
RECENT DRUG ABUSE TRENDS IN THE SEATTLE-KING COUNTY AREA

T. Ron Jackson, Evergreen Treatment Services

**Norma D. Jaeger, Mental Health, Chemical Abuse and Dependency Services,
Department of Community and Human Services, King County**

**Arnold F. Wrede, Division of Alcohol and Substance Abuse
Washington State Department of Social and Health Services**

L. David Murphy, Alcoholism, Tobacco and Other Drug Prevention Division

Michael Hanrahan, HIV/AIDS Program

Hanne Thiede, HIV/AIDS Epidemiology Program

Holly Hagan, Raven and Grackle Project and

**Richard Harruff, Medical Examiner's Office, Division of Prevention
Public Health - Seattle & King County**

Kris Nyrop, Street Outreach Services

Steve Freng, Northwest High Intensity Drug Trafficking Area

**Michael Gorman, Alcohol and Drug Abuse Institute
University of Washington**

SEATTLE, WASHINGTON

Indicators of cocaine use have shown a resurgence, after several years of decline, to the higher historical levels. Heroin use continues to have the largest impact of all illicit drugs used in the Seattle area and available data suggest that a new level of endemic heroin use has been established. Methamphetamine use appears stable at a level well below heroin and cocaine in Seattle-King County but is on an upward trend in other areas of the state. Marijuana use remains unchanged. Hallucinogenic drugs continue to appear in area reports involving primarily younger users. Regarding HIV infection among IDUs, local studies in drug treatment agencies indicate a seroprevalence of 1-4% among heroin and cocaine injectors; HIV seroprevalence is 47% among gay and bisexual men who inject methamphetamine.

INTRODUCTION

1. Area Description

Located on Puget Sound in western Washington, King County spans 2,130 square miles. The Seattle Harbor is the world's 26th busiest container port, handling 1.544 million container units in 1998. The combined ports of Seattle and nearby Tacoma make Puget Sound the second largest combined load center in the U.S., trailing only Los Angeles-Long Beach, California, and are among the

top 10 combined load centers in the world. The top 10 international trading partners for the Puget Sound area and the State of Washington include Japan, Canada, China, South Korea, Taiwan, Hong Kong, United Kingdom, Thailand, Singapore and Germany.

King County's estimated 1999 population is 1.677 million which represents nearly 30 percent of Washington State's 5.757 million total and, according to the U.S. Census

Bureau, comprises the nation's 12th largest county. The County's population is 83% white, 10% Asian/Pacific Islander, 6% African American and 1% American Indian; 3% of the County's residents are of Hispanic origin. Nearly 23% of King County's population is age 17 years and under; 26% are age 18 to 34 years; 33% are age 35 to 54 years and 18% are age 55 years and older. Nearly 96% of adult residents have completed high school or GED equivalent, and 45% are college graduates.

2. Data Sources and Time Periods

- **Washington State Office of Financial Management (OFM)** - Data on population estimates are from the Washington State OFM/Forecasting Division. These data are used to depict recent population estimates for the City of Seattle, and incorporated and unincorporated King County. Population estimates for 1999, published on June 30, are referenced in the Area Description.
- **Key Informant Interviews** - A series of targeted interviews were conducted with representatives of U.S. Customs Service (Mark McBride), the regional office of the Drug Enforcement Administration (Richard Bek), and the Washington State Patrol's Narcotics Unit (Tom Zweiger). Ethnographic studies conducted in the area provided interview data as well.
- **King County Medical Examiner (ME) data base** - Automated information about drug-caused deaths in King County has been available since 1983. Exhibit 1 displays data by calendar quarter from January 1, 1996 to September 13, 1999. The table includes deaths directly caused by licit or illicit drug overdose and excludes deaths due to poisons. Therefore, totals may differ slightly from drug death reports published by the King County ME's office, which include fatal poisonings. Exhibit 2 displays heroin-related overdose death rates for the past 10 years.
- **Drug Abuse Warning Network (DAWN) quarterly emergency department (ED) mentions** - Exhibit 3 displays DAWN estimated rates (per 100,000 population) for ED mentions for selected drugs from 1988 through 1998.
- **RAVEN and GRACKLE Studies** - Two longitudinal cohort studies of Seattle area drug injectors funded by NIDA are conducted by the Public Health - Seattle & King County (PHSKC). The studies began in 1994 and continue through 2002.
- **Kiwi Study** - Data on HIV prevalence, incidence and risk behaviors have been collected from injection drug users booked into the King County Jail between September 1, 1998 and July 31, 1999. This CDC-funded study is conducted by PHSKC.
- **Puget Sound Methamphetamine Study** - A NIDA-funded ethnographic study of methamphetamine use in King County is conducted by the University of Washington. Recent data from this study are included in the stimulant discussion.
- **Washington State Department of Social and Health Services' TARGET** - The Department has implemented a statewide alcohol/drug treatment activity data base system and report-generating software called TARGET. Data are compiled for King County from January

1, 1997, through June 30, 1999 and shown in Exhibit 4.

- **King County Prosecutor's Management Information System (PROMIS)** - Data on felony marijuana and heroin convictions are from the King County PROMIS data base. PROMIS is an automated data system that contains information on prosecutions and convictions for certain controlled substances. Racial distributions for marijuana and heroin convictions from January 1, 1991 through September 30, 1999 are shown in Exhibit 5.
- **HIV/AIDS Epidemiology Report** - Data displayed in Exhibit 6 on acquired immunodeficiency syndrome (AIDS) cases, including exposure related to injection drug use, in Seattle-King County, other Washington Counties, Washington State and the United States are from Public Health - Seattle & King County (PHSKC), Washington State Department of Health and the Centers for Disease Control and Prevention.
- **Alcohol and Drug Abuse Monitoring System (ADAM)** – As part of the National Institute of Justice's program, King County ADAM results for the third quarter, 1998 through the second quarter, 1999 are included in the narratives for cocaine, depressants, heroin, marijuana and stimulants. Approximately 250 interviews and specimens are collected during a 14 day period once each quarter with about 70% of arrestees who are approached agreeing to participate.
- **United States Customs Service** – Data from the USCS' Illicit Drug Seizures in Washington State, January 1 1993 through October 6, 1999, are included in the narratives on cocaine and marijuana.

