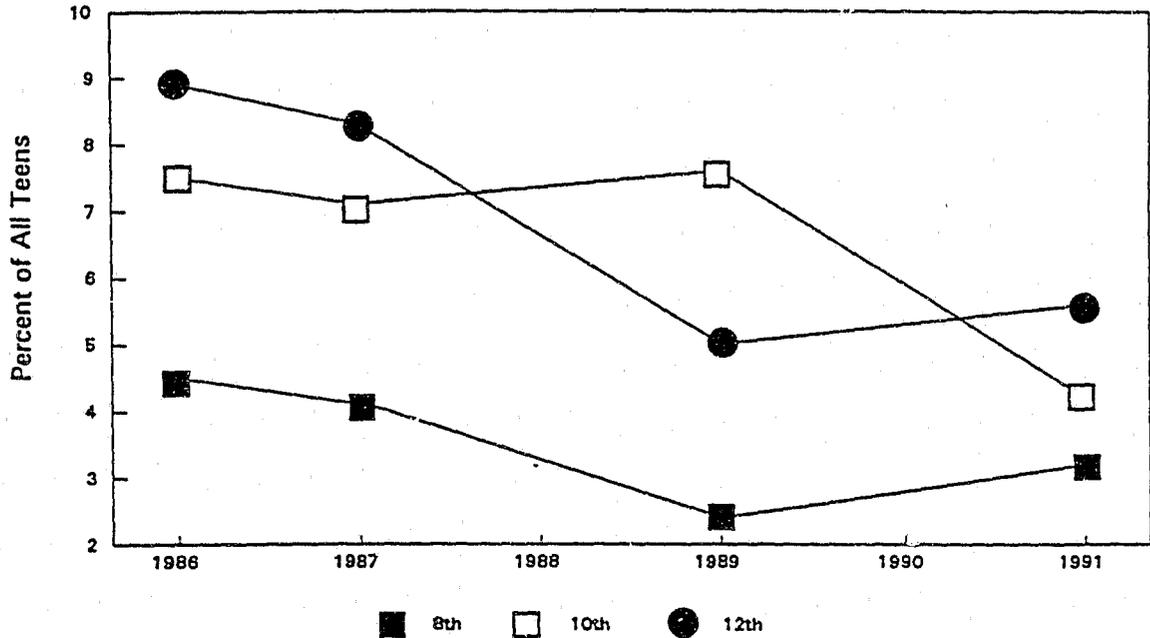
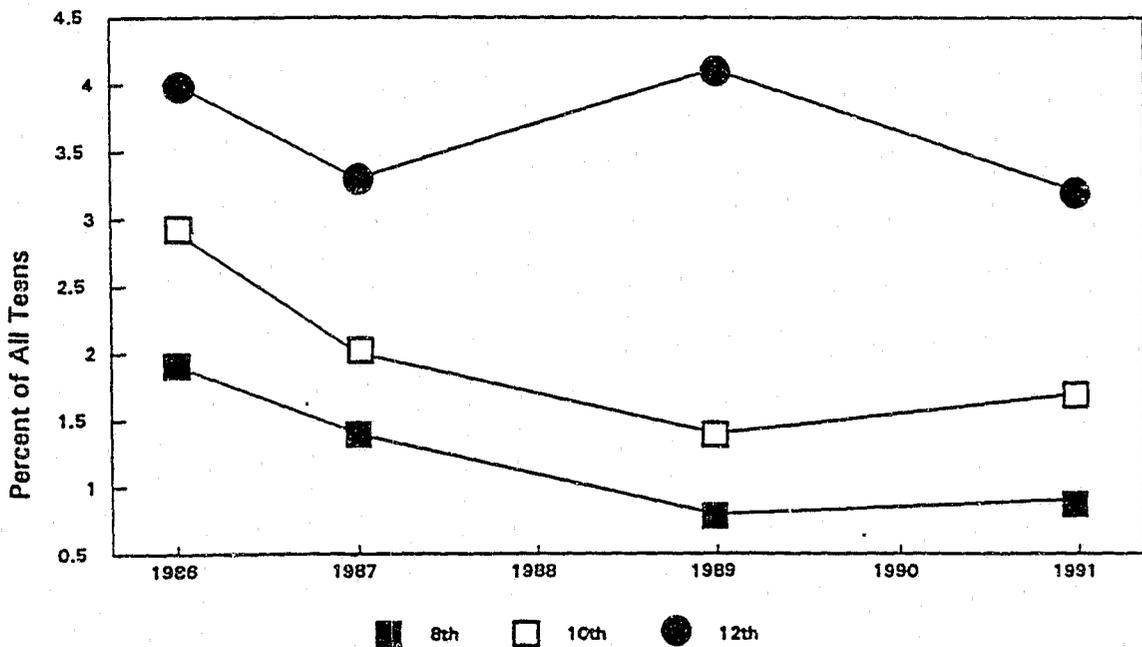


FIGURE 4
Current Use of Chewing Tobacco by Yolo County Teens
 (Percent of all teens who chew regularly now)



currently use cigarettes and chewing tobacco while the regular use of tobacco continued to decline for 12th graders (Figures 3 and 4). Despite these slight increases, however, teens in Yolo County continue to use tobacco products at a rate lower than the rate found among teens nationwide. Nationally, Johnston, et. al.⁵, have found that 19.1% of 12th graders smoke cigarettes daily, compared to 4.2% of Yolo County seniors who indicated that they smoke "regularly now."

II. Alcohol and Other Drug Use

Lifetime Prevalence

Figures 5 and 6 display five year trends in lifetime prevalence (percent of teens who have ever used) of illicit drug and alcohol use for all grades surveyed. Figure 5 demonstrates that, consistent with findings at the state and national levels the total number of Yolo County teens who have used drugs has declined substantially. Lifetime alcohol use (Figure 6) is also lower, although the declines are not as marked as the declines in drug use prevalence.

Table 1 presents the five year trends in lifetime prevalence for the individual drugs examined in this study. Table 1 reveals a decreased lifetime prevalence for alcohol, marijuana and other narcotics for *all* grades. However, since 1989 the percentage of teens who have used each of the other drugs listed has increased in at least one of the grades. Eighth graders showed the most increases in use with higher percentages of students reporting that they had tried six of the ten drugs. Increases among 8th graders included a doubling in the proportion who had used amphetamines, a 20% increase in the percentage reporting cocaine use, and a

FIGURE 5
Lifetime Prevalence of Illicit Drug Use by Yolo County Teens
 (Percent of all teens who have ever used one or more illicit drugs)

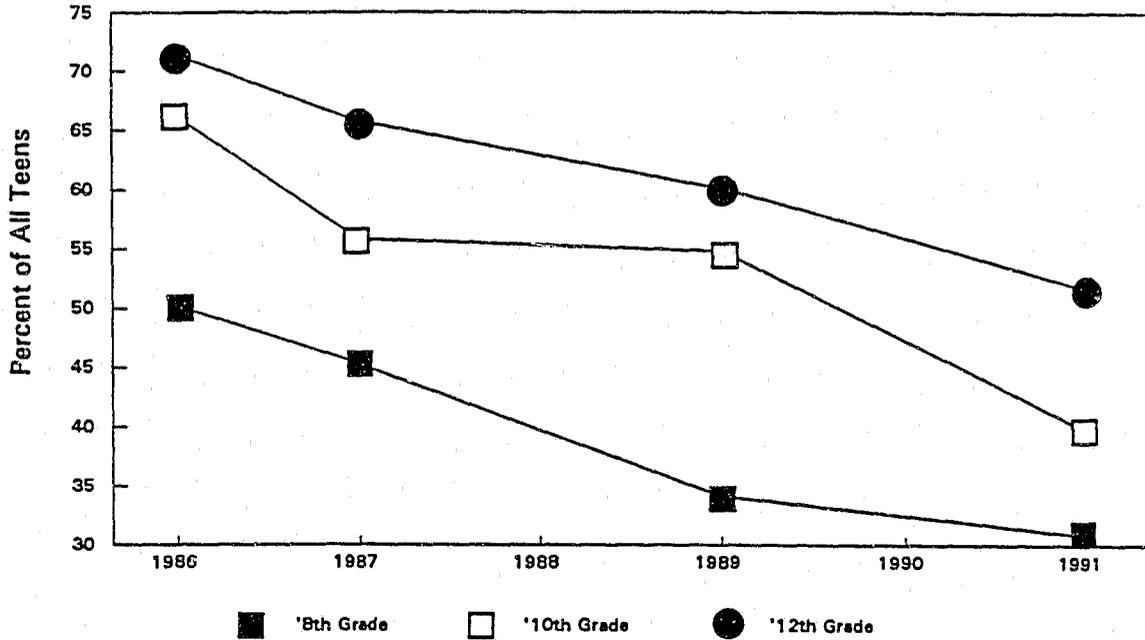


FIGURE 6
Lifetime Prevalence of Alcohol Use by Yolo County Teens
 (Percent of all teens who have ever used alcohol)

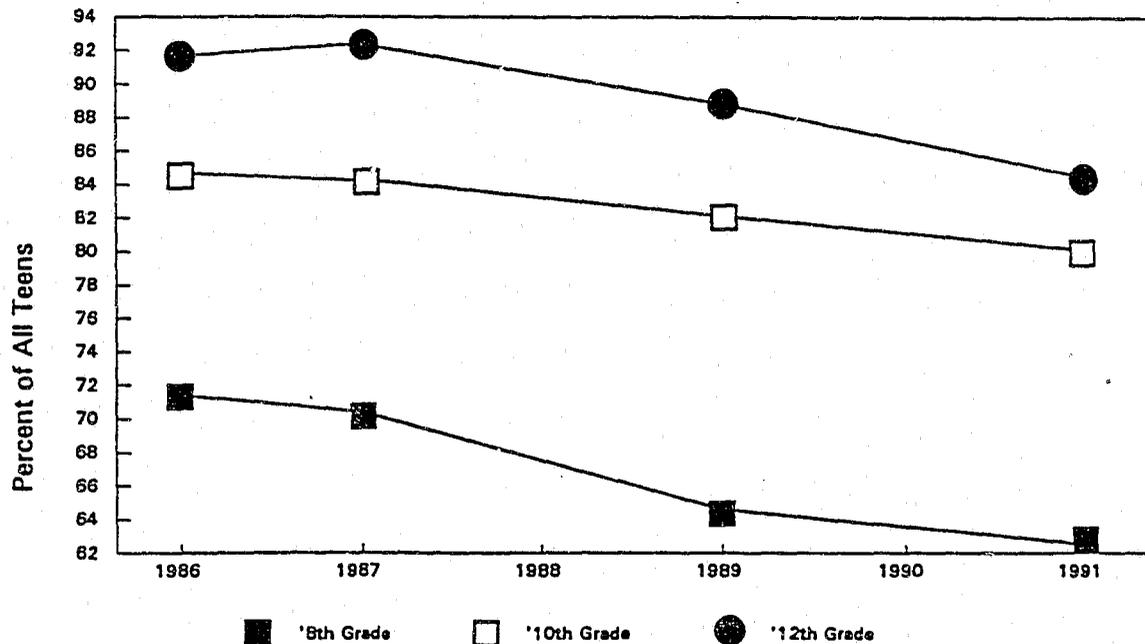


TABLE 1
Lifetime Prevalence of Alcohol and Ten Other Classes of Drugs

(Percent of the total class who have ever used the indicated drug)

| | 8th Grade | | | | 10th Grade | | | | 12th Grade | | | |
|------------------------|-----------|------|------|------|------------|------|------|------|------------|------|------|------|
| | 1986 | 1987 | 1989 | 1991 | 1986 | 1987 | 1989 | 1991 | 1986 | 1987 | 1989 | 1991 |
| Alcohol | 71.4 | 70.4 | 64.6 | 62.5 | 84.7 | 84.2 | 82.1 | 80.1 | 91.7 | 92.4 | 88.8 | 84.5 |
| Marijuana | 35.7 | 30.4 | 21.9 | 18.4 | 58.5 | 49.4 | 45.5 | 32.8 | 66.1 | 61.7 | 56.0 | 43.4 |
| Inhalants | 34.1 | 31.5 | 21.5 | 20.3 | 28.0 | 28.1 | 22.4 | 15.6 | 17.8 | 16.5 | 16.8 | 16.8 |
| Amphetamines | 11.2 | 9.4 | 2.8 | 5.8 | 27.4 | 21.1 | 14.0 | 7.6 | 33.4 | 27.8 | 15.6 | 10.4 |
| Cocaine | 9.4 | 6.6 | 4.3 | 5.4 | 22.5 | 16.7 | 14.0 | 7.0 | 35.9 | 28.5 | 15.6 | 12.0 |
| Barbiturates | 5.4 | 2.9 | 2.9 | 2.8 | 8.8 | 7.1 | 6.7 | 4.6 | 5.7 | 5.1 | 3.3 | 3.5 |
| Tranquilizers | 6.2 | 7.5 | 2.7 | 4.9 | 12.9 | 10.1 | 10.8 | 5.6 | 10.2 | 10.9 | 9.0 | 5.9 |
| LSD | 4.8 | 5.1 | 2.6 | 6.1 | 7.6 | 12.4 | 13.4 | 10.8 | 9.4 | 9.4 | 11.1 | 14.1 |
| Other Hallucinogens | 4.1 | 3.7 | 2.6 | 3.9 | 10.4 | 9.9 | 9.2 | 4.1 | 19.6 | 13.9 | 11.0 | 10.6 |
| Heroin | 1.7 | 2.1 | 1.6 | 2.6 | 0.7 | 2.8 | 2.2 | 2.5 | 2.1 | 1.4 | 1.3 | 1.4 |
| Other Narcotics | 5.2 | 5.8 | 4.9 | 3.8 | 12.0 | 11.1 | 10.4 | 8.4 | 13.1 | 10.0 | 8.7 | 8.6 |

57.4% increase in those who had used LSD.

Findings with respect to LSD use are particularly troubling given the seriousness of this drug. Since 1986, lifetime prevalence of LSD use has increased among all three grades. Among 12th graders this year, lifetime LSD use was substantially higher than the lifetime prevalence of 8.7% seen among 12th graders nationwide⁵.

Thirty Day Prevalence

While lifetime prevalence gives an overall picture of teen drug and alcohol use, thirty day prevalence (any use in the past 30 days) is a standard measure of recent use. Table 2 presents the trends in Thirty Day Use of alcohol and the four most commonly used illicit drugs.

The trends in Thirty Day Use prevalence do not reflect the downward trends in overall drug and alcohol use seen in Figures 1 and 2. The Thirty Day prevalence of alcohol use increased among 8th and 10th graders and decreased only slightly among 12th graders, (2.8%). The Thirty Day prevalence for marijuana use increased among 8th and 12th graders, reversing downward trends which began in 1986. There also were substantial percentage increases in Thirty Day amphetamine use (+144%) and cocaine use (+25%) among 8th graders.

Daily Use

Daily Use, defined as use 20 or more times in the past 30 days, is a measure of frequent drug or alcohol use. Trends in Daily Use of alcohol and the four most common illicit drugs generally reflect the increase seen for trends in Thirty Day prevalence. Daily alcohol use increased 45% among 10th graders, and

TABLE 2
Thirty Day Prevalence of 5 Major Drugs

(Percent of the total class who had used in the previous thirty days)

| | 8th Grade | | | | 10th Grade | | | | 12th Grade | | | |
|-------------|-----------|------|------|------|------------|------|------|------|------------|------|------|------|
| | 1986 | 1987 | 1989 | 1991 | 1986 | 1987 | 1989 | 1991 | 1986 | 1987 | 1989 | 1991 |
| Alcohol | 39.7 | 33.1 | 28.4 | 29.7 | 55.9 | 57.4 | 42.2 | 47.0 | 73.5 | 70.0 | 61.1 | 59.4 |
| Marijuana | 18.4 | 12.9 | 7.0 | 9.6 | 29.6 | 25.3 | 16.8 | 13.4 | 35.0 | 26.9 | 20.5 | 22.7 |
| Inhalants | 13.4 | 10.6 | 7.8 | 7.2 | 6.9 | 7.1 | 5.0 | 3.5 | 3.6 | 3.2 | 2.9 | 2.1 |
| Amphetamine | 4.9 | 4.2 | 0.9 | 2.2 | 10.4 | 10.2 | 4.2 | 3.3 | 13.8 | 8.5 | 5.4 | 2.6 |
| Cocaine | 3.3 | 2.6 | 1.6 | 2.0 | 11.9 | 6.7 | 4.9 | 3.0 | 17.8 | 11.1 | 6.8 | 2.8 |

TABLE 3
Daily Use of 5 Major Drugs

(Percent of the total class who used twenty or more times in the previous 30 days)

| | 8th Grade | | | | 10th Grade | | | | 12th Grade | | | |
|--------------|-----------|------|------|------|------------|------|------|------|------------|------|------|------|
| | 1986 | 1987 | 1989 | 1991 | 1986 | 1987 | 1989 | 1991 | 1986 | 1987 | 1989 | 1991 |
| Alcohol | 1.2 | 1.0 | 1.8 | 1.7 | 3.6 | 5.4 | 2.2 | 3.2 | 6.4 | 6.6 | 3.8 | 3.0 |
| Marijuana | 1.8 | 0.8 | 0.0 | 0.6 | 5.4 | 6.1 | 3.6 | 2.9 | 7.2 | 3.7 | 3.1 | 3.0 |
| Inhalants | 0.9 | 0.7 | 0.3 | 0.6 | 0.3 | 0.9 | 0.0 | 0.6 | 0.3 | 0.0 | 0.3 | 0.1 |
| Amphetamines | 0.6 | 0.0 | 0.0 | 0.6 | 0.7 | 0.6 | 0.3 | 0.4 | 1.0 | 0.0 | 0.2 | 0.1 |
| Cocaine | 0.4 | 0.0 | 0.0 | 0.1 | 1.2 | 0.8 | 0.3 | 0.2 | 2.0 | 1.1 | 0.4 | 0.3 |

daily marijuana, inhalants, amphetamine and cocaine use increased among 8th graders.

Taken together, Thirty Day and Daily Use prevalences suggest that, while there has been a decrease in the total number of teens who use alcohol and illicit drugs, there is still a group who use frequently and are quite likely harmfully involved in drugs and alcohol use. Further information about this group of high risk users will be presented in a subsequent report⁶.

Heavy Alcohol Use

In 1991, alcohol had been used by more than 60% of Yolo County 8th graders, 80% of sophomores and nearly 85% of seniors. To determine the extent to which these teens have engaged in heavy drinking, students were asked how often they got high or drunk when using alcohol and how many times in the previous two weeks they had consumed five or more drinks in a row. The latter measure is a standard indicator of binge drinking. Figures 7 and 8 show the trends from 1986 to 1991.

The percentage of 8th grade students who drank enough to get high half or more of the time increased this year to 16.1%, a 15.6% increase over 1989. Both 10th and 12th grade students showed slight decreases (4.5% for 10th and 8.7% for 12th graders) in this area.

There were increases in the number of 8th and 10th graders who had consumed five or more drinks in a row during the previous two weeks. Among 10th graders, the increase was substantial (32%).

These results suggest that, as is the case with drug use, the decline in the

FIGURE 7
Drinking to Intoxication Among Yolo County Teens
 (Percent of all teens who drink to intoxication on at least half of all drinking occasions)

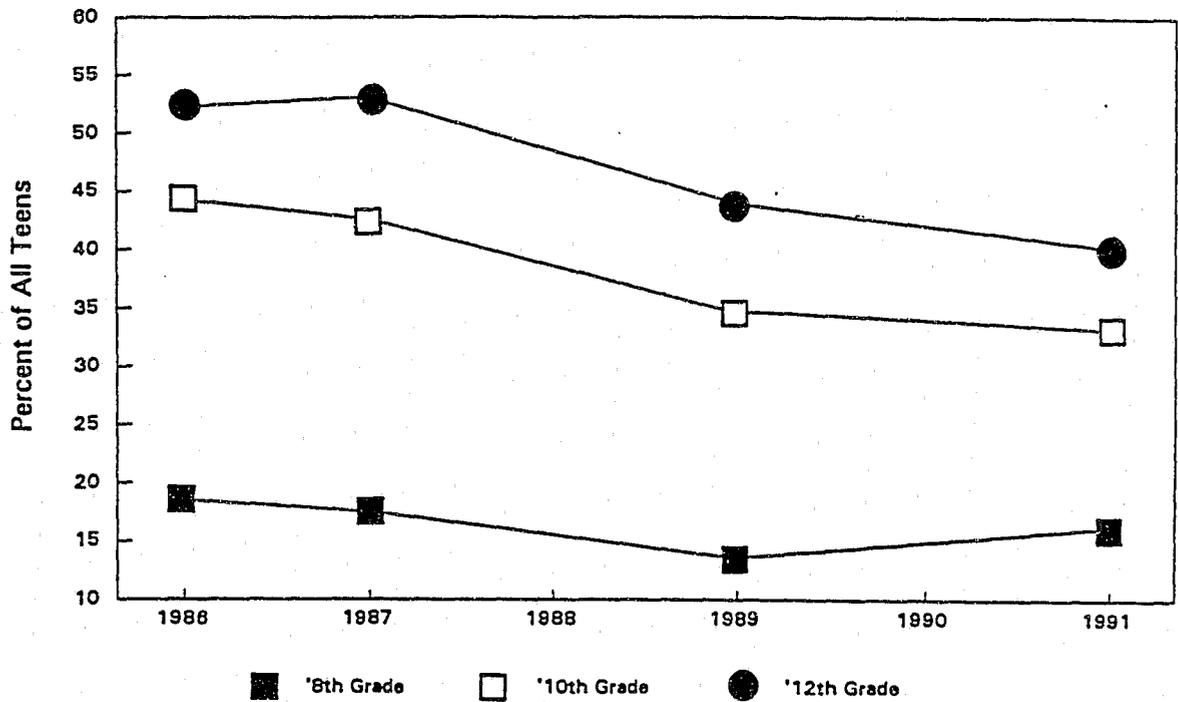
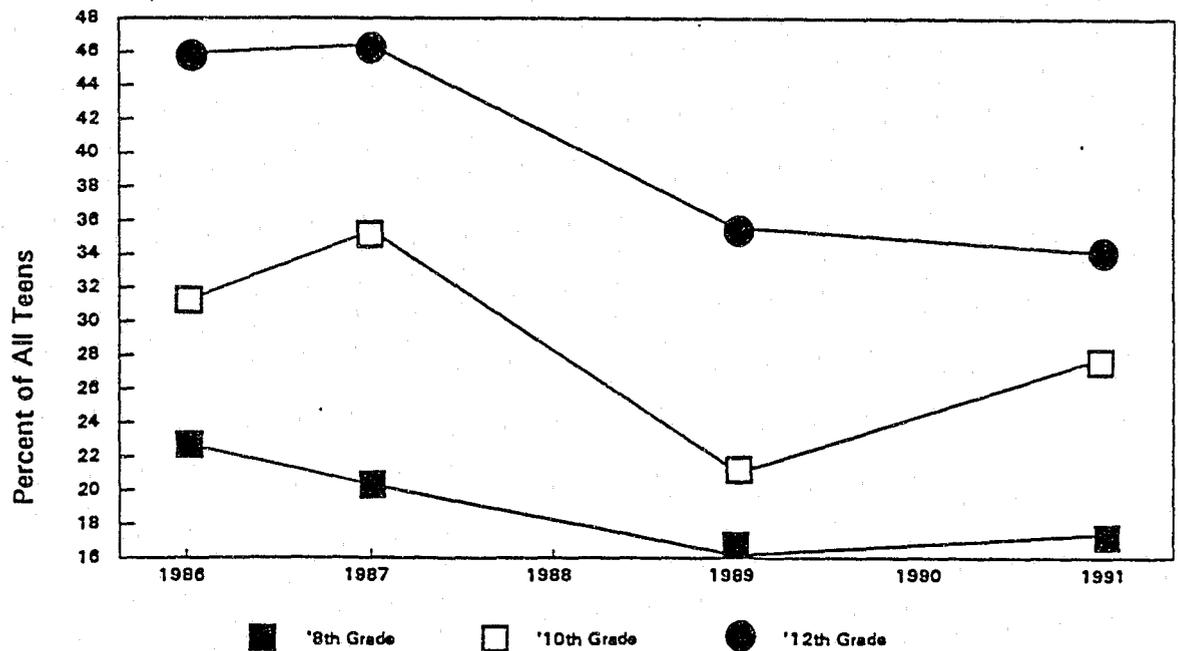


FIGURE 8
Binge Drinking Among Yolo County Teens
 (Percent of all teens who consumed five or more drinks in a row in the previous two weeks)



percentage of teens who use alcohol is not accompanied by a corresponding decrease in the number of teens who use alcohol in potentially harmful amounts. Figures 7 and 8 show that, while the prevalence of teens who frequently drink to intoxication or who binge drink has declined since 1986, the rate of decline has slowed or even reversed since 1989.

Use of Anabolic Steroids

Nineteen-eighty-nine was the first year students were asked about past and current anabolic steroid use. Table 4 shows that while anabolic steroid use by Yolo County teens is relatively rare, there has been an increase among both 8th and 10th graders in the percentage of students who have ever used steroids, and a very slight increase in the percentage of 8th graders who use steroids regularly now.

TABLE 4
Past and Current Use of Anabolic Steroids

(Have you ever used anabolic steroids to build up your body or to improve your athletic performance?)

| | 8th Grade | | 10th Grade | | 12th Grade | |
|---------------|-----------|------|------------|------|------------|------|
| | 1989 | 1991 | 1989 | 1991 | 1989 | 1991 |
| Ever Used | 2.6 | 3.5 | 1.7 | 3.0 | 2.3 | 1.9 |
| Regularly Now | 0.4 | 0.5 | 0.3 | 0.0 | 0.9 | 0.6 |

III. Tobacco, Alcohol and Drug Use by Preadolescents

Table 5 presents 1991 results of the questions that asked students when they first got drunk or very high on alcohol, and tried marijuana, inhalants and any other

drugs (such as cocaine, LSD, amphetamine, heroin, barbiturates or tranquilizers). No attempt is made here to interpret these results. We have consistently found that the older the respondent, the less likely they are to report having first tried drugs or alcohol while in elementary school. Since the question is dependent on the teen's memory and perception of past events, we have concluded that there is significant likelihood that the results of the question do not accurately reflect the student's actual experience. The results of the question are useful, however, in illustrating that drug and alcohol use does occur among preadolescents and must be addressed by parents, schools and the larger community.

TABLE 5
Students By Current Grade Level Reporting First Use
of Drugs or Alcohol While in Elementary School

| | 8th 1991 | 10th 1991 | 12th 1991 |
|--|-------------|--------------|--------------|
| Alcohol (Got drunk or very high) | 10.3 | 4.4 | 3.8 |
| Marijuana | 8.1 | 6.5 | 5.4 |
| Inhalants | 11.8 | 6.1 | 4.1 |
| Smoke Cigarettes Daily | 14.3 | 6.1 | 5.2 |
| Try Chewing Tobacco | 10.1 | 8.8 | 8.8 |
| Any other drug (such as cocaine, LSD, amphetamine, heroin, barbiturates, tranquilizers) | 3.5 | 2.5 | 0.9 |

IV. Sources of Supply

Alcohol

In 1991, for the first time, an attempt was made to determine how teens obtain their alcohol and other drugs. Table 6 presents responses to the question, "If you currently use alcohol, how are you most likely to get it?" A careful reader will note that the total number of teens answering this question is less than the total number of drinkers in grades 8 and 10 and greater than the number of drinkers in grade 12. We infer from this fact that some 8th and 10th graders chose not to answer this question while some of the 12th graders selected more than one source of supply.

TABLE 6
Teens' Sources of Alcohol

(If you currently use alcohol, how are you most likely to get it?)

| | 8th 1991 | 10th 1991 | 12th 1991 |
|-------------------|-------------|--------------|--------------|
| Older Friend | 16.8 | 30.1 | 40.2 |
| Brother or Sister | 5.0 | 5.2 | 4.3 |
| Parents | 11.1 | 6.7 | 8.4 |
| Other Adults | 7.0 | 7.3 | 14.2 |
| Buy it myself | 3.2 | 4.4 | 10.2 |
| Other | 16.3 | 16.8 | 18.7 |

Apparently, older friends are a significant source of alcohol for many teens. Among seniors, this source was selected by nearly half of the respondents. Despite anecdotal reports of parents buying alcohol for their teens, parents do not appear to be a major source of supply. Likewise, the "other adults" category, which presumably would include adults that teens approach outside of stores, is not a major source. The surprising size of the "other" response suggests that this question should include other choices in future surveys.

The results also indicate that some teens are able to purchase alcohol. This is particularly true among seniors, 10.2% of whom reported that purchasing it themselves was their *primary* method of access.

To further elucidate how teens are able to make purchases, respondents were asked the question: "If you have ever purchased alcohol, where have you purchased it?" In this case, teens were asked to mark all choices that applied to them; thus, most of the possible kinds of outlets were selected more often than was the "I buy it myself" option in the previous question.

TABLE 7
Locations of Teens' Alcohol Purchases

(If you have ever purchased alcohol, where have you purchased it?)

| | 8th 1991 | 10th 1991 | 12th 1991 |
|---|-------------|--------------|--------------|
| Mini-marts | 7.0 | 11.3 | 17.9 |
| Grocery stores | 4.7 | 7.2 | 10.8 |
| Liquor stores | 5.0 | 13.1 | 16.3 |
| Gas stations | 2.8 | 4.5 | 9.5 |
| Bars or restaurants | 2.3 | 3.2 | 13.9 |
| Concession stands at public events (e.g. baseball game or concert) | 2.7 | 5.5 | 6.1 |
| Other | 14.7 | 11.8 | 10.8 |

The results from this question, presented in Table 7, show that a surprising number of teens have been able to purchase alcohol. Particularly surprising is the fact that nearly 15% of 8th graders report buying alcohol at "other" locations. While some of these respondents may have been youths who have never purchased alcohol and who didn't know how else to answer the question, at least 7% of 8th graders and nearly 18% of 12th graders have been able to purchase alcohol. Of the types of outlets listed, mini-marts and liquor stores appear to be the most common places where Yolo teens have bought alcohol.

Drugs

In another part of the survey, teens were asked where they have acquired

drugs (Table 8). Since our survey instrument did not allow us to direct youths who had never used drugs to skip this question, the choice "I have never used drugs" was included. We infer, as we did with Table 6, that the discrepancy between total number of responses and the total number of users is due to some teens giving multiple answers.

As with alcohol, friends and other teens are a major source of supply. "My friends give them to me," and "I buy from another teenager" are the two most

TABLE 8
Teens' Sources of Drugs

(How are you most likely to get drugs?)

| | 8th 1991 | 10th 1991 | 12th 1991 |
|----------------------------|-------------|--------------|--------------|
| I have never used drugs | 72.5 | 60.1 | 52.4 |
| Buy from another teenager | 7.0 | 12.7 | 18.6 |
| Buy from an adult | 3.3 | 6.0 | 8.0 |
| My friends give them to me | 9.5 | 18.4 | 26.7 |
| From a brother or sister | 1.2 | 5.1 | 3.2 |
| - From my parents | 0.8 | 1.4 | 1.5 |
| Other | 6.7 | 9.1 | 7.7 |

common choices. Parents, other adults and siblings are all relatively minor sources of drugs for Yolo County teens.

V. Locations and Situations of Use Use Under High Risk Circumstances

Alcohol

Teens were asked questions regarding places, situations, and high risk circumstances where they had used alcohol, and were told to mark all response choices that applied to them. Results of these questions are presented in Tables 9, 10 and 11.

TABLE 9
Locations of Teens' Alcohol Use

(Which of the following are places where you have ever used alcohol?)

| | 8th 1991 | 10th 1991 | 12th 1991 |
|---|-------------|--------------|--------------|
| At parties | 32.7 | 57.2 | 74.9 |
| At friends' houses | 30.5 | 53.5 | 67.2 |
| At home when parents were gone | 21.1 | 37.4 | 51.3 |
| At home when parents were home | 21.1 | 22.6 | 33.4 |
| In recreational areas (e.g. parks, beaches, campgrounds) | 14.2 | 30.7 | 43.8 |
| At public events (e.g. fair, sporting event, concert) | 9.2 | 18.0 | 29.2 |
| In a hotel room rented for a party | 6.4 | 13.3 | 33.8 |
| Other | 16.5 | 26.6 | 30.9 |

All of the options for drinking locations were chosen relatively often especially by seniors; however, the three most popular sites among all three grades were parties, friends' houses, and their own homes when parents were absent. The relative frequency of drinking at home with parents present, which presumably reflects parental approval of teen alcohol use, is particularly troubling. However, care should be taken when interpreting this observation, as incidents that may have led teens to select this response could include relatively controlled (albeit illegal) circumstances, such as wine consumption with a family meal.

Of more concern to the authors are results of the question about situations of use and use under high risk circumstances (Tables 10 and 11). Clearly significant numbers of teens are using alcohol in situations where health and safety are threatened. Most notably, more than one-third of seniors reported having used alcohol while riding in a car or when on a date, and more than one-fifth had done so while alone.

The reason for concern over use in cars is obvious given the risks associated with driving under the influence and the fact that many Yolo County teens, as shown in Figure 7, tend to drink to intoxication.

Concern about alcohol use while on dates relates to the documented relationship between alcohol use and sexual activity. There is substantial anecdotal evidence suggesting that alcohol use makes teens more likely to engage in sexual activity. This evidence has been corroborated by research, including a recent survey of 620 university students which found that nearly two-thirds of the students were more likely to pursue a sexual encounter and 31% were less likely

TABLE 10
Situations of Teens' Alcohol Use

(Which of the following are situations when you have used alcohol?)

| | 8th 1991 | 10th 1991 | 12th 1991 |
|---|-------------|--------------|--------------|
| Riding in a car | 9.8 | 19.2 | 33.6 |
| On a date | 12.9 | 23.0 | 38.7 |
| Swimming or boating | 5.1 | 7.5 | 16.0 |
| While playing a sport for recreation (e.g. playing softball or football) | 4.0 | 7.8 | 12.7 |
| While carrying a weapon (e.g. a gun or knife) | 4.1 | 4.7 | 4.7 |
| When alone | 18.6 | 21.3 | 22.4 |

to take precautions against pregnancy and/or venereal disease when under the influence of alcohol or another drug⁷. Given these facts, the findings that more than one-third of Yolo County youths have used alcohol on a date suggests that there is ample risk of alcohol involvement in teen sexuality and associated problems, including pregnancy and sexually transmitted diseases.

Our concern over drinking while alone results from the fact that solitary drinking is frequently associated with alcoholism and/or drinking to escape personal problems.

Teens' reports about alcohol use under high risk circumstances, as presented in Table 11, are even more alarming. More than one-third of 12th graders have driven after drinking, and a majority of all 12th graders surveyed reported having ridden in a car driven by a teen who had been drinking. Likewise,

students' reports regarding fighting after drinking or riding with an adult driver who had been drinking suggest an overall pattern of high risk alcohol use.

TABLE 11
High Risk Drinking Circumstances

(Have you ever in your life done any of the following things?)

| | 8th 1991 | 10th 1991 | 12th 1991 |
|--|-------------|--------------|--------------|
| Driven a car after drinking | 7.0 | 10.0 | 39.1 |
| Ridden in a car driven by another teen who had been drinking | 21.9 | 35.1 | 54.3 |
| Ridden in a car driven by an adult who had been drinking | 43.6 | 48.8 | 47.6 |
| Gotten into a physical fight after drinking | 15.9 | 17.0 | 20.7 |

Drugs

Drug use locations (Table 12) and situations (Table 13) are similar to locations and situations for alcohol use, although fewer teens responded to the question, reflecting the fact that fewer teens use drugs than use alcohol. As was the case with alcohol, "parties," "friends' houses" and "at home with parents gone" are the most common sites for drug use. The main difference between drug use locations and alcohol use locations appears to be the lower proportion of teens who use at home with parents present. This fact suggests that some parents may accept their teen's use of alcohol, while far fewer are willing to accept drug use.

TABLE 12
Locations of Teens' Drug Use

(Which of the following are places where you have ever used drugs?)

| | 8th 1991 | 10th 1991 | 12th 1991 |
|---|-------------|--------------|--------------|
| I have never used drugs | 70.1 | 58.6 | 51.8 |
| At parties | 9.4 | 19.2 | 31.8 |
| At friends' houses | 10.2 | 22.5 | 30.4 |
| At home when parents were gone | 8.2 | 12.7 | 21.5 |
| At home when parents were home | 2.4 | 6.1 | 8.9 |
| In recreational areas (e.g. parks, beaches, campgrounds) | 6.3 | 15.4 | 21.2 |
| At public events (e.g. fair, sporting event, concert) | 3.7 | 9.9 | 14.8 |
| In a hotel room rented for a party | 2.3 | 4.9 | 10.1 |
| Other | 7.9 | 12.1 | 13.9 |

As was the case with alcohol, teens' selections of situations for drug use is a cause for concern. More than one-third of teens have used drugs while riding in a car, and nearly 40% have used while on a date. The use of drugs in these situations is of concern for the same reasons that alcohol use in these situations is a cause for concern.

TABLE 13
Situations of Teens' Drug Use

(Which of the following are situations when you have used drugs?)

| | 8th 1991 | 10th 1991 | 12th 1991 |
|---|-------------|--------------|--------------|
| I have never used drugs | 72.5 | 60.1 | 51.4 |
| Riding in a car | 3.8 | 12.2 | 21.6 |
| On a date | 4.6 | 7.9 | 14.8 |
| Swimming or boating | 3.1 | 6.8 | 9.4 |
| While playing a sport for recreation (e.g. playing softball or football) | 1.6 | 5.9 | 6.2 |
| While carrying a weapon (e.g. a gun or knife) | 3.3 | 4.3 | 5.6 |
| When alone | 9.5 | 11.3 | 13.6 |

The high risk circumstances under which drugs are used (Table 14) are also of concern. Although not as common as driving after drinking or riding with a drinking driver, substantial numbers of Yolo County teens have placed themselves at risk for death or serious injury as a result of their own or another person's driving after using drugs.

TABLE 14
High Risk Drug Use Circumstances

(Have you ever in your life done any of the following things?)

| | 8th 1991 | 10th 1991 | 12th 1991 |
|---|-------------|--------------|--------------|
| Driven a car after using drugs | 6.5 | 7.9 | 18.3 |
| Ridden in a car driven by another teen who had been using drugs | 12.7 | 20.3 | 30.6 |
| Ridden in a car driven by an adult who had been using drugs | 16.8 | 17.8 | 15.1 |
| Gotten into a physical fight after using drugs | 8.4 | 7.7 | 7.5 |

Conclusion

The 1991 Adolescent Alcohol and Drug Use Survey found some hopeful trends, but also some facts that should cause concern for the health and safety of Yolo County teens.

On the positive side, tobacco use by Yolo teens continues to decline and is well below the rate for teens nationally. The overall prevalence of illicit drug use has also continued its steady decline, although the prevalence of drug use by Yolo County 12th graders remains higher than the prevalence of drug use by 12th graders nationwide.

Under closer examination, there are some worrisome trends in drug use. Recent marijuana use increased among 8th & 12th graders, and stimulant use increased among 8th graders. LSD use also remained relatively common among

Yolo County teens, the lifetime prevalence having increased this year among 8th and 12th graders.

Although illicit drug use is still of concern, alcohol use remains more problematic. A majority of teens at all grades have used alcohol, and more than 17% of 8th graders, 32% of 10th graders, and 34% of 12th graders reported at least one incident of binge drinking in the previous two weeks.

The concern over alcohol use is reinforced by the study's finding with respect to situations where alcohol is used. The association between drinking and driving, violent behavior, and unprotected sex are grounds for continued action to reduce teen alcohol use.

One method for addressing such a reduction may be through continued efforts to limit teens' access to alcohol. Survey respondents report that alcohol is most frequently obtained from friends, not adults. While some of such friends may be of legal age, potentially many are not. This fact, combined with the relatively high number of teens, some even in the 8th grade, who report having purchased their own alcohol, suggests that laws intended to prevent minors' acquisition of alcohol are not achieving the desired effect. Potential remedial action could include enhanced enforcement activities, education of vendors and environmental design changes intended to reduce alcohol availability.

Findings regarding teens' acquisition of drugs also suggest a "teenage connection," although a course of action is less clear cut since significant enforcement activity already exists. Nevertheless, prevention programs designed to provide positive drug-free peer programs are warranted.

Overall, Yolo County can feel proud of its efforts to reduce teen alcohol and drug abuse, but must continue its work in the prevention and intervention areas and must give particular attention to reducing teens' access to and use of alcohol.

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**DRUG USE FORECASTING (DUF)
IN SAN DIEGO COUNTY:**

**DRUG USE PATTERNS
OF ARRESTEES**

Presented to the Statewide Epidemiology Work Group
April 1992
Sacramento, CA

San Diego



**ASSOCIATION OF
GOVERNMENTS**

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MEMBER AGENCIES: Cities of Carlsbad, Chula Vista, Coronado, Del Mar, El Cajon, Encinitas, Escondido, Imperial Beach, La Mesa, Lemon Grove, National City, Oceanside, Poway, San Diego, San Marcos, Santee, Solana Beach, Vista, and County of San Diego
ADVISORY/LIAISON MEMBERS: California Department of Transportation, U.S. Department of Defense, and Tijuana/Baja California Norte

DRUG USE FORECASTING

Introduction

The federal government has responded to the drug abuse problem in a variety of ways. One of these is the initiation of the Drug Use Forecasting program, or DUF as it is commonly called. Funded jointly by the National Institute of Justice (NIJ) and the Bureau of Justice Assistance (BJA), the DUF program documents the level and nature of drug use among arrestees booked into local detention facilities. This population was chosen, in part, because arrestees are more likely than the general population to experiment with illegal drugs. Monitoring the drug use patterns of arrestees may provide a means to predict later drug use in the general population as well as examine the link between drug use and crime.

The San Diego region was one of the first DUF sites in the country, beginning in 1987 and administered by SANDAG. Currently, there are 24 DUF sites, but only nine that include adult males and females and juvenile males. The DUF procedures have been well-established, and DUF results have become an accepted measure of drug use along with other indicators such as the Drug Abuse Warning Network (DAWN), which documents drug-related emergency room admissions and deaths; the National Household Survey; and the High School Survey. Quarterly interviews are conducted at San Diego Central Jail, the women's facility at Las Colinas, and San Diego Juvenile Hall. A minimum of 225 men, 100 women, and 100 juveniles participate in interviews that elicit information about demographics (ethnicity, age, employment, education, income), sexual practices (number of partners in the last year), drug use (type, age at first use, 30 day use, and dependency), treatment issues (ever received treatment, current treatment need), injection history (ever injected, number of times injected, drugs injected), and HIV risk factors (needle sharing, recency of sharing, effects of AIDS knowledge on sharing). Urine samples are tested for ten drugs including marijuana, phencyclidine (PCP), opiates (heroin and other opiates), cocaine, methadone, methamphetamine, and barbiturates.

The DUF program seeks to ensure that 90% of all arrestees agree to be interviewed, and 80% of those provide a voluntary urine sample. The success of the San Diego program can be attributed to the cooperation SANDAG staff receive from the Sheriff's Department and the Probation Department, including assistance from Sheriff's reserve officers. Approximately 18 interviewers, recruited and trained by SANDAG staff, enhance the program with outstanding interviewing skills.

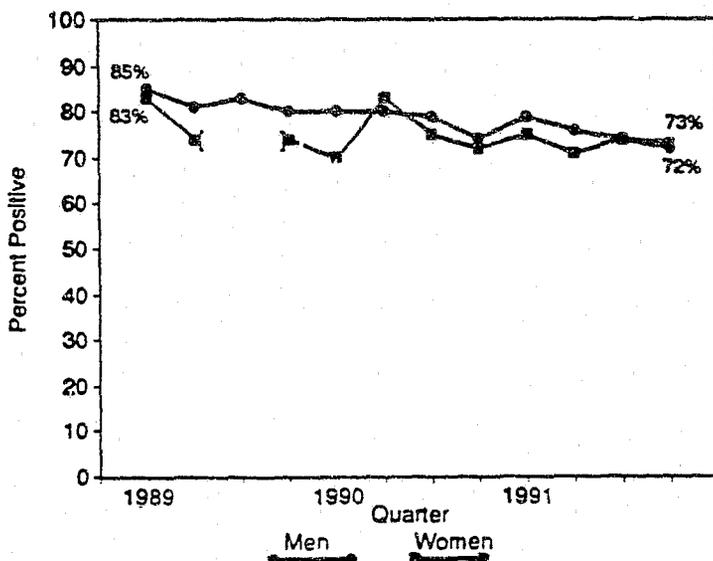
Trends in Drug Use - Men and Women

Any Drug Use

- Both male and female participants in the DUF program demonstrated a general decline in overall drug use from 1989 to 1991 as measured by the percent positive for any drug.
- Men, generally, were more likely to show a steady decrease, from 85% in early 1989 to 72% in late 1991. The declines may be associated with a change in the arrest population.
- Females also showed a decline, with dramatic changes in some quarters such as the spike from 70% in February 1990 to 83% in the subsequent quarter. Overall drug positives for women declined from 83% in 1989 to 73% in 1991.
- Despite the decline indicated by adult arrestees participating in the DUF program across the nation, San Diego men and women still lead most DUF sites in the country with respect to the overall percent positive.

Figure 1

DUF ADULT ARRESTEES POSITIVE FOR ANY DRUG
San Diego County, 1989-1991



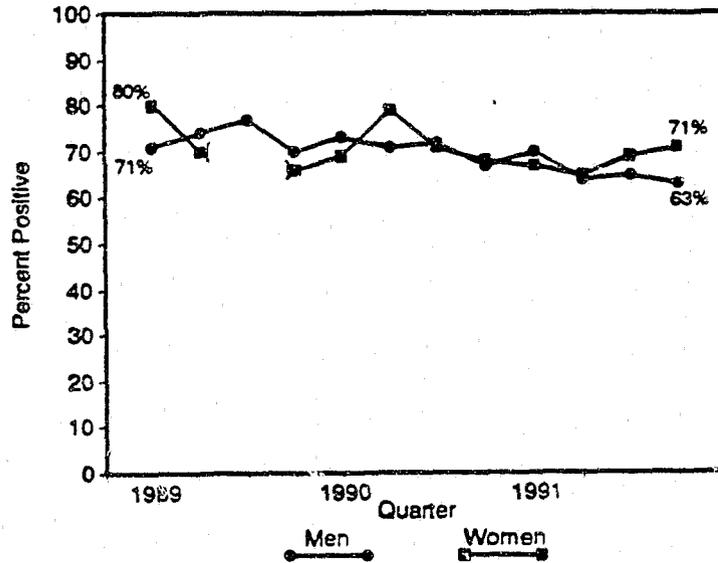
NOTE: Break in trend line indicates no data available for that quarter
SOURCE: San Diego Association of Governments

Drug Use Excluding Marijuana

- A disturbing feature of San Diego's drug-using arrestees is the high percentage who are drug positive when marijuana is not included. In a three-year period, over 60% of both men and women in each quarter tested positive for drugs other than marijuana.
- The trend line for men is generally downward, although not consistently. The percent positive varied from 71% in the first quarter of 1989 to 63% in October of 1991, with a high of 77% in the third quarter of 1989.
- The female trend was more erratic with several peaks and valleys. Beginning with 80% positive in 1989, and dropping to 65% in the summer of 1991, females showed 71% positive for drugs other than marijuana in November of the same year.

Figure 2

**DUF ADULT ARRESTEES POSITIVE FOR DRUGS
EXCLUDING MARIJUANA
San Diego County, 1989-1991**



NOTE: Break in trend line indicates no data available for that quarter.

SOURCE: San Diego Association of Governments

Opiate Use

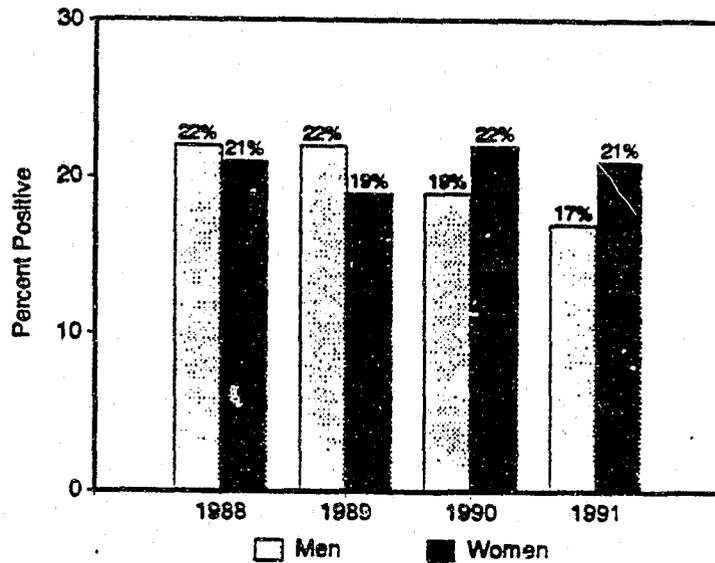
- Combining the quarterly data into annual figures shows little variation over four years with respect to opiate use by arrestees. Men and women showed similar usage levels, varying from 17% to 22% over four years.
- Opiate use is of particular concern since its typical route of administration is injection. Use of needles places individuals at risk for HIV infection due to needle sharing. Reports from the State Bureau of Narcotic Enforcement suggest that heroin continues to be plentiful. Black tar heroin is the most dominant form of heroin seized in California.

Cocaine Use

- Cocaine has been the most prevalent drug used by women arrestees, based on the DUF data. The last two years (1990-91) suggest the same is true for men in the DUF program. With the exception of 1988, when 50% of the women were cocaine positive, neither men nor women have varied significantly. In all four years presented, over 40% of the men showed recent use of cocaine. For 1991, 41% of the women were cocaine positive.
- Self-report data suggest that most cocaine users in San Diego inhale or snort cocaine. This is in contrast to several DUF sites in which smoking crack is the preferred method of using cocaine. Law enforcement reports suggest that cocaine remains widely available with little change in price or purity levels.

Figure 3

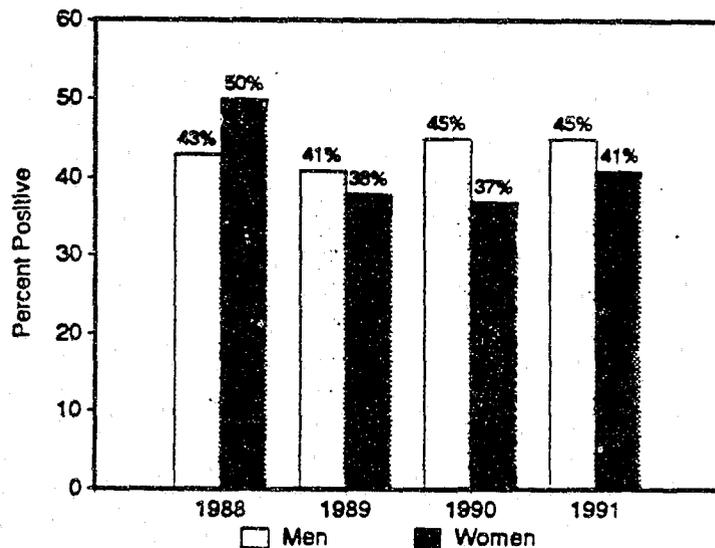
DUF ADULT OPIATE USE
San Diego County, 1988-1991



SOURCE: San Diego Association of Governments

Figure 4

DUF ADULT COCAINE USE
San Diego County, 1988-1991



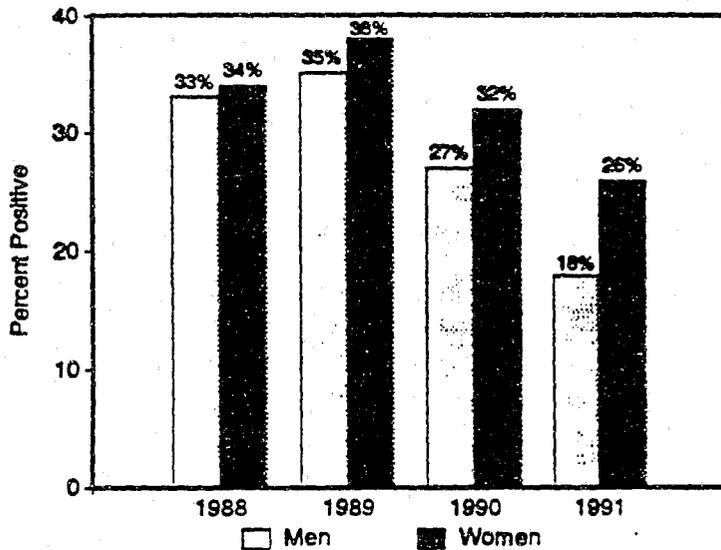
SOURCE: San Diego Association of Governments

Amphetamine Use

- In the mid-1980s, San Diego was considered a primary manufacturing and distributing center for amphetamines which contributed to widespread availability for drug users. Intense law enforcement efforts have reduced the number of methamphetamine manufacturers. In recent years, more clandestine methamphetamine labs have been seized in San Bernardino and Riverside Counties, although the drug still appears to be quite available in San Diego.
- Both men and women have shown a decline in amphetamine use in recent years. In 1991, 26% of the women and 18% of the men were positive for amphetamines.

Figure 5

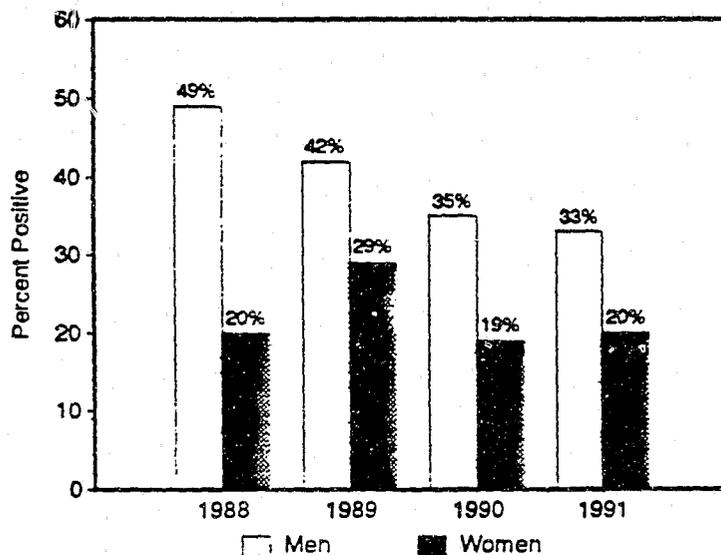
DUF ADULT AMPHETAMINE USE
San Diego County, 1988-1991



SOURCE: San Diego Association of Governments

Figure 6

DUF ADULT MARIJUANA USE
San Diego County, 1988-1991



SOURCE: San Diego Association of Governments

Marijuana Use

- Female offenders, historically, have shown far less marijuana use than their male counterparts. The highest percentage for women was 29% in 1989. For 1991, one of five women (20%) showed marijuana use.
- The proportion of males using marijuana has declined over four years from 49% to 33%.

Poly-drug Use

- Drug-abusing offenders in San Diego are more likely than drug users in other DUF sites to be users of multiple drugs. For example, based on the entire sample of men: of those positive for cocaine, 35% also tested positive for use of opiates (not shown). Self-report data suggest that this combination is the result of "speedballing", injecting both cocaine and heroin.
- Of men positive for opiates, 76% were also positive for cocaine. Analysis of women showed of those positive for opiates, 72% were also cocaine positive (not shown).
- These data describe a significant number of offenders who use more than one drug. This suggests not only a willingness to experiment, but wide availability of most drugs, with obvious implications for treatment as well as law enforcement concerns.

Arrest Charge and Drug Result

For the DUF data to be meaningful, they should be representative of the arrestee population booked into local facilities. Our analyses have shown that this is the case based on comparison of DUF participants on the factors of age, ethnicity, and arrest charge with all individuals booked into jail. Some caveats are noteworthy. Most persons arrested are not booked into jail. This is because most arrests (over 65%) are misdemeanors. State law mandates that misdemeanor arrestees be given a citation and released unless specific conditions exist that warrant jail booking. Jail crowding further reduces the potential of booking misdemeanants. For this reason as well as logistics, only adult male felons are eligible for DUF interviews. With respect to females, both felony and misdemeanor arrestees become DUF participants. If the DUF arrestees are compared with all arrestees, these caveats should be considered.

- For men in the entire DUF sample since 1987, about four out of ten were arrested on property-related offenses and nearly a third (32%) were drug violators. These categories represented 28% each for the females in the DUF sample.

- Women were more likely booked for a wider variety of "other" offenses including fraud, child abuse, driving under the influence, and embezzlement (31%). This is partially due to the fact that they are booked for both felony and misdemeanor charges.

- Not surprisingly, men arrested for drug violations were more likely to show recent drug use (87% to 91%) over the four year time period. However, 70% or more of those arrested for offenses other than drugs were also positive. This group showed a drop from 77% in 1988 to 70% in 1991.

- For women arrested for crimes other than drugs, this pattern did not occur. In 1991, 69% of those arrested for other crimes were drug positive. In 1988, the comparable figure was 68%. However, similar to men, women booked for drug offenses were more likely to test positive (93% in 1988 and 88% in 1991) (not shown).

Table 1
ARREST CHARGE OF DUF ADULT ARRESTEES
San Diego County, 1987-1991

| | Males | Females |
|-----------------------|--------------|--------------|
| Violent ¹ | 11% | 5% |
| Domestic Violence | 5% | 2% |
| Property ² | 42% | 28% |
| Drug Offense | 32% | 28% |
| Sex Offense | 1% | 5% |
| Other ³ | 10% | 31% |
| TOTAL | 4,061 | 1,351 |

¹Includes homicide, manslaughter, rape, robbery, assault, and kidnapping.

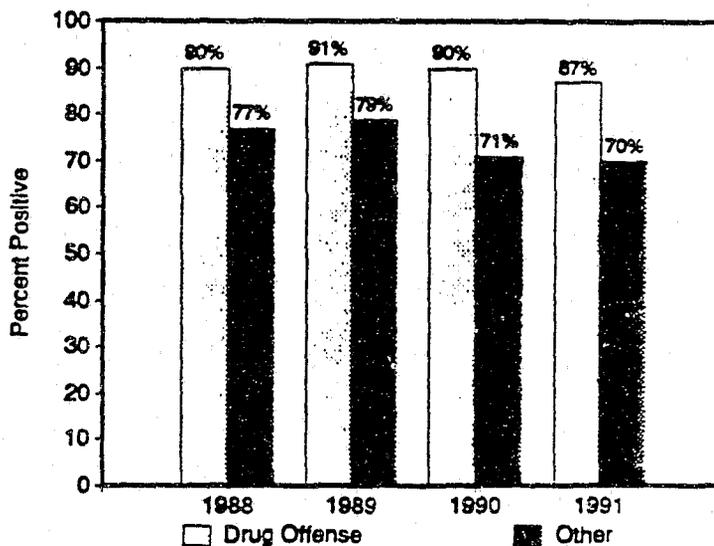
²Includes burglary, larceny theft, motor vehicle theft, and other property-related offenses.

³Includes arson, embezzlement, extortion, forgery, fraud, and all other offenses.

NOTE: Males include only felons.

Figure 7

POSITIVE DRUG RESULT, BY ARREST CHARGE
DUF ADULT MALE ARRESTEES
San Diego County, 1988-1991



SOURCE: San Diego Association of Governments

Table 2
**ARREST CHARGE AND DRUG RESULT,
 DUF ADULT MALE ARRESTEES
 San Diego County, 1987-1991**

| | Violent ¹ | Domestic Violence | Property ² | Drug | Sex | Other ³ |
|--------------|----------------------|----------------------|-----------------------|--------------|-----------|--------------------|
| Positive | 61% | 56% | 80% | 89% | 21% | 69% |
| Negative | 39% | 44% | 20% | 11% | 79% | 31% |
| TOTAL | 428 | 183 | 1,717 | 1,288 | 24 | 421 |

¹Includes homicide, manslaughter, rape, robbery, assault, and kidnapping.

²Includes burglary, larceny theft, motor vehicle theft, and other property-related offenses.

³Includes arson, embezzlement, extortion, forgery, fraud, and all other offenses.

NOTE: Felons only.

SOURCE: San Diego Association of Governments

Table 3
**ARREST CHARGE AND DRUG RESULT,
 DUF ADULT FEMALE ARRESTEES
 San Diego County, 1987-1991**

| | Violent ¹ | Domestic Violence | Property ² | Drug | Sex | Other ³ |
|--------------|----------------------|----------------------|-----------------------|------------|-----------|--------------------|
| Positive | 68% | 45% | 70% | 91% | 93% | 68% |
| Negative | 32% | 55% | 30% | 9% | 7% | 32% |
| TOTAL | 74 | 29 | 374 | 385 | 72 | 417 |

¹Includes homicide, manslaughter, rape, robbery, assault, and kidnapping.

²Includes burglary, larceny theft, motor vehicle theft, and other property-related offenses.

³Includes arson, embezzlement, extortion, forgery, fraud, and all other offenses.

NOTE: Includes felons and misdemeanants.

SOURCE: San Diego Association of Governments

Table 4
**DOMESTIC VIOLENCE ARREST CHARGE BY POSITIVE DRUG RESULT,
 DUF ADULT MALE ARRESTEES
 San Diego County, 1987-1991**

| | Domestic Violence | Offense Other |
|--------------|----------------------|------------------|
| Any Drug | 56% | 80% |
| Opiates | 6% | 21% |
| Cocaine | 19% | 44% |
| Amphetamines | 23% | 28% |
| Marijuana | 36% | 40% |

SOURCE: San Diego Association of Governments

In addition to drug violators, property offenders had high percentages of positive tests. The link between drugs and crime is complex, and some argue that drug addiction motivates a large proportion of property crime. On the other hand, drug use and sales are also known to be associated with violent crime.

- Almost two-thirds (61%) of the male arrestees charged with violent offenses showed positive drug results. Over 90% of the women with sex-related charges, primarily prostitution, were drug positive. Of interest is the fact that 46% of the women arrested for driving under the influence of alcohol were also positive for illicit substances (not shown).

- Men charged with domestic violence offenses were proportionately less likely than all other offenders to be positive. Nonetheless, 56% showed recent drug use. Domestic violence offenders showed different types of drug use than other offenders and were most likely to be positive for marijuana. Nineteen percent (19%) were cocaine positive compared to 44% of all other arrestees. The proportion of men charged with domestic violence doubled in 1991, which may be associated with declines in *overall* drug positive rates for men.

Drug Use Patterns

Arrestees are asked a number of questions about their drug-using behavior, including the age they first tried a drug, if they used in the past month, if they used in the past three days, and whether they have been drug-dependent or are currently dependent.

- Men and women in 1991 showed similar patterns of use. Marijuana was the illegal drug with the lowest average age at first use (age 14 for men and age 15 for women). Cocaine was tried at age 21 by both men and women.
- Those positive for marijuana were most likely to report use in the past 30 days as well as in the past three days.
- Only about half of the men and women with positive drug tests for cocaine and amphetamines admitted to recent use. This demonstrates the value of an objective indicator of offender drug use.
- About four out of ten arrestees positive for opiate use stated that they were currently drug-dependent, a higher percentage than for other drugs. When these data are extrapolated to the entire incoming arrestee population, they represent several thousand individuals with serious drug addictions.
- The percentage of DUF arrestees expressing a need for treatment has varied only slightly over time, with females more likely to report a need for treatment. In 1991, from 34% to 40% of the women interviewed said they needed drug treatment. For men, the corresponding figures were 32% to 39%.

Table 5

DRUG USE PATTERNS OF DUF ADULT MALE ARRESTEES
San Diego County, 1991

| | Drug Result | | | |
|-----------------------|-------------|------------|--------------|------------|
| | Opiates | Cocaine | Amphetamines | Marijuana |
| Mean Age First Tried | 20 | 21 | 21 | 14 |
| Used in Past 30 Days | 44% | 62% | 65% | 84% |
| Used in Past 3 Days | 38% | 49% | 52% | 68% |
| Ever Dependent | 48% | 27% | 32% | 21% |
| Dependent Now | 41% | 21% | 22% | 15% |
| TOTAL POSITIVE | 160 | 416 | 167 | 307 |

SOURCE: San Diego Association of Governments

Table 6

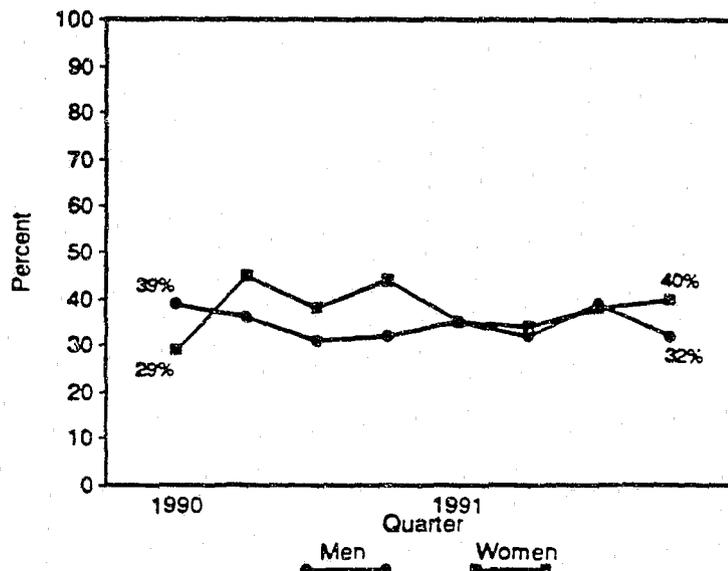
DRUG USE PATTERNS OF DUF ADULT FEMALE ARRESTEES
San Diego County, 1991

| | Drug Result | | | |
|-----------------------|-------------|------------|--------------|-----------|
| | Opiates | Cocaine | Amphetamines | Marijuana |
| Mean Age First Tried | 21 | 21 | 22 | 15 |
| Used in Past 30 Days | 50% | 62% | 59% | 76% |
| Used in Past 3 Days | 46% | 52% | 44% | 64% |
| Ever Dependent | 59% | 39% | 33% | 19% |
| Dependent Now | 43% | 32% | 19% | 8% |
| TOTAL POSITIVE | 82 | 158 | 100 | 78 |

SOURCE: San Diego Association of Governments

Figure 8

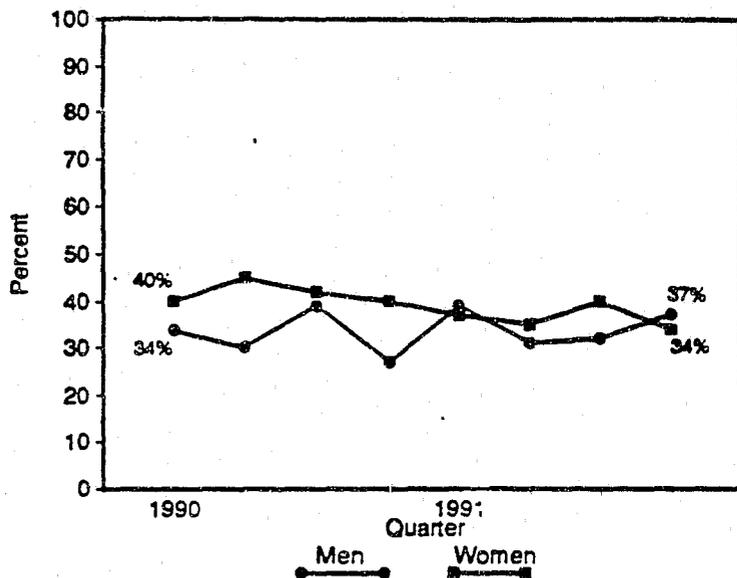
DUF ADULT ARRESTEES NEEDING TREATMENT
San Diego County, 1990-1991



SOURCE: San Diego Association of Governments

Figure 9

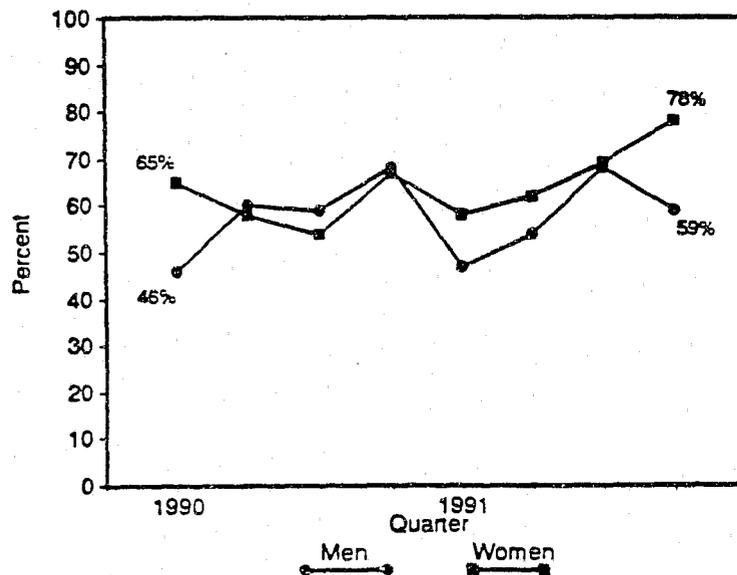
DUF ADULT ARRESTEES EVER INJECTING DRUGS
San Diego County, 1990-1991



SOURCE: San Diego Association of Governments

Figure 10

DUF ADULT ARRESTEES EVER SHARING NEEDLES
San Diego County, 1990-1991



SOURCE: San Diego Association of Governments

Injection Behavior

- At least 30% of both men and women interviewed in 1990 and 1991 reported having used needles to inject illegal drugs during their lifetimes. Over the past eight quarters, the trend for men was generally downward, that is, fewer persons admitting to having injected. The female trend is more erratic; between 34% and 45% admitted to drug injection during 1990 and 1991.
- Over 70% of both men and women who have injected did so in the previous six months (not shown). Even though someone may not have tested positive, they may still be actively injecting drugs and the DUF test did not occur within the 48 to 72 hours of injection. Of those who indicated they had injected, 68% of the men in 1991 and 78% of the women reported injecting over 1,000 times in their lifetimes. Often the lifetime estimates exceeded 5,000 times.
- More disturbing, 78% of the women and 59% of the men who admitted to drug injection when interviewed in the last quarter of 1991 reported ever having shared needles. These percentages have increased over time from 65% (women) and 46% (men) in early 1990. For all women in 1991, 35% of those who had injected said they currently shared needles some or most of the time (not shown). The comparable figure for men was 52%. Needle-sharing is an important factor in placing an individual at risk for HIV infection. On a more encouraging note, 48% of the men and 65% of the women who admitted to injecting drugs stated that they shared in the past but do not share anymore.

Juvenile Drug Use

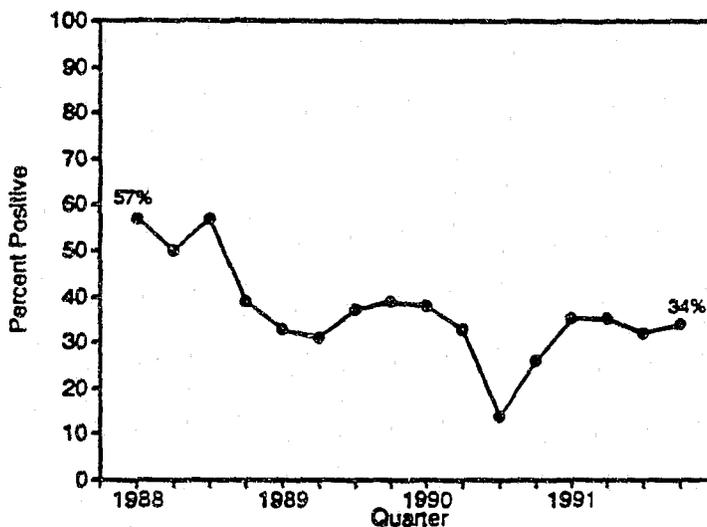
- Fifty-seven percent (57%) of the male juveniles participating in the DUF program in 1988 showed positive drug results. In the third quarter of 1990, that percentage dropped to a low of 14%.
- In 1991, the figures increased, with 34% of the juveniles drug positive at the end of the year.

Drug Use By Drug Type

- Cocaine use by juveniles dropped by half, with 6% in 1991 cocaine positive compared to 12% in 1988.

Figure 11

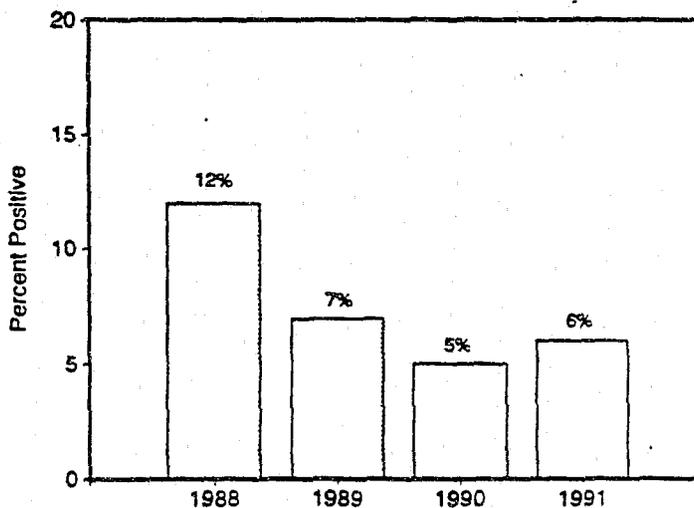
**DUF JUVENILE MALE ARRESTEES
POSITIVE FOR ANY DRUG
San Diego County, 1988-1991**



SOURCE: San Diego Association of Governments

Figure 12

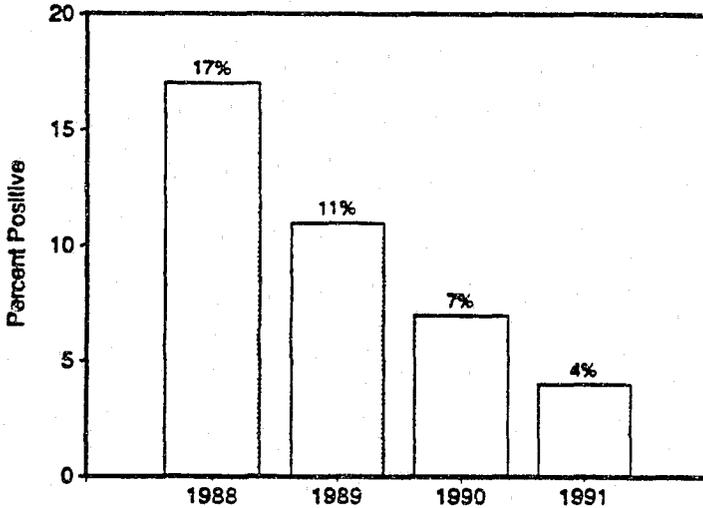
**DUF JUVENILE MALE COCAINE USE
San Diego County, 1988-1991**



SOURCE: San Diego Association of Governments

Figure 13

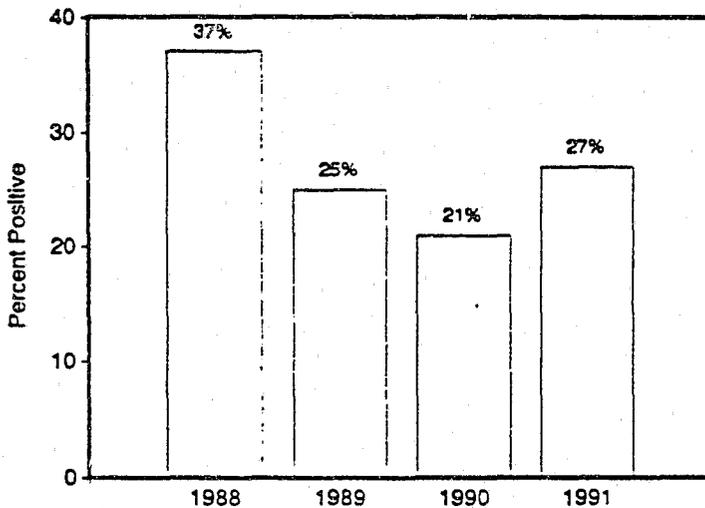
DUF JUVENILE MALE AMPHETAMINE USE
San Diego County, 1988-1991



SOURCE: San Diego Association of Governments

Figure 14

DUF JUVENILE MALE MARIJUANA USE
San Diego County, 1988-1991



SOURCE: San Diego Association of Governments

- Only 4% of the juveniles tested in 1991 were positive for amphetamines, a decline from 17% in 1988.
- Marijuana was the most prevalent drug used by juveniles in all years studied. The 27% marijuana positive in 1991 reflected an increase from the previous year but a decrease since 1988, when 37% were positive for marijuana.
- Opiate use by juveniles has been less than 3% since the first quarter (not shown).

Characteristics of Juvenile Males

Juveniles who participated in the DUF program were brought to Juvenile Hall on a variety of arrest charges, with most involving violation of probation terms, violation of home supervision conditions, and property-related offenses. Since most arrested juveniles are *not* brought to Juvenile Hall, the juveniles in the DUF sample represent a very select group of juveniles and should not be compared to the total number of youth arrested.

- About one out of five youth in the sample was brought to Juvenile Hall for a violence-related offense. Only 8% of all juveniles participating in the DUF program from 1988 through 1991 were arrested on drug charges, 73% of whom were drug positive.
- There was little variation among ethnic groups with respect to drug test results.
- Youth age 16 and over were more likely than their younger counterparts to test positive.
- Those who were *not* attending school were also more likely to test positive compared to those enrolled in school (51% vs. 30%).

Table 7
CHARACTERISTICS OF DUF JUVENILE MALE ARRESTEES
 San Diego County, 1988-1991

| Offense | Drug Result | | Total Interviewed |
|-----------------------|-------------|----------|----------------------|
| | Positive | Negative | |
| Violent ¹ | 27% | 73% | 219 |
| Property ² | 33% | 67% | 392 |
| Drug-Related | 73% | 27% | 92 |
| Other ³ | 31% | 69% | 435 |
| Ethnicity | | | |
| White | 33% | 67% | 345 |
| Black | 33% | 67% | 312 |
| Hispanic | 38% | 62% | 395 |
| Other | 29% | 71% | 84 |
| Age | | | |
| Under 14 | 14% | 86% | 104 |
| 14-15 | 24% | 76% | 322 |
| 16-17 | 41% | 60% | 600 |
| Over 17 | 50% | 50% | 112 |
| In School | | | |
| Yes | 30% | 70% | 889 |
| No | 51% | 49% | 249 |
| Total Interviewed | 391 | 747 | |

¹Includes homicide, robbery, and assault.

²Includes burglary, burglary tools, larceny theft, motor vehicle theft, and stolen property.

³Includes weapons, sex offenses, probation violations, and all other.

NOTE: Percentages computed across and may not equal 100 due to rounding.

SOURCE: San Diego Association of Governments

Nationwide DUF Site Comparison

Although the San Diego DUF data suggest a decline in overall drug use over time among adults and juveniles, data from the other DUF sites indicate that San Diego arrestees continue to rank high among the 24 urban cities that participate in the DUF program. These comparisons from the National Institute of Justice are for second quarter of 1991.