- **United States Department of Justice Drug Enforcement Administration** – Data from the DEA's Domestic Monitoring Program on heroin purity for the period 1996 through the second quarter of 1999 are included in the narrative on heroin.

DRUG ABUSE TRENDS

1. Cocaine and Crack

Cocaine-related drug deaths in King County, after rising for several consecutive years and then showing a decline in 1997, increased in 1998 to 69 such deaths (Exhibit 1). There have been 63 such deaths from January 1 through September 13, 1999. These deaths represented 42.8% of all drug-related deaths so far in 1999; this ratio is consistent with 1998. Cocaine alone was found in 10 (15.9%) of the individuals whose death was characterized as cocaine-related in 1999. This proportion is a doubling over that of 1998 but more consistent with the years prior to 1998. The remaining 53 had some other drug, including alcohol, detected through post-mortem toxicology. The most common other drug detected in combination with cocaine was morphine (heroin), being found in 71.4% of these deaths. In 44 (69.8%) of these deaths the determined route of administration for both the cocaine and heroin was intravenous, suggesting the possibility of the injection of "speedballs." Seventy four percent of the cocaine-related drug deaths were male, continuing a decrease from the previous three years; 20% were African-American.

DAWN system reports indicate a decline in the rate per 100,000 in ED mentions for cocaine in 1998. This decrease in the rate of ED mentions for cocaine came after a surge in

1997. The rate per 100,000 for 1998 (124.6) was a 16.8% decrease as compared to 1997 (Exhibit 3).

Admissions to treatment for adults citing cocaine as their primary drug remained relatively flat between 1997 and 1998 both in terms of total numbers and ratio of total admissions. There was a 3.2% increase in such admissions from 1997 to 1998 and such admissions represent approximately 13% of all treatment admissions during each of those two years (Exhibit 4).

ADAM data for the period third quarter 1998 through the second quarter, 1999 show that 34.4% of male and 53.2% of female arrestees had cocaine in their urine. The percentage of arrestees testing positive for cocaine was greatest among African-Americans with 50.2% of the males and 70.3% of the females testing positive.

Price information for "flake" cocaine is limited to the downtown area of Seattle. The basic unit of sale is a "dime bag," meaning \$10 for approximately 1/4 of a gram. Weighed grams sell for around \$30; 1/8 ounce for \$80-\$100. Crack prices have remained relatively stable for the last 4-5 years: a 1/10-1/8 gram quantity sells for \$20 ("20 rock"), and a 1/5-1/4 gram quantity sells for \$40 ("40 rock"). These prices are largely unchanged since our last report but reports from users indicate that purity has declined as compared to a year ago. As in the past, most of the street level cocaine trade is controlled by Latino gangs.

As reported by the USCS, seizures of cocaine coming into Washington State decreased slightly in 1999, as compared to 1998, with 68,018 grams seized at various ports of entry. There were 31 such seizures and the average amount of cocaine seized (2,194 grams), while slightly lower than 1998, was still

significantly higher than at any time during the past 6 years.

2. Heroin

There are several indications that an increase in heroin use in Seattle and King County first observed in 1996 and 1997 continued in 1998, and that the new, higher underlying rate of use persisted in 1999. This rise in heroin use is suggested by data from several independent sources. First, the number of opiate-related deaths investigated by the King County Medical Examiner's office reached an all-time high in 1998 and decreased only slightly in 1999. Secondly, data from two epidemiologic studies of injection drug users suggest that new study recruits and young injectors continue to be highly likely to report heroin as their primary drug. Heroin prosecutions and convictions remain elevated and demand for treatment for heroin dependence remains extremely high. Only the rate of ED mentions decreased in 1998. Each of these data sources has limitations and by itself cannot be used to reliably suggest trends. However, because it is unlikely that the same source of bias is responsible for the apparent rise in heroin use in all data sources, the relative consistency among the indicators makes it more plausible that the maintenance of the increase seen in previous years is real.

The trend in the number of heroin-related drug-caused deaths continues to rise. Between 1994 and the middle of September, 1999, the King County Medical Examiner's Office reported 699 investigated drug-caused deaths in which morphine (a metabolite of heroin) was detected. In 1994, the number of heroin-related deaths was 89, increasing to 131 in 1995, and 135 in 1996. In 1997, the number decreased to 111, but rose to 143 in 1998. Through mid-September, 1999, there were 90 heroin-related deaths investigated by the Medical Examiner's Office. Although the

trend-line is strongly influenced by the 1998 increase, the interim number of cases for 1999 suggest that the annual total may exceed 120. The increase seen in heroin-related deaths does not appear to occur for cocaine or amphetamine-related deaths. Consistent with previous years, multiple drugs, including alcohol, were present in over 80% of the heroin-related deaths with cocaine as the most common other drug.

On the other hand, DAWN system reports indicate a decline in the rate per 100,000 in ED mentions for heroin in 1998. This decrease in the rate of ED mentions for heroin came after a surge in 1997. The rate per 100,000 for 1998 (126.7) was a 17.5% decrease as compared to 1997 (Exhibit 3).

Two longitudinal cohort studies of Seattle area drug injectors, the RAVEN and GRACKLE Studies, are conducted by the Public Health – Seattle & King County with funding from the National Institute on Drug Abuse. There have been approximately 4200 injection drug users enrolled in the study since recruitment began in 1994. Beginning in 1998, follow-up was continued on approximately one third of original RAVEN study subjects, in addition to recruitment of an additional 400 drug injectors.