- San Diego adult males rank *number one* with respect to: arrestees positive for two or more drugs, for amphetamines, and for marijuana.
- San Diego men ranked second of those positive for opiates.
- San Diego women ranked *number one* for: arrestees positive for two or more drugs and for amphetamines.
- San Diego women tied for the number one ranking, along with women in Birmingham, Alabama, for the percentage positive for opiates.
- Of the nine sites that test juveniles, San Diego youth ranked *number one* with respect to: youth positive for any drug use, for opiates, for amphetamines, and for marijuana.

Table 8

SAN DIEGO COUNTY'S RANKING AMONG DUF SITES, BY DRUG RESULT Nationwide, Second Quarter, 1991

| | Adult Males | | Adult Females | | Juvenile Males | |
|-----------------|-------------|---------|---------------|---------|----------------|---------|
| | Rank | Percent | Rank | Percent | Rank | Percent |
| Any Drug | 3 | 76% | 7 | 71% | 1 | 35% |
| 2 or More Drugs | 1 | 42% | 1 | 36% | 2 (tie) | 5% |
| Opiates | 2 | 15% | 1 (tie) | 19% | 1 | 3% |
| Cocaine | 10 | 45% | 18 | 33% | 6 | 7% |
| Amphetamines | 1 | 19% | 1 | 25% | 1 | 3% |
| Marijuana | 1 | 42% | 2 | 23% | 1 | 26% |
| Total Sites | 24 | | 21 | | 9 | |

SOURCE: National Institute of Justice/San Diego Association of Governments

Comparison of Drug Use in California DUF Sites

Los Angeles and San Jose Counties are the other DUF sites in California, and perhaps are a more meaningful comparison since the same state penal code is operative for the three sites.

- With the exception of cocaine use, San Diego offenders have higher percentages of drug positives for each drug type than either Los Angeles or San Jose.
- In the fourth quarter of 1991, 48% of the Los Angeles male arrestees were cocaine positive compared to 46% of the San Diego arrestees and 39% in San Jose. The differences were greater for females, with 63% of Los Angeles women positive for cocaine compared to 42% of San Diego women and 34% of women in San Jose.

Table 9

DRUG RESULT OF DUF ADULT MALE ARRESTEES California Sites, Fourth Quarter, 1991

| | San Diego | Los Angeles | San Jose |
|-------------------------------|-----------|-------------|----------|
| Any Drug | 72% | 63% | 54% |
| Any Drug, Excluding Marijuana | 63% | 59% | N/A |
| Opiates | 17% | 11% | 6% |
| Cocaine | 46% | 48% | 39% |
| Amphetamines | 14% | 4% | 5% |
| Marijuana | 27% | 12% | 20% |

SOURCE: National Institute of Justice/San Diego Association of Governments

Table 10

DRUG RESULT OF DUF ADULT FEMALE ARRESTEES California Sites, Fourth Quarter, 1991

| | San Diego | Los Angeles | San Jose |
|-------------------------------|-----------|-------------|----------|
| Any Drug | 73% | 79% | 51% |
| Any Drug, Excluding Marijuana | 71% | 70% | N/A |
| Opiates | 20% | 19% | 4% |
| Cocaine | 42% | 63% | 34% |
| Amphetamines | 32% | 7% | 13% |
| Marijuana | 16% | 5% | 15% |

SOURCE: National Institute of Justice/San Diego Association of Governments

Why San Diego maintains higher rates of drug use than other urban cities is a question yet to be addressed. Speculative reasons are associated with geography: including relatively easy access by land, air, and sea, enhancing the potential for drug smuggling; several hundred miles of rural terrain conducive to clandestine labs and growing of marijuana; and proximity to Mexico, which attracts drug traffickers and contributes to wide availability of black tar heroin. The jail crowding situation in San Diego may be another factor related to high drug use among the offender population in that only the most serious criminal offenders are booked into jail. Early release procedures result in convicted offenders who do not serve their full sentence. Both of these situations may send a message to offenders that San Diego justice is neither swift nor certain. Therefore, their drug use poses little risk.

The DUF interview provides the opportunity to ask arrestees other questions. For example, San Diego arrestees are asked if they have been arrested previously. Over 60% or more each quarter report prior arrests (not shown). Females are asked if they are pregnant at the time of the interview. Their responses are tabulated by drug result. In the last two quarters of 1991, 42% of the women who indicated they were pregnant were also drug positive (not shown).

These findings suggest that drug use among the offender population remains a serious problem in San Diego. It is of interest that the drug-abusing population that poses the most significant threat to the person and property of others is the population least likely to be identified as needing drug treatment. Mandatory drug treatment has been shown to be effective in other jurisdictions. Efficient drug treatment referrals for arrestees should be undertaken immediately. Many arrestees report a need for treatment at the time of the DUF interview. The association between drug use is complex yet real. Until drug abuse among offenders is addressed in this region, our current crime levels probably will not be reduced significantly.

PERCENT DRUG POSITIVE, DUF ARRESTEES
San Diego County, 1987-1991

| | 1987 | | 1988 | | | | 1989 | | | | 1990 | | | | 1991 | | | |
|----------------------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| | <u>2</u> | <u>4</u> | <u>1</u> | <u>2</u> | <u>3</u> | <u>4</u> |
| Men | | | | | | | | | | | | | | | | | | |
| Marijuana | 44 | 44 | 52 | 49 | 55 | 38 | 43 | 43 | 46 | 35 | 37 | 42 | 33 | 29 | 38 | 42 | 26 | 27 |
| Opiates | 15 | 24 | 22 | 17 | 20 | 27 | 18 | 22 | 23 | 25 | 17 | 17 | 22 | 19 | 16 | 15 | 21 | 17 |
| Cocaine | 26 | 44 | 41 | 43 | 38 | 51 | 42 | 42 | 42 | 39 | 45 | 48 | 42 | 45 | 41 | 45 | 48 | 46 |
| Amphetamines | 23 | 18 | 28 | 35 | 39 | 31 | 35 | 36 | 37 | 33 | 30 | 24 | 30 | 25 | 25 | 19 | 15 | 14 |
| Positive, Any Drug | 68 | 75 | 79 | 82 | 84 | 81 | 85 | 81 | 83 | 80 | 80 | 80 | 79 | 74 | 79 | 76 | 74 | 72 |
| Positive, No Marijuana | <u>51</u> | <u>61</u> | <u>69</u> | <u>77</u> | <u>74</u> | <u>78</u> | <u>71</u> | <u>74</u> | <u>77</u> | <u>70</u> | <u>73</u> | <u>71</u> | <u>72</u> | <u>67</u> | <u>70</u> | <u>64</u> | <u>65</u> | <u>63</u> |
| Total # of Urine Samples | 175 | 189 | 254 | 239 | 251 | 193 | 161 | 261 | 210 | 240 | 250 | 209 | 264 | 245 | 222 | 233 | 236 | 233 |
| Total # of Arrestees Interviewed | 218 | 226 | 304 | 303 | 306 | 231 | 201 | 295 | 261 | 274 | 290 | 235 | 291 | 272 | 246 | 264 | 269 | 273 |
| Women | | | | | | | | | | | | | | | | | | |
| Marijuana | -- | 25 | -- | 35 | 19 | 11 | 37 | 18 | -- | 30 | 16 | 27 | 19 | 14 | 28 | 23 | 12 | 16 |
| Opiates | -- | 42 | -- | 18 | 22 | 22 | 19 | 26 | -- | 13 | 18 | 28 | 18 | 25 | 19 | 19 | 26 | 20 |
| Cocaine | -- | 59 | -- | 42 | 50 | 58 | 41 | 41 | -- | 31 | 34 | 44 | 30 | 41 | 38 | 33 | 48 | 42 |
| Amphetamines | -- | 15 | -- | 47 | 30 | 27 | 45 | 28 | -- | 39 | 38 | 30 | 37 | 23 | 27 | 25 | 19 | 32 |
| Positive, Any Drug | -- | 87 | -- | 80 | 77 | 80 | 83 | 74 | -- | 74 | 70 | 83 | 75 | 72 | 75 | 71 | 74 | 73 |
| Positive, No Marijuana | -- | <u>83</u> | -- | <u>78</u> | <u>77</u> | <u>80</u> | <u>80</u> | <u>70</u> | -- | <u>66</u> | <u>69</u> | <u>79</u> | <u>71</u> | <u>68</u> | <u>67</u> | <u>65</u> | <u>69</u> | <u>71</u> |
| Total # of Urine Samples | -- | 52 | -- | 55 | 92 | 64 | 104 | 97 | -- | 105 | 98 | 101 | 103 | 101 | 99 | 100 | 99 | 95 |
| Total # of Arrestees Interviewed | | 76 | | 79 | 123 | 72 | 126 | 107 | | 148 | 130 | 129 | 119 | 129 | 114 | 117 | 121 | 124 |
| Juvenile Males | | | | | | | | | | | | | | | | | | |
| Marijuana | -- | -- | 42 | 44 | 43 | 25 | 23 | 27 | 22 | 28 | 30 | 26 | 8 | 22 | 31 | 26 | 25 | 25 |
| Opiates | -- | -- | 5 | 2 | 0 | 0 | 2 | 0 | 1 | 0 | 0 | 1 | 1 | 0 | 1 | 3 | 2 | 0 |
| Cocaine | -- | -- | 14 | 15 | 17 | 4 | 7 | 2 | 10 | 9 | 10 | 6 | 2 | 2 | 2 | 7 | 10 | 6 |
| Amphetamines | -- | -- | 14 | 13 | 21 | 18 | 12 | 8 | 16 | 6 | 8 | 10 | 7 | 5 | 8 | 3 | 7 | 8 |
| Positive, Any Drug | -- | -- | 57 | 50 | 57 | 39 | 33 | 31 | 37 | 39 | 38 | 33 | 14 | 26 | 35 | 35 | 32 | 34 |
| Positive, No Marijuana | -- | -- | <u>33</u> | <u>26</u> | <u>36</u> | <u>32</u> | <u>21</u> | <u>12</u> | <u>28</u> | <u>17</u> | <u>17</u> | <u>14</u> | <u>10</u> | <u>8</u> | <u>11</u> | <u>13</u> | <u>18</u> | <u>17</u> |
| Total # of Urine Samples | | | 78 | 54 | 53 | 56 | 57 | 51 | 82 | 64 | 101 | 70 | 99 | 85 | 98 | 99 | 68 | 101 |
| Total # of Arrestees Interviewed | | | 88 | 61 | 89 | 58 | 57 | 68 | 96 | 88 | 131 | 93 | 108 | 96 | 112 | 105 | 79 | 109 |

SOURCE: San Diego Association of Governments

APPENDIX J

Office of Criminal Justice Planning
 County Master Plan
 Criminal Justice System Assistance Program

| County | Amount Allocated | Primary Focus |
|--------------|------------------|---|
| Alameda | \$33,099 | Pretrial Drug Testing |
| Amador | \$10,567 | Purchase Drug Dog |
| Butte | \$13,370 | Expand DARE program |
| Calaveras | \$10,622 | DARE & Enforcement |
| Colusa | \$10,301 | Purchase Drug Dog |
| Contra Costa | \$24,709 | Enhance Narcotic Teams |
| Del Norte | \$10,480 | Task Force Enhancement |
| El Dorado | \$12,404 | DARE program |
| Fresno | \$22,484 | At-Risk Youth Intervention |
| Glenn | \$10,455 | We Tip Program |
| Humboldt | \$12,175 | Offender Treatment (Jail) |
| Imperial | \$12,043 | Law Enforcement Training |
| Inyo | \$10,333 | DARE program & Drug Abuser Testing |
| Kern | \$20,185 | Substance abuse counseling for incarcerated minors |
| Lake | \$10,951 | Drug Free School Zone - Enforcement |
| Lassen | \$10,509 | Task Force Enhancement |
| Los Angeles | \$170,116 | Probation - Treatment of Female Drug/Alcohol offenders and Police - Task Force Enhancement |
| Madera | \$11,697 | Drug Tip Program - Information line |
| Marin | \$14,179 | Substance Abuse Education |

| | | |
|---------------|----------|--|
| Mariposa | \$10,274 | BEAT - Business Enforcement of Alcohol & Tobacco - pilot project |
| Mendocino | \$11,472 | Expand DARE program |
| Merced | \$13,290 | Alcohol and drug free sober graduation |
| Mono | \$10,185 | DARE program |
| Monterey | \$16,473 | DARE program |
| Napa | \$12,017 | DARE program |
| Nevada | \$11,478 | Increase Community Awareness and Education (targeting K-4th and youth activities) regarding Drug & Alcohol |
| Orange | \$54,063 | Task Force Enhancement |
| Placer | \$13,272 | PEER Court - youth conference to educate professionals on gangs |
| Plumas | \$10,363 | Community Crime Prevention |
| Riverside | \$32,537 | Task Force Enhancement |
| Sacramento | \$29,349 | Criminal Justice Information System |
| San Benito | \$10,667 | Countywide awareness program on gang/drug/alcohol problems |
| San Diego | \$55,779 | Enhanced probation supervision |
| San Francisco | \$22,879 | Criminal Justice Information System |
| San Joaquin | \$18,826 | Enhancement of Alternative Program for arrestees with Drug and Alcohol problems |

| | | |
|-----------------|----------|--|
| San Luis Obispo | \$13,921 | DARE program |
| San Mateo | \$21,798 | Transitional housing for women and children leaving alcohol and drug residential recovery programs |
| Santa Barbara | \$16,685 | Task Force Enhancement |
| Santa Clara | \$16,685 | Evaluation of drug and alcohol treatment programs in the county |
| Santa Cruz | \$14,097 | Treatment of Alcohol & Drug Dependency |
| Shasta | \$12,780 | DARE program |
| Siskiyou | \$10,795 | DARE program |
| Solano | \$16,429 | Offender Treatment (Jail) |
| Sonoma | \$17,156 | Criminal Justice Information System |
| Stanislaus | \$16,904 | EASY - Eliminate Alcohol Sales to Youth - Community education and enforcement |
| Sutter | \$11,209 | Community Education and community based parenting skills counseling |
| Tehama | \$10,928 | DARE program |
| Trinity | \$10,237 | Court Management Improvement |
| Tuolumne | \$10,914 | Task Force Enhancement |
| Ventura | \$22,098 | Enhanced Probation Supervision - Females |
| Yolo | \$12,364 | Criminal Justice Information System |
| Yuba | \$11,076 | Jail treatment program of substance abusers |

COUNTIES NOT PARTICIPATING IN PROGRAM:

Alpine, Kings, Modoc, San Bernardino, Sierra, and Tulare

OFFICE OF CRIMINAL JUSTICE PLANNING
 FEDERAL ANTI-DRUG ABUSE PROGRAM
 FFY 92 LOCAL FUND DISTRIBUTION, BY COUNTY

| COUNTIES | CRIME INDEX 1990 | % OF TOTAL STATE CRIME INDEX | BASE RATE | DISTRIBUTION OF \$17,299,200 | TOTAL ALLOCATION \$25,999,200 | MSP PROGRAM \$2,632,000 |
|-----------------|------------------|------------------------------|-----------|------------------------------|-------------------------------|-------------------------|
| ALAMEDA | 42.659 | 4.192% | 150.000 | 725,157 | 875,157 | |
| ALPINE | 11 | 0.001% | 150.000 | 187 | 150,187 | |
| AMADOR | 234 | 0.023% | 150.000 | 3,978 | 153,978 | |
| BUTTE | 3,676 | 0.361% | 150.000 | 62,488 | 212,488 | |
| CALAVERAS | 620 | 0.061% | 150.000 | 10,539 | 160,539 | |
| COLUSA | 235 | 0.023% | 150.000 | 3,995 | 153,995 | |
| CONTRA COSTA | 21,738 | 2.136% | 150.000 | 369,522 | 519,522 | |
| DEL NORTE | 540 | 0.053% | 150.000 | 9,179 | 159,179 | 290,384 |
| EL DORADO | 2,403 | 0.236% | 150.000 | 40,848 | 190,848 | 444,378 |
| FRESNO | 26,879 | 2.641% | 150.000 | 456,914 | 606,914 | |
| GLENN | 335 | 0.033% | 150.000 | 5,695 | 155,695 | |
| HUMBOLDT | 2,127 | 0.209% | 150.000 | 36,157 | 186,157 | 517,905 |
| IMPERIAL | 3,629 | 0.357% | 150.000 | 61,689 | 211,689 | |
| INYO | 223 | 0.022% | 150.000 | 3,791 | 153,791 | |
| KERN | 16,198 | 1.592% | 150.000 | 275,348 | 425,348 | |
| KINGS | 1,761 | 0.173% | 150.000 | 29,935 | 179,935 | |
| LAKE | 1,330 | 0.131% | 150.000 | 22,609 | 172,609 | |
| LASSEN | 303 | 0.030% | 150.000 | 5,151 | 155,151 | |
| LOS ANGELES | 405,912 | 39.887% | 150.000 | 6,900,063 | 7,050,063 | |
| MADERA | 2,442 | 0.240% | 150.000 | 41,511 | 191,511 | |
| MARIN | 2,909 | 0.286% | 150.000 | 49,450 | 199,450 | |
| MARIPOSA | 198 | 0.019% | 150.000 | 3,366 | 153,366 | |
| MENDOCINO | 1,742 | 0.171% | 150.000 | 29,612 | 179,612 | 517,905 |
| MERCED | 3,590 | 0.353% | 150.000 | 61,026 | 211,026 | |
| MODOC | 141 | 0.014% | 150.000 | 2,397 | 152,397 | |
| MONO | 264 | 0.026% | 150.000 | 4,488 | 154,488 | |
| MONTEREY | 7,237 | 0.711% | 150.000 | 123,021 | 273,021 | |
| NAPA | 1,603 | 0.158% | 150.000 | 27,249 | 177,249 | |
| NEVADA | 1,184 | 0.116% | 150.000 | 20,127 | 170,127 | |
| ORANGE | 62,573 | 6.149% | 150.000 | 1,063,673 | 1,213,673 | |
| PLACER | 3,206 | 0.315% | 150.000 | 54,499 | 204,499 | |
| PLUMAS | 330 | 0.032% | 150.000 | 5,610 | 155,610 | |
| RIVERSIDE | 50,216 | 4.934% | 150.000 | 853,617 | 1,003,617 | |
| SACRAMENTO | 38,169 | 3.751% | 150.000 | 648,832 | 798,832 | |
| SAN BENITO | 850 | 0.084% | 150.000 | 14,449 | 164,449 | |
| SAN BERNARDINO | 55,789 | 5.482% | 150.000 | 948,352 | 1,098,352 | |
| SAN DIEGO | 93,967 | 9.234% | 150.000 | 1,597,337 | 1,747,337 | |
| SAN FRANCISCO | 34,810 | 3.421% | 150.000 | 591,732 | 741,732 | |
| SAN JOAQUIN | 18,003 | 1.769% | 150.000 | 306,031 | 456,031 | |
| SAN LUIS OBISPO | 2,997 | 0.294% | 150.000 | 50,946 | 200,946 | |
| SAN MATEO | 10,970 | 1.078% | 150.000 | 186,478 | 336,478 | |
| SANTA BARBARA | 6,746 | 0.663% | 150.000 | 114,675 | 264,675 | |
| SANTA CLARA | 24,847 | 2.442% | 150.000 | 422,372 | 572,372 | |
| SANTA CRUZ | 5,073 | 0.498% | 150.000 | 86,235 | 236,235 | |
| SHASTA | 3,112 | 0.306% | 150.000 | 52,901 | 202,901 | 152,232 |
| SIERRA | 61 | 0.006% | 150.000 | 1,037 | 151,037 | |
| SISKIYOU | 553 | 0.054% | 150.000 | 9,400 | 159,400 | 306,433 |
| SOLANO | 8,700 | 0.855% | 150.000 | 147,891 | 297,891 | |
| SONOMA | 6,859 | 0.674% | 150.000 | 116,596 | 266,596 | |
| STANISLAUS | 10,560 | 1.038% | 150.000 | 179,509 | 329,509 | |
| SUTTER | 1,515 | 0.149% | 150.000 | 25,753 | 175,753 | |
| TEHAMA | 946 | 0.093% | 150.000 | 16,081 | 166,081 | |
| TRINITY | 231 | 0.023% | 150.000 | 3,927 | 153,927 | 402,763 |
| TULARE | 7,430 | 0.730% | 150.000 | 126,302 | 276,302 | |
| TUOLUMNE | 608 | 0.060% | 150.000 | 10,335 | 160,335 | |
| VENTURA | 11,735 | 1.153% | 150.000 | 199,482 | 349,482 | |
| YOLO | 3,021 | 0.297% | 150.000 | 51,354 | 201,354 | |
| YUBA | 1,665 | 0.164% | 150.000 | 28,303 | 178,303 | |
| <hr/> | | | | | | |
| | 1,017,665 | 100.000% | 8,700,000 | 17,299,200 | 25,999,200 | 2,632,000 |

1992 BLOCK GRANT AWARD \$44,048,000

65% PASS THROUGH TO LOCALS = \$28,631,200
 \$ 2,632,000 FOR MARIJUANA SUPPRESSION PROGRAM
 \$ 8,700,000 FOR BASE ALLOCATION
 \$17,299,200 FOR DISTRIBUTION BY CRIME RATE

35% BALANCE TO STATE AGENCIES = \$15,416,800
 \$ 2,191,512 OCJP ADMIN. (4.97%)
 \$ 2,202,400 CHR (5%)
 \$ 3,200,000 BNE-AUGMENTATION
 \$ 7,191,000 BNE-CRACKDOWN
 \$ 300,000 CDC
 \$ 331,888 CYA

COUNTY MASTER PLAN FUNDING ASSISTANCE FOR
CRIMINAL JUSTICE SERVICE SYSTEM PRIORITIES

| COUNTIES | 1991 * POPULATION ESTIMATES | % OF TOTAL STATE POPULATION | BASE RATE 10,000 | DISTRIBUTION BY POP% OF \$545,000 | TOTAL ALLOCATION \$1,125,000 |
|-----------------|-----------------------------------|-----------------------------------|------------------------|---|------------------------------------|
| ALAMEDA | 1,298,900 | 4.2384% | 10.000 | \$23,099 | \$33,099 |
| ALPINE | 1,200 | 0.0039% | 10.000 | \$21 | \$10,021 |
| AMADOR | 31,900 | 0.1041% | 10.000 | \$567 | \$10,567 |
| BUTTE | 189,500 | 0.6184% | 10.000 | \$3,370 | \$13,370 |
| CALAVERAS | 35,000 | 0.1142% | 10.000 | \$622 | \$10,622 |
| COLUSA | 16,900 | 0.0551% | 10.000 | \$301 | \$10,301 |
| CONTRA COSTA | 827,100 | 2.6989% | 10.000 | \$14,709 | \$24,709 |
| DEL NORTE | 27,000 | 0.0881% | 10.000 | \$480 | \$10,480 |
| EL DORADO | 135,200 | 0.4412% | 10.000 | \$2,404 | \$12,404 |
| FRESNO | 702,000 | 2.2907% | 10.000 | \$12,484 | \$22,484 |
| GLENN | 25,600 | 0.0835% | 10.000 | \$455 | \$10,455 |
| HUMBOLDT | 122,300 | 0.3991% | 10.000 | \$2,175 | \$12,175 |
| IMPERIAL | 114,900 | 0.3749% | 10.000 | \$2,043 | \$12,043 |
| INYO | 18,700 | 0.0610% | 10.000 | \$333 | \$10,333 |
| KERN | 572,700 | 1.8688% | 10.000 | \$10,185 | \$20,185 |
| KINGS | 105,900 | 0.3456% | 10.000 | \$1,883 | \$11,883 |
| LAKE | 53,500 | 0.1746% | 10.000 | \$951 | \$10,951 |
| LASSEN | 28,600 | 0.0933% | 10.000 | \$509 | \$10,509 |
| LOS ANGELES | 9,003,500 | 29.3790% | 10.000 | \$160,116 | \$170,116 |
| MADERA | 95,400 | 0.3113% | 10.000 | \$1,697 | \$11,697 |
| MARIN | 235,000 | 0.7668% | 10.000 | \$4,179 | \$14,179 |
| MARIPOSA | 15,400 | 0.0503% | 10.000 | \$274 | \$10,274 |
| MENDOCINO | 82,800 | 0.2702% | 10.000 | \$1,472 | \$11,472 |
| MERCED | 185,000 | 0.6037% | 10.000 | \$3,290 | \$13,290 |
| MODOC | 9,900 | 0.0323% | 10.000 | \$176 | \$10,176 |
| MONO | 10,400 | 0.0339% | 10.000 | \$185 | \$10,185 |
| MONTEREY | 364,000 | 1.1878% | 10.000 | \$6,473 | \$16,473 |
| NAPA | 113,400 | 0.3700% | 10.000 | \$2,017 | \$12,017 |
| NEVADA | 83,100 | 0.2712% | 10.000 | \$1,478 | \$11,478 |
| ORANGE | 2,477,700 | 8.0849% | 10.000 | \$44,063 | \$54,063 |
| PLACER | 184,000 | 0.6004% | 10.000 | \$3,272 | \$13,272 |
| PLUMAS | 20,400 | 0.0666% | 10.000 | \$363 | \$10,363 |
| RIVERSIDE | 1,267,300 | 4.1353% | 10.000 | \$22,537 | \$32,537 |
| SACRAMENTO | 1,088,000 | 3.5502% | 10.000 | \$19,349 | \$29,349 |
| SAN BENITO | 37,500 | 0.1224% | 10.000 | \$667 | \$10,667 |
| SAN BERNARDINO | 1,510,100 | 4.9276% | 10.000 | \$26,855 | \$36,855 |
| SAN DIEGO | 2,574,200 | 8.3998% | 10.000 | \$45,779 | \$55,779 |
| SAN FRANCISCO | 724,200 | 2.3631% | 10.000 | \$12,879 | \$22,879 |
| SAN JOAQUIN | 496,300 | 1.6195% | 10.000 | \$8,826 | \$18,826 |
| SAN LUIS OBISPO | 220,500 | 0.7195% | 10.000 | \$3,921 | \$13,921 |
| SAN MATEO | 663,400 | 2.1647% | 10.000 | \$11,798 | \$21,798 |
| SANTA BARBARA | 375,900 | 1.2266% | 10.000 | \$6,685 | \$16,685 |
| SANTA CLARA | 1,516,000 | 4.9468% | 10.000 | \$26,960 | \$36,960 |
| SANTA CRUZ | 230,400 | 0.7518% | 10.000 | \$4,097 | \$14,097 |
| SHASTA | 156,300 | 0.5100% | 10.000 | \$2,780 | \$12,780 |
| SIERRA | 3,400 | 0.0111% | 10.000 | \$60 | \$10,060 |
| SISKIYOU | 44,700 | 0.1459% | 10.000 | \$795 | \$10,795 |
| SOLANO | 361,500 | 1.1796% | 10.000 | \$6,429 | \$16,429 |
| SONOMA | 402,400 | 1.3131% | 10.000 | \$7,156 | \$17,156 |
| STANISLAUS | 388,200 | 1.2667% | 10.000 | \$6,904 | \$16,904 |
| SUTTER | 68,000 | 0.2219% | 10.000 | \$1,209 | \$11,209 |
| TEHAMA | 52,200 | 0.1703% | 10.000 | \$928 | \$10,928 |
| TRINITY | 13,300 | 0.0434% | 10.000 | \$237 | \$10,237 |
| TULARE | 325,000 | 1.0605% | 10.000 | \$5,780 | \$15,780 |
| TUOLUMNE | 51,400 | 0.1677% | 10.000 | \$914 | \$10,914 |
| VENTURA | 680,300 | 2.2199% | 10.000 | \$12,098 | \$22,098 |
| YOLO | 148,100 | 0.4833% | 10.000 | \$2,634 | \$12,634 |
| YUBA | 60,500 | 0.1974% | 10.000 | \$1,076 | \$11,076 |
| | 30,646,000 | 100.0000% | 580,000 | 545,000 | 1,125,000 |

* OFFICIAL STATE ESTIMATES, DEPARTMENT OF FINANCE, REPORT 91 E-2, FEBRUARY 1992

PROFILE OF THE CDC INMATE SUBSTANCE ABUSER

INTRODUCTION

The first step in the development of a comprehensive substance abuse service delivery system was to estimate the prevalence of substance abuse among inmates in CDC institutions and develop a profile of the substance abuser for whom the delivery system could be designed. This profile was prepared based on the supporting data presented in Tables 1 through 15.

Methodology

As primary research was beyond the scope of the study, profile information was drawn from data gathered by the CDC Offender Information Services (OIS) Branch from a survey of a random sample of 6 percent (2,142) of new male and 33 percent (1,172) of new female felon admissions (not including parole violators) to the system in 1990. The survey information was gathered through folder readings of the newly admitted inmates and included documented demographic and drug use history information. The drug use information gathered by the folder reader documented for each inmate the most serious drug use mentioned. Information regarding frequency of drug use or use of more than one drug was not captured.

Additional data was drawn from CDC disciplinary reports and statistical information relevant to the nature of parole violations. The profile of the sample surveyed was compared, where available, with similar information for the entire prison population, the parolee population, 1989 and/or 1990 new admissions, and data pertinent to inmates who participated in existing CDC substance abuse treatment programs.

Profile Characteristics

For the purpose of this profile, it was assumed that the percentage of the total inmate population with histories of drug use is equal to the percentage of new felon admissions in the sample survey who had histories of drug use (77.2 percent of males, 82.6 percent of females).¹ The following is a summary of their characteristics.

MALES. The data studied and compiled in this report indicates that male inmates who have documented histories of drug use may exhibit the following characteristics:

- Almost one-third are under 25 years of age when they are first admitted to the State prison system.
- The largest racial group is Hispanic-Mexican and the smallest is African/American.
- Just over 70 percent of the substance abusers have used cocaine, heroin, or methamphetamine.

¹The percentage of the sample population of new admissions surveyed for whom drug history was unknown is assumed to have the same proportion of users to non-users as those whose drug history is unknown.

- Drug offenses (39 percent) and property crimes (28 percent) are the most common type of offense. The smallest proportion (excluding "other" and DUI) of new admissions (25 percent) have committed violent crimes.
- Unless convicted of a violent offense, the drug user will usually serve a term of about 12 months before release or parole.
- The majority of new admissions have never been in prison on the State level before, although it is very likely they have been incarcerated on the local level at least once. This group is also likely to have been committed for a drug offense (38.8 percent).
- Once in the system, it is likely that the drug user will return. Of all inmates paroled, over 50 percent are revoked for drug offenses or drug-related offenses.
- Substance abusers in the system have a wide range of education levels, although inmates who are currently participating in intensive transitional treatment programming (i.e., the RightTurn program at R.J. Donovan) tend to be those who have some high school education or are high school graduates. The median education level for males in the sample population who have a history of drug use is seventh grade.
- Over 30 percent are married.

FEMALES. The data studied and compiled in this report indicates that of the female inmates who have documented histories of drug use may exhibit the following characteristics:

- The age of the female substance abuser tends to range between 18 and 35 years when they are first admitted to the State prison system.
- The largest racial group is African/American and the smallest is Hispanic-Mexican.
- Over 70 percent of the female population has used cocaine, heroin, or methamphetamine.
- Drug offenses (54 percent) and property crimes (31 percent) are the most common type of offense. The smallest proportion (excluding "other" and DUI) of new admissions (12 percent) commit violent crimes.
- Female inmates are more likely to be incarcerated for drug offenses (38 percent of the total female inmate population) than any other category of offense.
- Unless convicted of a violent offense, the drug user will usually serve a term of about 10 months before release or parole.
- A high percentage of female new admissions (90 percent) have never been in prison before, although it is very likely they have been incarcerated on the local level at least once.

- Once in the system, it is likely that the drug user will return. Of all inmates paroled, over 50 percent are revoked for drug offenses or drug-related offenses.
- Females exhibit a higher rate of drug use and a lower rate of alcohol use than males.
- Over 40 percent are married.

DATA ANALYSIS

The compiled data is presented below. Where variables from the admissions survey had comparable data available for the inmate population, the data is shown for informational purposes to balance the assumption made earlier that the profile of the admissions cohort was representative of the entire inmate population. While inferences can be drawn for program planning purposes, statistical divergence between similar variables for each cohort should not be taken to indicate trends in the types of crimes for which offenders are being incarcerated. Nor should the data be taken to indicate that the characteristics of substance abusers differ vastly from those of offenders who are not substance abusers. For example, it is reasonable to expect the percentage of the inmate population incarcerated for a violent crime to be higher than the percentage of new admissions with similar offenses, because (among other factors) inmates incarcerated for violent crimes receive longer sentences and will, therefore, constitute a higher percentage of the overall inmate population than to non-violent inmates, who will be paroled earlier.

Drug History

Of the 39,272² new male and new female felon admissions from court in 1990, 38.8 percent were drug offenders³, constituting the largest single category of crime, and representing a 280.7 percent increase over 1985.

MALES. Table 1 displays the results of the OIS folder reading survey of new admissions of male inmates: 71.1 percent had documented histories of drug use; 21.1 percent had no documented history of drug use; and 7.7 percent were reported as unknown. For the cohort who had a history of drug use, 42 percent were reported for cocaine use, followed by marijuana at 21.3 percent, heroin at 21 percent, and methamphetamine at 9.2 percent. The remaining 6.5 percent was the sum of all other drugs mentioned not including alcohol. The data did not show the number of inmates who only had histories of alcohol abuse. However, 30.6 percent had documented past and current abuse of alcohol, which may or may not have been accompanied by drug use (Table 2).

²Report by CDC Offender Information Services (OIS) branch, "Characteristics of Felon New Admissions and Parole Violators Returned with a New Commitment, Calendar Year 1990."

³In this context, the term "drug offender" refers to one whose principal charge involved a drug offense, such as possession, possession for sale, etc.

FEMALES. The drug use profile for female new admissions is displayed in Table 3. The data indicates a slightly higher drug use for women than for men: 79.5 percent had a documented history of drug use; 16.7 percent had no documented history of drug use; and 3.8 percent were reported as unknown. For the cohort that had a history of drug use, 44 percent were reported for cocaine use, followed by heroin at 34.4 percent, methamphetamine at 11.1 percent, and marijuana at 4.7 percent. The remaining 5.7 percent was the sum of all other drugs mentioned, excluding alcohol. Additionally, 18.7 percent had documented histories of current and past alcohol abuse, which may or may not have been accompanied by drug use.

PAROLE VIOLATORS RETURNED TO CUSTODY. OIS data indicates that the percent of parole revocations has increased annually over the past decade. Table 4 (which summarizes technical and other parole violators) indicates that although there is a slight decrease in parole revocation actions for drug offenses and drug-related offenses over the past three years (50.4 percent in 1990 compared to 56.2 percent in 1988), drugs remain the single most significant contributing factor to failure on parole. It is important to note that this reduction is probably policy driven rather than an indication of reduced substance abuse. Of the 50.4 percent that were revoked for drug or drug-related offenses, 48 percent were for offenses that were drug related compared to 52 percent that were for principal drug offenses.⁴

⁴This data was drawn from a Board of Prison Terms report. Comparable OIS data on drug-related offenses for new admissions is not available.

| Table 1 DRUG HISTORY FOR THE 1990 RANDOM SAMPLE OF MALE FELON NEW ADMISSIONS ¹ | | |
|---|-----------|---------|
| DRUG | Frequency | Percent |
| Cocaine | 642 | 30.0% |
| Marijuana | 328 | 15.2 |
| Heroin | 321 | 15.0 |
| Methamphetamine | 140 | 6.5 |
| PCP/PCP Analog | 72 | 3.4 |
| Dangerous Drugs (Barbituates) | 12 | 0.6 |
| Amphetamines | 7 | 0.3 |
| Other | 7 | 0.3 |
| Reported Non-users | 451 | 21.1 |
| Unknown | 164 | 7.7 |

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CDC Offender Information Services Branch, "Number of Felon New Admissions in 1990 in the Sample Selected for Folder Reading Who Had a History of Drug Use by Type of Drug and Sex", October 28, 1991. (11) NOTE: Only the most serious drug used was considered for drug history. It is likely that more than one drug has been used. Sample population does not include parole violators.

Table 2
ALCOHOL HISTORY
FELON NEW ADMISSIONS FROM COURT
CALENDAR YEAR 1989 ¹

| ALCOHOL HISTORY | MALE | | FEMALE | |
|------------------------------------|-----------|---------|-----------|---------|
| | Frequency | Percent | Frequency | Percent |
| TOTAL | 30,872 | 100.0 | 3,354 | 100.0 |
| Unknown/none/social | 18,137 | 58.8 | 2,637 | 78.6 |
| Past/current abuse | 9,455 | 30.6 | 628 | 18.7 |
| Under influence at time of offense | 3,280 | 10.6 | 89 | 2.7 |

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California Prisoners and Parolees 1989, p. 114, "Alcohol History Felon New Admissions From Court". NOTE: Based on a 10% sample of male felon new admissions and a 50% sample of female felon new admissions.

| Table 3 DRUG HISTORY FOR THE 1990 RANDOM SAMPLE OF FEMALE FELON NEW ADMISSIONS ¹ | | |
|---|-----------|---------|
| DRUG | Frequency | Percent |
| Cocaine | 411 | 35.1% |
| Heroin | 320 | 27.3 |
| Methamphetamine | 103 | 8.8 |
| Marijuana | 44 | 3.8 |
| PCP/PCP Analog | 30 | 2.8 |
| Heroin/Cocaine | 12 | 1.0 |
| Dangerous Drugs (Barbituates) | 7 | 0.8 |
| Other | 4 | 0.3 |
| Reported Non-users | 196 | 18.7 |
| Unknown | 45 | 3.8 |

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¹ CDC Offender Information Services Branch, "Number of Felon New Admissions in 1990 in the Sample Selected for Folder Reading Who Had a History of Drug Use by Type of Drug and Sex", October 28, 1991. (11) NOTE: Only the most serious drug used was considered for drug history. It is likely that more than one drug has been used. Sample population does not include parole violators.