The RAVEN Study data suggest that heroin use increased in 1998, particularly in younger injectors. The proportion of new study recruits reporting heroin as their primary injection drug increased from 61% in 1994 to 75% in 1997, 87% in 1998, and 86% in 1999. Among injectors younger than 20, the proportion reporting heroin increased from 78% to 100% in 1998. (There were no new recruits younger than 20 in 1999, so the continuation of a trend in that group could not be estimated.) In the 20-29 age group, the increase was somewhat smaller, from 75% to 84% in 1998, and 80% in 1999. The

RAVEN/GRACKLE Studies will continue to recruit new subjects through 2000, so that we may examine this in the future. Another intervention study with young injectors will also carry out recruitment through 2002.

The number of convictions for heroin-related offenses also increased in 1998, and has continued to increase in 1999. So far (as of September 30) there have been 1,325 heroin convictions, compared to 1,326 for all of 1998. Therefore, it can be expected that there will be an unprecedented number of heroin convictions this year in Seattle-King County, approximately 1770. Consistent with past years, convictions among African-Americans (54% of total) are disproportionate to local census demographics. Although prosecution and conviction data cannot be directly interpreted as indicators of actual prevalence of use in the underlying community, it can be useful when the trends mirror those in other data sources.

Urinalysis data from the ADAM study with King County adults arrested in the first and second quarters of 1999 indicate that opiates were present in 18% and 15% (respectively) of arrestees who agreed to urine testing. Because these data have only been available since mid-1998, and because they can only be collected from those who agree to participate in the screening, they are extremely limited in relevance to heroin use trends.

Seattle-King County drug treatment admissions for those who use primarily heroin increased in 1999. In 1998, there were 1300 treatment admissions for heroin, and by the end of the third quarter of 1999, there were 1400. A mobile methadone program began in 1999, but did not begin to admit patients until early fall, so had probably no impact on the increase in admissions. Each year, the increase has sought to meet an underlying high, unmet demand, rather than being an

indicator of increases in heroin use. For example, demand for drug treatment at the Seattle needle exchange program has remained high for many years, and the waiting list has grown to over 500.

Local heroin price and purity, as measured by the DEA's Domestic Monitoring Program, have been relatively stable over the past several years.

3. Other Opiates

This category includes codeine, fentanyl (Sublimaze, Alfenta, Sufenta & Innovar), hydrocodone (Vicodin, Lortab, Lorcet & Anexsia) hydromorphone (Dilaudid), meperidine (Demerol), methadone, oxycodone (Percodan, Percocet), pentazocine (Talwin), propoxyphene (Darvon), and raw opium.

The number of drug-caused deaths involving opiates other than heroin escalated 72 percent from 25 deaths (29 other opiates identified) in 1997 to 43 deaths (48 opiates identified) in 1998 (Exhibit 1). Twenty-four such deaths (27 other opiates identified) were reported through September 13, 1999. The annual rate of other opiate deaths increased from 1.5 per 100,000 population in King County in 1997 to 2.6 in 1998. Methadone was the other opiate most frequently reported by the ME since January 1998 (17 cases in 1998 and 15 cases thus far in 1999). Nearly 48% of other opiate victims over the period were female. Ninety-one percent of victims were white and 8% were black. Decedents ranged in age from 25 to 82 years old with a mean age of 41.8. Nearly one-quarter of other opiate cases involved alcohol-in-combination with a mean BAC of 0.14 gm/100 ml of blood.

The King County ME recorded five (5) deaths involving fentanyl in 1998 and two (2) through September 13, 1999. None were reported in 1997 and very few in previous

years. Two of the King County cases since January 1998 involved injection, four involved oral administration and one case was unknown.

DAWN data indicate that the rates of ED mentions for both oxycodone and hydrocodone have remained relatively stable at a low rate (3.4-6.9 per 100,000) during the period, 1991-1998. Propoxyphene mentions (3.9-1.9 per 100,000) have been declining during that same period.

The U.S. Customs Service (USCS) seized nearly 53,500 grams (approx. 118 lbs.) of raw opium last year at Seattle-Tacoma International Airport in mail parcels destined for Alaska. Another 13,273 grams were seized this year (through September 30, 1999) from other ports-of-entry in mail parcels destined for Washington State. USCS routinely seized raw opium concealed in mail parcels destined to the Pacific Northwest in the early 1990's. After conducting some controlled deliveries, only one or two such cases per year were reported locally from 1994 through 1997 for a total of 531.1 grams of opium seized by USCS over the period.

4. Marijuana

Cannabinoids in this analysis include marijuana and hashish.

In King County for the first half of 1999, marijuana accounted for 16% of adult, public drug treatment admissions, which was comparable to the 15% for all of 1998. Demographic data for the first half of 1999 for clients admitted for treatment of marijuana as the primary drug of abuse have remained relatively consistent with data from the previous three years; 73.9% were men, 57.1% white, 23.2% African-American, 8.1% Hispanic, 7.0% Native American and 5.2%

Asian-American. Age demographics were similar to recent years with the substantial majority (52.7%) of these admissions being for persons under 18 years old.

Another indicator of local use patterns is data collected from the King County ADAM project, which conducts urine drug testing on consenting incarcerated adults at the King County Jail. Of 749 male prisoners screened in the second half of 1998 through the first half of 1999, 37.4% tested positive for marijuana, which nearly matched the prevalence of cocaine/crack at 34.4%. Results for the 190 female prisoners screened during that same period showed a similar marijuana prevalence rate of 33.2% (though this ranked a distant second to cocaine/crack, for which 53.2% of females tested positive).

The most recent DAWN data (Exhibit 3) show a 48.6% decrease in the rate of marijuana mentions in emergency departments during 1998 as compared to 1997. This decrease represents a return to the rate for marijuana ED mentions experienced in Seattle-King County during the period 1994-1996.

Marijuana remains the most widely used illegal drug in both King County and Washington State. Throughout the Seattle-King County area the most commonly found grades of marijuana continue to be either high-grade, locally grown (indoor) sinsemilla or indica or low-grade commercially grown marijuana from the southwestern United States or Mexico. Although there are anecdotal reports on the availability of very high-grade Canadian marijuana ("BC bud"), most local consumers rejected this idea. Areas of eastern Washington are increasingly becoming a source of locally purchased and consumed marijuana.

While there were significant increases in cannabis seizure rates from 1997 to 1998, data

from the U.S. Customs Service (USCS) for 1999 (through October 6th) indicate a decrease in both the number and average weight of such seizures. In 1999 the USCS reported 431 seizures as compared to 853 in 1998. In addition, average weight of seizures in 1999 was 5.6 lbs. as compared to 34 lbs. in 1998.

Exhibit 5 displays data concerning felony marijuana convictions in Seattle-King County over the past seven years. The racial distribution of these activities more closely parallels King County's population statistics for whites and African-Americans than does the racial distribution of heroin convictions. Historically, heroin-related filings and convictions have been disproportionately distributed among African-Americans. The data for the first three quarters of 1999 show 26 more felony marijuana convictions than in all of 1998.

Unlike most other illicit drugs available in King County, marijuana is not readily available as a street drug, and what is available is primarily the lower grade, more commercial, product. The principal areas of street sales of marijuana are the downtown core around the Pike Place Market, the University District, and parts of the Central District. The main venues for sale and purchase of marijuana (especially higher grades) are known ("house") connections, or select coffeehouses and bars.

Marijuana prices have followed the downward trend in prices seen for both heroin and cocaine, but not nearly as pronounced. A gram of sinsemilla, called "bud" sells locally for \$15 to \$25. Most informants, however, were quick to note that few people except younger students or street buyers would purchase a gram of marijuana. Washington grown marijuana generally sells for \$40 to \$50 per $\frac{1}{8}$ oz. ("an eighth"). Price breaks occur for larger quantities, with ounces selling for

between \$325 to \$400, quarter-pounds for \$1200 to \$1400. Bulk quantities sell for between \$4,000 to \$5,200 per pound and \$6,000 to \$8,000 per kilogram.

5. Stimulants

This category includes amphetamine and methamphetamine (“crystal,” “crank” or “speed”).

Drug-related deaths in King County involving amphetamine/methamphetamine have remained at a relatively low level over the last five years (Exhibit 1). Medical Examiner data indicate that there have been 9 such deaths in 1999, compared to six deaths for 1997 and 1998 combined. These deaths in 1999 comprise 5.4% of the drug-related deaths in King County and all but three involved other drugs in addition to methamphetamine. The decedents were mostly (78%) men and ranged in age 24 to 54 years.

DAWN ED rate per 100,000 in Seattle-King County for methamphetamine declined sharply in 1998, hitting its second lowest level in the last 5 years (Exhibit 3). The rate of such mentions is approximately one-tenth of the rates for heroin, cocaine and alcohol in combination.

In terms of ADAM data over the past year, male arrestees in Seattle with urine samples positive for methamphetamine vacillated from a low of 5.0% in the first quarter of 1999 to a high of 9.5% in second quarter, 1999. Arrestees in King County jails outside of downtown Seattle had higher rates with 15.5% for the second quarter of 1999. These rates contrast with ADAM data from Spokane, located on the east side of Washington state, in which methamphetamine positive urine results ranged from 11% to 21.7% during the same period.

Admissions of individuals claiming stimulants/methamphetamine as their primary substance to publicly funded treatment in King County have increased over the last 7 years with the most dramatic increases occurring between 1993-95 and 1997-98. The ratio of these admissions to all admissions moved from 2.2% in the first half of 1993 to 10.9% in the first half of 1999. While having risen ten-fold from a previously low base rate in the early 1990's, the rate of these admissions has been relatively flat over the past year. This parallels the trend for stimulant admissions for all Washington state over those same seven years. In King County admissions during the first 6 months of 1999 were 45.6% females and 90.2% whites. Native Americans represented 5.8% of admissions, Hispanics, 2.3%, and African-Americans and Asian-Americans represented less than 3% of the admissions, an under-representation for all of these groups in terms of local demographics. Forty-two percent of those seeking treatment were between the ages of 26-34; those older than 35 represented 28% of admissions. These age ratios have been holding relatively stable over the last 7 years. In the period January-July, 1999, 42.7% of all those entering treatment reported injection as primary route of administration, followed by smoking at 24.4%.

In Washington state in 1999 those counties with the highest number of stimulant/methamphetamine admissions were, in order, Pierce, Clark, Spokane and King. In terms of admission rates, Lewis County, a predominantly rural county in the south central-western part of the state, was the highest county with a rate of 249.3 per 100,000. This compares to Pierce County which had a rate of 156.7, while King County had a rate of 28.4, well below the median of the state's counties. Data suggest that methamphetamine clearly has continued to be a problem in rural eastern and southern

Washington and Puget Sound outside of Seattle and King County. For example, Pierce County police uncovered 279 “meth” labs through third quarter 1999, more than double for all of 1998, 105 alone in the city of Tacoma. In Snohomish County the needle exchange reported an increase from 40,000 to 250,000 exchanges due to a targeted outreach to methamphetamine injectors during 1998 through the first half of 1999.

In part, to address the lack of data about the context of methamphetamine use and abuse, including information on individuals out of treatment, NIDA provided supplemental funding to the Puget Sound Methamphetamine Study at the University of Washington’s Alcohol and Drug Abuse Institute. The primary objective was to expand the research especially to include women and heterosexual males both in King County outside of Seattle and nearby Puget Sound communities in Pierce, Snohomish, and Kitsap Counties. During the 14 month study period interviews were conducted with 35 methamphetamine-using women and 30 heterosexual men. Average age for the women was 30; 25% of the sample were ethnic minorities. Sex industry work among women was common (36%), as was using methamphetamine as a “sex drug” (24%). Subjects ranged in age from 18 to 53 years old. A majority of the subjects were intravenous drug users. The remainder reported snorting as their primary route of administration.