**Table 4
PAROLE VIOLATORS RETURNED TO CUSTODY FOR DRUG RELATED OFFENSES ¹**

| TYPE CATEGORY | 1990 REVOCATION ACTIONS | | 1989 REVOCATION ACTIONS | | 1988 REVOCATION ACTIONS | |
|--|-------------------------------|-------------|-------------------------------|-------------|-------------------------------|-------------|
| | # | % | # | % | # | % |
| PRINCIPAL DRUG OFFENSES | 12494 | 26.2 | 13828 | 29.0 | 12213 | 29.4 |
| Drug Use | 4,627 | 9.7 | 6,358 | 13.3 | 5,999 | 14.4 |
| Drug Possession | 3,017 | 8.0 | 3,986 | 8.4 | 3,450 | 8.3 |
| Drug Sale/Trafficking | 3,533 | 7.4 | 3,409 | 7.1 | 2,704 | 6.5 |
| Drug Violations | 517 | 1.1 | 75 | 0.2 | 60 | 0.1 |
| DRUG RELATED OFFENSES | 11,531 | 24.2 | 12,673 | 26.8 | 11,113 | 26.8 |
| Type I - Misc minor offenses | 2,392 | 5.0 | 2,544 | 5.3 | 1,985 | 4.8 |
| Type II - Sex offenses - minor | 207 | 0.4 | 235 | 0.5 | 217 | 0.5 |
| Type II - Assault Battery - minor | 437 | 0.9 | 443 | 0.9 | 400 | 1.0 |
| Type II - Burglary 2nd Degree | 562 | 1.2 | 80 | 0.2 | 73 | 0.2 |
| Type II - Theft/Forgery | 2,275 | 4.8 | 2,284 | 4.8 | 2,002 | 4.8 |
| Type II - Weapon Violations - minor | 232 | 0.5 | 162 | 0.3 | 189 | 0.5 |
| Type II - Driving Violations - minor | 747 | 1.6 | 859 | 1.0 | 749 | 1.8 |
| Type II - Misc non-violent offenses | 1,431 | 3.0 | 1,903 | 4.0 | 1,657 | 4.0 |
| Type III - Homicide | 77 | 0.2 | 71 | 0.2 | 65 | 0.2 |
| Type III - Robbery | 673 | 1.4 | 608 | 1.3 | 559 | 1.4 |
| Type III - Rape/Sex offenses | 122 | 0.3 | 101 | 0.2 | 80 | 0.2 |
| Type III - Assault/Battery - major | 774 | 1.6 | 783 | 1.6 | 715 | 1.7 |
| Type III - Burglary 1st degree | 615 | 1.3 | 1,200 | 2.5 | 1,100 | 2.7 |
| Type III - Weapon violations - major | 809 | 1.7 | 1,189 | 2.5 | 1,170 | 2.8 |
| Type III - Driving Violations - major | 92 | 0.2 | 53 | 0.1 | 31 | 0.1 |
| Type III - Misc violent offenses | 88 | 0.2 | 158 | 0.3 | 121 | 0.3 |
| ALL DRUGS: PRINCIPAL/DRUG RELATED | 24,025 | 50.4 | 26,499 | 55.5 | 23,326 | 56.2 |

¹ Board of Prison Terms Management Information Section, "Parole Violators Returned to Custody", May 28, 1991. (21)

**Table 4
PAROLE VIOLATORS RETURNED TO CUSTODY FOR DRUG RELATED OFFENSES¹**

| TYPE CATEGORY | 1990 REVOCATION ACTIONS | | 1989 REVOCATION ACTIONS | | 1988 REVOCATION ACTIONS | |
|---------------------------------------|-------------------------------|------|-------------------------------|------|-------------------------------|------|
| | # | % | # | % | # | % |
| PRINCIPAL DRUG OFFENSES | 12494 | 26.2 | 13826 | 29.0 | 12213 | 29.4 |
| Drug Use | 4,627 | 9.7 | 6,356 | 13.3 | 5,999 | 14.4 |
| Drug Possession | 3,017 | 8.0 | 3,986 | 8.4 | 3,450 | 8.3 |
| Drug Sale/Trafficking | 3,533 | 7.4 | 3,409 | 7.1 | 2,704 | 6.5 |
| Drug Violations | 517 | 1.1 | 75 | 0.2 | 60 | 0.1 |
| DRUG RELATED OFFENSES | 11,531 | 24.2 | 12,673 | 26.6 | 11,113 | 26.8 |
| Type I - Misc minor offenses | 2,392 | 5.0 | 2,544 | 5.3 | 1,985 | 4.8 |
| Type II - Sex offenses - minor | 207 | 0.4 | 235 | 0.5 | 217 | 0.5 |
| Type II - Assault Battery - minor | 437 | 0.9 | 443 | 0.9 | 400 | 1.0 |
| Type II - Burglary 2nd Degree | 562 | 1.2 | 80 | 0.2 | 73 | 0.2 |
| Type II - Theft/Forgery | 2,275 | 4.8 | 2,284 | 4.8 | 2,002 | 4.8 |
| Type II - Weapon Violations - minor | 232 | 0.5 | 162 | 0.3 | 189 | 0.5 |
| Type II - Driving Violations - minor | 747 | 1.6 | 859 | 1.0 | 749 | 1.8 |
| Type II - Misc non-violent offenses | 1,431 | 3.0 | 1,903 | 4.0 | 1,657 | 4.0 |
| Type III - Homicide | 77 | 0.2 | 71 | 0.2 | 65 | 0.2 |
| Type III - Robbery | 673 | 1.4 | 608 | 1.3 | 559 | 1.4 |
| Type III - Rape/Sex offenses | 122 | 0.3 | 101 | 0.2 | 80 | 0.2 |
| Type III - Assault/Battery - major | 774 | 1.6 | 783 | 1.6 | 715 | 1.7 |
| Type III - Burglary 1st degree | 615 | 1.3 | 1,200 | 2.5 | 1,100 | 2.7 |
| Type III - Weapon violations - major | 809 | 1.7 | 1,189 | 2.5 | 1,170 | 2.8 |
| Type III - Driving Violations - major | 92 | 0.2 | 53 | 0.1 | 31 | 0.1 |
| Type III - Misc violent offenses | 86 | 0.2 | 158 | 0.3 | 121 | 0.3 |
| ALL DRUGS: PRINCIPAL/DRUG RELATED | 24,025 | 50.4 | 26,499 | 55.5 | 23,326 | 56.2 |

¹ Board of Prison Terms Management Information Section, "Parole Violators Returned to Custody", May 28, 1991. (21)

High-risk Populations

Certain categories of substance-abusing offenders are particularly at risk for high rates of recidivism, thereby contributing to continuing costs to society. The groups described below bear close scrutiny for possible targeting of funds and services.

IV DRUG USERS. Intravenous (IV) drug use, particularly when needles are shared, exposes the user to the potential of contracting the HIV (AIDS) virus and hepatitis. For the purpose of this study, heroin use was assumed equivalent to IV drug use: 27.3 percent of the sampled females and 15.0 percent of the sampled males had a history of heroin/IV drug use (Table 5).

As shown in Tables 1 and 3, 36.5 percent of the male 1990 sample population and 43.9 percent of the female sample population had a drug history of cocaine or methamphetamine use. It is known that some proportion of methamphetamine and cocaine users inject drugs rather than use an intranasal method; however, these groups were not included in the IV drug use group in Table 5.⁵ Table 5 also indicates that, of parolees admitted to drug treatment programs during 1990-1991, 77.4 percent had a history of IV drug use.

In September 1991, there were 671 identified cases of HIV disease. It is estimated that approximately 68 percent of these patients have a history of IV drug use (Table 6). However, the number of HIV positive inmates in the CDC system is unknown, since testing is not mandatory. Additionally, inmates who test positive remain confidential cases and are housed in general population and provided with appropriate medical treatment for AIDS-related symptoms unless their medical condition requires their removal.⁶

PREGNANT FEMALES. Table 7 indicates that 6 percent of the female institution population participating in the CIW treatment program, 2 percent of the total female population, and 11.7 percent of parolees admitted to drug treatment programs were pregnant. Further, 56 percent of female CDC offenders have minor children, and many of these offenders have the potential to be IV drug users during their childbearing years. Two-thirds of the females in the CIW program have minor children.⁷

DUI (DRIVING UNDER THE INFLUENCE) OFFENDERS. During 1987, alcohol-related arrests accounted for approximately 28 percent of all alcohol and drug-related arrests in California, and the population of DUI offenders has grown at an extraordinary rate in recent years. New DUI admissions increased from 265 in 1985 to 3,076 in 1990, an increase of from 1.3 percent to

⁵Based on direction from OSAP staff.

⁶Data from OIS indicates that approximately 1,300 cases of HIV disease exist within the CDC system. In an interview for CorrectCare, a publication by the National Commission on Correctional Health Care (Volume 5, Issue 4, October 1991), CDC staff at CMF estimate that, from previous seroprevalent studies, "...there are now 4,000-5,000 HIV-infected inmates in the prison system."

⁷Source: Discussion with OSAP staff, January 1992.

7.8 percent of the total admissions in five years.⁹ Currently, there are 1,545 DUI offenders in the system.

CIVIL ADDICTS. As of December 15, 1991, there were 2,730 civil narcotic addicts (CNA) in the CDC institution population (2,177 males and 553 females). These inmates are committed to CDC under the Welfare and Institutions Code rather than the Penal Code and are typically housed at CRC where they participate in a formal short-term education/treatment program. Profile data for civil addicts for comparison with that of incarcerated felons was not available. However, OSAP reports that the use of this commitment option by the courts tends to be local to certain counties, which could indicate that courts in other counties may be committing offenders with similar profiles as felons. Specific study of this category of commitment was beyond the scope of this study.

Category of Offense

Table 8 displays the category of offense for which the surveyed male and female new admissions who had histories of drug use were incarcerated and provides similar information for the total inmate population.

MALES. Of the surveyed sample of new male admissions who had a history of drug use, 38.8 percent were incarcerated for a drug offense; 24.7 percent of the male inmate population were incarcerated for the drug offenses. Additionally, 6.2 percent of the sample were incarcerated for driving under the influence compared with 1.6 for the total institution population.

In the sample group the 24.7 percent were incarcerated for a violent crime compared to 43.2 percent of the total institution population. Property offenses were similar in magnitude for both groups.

FEMALES. 54.4 percent of the females in the surveyed group who had histories of drug use were incarcerated for a drug offense compared to 37.9 percent for the total female inmate population. Twelve percent were incarcerated for a violent crime compared to 23.9 percent of the total female inmate population. Property offenses were slightly lower for the sample than for the total female inmate population.

Time Served

Table 9 shows major offense categories for both males and females as well as the average time served by inmates as of 1989. The longest median time served was for violent offenses: 21 months for males and 16 months for females. Time served for property offenses and drug offenses was 11 months for males and 10 months for females. Overall, California male inmates served an average of 12 months, while females served 11 months for all categories of offenses.

⁹Report by CDC OIS, "Characteristics of Felon New Admissions and Parole Violators Returned with a New Commitment, Calendar year 1990."

| Table 5 HISTORY OF INTRAVENOUS DRUG USE FOR 1990 SAMPLE, RJD SUBSTANCE ABUSE TREATMENT PROGRAM PARTICIPANTS, RJD COMPARISON GROUP AND PAROLEES ADMITTED TO DRUG TREATMENT PROGRAMS | | | | |
|---|-------------|---------|----------------|---------|
| POPULATION | IV DRUG USE | | NO IV DRUG USE | |
| | Frequency | Percent | Frequency | Percent |
| 1990 SAMPLE POPULATION ¹ | | | | |
| Male | 321 | 15.0% | 1,821 | 85.0% |
| Female | 320 | 27.3% | 852 | 72.7% |
| RJD PROGRAM PARTICIPANTS ² | 73 | 37% | 123 | 63% |
| RJD COMPARISON GROUP ² | 63 | 30% | 146 | 70% |
| PAROLEES ADMITTED TO DRUG TREATMENT PROGRAMS ³ | 5,550 | 77.4% | 1,620 | 22.6% |

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- ¹ CDC Offender Information Services Branch, "Number of Felon New Admissions in 1990 in the Sample Selected for Folder Reading Who Had a History of Drug Use by Type of Drug and Sex", October 28, 1991. (11). NOTE: Assumes IV drug use approximately equals heroin drug use.
- ² Preliminary Statistics to be updated December 1991, "Substance Abusing Offenders in the California Department of Corrections, the R. J. Donovan Amity Rightturn Program - A presentation to the State Epidemiology Work Group", May 10, 1991. (17)
- ³ CDC Office of Substance Abuse Programs, "Male and Female Parolees Admissions to Drug Treatment Programs in California (Excluding Los Angeles County) During Fiscal Year 1990/1991. (29)

| Table 6 IDENTIFIED CASES OF HIV DISEASE AS OF SEPTEMBER 30, 1991 AND ESTIMATED INTRAVENOUS DRUG USE ¹ | | |
|--|----------------------------|--|
| | IDENTIFIED CASES OF HIV | ESTIMATED NUMBER OF HIV PATIENTS WHO ARE IV DRUG USERS ² |
| CMF/Vacaville | 247 | 188 |
| CIM/Chino | 178 | 121 |
| CMC | 147 | 100 |
| San Quentin | 32 | 22 |
| CIW | 24 | 16 |
| Corcoran | 12 | 8 |
| RJD | 8 | 4 |
| Wasco | 5 | 3 |
| Mule Creek | 4 | 3 |
| CCI | 4 | 3 |
| CCC | 3 | 2 |
| CRC | 2 | 1 |
| Avenal | 2 | 1 |
| CCWF | 2 | 1 |
| DVI | 1 | 1 |
| Folsom | 1 | 1 |
| SCC | 1 | 1 |
| TOTAL | 671 | 456 |
| ESTIMATED NUMBER OF CASES ³ | 790 | 537 |

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¹ CDC Office of Health Care Services

² Based on CDC Office of Health Care Services estimates that 68% of AIDS cases are IV drug users. It should be noted that a large number of the remaining 32% are IV drug users as well as homosexual.

³ Based on estimates prepared by Offender Information Services

| Table 7 PREGNANT FEMALES IN INSTITUTIONS, CIW SUBSTANCE ABUSE TREATMENT PROGRAM AND PAROLE DRUG TREATMENT PROGRAMS | | |
|---|------------------|---------|
| | PREGNANT FEMALES | |
| | Frequency | Percent |
| INSTITUTION POPULATION ¹ | 130 | 2.0 |
| CIW TREATMENT POPULATION ² | 8 | 8.1 |
| PAROLEES ADMITTED TO DRUG TREATMENT PROGRAMS ³ | 2740 | 11.7 |

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¹ CDC, Office of Health Care Services.

² CDC, Office of Substance Abuse Programs.

³ CDC, Office of Substance Abuse Programs, "Male and Female Parolee Admissions to Drug Treatment Programs in California (Excluding Los Angeles County) During Fiscal Year 1990/1991, (29)

Table 8
CATEGORY OF OFFENSE

| | 1990 SAMPLE WITH A HISTORY OF DRUG USE ¹ | | INSTITUTION POPULATION ² | | PAROLE POPULATION ³ | |
|-------------------------|---|--------|-------------------------------------|--------|--------------------------------|--------|
| | MALE | FEMALE | MALE | FEMALE | MALE | FEMALE |
| VIOLENT OFFENSES | 24.7% | 12.0% | 43.2% | 23.9% | 31.0% | 16.0% |
| PROPERTY OFFENSES | 28.1 | 31.0 | 27.4 | 35.1 | 35.1 | 46.3 |
| DRUG OFFENSES | 38.8 | 54.4 | 24.7 | 37.9 | 29.0 | 34.0 |
| CSS Possession | 11.9 | 24.4 | 7.2 | 13.1 | 11.7 | 17.1 |
| CSS Possession for Sale | 11.4 | 14.5 | 7.4 | 10.3 | 8.3 | 9.1 |
| CSS Sale | 13.3 | 13.6 | 7.6 | 12.3 | 5.0 | 5.0 |
| CSS Other | 0.7 | 0.9 | 1.0 | 1.3 | 0.9 | 1.5 |
| Marijuana | 1.5 | 1.0 | 1.5 | 0.9 | 3.0 | 1.3 |
| OTHER OFFENSES | 8.4 | 2.6 | 4.7 | 3.1 | 5.0 | 3.7 |
| Driving Under Influence | 6.2 | 1.6 | 1.9 | 0.9 | 1.1 | 0.8 |
| SAMPLE SIZE (n) | 1,365 | 931 | 81,297 | 6,000 | 51,980 | 4,786 |

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¹ CDC Offender Information Services Branch, "Number of Felon New Admissions in 1990 in the Sample Selected for Folder Reading Who Had a History of Drug Use by Offense and Sex", October 28, 1991. (11)

² California Prisoners and Parolees 1989, p. 121, "Offense Groups Institution Population".

³ California Prisoners and Parolees 1989, p. 134, "Offense Groups California Felon Parolees".

Table 9
AVERAGE TIME SERVED (IN MONTHS) IN CDC INSTITUTIONS BY CATEGORY OF OFFENSE

| OFFENSE | MALE | | | FEMALE | | |
|-----------------------------|--------|---------------------------------|--------|--------|---------------------------------|--------|
| | NUMBER | TIME SERVED IN CDC INSTITUTIONS | | NUMBER | TIME SERVED IN CDC INSTITUTIONS | |
| | | MEAN | MEDIAN | | MEAN | MEDIAN |
| VIOLENT OFFENSES | 8,359 | 27.8 | 21 | 423 | 19.8 | 18 |
| PROPERTY OFFENSES | 12,857 | 14.3 | 11 | 1,456 | 11.5 | 10 |
| DRUG OFFENSES | 11,275 | 12.1 | 11 | 1,188 | 11.2 | 10 |
| CSS Possession | 4,765 | 8.6 | 8 | 588 | 7.9 | 7 |
| CSS Poss. for Sale | 3,018 | 14.0 | 12 | 298 | 13.3 | 12 |
| CSS Sale | 2,031 | 18.1 | 17 | 204 | 17.7 | 17 |
| CSS Manufacturing | 75 | 21.5 | 20 | 14 | 18.3 | 18 |
| CSS Other | 293 | 10.4 | 9 | 42 | 9.4 | 8 |
| Marijuana Possession | 22 | 9.0 | 8 | 0 | - | - |
| Marijuana Poss. for Sale | 444 | 8.8 | 8 | 23 | 7.3 | 7 |
| Marijuana Sale | 591 | 12.8 | 11 | 19 | 12.1 | 11 |
| Marijuana Other | 38 | 9.4 | 9 | 0 | - | - |
| OTHER OFFENSES | 1,786 | 12.3 | 10 | 100 | 11.8 | 10 |
| Driving Under the Influence | 462 | 10.3 | 8 | 20 | 11.2 | 11 |
| TOTAL | 34,057 | 16.8 | 12 | 3,167 | 12.5 | 11 |

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California Prisoners and Parolees 1989, p. 143-146, "Average Time Served in Months Felons First Released to Parole by Offense".

Prior Commitments

Table 10 displays the commitment history of the male and female new admissions surveyed in the sample who had a documented history of drug use. Data on prior commitments for the total inmate population was unavailable.

MALES. Of the males in the sample who had documented histories of substance abuse, 77.4 percent had no prior prison commitments, although 70.3 percent had one or more jail commitments. Also, 53.6 percent had no prior local juvenile commitments, and two-thirds had no prior California Youth Authority (CYA) commitments.

FEMALES. Of the females in the sample who had documented histories of drug use, 90 percent had no prior prison commitments, although approximately 75 percent had been in jail one or more times. Also, 50.4 percent had no prior local juvenile commitments, and 64.8 percent had no prior CYA commitments.

Age

Table 11 displays and compares the age of the sample surveyed who had a documented history of drug use with the total institution population and parolees.

MALES. It is significant for the purpose of program planning that 31.2 percent of new admissions with drug histories are under 25 years of age. 20.4 percent of the total inmate population were under 25 years of age. The median age for the sample population was 28 compared to 30 for the entire CDC inmate population.

FEMALES. The female new admissions sample showed an interesting difference: unlike the men, women with histories of substance abuse were spread through the age groups. Of the new admissions 79 percent were under 34 years of age, compared with 68.7 percent of the total female inmate population. The median age for the sample population was 30 compared to 31 for the entire CDC population.

Race/Ethnicity

Table 12 displays the racial groups for the sample of new admissions surveyed who had a history of drug use and the total institution population and parolees.

MALES. Of the sample surveyed, 27.3 percent were African/American males compared with 37 percent for the total inmate population. The percentage of white males for both groups was similar. The percentage of Hispanic-Mexicans was higher for the sample surveyed than for the total population: 37.9 percent compared with 28.5 percent, respectively.

FEMALES. Both the sample group and the total female inmate population was similar for all racial groups.

Marital Status

Table 13 illustrates the marital status of the 1990 sample of new male and female admissions surveyed who had a history of drug use. Similar data for the total inmate population was unavailable.

MALES. The data indicates that 45.6 percent had never married, 20.3 divorced or separated, and 33.7 percent were married.

FEMALES. For the females, 40.6 percent had never married, 17 percent were divorced or separated, and 39 percent were married.

Education Level

Table 14 displays the education levels of the sample of new male and female felon admissions surveyed who had histories of drug use. Comparable information for the total inmate population was unavailable. Table 15 provides education levels for participants in the Amity RightTurn program at the R.J. Donovan Correctional Facility.

MALES. Grade levels for males in the sample surveyed were fairly evenly spread with even peaks around the 8th grade and 12th grade levels, and a median level of 7th grade. Of those inmates who have availed themselves of treatment in the RightTurn program, over 85 percent have at least some high school education.

FEMALES. Education levels for female CIW program participants was unavailable. However, grade levels for the female sample population was similar to that of the males, although educational data for 68.1 percent of the females was reported as "unknown" compared to 18.4 percent for the men. The median level was eighth grade.

Table 10
 PRIOR COMMITMENTS FOR FELON
 NEW ADMISSIONS IN THE 1990 SAMPLE
 WHO HAD A HISTORY OF DRUG USE¹

| NUMBER OF COMMITMENTS | PRIOR CYA COMMITMENTS | | PRIOR LOCAL JUVENILE COMMITMENTS | | PRIOR JAIL COMMITMENTS | | PRIOR PRISON COMMITMENTS | |
|------------------------------|-----------------------|--------|----------------------------------|--------|------------------------|--------|--------------------------|--------|
| | Male | Female | Male | Female | Male | Female | Male | Female |
| Unknown | 23.4% | 32.2% | 38.4% | 48.3% | 17.9% | 10.0 | 2.7% | 0.3 |
| None | 66.2 | 64.8 | 53.8 | 50.4 | 20.7 | 24.1 | 77.4 | 90.0 |
| One | 9.9 | 2.8 | 5.9 | 0.8 | 18.5 | 18.5 | 14.9 | 8.3 |
| Two | 0.3 | 0.2 | 1.2 | 0.3 | 15.8 | 11.7 | 4.0 | 1.5 |
| Three | 0.2 | 0.0 | 0.6 | 0.2 | 9.2 | 8.8 | 0.8 | 0.1 |
| Four | 0.1 | 0.0 | 0.1 | 0.0 | 6.2 | 6.6 | 0.1 | 0.1 |
| Five or more | 0.0 | 0.0 | 0.1 | 0.0 | 11.8 | 20.4 | 0.1 | 0.0 |
| MEDIAN NUMBER OF COMMITMENTS | 0 | 0 | 0 | 0 | 2 | 2 | 0 | 0 |
| SAMPLE SIZE (n) | 1,365 | 931 | 1,365 | 931 | 1,365 | 931 | 1,365 | 931 |

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¹ CDC Offender Information Services Branch, "Number of Felon New Admissions in 1990 in the Sample Selected for Folder Reading Who Had a History of Drug Use by Number of Prior Commitments and Sex", October 28, 1991. (11) NOTE: Does not include parole violators or return to custody.

| Table 11 AGE GROUP | | | | |
|-----------------------|--|---------------------------------|--|---------------------------------|
| | MALE | | FEMALE | |
| | 1990 SAMPLE WITH A HISTORY OF DRUG USE ¹ | 1990 INST. POP. ² | 1990 SAMPLE WITH A HISTORY OF DRUG USE ¹ | 1990 INST. POP. ² |
| UNDER 20 | 5.6% | 1.5% | 1.2% | 0.4% |
| 20 - 24 | 25.8 | 18.9 | 15.8 | 12.4 |
| 25 - 29 | 24.0 | 26.1 | 28.4 | 26.3 |
| 30 - 34 | 19.9 | 22.6 | 29.5 | 27.3 |
| 35 - 39 | 12.1 | 14.6 | 14.8 | 17.8 |
| 40 - 44 | 7.4 | 8.4 | 6.1 | 8.8 |
| 45 - 49 | 3.2 | 3.8 | 2.5 | 3.9 |
| 50 - 54 | 1.3 | 2.0 | 0.8 | 1.7 |
| 55 - 59 | 0.7 | 1.0 | 0.6 | 0.7 |
| 60 AND OVER | 0.3 | 1.0 | 0.3 | 0.8 |
| MEDIAN AGE | 28 | 30 | 30 | 31 |
| SAMPLE SIZE (n) | 1,365 | 81,297 | 931 | 6,000 |

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¹ CDC Offender Information Services Branch, "Number of Felon New Admissions in 1990 in the Sample Selected for Folder Reading Who Had a History of Drug Use by Age and Sex", October 28, 1991. (11)

² Characteristics of California State Prisons by Institution, p. 18, "Percent of Age Group by Type of Commitment". (10)

**Table 12
 RACE/ETHNICITY**

| | 1990 SAMPLE WHO HAD A HISTORY OF DRUG USE ¹ | | INSTITUTION POPULATION ² | | PAROLE POPULATION 1989 ³ | |
|------------------|--|--------|-------------------------------------|--------|-------------------------------------|--------|
| | MALE | FEMALE | MALE | FEMALE | MALE | FEMALE |
| AFRICAN/AMERICAN | 27.3% | 35.9% | 37.0% | 36.2% | 34.3% | 31.3% |
| CAUCASIAN | 30.5 | 35.8 | 29.9 | 34.1 | 30.1 | 35.6 |
| HISPANIC-MEXICAN | 37.9 | 22.7 | 28.5 | 22.6 | 31.3 | 25.4 |
| OTHER | 4.2 | 5.7 | 4.6 | 7.1 | 4.3 | 7.7 |
| SAMPLE SIZE (n) | 1,365 | 931 | 81,297 | 6,000 | 51,960 | 4,786 |

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- ¹ CDC Offender Information Services Branch, "Number of Felon New Admissions in 1990 in the Sample Selected for Folder Reading Who Had a History of Drug Use by Ethnic Group and Sex", October 28, 1991. (11)
- ² California Prisoners and Parolees 1989, p. 123, "Racial/Ethnic Groups - Institution Population".
- ³ California Prisoners and Parolees 1989, p. 136, "Racial/Ethnic Groups - Felon parolees".

| Table 13 MARITAL STATUS | | |
|----------------------------|--|--------|
| | 1990 SAMPLE WHO HAD A HISTORY OF DRUG USE ¹ | |
| | MALE | FEMALE |
| UNKNOWN | 4.0% | 1.8% |
| NEVER MARRIED | 45.6 | 40.6 |
| FIRST MARRIAGE | 27.5 | 27.8 |
| SECOND MARRIAGES | 5.6 | 8.4 |
| THIRD + MARRIAGE | 0.6 | 2.7 |
| DIVORCED/ SEPARATED | 16.6 | 17.0 |
| SPOUSE DECEASED | 1.1 | 1.7 |
| SAMPLE SIZE (n) | 1,365 | 9331 |

Scarlett Carp & Associates, Inc

¹ CDC Offender Information Services Branch, "Number of Felon New Admissions in 1990 in the Sample Selected for Folder Reading Who Had a History of Drug Use by Marital Status and Sex", October 28, 1991. (11)

² California Prisoners and Parolees 1989, p. 115, "Marital Status Felon New Admissions From Court". NOTE: Based on a 10% sample of male felon new admissions and a 50% sample of female felon new admissions.

Table 14
TESTED GRADE LEVEL FOR FELON NEW
ADMISSIONS IN THE 1990 RANDOM SAMPLE
WHO HAD A HISTORY OF DRUG USE ¹

| GRADE LEVEL | MALE | | FEMALE | |
|----------------------|-----------|---------|-----------|---------|
| | Frequency | Percent | Frequency | Percent |
| Non-English Speaking | 94 | 6.9% | 4 | 0.4% |
| <2.5 Illiterate | 47 | 3.4 | 15 | 1.8 |
| 2.5 to 3.4 | 48 | 3.5 | 11 | 1.2 |
| 3.5 to 4.4 | 70 | 5.1 | 32 | 3.4 |
| 4.5 to 5.4 | 97 | 7.1 | 28 | 3.0 |
| 5.5 to 6.4 | 109 | 8.0 | 23 | 2.5 |
| 6.5 to 7.4 | 113 | 8.3 | 29 | 3.1 |
| 7.5 to 8.4 | 140 | 10.3 | 41 | 4.4 |
| 8.5 to 9.4 | 87 | 6.4 | 27 | 2.9 |
| 9.5 to 10.4 | 85 | 6.2 | 23 | 2.5 |
| 10.5 to 11.4 | 88 | 6.4 | 15 | 1.6 |
| >11.5 | 136 | 10.0 | 49 | 5.3 |
| Unknown | 251 | 18.4 | 634 | 68.1 |
| MEDIAN | 7 | | 8 | |

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¹ CDC Offender Information Services Branch, "Number of Felon New Admissions in 1990 in the Sample Selected for Folder Reading Who Had a History of Drug Use by Tested Grade Level and Sex", October 28, 1991. (11)

**Table 15
 EDUCATION LEVEL FOR
 RJ DONOVAN AMITY RIGHTURN PROGRAM PARTICIPANTS
 VS. COMPARISON GROUP¹**

| GRADE LEVEL | PROGRAM PARTICIPANTS | | COMPARISON GROUP | |
|----------------------|----------------------|---------|------------------|---------|
| | Frequency | Percent | Frequency | Percent |
| No High School | 22 | 11.9% | 26 | 15.2% |
| Some High School | 86 | 46.5 | 56 | 32.7 |
| High School Graduate | 77 | 41.8 | 89 | 52.0 |

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¹ Lois Lowe and David Winett, "Substance Abusing Offenders in the California Department of Corrections: The R. J. Donovan Amity Righturn Program", Presentation to the State Epidemiology Work Group in Sacramento, California, May 10, 1991. (17) Note: Preliminary data to be updated in December 1991. Inmates who have applied to the program, but were not accepted have been identified as comparison group subjects. Inmates who applied for the RJD program, but were not admitted, are identified as the comparison group.

APPENDIX L

Four models to describe the interaction between the formal service delivery system and the "community" to resolve problems within the community.

| |
|---|
| <p>System Autonomy Model</p> <p>The community experiences a problem. *****</p> <p>The service system remedies the problem.</p> |
| <p>Community Oriented Model</p> <p>The community experiences a problem. *****</p> <p>The service system, with assistance and cooperation from the community, remedies the problem.</p> |
| <p>Community Empowerment Model</p> <p>The community experiences a problem *****</p> <p>The service system empowers the community to remedy its problem.</p> |
| <p>Community Autonomy Model</p> <p>The community experiences a problem. *****</p> <p>The community remedies the problem independent from the service system.</p> |

**IMPROVING DATA SYSTEMS
FOR MONITORING DRUG USE**

RAND
P. Ebener

BACKGROUND

- **DPRC investigation of available data for policy analysis**
- **17 different federal agencies collect data about drug use and its consequences**
- **Fragmented collection of indicators**
- **Reports are untimely**
- **Different, often inconsistent findings emerge**

OBJECTIVE AND APPROACH

Recommend steps for improving timeliness and policy relevance of drug use indicator data systems

- **Develop new methods or modify existing ones**
- **Integrate indicators for more comprehensive analysis**

CONCEPTUAL ISSUES

- **How would a coordinated drug data system look?**
- **Map data requirements to meet current needs**
- **Explore currently untapped indicators**
- **Identify and interpret implications of problems with existing systems**

ANALYTICAL ISSUES

- **Gaps and overlaps**
- **Definitional differences among data systems**
- **Necessary links**

OPERATIONAL ISSUES

- **Borrow from other surveillance systems**
- **Build in flexibility**
- **Add to other surveys**
- **Pilot testing**

IMPROVING AND INTEGRATING DRUG ABUSE INDICATOR DATA

HILARY L. SANER, PH.D.

RAND CORPORATION

As Pat has mentioned, our project aims at identifying, and then examining conceptual, analytical and operational issues necessary for improving the timeliness and quality of drug use indicators. At the national level, these indicators are needed for reporting on the status of drug use and abuse in the nation, for federal policy planning and budgeting purposes, as well as assessment of demand reduction programs. We will consider ways to integrate data from the existing systems to develop a more coherent analysis of the overall drug problem.

We have identified two symbiotic lines of enquiry. Pat talked about the first, which focuses on changing or supplementing existing indicator systems. I will now turn to the second, focusing on using the existing systems in more creative ways. Cross-tabulated with these are issues of timeliness, identifying leading rather than lagging indicators, and projections about the future.

First, what are the purposes of this creative endeavour? Current analyses tend to be

- * incomplete and

- * fragmented,

making interpretation of change difficult to say the least. We think that these data will have greater potential utility if they can be

- * pooled or integrated

- * to provide a more comprehensive picture of drug use in the nation.

I see this part of the project proceeding along three fronts -

- * documenting obstacles to our goals of creative integration
- * developing new methodologies (or borrowing from ones developed elsewhere)
- * conducting some exploratory analyses.

I. DOCUMENTING OBSTACLES

Our first task will be to break the problem apart in terms of different drugs, population groups and geographic regions, and to ask what information each data set brings to bear on each area and level of analysis. There are multiple sources of information at the national level for assessing drug abuse trends. Each data set has unique problems relative to reliability, validity and timeliness: but combining information from many sources should increase the reliability and usefulness of the information we derive.

Attention must be paid to several issues:

- * the data sets may be pertinent only to a selected population;
- * the definitions and procedures used to report may vary across locales;
- * Sampling designs and appropriate units of analysis will vary across data sets;
- * what are reasonable time periods for comparison purposes? Are there period effects?
- * Are the data drug-specific? Is alcohol included?

For example, the National Household Survey gives a conservative estimate of drug use; it excludes people who are homeless, or in the military, in jail or in hospital. Similarly, the

High School Senior Survey is specific to a certain population, but it misses those students whom we know are most at-risk - the dropouts and chronic truants from school. On the health side, DAWN is a country-wide data base, but has multiple problems associated with its use, including incomplete reporting, delays in reporting and variations due to personnel turnover.

II. DEVELOPING NEW METHODOLOGIES

II(A.) LINKING

Our first task in all this will be to describe the potential matches and mismatches, and the key pieces of information provided by each data set. Our goal will be to extract and integrate information to provide a more complete picture, where different levels and combinations may be more useful for different purposes.

We can also ask then whether there are certain things any one data set measures particularly well. Does this vary over time, and how relevant is it to the information we really need?

Are there similar measurement problems in different data sets?

Are there variables which are measured similarly in various data sets? How do trends for these compare? How do data collected at the same time (or similar times) compare in different data sets? And then the hard part - how to get data from different times and places linked, either by recoding or imputing or modelling in some way. For example, how to reconcile DUF at the county level with DAWN at the PMSA level?

II (B). STATISTICAL TOOLS

This brings me to some methodological ideas and questions we have. I have seen work in the field of criminology which seeks to identify and resolve differences between the UCR and the NCS data for specific crimes (Blumstein, Cohen, and Rosenfeld, 1991).

We can learn from this work in several areas. First, we can bring "outside" information, for example from the census, to bear in our comparisons. Blumstein et. al. use the census to good effect in their analyses by constructing crime rates as the ratio of counts (from NCS and UCR) for each year to the total US population for each corresponding year, and multiplying the result by 100,000. Second, there may be relatively simple systematic adjustments to be made which could increase comparability among data sets. For example, Blumstein et. al. examining both the trends and the deviation from trend in comparing data over time. The work done by Adele Harrell also suggests the possibility of using information from one population as a leading indicator of certain changes one might expect in other populations. San Diego has done some work in this area as well, with less promising results, possibly because they restricted their analyses to DAWN's emergency room data, rather than using a broader range of indicators of general community drug problems such as drug-overdose deaths, child maltreatment, crime rates, and requests for drug treatment. There is also important work being done now to improve prevalence estimates of illicit drug users, using multiple capture models, by the group at UCLA (Hser and Anglin). We hope to draw on and learn from those efforts as well.

III CONDUCTING EXPLORATORY ANALYSES

This is where we attempt to put into practice all the wisdom we will have garnered in our initial work in sections I and II.

Our aims will be to

- * reconcile inconsistencies, possibly by using simple systematic adjustments,
- * disaggregating in sensible fashion, to ask whether there are important subgroups where different data sets present conflicting or converging information.

At each step we will need to

- * document the assumptions being made and the reasons for the choice of level of analysis.

We will also be on the lookout for

- * potential changes and improvements to the data systems which would improve their overall utility, and to provide a more comprehensive picture of the current status.

One way to begin to divide up this problem is by viewing it in terms of a "national" needs assessment - and to ask questions about who, what, where, why, and so on, allowing (hopefully) for the targeting of resources to the communities and populations most in need. We also want to recognize that this is an ongoing process - the "need" profile will almost certainly shift over time. One important question that must be addressed is "How do we measure progress"? Using present sources of information can lead one up Paradox Lane on this issue. For example, if the number of arrests increases, this might be taken as a good sign ("we're really cracking down and getting things under control") or a bad sign ("things are hotting up out there, and the criminal justice system can't keep up"). The same story holds for number of treatment admissions. These examples merely point to the need for a multidimensional notion of what "progress" in this area means.

APPENDIX O

**Drugs and crime in an accomodating social context:
the situation in Amsterdam**

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INTRODUCTION

The Netherlands are known for its pragmatic-and relatively tolerant attitude to the illegal drugs phenomenon. It is the one country that has officially refused to join the ideology of radical prohibitionism which has resulted in the so called "War on Drugs" (van de Wijngaart, 1990). At the same time, along with several other Western-European countries the Netherlands can be characterised as a welfare-society with a relatively highly developed social-security and socio-medical system. From a criminological point of view it is interesting to find out whether this typical Dutch social and cultural climate has any influence on the nature and extent of drug related crime. In this article we will present some results of a study that -among other things- addresses this question. Its theoretical framework and design is clarified and finally some of the implications are discussed.

In The Netherlands the number of hard drug addicts is estimated to be 15.000 to 20.000¹, (about 15% to 20% are from abroad). About 40% of this junkie-population is concentrated in Amsterdam, Holland's renown drugs center (Buning, 1990). The cultural setting in which drug abuse takes place in this city is rather unique, even by Dutch standards. There is no other place in The Netherlands where the drug scene is as visible as in the inner city of Amsterdam. Visitors, and especially foreign ones, tend to believe that this high degree of visibility reflects a "laissez-faire" policy of the national and local government. As the Dutch approach is far more complex than it seems at first sight, we begin with a brief outline of the drug policy in general, and the drug policy of the Amsterdam local government in particular.

¹The number of inhabitants is about 16.000.000.

THE SOCIAL CONTEXT OF THE USE OF ILLICIT DRUGS IN AMSTERDAM

In Dutch drug policy vocabulary, the main strategies are referred to as normalisation and risk reduction of the use of illegal drugs (Engelsman, 1989). The first has been adopted most clearly in the case of soft drugs, cannabis (hashish and marijuana). In some respects, however, this strategy has been extended to hard drugs such as heroin and cocaine as well.

According to Dutch criminal law, hemp products are not included within the category of 'drugs with unacceptable risks'. Possession and sale of quantities up to 30 grams of soft drugs have the legal status of misdemeanor. However, the official "Guidelines" issued by the highest law enforcement authority direct public prosecutors to refrain from criminal proceedings in such cases. This is warranted by the expediency principle in Dutch law which allows for other (non-enforcement) interests to be considered. In practice, the use as well as the retail trade of soft drugs has been officially and openly accepted. Dutch cities have seen a rapid growth of the "coffee-shop" phenomenon (hashish and marijuana café's), which reflects the integration of soft drugs within the normal economic and social structure. (Jansen 1989, Leuw 1989)

Hard drugs such as heroin and cocaine are just as illegal in The Netherlands as they are elsewhere. However, criminal justice reactions to the hard drug problem in the Netherlands are differentiated. Formally there is a clear distinction between drug use and drug trafficking. In practice, however, this distinction is a gradual one, as it is well known that the lower levels of the drugtrade are hardly to separate from the subculture of drug users.

Repressive social control by means of police and law enforcement

actions has expressly been minimized with regard to the use and the retail (street) markets for hard drugs. Users of hard drugs are generally left alone when their only offense would be the use or possession of small quantities of illegal substances. This means that in the drugs area of Amsterdam (the downtown vice district where the retail market of hard drugs is only a little less conspicuous than the much longer established prostitution) the police will usually take no action against the junkies they meet in the course of their duty, even if they can be quite sure to find some quantity of heroin or cocaine if they stop and search them. Occasionally the police may, mostly for the sake of public order, take some action and confiscate the illegal hard drugs they find. It is not unusual however that police officers return the small quantities they discovered to the searched person. This policy has led to a high visibility of the use of hard drugs in this area.

Law enforcement policy towards the retail (street) market of hard drugs in Amsterdam is somewhat less tolerant. If police officers on patrol encounter a street dealer of hard drugs involved in transactions they will certainly arrest him. On the other hand, if they spot some 50 yards ahead a volatile gathering of junkies where drug transactions can easily be expected to take place, the foot-patrolling police will usually not increase their pace. The crowd responds to their approach by calmly dispersing in different directions, away from the police.