Many women reported significant reproductive health irregularities, including miscarriages and abortions. Of those who carried children to term, 50% reported being able to maintain custody. These subjects also reported histories of extensive methamphetamine and other multiple substance use, including marijuana, cocaine, alcohol, ecstasy and heroin. The reason cited most frequently by women for using

methamphetamine had to do with its “socially empowering” effects. Women reported liking the greatly enhanced confidence and the social disinhibition that they associated with methamphetamine use. Some also reported using the drug initially to control weight. Among males sexual enhancement was mentioned more frequently as a reason for use, although many reported using the drug to facilitate work.

Of note, interviewees reported a recent decline in the quality of methamphetamine available on the street, although price has appeared to remain stable at about \$20 - \$30 per ¼ gram. Related perhaps in part to the decline in quality, subjects interviewed also reported more use of multiple substances, including heroin.

6. Depressants

Barbiturates, benzodiazepines and other sedative/depressant drugs in this analysis include: alprazolam (Xanax), chlordiazepoxide (Librium), clonazepam (Klonopin), diazepam (Valium) flunitrazepam (Rohypnol), flurazepam (Dalmane), gamma-hydroxybutyrate (GHB), lorazepam (Ativan), midazolam (Versed), oxazepam (Serax), temazepam (Restoril), triazolam (Halcion), glutethimide (Doriden), hydroxyzine pamoate (Vistaril), meprobamate (Equanil), methaqualone (Quaalude), amobarbital (Amytal), butabarbital, pentobarbital (Nembutal), phenobarbital, secobarbital (Seconal), promethazine, (Phenergan), and choral hydrate (Noctec).

Data sources are mixed in regard to the trends and indicators of depressant use for the period including January, 1999 through mid-September, 1999. The most significant change from 1998 data entails a marked decrease in the number of deaths involving depressants. Death rates (Exhibit 1) remained

relatively constant from 1993 through 1995 (averaging 19 cases with 20 depressants identified), with a 63.2% increase noted in 1996 (31 cases with 37 depressants identified). This higher rate was maintained in 1997 (32 cases with 38 depressants identified), and then increased 34.5% in 1998 (43 cases with 51 depressants identified). There have been 15 depressant deaths for 1999. The number and rate of depressant deaths has, therefore, fallen to 1993-95 levels, with an estimated 1999 rate of approximately 1.2 per 100,000 population in King County. The demographics of the decedents has, however, remained relatively unchanged from previous reporting periods, with 93% white, 40% female, an age range from 22 to 67 years, and a mean age of 41 years.

A trend first noted in 1998 concerning depressant-related deaths has also continued into this reporting period, involving the concomitant injection of heroin and a depressant, typically diazepam. A total of 4 such cases have been identified to date in 1999, representing 27% of the depressant-related deaths. The number of deaths determined to be suicides increased slightly to 33% of the total. Deaths involving depressants and alcohol-in-combination, having decreased from 40% of the total in 1997 to 33% in 1998, continued this decrease to a 1999 rate of 27%, with a mean BAC of 0.12gm/100ml of blood. In keeping with past reports, benzodiazepines were involved in 60% of the total number of depressant-related deaths in 1999, with diazepam specifically identified in 53% of the deaths.

Data reported by the Arrestee Drug Abuse Monitoring (ADAM) study, conducted under the auspices of the King County Department of Adult Corrections, have now been analyzed for the year extending from July, 1998 through June, 1999, with little change noted from earlier reports. Of the males approached

at booking, 4% tested positive for depressants. Females were approached beginning in the 4th quarter of 1998 and 5.2% tested positive for depressants.

DAWN ED rates per 100,000 for alprazolam, clonazepam, diazepam, lorazepam, triazolam and, to a lesser degree, phenobarbital show a bell-shaped curve during the period 1991-98 with the peaks occurring 1992-94 and a decline since that time. Diazepam and clonazepam have been consistently the two most frequently mentioned depressants in ED data during that period.

DEA data sources report local street prices for illegally obtained prescription benzodiazepines (primarily diazepam and clonazepam) remain stable at \$1 for 5-milligram tablets and \$2-4 for 10-milligram tablets.

Anecdotal accounts of the use and overuse of GHB continue to be received from ED staff throughout the area as previously reported, with incidents of incapacitation, induced intoxication, rape and other related criminal behaviors occurring at a rate of 3-4 per month.

7. Hallucinogens

Hallucinogenic drugs such as lysergic acid diethylamide (LSD), psilocybin mushrooms, and MDMA (Ecstasy) continue to appear in area reports involving primarily younger users. The drugs turn up frequently at local concerts or "raves." Consistent with past history, treatment admissions remain low for these drugs.

As these drugs appear in relatively small numbers in traditional sources of data such as arrests, drug-related deaths and treatment admissions, more work needs to be done to better assess the use trends in the Seattle area.

HIV & AIDS among Injection Drug Users (IDUs)

There are an estimated 10,000 to 15,000 drug injectors in King County. Continued monitoring of HIV status among IDUs who enter local methadone treatment programs shows a low and stable pattern of infection; cumulative HIV prevalence among treatment admits from 1988 through 1998 is 1.9%. Methadone patients of African-American or Native American background have significantly higher HIV prevalence compared to white clients (AA 2.5%, NA 4.2%, W 1.5%; $p < 0.05$). Patients without a permanent address are more likely to be HIV positive than those with a permanent address (3.4% vs. 1.6%; $p < 0.05$). Data collected between 1994 and 1997 by the RAVEN study, a CDC/NIDA-funded follow-up study of blood-borne and sexually transmitted infections and risk behaviors among King County IDUs, showed a two-fold higher rate of HIV infection among IDUs who were not in drug treatment compared to in-treatment IDUs. More recent data indicate that in-treatment and out-of-treatment infection rates may be more similar.