A clear aim of Dutch drug policy is to restrict criminalisation and marginalisation of hard drug users as much as possible. The use of illicit hard drugs is considered to be primarily a public health problem, for which a rather comprehensive array of specific facilities has been established. The most basic and accessible of those programs offer unconditional support, based on the acceptance of drug addiction as an explicit individ-

ual choice. These programs include shelter projects, free methadone maintenance, free needle and syringe exchange and free psycho-medical care. It is estimated that on a yearly basis in Amsterdam about 65% of the (Dutch) addict population is in contact with one or another drug addiction agency (Buning, 1990); life time prevalence is about 90% (Grapendaal, Leuw and Nelen; 1991). These programs do not expect addicts to be abstinent and do not question the deviant junkie lifestyle. There also exists a relatively wide array of more demanding and ambitious programs which aim at recovery from addiction and social rehabilitation. They operate on the assumption of the addict's own and unrequested motivation to break away from the "drugs life style".

Methadone programs are of central importance in Dutch drug policy. In Amsterdam, the supply of this opiate is based on a promotion-model. The addict who subscribes to a methadone program, usually starts at one of the so-called methadone buses, a former vehicle of the public transportation department. They drive on fixed schedules through the city and stop at known places. This is a low threshold program with no urinalysis, no obligation for the clients to appear every day and no mandatory contact with social workers or doctors. A person can be promoted from the bus to a community station -there are three of those stations in Amsterdam, situated in residential areas- when he or she stops taking illegal hard drugs. The prevailing rules at the community stations are more strict: there is an obligation to show up daily, and anyone caught using heroin or cocaine - there are two urinalyses a week- can be referred to the bus again².

²Recently the promotion model has been dropped. Community stations no longer demand abstention of illegal substances but just provide more intensive care for more problematic users. Changes were considered necessary in view of health concerns (AIDS prevention). Roughly equal proportions of about 40% of methadone maintenance clients are within the two modalities of the Munciple Public Health Service. The other 20% has its methadone prescribed by g.p.'s.

Finally general practitioners prescribe methadone. This is officially considered the highest level of the promotion model. Users obtain a prescription for methadone in tablet form, every two or three weeks. The general practitioners do not conduct urinalysis and provide little other service apart from a prescription. This modality relies heavily on the expected "responsible" behavior of the clients: regular use of the prescribed methadone and not selling it on the streets.

THE DRUGS-CRIME NEXUS

The existence of a close connection between illegal drug use and criminality has been proven time and again (Parker, 1989; Dobinson, 1985, 1987; Korf, 1990; Ball, 1982; Hammersley, 1987). At the same time it has widely been recognized that criminality is no more than a secondary characteristic of illegal drug taking. Perhaps apart from some very specific instances, there are no inherent effects of illegal drugs which impel its users into delinquency. This implies that criminality, along with most other social and health consequences connected with illegal drug addiction, are essentially not related with the pharmacological substances, but with the social conditions characteristic for this kind of drug taking. Even if heroin turns addicts into dependency driven zombies, as some popular myths imply, there obviously would be little problem with criminality if the drug (just as is true for alcohol) would be easily available for reasonable rates, or if it would be as generously described by family doctors as for example sleeping pills or tranquillizers.

Granting the secondary character of drug related criminality, the empirical evidence of its existence has not solved basic interpretational

issues. There are three major theoretical positions. According to the first model, drug addicts are driven to criminal behavior because they have to pay large sums of money for their drugs. This model assumes that addicts are physically dependent on their drugs and if they do not receive the required amount every day they will become sick. This position is widely known as the "inevitability-hypothesis" (Goldman, 1981). In contrast, the second model holds that "crime causes drug use". According to this perspective, involvement in delinquency provides the context, the reference group and definitions of the situation that are conducive for subsequent involvement with drugs (Clayton and Tuchfeld, 1982). The third model maintains that drug use and criminality are mutually reinforcing expressions of deviance. Deviance is viewed as the result of individual and collective reactions to the fundamental social-economic and cultural conditions of society. In this theoretical context, drug-related criminality is partly explained in terms of the moral status of drug use and the social conditions in which illegal drug use has materialized. The perceived roots of the evil are shifted from alien substances to the fabric of culture and social-economic structure (Inciardi, 1974; Leuw, 1986; Parker, 1989).

Each model may have some validity for certain types of users under certain conditions. Consequently the goal of our fieldstudy in Amsterdam was broadly stated as gaining a deeper understanding of the economic behavior of drug users, which may or may not include varying levels of criminal activities. Crime was not regarded as an isolated phenomenon. It was approached in the context of both the identity and life style of the addicts. We pay special attention to the question whether the dispersion of methadone has any predictive quality for the crime level of drug users. Some of the relevant data are presented and also an interpretation is offered.

DESIGN OF THE STUDY

The fieldwork of the study started mid 1987 and ended two years later. The sample consisted of 150 hard drug users. Respondents were recruited from the hard-core of the Amsterdam (street) junkie scene. In line with population estimates, the sample was divided so that two-thirds of the subjects were ambulant methadone maintenance clients. The remainder were not involved in methadone prescription. The first subsample was randomly approached on the premises of the methadone maintenance agencies, while the second subsample was recruited by snowballing techniques, mainly starting in the drugs area of Amsterdam. The design allowed for a maximum of seven interviews, over a period of about 13 months, about drug taking and economic behavior. All standard interviews referred retrospectively to the preceding seven days. The first three interviews took place in the first three weeks, the next four quarterly³. Respondents were interviewed in a fieldstation, a bar or -depending on the weather- on a bench in the street.

In addition to quantitative information, a life history interview was conducted. Respondents were asked about their family backgrounds, peer group, criminal and drug careers and their motivation to preserve their deviant lifestyles. The fieldworkers and researchers also spent considerable time observing the daily activities on the streets of central Amsterdam. The experiences and observations were recorded in a personal diary.

The design of the study is much alike the Johnson et al study, conducted in New York (Johnson et al, 1985). The major differences are the number of and time interval between the interviews and the emphasis on

³89 respondents completed the interview cycle.

qualitative data. In the Amsterdam study we paid more attention on the life history interviews and participant observation.

PATTERNS AND LEVELS OF DRUG USE⁴

The two most frequently used illegal drugs in the Amsterdam hard drug scene are heroin and cocaine. Although the range of use varies considerably, few users restrict themselves to just one drug. The Amsterdam drug problem has become a poly drug problem. The most frequently occurring combinations in one month are shown in table 1.

TABLE 1 ABOUT HERE!

All users of cocaine used heroin as well, but, as we can see in table 1, it is not the other way around. Many drug users indicated that a "speedball" - a mixture of cocaine and heroin- was their favourite combination. According to the respondents, cocaine is the most preferred drug nowadays, but it is also the drug that generates considerable apprehension among the addict population. This paradox is reflected in the following statement of one of our respondents: "I try to keep away as far as possible from cocaine. I love it, that's for sure, but I know what's going to happen when I start using it again. You always want to use more of it, you can't control yourself anymore, you pour your money down the drain and eventually you become paranoid."

This statement indicates that the use of hard drugs by no means restrict the capability of people to make rational choices. The common notion that the behavior of drug users is determined completely by the craving for drugs is contradicted in our study. The demand for drugs is far

⁴ The first three week interviews were used and expanded to one month. Consequently, all presented figures are monthly figures. 2 Respondents didn't complete the first interview cycle, so all the information presented here is based on self report data of 148 hard drug addicts.

more flexible than might be generally believed. Drug users do not use a fixed amount of drugs each day, but are willing to cut their coat according to their cloth (Grapendaal, 1989). If they have a large amount of money, they will use a lot of drugs. On the other hand, if they are less successful in acquiring an income they will use accordingly less heroin or cocaine. In other words, it appears that it is not physical dependence that determines the amount of money to be acquired, but rather that the available sum of money determines the amount of drugs that can be used. As one addicted prostitute put it: "How much drugs do I need?that depends on the money I make".

This statement is confirmed by the observed variability in drug use by the majority of sample. Only 10 respondents reported a stable pattern of drug use (both heroin and cocaine) during one month. Almost half of the sample showed the impressive deviation (upwards as well as downwards) of their mean use of over 75%.

SOURCES OF INCOME

During one month our respondents spent about \$200.000 on drugs (including cannabis and alcohol). The average amount of money being spent on drugs was \$1350 (\$200.000:148). Table 2 shows that different sources of income were exploited to finance the deviant lifestyle; figure 1 displays the relative contribution of these sources to the total income.

TABLE 2 ABOUT HERE, followed by

FIGURE 1

The highly developed level of social security facilities in the Netherlands is reflected in both figures. On average the most important source of income is the monthly welfare cheque. Just as the respectable civilians are, all unemployed adult drug addicts are eligible for the receipt of a welfare cheque, equivalent to about \$600 a month.

We compare these figures to two other studies. One is the New York study referred to before (Johnson et al, 1985) and the other is a recent study that Parker, Bakx and Newcombe (1989) carried out in Liverpool. Table 3 shows this comparison.

TABLE 3 ABOUT HERE!

The Liverpool and New York studies reveal a rather different pattern of income provision in which predatory (varieties of theft) crime is more prominent. This sort of crimes constitutes 65% of the total income of drug addicts in Liverpool and 43% in New York, versus 24% in Amsterdam. This justifies the conclusion that Amsterdam junkies behave, with regard to

their income generating activities, in a less damaging way than their English and American counterparts. One of the explanations of course is the rather elaborated social security system in The Netherlands. Another explanation is the existence of the easily accessible and to a certain extend, tolerated streetmarket of illicit drugs. As discussed before, the market exists by virtue of the policy that the police employ towards the dealing activities of the addicts. This provides a relatively large group of drug addicts with an alternative -and less harmful- source of income. The paradoxical -but plausible- conclusion must be that the low profile presence of the police results in less property crime.

METHADONE AND CRIME

The three key models with regard to the drugs-crime nexus lead to different expectations from supplying methadone. The "inevitability hypothesis" predicts that supplying methadone to addicts would have a major impact on the level of crime as addicts are able to substitute an expensive drug (heroin) for a free one (methadone). According to the second and third models the influence of methadone maintenance on the level of crime would be marginal. If "crime causes drug use", it can not be expected that drug users will immediately commit less crime when one of their drugs is substituted. Similarly the impact of methadone maintenance on the level of crime is questionable when, according to the third model, both the use of drugs and criminal behavior are integral components of a deviant lifestyle.

In order to shed some light on the question whether the supply of methadone has any predictive quality for the crime level of drug users, a

multiple regression analysis was conducted with the monthly proceeds from property crime as a dependent variable and eight user characteristics as independent variables. The results of this analysis are shown in table 4.

TABLE 4 ABOUT HERE!

A total 20% of the variance in criminality is explained by four user characteristics: cocaine use, gender, age and heroin use. Although this seems to be a low percentage, bear in mind that the purpose of this analysis was not to predict criminality, but to show the importance of methadone maintenance relative to other user characteristics. The amount of explained variance does not increase after the variable heroin use is entered. The phase of addiction, duration of use, subscription to a methadone program and regular reception of a welfare cheque do not contribute to the prediction of criminality. Only two user characteristics were significant at the 1% level and two are significant at the 7.5% level. In order of importance these are: cocaine use (the more cocaine is used, the higher the proceeds from criminality), gender (men's proceeds from crime are higher than those of women), age (the younger, the more proceeds from crime) and heroin use (the more heroin used, the more proceeds from crime).

Generally speaking, the supply of methadone appears to have no effect in decreasing the level of property crime committed by drug users. This is confirmed by the first order correlation between level of property crime and methadone supply: -0.08 . Although the coefficient has the expected direction, the strength of the relation is extremely weak.

In fact, there is some evidence that clients of low threshold programs commit even more crime than users who do not subscribe to any program. Table 5 shows how clients from the several programs differ from each other in terms of profits from property crime.

TABLE 5!

Although the groups from the high and low threshold programs display respectively the least and the most crime (see the bold figures), it would be erroneous to conclude that these programs actually increase or decrease the level of property crime. The results are more likely explained by the fact that the different programs each attract a different type of drug user. Our data suggest major differences in economic behavior and life - style between the clients of the high threshold programs, the low threshold ones and the users who did not participate in a program. In the next section this assumption will be discussed in more detail by presenting a criminal/economic typology of drug users.

A CRIMINAL/ECONOMIC TYPOLOGY OF HARD DRUG USERS.

As we have stated before, drug related crime has been studied in the context of both the identity and life style of addicts and their economic behavior in general. This starting-point implies that presence or absence of criminal activities is not quintessential. It is more interesting to look beyond this basic question and thrash out the meaning of crime within the deviant life style on the one hand and the significance of crime within the total pattern of income on the other. The construction of the typology starts with the calculation of the relative importance of the sources of

income. Table 6 shows the results of this analysis; three groups are distinguished.

TABLE 6!

In table 2 it was shown that 53% of the respondents committed at least one property crime in a one month period. For 22% of the sample this kind of activity is the main source of income. The majority of the sample draws income mainly from legal sources. It should be noted that prostitution and other commercial sex activities are included within these legal sources⁵.

Of course, this rough typology is merely an economic model. In order to unravel the relationship between the use of drugs and the level of crime sociologically, it is necessary to consider other characteristics, such as the type and amount of drugs used, the age of the respondents, the phase of their addiction career, life style factors and the significance of methadone maintenance. In the next sections we take a closer look at those characteristics. We develop a typology to characterize addicts by their income-generating activities and life style patterns. This typology includes the "dealing junkie" (type 1) the "criminal junkie" (type 2) and the "normalized user" (type 3).

1. THE DEALING JUNKIE

This type of users consists mainly of men from the Surinam community. The average "dealing junkie" is older than 30 years and started using hard drugs more than 8 years ago. He is a poly drug user and has a special

⁵

According to Dutch law, prostitution in itself is not a criminal offense.

predilection for cocaine. Although a lot of heroin is used as well, the function of this opiate has changed fundamentally: the drug that provided the user initially with a "flash" has lost its magical attraction and has become a kind of medicine. Heroin prevents the well known withdrawal symptoms and counteracts too strong agitation as a consequence of heavy use of cocaine. On an average the "dealing junkie" uses more than 8 grams of cocaine and heroine each a month⁶.

The "dealing junkie" is active on the drugs market as either a small time dealer, a lookout or a middleman. Most "dealing junkies" are paid in kind by their more upper-level dealers; usually they earn one bag heroin or cocaine on every five bags they sell. Consequently, they rarely have to buy any drugs. Thus they require less money for drugs than the other two types of drug users.

The Amsterdam inner-city street market is dominated by members of the Surinam community⁷. This activity links up with the streetcorner culture, which is more typical for their home-land. By being active on the drugs market they also gain prestige, which this new immigrant ethnic minority found hard to attain within conventional society. Unlike white drug users, Surinam addicts tend to assemble in the streets and share drugs. Intravenous drug use is highly uncommon in their subculture. Surinam addicts prefer to "chase the dragon"⁸ and/or freebase their cocaine. They reject the unhygienic lifestyle of many of their white drug shooting colleagues. Generally they are more aware of the risks connected with "bad" drug

⁶The purity of heroin as well as cocaine remains rather stable over the years. Samples show an average purity of 50% to 60%.

⁷Members of a black ethnic minority from the former Dutch colony of Suriname. Migration to the Netherlands began in the early seventies.

⁸Cocaine and heroin are put together or seperately on a piece of aluminum foil and then heated with a lighter. The vapors are inhaled through a straw or a folded banknote.

habits.

The average "dealing junkie" does not subscribe to any methadone program. He is proud of upholding a hectic, challenging and exciting way of life without being dependent upon medical or welfare institutions. For this type of drug addicts methadone has clearly negative connotations. Consequently there is also little inclination to buy the synthetic opiate on the black market.

2. THE CRIMINAL JUNKIE

Type 2 is an addict who uses whatever drugs he can lay his hands on, whether licit or illicit: heroin, cocaine, pharmaceutical drugs, alcohol and methadone are consumed on a regular basis. This type is relatively young (<30), male, white and still in the course of pursuing a deviant career in which drug use and criminality are the most meaningful elements. He derives prestige from being proficient and successful as a criminal and a junkie. In a way he is not only addicted to a certain drug, but, more important, to this deviant life style as a whole.

The average "criminal junkie" is registered at a low threshold methadone program. Methadone fits into his life style in a clearly opportunistic manner. He will use the facility whenever he considers this expedient. For instance when he has difficulty in obtaining other (more desirable) drugs or when he wants "to relax" for a while, methadone serves as an insurance to prevent him from the strains of addiction to illegal substances. However, when he has been successful in acquiring an income, the methadone bus won't be visited. Clearly the "criminal junkie" does not perceive methadone as a steppingstone to abstinence. This kind of utilisation of methadone is made possible by the unconditionality of low-

threshold maintenance programs in The Netherlands.

3. THE NORMALIZED USER⁹

Both men and women belong to type 3. He/she uses relatively small amounts (maximum 4 grams a month) of illicit hard drugs. Generally the "normalized user" stays away from cocaine. Especially within this sub-group cocaine is viewed as a bottomless pit. Its use is believed to demand a criminally active lifestyle that this kind of drug user either rejects or thinks himself incapable of.

The "normalized user" is not very eager anymore for the 'excitement' and 'glamour' of a junkie life style. At the same time he does want to retain some elements of his former way of living. He may be viewed as a retired or pacified junkie. Although he has become less active in generating an income and has cut down on the use of expensive and illegal drugs, his drug-related life style is still rewarding. This condition provides him with a life structure, including a circle of social contacts and with meaningful activities to lessen the dullness of the "regular" welfare recipient's life. He has a clear and daily reason to get out of bed: his visit to the methadone post. He will meet his friends, with whom he sets out amusing himself in the city center and eating at the free meals facilities for addicts. They play games in the hash café's or just go home and spend lots of time watching television. As a vocational activity he may

9

As we have explained before, prostitution is a legal source of income. From an economical point of view, the "heroin-prostitutes" belong to type 3. However, as the lifestyle of these users deviates too much from the ideal type of the "normalized user" - their lifestyle has more resemblances with type 1 & 2 - , we've decided to keep 12 respondents out of the analysis. The main source of income of these 12 persons (mainly women) was prostitution and they used a lot of drugs. Their number was too small to create a fourth ideal type.

join the market of small time pill peddlers and users (Nelen, 1989).

The "normalized user" subscribed to a high threshold methadone program. Methadone fulfils an important role within his life style. The daily use of this synthetic opiate not only prevents withdrawal symptoms, but also improves social-psychological functioning. As previously mentioned, the requirement that a client visits the methadone program daily serves to structure his lifestyle.

Economically the "normalized user" enjoys the profits, mainly by cutting down expenses for the "normal" costs of living. At the same time he enjoys a status (viz. the pacified junkie as a socio-medicalised welfare recipient) which is socially more or less acknowledged. He not only uses the facilities mentioned before, he also benefits in more informal ways. A junkie is obliged but not really expected to pay for public transportation. Similarly his friends and family will not expect him to return the money he frequently borrows. When in need of relatively expensive consumer goods such as fashionable clothing, stereo or a bicycle he relies on his contacts in the junkie scene for delivery at largely reduced rates. Generally he will indulge in expensive use of hard drugs only when the monthly welfare cheque arrives or when he is invited by friends.

A small number of retired junkies has structured their deviant life style around the use of solely licit drugs, such as prescribed methadone, alcohol and (a lot of) pharmaceutical drugs. They walk around with a bottle of beer in one hand and pills in the other. The conspicuous appearance of these "pill freaks" gives rise to the misleading stereotype of a hard core streetjunkie. However, as their vitality has deteriorated markedly, their energy and competence to uphold a hectic deviant life style have tapered off. Consequently they are rather harmless in terms of criminality and should be considered public nuisances rather than dangerous criminals. The

"pill freaks" can't afford and don't want to buy expensive drugs anymore. After a long drug career the kick of heroin has diminished and they are looking for a stronger "downer". With a lot of pharmaceutical drugs (and alcohol) they can "really blow themselves away", as one of our respondents described the feeling.

The "pill freaks" are looked upon by other drug users with a mixture of compassion and disgust. They hold a low position in the drug scene hierarchy. The following fragment from an interview is illustrative: "These boys and girls look like zombies. They keep on swallowing enormous amounts of pills and are hardly aware of the fact that they are still alive. I don't like that. I don't want to wake up and find out that I have forgotten completely about the things I did the day before. I want to keep myself under control, at least a little bit."

CONCLUSIONS

Due to the high level of availability of methadone in Amsterdam, it lacks any kind of magical attraction to the drug users. No one claims to be after a special kick out of methadone. The synthetic opiate does serve, however, some important functions in the drug scene. For the "criminal junkie" for instance, methadone serves two functions: when he has not been able to obtain heroin, it is used to counteract withdrawal symptoms. Sometimes it's merely just another drug. Methadone is an integrated facility in his deviant lifestyle. For the "normalized user", methadone partly serves its traditionally intended function to lead to a rather regular, only minimally marginalized life, although some elements of a junkie life style are retained. The synthetic opiate itself has no inde-

pendent effect on the crime level or on the economic behavior of drug users in general.

The rather low crime level among a substantial proportion of the Amsterdam sample of hard-core addicts may be fairly typical for the Dutch circumstances. Our findings are confirmed by a longitudinal study among 40 Dutch drug addicts. In this study three types based on a combined drug use/criminality index could be distinguished. The most prevalent type (40% of the cases) was found to consist of respondents who were still addicted but who at the same time had a very low or zero level of criminality. This group persisted in such a lifestyle for several years, typically after a period of heavy addiction and intense criminality (Swierstra, 1990).

In an international perspective two contrary outcomes of an addiction career seem rather common: 1. the reversal of deviancy into abstinence and resocialisation as a happy outcome (Biernacki 1986) and 2. the spiral of addiction leading downwards towards (violent) death or longterm imprisonment as an unhappy one. Such a polarisation of career patterns is probably less common under the Dutch conditions. In The Netherlands there may be relatively more drug addicts who neither "recover" from their deviant lifestyle, nor perish under it.

The life style of the "normalized user" population reflects both the blessings and the drawbacks of an accomodating drug policy. At the one hand it allows for a lifestyle which is not very harmful, neither for the addict himself, nor for society. At the other hand the welfare culture in which drug addiction is embedded generates its own secondary rewards. It reinforces the drug addict's dependency and passivity and undermines incentives to break away from the addict life style. The retired, pacified, but perpetual "junkie" may thus become a typical Dutch phenomenon.

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Appendix: The construction of the attitude scale "phase of addiction".

1. Among my friends I have quite a few non drug users.
2. Recently I tend to consider more often the possibility of seriously kicking the habit.
3. If I am able to, I will use every day.
4. I hardly think about anything else than drugs.
5. Nowadays I am using less than I used to.
6. Actually I would prefer to lead a life without drugs.
7. Recently I experience longer periods in which I am clean.
8. I just like drugs.
9. I am not thinking of quitting.
10. Often I am fed up with this life.
11. I am hardly influenced by a period of not using dope.
12. I can control my drug use.
13. I notice that I am avoided by non users.
14. The life in the scene is exciting.

The answering categories for each item were:

1. totally agree
2. agree
3. disagree
4. totally disagree

The initial scale consisted of 18 items. After removal of four, the reliability coefficient, as expressed by Cronbach's alpha, was .70. The analysis was done by the SPSS program Reliability; for the negatively formulated items the order of answering categories was reversed.

TABLE 1: MONTHLY PREVALENCE FOR POLY DRUG USE (N=148).

| Combinations | n |
|---|-----|
| heroin | 135 |
| cocaine | 101 |
| heroin & cocaine | 101 |
| heroin, cocaine & methadone | 81 |
| heroin, cocaine, methadone & pills ¹⁰ | 49 |
| heroin, cocaine, methadone, pills & alcohol | 35 |
| heroin, cocaine, methadone, pills, alcohol & cannabis | 27 |

¹⁰

The term "pills" represents all kind of medicines, like pain-killers, sedatives, sleeping pills etc.

TABLE 2: MONTHLY AMOUNTS FOR THE SOURCES OF INCOME.

| <u>Sources</u> | <u>Total amount</u> <u>(\$)</u> | <u>Number of</u> <u>subjects</u> | <u>Sample mean</u> <u>(\$)</u> | <u>Group mean</u> <u>(\$)</u> |
|-------------------|------------------------------------|-------------------------------------|-----------------------------------|----------------------------------|
| Welfare cheque | 77.300 | 128 (87%) | 522,- | 600,- |
| Salary | 10.000 | 14 (10%) | 70,- | 715,- |
| Drugsmarket | 53.000 | 90 (61%) | 360,- | 600,- |
| Prostitution | 41.000 | 38 (26%) | 280,- | 1080,- |
| property crime | 65.700 | 79 (53%) | 445,- | 830,- |
| Other* | 21.450 | 117 (79%) | 145,- | 185,- |
| Totals | 268.450 | | 1815,- | |

* Income from selling syringes and needles, odd jobs for shopkeepers, selling own goods, collecting empty bottles, help from family, begging, charity etc.

FIGURE 1: RELATIVE CONTRIBUTION OF THE SOURCES OF INCOME TO THE TOTAL INCOME

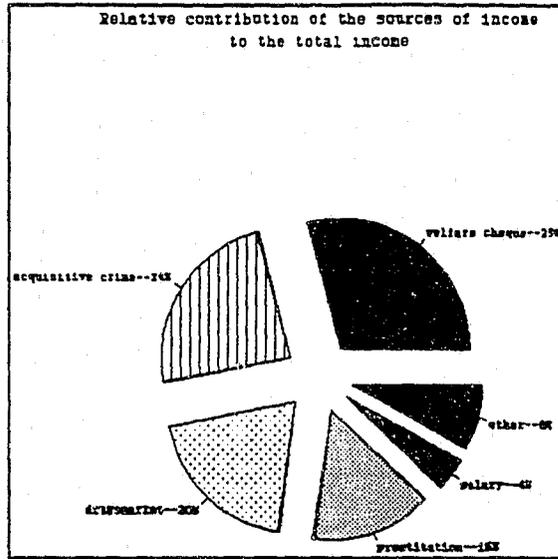


TABLE 3: AN INTERNATIONAL COMPARISON.

| | PERCENTAGES OF TOTAL INCOME | | |
|----------------|-----------------------------|---------------|--------------|
| | THIS STUDY | JOHNSON ET AL | PARKER ET AL |
| WELFARE CHEQUE | 29% | 11% | 11% |
| SALARY | 4% | 9% | 7% |
| DRUGSMARKET | 20% | 17% | 11% |
| PROSTITUTION | 15% | 7% | 4% |
| PROPERTY CRIME | 24% | 43% | 65% |
| OTHER | 8% | 12% | 2% |

TABLE 4: DETERMINANTS OF CRIMINAL INCOME.

| | Mult. corr. | R ² | R ² - incr. | β coeff. | P |
|-------------------------------|----------------|----------------|---------------------------|-------------------|-----|
| cocaine use | .34 | .12 | .12 | .26 | .00 |
| gender | .38 | .14 | .02 | -.20 | .01 |
| age | .43 | .18 | .04 | -.19 | .06 |
| heroin use | .45 | .20 | .02 | .17 | .07 |
| addiction phase ¹¹ | .45 | .20 | 0 | -.03 | >.1 |
| duration of use | .45 | .20 | 0 | -.03 | >.1 |
| methadone disp. | .45 | .20 | 0 | -.01 | >.1 |
| welfare cheque | .45 | .20 | 0 | -.01 | >.1 |

P for F=<.001.

¹¹ The attitude scale designed to measure this variable is shown in the appendix.

TABLE 5: METHADONE PROGRAMS AND MONTHLY PROCEEDS FROM PROPERTY CRIME.

| programs | high threshold | low threshold | no program | N |
|----------|-------------------|------------------|---------------|-----|
| proceeds | | | | |
| no crime | 54% | 20% | 26% | 69 |
| \$ 1-285 | 35% | 30% | 35% | 43 |
| \$ >285 | 28% | 41% | 31% | 36 |
| N | 62 | 42 | 44 | 148 |

Chi-square=9, df=4, p<.05

TABLE 6: A CRIMINAL/ECONOMIC TYPOLOGY (N=148).

| Three types according to the dominant source of income. | percentage respondents |
|---|------------------------|
| 1. Income mainly from dealing | 15 |
| 2. Income mainly from property crime | 22 |
| 3. Income mainly from legal sources | 63 |



MidCity Numbers

A Monthly Bulletin of AIDS-Related Statistics

Volume 4, Number 12

March 1992

The Fourth Year of MidCity Numbers: Summary and Commentary

My purpose in writing and disseminating MidCity Numbers is to give short summaries of the "numbers" aspects of HIV disease among injection drug users and their sexual partners. An index of the articles of the past twelve months is presented below. I will begin with highlights of the major themes of the past year: (If a particular article from MidCity Numbers is referred to, the month of the issue is indicated in parentheses)

Most of the world's 4 or 5 million IDUs live in urban areas of the developed or "Western" world. There is still a huge variation in the rate of HIV-infection of those communities (August MCN), with Australian cities at one extreme (about 1%) and the cities of Spain and Northern Italy at the other (well above 60%). The same can be said for the United States, where all the big cities between Washington and Boston, plus Atlanta, Miami, and Chicago, have HIV+ rates above 15%, and all the cities west of the Mississippi except San Francisco have rates below 7%. For gay men, the HIV+ rates across cities are much more "evened out". My explanation is this: IDUs don't travel very much, so many of their communities remained insulated from HIV during the critical early days of the epidemic.

IDU AIDS case reporting rates in Europe levelled off in 1991 and may be beginning a slow decline (December MCN). The end-1991 IDU case count of 22,000 was far lower than had been predicted in 1989. The judgment of experts from Spain, France, Italy, and Switzerland (whence come 90% of all European IDU cases) is that between 100,000 and 140,000 IDUs are HIV+. I think the experts will be forced to downsize those estimates-- the slowing of case reporting suggests to me that the current number of infected IDUs is not much more than 50,000.

U.S. data also point to a slowing-down of the epidemic among injectors (November). Taking delayed case reports into account, there will be about 10%-15% more cases in 1991 than in 1990. I believe 1992 will end up with

slightly more case reports than 1991. After that, we can look toward a slow decline of case rates throughout the rest of the 1990's.

As for San Francisco, there seems to be less vigor in the local HIV/IDU epidemic. Indicators of heroin use suggest that fewer residents are injecting that drug, and indicators of cocaine use likewise are downward (December). Hardly any young San Franciscans who inject drugs, but don't engage in male-male sex, are becoming infected (January). It seems likely that the infection rate of our city's heterosexual IDUs will remain in the 10%-11% range which is my current "best guess" (November). Also, the rates for syphilis and gonorrhea both declined sharply from early 1990 to late 1991-- an indication that sexual-route HIV transmission among IDUs, and from them to non-IDUs, may also have declined.

The indications from the East Bay are much less encouraging. Simply put, it now seems that Alameda and Contra Costa Counties have at least as serious an HIV infection rate as San Francisco (April, May, October).

The local picture for young gay men is much bleaker than that for young injectors. In one study, a mostly teenage sample from three agencies (Youth Guidance Center, Huckleberry House, and Larkin Street Youth Center) found that more than 25% of those who admitted to male-male sex were already HIV+ (January). Another study of young men attending gay clubs found a 12% HIV+ rate (June). True, these are "fast-lane" youths, but they lead me to a "best guess" of 8%-10% HIV infection among homosexually active San Francisco men aged 17-24-- simply unacceptable for a generation that came of age after AIDS risk reduction education was fully in place! And the situation is probably even worse for nonwhite gays, both in terms of current infection rates and underlying risky practices (September).

Compared to the IDU population, the gay population is much richer, better educated, and more cohesive as a community. This has not translated into a victory over HIV contagion: gay youths are still getting HIV-infected and IDU youths are not.

HIV is clearly advancing among heterosexuals at a greater rate than among either gays or IDUs, both nationwide (November) and in California (July). But the epidemic began with a huge preponderance of gays-- 73% nationwide, and 93% in California. Until at least the turn of the century, gay men will constitute more than 80% of the AIDS caseload in this state, and more than 90% in San Francisco.

Two powerful new weapons are on their way to being added to the prevention armamentarium: needle exchange and the female condom.

There is now ample evidence that San Francisco's exchange program, Prevention Point, has resulted in less needle-sharing but not in a flood of new users (August, February). The female condom has been market-tested and found acceptable among male and female heterosexuals, as well as homosexuals (July). Nonwhites appear to have higher rates of heterosexual HIV as well as more negative attitudes toward male condoms (July), so the impending availability of the female condom is welcome.

We have a lock on the epidemiology of HIV among San Francisco's IDUs, thanks to the Aldrich Model (December). That model predicted the size of the AIDS caseload, three years ahead, with impressive precision.

Overall, the past year has brought good news. The HIV epidemic among injectors is generally losing steam. Dire predictions of the late 1980's have not come to pass. We have the tools to win the prevention battle.

INDEX OF TITLES FROM VOLUME FOUR

April 1991: (1) Women and HIV: A Global Perspective. (2) Update on U.S. AIDS Statistics. (3) What's Happening in Alameda County? (4) Mid-City Founder Given Lifetime Achievement Award.

May 1991: (1) Drug Use in the Bay Area: New Estimates of Prevalence. (2) How Many Californians are HIV-Infected? (3) The Demographics of HIV Infection Among Bay Area Injectors.

June 1991: (1) The Florence Conference: Overall Impressions. (2) The Florence Conference: Timothy Dondero's Paper. (3) Will the Younger Generation Avoid an HIV Epidemic?

July 1991: (1) The Florence Conference: Noteworthy Study of Attitudes to Condoms. (2) The Florence Conference: Development of the Female Condom. (3) The Changing Face of AIDS in California.

August 1991: (1) The Florence Conference: HIV+ Rates Among the World's Injectors. (2) The Florence Conference: Syringe Exchange in San Francisco. (3) The Florence Conference: Latest Data on Sexual Transmission

September 1991: (1) A Note on Terminology. (2) Are Treatment Vouchers a Useful Tactic Against HIV Contagion? (3) AIDS and Nonwhite Gay/Bisexual San Franciscans. (4) Perfecting Needle Exchange: Recommendations from Amsterdam.

October 1991: (1) Revised Estimate of IDU Prevalence in San Francisco. (2) HIV in California Mothers. (3) Modeling a Heterosexual Epidemic: Unexpected Findings.

November 1991: (1) Recent Trends in AIDS Case Reporting in the United States. (2) Newest Seroprevalence Findings in San Francisco. (3) The Magic Johnson Event: Thoughts on Condom Technology.

December 1991: (1) The Aldrich Model: A 1988 Prediction Hits Within 1% of Target. (2) Latest IDU Trends in San Francisco. (3) AIDS Among European IDUs Slows Down.

January 1992: (1) HIV in San Francisco Youth: It's From Male-Male Sex, not the Needle. (2) Sexually Transmitted Diseases in San Francisco: Finally, a Decline. (3) A Personal Note and a Grim Statistic.

February 1992: (1) Needle Exchange Evaluation-- Prevention Point. (2) Getting Dirty Needles Off the Streets: Return Rates. (3) Possible Negative Effects. (4) A New Evaluation Technique: New Haven. (5) Implications for California Needle Exchange Evaluation.

Any one of these issues of MidCity Numbers can be obtained by writing me at 409 Clayton Street, San Francisco, CA 94117. For a complete, bound set of all 12 issues, send \$5 to cover costs.

-- John Newmeyer, Ph.D.

APPENDIX Q

CRANK & CRACK VS. HEROIN:
Is HIV Risk the Same?

N. Flynn, M.D.

Rachel Anderson, B.A.

Vicki Bailey, M.A.

Sheila Enders, B.S.

Sunita Jain, M.B.B.S.

Steve Samuels, Ph.D.

Amir Sweha, M.D.

STIMULANTS VS. OPIATES

IV Stimulant Abusers (SA): Named a stimulant (amphetamine, N=90; cocaine, N=28) as their drug of choice and were not opiate dependent at the time of interview.

IV Opiate Abusers (OA): Named an opiate as their drug of choice and reported never injecting cocaine (N=421).

A total of 1,269 IDU were interviewed between 9/7/89 and 12/31/90. Of those, 539 (42%) fit the definition of SA or OA.