The Kiwi Study, funded by CDC, is an HIV prevalence, incidence and risk behavior survey of injection drug users recently booked in the King County jail in Seattle. The study is conducted by the Public Health - Seattle & King County HIV/AIDS Epidemiology Program. This study was implemented in response to the HIV outbreak in Vancouver, B.C., to assure adequate monitoring of HIV in a broader sample of IDUs in King County. Newly booked inmates are approached by study staff at the jail and screened for eligibility. Those who have injected drugs in the past 12 months, are 18 years or older and are interested in participating in the study are

referred for HIV counseling and testing at the jail health department clinic. Following the HIV counseling session, a 15-minute drug-use behavior questionnaire is administered.

Between September 1998 and July 1999, 327 persons participated in the Kiwi Study. Three-quarters were male. The median age was 36 years and 63% were white. Demographics in the Kiwi sample are similar to those in the survey of methadone treatment admissions. HIV prevalence to date in the Kiwi study is 2%. Eighty-seven percent reported injecting heroin, 69% speedballs, 65% cocaine and 25% amphetamines. The frequency of sharing of drug-use equipment was high: among those who reported injecting in the past 6 months (98%), 59% had injected with a used needle, 72% had shared a cooker and 61% had backloaded (a method of dividing drugs that uses multiple syringes). Almost three-quarters had been in some form of drug treatment and 37% had been in treatment in the past year (12% had been in methadone detoxification or maintenance treatment in the past year). Four percent reported traveling to Vancouver, BC in the past year, but nobody reported that they had injected with a used needle in that city. One percent reported injecting in King County with a needle previously used by a shooting partner from Vancouver.

These results are similar to those from the RAVEN Study and show a very high level of risky injection practices among IDUs within King County. High risk behavior patterns identified in these studies emphasize the continued need for effective prevention programs and monitoring of HIV and drug-use behaviors in this population.

Over the past year, Public Health - Seattle & King County has increased disease screening and counseling activities at needle exchange sites to include hepatitis, STDs and TB in

addition to HIV. Disease screening and counseling services are now available through the needle exchange five days per week. The exchange has also instituted a client-centered workshop program that focuses on vein care and safer injecting practices and, through creative grant-writing and collaborations, the program has tripled placements in methadone treatment through its voucher access program. The needle exchange will further expand its services in January 2000 to include basic primary medical care.

EXHIBIT 1

SEATTLE-KING COUNTY
 QUARTERLY NUMBER OF IDENTIFIED DRUGS IN DRUG-CAUSED DEATHS
 JANUARY 1, 1996 – SEPTEMBER 13, 1999

DRUG(S) IDENTIFIED*	1996				1997				1998				1999		
	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q ²
Cocaine	21	17	17	19	20	17	12	17	9	18	19	23	21	21	21
Heroin/Morphine	34	40	28	33	23	37	22	29	16	40	48	39	26	35	29
Other Opiates	7	8	10	6	8	8	6	7	7	18	16	7	8	16	3
Amphetamines ¹	1	1	1	1	1	0	3	2	1	0	0	2	1	1	7
Sedatives/Depressants	9	11	7	10	7	8	14	9	12	13	11	15	4	9	4
Alcohol	26	25	17	19	18	30	19	14	18	33	26	26	18	13	14
Antidepressants	6	8	7	12	7	10	12	12	8	16	13	9	4	7	6
Actual Number of Drug Deaths	55	57	50	56	45	58	33	43	39	63	67	53	42	61	44

* More than one drug may be identified per individual drug overdose death. Table excludes poison-related deaths.

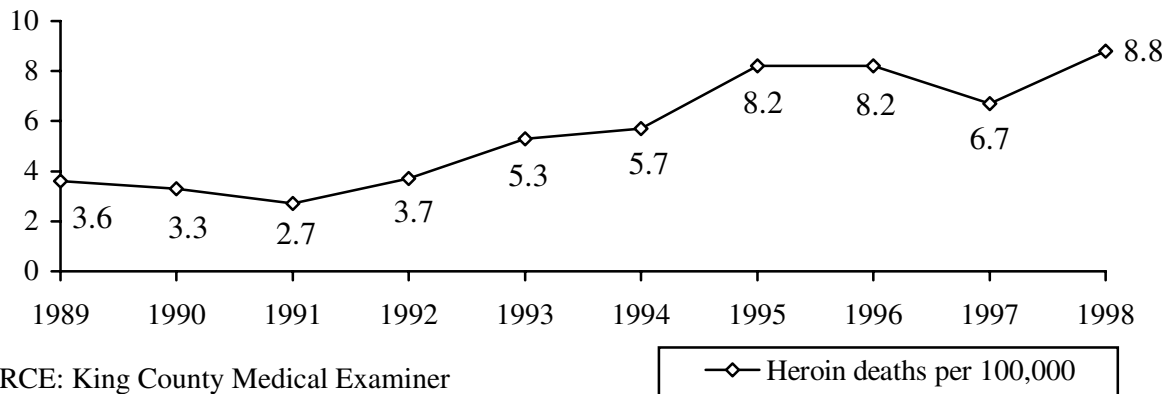
¹ The amphetamines identification category includes methamphetamine.

² Third Quarter 1999 data are preliminary as some cases are still under investigation.

SOURCE: King County Medical Examiner

EXHIBIT 2

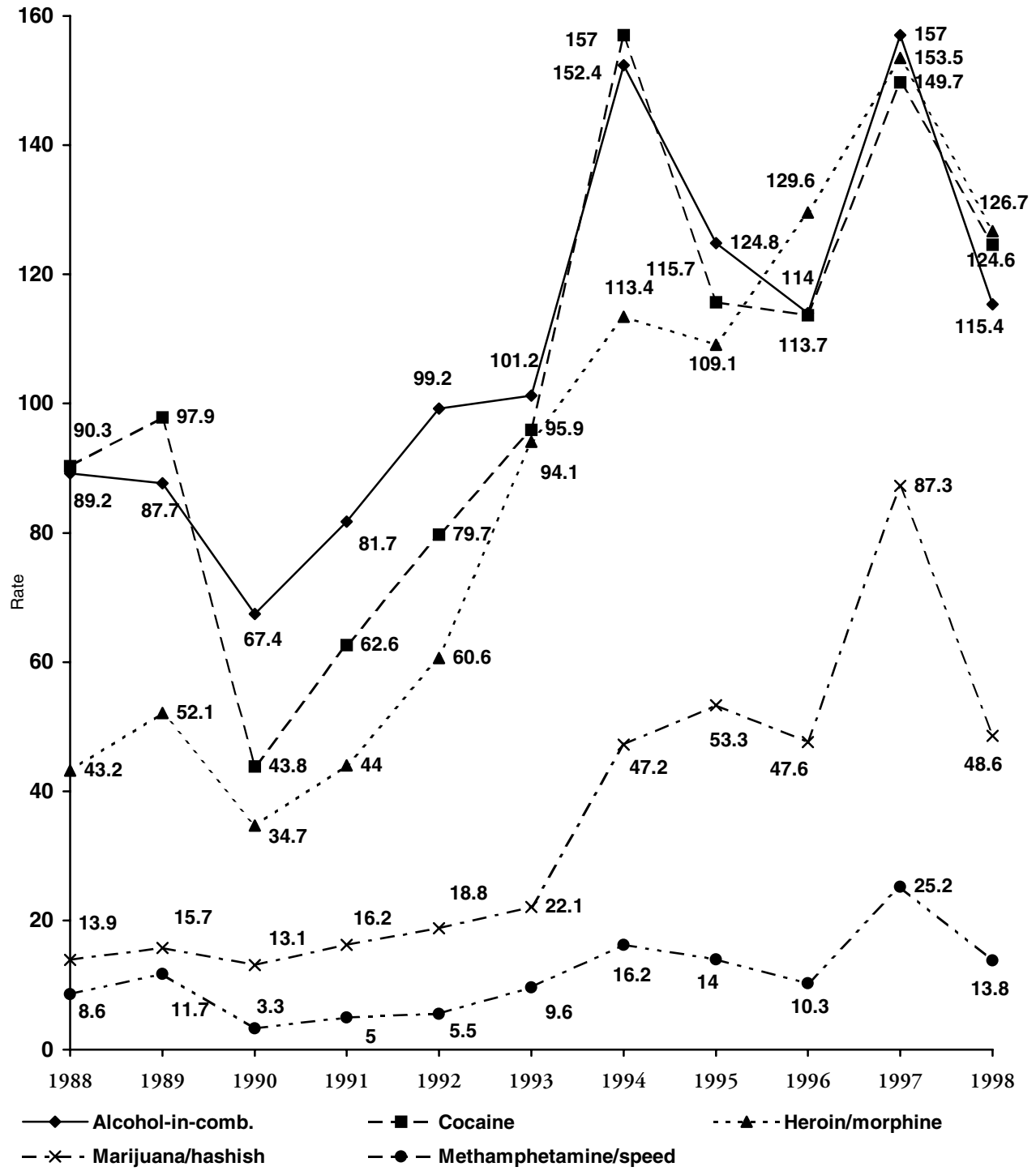
SEATTLE-KING COUNTY
 HEROIN-RELATED DRUG-CAUSED DEATHS: RATE PER 100,000 POPULATION
 1989 - 1998



SOURCE: King County Medical Examiner

EXHIBIT 3

SEATTLE-KING COUNTY
ESTIMATED RATE (per 100,000 population) ED MENTIONS
1988 - 1998



SOURCE: Office of Applied Studies, SAMHSA, Drug Abuse Warning Network, 1998 (7/99 update)

EXHIBIT 4

SEATTLE-KING COUNTY
 HALF-YEARLY DEMOGRAPHIC TRENDS IN ALCOHOL/DRUG TREATMENT ADMISSIONS
 JANUARY 1997 – JUNE 1999

Client Profiles	Jan - Jun 1997		Jul - Dec 1997		Jan - Jun 1998		Jul - Dec 1998		Jan - Jun 1999	
	No.	(%)	No.	(%)	No.	(%)	No.	(%)	No.	(%)
UNDUP ADMITS	3,776	(100)	3,559	(100)	3,847	(100)	4,171	(100)	4,607	(100)
GENDER										
Male	2,265	(60)	2,275	(63)	2,476	(64)	2,730	(65)	3,010	(65)
RACE/ETHNICITY										
Nat. - American	287	(8)	271	(8)	285	(7)	302	(7)	370	(8)
Afr. - American	823	(22)	812	(23)	834	(22)	910	(22)	1,075	(23)
White	2,291	(61)	2,107	(59)	2,294	(60)	2,501	(60)	2,751	(60)
Other	375	(10)	369	(10)	434	(11)	458	(11)	481	(10)
AGE										
<14	91	(2)	75	(2)	80	(2)	64	(2)	86	(2)
14 - 18	749	(20)	704	(20)	820	(21)	753	(18)	900	(20)
19 - 20	85	(2)	111	(3)	99	(3)	128	(3)	131	(3)
21 - 40	2,027	(54)	1,864	(53)	1,982	(52)	2,206	(53)	2,311	(50)
41 - 65	819	(22)	797	(22)	861	(23)	1,013	(24)	1,166	(25)
65+	5	(<1)	8	(<1)	5	(<1)	7	(<1)	13	(<1)
ROUTE ADMIN										
Oral	1,747	(46)	1,636	(46)	1,815	(47)	2,006	(48)	2,121	(46)
Smoking	1,135	(30)	1,094	(31)	1,202	(31)	1,315	(32)	1,468	(32)
Inhaling	17	(<1)	20	(1)	23	(<1)	21	(<1)	20	(<1)
Injecting	760	(20)	690	(19)	688	(18)	672	(16)	844	(18)
Other	117	(3)	120	(3)	110	(3)	157	(4)	154	(3)
PRIMARY DRUG										
Alcohol	1,672	(44)	1,574	(44)	1,731	(45)	1,918	(46)	2,014	(44)
Amphetamines	188	(5)	208	(6)	230	(6)	239	(8)	247	(5)
Cocaine	501	(13)	457	(13)	445	(12)	590	(14)	601	(13)
Hallucinogens	17	(<1)	14	(<1)	12	(<1)	17	(<1)	15	(<1)
Heroin	669	(18)	577	(16)	582	(15)	559	(13)	725	(16)
Marijuana	677	(18)	676	(19)	778	(20)	764	(18)	911	(20)
Other	52	(1)	53	(2)	69	(2)	30	(1)	94	(2)

* Counts for the first half of 1999 are preliminary due to delays in data entry.