HIV PREVALENCE

SA vs. OA 1989-90, Sacto., CA

| | SA (N=118) | | OA (N=421) | p |
|-----------------|---------------|--|---------------|-----|
| HIV positive | 5 (4%) | | 3 (<1%) | .01 |
| Rtd. for result | 60 (51%) | | 137 (33%) | .01 |
| Rtd. for f.u. | 23 (20%) | | 134 (32%) | .05 |

DEMOGRAPHICS

SA vs. OA 1989-90, Sacto., CA

GENDER

| | SA (N=118) | | OA (N=421) | | p |
|--------|---------------|-------|---------------|-------|----|
| Female | 57/118 | (48%) | 198 | (47%) | ns |
| Male | 61 | (52%) | 223 | (53%) | ns |

ETHNICITY

| | SA | | OA | | p |
|---------------|----|-------|-----|-------|-----|
| Caucasian | 87 | (74%) | 256 | (61%) | .01 |
| African Amer. | 14 | (12%) | 38 | (9%) | ns |
| Hispanic | 15 | (13%) | 107 | (25%) | .01 |
| Asian | 0 | (0%) | 5 | (1%) | ns |
| Nat. Amer. | 1 | (<1%) | 10 | (2%) | ns |
| Other | 1 | (<1%) | 5 | (1%) | ns |

AGE

| | SA | | OA | | p |
|---------|-------------|--|-------------|--|-----|
| Average | 30.86 years | | 36.54 years | | .01 |

PARTNERSHIP STATUS

SA vs. OA 1989-90, Sacto., CA

| | SA (n=118) | | OA (N=421) | | p |
|--------------|---------------|-------|---------------|-------|-----|
| Partnered | 23 | (19%) | 193 | (46%) | .01 |
| Married | 14 | (12%) | 110 | (26%) | .01 |
| Unmarr. cpl. | 9 | (7%) | 83 | (20%) | .01 |
| Single | 95 | (81%) | 228 | (54%) | .01 |
| Never marr. | 43 | (36%) | 112 | (27%) | .05 |
| Widowed | 2 | (2%) | 12 | (3%) | ns |
| Divorced | 35 | (30%) | 69 | (16%) | .01 |
| Separated | 15 | (13%) | 35 | (8%) | ns |

HOUSEHOLD
SA vs. OA 1989-90, Sacto., CA

| | SA (N=118) | OA (N=421) | P |
|--------------------|---------------|---------------|-----|
| No kids in home | 82 (69%) | 211 (50%) | .01 |
| Residence duration | | | |
| Less than 1 year | 81 (69%) | 168 (40%) | .01 |
| Average | 2.57 years | 4.74 years | .01 |

DRUG USE BEHAVIOR
SA vs. OA 1989-90, Sacto., CA

NEEDLES

| | SA (N=118) | OA (N=421) | P |
|------------------------|---------------|---------------|------|
| Primary needle source | | | |
| Connection | 4 (3%) | 19 (4%) | ns |
| Pharmacy | 17 (14%) | 118 (28%) | .01 |
| Drug buddy | 44 (37%) | 137 (33%) | ns |
| Diabetic | 43 (36%) | 113 (27%) | .055 |
| Medical setting | 3 (3%) | 5 (1%) | ns |
| Other | 5 (4%) | 25 (6%) | ns |
| Named secondary source | 42 (36%) | 73 (17%) | .01 |
| Named tertiary source | 9 (8%) | 8 (2%) | .01 |

DRUG USE BEHAVIOR
SA vs. OA 1989-90, Sacto., CA

SHARING

| | SA (N=118) | | OA (N=421) | | P |
|---------------------|---------------|-------|---------------|-------|-----|
| Shares Needles | 98 | (83%) | 312 | (74%) | .05 |
| Never shares | 18 | (15%) | 105 | (25%) | .05 |
| Shares with: | | | | | |
| Prim. Sex. Part. | 28 | (29%) | 171 | (55%) | .01 |
| Other Sex. Part. | 18 | (18%) | 24 | (8%) | .01 |
| Fam/friends | 50 | (51%) | 171 | (55%) | ns |
| Strangers | 28 | (29%) | 57 | (18%) | .01 |
| Avg. # shared with: | | | | | |
| Other Sex. Part. | 8.26 | | 2.58 | | ns |
| Fam/friends | 5.08 | | 2.50 | | .01 |
| Strangers | 11.07 | | 3.42 | | .07 |

DISINFECTION

| | | | | | |
|-------------------|-------|-------|---------|-------|-----|
| Disinfects needle | 73/98 | (74%) | 264/312 | (84%) | .01 |
| Never disinfects | 25 | (25%) | 48 | (15%) | .01 |

DRUG TREATMENT

SA vs. OA 1989-90, Sacto., CA

| | SA (N=118) | | OA (N=421) | | P |
|-------------------|---------------|--------|---------------|--------|-----|
| Never, not now | 18 | (15%) | 7 | (1%) | .01 |
| Never before | 67 | (57%) | 110 | (26%) | .01 |
| Avg. prev. admits | 2.84 | | 4.43 | | .01 |
| Avg. time spent | 9.09 | months | 14.67 | months | ns |
| In drug tx now | 88 | (75%) | 406 | (96%) | .01 |

SEXUAL PARTNERS (SP) - CHARACTERISTICS

SA vs. OA 1989-90, Sacto., CA

| | SA (N=118) | OA (N=421) | P |
|----------------------------------|---------------|---------------|-----|
| Has Primary SP (PSP) | 65 (55%) | 291 (69%) | .01 |
| PSP is IDU | 28/65 (43%) | 184/291 (63%) | .01 |
| PSP tested for HIV | 26 (40%) | 137 (47%) | .05 |
| PSP positive | 1/26 (4%) | 2/137 (1.5%) | ns |
| DK PSP's result | 4 (15%) | 28 (20%) | ns |
| Time with PSP | | | |
| Average | 4.25 years | 6.40 years | .05 |
| < 1 year | 25 (38%) | 46 (16%) | .01 |
| > 10 years | 5 (8%) | 62 (21%) | .01 |
| Average # of SPs: past 1 year | 15.71 | 11.66 | .01 |
| Sex with HIV+ | 4 (3%) | 6 (1%) | ns |

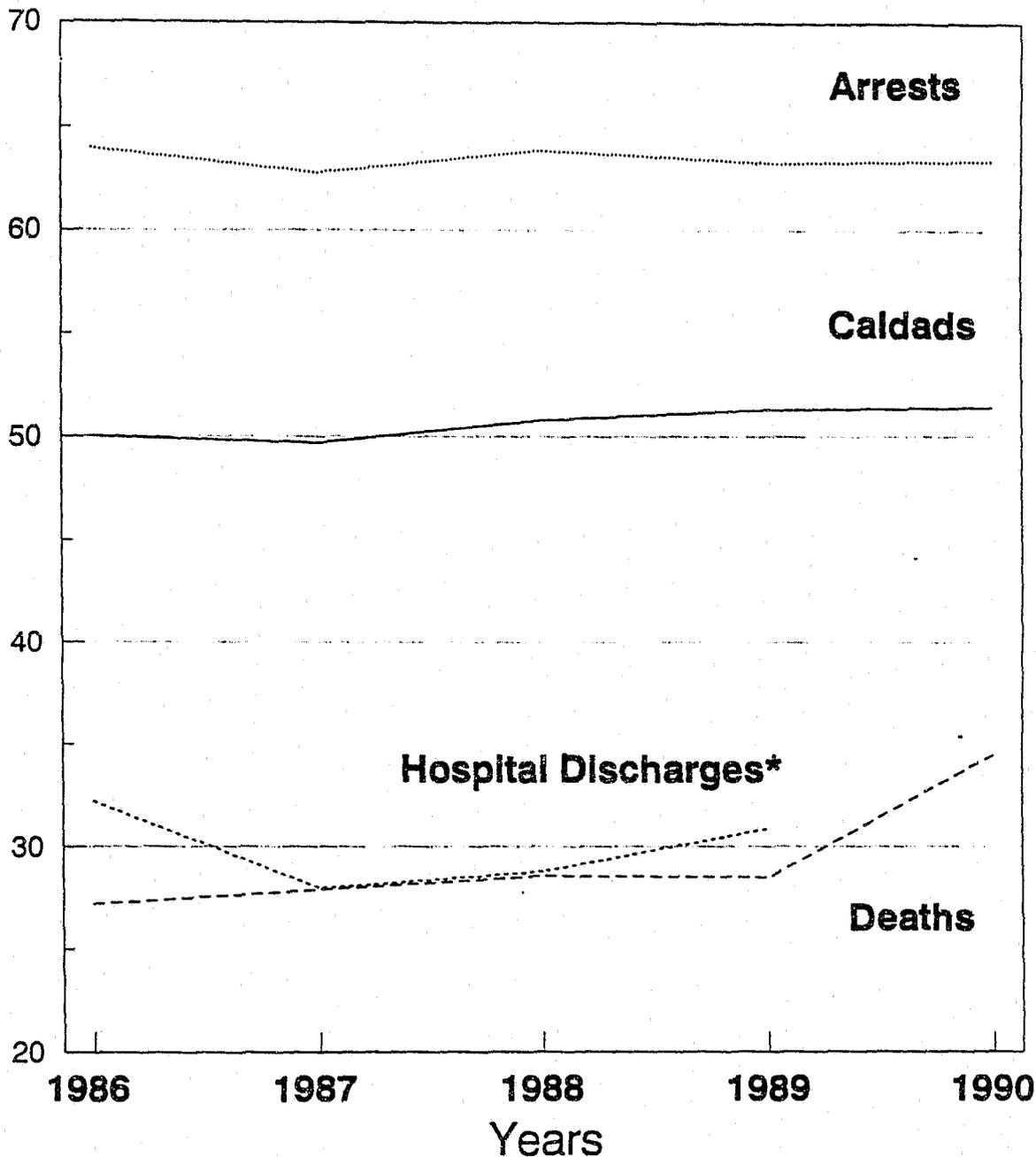
SEXUAL BEHAVIOR

SA vs. OA 1989-90, Sacto., CA

| | SA (N=118) | OA (N=421) | P |
|-----------------------|---------------|---------------|-----|
| Anal sex | 58 (49%) | 81 (19%) | .01 |
| Women | 30/57 (49%) | 50/198 (25%) | .01 |
| Men | 28/61 (46%) | 31/223 (14%) | .01 |
| >1 SP - past year | 70 (59%) | 131 (31%) | .01 |
| Sex/Etoh - past year | 60 (51%) | 125 (30%) | .01 |
| avg. # times | 61.48 | 35.28 | .05 |
| Paid sex for \$/drugs | 23 (19%) | 65 (15%) | ns |
| Paid \$/drug for sex | 20 (17%) | 12 (3%) | .01 |
| Uses condoms | 37 (31%) | 103 (25%) | ns |

MINORITY TRENDS FOR ARRESTS, CALDADS HOSPITAL DISCHARGES AND DEATHS

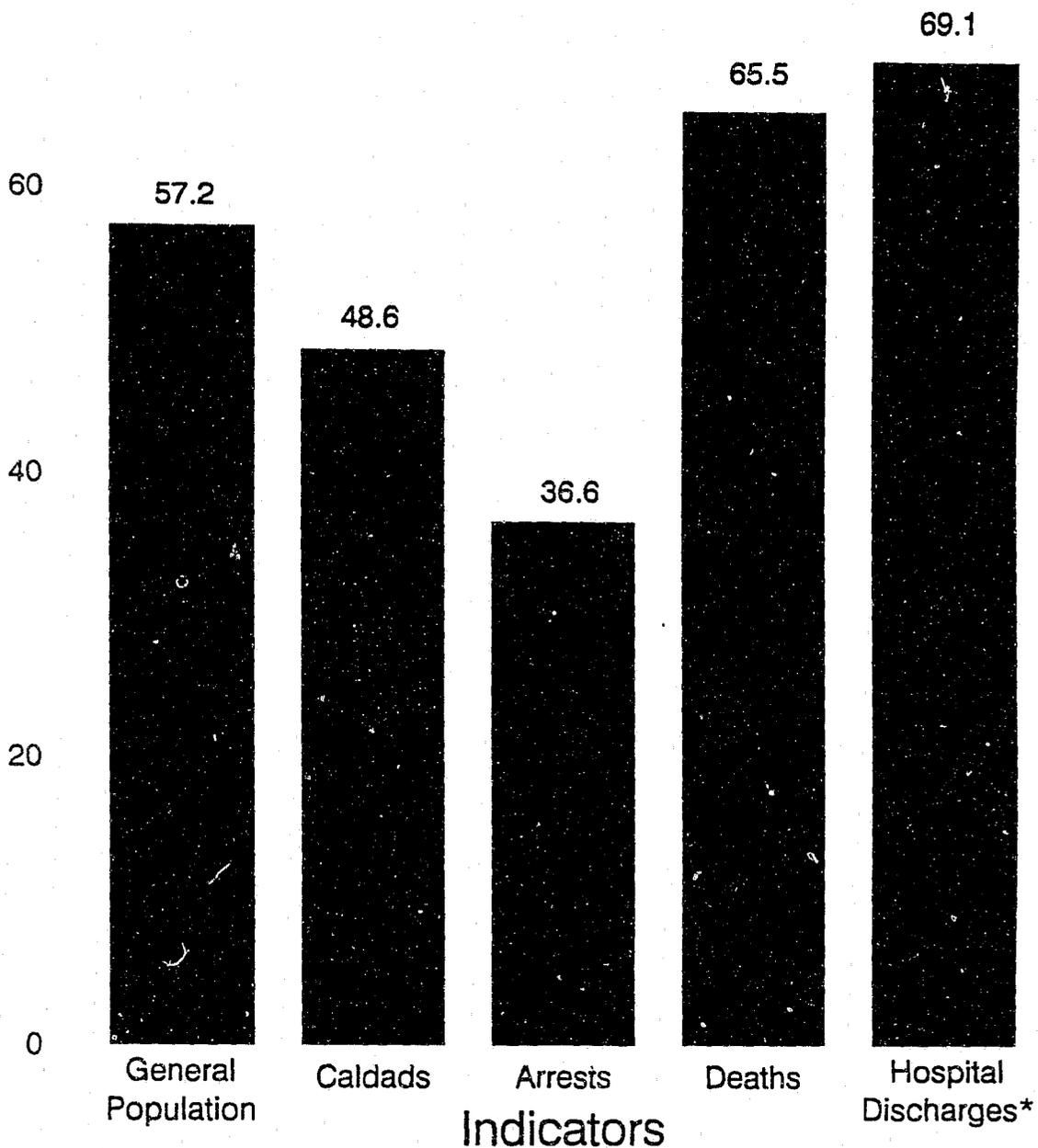
Percent



*Hospital Discharges 1989 is the latest year available.

WHITE 1990

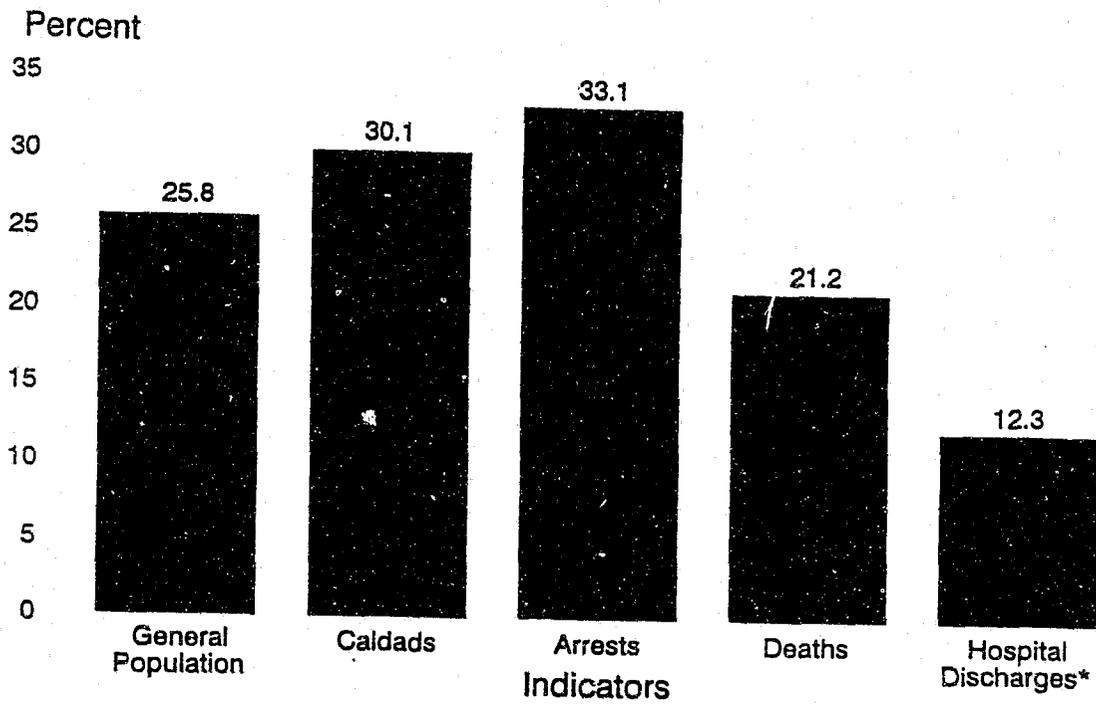
Percent
80



*Hospital Discharges available only fo 1989.

HISPANICS

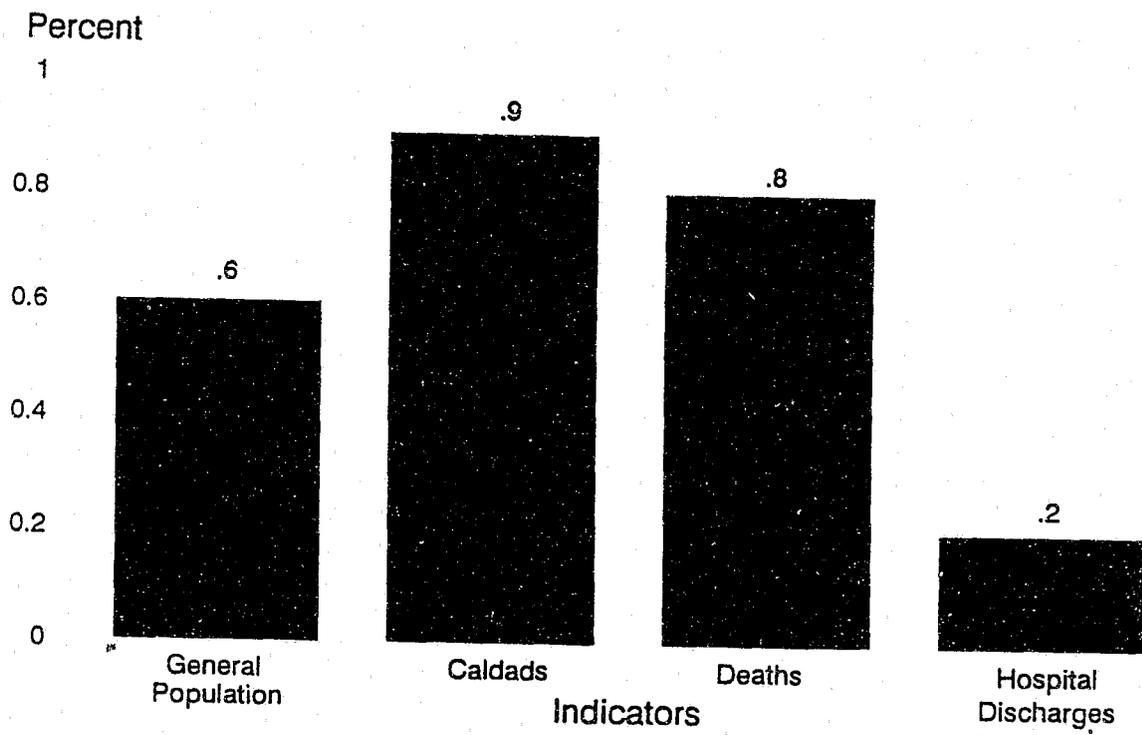
1990



*Hospital Discharges available for 1989 only.

AMERICAN INDIANS

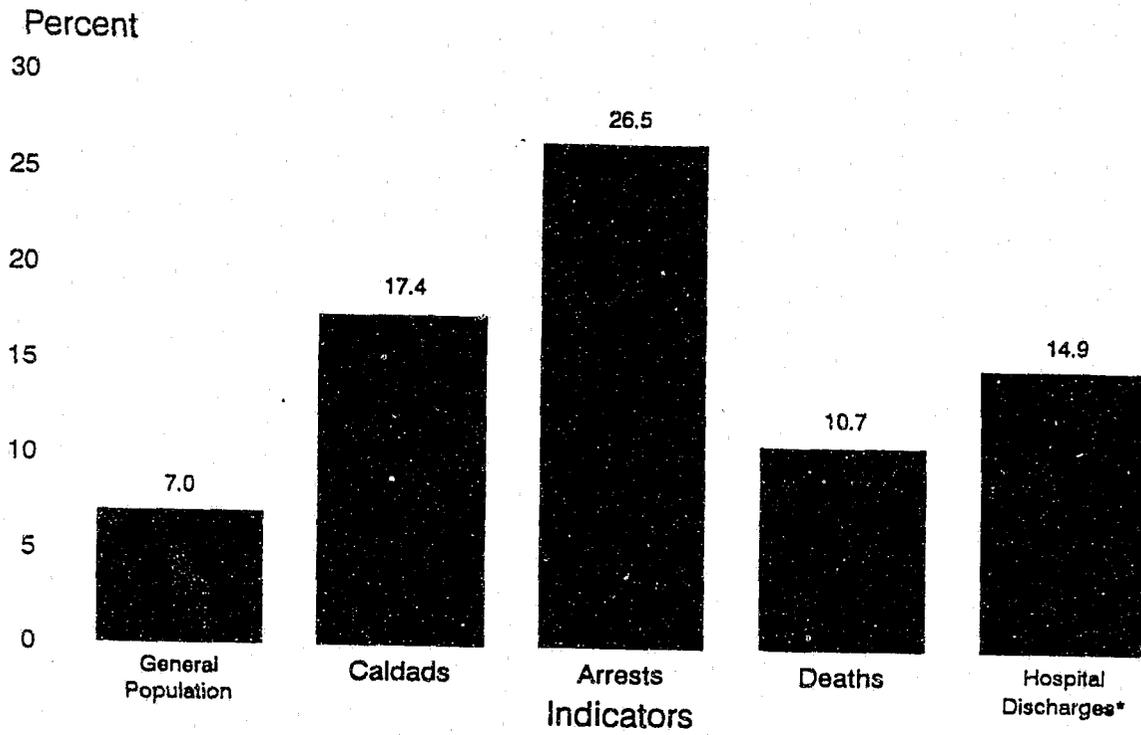
1990



*Arrests for American Indians is shown under other.

BLACKS

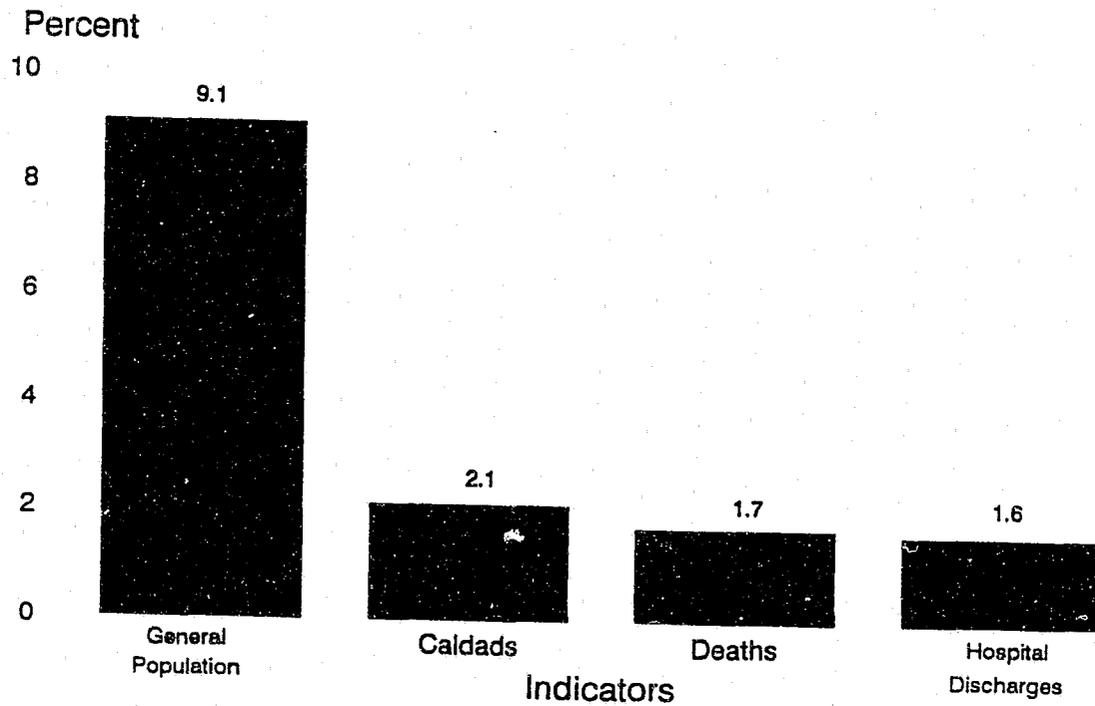
1990



*Hospital Discharges available for 1989 only.

ASIANS

1990



*Arrests for Asian population shown in Other.

SYSTEM CHANGE PROCESS

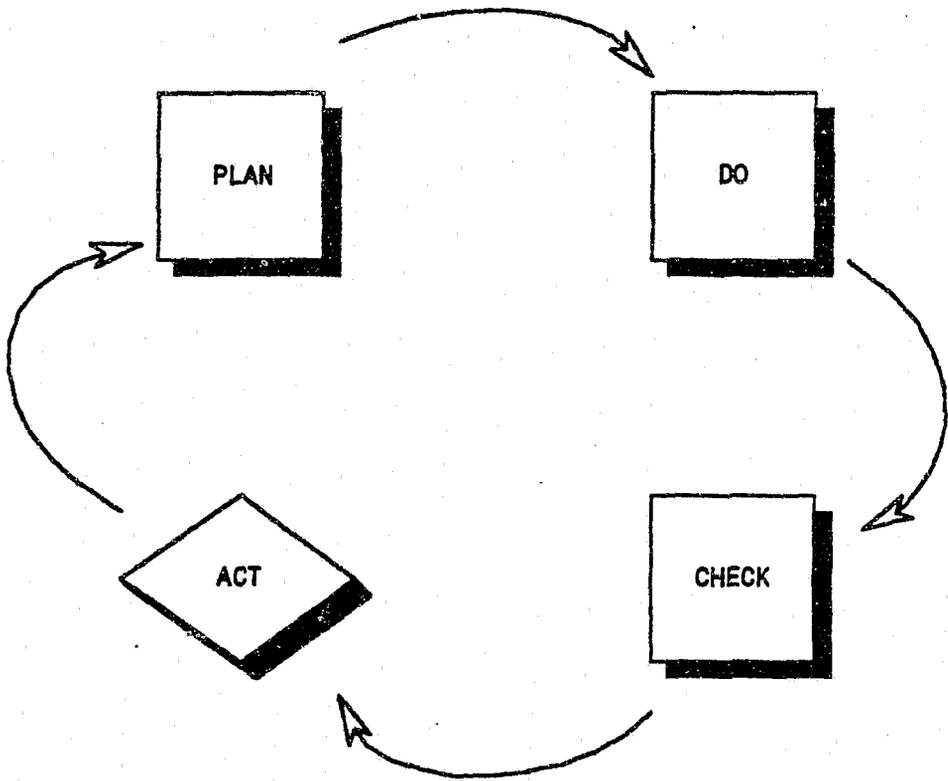


CHART 1

PUBLIC HEALTH
SERVICE DELIVERY MODEL

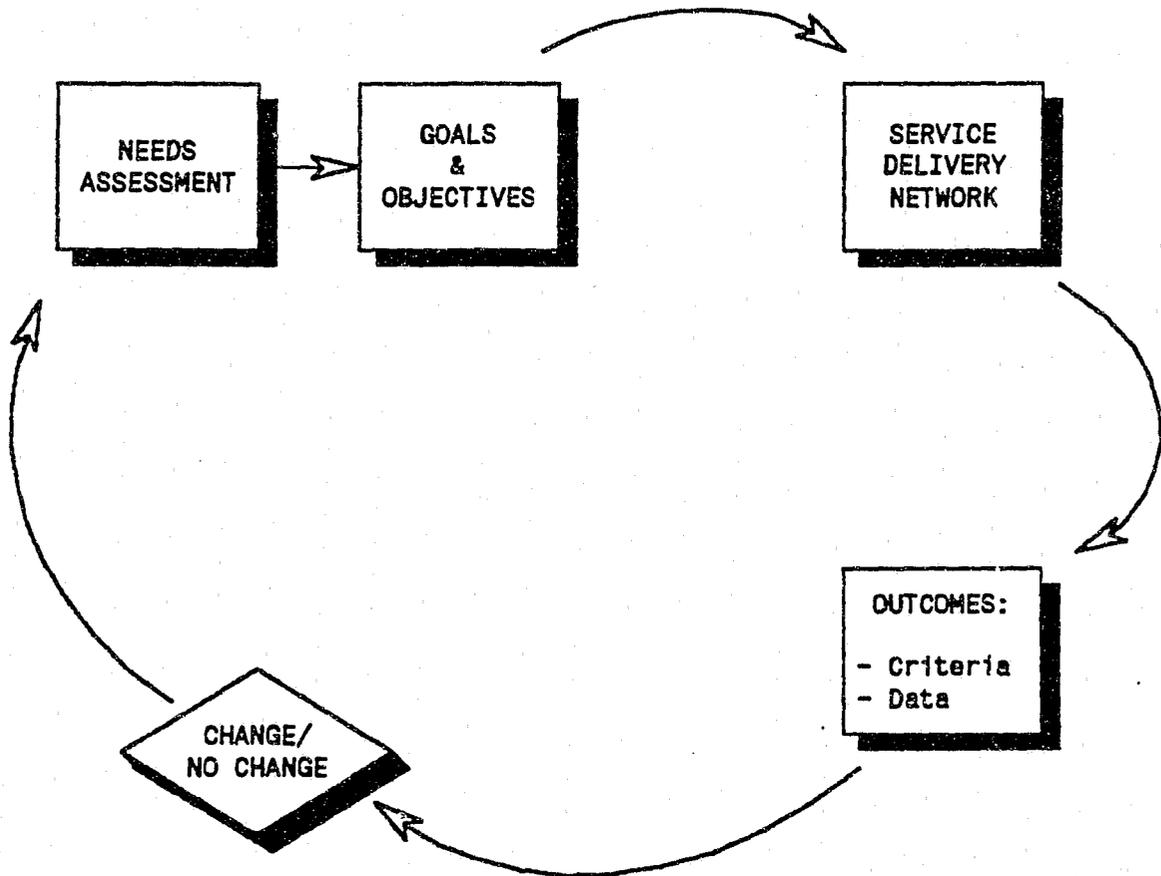
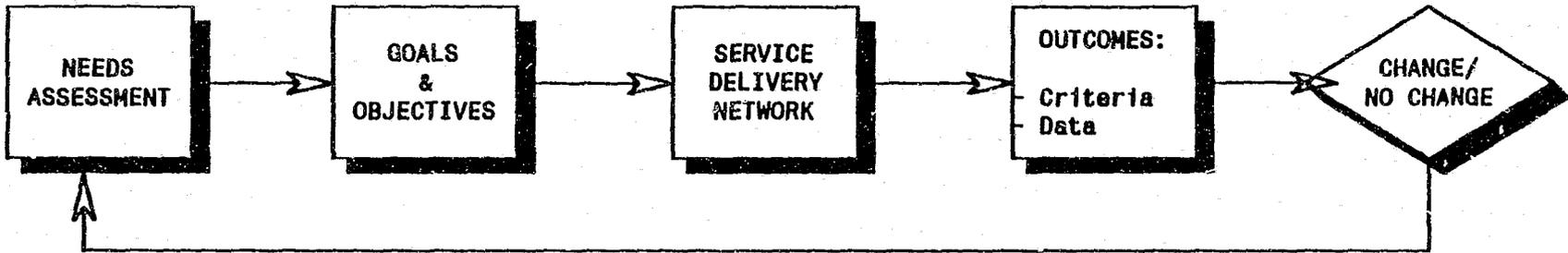


CHART 2

**NEW FEDERAL
ADMS APPLICATION**



| | | | | |
|----------------------------|--|------------------|--|---|
| <p>Sec. II Report:</p> | - | <p>Narrative</p> | <p>• <u>Spending:</u> Form 04 - State 06 - Entity</p> <p>• <u>Utilization</u> Form 07 - Treatment Form 09 - Prevention</p> | - |
| <p>Sec III Plan:</p> | <p>Form 08 - Needs Form 10 - Ag, M Form 11 - Ag, M</p> | <p>Narrative</p> | <p>• <u>Spending</u> Form 12 - State</p> <p>• <u>Utilization</u> Form 13 - Treatment Capacity</p> | - |

CHART 3

GOAL STATEMENT: To develop a single integrated planning process that:

- ✓ Is based in the counties
- ✓ Recognizes needs of State and federal planners
- ✓ Uses a standard decision-making model that allows for non-uniform decisions
- ✓ Uses a uniform set of data available to counties and State
- ✓ Provides a uniform method for establishing county goals and objectives
- ✓ Uses a standard method of describing services quantitatively for the planning process
- ✓ Has a process for checking in order to evaluate need for change/no change
- ✓ Is created by a group of individuals with broad experience and training from which creative decisions will emerge.

APPENDIX S

YOUTH AUTHORITY TREATMENT NEEDS ASSESSMENT

by

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State of California
Department of the Youth Authority
Research Division
January 1991

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Thanks goes to the Treatment Needs Assessment Committee who worked well together to decide what needed to be done, how it would be done, and when. The committee chair was Sue Hooper, Institutions and Camps Branch. Committee members included Gene Ansell, Facilities Planning Division; Dan Palmer, M.D., Institutions and Camps Branch; Don Werkhoven, Institutions and Camps Branch; Gary Maurer, Institutions and Camps Branch; Cynthia Naragon-Rich, Ph.D., Northern Reception Center; D. Dudley Sams, Northern Reception Center-Clinic; Norman Skonovd, Ph.D., Research Division; and Sharon Winter, Ph.D, Research Division.

A special thanks goes to Carl Jesness, Ph.D., the consultant for this project. His suggestions and advice were greatly appreciated.

SUMMARY

This report presents the findings of the Treatment Needs Assessment. It was completed in conjunction with the Facilities Planning Division for use in developing the Youth Authority Population Management and Facilities Master Plan in order to determine the number of offenders needing special programs: Intensive Treatment Programs, Specialized Counseling Programs, Dyssocial/Aggressive Programs, and Substance Abuse Programs.

The needs assessment collected data during a two-month period. The sample included most male offenders admitted or readmitted to the Youth Authority through the Northern Reception Center-Clinic (NRCC) or the Southern Reception Center-Clinic (SRCC) during March and April 1990 and many female offenders who were housed in the Ventura School during that period. The total number of offenders tested was 851 out of a possible 1,057 offenders. Of 817 male Youth Authority admissions, 683 were tested. Of the 239 females at the Ventura School, 168 were tested.

Information for this report was obtained from the results of testing with the Minnesota Multiphasic Personality Inventory (MMPI) and the Jesness Inventory, a Ward Profile Sheet, and from the Department's Offender Based Information Tracking System.

All findings in this report are based on the following assumptions:

- (1) The percentage of offenders who will be admitted to the Youth Authority in Fiscal Year 1995-96 who will need special programs will be approximately the same percentage as in the needs assessment sample.
- (2) The projected number of offenders admitted to the Youth Authority in Fiscal Year 1995-96 will be 5,720. (Admissions figures include first admissions and parole violators.) Of these, 5,474 will be males; and 246, females.
- (3) When offenders complete a special program, incoming wards will replace them in that program.
- (4) The Minnesota Multiphasic Personality Inventory and the Jesness Inventory can be used to accurately determine treatment needs.

The treatment needs assessment resulted in the following findings:

INTENSIVE TREATMENT PROGRAMS

- A minimum of 3% of the males and 6% of the females will need placement in Intensive Treatment Programs (ITPs). Using these percentages and an average program length of 13 months, 178 ITP beds will be needed for males and 16 for females in FY 1995-96. When Chaderjian School opens, the capacity will be 189 ITP beds for males. No ITP beds are currently available to females. The anticipated number of additional beds needed will be 5 with 16 of the total available beds reallocated for females.

SPECIALIZED COUNSELING PROGRAMS

- As indicated by the MMPI, the percentage of offenders needing a Specialized Counseling Program (SCP) was 10% for males and 4% for females. Based on a 12 month length of stay, the projected need in FY 1995-96 will be 547 beds for males and 10 beds for females. When Chaderjian School opens, the capacity will be 143 SCP beds for males and 48 for females excluding the 80 beds in the Nelles Sex Offender Program. The anticipated need for SCP beds for males will exceed the capacity by 404.

SEX OFFENDER PROGRAMS

- Though the Sex Offender Program at Nelles School is a Specialized Counseling Program, no attempt was made to determine the number of offenders needing this type of program due to the limitations of the test instruments. There are currently 80 offenders in the Nelles Sex Offender Program and 90 offenders on the waiting list. It serves offenders from Los Angeles and Orange counties primarily. There is no Sex Offender Program in the northern part of the state.

DEVELOPMENTALLY DISABLED PROGRAMS

There are currently no programs for developmentally disabled offenders. If these offenders are not able to function in a Regular Program, they are placed in an SCP or an ITP. Offenders needing nursing assistance are placed in an ITP.

Developmentally disabled offenders could not be identified for this needs assessment due to the limitations of the test instruments .

MONOLINGUAL SPANISH PROGRAMS

- For this preliminary assessment of treatment needs, 239 (23%) Hispanic offenders were tested. In addition to the offenders tested, there were 46 monolingual Spanish offenders who were not tested as well as eight Asian offenders. The second phase of the treatment needs assessment will examine the particular needs of the monolingual offenders.
- The Youth Authority has established a 64-bed program at the Nelles School for offenders who speak only Spanish or who have a limited ability in English. (Some English-speaking offenders are assigned to this program to aid the non-English-speaking offenders in developing their English-speaking abilities.) There are 47 Hispanic wards in this program along with 17 English-speaking offenders. This is one of seven programs that offer English as a Second Language. Most of the staff is bilingual. The Sex Offender Program at Nelles also has a treatment group for Spanish-speaking offenders.

DYSSOCIAL/AGGRESSIVE

- Testing indicated that 12% of the males and 17% of the females met the criteria for Dyssocial/Aggressive. These are the offenders who may create management problems because of their aggressiveness and unwillingness to participate in programs. They are often assigned to Regular Programs, but may occasionally need temporary detention facilities, or Dyssocial/Aggressive Programs. The current Dyssocial/Aggressive Program length is six months. The bed capacity is 284 beds for males and 25 for females. The anticipated need in FY 1995-96 will be 328 beds for males and 21 beds for females. Forty-four more beds will be needed for males and four fewer for females.

FORMALIZED SUBSTANCE ABUSE PROGRAMS

- Testing indicated that 60% of the males and 55% of the females admitted to the YA misuse substances or have a strong potential for substance abuse. These offenders

may also need other types of special programs such as the ITPs or SCPs. No attempt was made to determine how many of the offenders with substance abuse problems need an ITP or an SCP in addition to a Substance Abuse Program. Some offenders might be able to complete a Substance Abuse Program while in an ITP or SCP while others would need to wait until completion of an ITP or SCP before going into a Substance Abuse Program.

- Using the percentages of 60% of the males and 55% of the females and a nine-month program length, 2,463 Formalized Substance Abuse beds will be needed for male admissions in FY 1995-96 and 101 beds for females. The current capacity is 1,610 beds for males. Though there are no Formalized Substance Abuse beds for females, 60 females participate in such a program with males at Ventura School. To meet the anticipated need for program beds, another 853 beds will be needed for males and 101 for females.

YOUTH AUTHORITY TREATMENT NEEDS ASSESSMENT

INTRODUCTION

This needs assessment was undertaken in conjunction with the Facilities Planning Division for use in developing the Youth Authority's Population Management and Facilities Master Plan in order to determine the number of offenders needing special programs: Intensive Treatment Programs, Specialized Counseling Programs, Dyssocial/Aggressive Programs, and Formalized Substance Abuse Programs.

A committee was formed with representatives from the Institutions and Camps Branch, the Northern Reception Center-Clinic, and the Research Division to determine the questions to be answered and which test instruments would best answer these questions. Two instruments were selected, the Minnesota Multiphasic Personality Inventory (MMPI) and the Jesness Inventory. Brief descriptions of these instruments are given in Appendices F and G. Additional data were obtained from the Youth Authority Ward Profile, developed to be used solely for this project, and the Offender Based Information Tracking System (OBITS) which the Department uses to store offender data.

The committee determined that a two-month pool of male offenders entering the two clinics, the Northern Reception Center-Clinic and the Southern Reception Center-Clinic, would provide a representative sample of incoming offenders. (Males on Temporary Detention and those undergoing testing for county courts were not included.) However, there were too few females admitted to the Youth Authority (YA) each month to be used as a representative sample of incoming offenders. Rather than test all incoming females in a year, the committee decided to test all of the females currently in the YA's institution for females, the Ventura School, to determine their program needs.

METHODS

Two target groups were selected for testing with the Minnesota Multiphasic Personality Inventory (MMPI) and the Jesness Inventory. The first included all male first commitments, recommitments, and parole violators who were admitted to the Clinics in March and April 1990. The second included all the females who were committed to the Ventura School during this same period. Out of the 1,057 offenders who met these criteria, 851 completed the tests. Of these, 683 were males and 168 females. The participation on the part of the females was lower than that of the males (84% vs. 70%). Staff at Ventura School reported that it was more difficult to test the females. The females had to give up free time for testing and were more likely to refuse to participate. The males were entering the clinics and it was easier to include testing as a part of the clinic process.

Most testing took place in groups of 20 or less. Individuals with reading skills below third grade were tested in groups of four or less at NRCC. Audio tapes were used for the testing at NRCC and SRCC while the females at Ventura School read the questions from booklets.

Two versions of the MMPI were used. Offenders under eighteen were given the original MMPI, since it has established norms for this age group. Only the scales with adolescent norms were machine-scored. An additional scale, the MacAndrew Alcoholism Scale, was hand-scored using adolescent norms from Wolfson and Erbaugh (1984). Offenders eighteen and older were given the MMPI-2, the newer version of the MMPI. At this time, only adult norms have been developed for this version. Only a few of the numerous scales given on the MMPI-2 were used in this analysis. Data from the two versions of the MMPI have been combined in this report. In recognition of the fact that there are differences between the two versions, separate tables for each of the MMPI versions are given in Appendices E and F.

Testing took three to four hours and frequently occurred on Saturday mornings. The MMPI has 566 (MMPI) or 567 (MMPI-2) questions, and offenders needed about two hours to complete this inventory. The Jesness Inventory has 155 items and took offenders an hour or less.