SOURCE: Washington State TARGET data system - Structured Ad Hoc Reporting System

EXHIBIT 5

SEATTLE-KING COUNTY
FELONY¹ MARIJUANA and HEROIN CONVICTIONS
1991 – 1999*

CONVICTIONS FOR FELONY MARIJUANA OFFENSES					
YEAR	White	African American	Native American	Asian	Total
	No. (%)	No. (%)	No. (%)	No. (%)	No. (%)
1991	126 (88)	16 (11)	6 (0)	1 (1)	143 (100)
1992	213 (88)	24 (10)	3 (1)	1 (1)	241 (100)
1993	138 (87)	17 (11)	1 (1)	2 (1)	158 (100)
1994	167 (81)	29 (14)	4 (2)	5 (3)	205 (100)
1995	107 (82)	18 (14)	2 (2)	3 (2)	130 (100)
1996	69 (83)	11 (13)	1 (2)	2 (2)	83 (100)
1997	126 (88)	14 (10)	0 (0)	3 (2)	143 (100)
1998	97 (87)	8 (7)	0 (0)	7 (6)	112 (100)
1999*	119 (86)	10 (7)	0 (0)	9 (7)	138 (100)
CONVICTIONS FOR HEROIN-RELATED OFFENSES					
YEAR	White	African American	Native American	Asian	Total
	No. (%)	No. (%)	No. (%)	No. (%)	No. (%)
1991	520 (42)	702 (56)	17 (1)	8 (<1)	1,247 (100)
1992	660 (42)	891 (56)	19 (1)	9 (<1)	1,579 (100)
1993	706 (47)	743 (49)	26 (2)	32 (2)	1,507 (100)
1994	452 (40)	676 (58)	9 (1)	5 (<1)	1,142 (100)
1995	549 (42)	717 (56)	13 (1)	16 (1)	1,295 (100)
1996	495 (43)	633 (54)	13 (1)	20 (2)	1,161 (100)
1997	382 (52)	318 (44)	13 (2)	14 (2)	727 (100)
1998	562 (43)	720 (54)	16 (1)	28 (2)	1,326 (100)
1999*	561 (43)	719 (54)	17 (1)	28 (2)	1,325 (100)

¹ Felony cases involve growing/dealing marijuana or possession of more than 40 grams.

* 1999 data are through September 30th only

SOURCE: King County Prosecuting Attorney

EXHIBIT 6

DEMOGRAPHIC CHARACTERISTICS OF REPORTED AIDS CASES:
KING CO., OTHER WASHINGTON COUNTIES, WASHINGTON STATE, & THE UNITED STATES

Case Numbers and Deaths	King County		Other WA Co.		Washington State		United States*	
Cumulative Cases	5,799		3,068		8,867		711,344	
Cumulative Deaths	3,470		1,724		5,194		420,201	
Currently living with AIDS	2,329		1,344		3,673		291,143	
Case Demographics (last 3 years)	King County**		Other WA Co.**		Washington State**		United States***	
	Number	(%)	Number	(%)	Number	(%)	Number	(%)
<u>Gender:</u>								
Male	804	(92)	558	(84)	1,362	(88)	126,648	(78)
Female	70	(8)	109	(16)	179	(12)	36,591	(22)
<u>Age:</u>								
<13	4	(<1)	2	(<1)	6	(<1)	1,300	(1)
13-19	1	(<1)	3	(<1)	4	(<1)	990	(1)
20-29	118	(14)	110	(16)	228	(15)	22,745	(14)
30-39	432	(49)	302	(45)	734	(48)	71,206	(44)
40-49	227	(26)	180	(27)	407	(26)	47,551	(29)
50-59	73	(8)	50	(8)	123	(8)	14,409	(9)
60+	19	(2)	20	(3)	39	(3)	5,038	(3)
<u>Race/Ethnicity:</u>								
White	613	(70)	503	(75)	1,116	(72)	54,916	(34)
Black	129	(15)	71	(11)	200	(13)	73,313	(45)
Hispanic	91	(10)	56	(8)	147	(10)	32,942	(20)
Asian	18	(2)	11	(2)	29	(2)	1,307	(1)
Native American	23	(3)	26	(4)	49	(3)	595	(<1)
Unknown	0	(0)	0	(0)	0	(0)	169	(<1)
<u>Exposure Category:</u>								
Male-male sex	565	(65)	311	(47)	876	(57)	59,881	(37)
Injecting drug user	64	(7)	122	(18)	186	(12)	41,475	(25)
IDU & male-male sex	89	(10)	55	(8)	144	(9)	10,048	(6)
Heterosexual contact	43	(5)	87	(13)	130	(8)	25,602	(16)
Hemophilia	4	(<1)	7	(1)	11	(1)	735	(<1)
Transfusion	6	(1)	10	(2)	16	(1)	755	(<1)
Mother at risk/has AIDS	4	(<1)	2	(<1)	6	(<1)	1,242	(1)
Undetermined/other	99	(11)	72	(11)	172	(11)	23,504	(14)
Total Cases (last 3 years)	874	(100)	667	(100)	1,541	(100)	163,242	(100)

* Data as of 6/30/99

**Data from 10/1/96 through 9/30/99

***Data from 6/30/96 through 6/30/99

SOURCES: PHSKC, Washington Department of Health, CDC