Both versions of the MMPI and the Jesness Inventory use T-scores to indicate how a scale score differs from the mean (average) score on that scale. On any scale, the mean is a T-score of 50. The standard deviation is 10 points. Generally, a T-score of 70 or above is considered elevated since it is two standard deviations from the mean, and less than 3% of the population would score in this range. (T-scores at or below 30 are also significant since less than 3% of the population would score this low or lower.) With adolescents who take the MMPI, a slightly lower T-score is used. For them scores of 65 or above are considered elevated (Archer, 1987).

The Youth Authority Ward Profile, developed for this project, was completed by Caseworkers at the two clinics and Youth Counselors at Ventura School. This profile asked for information regarding programs the offenders needed, their language, nationality, degree of substance abuse, and amenability to treatment.

There were 206 offenders who could not be tested. The most common reason was an inability to speak English (54 offenders). Other offenders refused to participate (39), were transferred before testing could occur (29), or were only being detained temporarily (20). A summary of the reasons is given in Appendix A.

To determine bed needs, the estimated number of admissions were multiplied by the program length. The resulting number was then divided by 12.

$$[(\text{NUMBER OF ADMISSIONS TO THE PROGRAM}) \times (\text{PROGRAM LENGTH OF STAY IN MONTHS})] / 12 (\text{THE NUMBER OF MONTHS IN A YEAR})$$

The number of admissions to the program was based on the estimated percentage of offenders needing the program and the projected number of offenders who would be admitted to the Youth Authority during FY 1995-96.

$$(\text{ESTIMATED PERCENTAGE OF OFFENDERS NEEDING THE PROGRAM}) \times (\text{PROJECTED ADMISSIONS TO THE YOUTH AUTHORITY}) = \text{NUMBER OF ADMISSIONS TO THE PROGRAM.}$$

Calculations were based on projected admissions of 5,720 offenders to the Youth Authority for FY 1995-96. This includes first admissions, recommitments, and parole violators. This projection was not separated by gender. To estimate the number of female admissions, the

current percentage of 4.3% was used. Using 4.3%, there will be 246 females admissions and 5,474 male admissions in FY 95-96.

FINDINGS

Demographic Information

The offenders tested during this two-month period were similar to the offenders who were in the Youth Authority on December 31, 1989, in terms of court of commitment, current status, offense, and ethnicity. As expected, incoming offenders in the sample were younger than the total population in Youth Authority institutions. Tables presenting this information are in Appendix B.

Youth Authority Ward Profile

The data collected included the Youth Authority Ward Profile (Appendix C). On this form Caseworkers were asked to indicate which programs they thought would best meet offenders' needs. Their first choice for 39% of male offenders and 40% of females offenders was a Regular Program. The next greatest need for males was an Educational Program (26%). For females, the second greatest need was for a Specialized Counseling Program. Caseworkers indicated that Substance Abuse Programs were needed by 17% of the males and 11% of the females. When caseworkers were asked their second choice program for the offenders, the most frequent choices were Educational and Vocational Programs. (Tables indicating caseworkers' evaluations of program needs are given in Appendix D.)

Caseworker choices on the Ward Profile may have been influenced by several factors. The first was the offender's current program placement in the case of the females. Females in SCPs were usually recommended for SCPs. The second was the availability of programs. There are no ITPs for females, and limited ITP and SCP beds for males. The ITPs and SCPs were chosen as secondary program needs though it might be preferable to have offenders with these needs in such programs first. The third factor was the wording of the questionnaire. Caseworkers could not identify a program choice (for example, Regular Program, an ITP, or an SCP) and then also choose appropriate program components (for example, Educational or Vocational components).

Testing Issues

At Ventura school, 70% percent of the females participated in testing while 84% of the male admissions were tested. On the MMPI, 69% of the females tested produced valid profiles while 93% of the males produced valid profiles. The adult females were more likely to produce invalid profiles than juvenile offenders (see Tables F-1 and F-2). On the Jesness Inventory 90% of the females and 94% of the males produced valid profiles.

For this phase of the treatment needs assessment, only English-speaking offenders were tested. Because of the unique requirements for testing non-English-speaking offenders, the Department is planning a second phase of the treatment needs assessment to examine their program needs. The results of this later assessment will be summarized in a subsequent report.

Identification of Offenders Needing Intensive Treatment Programs

Intensive Treatment Programs (ITPs) were designed to provide psychological and psychiatric treatment to offenders who have severe psychological disturbances. The staff in these programs include psychiatrists, psychologists, social workers, and nurses as well as Youth Counselors and Group Supervisors. In addition to wards with severe psychological problems, ITPs currently may also have wards who need nursing services or who have physical handicaps that cannot be accommodated in other programs. Offenders who make suicide attempts are currently placed in ITPs, though the Treatment Needs Committee determined that these offenders would be more appropriately placed in an SCP.

To determine the percentage of offenders needing Intensive Treatment Programs, several measures were considered. Caseworkers and other staff use behavior as one indication of a need for an Intensive Treatment Program. During the Clinic phase, staff may observe offenders with strange behavior or verbalizations. If this behavior does not occur in the Clinic, the stress of a Regular Program may trigger a psychotic break in some offenders. They may then exhibit a variety of bizarre behaviors. Such behavioral indicators could not be used in this study.

The Ward Profile was another measure considered. Caseworkers reported on the Ward Profile that 4% of the male offenders and 3% of the female offenders interviewed had

been hospitalized for psychiatric problems (see Appendix D). However, this questionnaire did not ask the type of diagnosis or problem for which the offender had been hospitalized. The Committee decided that more specific information was needed to determine program needs.

The criterion the Committee decided to use for placement in an Intensive Treatment Program was symptoms of a psychotic disorder using profile scores on the MMPI. Graham (1977) suggests that T-scores above 80 (three standard deviations from the mean) on Scale 8 (Schizophrenia) of the MMPI may be indicative of a psychotic disorder. Such elevations indicate bizarre or unusual thought patterns. Table 1 gives the percentage of offenders with valid profiles whose highest scale score was on Scale 8. These offenders could appropriately be placed in an Intensive Treatment Program.

TABLE 1. PLACEMENT IN INTENSIVE TREATMENT PROGRAMS
BASED ON MMPI CRITERIA FOR PSYCHOTIC DISORDERS

| TOTAL | MALES | | FEMALES | |
|------------------|-------|------------|---------|------------|
| | Count | Percentage | Count | Percentage |
| No ITP Placement | 625 | 98% | 110 | 95% |
| ITP Placement | 12 | 2% | 6 | 5% |

Using the criterion of an elevated T-score on Scale 8 to indicate a psychotic disorder and placement in an Intensive Treatment Program, 2% of the males and 5% of the females who produced valid test profiles need this type of program. These percentages do not take into consideration 12% of the offenders who produced invalid MMPI profiles. These invalid profiles are often the result of agreeing with a high number of items that indicate bizarre thoughts or unusual experiences. Psychologists involved with this needs assessment, who have worked with disturbed youths, considered most of these offenders with invalid profiles to need an ITP program. To get a reasonable estimate of the total number of offenders needing ITPs, including those with invalid profiles, the Committee decided to use Caseworkers' estimates from the Ward Profile¹. As seen in Table 2, Caseworkers thought that 3% of the males and 6% of the females needed ITPs. Therefore, it seems reasonable to

¹Caseworkers were asked to complete this form for each offender tested. This includes all wards who were selected as needing an ITP. Such a program could have been chosen as a first, second, or third choice. First and second program choices are given in Tables D-1 and D-2 in the Appendix.

add another percentage point to the MMPI finding, which resulted in the 3% and 6% figures the Caseworkers determined to need an ITP. Using these figures and an average program length of 13 months, the anticipated need in FY 1995-96 will be 178 beds for males and 16 beds for females, a total of 194 beds. The current capacity is 189 beds for males and none for females. A total of five more ITP beds will be needed with 16 of the beds reallocated for females.

**TABLE 2. PLACEMENT IN INTENSIVE TREATMENT PROGRAMS
BASED ON CASEWORKERS' ESTIMATES**

| | MALES | | FEMALES | |
|------------------|-------|------|---------|------|
| TOTAL | 681 | 100% | 168 | 100% |
| No ITP Placement | 663 | 97% | 158 | 94% |
| ITP Placement | 18 | 3% | 10 | 6% |

Identification of Offenders Needing Specialized Counseling Programs

The Specialized Counseling Programs are designed to provide treatment to offenders who have psychological problems of a less severe nature than those in the ITPs. Staff include psychologists; social workers, Youth Counselors and Group Supervisors. Since these offenders are less disturbed, there are usually no medical personnel (nurses and psychiatrists). The current offenders in Specialized Counseling Programs may be depressed, anxious, or obsessive/compulsive. Some may have an inadequate personality disorder and act out sexually.

The Treatment Needs Assessment Committee determined that offenders who met the criteria for depression, or neurotic disorders, or who had attempted suicide should be in Specialized Counseling Programs (SCPs). The MMPI was used to assess depression and neurotic disorders. No attempt was made to assess the number of offenders who might be suicidal since the test instruments could not measure this.

The MMPI has four validity scales and ten clinical scales that are commonly scored. The first three clinical scales are sometimes referred to as the "neurotic triad." Elevations in these scales indicate a person who is anxious and unhappy, whose functioning may be

impaired, but who has good contact with reality. Elevations on five² of the six clinical scales can indicate more serious problems (including psychoses). Appendix F describes these scales in greater detail.

For the needs assessment, depressed wards were defined as those whose highest T-score on the clinical scales of the MMPI was on Scale 2, the Depression Scale. In addition to being the highest scale score, this score also had to be clinically elevated (that is, a T-score of 65 or above for offenders under 18, or a T-score of 70 or above for offenders eighteen and over). Using these criteria, 4% of the males and 2% of the females were depressed (Table 3).

TABLE 3. OFFENDERS MEETING THE CRITERIA FOR DEPRESSION USING THE MMPI

| | MALES | | FEMALES | |
|---------------|-------|------|---------|------|
| TOTAL | 637 | 100% | 116 | 100% |
| Non-Depressed | 610 | 96% | 114 | 98% |
| Depressed | 27 | 4% | 2 | 2% |

No attempt was made to identify offenders at risk for suicide. Instead, data strongly indicate that there is no typical or characteristic profile for individuals who attempt suicide (Hengegler, 1989). Caseworkers reported that 6% of the males and 28% of the females had attempted suicide at least once (Table 4). However, the questionnaire did not include information on when the attempt had occurred, nor did it ask the caseworker to make a determination regarding the seriousness of these attempts. Therefore, these data were not used in the determination of program needs.

TABLE 4. SUICIDE ATTEMPTS REPORTED TO CASEWORKERS COMPLETING THE WARD PROFILE

| | MALES | | FEMALES | |
|-------------------|-------|------|---------|------|
| TOTAL | 673 | 100% | 160 | 100% |
| No Attempts | 635 | 94% | 115 | 72% |
| Previous Attempts | 38 | 6% | 45 | 28% |

Note: wards with invalid test profiles were included in this table.

²Scale 5 (Masculinity/Femininity) was not included. High scores on this scale reflect a male who has artistic and esthetic interests which are not associated with delinquent/criminal behavior.

The third group, offenders with neurotic disorders, was identified as having higher average T-scores on Scales 1 through 3 (the neurotic scales) than on Scales 6 through 9 (psychotic scales). Table 5 gives the numbers of offenders who met this criterion as 7% of the males and 3% of the females.

TABLE 5. NEUROTIC DISORDERS ASSESSED WITH THE MMPI

| | MALES | | FEMALES | |
|-------------------|-------|------|---------|------|
| TOTAL | 637 | 100% | 116 | 100% |
| Non-Neurotic | 593 | 93% | 112 | 97% |
| Neurotic Disorder | 44 | 7% | 4 | 3% |

Table 6 identifies the offenders who meet the criteria for a Specialized Counseling Program (offenders whose MMPI profiles indicate that they are depressed, neurotic, or both). Of the offenders tested, 10% of the males and 4% of the females were identified as needing a Specialized Counseling Program. Using the projected YA admissions in Fiscal Year 1995-96 and an average program length of 12 months, the anticipated number of beds needed in SCPs will be 547 for males and 10 for females. The bed capacity in SCPs will be 143 beds for males and 48 for females when Chaderjian School opens. (This does not include the Nelles Sex Offender Program.) An additional 404 beds will be needed for males. Females will need 38 fewer beds than current capacity since some of the females currently in the SCP would be appropriately placed in an Intensive Treatment Program.

TABLE 6. MMPI PROFILES RELATED TO SPECIALIZED COUNSELING PROGRAMS*

| | MALES | | FEMALES | |
|-------------------|-------|------|---------|------|
| TOTAL | 637 | 100% | 116 | 100% |
| No SCP Assignment | 576 | 90% | 111 | 96% |
| SCP Assignment | 61 | 10% | 5 | 4% |

* Offenders whose MMPI profiles indicated that they are either depressed, neurotic or both are defined as needing a Specialized Counseling Program.

Note: the numbers in Table 6 are less than the totals of Table 3 and Table 5 since some offenders are both neurotic and depressed and are not counted twice.

The SCPs, like the ITPs, receive offenders who do not meet the program criteria set forth in this assessment. These offenders may be developmentally disabled or sociopathic (Antisocial Personality Disorder). The sociopaths can usually function in a Regular Program. The developmentally disabled may need a separate program. The current treatment needs assessment did not attempt to determine how many developmentally disabled wards there were or what their program needs were. The test instruments used could not address these concerns.

This needs assessment also did not attempt to determine the number of offenders who need a Sex Offender Program. The Youth Authority uses offense categories, recommendations from the Youthful Offender Parole Board, and staff recommendations to determine program need. There are currently 80 offenders in the Nelles Sex Offender Program and 90 on the waiting list. The average length of stay in this program is 26 months. The program has several requirements for entry. Among them are: age 13 to 18 years at admission, an IQ of 80, from Los Angeles or Orange County, a maximum of 2.5 years and a minimum of nine months before Parole Consideration Date⁴. There is no Sex Offender Program in the northern part of the state. Some offenders needing such a program have been sent to the SCP at Preston, Oak Lodge. Though it is not a Sex Offender Program, it once had an emphasis in this area.

Identification of Dyssocial/Aggressive Offenders

The Treatment Needs Assessment Committee wanted to identify the offenders who might need a Dyssocial/Aggressive Program. To do this, a subgroup of Dyssocial offenders were identified. These are the offenders who are more likely to be aggressive. They were categorized as Dyssocial/Aggressive in this assessment.

Dyssocial offenders are often labeled "sociopaths". They adopt a delinquent or criminal way of life as a result of distorted moral and social influences (Goldenson, 1970). They often belong to gangs and participate in gang activities. Most of these individuals can control their behavior and operate effectively within a group. In the Youth Authority, most fit into a Regular Program. The Dyssocial/Aggressive offenders are a subgroup of the sociopathic offenders who can create management or control problems but do not

⁴An Interim Report of the Nelles Sex Offender Program (Draft), 1990, Isorena, T. & Winter, S., CYA.

necessarily need psychological treatment. They generally do not participate in ITP or SCP programs because they do not see themselves as needing psychological help. If they are in Regular Programs, they may occasionally need temporary detention facilities, or they may need the environmental controls dyssocial/aggressive units provide.

It is difficult to identify Dyssocial/Aggressive offenders. There are no scales on the MMPI to measure this. However, a composite of scale T-Scores from the MMPI ($F + 4 + 9$) has been suggested to predict aggressiveness (Huesmann, Lefkowitz, & Eron, 1978). The authors found that delinquent males whose combined scores were over 217 and delinquent females whose scores were over 237 were more likely to be aggressive. Table 7 gives the percentage of offenders who met this criterion as 15% of the males and 13% of the females.

TABLE 7. THE IDENTIFICATION OF DYSSOCIAL/AGGRESSIVE OFFENDERS BASED ON THE MMPI

| | MALES | | FEMALES | |
|---------------|-------|------|---------|------|
| TOTAL | 637 | 100% | 116 | 100% |
| Non-Dyssocial | 543 | 85% | 101 | 87% |
| Dyssocial | 94 | 15% | 15 | 13% |

A second measure was used to assess individuals who are Dyssocial/Aggressive, the Jesness Inventory. A designation of Unsocialized-Aggressive (I-2 AA) on this inventory indicates an offender who is likely to be aggressive and act out. Table 8 gives the proportion of offenders who met this criterion as 9% of the males and 21% of the females.

TABLE 8. THE IDENTIFICATION OF DYSSOCIAL/AGGRESSIVE OFFENDERS BASED ON THE JESNESS INVENTORY

| | MALES | | FEMALES | |
|---------------|-------|------|---------|------|
| TOTAL | 642 | 100% | 151 | 100% |
| Non-Dyssocial | 583 | 91% | 119 | 79% |
| Dyssocial | 59 | 9% | 32 | 21% |

The Jesness Inventory and the MMPI indicated a range of offenders who met the definition of Dyssocial/Aggressive of 9% to 15% for males and 13% to 21% for females. These offenders may need a Dyssocial/Aggressive Program or episodic temporary detention while they are in Regular Programs. Currently, the average length of stay in a Dyssocial/Aggressive Program is six months. When the mid-points of these ranges (12% for males and 17% for females) are used to estimate the total number of beds that will be needed in Dyssocial/Aggressive Programs in FY 1995-96, the numbers are 328 beds for males and 21 for females. The current capacity is 284 beds in Dyssocial/Aggressive Programs for males and 25 for females. There will be 44 more Dyssocial/Aggressive beds needed for males and four fewer for females in FY 1995-96.

Identification of Offenders Needing Substance Abuse Programs

Another area of concern in the determination of special program needs is Substance Abuse Programs. This is an overlapping category since offenders in all types of programs may need Substance Abuse Programs. The Youth Authority currently has two levels of Substance Abuse Programs: Limited and Formalized programs. Limited programs offer substance abuse education as a part of a Regular Program. Formalized Substance Abuse Programs are comprehensive programs which are usually in self-contained living-units.

Substance abuse program assignments are currently determined by the Substance Abuse Profile (SAP) which was created by the Youth Authority and by the recommendations of the Youthful Offender Parole Board. Offenders with scores below 11 on the SAP are not considered in need of a substance abuse program. Those who score from 11 and 42 are recommended for a Limited Program while those who score 43 and above are recommended for Formalized Substance Abuse Programs. Using this measure, 19% of the offenders do not need Substance Abuse Programs, 52% need Limited Programs, and 29% need Formalized Substance Abuse Programs. This profile is completed during the clinic process. Offenders are asked questions regarding the types of drugs they use, the frequency, and the problems these drugs have caused for the offender. It is a self-report measure and relies on the cooperation and honesty of the offender.

The Committee decided to use a more subtle measure to determine the need for substance abuse programming, the MacAndrew Alcoholism Scale of the MMPI. It is a general measure of both substance misuse and addictive disposition (Lachar, Berman, Grisell, and

Schooff, 1976). Since this scale was originally normed on an adult population, different norms were needed for adolescents than those used with adults. For adults, a T-score above 70, or a raw score of 29, indicates a serious problem. More appropriate cutting scores for adolescents are raw scores of 26 for males and 24 for females (Wolfson and Erbaugh, 1984).

Table 9 gives the numbers of offenders meeting these criteria. Of those tested, 60% of males and 55% of females had a substance abuse problem or were likely to develop one. (Age group information is given in Appendix E.) Based on the projected admissions for Fiscal Year 1995-96 and a program length of nine months, the anticipated number of beds needed will be 2,463 for males and 101 beds for females. There are currently 1,610 beds for males in Formalized Substance Abuse Programs. There are none for females though 60 females participate in a Formalized Substance Abuse program with males at Ventura School. In FY 1995-96, an additional 853 beds in Formalized Substance Abuse Programs will be needed for males and 101 for females.

TABLE 9. MacANDREW ALCOHOLISM SCORES AND FORMALIZED SUBSTANCE ABUSE PROGRAMMING BASED ON THE MMPI

| | MALES | | FEMALES | |
|-----------------------|-------|------|---------|------|
| TOTAL | 637 | 100% | 116 | 100% |
| No Formalized Program | 252 | 40% | 52 | 45% |
| Formalized Program | 385 | 60% | 64 | 55% |

No effort was made in this assessment to determine what percentage of the offenders needing Substance Abuse Programs also needed ITPs and SCPs. Some of the offenders in ITPs and SCPs could complete a Substance Abuse Program while in these programs. Others would need to complete the ITP or SCP before they could function in a Substance Abuse Program.

CONCLUSIONS

A total of 851 offenders out of 1,057 eligible took part in this needs assessment, 683 male offenders entering the two reception centers and 168 females at Ventura School. They were given the Minnesota Multiphasic Inventory and the Jesness Inventory. Caseworkers (at the Reception Centers) or Youth Counselors (at Ventura School) also completed a Ward Profile Information sheet.

The following conclusions were made from this study:

- As indicated by the Minnesota Multiphasic Personality Inventory and the caseworkers' assessments, 3% of the male and 6% of the female offenders need placements in Intensive Treatment Programs. Using these figures and the current program length of 13 months, a total of 178 ITP beds will be needed for males and 16 for females in Fiscal Year 1995-96. When Chaderjian School opens, there will be 189 ITP beds for males and none for females. Five more ITP beds will be needed with 16 of the total reallocated for females.
- Based on testing with the MMPI, 10% of males and 4% of females need Specialized Counseling Programs. Using the projected admissions for Fiscal Year 1995-96 and a 12 month program length, a total of 547 Specialized Counseling Program beds will be needed for males and 10 beds for females. The program capacity will be 143 beds in SCPs for males when Chaderjian School opens and 48 for females⁵. An additional 404 SCP beds will be needed for males.
- Monolingual offenders were not tested during this phase of the needs assessment. In the second phase of the needs assessment, the Department plans to test these offenders and determine their programmatic needs of the needs assessment. Currently, the Youth Authority has two programs at Nelles School for offenders who are Spanish speaking. Washington Cottage has an English as a Second Language program with staff who are bilingual. The Sex Offender Program has a treatment group for Spanish speaking wards.

⁵This does not include the bed capacity of the Nelles Sex Offender Program.

- Using the MMPI and the Jesness Inventory, 12% of the male admissions and 17% of the female admissions were designated as Dyssocial/Aggressive. These are the offenders who may create management problems because of their aggressiveness and inability to program. They are often assigned to a Regular Program, but may occasionally need a Dyssocial/Aggressive Program. With an average length of stay in Dyssocial/Aggressive Programs of six months, the anticipated need in FY-1995-96 will be 328 beds for male admissions and 21 beds for females. The current capacity in Dyssocial/Aggressive Programs is 284 beds for males and 25 for females. Forty-four additional beds will be needed for males while four fewer beds will be needed for females.
- The Substance Abuse category overlapped the other programs. Since some offenders could not function in a Substance Abuse Program until completing an ITP or SCP, no effort was made to determine what percentage of the offenders needed both types of programs. Testing with the MMPI indicated that 60% of males and 55% of females admitted to the YA have or will develop substance abuse problems. Using an average program length of nine months and the percentages given, the projected need for beds in FY 95-96 will be 2,463 beds for males and 101 beds for females. The Youth Authority's current bed capacity in Formalized Substance Abuse Programs is 1,610 beds for males and none for females. An additional 853 beds will be needed in these programs for males and 101 beds for females.
- No attempt was made to determine the number of beds needed for sex offender programs due to the limitations of the test instruments used in the needs assessment. Wards are selected for this program on the basis of the Department's Sex Offender Profile. The Profile is currently undergoing modifications to identify the most serious sex offenders. At this time, there are 80 male offenders in the Nelles Sex Offender Program and 90 on the waiting list.
- No attempt was made to determine the number of offenders with developmental disabilities since the test instruments used could not identify these individuals. Offenders with these types of problems may be admitted to Regular Programs, SCPs, or ITPs if they need nursing assistance.

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APPENDIX A
REASONS OFFENDERS WERE NOT TESTED

TABLE A-1. REASONS OFFENDERS WERE NOT TESTED.

| | NRCC | SRCC | Ventura | TOTAL |
|-----------------------|------|------|---------|-------|
| Monolingual | | | | |
| Spanish | 10 | 34 | 2 | 46 |
| Southeast Asian | 3 | 5 | 0 | 8 |
| Refused | 5 | 4 | 30 | 39 |
| Transferred | 26 | 2 | 1 | 29 |
| Temporary Detention | 3 | 3 | 14 | 20 |
| Staff Uncertainty | 0 | 15 | 0 | 15 |
| Jail/Out to Court | 0 | 0 | 11 | 11 |
| Illness/Injury | 6 | 3 | 0 | 9 |
| Incomplete Test | 1 | 5 | 1 | 7 |
| Physical dysfunction | 5 | 0 | 1 | 6 |
| Paroled | 0 | 0 | 4 | 4 |
| Disciplinary Problems | 0 | 3 | 0 | 3 |
| Discharged | 0 | 0 | 1 | 1 |
| Other | 1 | 0 | 7 | 8 |
| Total | 60 | 74 | 72 | 206 |

APPENDIX B

DEMOGRAPHIC DATA FROM THE OFFENDER
BASED INFORMATION TRACKING SYSTEM (OBITS)

The following tables present two different samples. The sample of male offenders tested for the needs assessment was a separate group from the total population of male offenders on December 31, 1989. The sample of females tested came from the total population of females. Many would have been at Ventura School on December 31, 1989.

TABLE B-1. PERCENTAGES OF OFFENDERS BY AGE: TOTAL POPULATION ON DECEMBER 31, 1989, VERSUS TWO-MONTH SAMPLE

| AGE | % MALES | | % FEMALES | |
|-------------------|------------------|-----------------|----------------|-----------------|
| | Total n=7,922 | Sample n=683 | Total n=296 | Sample n=168 |
| 13 | 0 | 0 | 0 | 0 |
| 14 | 1 | 3 | 1 | 2 |
| 15 | 3 | 8 | 3 | 4 |
| 16 | 8 | 17 | 11 | 8 |
| 17 | 15 | 27 | 17 | 15 |
| 18 | 22 | 15 | 22 | 23 |
| 19 | 20 | 14 | 16 | 15 |
| 20 | 16 | 11 | 17 | 14 |
| 21 | 7 | 2 | 7 | 11 |
| 22 | 4 | 2 | 4 | 3 |
| 23 | 2 | 1 | 2 | 4 |
| 24 | 1 | 1 | 0 | 1 |
| TOTALS | 99 | 101 | 100 | 100 |
| Mean age in years | 19.1 | 17.6 | 19.0 | 18.7 |

Note: As expected, incoming offenders were younger than those currently in the Youth Authority.
Totals do not equal 100 due to rounding.

Table B-2. COURT OF COMMITMENT: TOTAL POPULATION ON DECEMBER 31, 1989, VERSUS TWO-MONTH SAMPLE

| COURT | % MALES | | % FEMALES | |
|--------------|------------------|-----------------|----------------|-----------------|
| | Total n=7,922 | Sample n=683 | Total n=296 | Sample n=168 |
| Juvenile | 77 | 75 | 77 | 71 |
| Criminal | 23 | 25 | 23 | 29 |
| TOTAL | 100 | 100 | 100 | 100 |

TABLE B-3. OFFENSE: PERCENTAGE OF TOTAL POPULATION ON DECEMBER 31, 1989, VERSUS TWO-MONTH SAMPLE

| OFFENSE | % MALES | | % FEMALES | |
|----------------|------------------|-----------------|----------------|-----------------|
| | Total n=7,922 | Sample n=683 | Total n=296 | Sample n=168 |
| Homicide | 9 | 6 | 14 | 20 |
| Robbery | 18 | 17 | 21 | 21 |
| Assault | 18 | 18 | 18 | 14 |
| Burglary | 19 | 19 | 10 | 7 |
| Theft | 11 | 17 | 9 | 8 |
| Sex Crimes | 8 | 5 | 2 | 2 |
| Drug Offenses | 15 | 16 | 20 | 17 |
| Misc. Felony | 2 | 2 | 4 | 7 |
| Other Offenses | 2 | 1 | 3 | 3 |
| TOTALS | 102 | 101 | 101 | 99 |

Note: Totals do not equal 100 due to rounding.

TABLE B-4. STATUS OF OFFENDERS: PERCENTAGE OF TOTAL POPULATION ON DECEMBER 31, 1989, VERSUS TWO-MONTH SAMPLE

| STATUS | % MALES | | % FEMALES | |
|--|------------------|-----------------|----------------|-----------------|
| | Total n=7,922 | Sample n=683 | Total n=296 | Sample n=168 |
| First Commitment | 87 | 84 | 89 | 88 |
| Parole Violators and Reccommitments | 13 | 16 | 11 | 12 |
| TOTALS | 100 | 100 | 100 | 100 |

TABLE B-5. ETHNICITY: PERCENTAGE OF TOTAL POPULATION ON DECEMBER 31, 1989, VERSUS TWO-MONTH SAMPLE

| ETHNICITY | % MALES | | % FEMALES | |
|------------------|------------------|-----------------|----------------|-----------------|
| | Total n=7,922 | Sample n=683 | Total n=296 | Sample n=168 |
| White | 21 | 23 | 34 | 29 |
| Hispanic | 33 | 31 | 19 | 18 |
| Black | 42 | 42 | 42 | 46 |
| Asian | 3 | 3 | 1 | 1 |
| Native American | 1 | 1 | 1 | 2 |
| Filipino | 0 | 0 | 0 | 0 |
| Pacific Islander | 1 | 1 | 1 | 2 |
| Other | 1 | 0 | 1 | 1 |
| TOTAL | 102 | 101 | 99 | 99 |

Note: Totals do not equal 100 due to rounding errors.

APPENDIX C
YOUTH AUTHORITY WARD PROFILE

YA OR M # (1-5) _____

LAST NAME, FIRST INITIAL (6-22) _____

DATE OF BIRTH (23-28) _____

TODAY'S DATE (29-34) _____

1. Ward's current status (35)

| | |
|-----------------|----------------------------|
| 1 - New Arrival | 2 - Recommitment |
| 2 - Revocation | 4 - Morrissey Hearing Case |
2. List the programs that would best meet the ward's needs (36)

| | |
|--------------------------|--------------------------|
| 0 - Regular Program | 4 - Intensive Treatment |
| 1 - Educational Program | 5 - Special Counseling |
| 2 - Vocational Education | 6 - Sex Offender Program |
| 3 - Employability Skills | 7 - Substance Abuse |
| 8 - Other: _____ | |
| 9 - Other: _____ | |
3. What is the likelihood that the ward will be admitted to this/these programs? (39)

| | |
|---------------------|-----------------------|
| 1 - Very likely | 3 - Somewhat unlikely |
| 2 - Somewhat likely | 4 - Very unlikely |
4. What other programs does the Youth Authority need to meet the need of this ward?

| | |
|--------------------------------|------------------|
| 1 - Sex Education | 6 - Other: _____ |
| 2 - Parenting | 7 - Other: _____ |
| 3 - Social Skills | 8 - Other: _____ |
| 4 - Hygiene/Health | |
| 5 - Abuse/Molestation Recovery | |
5. Does ward speak English? (43)

| | | |
|---------|-------------|--------|
| 1 - Yes | 2 - Limited | 3 - No |
|---------|-------------|--------|

 If no, or limited what language is spoken? (44)

| | | |
|-------------|--------------|-----------|
| 1 - Spanish | 3 - Filipino | 5 - Hmong |
| 2 - Chinese | 4 - Laotian | 6 - Other |
6. Nationality (45)

| | | |
|-------------------|---------------------|-----------------------|
| 1 - U. S. Citizen | 2 - Legal Immigrant | 3 - Illegal immigrant |
|-------------------|---------------------|-----------------------|
7. Suicide Attempts: (46)

| | | |
|----------|---------|-----------------|
| 0 - None | 1 - One | 2 - Two or more |
|----------|---------|-----------------|
8. Psychiatric Hospitalizations: (47)

| | | |
|----------|---------|-----------------|
| 0 - None | 1 - One | 2 - Two or more |
|----------|---------|-----------------|
9. Substance Abuse Profile Score: (48) - (49)

Preferred Substance (50)

Secondary Substance (51)

| | |
|-------------------|------------------------------------|
| 0 - None | 5 - Depressants/Opiates |
| 1 - Alcohol | 6 - Stimulants/Amphetamines, Crank |
| 2 - Marijuana | 7 - Designer Drugs/Ecstasy |
| 3 - Cocaine/Crack | 8 - Hallucinogens |
| 4 - PCP | 9 - Other: _____ |
10. Rate the ward in terms of amenability to treatment (52)

| | |
|-----------------------|---------------------------|
| 1 - Amenable | 3 - Somewhat Non-Amenable |
| 2 - Somewhat amenable | 4 - Non-Amenable |

APPENDIX D

INFORMATION FROM THE WARD PROFILE
COMPLETED BY CASEWORKERS

TABLE D-1. PRIMARY PROGRAM CHOICES MADE BY CASEWORKERS FOR OFFENDERS

| PROGRAM TYPE | MALES | | FEMALES | |
|-----------------|------------|-------------|------------|-------------|
| Regular | 266 | 39% | 67 | 40% |
| Educational | 174 | 26% | 10 | 6% |
| Vocational | 23 | 3% | 3 | 2% |
| Employability | 31 | 5% | 0 | 0% |
| ITP | 11 | 2% | 7 | 4% |
| SCP | 15 | 2% | 43 | 26% |
| Sex Offender | 19 | 3% | 0 | 0% |
| Substance Abuse | 119 | 17% | 18 | 11% |
| Other | 21 | 3% | 20 | 12% |
| TOTAL | 679 | 100% | 168 | 101% |

Note: Total does not equal 100% due to rounding.

TABLE D-2. SECONDARY PROGRAM CHOICES MADE BY CASEWORKERS FOR OFFENDERS

| PROGRAM TYPE | MALES | | FEMALES | |
|-----------------|------------|-------------|------------|------------|
| Regular | 41 | 6% | 4 | 2% |
| Educational | 242 | 38% | 102 | 63% |
| Vocational | 176 | 27% | 22 | 14% |
| Employability | 107 | 17% | 4 | 2% |
| ITP | 4 | 1% | 3 | 2% |
| SCP | 14 | 2% | 5 | 3% |
| Sex Offender | 6 | 1% | 1 | 1% |
| Substance Abuse | 47 | 7% | 17 | 10% |
| Other | 6 | 1% | 4 | 2% |
| TOTAL | 643 | 100% | 162 | 99% |

Note: Totals do not equal 100% due to rounding.

TABLE D-3. OFFENDERS' PREVIOUS SUICIDE ATTEMPTS REPORTED TO CASEWORKERS

| | MALES | | FEMALES | |
|----------------------|-------|------|---------|------|
| TOTAL | 671 | 100% | 160 | 100% |
| No Attempts | 633 | 94% | 115 | 72% |
| One or More Attempts | 38 | 6% | 45 | 28% |

TABLE D-4. OFFENDERS' PREVIOUS PSYCHIATRIC HOSPITALIZATIONS REPORTED TO CASEWORKERS

| | MALES | | FEMALES | |
|---------------------|-------|------|---------|------|
| TOTAL | 673 | 100% | 159 | 100% |
| No Hospitalizations | 645 | 96% | 154 | 97% |
| Hospitalizations | 28 | 4% | 5 | 3% |

TABLE D-5. JUVENILE OFFENDERS AND LEVELS OF SUBSTANCE ABUSE PROGRAMMING NEEDED BASED ON THE SUBSTANCE ABUSE PROFILE

| | MALES | | FEMALES | |
|--------------------|-------|------|---------|------|
| TOTALS | 360 | 100% | 45 | 100% |
| No Program Needed | 76 | 21% | 11 | 24% |
| Limited Program | 204 | 57% | 19 | 42% |
| Formalized Program | 80 | 22% | 15 | 33% |

TABLE D-6. ADULT OFFENDERS AND LEVELS OF SUBSTANCE ABUSE PROGRAMMING NEEDED BASED ON THE SUBSTANCE ABUSE PROFILE

| | MALES | | FEMALES | |
|--------------------|-------|------|---------|------|
| TOTALS | 261 | 100% | 90 | 100% |
| No Program | 38 | 15% | 16 | 18% |
| Limited Program | 144 | 56% | 29 | 32% |
| Formalized Program | 79 | 30% | 45 | 50% |

TABLE D-7. PREFERRED DRUGS OF JUVENILE OFFENDERS
(from the Substance Abuse Profile)

| SUBSTANCE | MALES | | FEMALES | |
|---------------------|------------|------------|-----------|-------------|
| | | | | |
| None | 43 | 12% | 5 | 11% |
| Alcohol | 113 | 31% | 16 | 35% |
| Marijuana | 149 | 41% | 8 | 17% |
| Crack/Cocaine | 22 | 6% | 9 | 20% |
| PCP | 18 | 5% | 3 | 7% |
| Opiates/Depressants | 0 | 0% | 1 | 2% |
| Stimulants | 11 | 3% | 3 | 7% |
| Designer Drugs | 1 | 0% | 0 | 0% |
| Hallucinogens | 4 | 1% | 1 | 2% |
| Other | 0 | 0% | 0 | 0% |
| TOTAL | 361 | 99% | 46 | 101% |

Note: Totals do not equal 100% due to rounding.
Number missing = 13.

TABLE D-8. PREFERRED DRUGS OF ADULT OFFENDERS
(from the Substance Abuse Profile)

| SUBSTANCE | MALES | | FEMALES | |
|---------------------|------------|------------|------------|------------|
| | | | | |
| None | 20 | 7% | 16 | 14% |
| Alcohol | 91 | 34% | 14 | 12% |
| Marijuana | 92 | 34% | 22 | 19% |
| Crack/Cocaine | 39 | 15% | 39 | 34% |
| PCP | 11 | 4% | 7 | 6% |
| Opiates/Depressants | 5 | 2% | 7 | 6% |
| Stimulants | 9 | 3% | 5 | 4% |
| Designer Drugs | 0 | 0% | 1 | 1% |
| Hallucinogens | 0 | 0% | 2 | 2% |
| Other | 0 | 0% | 1 | 1% |
| TOTAL | 267 | 99% | 114 | 99% |

Note: Totals do not equal 100% due to rounding.
Frequency missing = 50.

TABLE D-9. NATIVE LANGUAGES OF OFFENDERS TESTED
FOR WHOM ENGLISH WAS A SECOND LANGUAGE
(Percentages are based on 683 males and 168 females, the number who completed testing)

| LANGUAGE | MALES | | FEMALES | |
|--------------|-----------|-----------|-----------|-----------|
| | | | | |
| Spanish | 28 | 4% | 8 | 5% |
| Chinese | 0 | 0% | 1 | 1% |
| Filipino | 1 | 0% | 0 | 0% |
| Laotian | 2 | 0% | 0 | 0% |
| Other | 7 | 1% | 1 | 1% |
| TOTAL | 38 | 6% | 10 | 6% |

APPENDIX E

TABLES RELATED TO THE MMPI AND THE JESNESS INVENTORY

TABLE E-1. DEPRESSION AND JUVENILE OFFENDERS
(D ≥ 65 on the MMPI, other scales < 65)

| | MALES | | FEMALES | |
|---------------|-------|------|---------|------|
| TOTALS | 357 | 100% | 43 | 100% |
| Non-Depressed | 334 | 94% | 42 | 98% |
| Depressed | 23 | 6% | 1 | 2% |

TABLE E-2. DEPRESSION AND ADULT OFFENDERS
(D ≥ 70 on the MMPI-2, other scales < 70)

| | MALES | | FEMALES | |
|---------------|-------|------|---------|------|
| TOTALS | 280 | 100% | 73 | 100% |
| Non-Depressed | 276 | 99% | 72 | 99% |
| Depressed | 4 | 1% | 1 | 1% |

TABLE E-3. NEUROTIC DISORDERS AND JUVENILE OFFENDERS
(average of Scales 1-3 on the MMPI > Scales 4-0)

| | MALES | | FEMALES | |
|-------------------|-------|------|---------|------|
| TOTALS | 357 | 100% | 43 | 100% |
| Non-Neurotic | 316 | 89% | 41 | 95% |
| Neurotic Disorder | 41 | 11% | 2 | 5% |

TABLE E-4. NEUROTIC DISORDERS AND ADULT OFFENDERS
(average of Scales 1-3 on the MMPI-2 > Scales 4-0)

| | MALES | | FEMALES | |
|-------------------|-------|------|---------|------|
| TOTAL | 280 | 100% | 73 | 100% |
| Non-Neurotic | 277 | 99% | 71 | 97% |
| Neurotic Disorder | 3 | 1% | 2 | 3% |

TABLE E-5. SPECIALIZED COUNSELING PROGRAMS AND JUVENILE OFFENDERS (Criteria: Neurotic Disorder or Depression Using the MMPI)

| | MALES | | FEMALES | |
|---------------------|-------|------|---------|------|
| TOTALS | 357 | 100% | 43 | 100% |
| SCP not Appropriate | 303 | 85% | 40 | 93% |
| SCP Appropriate | 54 | 15% | 3 | 7% |

TABLE E-6. SPECIALIZED COUNSELING PROGRAMS AND ADULT OFFENDERS (Criteria: Neurotic Disorder or Depression Using the MMPI-2)

| | MALES | | FEMALES | |
|---------------------|-------|------|---------|------|
| TOTALS | 280 | 100% | 73 | 100% |
| SCP not Appropriate | 273 | 98% | 71 | 97% |
| SCP Appropriate | 7 | 2% | 2 | 3% |

TABLE E-7. JUVENILE OFFENDERS AND INTENSIVE TREATMENT PROGRAM PLACEMENTS (Scale 8 on the MMPI highest and ≥ 80)

| | MALES | | FEMALES | |
|----------------------|-------|------|---------|------|
| TOTALS | 357 | 100% | 43 | 100% |
| IITP not Appropriate | 355 | 99% | 40 | 93% |
| IITP Appropriate | 2 | 1% | 3 | 7% |

TABLE E-8. ADULT OFFENDERS AND INTENSIVE TREATMENT PROGRAM PLACEMENTS (Scale 8 on the MMPI-2 highest and ≥ 80)

| | MALES | | FEMALES | |
|----------------------|-------|------|---------|------|
| TOTALS | 280 | 100% | 73 | 100% |
| IITP not Appropriate | 270 | 96% | 70 | 96% |
| IITP Appropriate | 10 | 4% | 3 | 4% |

TABLE E-9. DYSSOCIAL/AGGRESSIVE JUVENILE OFFENDERS
(Scales F + 4 + 9 on the MMPI > 217 for
males and > 237 for females)

| | MALES | | FEMALES | |
|-----------------------|-------|------|---------|------|
| TOTALS | 357 | 100% | 43 | 100% |
| No Dyssocial Disorder | 319 | 89% | 35 | 81% |
| Dyssocial Disorder | 38 | 11% | 8 | 19% |

TABLE E-10. DYSSOCIAL/AGGRESSIVE ADULT OFFENDERS
(Scales F + 4 + 9 of the MMPI-2 > 217 for
males and > 217 for females)

| | MALES | | FEMALES | |
|-----------------------|-------|------|---------|------|
| TOTALS | 280 | 100% | 73 | 100% |
| No Dyssocial Disorder | 224 | 80% | 66 | 90% |
| Dyssocial Disorder | 56 | 20% | 7 | 10% |

TABLE E-11. DYSSOCIAL/AGGRESSIVE JUVENILE OFFENDERS
USING THE JESNESS INVENTORY

| | MALES | | FEMALES | |
|-----------------------|-------|------|---------|------|
| TOTALS | 345 | 100% | 45 | 100% |
| No Dyssocial Disorder | 309 | 90% | 36 | 80% |
| Dyssocial Disorder | 36 | 10% | 9 | 20% |

TABLE E-12. DYSSOCIAL/AGGRESSIVE ADULT OFFENDERS
USING THE JESNESS INVENTORY

| | MALES | | FEMALES | |
|-----------------------|-------|------|---------|------|
| TOTALS | 297 | 100% | 106 | 100% |
| No Dyssocial Disorder | 274 | 92% | 83 | 78% |
| Dyssocial Disorder | 23 | 8% | 23 | 22% |

TABLE E-13. JUVENILE OFFENDERS AND THE MacANDREW ALCOHOLISM SCALE OF THE MMPI
(Raw Score \geq 26 for males and \geq 24 for females)

| | MALES | | FEMALES | |
|------------|-------|------|---------|------|
| TOTALS | 357 | 100% | 43 | 100% |
| No Problem | 68 | 19% | 13 | 30% |
| Problem | 289 | 81% | 30 | 70% |

TABLE E-14. ADULT OFFENDERS AND THE MacANDREW ALCOHOLISM SCALE OF THE MMPI-2 (T-Score \geq 70)

| | MALES | | FEMALES | |
|------------|-------|------|---------|------|
| TOTALS | 280 | 100% | 73 | 100% |
| No Problem | 184 | 66% | 39 | 53% |
| Problem | 96 | 34% | 34 | 47% |

APPENDIX F

THE MINNESOTA MULTIPHASIC PERSONALITY INVENTORY

The Minnesota Multiphasic Personality Inventory (MMPI) was first published by Hathaway and McKinley in 1941. This early version has 566 true-false questions and standardized scale scores for adults and adolescents. A newer version, the MMPI-2, was released in 1989 with standardized scale scores for adults only. It has 567 questions.

There are fourteen scales commonly scored for both versions of the MMPI. Four are validity scales and ten are clinical scales. The brief descriptions of the scales have been taken from Megargee and Bohn (1979).

The four validity scales are as follows:

- | | | |
|----|------------|---|
| ?. | Cannot say | Total number of items which the test taker marks both "true" and "false" or omits. |
| L. | Lie | Measures deliberate attempts by the subject to present himself in a good light. |
| F. | Frequency | Items rarely answered in the scored direction by normals. Indicates random responding or deliberate attempts by the subject to present himself in a bad light. |
| K. | Correction | Indicates a general test-taking attitude of defensiveness about psychological weaknesses. The K-score is used as a correction to certain clinical scales (1,4,7,8,9--see below) to improve their ability to discriminate normal from abnormal profiles. |

The ten clinical scales include the following:

- | | | |
|----|----------------------|--|
| 1. | Hypochondriasis (Hs) | Reflects abnormal concern over bodily functions and preoccupation with physical complaints. |
| 2. | Depression (D) | Reflects a pessimistic world view, hopelessness, self-deprecation, possibly suicidal. |
| 3. | Hysteria (Hy) | Measures the tendency to use physical or mental symptoms to avoid stressful conflicts. Often |

- accompanied by an unwillingness to accept adult responsibilities.
4. Psychopathic Deviate (Pd) Measures the tendency toward conflicts with authority figures, disregard of social conventions and laws, inability to learn from experience, and shallowness in personal attachments; the most frequently elevated scale among juvenile delinquents and criminal populations.
 5. Masculinity-femininity (Mf) Differentiates tendency toward traditional masculine or feminine interests, attitudes, and forms of self-expression.
 6. Paranoia (Pa) Reflects abnormal suspiciousness and sensitivity, possible delusions of persecution or grandeur.
 7. Psychasthenia (Pt) Measures the tendency toward obsessive ruminations, guilty feelings, anxiety, indecision and worrying, and compulsive ritualistic behavior.
 8. Schizophrenia (Sc) Reflects bizarre or unusual thinking and behavior, interpersonal withdrawal and alienation, inappropriate affect, possible hallucinations or delusions.
 9. Hypomania (Ma) Reflects high activity level often without productivity, emotional agitation, possible euphoria and flight of ideas.
 0. Social Introversion (Si) Reflects shyness, social withdrawal and insecurity, and disinterest in others.

A high score on any scale does not necessarily indicate that a person has a given diagnosis, just that he or she may have thoughts and behaviors similar to people with that diagnosis.

Identification of Invalid or Uninterpretable Profiles

When using an MMPI profile, the first consideration would be its validity. There are four validity scales in the MMPI profile which are used to determine whether it is valid and interpretable. If scores on the validity scales are out of the normal range, this brings into question the clinical scale scores. They are considered invalid and uninterpretable.

Henggeler (1989) mentions that incarcerated samples often have very high rates of invalid test profiles. However, this may reflect the norms used. Different norms may be needed when working with a correctional population. Megargee and Bohn (1979), researchers with this population, use a T-score of 100 on the F Scale of the MMPI as a cut-off score for the determination of validity. For this study, profiles were considered invalid or uninterpretable if the validity scales met any of the following criteria: $F \geq 100$, $L \geq 80$, $? \geq 60$.

There are many possible reasons an individual might present a less than honest self-portrait. Archer (1987) and Graham (1977) identify some of these reasons. Participants may be resistant to testing. They may affirm all negative items and thus create a "fake bad" profile. Angry adolescents may be among this group. Another approach is to mark answers randomly. Still others may affirm negative items as a "cry for help".

Tables F-1 and F-2 indicate the validity of the profiles on the MMPI and MMPI-2 in this sample of offenders. Of the female juvenile offenders, 90% produced valid MMPI profiles while only 61% of the adult females produced valid profiles.

TABLE F-1. VALIDITY OF MMPI PROFILES FOR JUVENILE OFFENDERS

| | MALES | | FEMALES | |
|---------|-------|------|---------|------|
| TOTAL | 372 | 100% | 48 | 100% |
| Invalid | 15 | 4% | 5 | 10% |
| Valid | 357 | 96% | 43 | 90% |

TABLE F-2. VALIDITY OF MMPI-2 PROFILES FOR ADULT OFFENDERS

| | MALES | | FEMALES | |
|---------|-------|------|---------|------|
| TOTAL | 311 | 100% | 120 | 100% |
| Invalid | 31 | 10% | 47 | 39% |
| Valid | 280 | 90% | 73 | 61% |

Two-Point High-Point Codes

After the validity of the profile has been considered, and the overall configuration on the scale scores, the most common method of interpretation is the use of two-point high-point codes. These are the two clinical scales with the highest scores. Researchers and therapists have found that people who have two high scale scores in common share many personality attributes. There are many books which describe these attributes for the different two-point high-point codes.

Relationship of the MMPI and MMPI-2

Scale scores from the two versions of the MMPI differ somewhat. Some items used in the original scale scores have been changed or deleted. The methods for calculating the T-scores have been changed in the MMPI-2.

Individuals taking the two versions of the MMPI do not always obtain the same two-point high-point codes. The MMPI-2 manual (Hathaway and McKinley, 1989) gives the congruence of two-point high-point codes using the new and old methods of calculating T-scores for a psychiatric sample as 66% for males using a cut-off score of 70 and 71% using a cut-off score of 100. Sixty-six percent of the time an individual would have the same two high scale scores when the cut-off score is 70. The percent agreement between two common code types for offenders is 53% for the 46/64 (Scale 4 is Psychopathic Deviate and Scale 6 is Paranoia) and 93% for a 48/84 (Scale 4 is Psychopathic Deviate and Scale 8 is Schizophrenic). Given the differences between the two versions, tables have been provided in the appendix for both versions of the MMPI.

APPENDIX G THE JESNESS INVENTORY

The Jesness Inventory is one of the only test instruments designed for use with delinquent populations. It was developed at the California Youth Authority by Dr. Carl Jesness. One of its purposes was to determine the type of programs wards needed to receive in Youth Authority institutions to enable them to become more mature and responsible.

The Jesness Inventory is based on the theory that individuals go through successive levels of integration (I-Levels), with each stage defined by a crucial interpersonal problem that must be resolved before further maturity can occur. The level of integration is manifested primarily through the individual's perceptions of self and others. Threats to the individual which are too extreme or intense lead to fixation and resistance to change.

The instrument yields the following I-Level classifications:

- I-2 Two types: Unsocialized Passive, or Unsocialized Aggressive.
- I-3 Three types: Immature Conformist, Cultural Conformist, or Manipulator.
- I-4 Four types: Neurotic Acting Out, Neurotic Anxious, Situational Emotional Reaction, Cultural Identifier.

In addition, the Jesness Inventory provides T-scores on eleven personality characteristics. They are as follows:

| | |
|-----------------------|---|
| Social Maladjustment | Attitudes associated with inadequate or disturbed socialization. |
| Value Orientation | Shares attitudes and opinions characteristic of persons in the lower socioeconomic classes. |
| Immaturity | Displays attitudes and perceptions that are more common in a younger person. |
| Autism | Tendency to distort reality according to one's personal desires or needs. |
| Alienation | Distrust and estrangement, especially to authority figures. |
| Manifest Aggression | Awareness of, discomfort with, and inability to control emotions, especially anger and frustration. |
| Withdrawal-Depression | Dissatisfaction with self and others, withdrawal. |

| | |
|----------------|---|
| Social Anxiety | Discomfort in interpersonal relations. |
| Repression | Exclusion of feelings from conscious awareness. |
| Denial | Reluctance to acknowledge unpleasant events or conditions. |
| Asocial Index | Disposition to resolve social or personal problems in ways that show disregard for social customs or rules. |

The two validity scales used were the result of the work of Dr. Friedman of the Department of Corrections, Hudson, Wisconsin.⁶ They are the Lie and Randomness scales. The Lie Scale considers the tendency to answer questions in the opposite direction of normals. The Randomness Scale measures the tendency to answer questions randomly.

Identification of Invalid Profiles

On this inventory, a raw score on the Lie Scale or Randomness Scale of four or above invalidated the profile. Using these criteria, few profiles were invalid. The numbers are given in Table G-1.

TABLE G-1. VALIDITY OF JESNESS INVENTORIES

| | MALES | | FEMALES | |
|---------|-------|------|---------|------|
| TOTAL | 683 | 100% | 168 | 100% |
| Invalid | 43 | 6% | 17 | 10% |
| Valid | 640 | 94% | 151 | 90% |

⁶S. Friedman (personal communication to Dr. Carl Jesness, March 8, 1990).

**DRUG POSITIVE RATES IN
CRIMINAL JUSTICE WORKPLACE CLIENTS
and
METHADONE PROGRAM CLIENTS**

By Julie Whitney, Ph.D. and Scott Thompson

PharmChem Laboratories, Inc. is a large forensic drug testing laboratory that tests for clients from three main sectors -- Workplace, Criminal Justice, and Drug Rehabilitation. On a continuing basis, PharmChem compiles statistics on all of its clients and makes them available to the client. Clients use these statistics to justify their testing programs, to select appropriate drug panels for testing, and to anticipate needs in their drug after care or employee assistance programs. The paper that follows presents test results from Workplace and Criminal Justice and Methadone Maintenance Programs patients. The paper compares results for these clients across variables, such as geographic location of the specimen donor and describes emerging trends based on the results. Data from approximately 400,000 specimens donated in 1991 are included.

WORKPLACE CLIENTS

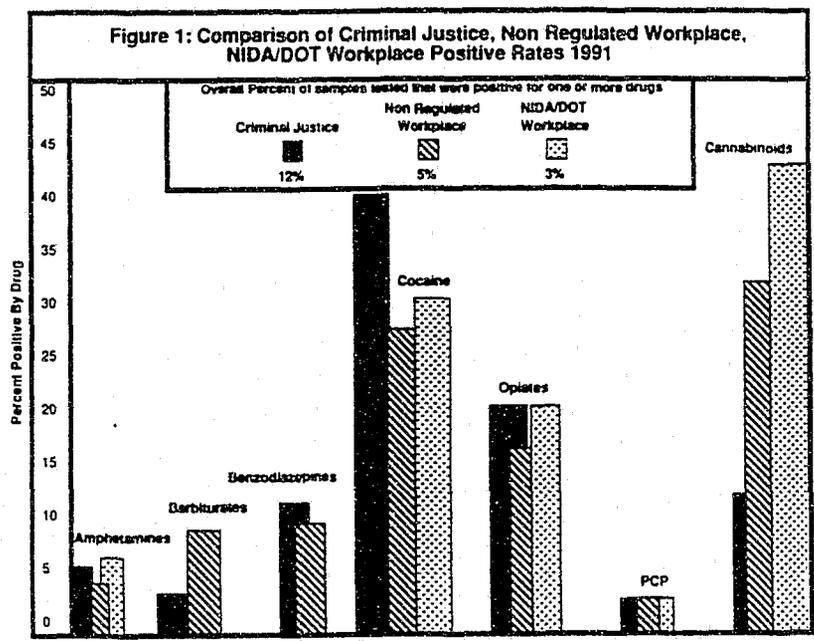
Workplace clients are companies or organizations that require testing of job applicants, random testing of employees, reasonable suspicion and/or post accident testing. PharmChem tests for two types of workplace clients -- those governed by Department of Transportation (DOT) or National Institute on Drug Abuse (NIDA) regulations and non-regulated companies. Clients governed by NIDA and DOT test only for five drugs -- amphetamine, cocaine, opiates (codeine and morphine), phencyclidine, and cannabinoids -- at the prescribed cutoffs. Non-regulated clients' test panel and cutoffs are selected by the company or organization, based on internal policy. The company-selected panel usually includes the five drugs for which NIDA and DOT sanction testing plus other drugs, most commonly benzodiazepines and barbiturates. A second difference is that none of the nonregulated clients have a random testing program, even though several have expressed the desire to begin random testing by the end of 1992.

CRIMINAL JUSTICE CLIENTS

The criminal justice sector, for purposes of this article, is limited to donors on parole or probation or in a halfway house pending release. All of these donors must remain drug free as a condition of parole or probation or of continuation in the halfway house program. All of the criminal justice donors are expected to be gainfully employed whenever possible.

COMPARISON OF CRIMINAL JUSTICE, NONREGULATED WORKPLACE AND NIDA/DOT RESULTS

Figure 1 which compares the positive rates for Criminal Justice, nonregulated workplace and NIDA/DOT donors shows that criminal justice donors have a significantly higher positive rate than either nonregulated or NIDA/DOT donors. This is not surprising since many of the criminal justice donors are identified as drug users prior to testing, while the majority of workplace donors are tested as a condition of employment and have to be drug free in order to be employed. The overall positive rate of 5% for nonregulated workplace donors in 1991 was the same as in 1990. Since most clients regulated by NIDA/DOT did not begin testing until the last half of 1990, however, it is not possible to compare their overall 3% positive rate in 1991 to 1990. The overall positive rate for criminal justice donors in 1991 was slightly higher than in 1990 (12% in 1991 versus 11% in 1990).



As shown in Figure 1, nonregulated donors had a higher overall positive rate than NIDA/DOT donors, even though NIDA/DOT had a slightly higher positive rate for cocaine. Two factors may affect the overall higher positive rate for nonregulated donors: First, many of the donors in the nonregulated category had little or no advance notice that they had to take a drug test. They were told to report to a collection location on the same day they had their job interview; whereas, many of the NIDA/DOT donors knew in advance when their specimens would be collected because they were collected as part of a scheduled driver recertification physical.

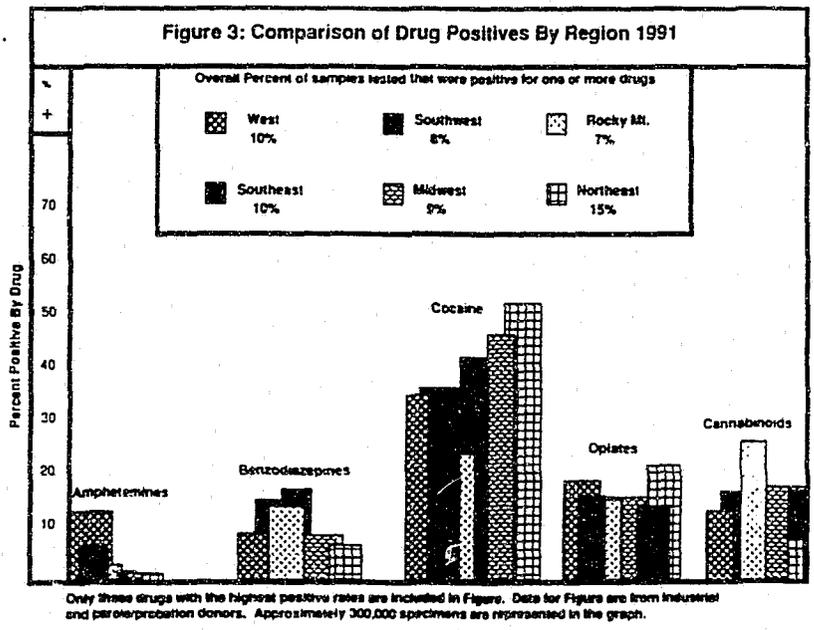
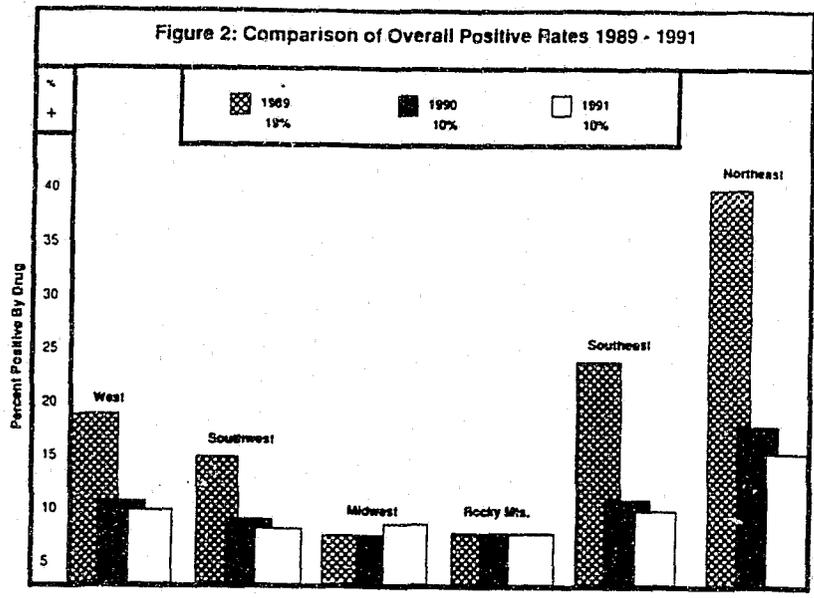
Second, and perhaps the larger factor, is that the nonregulated donors were tested for more drugs than the NIDA/DOT donors. As shown in Figure 1, about 10% of the positives for nonregulated workplace donors were for benzodiazepines and about 8% for barbiturates, neither of which NIDA/DOT tests. It is possible that at least some of the benzodiazepine positives and the barbiturate positives were ruled "acceptable" because the donor had a valid prescription for their use, and, when the "acceptable" positives are factored out, there may be no difference in the overall positive rates for nonregulated and NIDA/DOT donors.

With respect to benzodiazepines, however, such an interpretation should be made with caution since slightly more than 1% of the benzodiazepine positives were combined with cocaine positives, indicating the use of benzodiazepines to come down from a cocaine high, rather than therapeutic use of an antianxiety agent. The conclusion that a certain percentage of benzodiazepine positives did not come from a valid prescription is further supported in the Criminal Justice sector in which approximately 20% of the benzodiazepine positives occurred in combination with cocaine positives.

Figure 1 also shows that the drug of choice for both nonregulated and NIDA/DOT donors in 1991 was cannabinoids, while the drug of choice for criminal justice donors was cocaine. This finding is the same as in 1990. However, in 1991 the workplace sector experienced an increase in the percentage of specimens testing positive for cannabinoids and a nonsignificant overall decrease in the percentage of positives for cocaine. In the criminal justice sector in 1991, on the other hand, there was an increase from 1990 for the percentage of specimens testing positive for cocaine and no decrease from 1990 in the percentage of specimens testing positive for the various other drugs.

COMPARISON OF POSITIVE RATES BY GEOGRAPHIC REGION

In previous years, the drug of choice (i.e., the drug with the highest positive rate) differed by geographic region and appeared to be somewhat dictated by ready availability of the drug in the geographic region. For example, cocaine, which must be imported into the United States tended to have its greatest positive rates in states that border the Atlantic and Pacific Oceans and in states that border Mexico. In previous years, the highest positive rates for cannabinoids tended to come from states that were not near borders and states (e.g., Midwestern states) in which marijuana was known to be an important cash crop. In states that border Mexico, from which both marijuana and cocaine are imported, there tended to be significant use of both marijuana and cocaine, with a higher positive rate for cocaine and few combined marijuana/cocaine positives.



As shown in Figure 2 and Figure 3 which compare overall positive rates and positive for previous years and positive rates by geographic region, many of the patterns apparent in previous years held in 1991, but there were also some differences. As shown in Figure 3, donors from the Northeast have had the highest percentage of positives and a significantly greater positive rate than any other region for the past three years. In 1991, however, the overall positive rate for the Northeast region declined 2% from 1990 and declined significantly from 1989, in which the overall positive rate was almost double that of 1991. In 1991, overall positive rates for the Southwest, West, Rocky Mountain States and Southeast were the same or within 1% of what they were in 1990. This difference is not statistically significant. In the Midwest, however, the positive rate rose from 7% to 9% in 1991, which is a significant increase.

As shown in Figure 3, the lowest positive rate for 1991 was again found in the Rocky Mountain States where the drug of choice was cannabinoids, as it was in 1989 and 1990. However, the percentage of cannabinoid positives in the Rocky Mountain States dropped sharply in 1991, accounting for only 26% of the total positives, as opposed to approximately 38% in 1990. In contrast to previous years, cocaine positives in the Rocky Mountain States rose by about 5% in 1991, indicating a possible trend toward cocaine as the drug of choice.

The most remarkable shift in drug of choice was in the Midwest where, prior to 1991, cannabinoids accounted for at least half the positives found. In 1991, there was a significant decrease in the number of cannabinoid positives with cannabinoids accounting for only about 19% of the positives. At the same time, there was a significant increase in the percentage of Midwest cocaine positives. In 1990, cocaine accounted for about 35% of the positives found and, in 1991, for almost 45% of the total Midwest positives. It should be noted, however, that the increase in cocaine positives is not equally distributed through all midwestern states. Rather, the largest percentage of cocaine positives are from major metropolitan areas, such as Chicago, Detroit and Cleveland, while more rural areas tend to have a greater number of cannabinoid positives, as they have had in previous years.

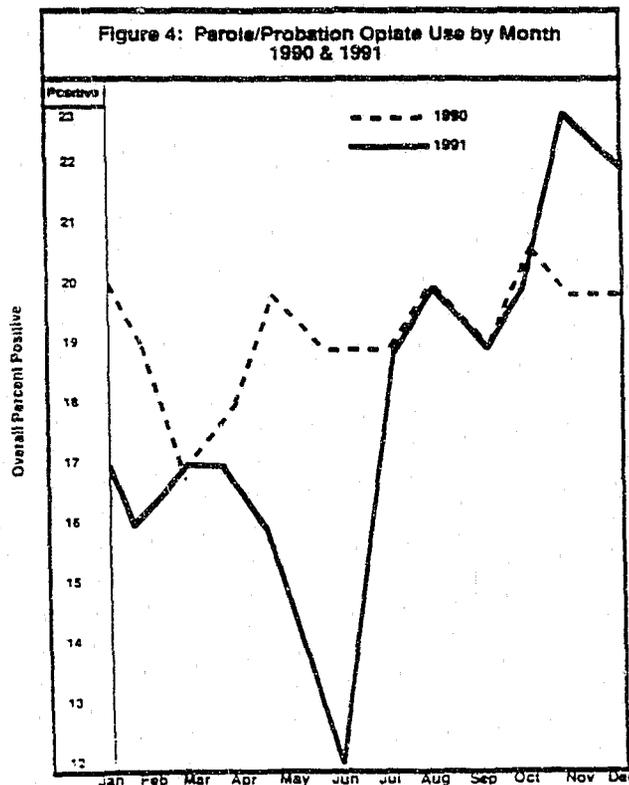
With respect to drugs, other than cannabinoids and cocaine, there was no clearcut, overall trend by geographic region for 1991. Most of the benzodiazepine positives came from geographic regions with high combined benzodiazepine/cocaine positive rates (i.e., the Southeast and the Southwest), indicating that these areas still use benzodiazepines to come down from cocaine. Amphetamine positives did not increase overall in 1991, as predicted in 1990, but did increase significantly (up 5% or more) in the West. Opiate positives, which did not show a significant overall increase from 1990 to 1991, did increase significantly in the last six months of 1991, particularly in the criminal justice sector. This rise in opiate positives and its significance is discussed in the next section of this article.

Barbiturate positives, which are not shown in Figure 3 due to space constraints, ranged from 2.5% of the total positives in the Northeast to more than 9% of the total positives in the Rocky Mountain States. The increase of barbiturate positives in the Rocky Mountain States is statistically significant. However, since there is not a large number of combined barbiturate/cocaine or barbiturate/amphetamine positives, it is not possible to speculate on whether barbiturates are used to ease the crash from other drugs, as benzodiazepines are. Further, because the most prevalent barbiturate, phenobarbital, can be detected for so long compared to amphetamine and cocaine, it is not possible to determine whether the growing barbiturate positive rate is due to combined or sequential use of barbiturates with other drugs or due to the use of barbiturates alone.

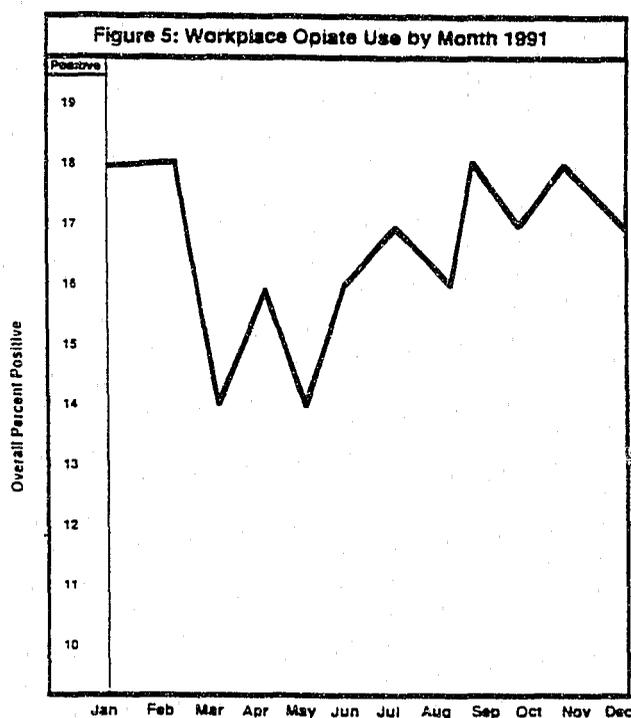
EMERGING PATTERNS IN DRUG POSITIVES

In the last six months of 1991, there was a marked increase in the number of opiate positives. This increase first became apparent in criminal justice donors on parole or probation. In PharmChem's largest criminal justice client, for example, there were 1,100 opiate positives in May and almost 1,600 in November, even though neither the characteristics of the population being tested nor the testing schedule changed.

The increase in opiate positives was also found in state and in some county parole/probation testing programs. In one large Eastern state, for example, the number of opiate positives in May alone was greater than the client's combined number of opiate positives from January through April. The rise that began in May culminated in an overall 39% positive rate for opiates for this Eastern state for the last six months of 1991. In California county parole/probation programs, there was also an overall increase in opiate positives in the last six months of 1991, however, the increase was greatest around Los Angeles and was not present in all of the various counties. Figure 4 compares opiate positives by month for 1990 and 1991 for Criminal Justice and graphically illustrates the trend toward increased opiate positives in the last half of 1991.



Usually, one tends to see drugs that are prevalent in the criminal justice sector appear in the workplace sector about six months later. Based on large multi-state clients' positive rates, there is evidence that the increase in opiates reached the workplace in 1991 and that it began to surface about the time that significant hiring was done to meet the demands of the Christmas season. As shown in Figure 5, opiate positives rose sharply in the last half of 1991 and continued at a high rate through December. In May, only about 14% of the workplace positives were opiates, but by the end of 1991, the positive rate had risen to about 18%.



With increased morphine positives, one must, of course, consider whether there has been a sudden increase in the popularity of poppy seeds. However, the preponderance of positive results having morphine greater than codeine and the high amount of morphine found do not support a poppy seed theory. In the month of November, for example, almost half of the opiate positives for criminal justice donors had morphine levels greater than codeine and more than half of those with morphine levels greater than codeine had morphine levels in excess of 5000 ng/ml.

In the criminal justice sector, one factor that also pointed to the increased use of heroin was the high number of hydromorphone positives, both in combination with morphine and alone. According to many probation officers, Dilaudid® (hydromorphone) obtained on the street has long been used as an adjunct to heroin or as a substitute when one can not afford heroin itself. Many heroin users tend to intersperse doses of heroin and hydromorphone.

Beginning in May, the number of hydromorphone positives increased substantially and, by the end of 1991, accounted for 11 % of the opiate positives in the criminal justice sector. However, in order to determine unequivocally whether morphine was due to heroin and whether heroin use was increasing, PharmChem randomly selected criminal justice opiate positives in which morphine was greater than codeine and tested them for 6-monoacetylmorphine (6-MAM), a metabolite found only when heroin is used. Figure 6 shows the results of the 6-MAM study.

Figure 6: Confirmation Rate of 6-MAM

| | |
|--------------------------------------|-----|
| Morphine 10,000 ng/ml or greater | 97% |
| Morphine 5,000 ng/ml to 10,000 ng/ml | 56% |
| Morphine 2,000 ng/ml to 5,000 ng/ml | 12% |
| Morphine 1,000 ng/ml to 2,000 ng/ml | 7% |

(N = 107 6-Monoacetylmorphine cutoff 10 ng/ml)

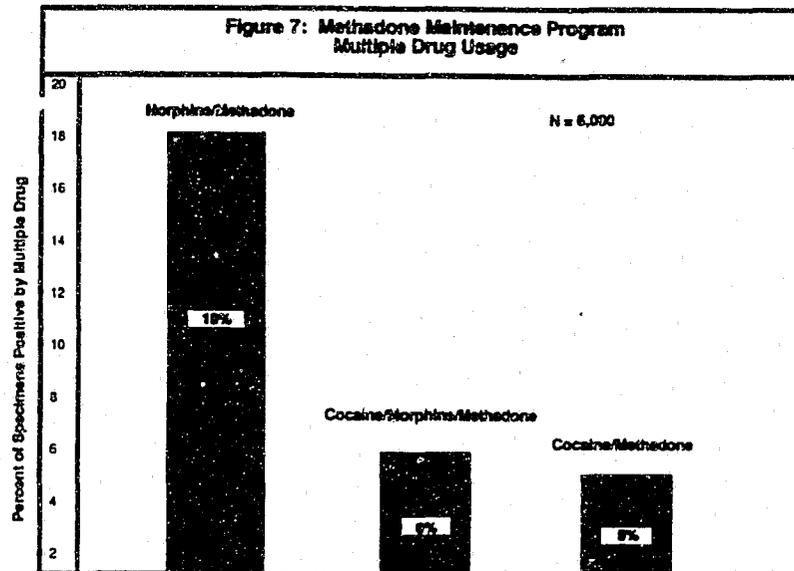
As shown in Figure 6, a significant number of opiate positives was due to heroin. As expected, 6-MAM was found most often when the morphine level was 5,000 ng/ml or greater but was also present in some specimens with morphine levels as low as 1,000 ng/ml. The detection of 6-MAM at lower levels would seem important because smoked heroin, which many criminal justice clients report is on the rise, may tend to produce lower morphine levels than intravenous heroin and, thus, the amount of morphine found in specimens may be low due to the means of ingestion, rather than recency of use.

The high opiate positives (5,000 ng/ml or greater) that were found were not evenly distributed throughout the United States, indicating that the increase in heroin use may be specific to certain geographic locations, such as Washington D.C., Baltimore, Southern Maryland, New York City, and Los Angeles, which showed the greatest increase in morphine positive rates. This conclusion should be tentative at best, however, until more data are available over a longer period of time.

At the same time that opiate positives increased, there was also a significant increase in the number of criminal justice specimens positive for both cocaine and morphine. Out of the 1,600 opiate positives found in November, 20% were positive for both cocaine and morphine. More than half of the positives for cocaine and morphine had cocaine levels in excess of 10,000 ng/ml, indicating recent use of speedballs or smoked heroin and crack cocaine, which is known on the street as chocolate rock. This trend toward combining cocaine and morphine is not as yet apparent in workplace clients.

METHADONE PROGRAM CLIENTS

PharmChem is one of two laboratories in the state of California licensed to test for patients in methadone programs. The state prescribes the drugs for which testing must be done (methadone, methadone metabolite, morphine, codeine, barbiturates, and amphetamine/methamphetamine), as well as the testing methodology that must be used. For purposes of this paper, methadone program clients are those patients in methadone maintenance programs, as opposed to methadone detoxification programs. Those in detoxification programs must be positive for morphine as a condition of entrance into the program and, while the methadone dose is being regulated, sometimes continue to be positive for morphine (heroin) as well as positive for methadone. Those in maintenance programs, on the other hand, should for the most part be positive only for methadone and its metabolite. (The presence of both methadone and metabolite indicate that the patient is continuing to take the dose of methadone and is not skipping doses). The expectation is that patients in maintenance have substituted methadone for heroin and will not continue to take heroin along with the methadone. However, as shown in Figure 7, which depicts multiple drug use for methadone maintenance patients, a significant number of patients continue to take other drugs, most notably heroin, along with their prescribed dose of methadone. This finding is not significantly different from other studies done by PharmChem for methadone maintenance programs. In all previous studies, there has been greater than 15% of maintenance patients who continue to take methadone and heroin.



As Figure 7 also shows, there is a significant amount of combined or sequential use of cocaine, methadone and morphine, as well as cocaine and methadone. The finding of combined cocaine and methadone may indicate that some former users of heroin have managed to substitute the methadone for their previous heroin use or that the methadone program has been able to treat the addiction to heroin but has not been successful in getting the patient off cocaine.

The finding of combined cocaine, morphine and methadone may indicate that for users of cocaine and heroin that methadone is not a successful treatment because the effects of methadone and heroin may be similar enough that the patient substitutes or interchanges the heroin and methadone.

CONCLUSIONS AND RECOMMENDATIONS

High numbers of drug positives continue to be found in all sectors of the population. While there was a significant decrease from 1989 through 1990 in the percentage of positive specimens, there was only one significant decrease in positive rates from 1990 through 1991 -- this decrease was in the Northeastern region of the United States, which continued to have the highest overall positive rate, despite the decrease in cocaine positives. Also, in 1991, the use of some drugs, such as barbiturates, increased and cocaine positives, which remained steady in most regions of the country, rose significantly in the Midwest where the number of drug positives had been lowest in previous years.

Perhaps the most significant finding in 1991 was the sharp increase in opiate positives in the criminal justice and workplace sectors and the subsequent finding that heroin was the cause of many of the opiate positive. Given that heroin use appears to be rising, Parole and Probation Officers, Medical Review Officers, and Human Resource Directors charged with determining if there is a valid reason for an opiate positive result need to obtain all possible information that can help them make a correct decision. This includes determining whether morphine or codeine is greater in the specimen and, when morphine is greater than codeine, and when there is a previous history of heroin use, asking the laboratory to do a 6-MAM test to confirm the presence of heroin. Laboratories, on the other hand, need to develop better education for their clients with respect to morphine/codeine positives.

From a research standpoint, it is recommended that four areas be investigated: (1) the stability of the standards used to detect 6-MAM to ensure that 6-MAM does not convert to morphine in the standard (2) the conditions that affect stability of 6-MAM in human urine (e.g., lack of refrigeration, freezing and thawing); (3) the levels of morphine that are probable when heroin is smoked instead of taken intravenously; and (4) a comparison of the probability of detecting 6-MAM following smoking of heroin, injecting heroin, and taking it intravenously.

From an epidemiological standpoint, it would seem important for laboratories to keep tracking positive rates for opiates and for all other drugs for which testing is done and to pool findings in a nationwide data base. It is strongly recommended that the criminal justice and rehabilitation sectors be included in this data base since trends that appear in these sectors seem to find their way into the workplace sector eventually.

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